Walcha Council Debt Capacity Report

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Executive Summary

This Debt Report paints a picture of a typical rural local government that still has some capacity for additional debt. However, debt must be used carefully if it is to have any real chance of improving the financial sustainability situation whilst protecting intergenerational equity. In this report we outline a way by which debt might be used to improve efficiency and hence contribute to greater financial sustainability over time. We also spell out the pre-conditions necessary for debt to be morally licit, especially with respect to intergenerational equity. The main output of this report is a precise econometric assessment of Walcha Council's debt capacity along with some recommendations regarding how this might best be deployed.

1. Introduction

The association between debt and financial sustainability is one of the most misunderstood concepts in the grey literature (see, for example, Comrie, 2014). Most of the problem originates with misapprehensions surrounding what exactly debt is: debt is simply the bringing forward of future revenues, at a cost. The cost associated with debt refers to the spread between interest rates charged and inflation, as well as bank establishment and loan maintenance fees. Because debt merely brings forward future revenue it rarely has a positive role to play in the journey to realise financial sustainability. It will be recalled from our other reports that financial sustainability refers to the ability to meet the reasonable expectations of current residents in a way that does not put at risk the capacity of future generations to meet their own needs (Drew and Dollery, 2020). Thus, for debt to be used in a way that enhances financial sustainability it is critical that it be deployed in a manner that respects intergenerational equity.

Indeed, many proponents of debt point to the intergenerational equity argument in support of their contentions. However, most people doing so fundamentally misconceive the notion and thus expose their strong debt bias[1]. Intergeneration equity is the argument that it *may* be reasonable for future generations to contribute to the costs of long-lived assets. However, it is important for us to be mindful that our current generation largely inherited most of our public infrastructure unencumbered and that our present desire for intergenerational equity thus necessarily visits inequity on previous generations of taxpayers (and also could be perceived as convenient and somewhat hypocritical).

The problem with long-life government debt is that the people making decisions regarding the drawing down of funds stand to gain an immediate benefit that can

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[1] Debt bias is the rational preference for debt as a way of funding local government goods and services. It is particularly prevalent amongst older people and politicians. For the former case it is likely that the person advocating debt funding won't be a taxpayer long enough to fully acquit their share of the repayments; in the latter case it allows one to maximise the electoral appeal of additional benefits to constituents without asking them to pay the full cost associated with same.

practically be entirely shifted onto future generations of taxpayers – some of whom haven't yet been born. This potential to spend now and have voiceless *others* pay later differs starkly to what is possible in our personal finances and thus establishes large risks for imprudent behaviour as well as significant moral hazards.

The personal finance metaphor is a powerful tool to understand the prudence and morality of public spending decisions (Drew, 2021). To do so the metaphor employs the rhetorical trope of *kal vahomer*, which asserts that we should *at least* apply the same standards to weighty matters as we do to much smaller ones. Thus, the personal finance metaphor in this instance asserts that we should *at least* apply the same care to local government finances as would a prudent person apply to their own personal budget.

Notably, when it comes to personal finance most people only contemplate taking out debt for long-lived assets of enduring value. Furthermore, most of us acknowledge that we should ensure that the servicing of the debt is well within our capacity relative to our incomes. In addition, we expect that repayments on the debt will commence more-or-less immediately and that this will come at the cost of some sort of sacrifice (either reduced spending elsewhere, or alternatively additional exertions to secure higher flows of revenue). Moreover, in our personal finances we also assume that the consequences for our choices will be borne by us personally, not our children or strangers.

Drew (2021) has employed the personal budget metaphor, as well as natural law concepts, to establish six rules that should be observed for public debt to be considered morally defensible:

1. Debt must be only taken out for capital expenditure and not operational expenditure.[2]
2. The asset financed through debt must have a long and predictable life.
3. The asset must constitute something that future generations are likely to value[3]
4. Debt must be assumed for good moral reasons.[4]
5. Repayments must at least be equal to the rate of consumption of the asset[5] and be quarantined in future budgets.
6. Repayments must involve sacrifice[6] so that a *quid pro quo* is established.

