

Best Practices
**Strategic Financial
Forecasting**



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University of Dayton

- Top-tier Catholic research university offering undergraduate through doctoral degrees
 - Ohio's largest independent university and among the top-10 Catholic universities nationwide
 - Founded in 1850 as St. Mary's Institute for Boys by a Marist priest on land purchased for a promise of \$12,000 and a St. Joseph's medal
 - Renamed the University of Dayton in 1920
 - Comprises a diverse community committed (in the Marist tradition) to educating the whole person and to linking learning and scholarship with leadership and service

“Learn, Lead and Serve”

- Academics
 - College of Arts & Sciences
 - Graduate School
 - School of Engineering
 - School of Business Administration
 - School of Education and Health Sciences
 - School of Law
 - Professional and Continuing Education

University of Dayton

- Enrollment

- Undergraduate ~ 7,500 FTE
- Graduate ~ 1,480 FTE
- Law ~ 250

- Income

Operating revenues (000's)	\$435,608
Student tuition and fees	312,893
<i>Less: student financial aid</i>	(105,967)
Net tuition and fees	206,926
Government grants and contracts	72,152
Private gifts and grants	30,557
Investment return	29,239
Auxiliary enterprises	88,584
Other revenues	8,150

- Endowment (000's) ~ \$435,000

- Debt (000's) ~ \$400,000

Challenges



Dayton Challenges

- Enrollment and Financial Aid
 - Meeting enrollment targets is challenging in light of the declining number of high school graduates in both Ohio and the Midwest
 - Marketing
 - Tuition discounting
 - Affordability
- Cost control
- New revenue sources
- Healthcare costs
- Maintenance
 - 388 acre campus
 - 150 buildings
 - 400 houses in the Student Neighborhood

Dayton Challenges

- New pricing structure
 - “Tuition Guarantee”
 - Net tuition is held flat for 4 years
 - No additional fees or surcharges
- Personnel expenses
 - Raises
 - Skyrocketing healthcare costs
- Facilities and deferred maintenance
 - Considerable investments in facilities required
- Debt
 - Constrained debt capacity (to maintain current ratings)
- Need to model the prospective financial impact of all these competing draws on resources

Key Elements of a Strategic Financial Forecasting Platform



The PFM Group
Public Financial Management, Inc.
PFM Asset Management LLC
PFM Advisors

The Problem

- At most colleges and universities, **strategic financial forecasting** is often difficult
 - Complex (multi-variable, multi-order) relationships among key variables
 - Data is often scattered among budgeting systems, accounting systems, ERP systems, and *single-focus* models
 - Difficult to project a Balance Sheet
 - Difficult to track Net Assets
 - Most institutions are resource constrained
- Mission-level questions from key stakeholders (Board, President, finance committee, investors, rating agencies) take days, weeks, or even months to answer
 - Answers are not comprehensively determined and are often one-dimensional
 - Staff is inefficient in providing the answers because there is no single institutional analytical approach
- Stakeholders should be able to get nearly **immediate feedback** on key strategic questions
- An institution's **strategic plan** should be crossed against a reliable **business plan** (with supporting sensitivity analysis)

We are NOT just talking about
a projection of the budget
 $YR_2 = YR_1 * (1 + r)$

The Solution

- Develop a **comprehensive, fully-integrated**, and totally **customized** strategic/financial forecasting and analysis that unites all campus-wide planning activities into a **single institutional point of view**
- Quantify the strategic ramifications of changing operating variables, operating initiatives, capital projects, and funding alternatives



Key Aspects of Effective Strategic Forecasting

- Establish relationships among key *independent* operational drivers
 - Mimic your **business model**
 - Consider **multi-order** relationships
 - Develop **bottom-up** analysis (*not just YOY growth*)
 - Integrate **balance sheet** items into the platform
 - Investments – cash, short-term, funds held in trust, debt-related, annuity, long-term, endowed
 - Facilities – mimic the fixed-asset note of your financial statements
 - Debt – by type, by series, by issuer
 - Space – by type, by population
 - Maintenance backlog -- FCI
- Customize output in consideration of different stakeholder needs
 - GAAP-based financial statements (above and below the line)
 - Cash-based Budgetary (P&L) statements – cross-walk between GAAP and Cash
 - Financial ratios and other metrics
 - Rating agency ratios/metrics – benchmarks, Scorecard
 - Composite Financial Index (CFI)
 - Facilities condition index (FCI)
 - State-required metrics
 - In-house targets

