Ten-Year Business Forecast for Oregon State University

2018-2028

Our Vision:

"To best serve the people of Oregon, Oregon State University will be among the Top 10 land grant institutions in America."

Accepted by the OSU Board of Trustees
on January 19, 2018

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SUMMARY

The Ten-Year Business Forecast is intended to identify long-term trends in the university's finances that support or jeopardize the goals of the Strategic Plan. The forecast provides a look far enough ahead to take corrective action or to plan for additional investments and to carefully consider the long-term impacts of current programmatic and financial decisions. The forecast considers enrollment projections; tuition rates and institutional financial aid; expense projections for inflation, benefits, salaries, and enrollment growth; and new construction, renovation, and repairs with associated operating and debt costs. The forecast is updated in January of even-numbered years.

The forecast particularly focuses on Corvallis Education and General (E&G) operations as these have the largest impact on the university's financial position and can change the most with changes in projections of tuition and enrollment. However, projections for operating and capital impacts on all funds are reviewed and included in the assessment of the long-term financial metrics. These include Cascades E&G, self-supporting operations and restricted funds, Corvallis self-support operations and restricted funds, and Statewide Public Services funds.

The principal conclusions from the forecast covering fiscal years (FY) 2018 through 2028 are:

- The projections of current enrollment, tuition, and expense trends at Corvallis show negative operating margins beginning in FY2020 in large part because of substantial increases in retirement benefit rates for employees. Alternate strategies need to be developed now to have impacts by FY2023 when the operating fund balance would drop below 10%.
- Two current initiatives (programs in Portland and a fixed-price program for entry into the university after two years of course work) project sufficient new enrollment to yield positive operating balances by FY2023 and substantial net revenues by FY2024. The projections for enrollment in these programs, which are still under development and subject to approval, are preliminary.
- In the absence of new enrollment initiatives, a planned reduction in the growth of expenses by about 3% per year beginning in FY2023 would maintain a 12% fund balance.
- Revenue growth allows for maintaining current programs as well as adding faculty and staff to support enrollment growth and growth in key areas of the strategic plan.
- Cascades enrollment is planned to grow by more than 85% by 2025, with growth to 3,000 in later years. This updated growth plan is aligned with recent enrollment patterns. The forecast projects planned operating deficits at OSU-Cascades through FY2020.
- The Statewide Public Services have historically managed to budget through adjustments in level of staffing, but they will be particularly challenged by constraints on state funding in the next decade.
- As the sustainability plan for Oregon State Athletics takes effect, self-supporting operations project appropriate balances. Restricted funds remain in balance, but are particularly subject to changes in funding support at the federal level.
- The forecast includes planning for a number of capital projects including new construction, major renovation, and repair and renewal of buildings and infrastructure.

- The forecast is most sensitive to annual tuition increases: very low tuition increases produce long-term deficits and high tuition increases yield large annual operating margins. Fund balances and overall enrollments are sufficient to manage large short-term changes such as an economic recession and accompanying fall in state funding, or a sudden major reduction in international student enrollment.
- The forecast yields financial metrics that generally meet the Board's tolerances.

THE BASELINE: FY2017 FINANCIAL STATEMENT AND FINANCIAL METRICS UPDATE

Background

The baseline for the Ten-Year Business Forecast is the previous year's (FY2017) audited financial statement. The OSU Annual Financial Report, including the audited financial statements and management's discussion and analysis, has been completed and will be presented to the Executive & Audit and Finance & Administration Committees on January 18, 2018. To complement that report, this update provides information on the financial health of the university, including comparison of key financial metrics over time. These metrics are the starting point for the ten-year projections in the forecast.

Overview

Public universities operate in a challenging financial environment, as discussed briefly in Moody's current outlook for higher education.[1] Declining and volatile levels of state funding have required universities to reduce costs, gain efficiencies, and look to other sources of revenues through increasing philanthropy, developing additional intellectual property, growing their research base, and increasing tuition. The environment in Oregon is similar. Oregon's public universities, because of their mission to maintain access and affordability, have been able to hold only a minimum level of reserves. These pressures make the financial management of the university an exercise in balancing the competing goals of greater financial strength and security with access and affordability.

Over the past several years, the university has made investments in capital and human resources and in other operating expenditures needed to keep pace with enrollment growth and to address some of its deferred maintenance backlog. Consequently, the growth in net assets has not kept pace with the growth in the revenue and expenditure base. The university has begun to budget $5M a year beginning in FY2018, to a total of $45M annually by FY2026, to address capital renewal and deferred maintenance.

Trend Analysis of Specific Financial Metrics

Table 1 provides a trend analysis of seven specific financial metrics to evaluate the university's financial health, including the five debt policy ratios used to evaluate debt capacity and affordability. The debt service amounts shown include only the university-paid debt; amounts exclude debt service on State Energy Loan Program (SELP) debt, where the legislature has committed to pay the debt service with a separate General Fund appropriation.

[1] Moody's Investors Service, December 5, 2017, "Higher education – US: 2018 outlook changed to negative as revenue growth moderates"

The university implemented Governmental Accounting Standards Board (GASB) Statement No. 68[2], and GASB Statement No. 71 relating to pension accounting and reporting[3] effective for FY2015. This implementation impacts six of the seven financial metrics with a varying degree of materiality. The changes in GASB 68 and 71 mainly require that the university show its share of the net pension liability for employees in the state's retirement system. The move of these assets and liabilities onto OSU's statements has a substantial impact on some of the metrics. In Table 1, for FY2015, 2016, and 2017, the right-hand column shows the ratios without the cumulative impact of GASB 68 and 71 for comparison purposes.

While the trends in the core financial metrics in Table 1 indicate relatively low leverage and balance sheet strength, the university is challenged to continue to show "income statement" improvements over the next several years in order to strengthen reserves and protect the university's net asset base. Specific financial metrics are summarized as follows:

Debt Burden Ratio – The debt burden ratio shows the magnitude of debt service expenditures for university-paid debt relative to total expenses, less depreciation and plus debt principal payments. This ratio measures the university's dependence on debt to finance its mission. The university's debt burden is 3.2% for FY2017, up slightly from 3.1% in FY2016, and within the Board's established range of 2.5% to 6.5%, indicating that the university is not highly leveraged. Without the implementation of GASB statements 68 and 71, this ratio would be 3.3%, also within the Board's established range.

