

May 21, 2009

The Higher Learning Commission's Review of Northwest's Financial Ratios and a Five-Year Financial Recovery Plan¹

Kichoon Yang

0. Preamble

In their March 11, 2009 letter to the University, the Higher Learning Commission (HLC)² discusses the HLC's Financial Review Panel's evaluation of the University's financial ratios. The letter notes that as a result of the panel evaluation they will be recommending to the HLC's Institutional Action Council that the University be required to submit a Financial Recovery Plan by July 31, 2009 and a Financial Plan Progress Report by December 31, 2010³. At its April 6, 2009 meeting, the HLC's Institutional Action Council voted to accept the recommendation of the Financial Review Panel. On April 20, 2009, the HLC Board of Trustees validated the Institutional Action Council's vote, thus making it official.

The purpose of this report is to give additional background information regarding the HLC's financial review process, which relies on the KPMG's financial ratio analysis⁴; to give a summary of Northwest's financial ratios from FY04 to FY08; and to construct a sample financial recovery plan using available data and planning assumptions⁵.

Hopefully, this report provides a substantive basis on which one can compile an official financial recovery plan. It is a requirement of the HLC that the official financial recovery plan be approved by the University President and Board of Regents prior to submission. Also, while not a requirement, the plan should be approved by the Foundation Board of Directors.

¹ Since the 4/8/09 draft of this report, I have had several informative conversations with various members of the President's Cabinet. Of course, I take full responsibility for any inaccuracies and errors in the report.

² The Higher Learning Commission (HLC) is one of six regional institutional accreditors in the U.S. with jurisdiction over 19 states including Missouri. The U.S. Department of Education requires that an institution of higher education be accredited by a regional institutional accreditor to be eligible for participating in the Title IV federal financial aid programs.

³ The HLC's Institutional Action Council's decision is final unless overruled by its Board of Trustees.

⁴ The KPMG financial ratio analysis is explained in detail in their publication, Strategic Financial Analysis for Higher Education, 6th Edition. We did not include a copy of the KPMG publication due to its large size, but an electronic copy is available upon request.

⁵ The first two sections of this report to some extent duplicate the content of earlier e-mails and reports dated November 29, 2008 and later.

1. An Overview of the HLC's Financial Ratio Analysis

To begin with, it is worth noting that regional institutional accrediting bodies are increasingly paying attention to the institution's financial statements when making accreditation decisions. A number of factors contribute to this trend, which include certain regulatory considerations coming from the U.S. Department of Education.

The HLC's financial ratio analysis is based on a quantitative review of the following four ratios:

- Viability ratio;
- Primary reserve ratio;
- Return on net assets ratio;
- Net operating revenues ratio.

These ratios are first placed on a nationally normed scale of -1 to 10. Then a *weighted linear sum* of the ratios, called the *composite financial index*, is computed, which gives a single number. Also, in computing these ratios the HLC includes all "component units" of the institution per GASB 39⁶.

The viability ratio is a debt ratio, designed to measure the institution's ability to satisfy debt obligations. By definition, the viability ratio equals *Expendable Net Assets/Total Long-Term Debt*, where the denominator includes all third-party notes, bonds, and leases payable that impact the institution's credit. Also, any short-term debt used for plant purposes is included in the denominator. As for the numerator, it includes both unrestricted and temporarily restricted net assets⁷. Note that permanently restricted net assets are not readily accessible, as they may require a special legal permission if to be used for non-intended purposes. Also, the net investment in plant⁸ is subtracted from the numerator. The benchmark for this ratio is 1, which means that the institution has enough expendable net assets to cover its long-term debt. When this number falls below one third of the benchmark number along with other ratios for several years in a row, an automatic review is triggered by the HLC⁹. The viability ratio and the primary reserve ratio are the two most important ratios, and each is assigned a 35% weight when calculating the composite financial index.

⁶ For us, this means that the Northwest Foundation's financial statements are included in the ratio analysis.

⁷ To be precise, the Foundation's temporarily restricted net assets are excluded. More generally, temporarily restricted net assets are excluded on a FASB basis but included on a GASB basis except for those earmarked for plant investment.

⁸ This equals the total plant equity and assets minus plant debt.