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[2] By definition, operational expenditure comprises items that are expected to be fully consumed within twelve months. It is not morally defensible to obligate future taxpayers to debt for items that are fully consumed well before they are paid for.

[3] Because we are obligating future citizens to pay for the asset, it must be something that they are likely to want. For example, it would not be reasonable to make them pay for some kind of technology that is likely to become rapidly redundant.

[4] Examples of reasons that are not sound include debt bias and misguided efforts directed at fiscal stimulus (a measure best assigned to central governments that have the requisite tax capacity).

[5] That is, repayments should at least equal the annual accrual of depreciation.

[6] If there is no sacrifice involved, such as higher taxes or reduced spending in other areas, then we are really not making repayments at all, but rather delaying repayment in the form of implicit debt (such as deferred maintenance).

It is likely that a good proportion of the debt taken on by local governments in Australia fails to meet these basic tests (certainly this is the case for our federal governments over the last fifteen years or so who have set a very poor example for other tiers (and also acted in a manner that falls far short of respect for future generations)).

In the past most politicians were generally debt-averse and thus the personal budget metaphor was somewhat redundant in a practical sense. Indeed, it was generally thought that to 'spend borrowed funds on ordinary items for public consumption was, quite simply, beyond the pale of acceptable political behaviour' (Buchanan, 1997, p. 119). This attitude to debt is nicely illustrated by Roosevelt who famously observed that 'any family can for a year spend a little more than it earns…but you and I know that a continuation of that habit means the poorhouse[7]' (cited in Borna and Mantriprgada, 1989). However, in recent times people have displayed less interest in achieving balanced budgets. Indeed, many have been misled into thinking that deficits are the economically responsible[8] thing to do, and sadly few people now see debt as a moral issue.

There are occasions when it might make economic sense to purchase productive assets[9] because doing so would allow for efficiencies[10] that exceed the spread between inflation and debt costs. However, even in these instances it would still be important to observe the rules outlined by Drew (2021) earlier to ensure that the debt also makes moral sense. In addition, it would be absolutely critical to also precisely measure the debt capacity of the local government in question – that is, to ascertain with some certainty the capacity of the community to repay the loan.

This report is aimed at achieving precisely these outcomes. Accordingly in Section 2 we review commonly used debt capacity ratios with a critical eye to understanding their fitness for purpose. Thereafter, in Section 3, we conduct a robust econometric analysis of debt capacity for Walcha Council. We conclude, in Section 4, by outlining how additional capacity could be used in an economically prudent and moral manner that might contribute to the necessary recovery in financial sustainability over time.

2. Debt Capacity and Debt Ratios

Debt ratios are employed in all local government jurisdictions in Australia in an attempt to understand whether current debt levels are manageable for Councils. Unfortunately, the ratios used have been imported from the corporate world and it is apparent that little thought has been given to how relevant such metrics might be to the particular

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[7] Moreover, documents from times past put stringent conditions of the taking out of public debt, presumably because leaders of the time understood the high potential for misuse (see, Selby (1949) *Local Government Practice in NSW*).

[8] Generally, as a result of misapprehensions about the role of Keynesian economics in local government finance (see Drew, 2021).

[9] Productive assets are items which are likely to improve productivity in the local government workforce – things such as new machinery which make maintenance cheaper or more effective.

[10] For the remainder of this report when we speak of efficiency, we mean relative technical efficiency (the conversion of inputs into outputs). It is thus important to refer to our Efficiency Report when interpreting this present document.

circumstances of local government. It should be noted that a major point of difference exists between the nature of debt in the corporate world relative to local government – in the former, debt is used to purchase income generating assets, in the later it is used to purchase assets which not only usually fail to generate income but can also come with substantial service costs. In addition, the nature of revenue for the two kinds of entities could hardly be more dissimilar – corporate revenues are generally received on a regular basis (albeit with some seasonality on occasions), but local government revenues are lumpy (for example, quarterly taxation flows). Ignoring these important differences means that the ratios used in this country are far from fit-for-purpose.