Debt Service Coverage Ratio – The debt service coverage, or debt affordability ratio, measures the sufficiency of net revenues to cover debt service. This ratio uses a three-year rolling average of net revenues to smooth out revenue volatility. The university's debt service coverage was 1.2 times debt service for FY2017, and was below the Board's established range of 2.0 to 4.5 times debt service. Without the implementation of GASB statements 68 and 71, this ratio would be 1.9 times debt service, slightly below the lower limit of 2.0 times debt service.

Income Statement Leverage Ratio – The income statement leverage ratio measures the amount of debt relative to the size of operations as reflected in total revenues. This ratio considers only debt that will be repaid with university revenue. The university's income statement leverage stood at 37.6% for FY2017, up from 36.1% in FY2016. This is within the Board's established range of 30.0% to 75.0% and shows that the university is not highly leveraged. This ratio is unaffected by implementation of GASB statements 68 and 71.

The following four ratios are considered industry standard core measures of financial health. They combine amounts from the OSU Foundation's financial statements (where applicable), which is recommended by industry best practice, in order to portray the financial health of the university more comprehensively.

Viability Ratio – The viability ratio compares expendable net assets to total outstanding debt to be repaid with university revenues. This ratio measures the ability to repay debt with financial resources and the ability to use debt to strategically advance the university's mission. The university's viability ratio was 74.2% just below the Board's established range

[2] *Accounting and Financial Reporting for Pensions—an amendment of GASB Statement No. 27*

[3] *Pension Transition for Contributions Made Subsequent to the Measurement Date – an amendment of GASB Statement No. 68*

of 75.0% to 125.0%, down from 76.2% as of June 30, 2016. Without the impact of GASB 68 and 71 this ratio would be 109.5%.

Primary Reserve Ratio – The primary reserve ratio measures the level of available reserves to meet the university's operating expenditures, indicating whether financial resources are sufficient and flexible enough to support the university's mission. The university's primary reserve, inclusive of the related foundations, was 27.8% as of FY2017 and below the Board's established range of 35.0% to 65.0%, though up from 26.8% as of FY2016, which reflects a slower growth in the expense base relative to the increase in expendable net assets. Without the impact of GASB 68 and 71 this ratio would be 42.6%, or just within the established range.

Return on Net Assets Ratio – The return on net assets ratio measures whether the university is financially better off than in previous years by measuring total economic return. The university's (inclusive of the related foundations) return on net assets was 4.2% for FY2017, within the Board's established range of 0.0% to 8.0%. Without the impact of GASB 68 and 71 this ratio would be 6.6%, well within the established range.

Net Operating Revenues Ratio – The net operating revenues ratio explains how the results of operations affects the behavior of the other three core ratios: the viability ratio, the primary reserve ratio, and the return on net assets ratio. A large surplus or deficit directly impacts the amount of funds an institution adds to or subtracts from net assets, thereby affecting the other three core ratios. The university's net operating revenues ratio was −1.8% for FY2017 and below the Board's established range of 0.0% to 6.0%. Without the impact of GASB 68 and 71 this ratio would be 1.5% or above the approved lower end of the range of 0.0%.

<u>Overall Conclusions</u>

Over the last five years, five of the seven key financial metrics (without the GASB 68 and 71 impact) have generally been within the operating ranges set by the Board. These include the debt burden, income statement leverage, viability, primary reserve, and return on net assets ratios.

Over this same time period, the debt service coverage and net operating revenues ratios have primarily been below the lower level of the operating ranges. Being outside the range in these two ratios does not indicate an immediate concern about OSU's financial health or impact to our Aa3 credit rating. We discuss longer-term projected trends of these ratios in the Ten-Year Business Forecast.

TEN-YEAR BUSINESS FORECAST: PURPOSE, APPROACH, AND PRINCIPAL ASSUMPTIONS

Purpose

The Ten-Year Business Forecast provides a long-term view of the aggregate impact of near-term operating and capital decisions made in support of the university's strategic plan. The forecast considers the influence of external factors such as enrollment demand, Oregon's economic outlook, and compensation costs. The principal goal is to identify areas of concern and opportunity associated with the university's decisions and external conditions early enough to take action to maintain and improve the university's financial strength.

Approach

The forecast uses institutional level projections of revenues and expenditures across all funds. There is a particular focus on Corvallis E&G operations since those make up a large share of the university's work and much of the activity in self-support and auxiliary funds depends on the level of activity in E&G operations.

Corvallis E&G funds: Revenues are modeled from ten-year enrollment targets and assumed tuition levels by student type. Adjustments in base and differential tuition rates are included. Institutional financial aid is taken as a percentage of undergraduate tuition revenue. Changes in state funding are set at the long-term average growth but can be adjusted in various scenarios. Revenues from indirect cost recovery are estimated from projections of grant and contract funding and the predicted growth in other revenues is based on historical trends. Expenses are estimated from assumptions about raises for unclassified staff, trends in compensation for represented staff, projections of benefit increases based on current actuarial assessments of the Public Employees Retirement System (PERS) costs, and projections of general inflation. Discrete expense additions are made for strategic or programmatic commitments such as the funding of a capital renewal fund and support for growth in the OSU Foundation. Marginal expenses proportional to enrollment growth are included for faculty, staff, graduate assistants, as well as for overhead costs to support that enrollment growth. Operating and debt-service costs detailed in the ten-year capital forecast are included in the Ten-Year Business Forecast.

Cascades E&G funds: The Cascades long-term projection is built from programmatic level plans for enrollment and academic program buildout, and is validated through first-year freshman and transfer enrollment targets assuming year-over-year improvements in retention and graduation rates. The timing and number of academic programs added is a key driver for potential for enrollment growth at OSU-Cascades. The revenues and expenses are built in the same manner as for Corvallis based on the growth in enrollment, the staffing for academic programs, and the costs of building out the physical campus.

Statewide Public Services (SWPS) funds: The SWPS operations depend principally on governmental appropriations and, as such, change with discrete decisions about overall state funding, state support for specific policy options, and federal formula funding support. The SWPS have historically managed staffing levels to adjust to changes in these funding sources. The forecast assumes 2.5% annual growth in revenues and expenditure levels that match available revenues, maintaining a 12-14% fund balance.