⁹ This statement over-simplifies the HLC financial review process, which is explained more precisely later.

The primary reserve ratio is by definition, *Expendable Net Assets/Total Expenses*. Thus, this ratio measures the institution's financial strength emphasizing short-term flexibility. The benchmark for the ratio is .4, which means that the institution has enough expendable net assets to cover five months of its total operating expenses. Again, when this number falls below one third of the benchmark number along with other ratios for several years in a row, an automatic review by the HLC is triggered.

By definition, the return on net assets ratio equals *Change in Net Assets/Total Net Assets*. This ratio is more volatile than other ratios so that the fiscal year averaging method is an accepted alternative method of calculating the ratio. This ratio is assigned a 20% weight when calculating the composite financial index. Note that the return on net assets ratio is a global measure of the growth or decline in total wealth. The benchmark for this ratio is 6%¹⁰.

The net operating revenues ratio is defined as *[Net Operating Revenues + Net Non-operating Revenues] divided by [Operating Revenues + Non-operating Revenues]*. The reason for including non-operating revenues in the calculation is that state appropriations are considered non-operating revenues under GASB. This ratio quantifies to what extent the surplus from operating activities affects the other three ratios: an operating surplus or deficit directly impacts the net asset balance, thereby changing the three ratios. The benchmark for this ratio is 2%. This ratio is given a 10% weight only when calculating the composite financial index.

The above four ratios are converted into what is called "strength factors," which are simply normed or calibrated scores with the benchmark number set equal to a strength factor of three¹¹. The composite financial index, to be denoted by *CFI*, is then defined as

$$CFI = (V \times 35\%) + (P \times 35\%) + (R \times 20\%) + (N \times 10\%),$$

where *V* stands for the strength factor representing the viability ratio, and so forth.

Note that when the composite financial index falls below 1, it means that the institution's financial strength is weaker than the national benchmark by a wide margin¹². An automatic review by the HLC is triggered when the composite financial index falls below 1 for three years in a row.

For future reference we give a conversion table between the ratios and the strength factors at three key reference points:

¹⁰ Clearly, very few institutions will be able to meet this benchmark in FY09 given the unusual economic climate.

¹¹ Also, extremely negative and very high positive ratios are thrown out of the calculation by requiring that no ratios can go below -1 or above 10.

¹² To be precise, the institution's composite financial index is less than one third of the benchmark score.

Table 1: Conversion from Strength Factors to Ratios

	Strength Factor = 1	Strength Factor = 2	Strength Factor = 3
VR ¹³	.417	.834	1.25
PRR	.133	.266	.4
RNAR	2%	4%	6%
NORR	.7%	1.4%	2%
CFI	1	2	3

Again, the ratio values in the third column represent the national benchmarks or optimal ratios; the ratio values in the first column represent the minimum threshold recommended by the HLC¹⁴.

2. A Summary of Northwest’s Financial Ratios: FY04-FY08

Below we give a table summarizing Northwest’s financial ratios and composite financial index covering the period FY04-FY08. We note that FY04 is the last year in which our composite financial index was above the recommended minimum.

Table 2: Northwest Financial Ratios from FY04 to FY08

	FY08	FY07	FY06	FY05	FY04
VR	0.126	0.214	0.251	0.252	0.399
PRR	0.111	0.225	0.265	0.289	0.337
RNAR	2%	0.5%	-1.1%	-4.8%	5.4%
NORR	-5.9%	-2.3%	-3.3%	-3.1%	5%
CFI	0.5	0.7	0.7	0.7	2.5

Note that in FY04 our composite financial index was well above the recommended minimum index of 1, whereas since then we have seen a steady decline in all our ratios with the exception of return on net assets ratio in FY08¹⁵. The two critical ratios in terms of calculating the composite financial index, the viability ratio and the primary reserve ratio, have lost ground in the last five years: the two ratios for FY08 are barely over 30% of those for FY04.

While a complete analysis of the possible reasons for the decline in Northwest’s financial ratios during FY04-FY08 is beyond the scope of this report, the crux of the decline in our financial ratios is the following observation: *our long-term debt is increasing while at the same time our expendable net assets are decreasing*. During the five year period, the

¹³ We use *VR* to denote the viability ratio, and so forth.