The use of crude ratios is further clouded by the naïve application of one-size-fits-all, apparently arbitrary, benchmarks. The overall outcome of this ill-advised approach to measuring debt capacity is that it has a serious potential to mislead end-users and result in poor decision-making (Drew and Dollery, 2015).

The Debt Service ratio, used in New South Wales, is a perfect illustration of our contentions. This metric divides EBITDA[11] by the sum of principal repayments and borrowing costs. The problems are considerable. First, the numerator is likely to be skewed in a rate capping environment and thus not representative of actual income capacity. Second, the ratio perversely penalises Councils for making additional repayments, even though doing so is often a sign of good capital management. Third, the ratio has been used in the past to try to argue that Councils with zero debt are somehow financially unsustainable. Fourth, the ratio only takes note of explicit loan liabilities. Fifth, the ratio has simply failed to identify local governments that might be in trouble – just 24 Councils have failed to meet the benchmark (of 2.0) over the last five years (less than five per year) and this notably excluded Councils subsequently placed into administration!

In addition, like all crude metrics the debt service cover ratio only has a few inputs and thus forgoes considerable information value. Moreover, it is an annual metric and therefore could easily mislead end users in atypical years.

In Figure 1 we show that this ratio points to substantial and increasing debt capacity for Walcha Council. However, given the flaws in this metric it would seem most unwise to place much store in the result.

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[11] EBIDTA is earnings before interest, depreciation, taxation and amortisation.

Figure 1: Debt Service Ratio
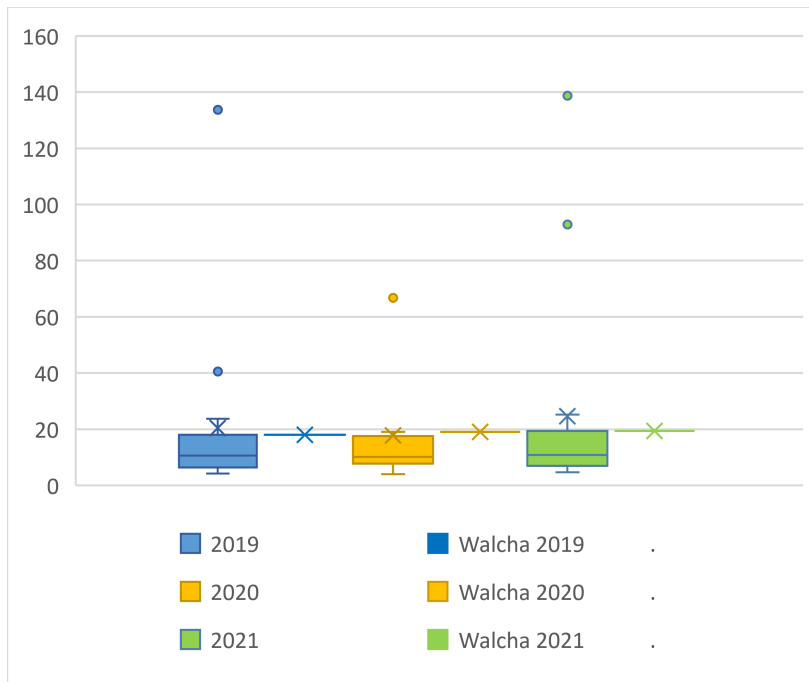
The nett financial liabilities ratio is a much better metric and this probably explains its use in Queensland, South Australia, and Western Australia. The nett financial ratio includes considerably more information value and employs a numerator, which is the difference between total liabilities and current assets. The denominator – revenues less capital grants – better acknowledges how debt is repaid and thus does not penalise Councils for prudent fiscal stewardship.

However, the nett financial liabilities ratio still ignores the composition of revenue and how this is related to capacity to pay. This is a significant problem in a rate cap environment because it implicitly assumes that actual revenue is reflective of capacity to pay and reasonable revenue efforts. Moreover, the ratio is restricted to a single year with the potential to mislead in atypical periods.