Restricted funds: These include federal and state financial aid, external grant and contract awards, private and Foundation funds, and other governmental funds. Revenues for restricted funds are assumed to grow at historical rates or as a proportion of E&G revenues. These revenues have grown at a slower rate than E&G revenues over the last several years because growth in governmental support for various activities has been more limited. Expenditures of restricted funds track revenues closely and the funds maintain a modest fund balance (1% to 3%).

Auxiliary funds: Revenues and expenditures for the various self-supporting operations (auxiliaries) were modeled based on historical trends and as a proportion of E&G operations. The projections for Oregon State Athletics were aligned with the Athletics Financial Sustainability Plan. The principal challenge for self-supporting operations in recent years has been the erosion of fund balance and net working capital because of accumulated operating losses in Athletics. The Athletics Financial Sustainability Plan balances the athletics budget and self-supporting operations are projected to maintain a 30% to 40% balance of net working capital.

Capital planning and funds: The university's Infrastructure Working Group (IWG) reviews and recommends priorities for capital projects based on proposals and assumptions of available gift, state, and OSU revenues. The resulting capital forecast includes projects supported by state and gift funding, education and general paid debt, and self-supporting unit paid debt. The costs of debt services and operations of the facilities are included in the appropriate operating forecast depending on timing of the project.

Modeling the university's financial position: All assumptions and resulting revenues, expenses, and commitments are used to update PFM's Future Perfect financial model, which estimates the university's financial position and key financial metrics. This allows an assessment of the overall financial position including capital assets, issues related to depreciation, and overall balance sheet performance. PFM is the university's financial advisor.

Major Assumptions

The forecast assumes significant growth in staffing of faculty, academic staff, and support services, driven largely by growth in various types of enrollment. For the most part, the specific academic programs and administrative support units in which this growth will occur are not identified here, since the forecast is at the institutional level. However, the growth assumptions are based on anticipated student demand in selected programs, priorities in the strategic plan, and needed improvements in critical support services.

The forecast for Corvallis E&G funds identifies separate enrollment initiatives which, if successful, provide resources that would cover projected shortfalls in operating margins or provide the capacity to make additional investments in advancing the strategic plan. These are treated as separate revenue and expense streams so that their specific financial impacts can be isolated and reported.

The following are the assumptions under each major category.

- Corvallis E&G forecast:
  - 28,500 students in Corvallis and Newport by 2025, no or small growth after that.
  - Ecampus revenue growth slowing to 5% annually by 2026, with continued growth in use of Ecampus by Corvallis students.
  - 33% non-resident undergraduates in Corvallis by FY2025.

- Low (but some) growth in resident undergraduate students in Corvallis reflecting flat high-school graduate projections but increasing numbers of transfer students.
- 15% of Corvallis enrollment as international students (a slightly higher proportion as graduate students, slightly lower as undergraduates) by FY2025.
- 20% of Corvallis enrollments as graduate and professional students by FY2025.
- Salary increases of 3% annually for unclassified staff, and historical negotiated rates for represented staff.
- Benefits growth of 5% annually for health insurance, and at state-set rates for retirement, with large increases (over 10%) in FY2020, FY2022 and FY2024 because of PERS actuarial projections, after which rates are forecasted to stabilize.
- General inflation on goods and services of 2.5%, yielding aggregate local inflation of about 4.2% in years with large PERS increases (FY2020, FY2022, and FY2024) and 3.1% in other years.
- Tuition increases for resident undergraduates of 4.15% in FY2020, FY2022 and FY2023, because of the PERS increases, and 3% in other years.
- Non-resident undergraduate tuition at 67% of resident tuition increases until FY2026 (when enrollment targets for non-residents are met), with subsequent increases matching those for resident students.
- Ecampus and summer rate changes follow resident undergraduate tuition.
- Graduate and professional tuition set to track peer institutions.
- Differential tuition rates assumed to increase modestly every two years.
- Institutional financial aid increasing from 12.2% of undergraduate tuition to 13.0% of undergraduate tuition by FY2025.

- Cascades E&G forecast:
  - Over 85% growth in students by FY2025, with increases to 3,000 in the longer term.
  - Continued student mix of 80% undergraduate and 90% Oregon residents.
  - Second academic building and associated other infrastructure work proceed with support from the state. (Capacity of the existing campus was previously noted as 1,890 students, as reflected in parking and transportation studies for the 10-acre campus, a rate of about 85% utilization. A utilization rate of 65%, or about 1,650 students is expected.)
  - Assumptions on tuition rates, revenue increases, and expenditures escalators follow those used for Corvallis.

- Capital forecast:
  - $60M per biennium of OSU institutional debt capacity, based on analysis by PFM. This includes debt paid by E&G funds and by self-supporting operations.
  - Significant gift funding for all new academic building projects.
  - Capital renewal funding that includes $16.5M per biennia paid by the state, $10M from minor capital projects funded from unit cash, and E&G-paid capital renewal funding reaching $45M annually by FY2026.
  - State-paid debt of about $50M per biennium, though the distribution varies across biennia.

- Self-supporting projects paid entirely by revenue bonds (University Housing and Dining) or gift funds (Oregon State Athletics).
- State-paid debt for Cascades averaging $28M a biennium and totaling $137.6M through the 2025-27 biennium.
- Prioritization of projects by the IWG, within these constraints, based on: life safety concerns; operational needs; facility condition; accessibility; space utilization; impacts on finance, scholarship, research, and outreach; impacts on student and employee success; impacts on university reputation; and potential to leverage other sources of funding.

- Corvallis special enrollment initiatives:
  - Hybrid, online, and other educational initiatives in Portland. Revenues based on an Ecampus-type model, expenses based on marginal costs of instruction and services, with credit hours delivered growing to about 49,000 in FY2027 (a little over 1,000 undergraduate FTE).
  - An initiative for an alternate entry pathway to a four-year degree (the "Gateway Program"). This involves offering two years of lower-division course work at a fixed price, using principally online delivery. A portion of these students would matriculate to OSU through Ecampus or a campus location. The initiative pro forma estimates revenues of $32M for the lower-division program and $46.6M for students matriculated to OSU, with a total net of $26.4M after expenses, by 2028.