¹⁴ Again, the precise HLC requirement is that the composite financial index, *CFI*, should not fall below 1.

¹⁵ The return on net assets ratio is determined by the Foundation’s and University’s investment policies combined with relevant one-time fiscal events.

University’s long-term debt went from \$66.5 million to \$92.3 million and our expendable net assets went from \$26.5 million to \$11.6 million¹⁶.

Notwithstanding that the analysis given in this report is mathematically accurate and is based on audited financial statements (or good faith estimates, when audited statements are not available), it suffers from at least the following two shortcomings:

- The KPMG methodology – its benchmark ratios as well as the minimum threshold ratios – does not take into account state-specific factors such as the state operating and capital appropriation trends, rather it relies on the notion of a national average;
- The KPMG methodology does not take into account institution-specific factors – for example, the strategic enrollment management plan and the campus master plan – and their impact on the financial ratios.

As regards the first bullet above, it is worth observing that with the exception of the FY08 Lewis and Clark Discovery Initiative appropriation¹⁷ the State of Missouri has made no capital appropriations for its public universities since the FY01. As regards the second bullet, Northwest is in the second year of a five-year strategic enrollment growth plan, which is designed to increase the University’s enrollment by more than 20% in five years - in two years, the enrollment has risen by more than 10%. Northwest is making a commensurate investment in its physical infrastructure: the University completed a 500-bed residence hall project at a cost of \$28 million last year. This investment in the future is reflected in the five year shift of the University’s assets, decreasing current assets and increasing long-term assets, given in Table 3 below.

Table 3: Northwest’s Balance Sheet (Consolidated) from FY04 to FY08

	FY04	FY05	FY06	FY07	FY08
Current Assets	19.16	16.67	13.93	10.49	7.3
Long-term Assets	136.8	166.7	164.95	168.27	179.27
Current Liabilities	-6.99	-8.77	-9.52	-11.93	-12.91

¹⁶ According to the audit report, the University’s unrestricted net assets include the following categories: reserve for encumbrances, reserve for special programs, general operating reserve, designated fund balance, local loans, and plant renewals and replacements. One significant factor contributing to the decline in the expendable net assets seems to be the following observation: in FY2004 the University recorded \$766,160 in the plant renewals and replacements category, and in FY2008 the University recorded a negative balance of \$4,626,678 in the same category. This means that this category alone is responsible for a nearly \$5.4 million decline in the expendable net assets.

¹⁷ Northwest received \$24.4 million from the FY08 LCDI appropriation; nearly all the LCDI funds have been expended on the Center for Innovation and Entrepreneurship project. As a technical matter, the \$24.4 million appropriation is transferred to the University in several increments so that its full fiscal impact is not felt till the FY09.

Long-term Liabilities	-62.34	-91.86	-89.6	-89.68	-90.11
Net Assets (in millions)	86.63	82.74	79.76	77.15	83.55

To put it another way, the recent decline in Northwest’s viability ratio (and to a lesser extent, the decline in Northwest’s primary reserve ratio) reflects, and is largely explained by, the University’s aggressive leveraging of its assets. Moreover, this aggressive leveraging took place commensurate with Northwest’s long-standing commitment to maintaining its physical infrastructure and the implementation of its strategic enrollment growth plan, and in the face of declining state support.

3. A Theoretical Financial Recovery Plan

A financial recovery plan can include the discussion of a new capital campaign, a strategic enrollment management plan, and a campus master plan. A new capital campaign would help to reduce our long-term debt and increase our expendable net assets. A strategic enrollment management plan would help to stabilize the institution’s future tuition and fee revenues. A well-conceived campus master plan would ensure that the size of our long-term debt and that of the institutional balance sheet grow in a commensurate fashion¹⁸. Finally, a financial recovery plan can contain a technical discussion - it is possible that a technical review of our financial statements will reveal additional information about the financial ratios¹⁹.

In this section we construct a “theoretical” financial recovery plan beginning with the FY08 financial ratios. The recovery plan to be constructed is theoretical in that:

- We do not adjust for inflation;
- We do not use any planning assumptions such as a campus master plan, a strategic enrollment management plan, and a capital campaign.