In Figure 2 we plot the nett financial liabilities ratio for Walcha and the fourteen peers over the last three financial years. The results suggest considerably less capacity for additional debt (note a negative result is the preferred outcome for this specification of the metric), that has been trending in an undesirable direction of late.

Figure 2: Nett Financial Liabilities
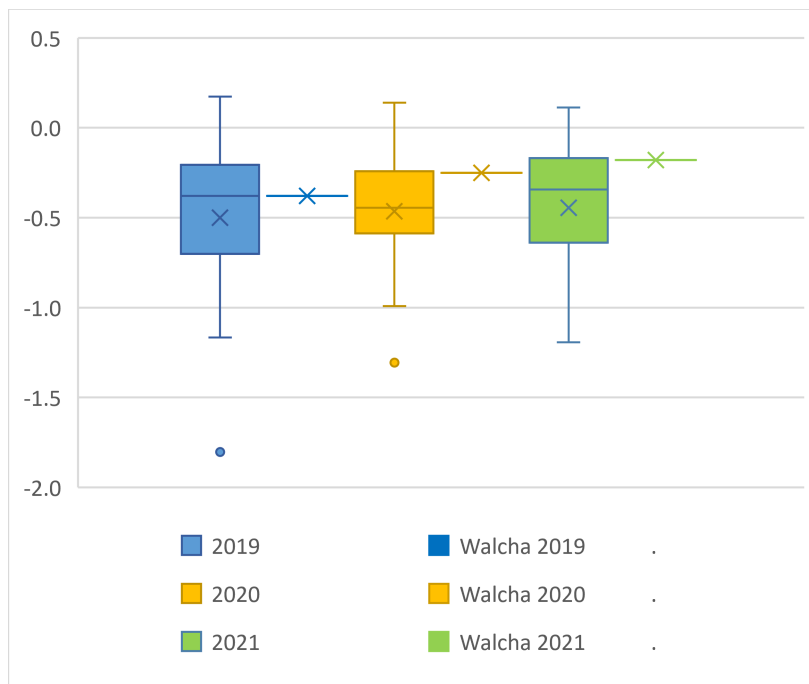
Debt capacity is a crucial fact that warrants more precise and reliable methods than these somewhat contrary ratios achieve. For instance, one wouldn't enter into important financial obligations without first assessing one's capacity to service the obligation. Moreover, banks wouldn't ordinarily lend to citizens without first carefully establishing the likelihood of repayment. However, when it comes to local government finance it seems that these prudent ways are sometimes eschewed – local governments often enter into loan agreements without a precise understanding of their capacity to comfortably service the debt[12], and banks seem somewhat disinterested in ensuring that the community can indeed afford the repayments. Evidence of this latter problem was provided by the financial failure of Central Darling Shire in 2013 and is a salient example of well-known soft budget constraints[13].

To understand what ought to be done to ascertain debt capacity one is well-advised to once again reflect on the personal budget metaphor. If a person seeks to take out a home loan two key pieces of information would ordinarily be sought: (i) the number of parties to the loan, and (ii) the incomes of the various parties. In addition, a bank would look at several years of data to mitigate the potential for misleading atypical results. A similar approach has been outlined in the scholarly literature (see, Ramsay et al., 1988; Levine et al., 2013). Specifically, scholars have employed multiple regression analysis on panels of data to test the mean response in total debt that might

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[12] Often due to being misled by inappropriate ratios and performance benchmarks, or misapprehensions regarding reasonable assumptions for long term financial plans (see our Financial Sustainability Report for further details).

[13] The idea here is that banks know that they will eventually get their money back with interest when an Administrator is appointed and a back-door bailout through an elastic grants system is engineered – see Oates (2005).

be expected given various independent regressors. In the next Section we will outline our empirical methodology, cognisant of scholarly precedent, before describing the debt capacity results yielded.

3. Debt Capacity Modelling

Thus far we have seen that the major metrics in use with respect to local government debt capacity have yielded contradictory results. Moreover, our brief review of each metric has exposed some serious flaws that require redress given the gravity of the decisions associated with debt.