PRINCIPAL CONCLUSIONS AND AREAS OF CONCERN

The forecast was examined in a baseline scenario, which did not include the Corvallis enrollment initiatives, and in a scenario with the special enrollment initiatives successfully implemented.

Corvallis E&G Operating and Capital

The Corvallis E&G baseline scenario shows steadily increasing revenues through FY2028 (Figure 1, top), but expenses that grow more quickly than those revenues. This yields significantly negative operating margins beginning in FY2022 (Figure 1, bottom) with associated declines in fund balance below the Board minimum of 10% (Figure 1, middle). These trends are consistent with a recent Moody's assessment of the economic outlook for higher education: *"We are revising our outlook for the higher education sector to negative from stable. The annual change in aggregate operating revenue for four-year colleges and universities will soften to about 3.5% and will not keep pace with expense growth, which we expect to be almost 4.0%. A growing number of universities will have even weaker revenue growth, pressuring operating performance. Public universities will face more revenue strain than private universities. The negative outlook also incorporates uncertainty at the federal level over potential policy changes."*[4]

A significant cause of the decline that begins in FY2020 is the large increase in benefit rates for PERS expected at the beginning of FY2020, FY2022 and FY2024. With 5% annual increases in the cost of health insurance, benefits grow, on average, to be more than 54% of salaries by

[4] Moody's Investors Service, December 5, 2017, "Higher education – US: 2018 outlook changed to negative as revenue growth moderates"

FY2020 and to about 59% by FY2028. One of the principal goals of the forecast is to identify these kinds of issues early, so that appropriate corrections can be pursued.

In the absence of other revenue growth, one strategy is to flatten the growth of the expense curve. Maintaining a 12% fund balance (the green line in the top of Figure 1) would require approximately 1.9% to 2.9% annual reductions in projected expenditures beginning in FY2023. This would be about $16M of expenditures in FY2023 and $21M in FY2028.

Another approach is to plan now for enrollment initiatives that grow enrollment of students not now served by OSU and generate additional revenues over associated costs. This is what the two enrollment initiatives described above (the Portland Initiative and the Gateway Program) are intended to do. Both are in various stages of development, but the preliminary revenue and expense estimates for the initiatives make a substantial difference in the forecast. With the initiatives as projected, there is some erosion of fund balance in FY2020 through FY2023 as the programs develop, but substantial net revenue growth after that, producing positive operating margins that can help support other investments and initiatives and further the strategic plan (Figure 1).The Portland and Gateway initiatives will need to be reviewed regularly to assess whether they are hitting the targets set in the pro forma, but beginning them now addresses the projected financial challenge four to five years from now.

The forecast includes a capital forecast developed with the assumptions noted above. The IWG recommendations prioritize projects using the criteria noted, yielding a set of projects (Figure 3) that address a number of high priority issues for the campus:

- Reduction of the accumulated deferred maintenance through a combination of state funding, OSU revenue bonds, and E&G allocations of capital renewal and repair funds.
- Improvement of core infrastructure supporting academic and support buildings. Projects include a new main steam tunnel, improvements to Washington Way, and a new center for facilities operations.
- A focus on renovation and renewal of facilities including Gilkey Hall, Cordley Hall, Fairbanks Hall, Gilbert Addition, Benton Hall, Withycombe Hall, Kerr Administration, Kidder Hall, Langton Hall, and the demolition of Snell Hall. These plans, which place special emphasis on improving the university research infrastructure, include providing research surge space to allow laboratory groups to be moved while facilities are renovated.
- New construction for facilities that provide state-of-the art research and education spaces that cannot be created through renovation of existing spaces. These include The Quality Food and Beverage Center, the Education and Performing Arts Center, and STEM Education and Research Buildings 1, 2, and 3.
- Improved student services with the construction of a Student Services Building to replace Snell Hall.

The debt service, construction, and operating costs of the projects in Figure 2 are included in the financial metric analysis discussed below.

Cascades E&G Operating and Capital

The leadership team at Cascades has built a forecast that includes a detailed plan for program development, including new academic programs, necessary faculty and staff hiring, infrastructure development and operations, and all of the other components critical to operating a new four-year campus. Enrollment growth is the most critical component of the budget forecast and meeting enrollment targets in Bend requires investing in faculty and academic programs to attract the desired numbers and mix of students. This means that the Cascades E&G operations are forecasted to produce small negative fund balances through FY2020, growing to fund balance in excess of 10% by FY2022 or FY2023. Because the size and number of academic programs is adjusted as annual enrollment forecasts are completed, the operating budgets stay in balance after FY2020.

The capital allocations from the state are particularly critical for the development of Cascades. Reaching enrollment goals for Cascades will require, at the least, completing the second academic building prior to fall term 2022. Without the second building, growing enrollments in critical programs such as engineering science; kinesiology; and arts, media and technology will be stymied.

The capital forecast for Cascades (Figure 2) includes the second and third academic buildings, the three phases of site reclamation, additional student housing, a physical plant hub, and student life facilities including a student success center, recreation facility, and campus conference center.

Statewide Public Services E&G Operating and Capital

The assumptions of the forecast are such that the SWPS funds maintain a modest fund balance through adjustments to the actual levels of state funding. There are some funds for capital renewal and repair of SWPS facilities around the state from the biennial state bonds to support capital renewal and repair. Other work on those facilities is supported by SWPS unit operating funds or local partners (in the case of Extension).

Other Funds Operating and Capital

There are no major areas of concern in the forecast for restricted funds and self-supporting funds. The forecast assumes that the Athletics Financial Sustainability Plan will be implemented successfully and that the pro forma for University Housing and Dining projects generate sufficient revenues to cover the costs of operating and maintaining the facilities. Projects include new upper-division and graduate student housing, housing in Newport for the Marine Science Initiative programs, and renewal and replacement of older housing facilities.

Capital projects for Athletics are assumed to be funded entirely by gifts or other revenues. Athletics is currently working on a strategic plan and the specific projects in their capital planning will be added to the capital forecast after review by the IWG.