To put it another way, we merely calculate certain values such as expendable net assets and long-term debt, which would result in the desired financial ratios. To carry out these calculations at the ratio level, we set the *target ratios* to equal those ratios corresponding to strength factor 2. From Table 1, we then find that:

$$VR = .834; PRR = .266; RNAR = 4\%; NORR = 1.4\%.$$

Note that with these target ratios, the corresponding composite financial index equals 2.

¹⁸ A campus master plan has a direct impact on the viability ratio, as most of the institution’s long-term debt come from its financed capital projects.

¹⁹ While GASB and FASB impose rigorous guidelines in configuring the University’s and Foundation’s financial statements, it is possible that certain items in our financial statements are subject to additional interpretation relative to the calculation of KPMG financial ratios.

To perform the desired calculation it is necessary to review the financial data which were used to calculate the FY08 ratios²⁰:

ENA = Expendable Net Assets = \$11.659 million
TLD = Total Long-Term Debt = \$92.324 million
TE = Total Expenses = \$105.19 million
CNA = Change in Net Assets = \$1.996 million
TNA = Total Net Assets = \$99.589 million
NR = Net Revenues²¹ = -\$5.869 million
TR = Total Revenues = \$99.326 million

We now assume that *Total Expenses* is fixed²². With this assumption we can quickly calculate the normative, i.e., desired, financial data pertaining to both viability and primary reserve ratios. This is so, since

$$.266 = PRR = ENA/TE; .834 = VR = ENA/TLD.$$

From the first equation we find that we must have

$$ENA = Expendable Net Assets = \$27.981 million.$$

We now use the second equation to calculate the desired value of

$$TLD = Total Long-Term Debt = \$33.55 million.$$

To carry out the remaining calculations we assume that *Total Net Assets* and *Total Revenues* are fixed²³. From these assumptions it is easy to calculate the desired values of

$$CNA = Change in Net Assets = \$3.984 million,$$

$$NR = Net Revenues = \$1.391 million.$$

We summarize the above calculations in the following table.

Table 4: Actual versus Target Financial Data for FY08

	Actual Amount	Target Amount
Expendable Net Assets	\$11.659 million	\$27.981 million
Total Long-Term Debt	\$92.324 million	\$33.55 million
Total Expenses	\$105.19 million	\$105.19 million

²⁰ Our numbers are calculated from the audited FY08 financial statements.

²¹ Keep in mind that this number, which was negative in FY08, includes both operating and non-operating revenues (and expenses).

²² To perform the desired calculation we must begin with an assumption such as this.

²³ Clearly, the critical numbers are the expendable net assets and long-term debt in that they determine 70% of the composite financial index calculation.

Change in Net Assets	\$1.996 million	\$3.984 million
Total Net Assets	\$99.589 million	\$99.589 million
Net Revenues	-\$5.869 million	\$1.391 million
Total Revenues	\$99.326 million	\$99.326 million

4. A Sample Five-Year Financial Recovery Plan

In this section we construct a possible five-year financial recovery plan beginning with the FY09 ratios²⁴ and taking into account a new capital campaign, a strategic enrollment management plan, and a campus master plan. Also, we will adjust our numbers for inflation.

The principal difficulty in constructing a five-year recovery plan using the targets in Table 4 is the amount of total long-term debt that needs to be reduced in five years. In fact, the magnitude of this difficulty is such that we now revise the target amount for total long-term debt to a higher amount and at the same time increase the target amount for expendable net assets to a higher amount. These two revisions will have the combined effect of producing the desired composite financial index, notwithstanding that the resulting viability ratio will be smaller, and the resulting primary reserve ratio larger, than their respective targets. To compute the denominators and numerators of these two ratios for the next five years, we make the following assumptions²⁵:

- Total Expenses will increase by 5% per year;
- Expendable Net Assets will increase by 30% per year;
- Total Long-Term Debt will decrease by 5% per year.

With these assumptions and using the FY08 numbers as proxy numbers for FY09²⁶ we can now calculate the total expenses, expendable net assets, and total long-term debt for the next five years.