Accordingly, in this section we conduct multiple regression analysis on a four-year panel of comprehensive financial and socio-economic data. Regression analysis allows econometricians to determine the mean response of a dependent variable (in this case, the total borrowings) to changes in multiple independent variables (see Table 1 for the full list of variables employed). In this instance we have elected to conduct ordinary least squares regression with year dummies to account for the panel nature of the data[14] The authors of this report are extremely experienced and well-published econometricians and thus end users should have absolute confidence in the robustness of the outputs of our regressions. The body of work underpinning the theory and practice of econometrics is voluminous and interested readers are referred to the seminal work of Kennedy (2003) should they require further technical exposition.

The econometric analysis that follows can be specified as:

$$\mathbf{B} = \alpha + \beta 1 \mathbf{A} + \beta 2 \mathbf{X} + \boldsymbol{\mu}.$$

Where **B** is the total explicit borrowings, **A** is the disaggregated assessment data, **X** is a vector of relevant economic and demographic data for particular local government areas at specific times and **μ** is an idiosyncratic error term. Here we included all fifty-eight councils categorised as broadly similar under the current Commonwealth Government classification system. Log transformations were employed to counter skewness when econometric diagnostics tests revealed the need to do so. We also conducted and satisfied all other relevant diagnostic tests. Table 1 provides the definition for each variable as well as summary data.

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[14] An unfavourable Hausman test, combined with the particular circumstances of the cohort, augured against alternative panel regression techniques for this specific task.

Table 1: Definitions and Means of Variables, 2018-21

Variable	Definition	Similar Councils
Debt		
Borrowings (ln)	Total explicit borrowings, logged	7.881
Assessments		
Residential (ln)	Number of residential assessments, logged	7.904
Farm (ln)	Number of farm assessments, logged	6.890
Business (ln)	Number of business assessments, logged	5.789
Controls		
Median employee income	Median employee income (lagged), divided by 1,000	42.596
Median unincorporated business income	Median unincorporated business income (lagged), divided by 1,000	11.749
Aged	Proportion of people on an aged pension	13.586
DSP	Proportion of people on a disability support pension	4.570
Newstart (ln)	Proportion of people on a Newstart allowance, logged	1.389
Single (ln)	Proportion of people on a single parent pension, logged	0.415
Total Grants (ln)	The total value of grants, logged	15.335

In Table 2, we detail the major outputs of our econometric exercise. It is important to remember that all associations are *ceteris paribus* claims – that is statistical associations are valid holding all other variables constant. It is also useful to remember that statistically significant results are particularly important and warrant greater emphasis because statistical reasoning tools have underlined their reliability.

As will be seen, the natural log of the number of residential assessments is both statistically significant and very responsive with respect to borrowing capacity. To be specific a one percent increase to the number of residential assessments yields a 2.346 percent increase to borrowing capacity, *ceteris paribus*. Moreover, the number of farm assessments has a large negative association, albeit sans statistical significance. In this respect it is critical to be mindful of the *ceteris paribus* injunction – what this result means is that for a given community of a particular residential size and socio-economic status the presence of relatively greater numbers of farm assessments will likely reduce capacity to service debt. Given that farm businesses often pay a lower rate in the dollar of land tax this finding is less than surprising.

A similar, non-significant, result occurs for business assessments. In this case further investigation of the data suggests that local government areas where significant business activity is orientated towards tourist enterprises might explain these results. Where tourist enterprises are common, farm businesses are relatively less common, moreover businesses of this kind tend to attract local government expenditure which further confounds matters. This skewing and potential for conflation also explains the lack of statistical significance for this variable.

Notably, a number of the income and welfare benefit variables were statistically significant – this is to be expected given that local government debt is ultimately serviced by the incomes accruing to residents and businesses in the area (although grant income – which was included in our model – can also be a source of funds).

Table 2: Multiple Regression Results, 2018-21 Inclusive.