Key Aspects of Effective Strategic Forecasting

- Incorporate structure that permits easy sensitivity analysis
 - Operating initiatives
 - Capital projects
- Check veracity of projection logic (reconcile to audited financial statements)
- Create architecture that permits easy evolution of the model


Axioms of Strategic Financial Forecasting

- Do not let the *Perfect* become the enemy of the *Good*
 - Consider what you *need* versus what you *want*
 - *Walk* before you *run* -- create more complexity and structure *in the future*
 - Model initiatives *on the margin*
 - Do not model to the *exception*
 - Do not craft *false precision*

Simplify your design

Student types
Undergraduate
Full-time (<i>cohort-based</i>)
Entering freshman
Transfers
Part-time
< 12 SCHs
Overloads
Summer
I
II
Graduate
Full-time (<i>cohort-based</i>)
Full-time (<i>SCH-based</i>)
Part-time
Summer
I
II
Online
Continuing education

X In-state *versus* **X** # of schools or colleges **X** # programs or departments
Out-of-state *(for publics)*



- Additional data requirements
- Additional structure to navigate
- Slower calculation speeds

TO WHAT END?

On the margin

Employee types

Faculty

Tenured and tenure-track

Non-tenure track

Adjuncts

Lecturers

Visting

Staff

Exempt/non-classified

Non-exempt/classified

Students

X # of schools or colleges **X** # programs or departments + central administration

X # of Benefits rates **X** # Functions **X** # of bargaining units
(for publics)

- Additional data requirements
- Additional structure to navigate
- Slower calculation speeds

TO WHAT END?

Do not focus on the exceptions

Non-personnel expense types

GAAP and Cash

- General
- Materials and supplies
- Utilities
- Cost of goods sold
- Insurance
- Travel
- Renewal and maintenance
- OPEBs

GAAP only

- Off-setting expense for in-kind
- ARO accretion

Cash only

- Capitalized expenditures
- Contingency

Think in terms of MODELING, not Academics

X # of schools or colleges **X** # programs or departments **+** central administration



- Additional data requirements
- Additional structure to navigate
- Slower calculation speeds

TO WHAT END?