Financial Metric Projections

The final component of the Ten-Year Business Forecast is a review of long-term trends in OSU's financial metrics. Figure 3 shows the principal financial metrics from PFM's Future Perfect model from FY2016 projected to FY2028. PFM is OSU's financial advisor and supports an spreadsheet-based projection tool that uses institution-wide averages and trends based on completed audited financial statements (beginning in 2013 for OSU). Future Perfect brings together the assumptions in the operating and capital forecasts with other components of the institution's financial statements and includes non-cash components and accounts for revenues and expenses consistent with the GASB accounting requirements that OSU follows. The ratios in Figure 3 are calculated without the impacts of GASB 68 and 70 as these most clearly show the operational impacts of revenue and expense decisions that the university can control.

The financial metrics from the Future Perfect analysis are shown in Figure 3. The ratios from the baseline scenario are shown in gray; and the ratios with the Portland and Gateway enrollment initiatives included are shown in black. In the January 2017 Board approved Ten-Year Business Forecast, the analysis of financial metrics showed significant declines in many of the ratios, which appeared to be due in large part to the accumulated effects of unfunded depreciation. Subsequent discussions and analysis reinforced that assessment. The current Ten-Year Business Forecast assumes increments of $5M a year for nine years allocated to capital renewal to fund depreciation costs. The first $5M was allocated in the current fiscal year budget and the total amount will grow to $45M in FY2026. The allocation of these funds and their expenditure on capital renewal is included in the ratios shown in Figure 3.

Figure 3 shows that the debt burden remains low (debt burden) but that the metrics that depend on net operating revenues (viability ratio and net operating revenues for example) decline or fall below the preferred range particularly in FY2020 through 2023, reflecting the trends shown in the Corvallis E&G operating forecast. The ratios with the outcomes of the special enrollment initiatives included move back into the preferred ranges by FY2024, with the exception of the primary reserve ratio. That ratio stabilizes (with the enrollment initiatives included) just below the lower preferred range in FY2023.

Overall, the ratio projections suggest that a commitment to funding capital renewal and pursuing the current enrollment initiatives, or similar initiatives that generate net revenue at the same rate, will maintain a healthy financial position for the university. This depends, of course, on the other major assumptions in the forecast remaining reasonable and appropriate.

SELECTED SCENARIO ANALYSIS

The forecast provides the tools to investigate potential scenarios and what would be required to address negative impacts on the university's financial position. Some scenarios are shown in Figure 4 and the assumptions and possible actions for each are discussed briefly below. With the exception of Scenario E, the scenarios are all in reference to the forecast with both the Portland and Gateway enrollment initiatives included (Scenario C).

Corvallis E&G—State Economic Downturn

At some point, a downturn in state economic fortunes is certain. History indicates that in those circumstances it is likely that the public universities will see reductions in state support. This scenario (Figure 4, Scenario F) assumes a 10% reduction in funding from the state in FY2022 followed by a further 5% reduction in FY2023. With no other changes, adjusting expenditures to keep fund balances at 12% would require reductions in spending of 1.9% in FY2022, 4.5% in FY2023, and then about 2% each year through FY2027.

If tuition is increased to offset the loss in state funding, rate increases of about 7.2% for resident undergraduate tuition and 5.2% for non-resident undergraduate tuition would be required in FY2022 and rates of 6% for residents and 4% for non-residents in FY2023 (Scenario G). Coupling those increases with expense reductions of 2.1% in FY2023 and 0.2% in FY2024 would maintain a 12% fund balance.

Corvallis E&G—International Enrollment Reduction

OSU has grown the number of international students studying in Corvallis significantly over the last several years. A major change in the international political and/or economic environment could cause a sudden drop in the number of international students. Scenario D in Figure 4 illustrates a loss of 50% of international student enrollment in fall 2021 (FY2022) and assumes enrollment grows back to target levels by FY2027. The scenario creates a very large negative operating margin in FY2022 that would require a 3.2% reduction in operating expenses ($22.7M) in FY2022, a 2.7% reduction in expenses in FY2023, and a 0.4% reduction in FY2024 to maintain a 12% fund balance before enrollments recovered sufficiently to be back on track for the long-term enrollment plan.

Corvallis E&G—Growth to 40% Non-resident Undergraduates

The forecast is sensitive to the mix of resident and non-resident undergraduate enrollment. For illustration, Scenario B shows the impact of enrolling 40% non-resident undergraduates in Corvallis by 2025 instead of 33% (still maintaining 28,500 students in Corvallis in 2025). This reduces resident enrollment by about 1,600 and increases non-resident enrollment by the same number. The change produces significant additional net revenues but is counter to the current assumptions of the forecast.

Growth to 40% non-resident students in Corvallis has a large enough impact on revenues that it would produce relatively balanced budgets even without the two enrollment initiatives (Scenario E).

Corvallis E&G—1.5% and 4.5% Annual Tuition Changes

Scenarios A and H illustrate the effect of the long-term compounding of tuition rates. Scenario A assumes 4.5% increases in undergraduate tuition rates every year (including Ecampus) and Scenario H assumes a 1.5% increase every year. The long-term consequences of recurring differences in tuition growth are clear. A rate of growth that is comparatively low (Scenario H) produces long-term decline in fund balance and financial stability and jeopardizes the scope and quality of academic programs. A rate of 4.5% (Scenario A) yields more net revenue than may be necessary to advance the mission of the university and may make the institution unaffordable for many students after a few years. However, recurring tuition rates have the potential for the greatest impact on the financial position of E&G operations.

Cascades E&G—Capital Funding Hiatus from State

The principal jeopardy in planning for Cascades is the commitment of the State to help fund the development of a new campus in Oregon's fastest growing region (not illustrated in Figure 4). While the vice presidents for finance and administration for the seven public universities have been talking about a joint strategy for the biennial capital request to Higher Education Coordinating Commission, as of this writing there is no agreement on how to include the needs of a new campus in that request. Without additional facilities, growth at OSU-Cascades will have to be capped, with associated slowing in the development of academic programs and services to the region.

NEXT STEPS

The forecast will be updated as information changes and benchmarks are reached (annual year-end close, legislative sessions, etc.). The forecast will be updated for the Board at the January 2020 meeting.