	Cohort
Number of residential assessments (ln)	2.346** (0.599)
Number of farm assessments (ln)	-0.146 (0.381)
Number of business assessments (ln)	-1.214 (0.737)
Income variables	Yes**
Welfare receipts	Yes**
n	228
Coefficient of determination	0.2347

$+p < 0.10$, $*p < 0.05$, $**p < 0.01$. Standard errors in parentheses

The main point of the econometric exercise was to use the coefficients thus obtained to predict the debt capacity of Walcha Council. To do so we essentially inserted the particular characteristics for the various variables in specific years into the regression

formula derived in the earlier step. This task was accomplished as an exercise in applied econometrics using STATA[15] software.

Our results suggest that a comfortable debt load for Walcha Council would lie in the range of $385,473 through to $423,087. Notably the results were relatively stable – especially for the last three financial years (although there was a slight increase in capacity evident for 2021). Given the current debt load at Walcha ($137,000 according to the draft financial statements), this would leave remaining comfortable capacity at around $286,000.

It will be noted that our econometric results differ from the indications provided by the crude ratio analyses (which is hardly surprising given that they were somewhat contradictory). One reason for this is that the econometric approach imputes capacity to pay into the debt capacity algorithm. This was particularly important given that our Capacity to Pay Report has already shown that local government taxes at Walcha are lower than expected. A similar sentiment exists with respect to the peer group. It must be remembered that taxes collected are ultimately a function of incomes accruing to residents and businesses in the area.

The wider peer group and longer panel employed in our econometrics also makes results more robust especially with respect to resistance to skewing at the hands of outliers. Moreover, the higher stability of results yielded in the econometric analysis is reflective of the inertia in the components of capacity to pay (incomes accruing to residents and businesses in the area) relative to EBIDTA which can be more volatile (especially as a result of grant allocations). Thus, it is relatively straight-forward to both explain the disparity with more crude approaches and recognise the superiority of the econometric method.

We note that Council has produced business cases to support the purchase of three items of equipment needed to reduce current high rental costs and thus improve relative technical efficiency[16] (please see the Efficiency Report). The items include:

Jet Patcher $500k – this equipment is necessary to perform preventative road maintenance. This equipment will work on both local roads using Council own source funding and classified roads using state funding.

Bobcat $150k – This machine will be purchased with a planer that allows Walcha Council to complete heavy patching preparation on fee for service work prior to sealing with the Jet Patch. It will also be completing the same work on Walcha Council local roads.

Roller $250k – Currently Walcha Council hires a second roller from Coats Hire at an annual cost of approximately $83,000 per annum. This is used for local maintenance grading which is fully funded by Council own source funds. Purchase of a roller would

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[15] This is the software used by most econometricians.
[16] Technical efficiency is the conversion of inputs into outputs. The business cases suggest that the long run cost of purchasing the equipment will be lower than renting it. Thus, by changing the mix of capital inputs it ought to result in more work being done for less money (please see the Efficiency Report for a full explanation).

reduce the annual operating costs to around $45,000 to $50,000 per annum and save around $300,000 over the estimated 10 year working life of the roller.

In view of the urgent need to mitigate relatively poor levels of technical efficiency (see the Efficiency Report) it may be appropriate to exceed the comfortable borrowing level as a temporary measure. Thus, an argument could be made to proceed with the borrowing for the jet patcher and the bobcat, which have the benefit of also improving the responsiveness to emerging road maintenance problems and hence reducing the amount of maintenance required.

However, these purchases would place Council well-above the comfortable debt load and it would seem prudent to defer the purchase of the roller until (at least) such time that the operating result (excluding capital grants) returns to persistent modest surplus.

4. Conclusion and Recommendations

Our analysis suggests that Council has relatively modest debt capacity which stands in some contrast to the equipment purchases needed to improve relative technical efficiency.

In view of the seriousness of the efficiency gap we suggest that Council consider exceeding the model's comfortable debt capacity in the short run. Accordingly, (and subject to the detail provided in the business case) it may be prudent to proceed with the purchase of the jet patcher and bobcat. However, other purchases should be deferred until after the General Account has sustainably returned to balance.

We note that the debt should be repaid in accordance with the guidelines that we laid out at the beginning of this report to ensure intergenerational equity is observed.

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