No false precision

Current Year

Forecast

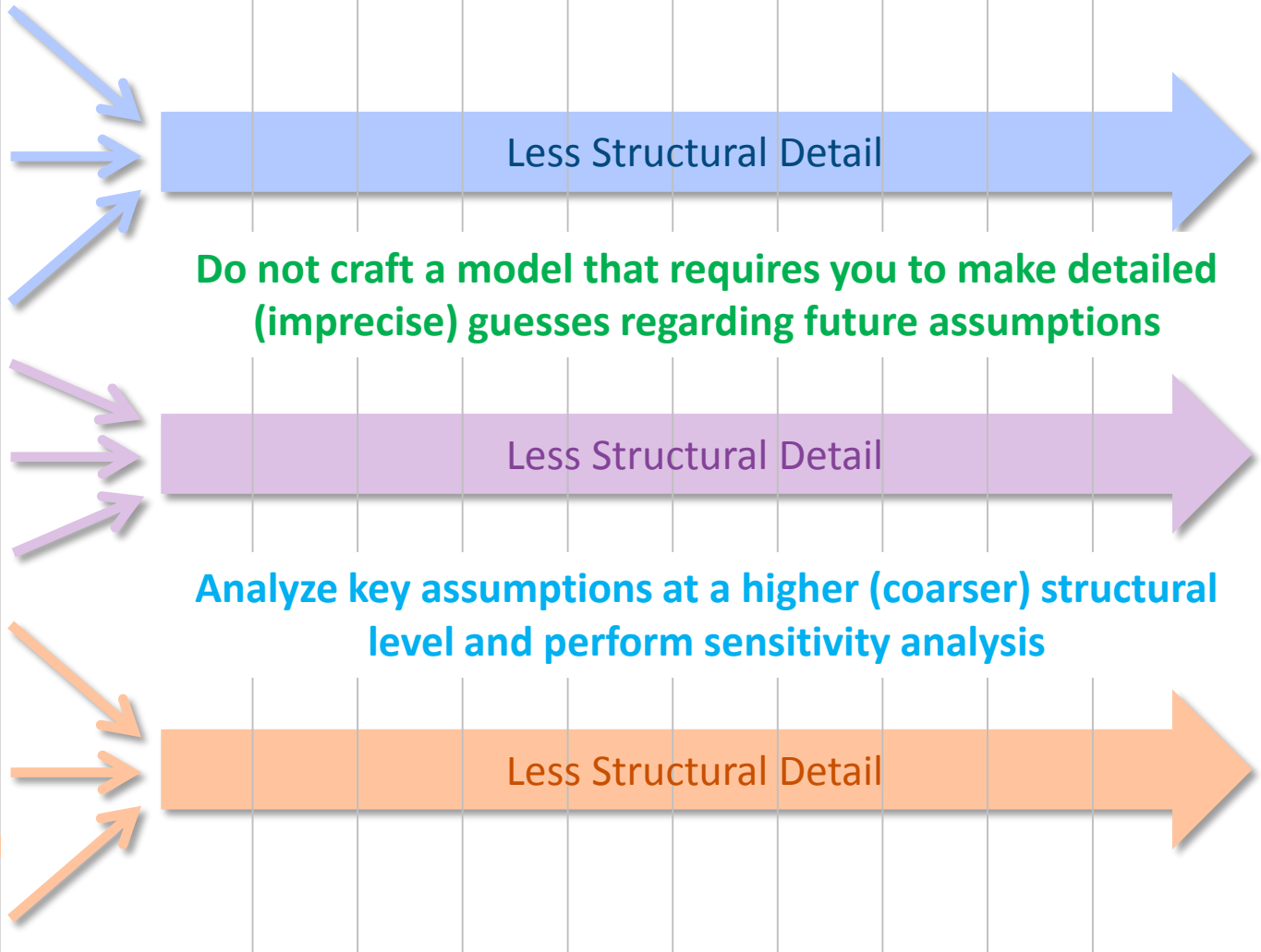
FY +1 FY +2 FY +3 FY +4 FY +5 FY +6 FY +7 FY +8 FY +9 FY +10

100's of student types

Student types
Undergraduate
Full-time (cohort-based)
Entering freshman
Transfers
Part-time
< 12 SCHs
Overloads
Summer
I
II
Graduate
Full-time (cohort-based)
Full-time (SCH-based)
Part-time
Summer
I
II
Online
Continuing education
Employee types
Faculty
Tenured and tenure-track
Non-tenure track
Adjuncts
Lecturers
Visiting
Staff
Exempt/non-classified
Non-exempt/classified
Students
Non-personnel expense types
GAAP and Cash
General
Materials and supplies
Utilities
Cost of goods sold
Insurance
Travel
Renewal and maintenance
OPEBs
GAAP only
Off-setting expense for in-kind
ARO accretion
Cash only
Capitalized expenditures
Contingency

100's of employee types

1,000's of expense object codes



Benefits



Benefits of Strategic Forecasting

- **Better decision-making**
 - Ground conversations
 - Provide feedback
- **Better capital budgeting**
 - Consider timing, cost, and funding on an integrated multi-year basis
 - Better assessment of affordability
 - Better allocation of scarce resources
- **Better communication**
 - Within the institution
 - With Trustees
 - With outside stakeholders (contributors, rating agencies, accreditation bodies, lenders)
- **Better oversight and control**

Strategic Forecasting at Dayton

- Operations
 - Enrollment – prospective demographic pressures
 - Pricing – Tuition Guarantee
 - Aid – alternative vis-à-vis discount
- Capital projects
 - Prospective financial impacts of capital investments
 - Consider funding alternatives
 - Debt – impact on debt capacity and ratings
 - Gifts
 - Institutional resources
- Better information for the Board
 - *Pro forma* GAAP-based financial statements
 - Better decision-making tool

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