Table 1: Key financial metrics based on the University's audited financial statements. Metrics for 2015, 2016 and 2017 are shown with and without the impact of implementing GASB 68 and GASB 71. (Revised)

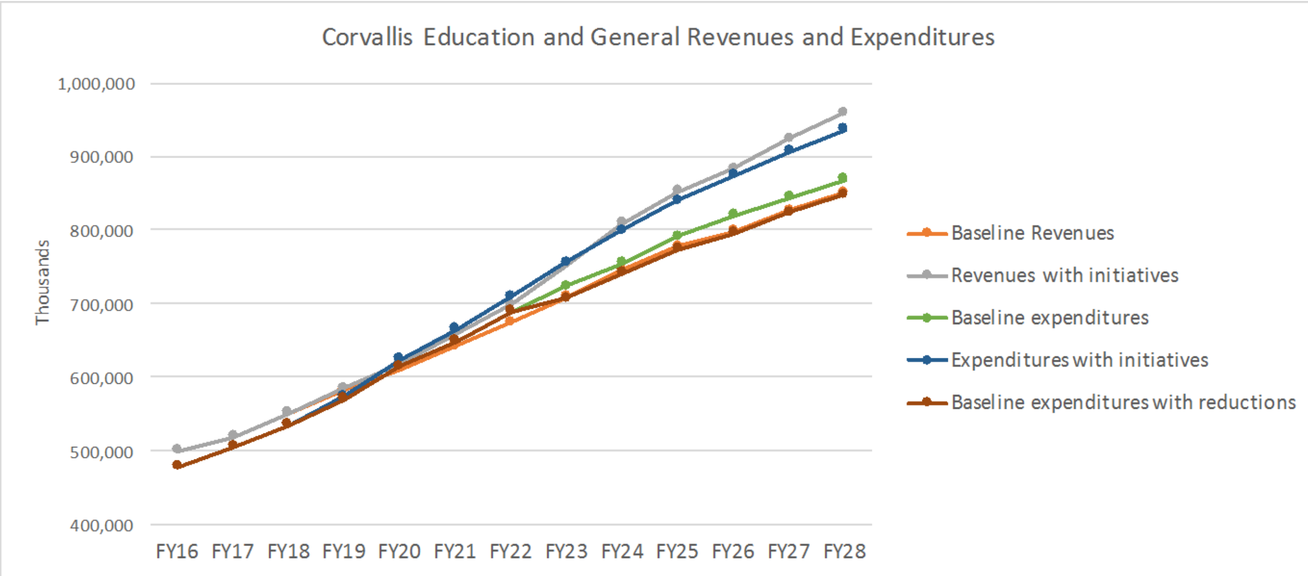
Oregon State University - Key Financial Metrics
(Dollar amounts in thousands)

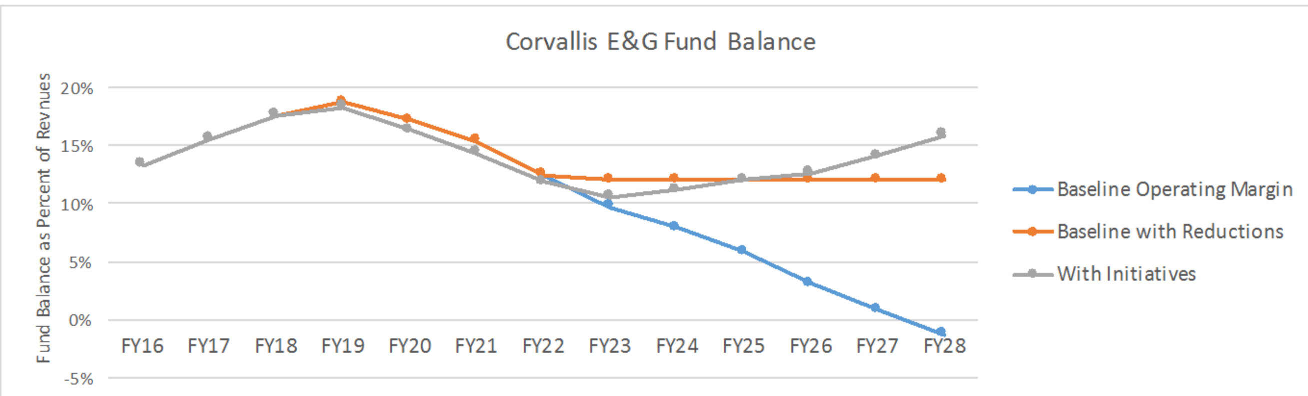
	2013		2014		2015		2015 (w/o GASB impact)		2016		2016 (w/o GASB impact)		2017		2017 (w/o GASB impact)	
Debt Burden:																
Debt Service[(1)]	26,414		26,278		28,570		28,570		33,053		33,053		34,260		34,260	
Total Adjusted Expenses [(2)]	825,655	3.2%	888,185	3.0%	898,494	3.2%	951,765	3.0%	1,075,674	3.1%	982,474	3.4%	1,079,182	3.2%	1,039,061	3.3%
									range	2.5%-6.5%			range	2.5%-6.5%		
Debt Service Coverage:																
3 yr. avg. Net Revenue available for Debt Service	48,344		36,400		61,859		44,139		36,580		49,926		39,966		66,682	
Debt Service [(1)]	26,414	1.8	26,278	1.4	28,570	2.2	28,570	1.5	33,053	1.1	33,053	1.5	34,260	1.2	34,260	1.9
									range	2-4.5 times			range	2-4.5 times		
Income Statement Leverage:																
Debt [(1)]	315,963		395,834		452,559		452,559		406,392		406,392		437,560		437,560	
Revenues	900,638	35.1%	965,880	41.0%	1,062,288	42.6%	1,062,288	42.6%	1,125,370	36.1%	1,125,370	36.1%	1,163,889	37.6%	1,163,889	37.6%
									range	30-75%			range	30-75%		
Viability:																
Expendable Net Assets [(3)]	395,923		426,431		409,657		430,939		309,478		423,960		324,676		479,279	
Debt [(1)]	315,963	125.3%	395,834	107.7%	452,559	90.5%	452,559	95.2%	406,392	76.2%	406,392	104.3%	437,560	74.2%	437,560	109.5%
									range	75%-125%			range	75%-125%		
Primary Reserve:																
Expendable Net Assets [(3)]	395,923		426,431		409,657		430,939		309,478		423,960		324,676		479,279	
Total Adjusted Expenses [(2)]	908,202	43.6%	984,169	43.3%	976,306	42.0%	1,029,577	41.9%	1,154,282	26.8%	1,061,082	40.0%	1,166,407	27.8%	1,126,285	42.6%
									range	35%-65%			range	35%-65%		
Return on Net Assets:																
Change in Net Assets [(5)]	37,039		64,163		105,795		52,524		(13,480)		79,720		58,610		98,731	
Total Net Assets	1,034,333	3.6%	1,061,090	6.0%	1,050,699	10.1%	1,125,253	4.7%	1,381,161	-1.0%	1,402,444	5.7%	1,381,161	4.2%	1,503,595	6.6%
									range	0%-8%			range	0%-8%		
Net Operating Revenues:																
Inc./(Loss) before Capital & Other	(28,583)		(29,715)		25,295		(27,977)		(101,233)		(8,033)		(21,657)		18,463	
Operating plus Nonoperating Revenues	881,968	-3.2%	1,005,933	-3.0%	1,084,460	2.3%	1,084,460	-2.6%	1,117,523	-9.1%	1,117,523	-0.7%	1,214,223	-1.8%	1,214,223	1.5%
									range	0%-6%			range	0%-6%		