²⁴ Since the audited FY09 financial statements will not become available till later in the year we use the audited FY08 financial statements instead. Using best available numbers as of May 21, 2009 we have the following estimates for the FY09 ratios: VR = 0.042 (in FY08, VR = 0.126); PRR = 0.04 (in FY08, PRR = 0.111); RNAR = 8.2% (in FY08, RNAR = 2%); NORR = -5.8% (in FY08, NORR = -5.9%). If these numbers hold up, the FY09 CFI would be higher than the FY08 CFI, but still under the minimum threshold number (in fact, the FY09 CFI would be close to 0.9 using these estimates). It is important to observe that the significant positive change in the FY09 numbers is in the return on net assets ratio – this change is entirely due to the LCDI appropriation, meaning that it is a one-time event.

²⁵ We explain how these assumptions translate into real-life conditions later.

²⁶ We will need to replace the FY08 numbers with the FY09 numbers when they become available.

Table 5: Total Expenses, Expendable Net Assets, and Total Long-Term Debt

	FY08	FY10	FY14
Total Expenses	\$105.19 million	\$110.449 million	\$134.252 million
Expendable Net Assets	\$11.659 million	\$15.157 million	\$43.289 million
Total Long-Term Debt	\$92.324 million	\$87.708 million	\$71.439 million

Note that according to this table in the FY2014 we will have achieved the following ratios: *PRR* = .322; *VR* = .606.

Using Table 1 we see that this primary reserve ratio is higher than the original target ratio; that the viability ratio is lower than the original target, but still above the minimum threshold value. In fact, their combined contribution to the composite financial index equals 1.356, which is already higher than the minimum required by the Higher Learning Commission. Therefore, we will not pursue additional calculations regarding the two remaining ratios.

We now indicate how the above three assumptions might be realized taking into consideration various planning factors. To begin with, the 5% assumption regarding *Total Expenses* is based on the anticipated rate of annual inflation and recent trends in mandatory operating expenses²⁷. The relatively modest 5% assumption regarding *Total Long-Term Debt* is based on the assumption that all planned financed capital projects will be put on hold for the next five years²⁸. The 30% growth assumption regarding *Expendable Net Assets* is based on the following considerations:

²⁷ We use the index, CPI-U, to estimate the overall rate of inflation. As regards the trend data for mandatory expenses, the University annually reports its mandatory expenses to the Missouri Department of Higher Education (MDHE): according to the annually reported data to the MDHE, the University’s mandatory expenses increased more than 6% annually for the past several years. However, there are indications that the increase (or at least the rate of increase) in mandatory expenses may be moderating.

²⁸ The top planned capital projects include a replacement academic building, the fine arts building renovation, alternative energy plant, and a new residence hall. Among these, only the residence hall project is planned as a financed project. It is possible that the State will decide to fund one or more of these capital projects in the next five years. If so, the University will be able to increase the size of its balance sheet without increasing its long-term debt. As of spring, 2009, the University had the following seven projects in its master plan, a copy of which was submitted to the Missouri Department of Higher Education:

- Replacement Academic Building (50,000 square feet) - \$20 million;
- Olive DeLuce Building Renovation (88,900 square feet) - \$22 million;
- Alternative Energy Plant – \$19 million;
- Electricity Distribution System - \$2.7 million;
- Residence Hall - \$28 million;
- Replacement Support Facilities Building (28,000 square feet) - \$5.8 million;

- The tuition and fee revenues will increase by at least 10% per year;
- State appropriations will increase by at least 4% per year;
- The new capital campaign will contribute at least \$3 million annually to the University's net expendable assets²⁹.

We note that the projected increases in the first two bullets are nearly cancelled out by the projected increase in the total expenses. Also, keep in mind that the sample plan assumes that all planned financed capital projects will be put on hold during the duration of the plan. This is a critical assumption in that any university financed capital project negatively impacts the viability ratio by further increasing our long-term debt³⁰.

-
- Infrastructure Preservation and Energy Efficiency - \$24 million.

²⁹ The last capital campaign raised more than \$45 million in restricted and unrestricted funds.

³⁰ Aside from state capital appropriations, another method of implementing a capital project outside the balance sheet (to be more precise, without adversely affecting the long-term debt category in the balance sheet) is to "privately finance" the project. A number of universities have successfully integrated this private financing strategy into their campus master plan processes in recent years. However, the full fiscal impact of a private financing strategy on the overall financial health of the institution is more complex, hence, more difficult to predict.