[(1)] Debt service and debt excludes State paid debt, SELP.
[(2)] Total Expenses: Operating Expenses and Principal and Interest Paid less Depreciation Expense
[(3)] Expendable Net Assets: Unrestricted Net Assets and Expendable Restricted Net Assets, excluding Capital Projects
[(4)] Total Adjusted Expenses: Operating Expenses and Interest Expense
[(5)] Change in Net Assets: Adjusted for Special Item - Change in Entity and Change in Accounting Principle

Shading indicates outside the board's tolerances.

Figure 1: Summary of the Ten-Year Business Forecast for Corvallis E&G funds. *Top* is total revenues and expenditures (plus net transfers), *middle* shows ending fund balances as a percentage of revenues, and *bottom* shows annual operating balance. The baseline case assumes no additional enrollment initiatives. The baseline with reductions requires sufficient reductions in expenditures to maintain at least a 12% ending fund balance. The “with initiatives” curves assume that the two Corvallis enrollment initiatives are successful.





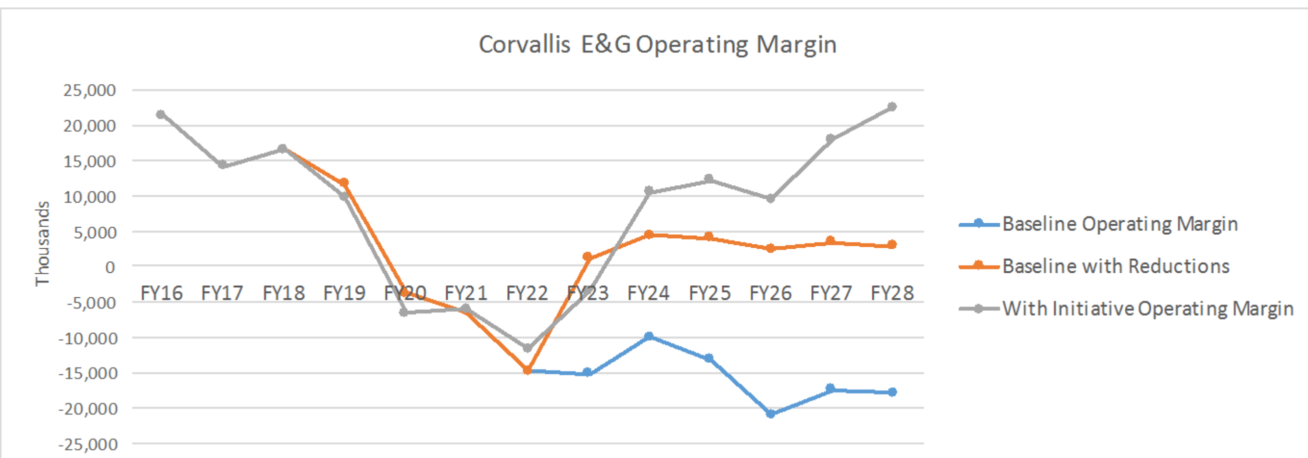


Figure 2: Summary of the Ten-Year Business Forecast approved by the IWG for Corvallis E&G (*top*), Corvallis self-support (*middle*), and Cascades (*bottom*). Bar height is total project cost and color codes show the source of funding.

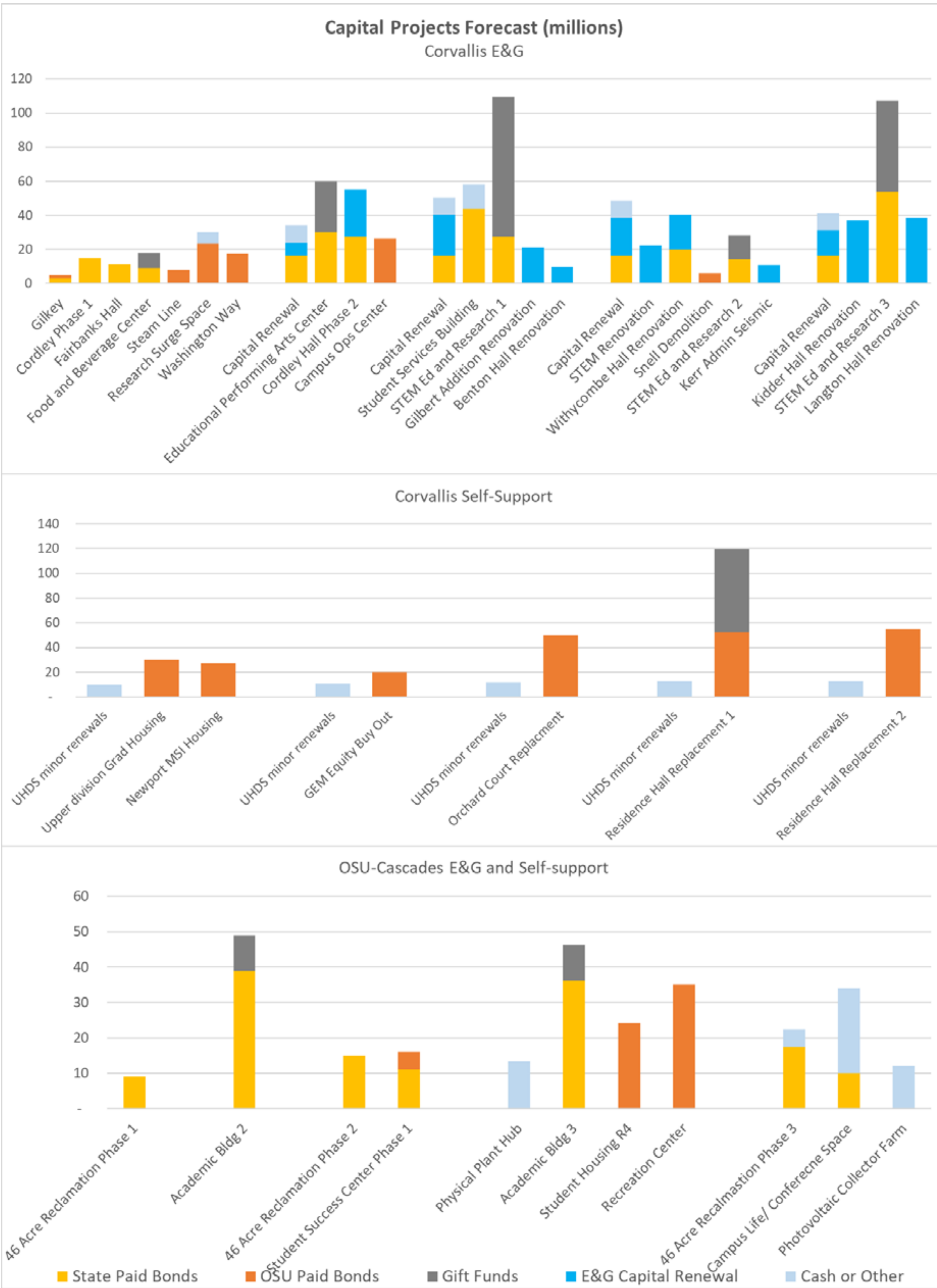


Figure 3: Principal financial metrics from FY2016 projected through FY2028 from PFM's Future Perfect tool (note that the Debt to Revenues ratio is similar to the Debt Burden ratio and is omitted here). These are based on the benchmark scenario with the capital projects identified by the IWG. The gray line shows the ratios for the benchmark scenario and the black line show the ratios with the initiatives successfully implemented.

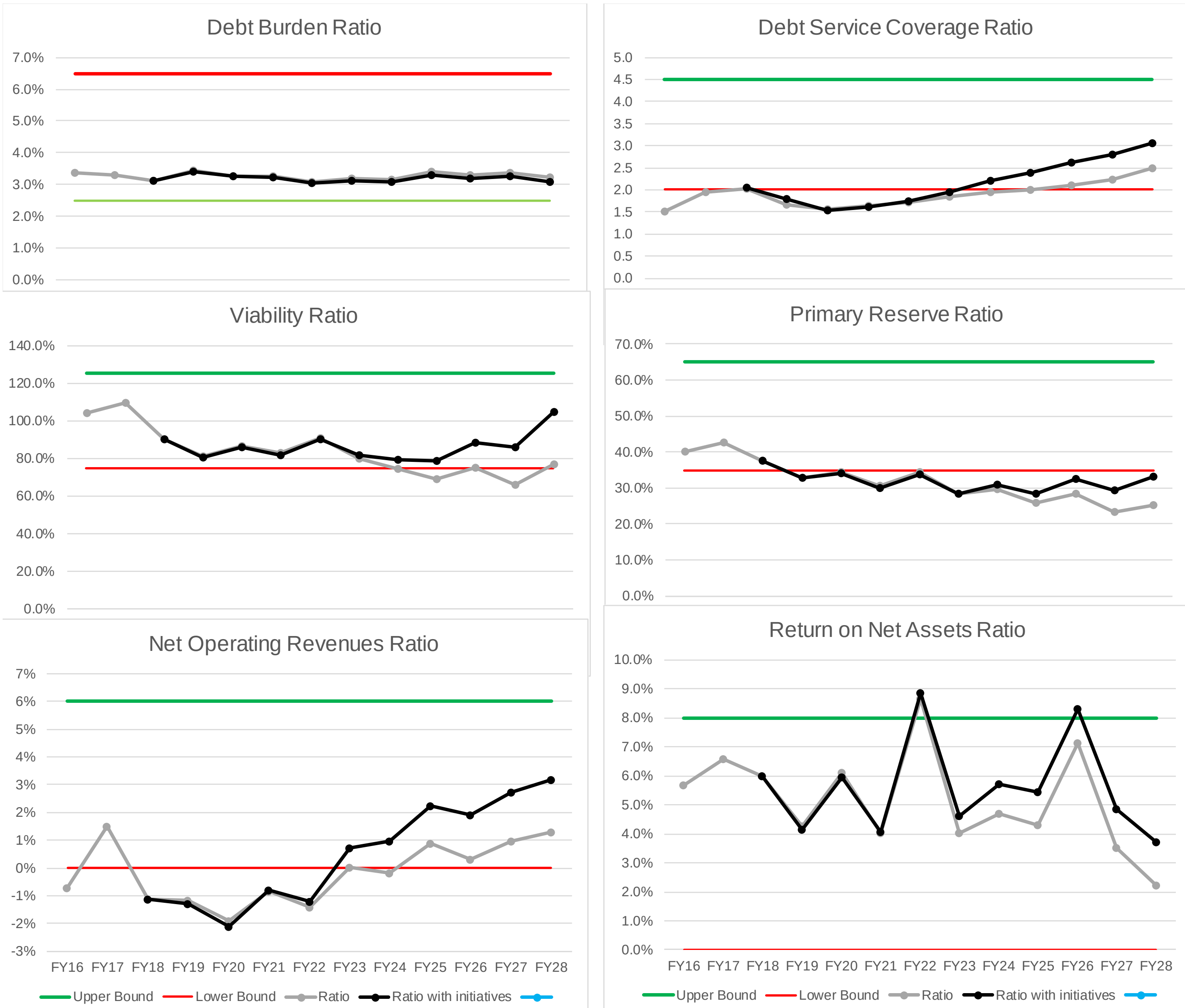


Figure 4: Forecast scenarios for Corvallis E&G operations showing annual operating margin (top) and ending fund balance (bottom). Scenarios are described in the text.