Topics

- Endowment Concepts
- Building an endowment forecast in Tidemark
- Other notes and next steps
1 WHAT IS THE ENDOWMENT?
WHAT IS STANFORD’S ENDOWMENT?

1. Gifts and funds functioning as endowment invested to support the university in perpetuity
2. By law, only income and related gains can be spent on donor’s intended purpose
3. 81% of endowment funds hold shares in diversified portfolio, the Merged Pool, which operates like a mutual fund, valued monthly
4. $27.7B market value as of August 2019
5. 8,600 individual endowment principal funds
WHAT IS THE ROLE OF ENDOWMENT IN STANFORD’S BUDGET?
What does the endowment support?

2019/20 Consolidated Revenues: $6,758.3M

- Endowment, 20%
- Student Income, 15%
- University Sponsored Research, 17%
- SLAC, 7%
- Health Care Services, 21%
- Other Income, 9%
- Other Investment Income, 4%
- Gifts and Net Assets Released from Restriction, 7%

- Unrestricted 17%
- Instruction and Departmental Research 32%
- GR Fin Aid 13%
- UG Fin Aid 12%
- Other 6%
- Faculty 21%
Payout varies as % of revenues

Endowment Payout by Budget Unit

- VP UG Ed: $38M (57%)
- Law: $48M (46%)
- Engr: $70M (23%)
- Business: $90M (31%)
- UG Aid: $114M (60%)
- Hum & Sci: $172M (40%)
- Medicine: $193M (10%)

Stanford University
Why detailed endowment forecasts are important
WHAT IS STANFORD’S ENDOWMENT PAYOUT POLICY?
Endowment Payout Policy Goals

Intergenerational Equity

Endowment Payout

- Current

- Future Generations

Budgetary Stability

- Market
- Payout

Year 1  Year 2  Year 3  Year 4  Year 5  Year 6  Year 7  Year 8
Long Term Policy Assumptions

Expected Long-term Total Return: 9.0%
Reinvestment to Maintain Purchasing Power: 3.5%
Target Endowment Payout Rate: 5.5%
Stanford’s Smoothing Formula

1. **Target Payout Rate** (5.5%) for intergenerational equity

2. **Smoothing** to achieve budgetary stability
   - 70% of current payout per share + 30% of target payout per share

3. **Payout Rate Boundaries** of 4.0% and 6.0% to ensure prudent payout

4. **BoT Discretion** can override these parameters, as in FY17 and FY21
Applying the Smoothing Formula to calculate 2020-21 Payout per Share

2019-20 Payout per Share

$19.25

Target Payout per Share = 5.5% x $345.14
(Nov. 30, 2019 share price)

$18.98

2019-20 Smoothed Payout per Share

$19.17

Growth to a typical fund +3.1%

2020-21 Proposed Payout per Share

$19.84

Per BoT decision, this payout per share applies only to Student Aid awards. Payout on other awards will decline to $17.33
Temporary Student Aid Payout Change

Due to COVID-19 and market volatility, SU Board of Trustees reduced most FY21 endowment payout by 10%, while allowing Student Aid (STA) payout to grow ~3%.

› Higher STA payout helps units locked into cohort sizes and increased assistantship/stipend/tuition rates

- Payout principles
  › STA funds set at $19.84 payout per share (PPS); other endowments at $17.33 PPS (FY20 PPS is $19.25)
  › Adhere to existing donor restrictions, rules on underwater funds, etc.
  › Keep STA payout flat in future years until other endowments “catch up”
  › Prevent any cross-subsidy among funds – sell STA shares to make extra STA payout
Normal payout: cash distributed from MP, no change to shares

Result of keeping normal payout mechanism to make STA payout

Share price declines for all funds due to normal and STA payout... but only STA funds get extra payout

Inappropriate subsidy to STA funds
Normal payout: cash distributed from MP, no change to shares

<table>
<thead>
<tr>
<th>Current Practice</th>
<th>Merged Pool</th>
<th>Income Funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Value</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shares</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Share price declines due to normal payout

All funds receive normal payout

Result of selling STA shares to make STA payout

<table>
<thead>
<tr>
<th>With STA Sale</th>
<th>Merged Pool</th>
<th>Income Funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Value</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shares</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Share price declines due to normal payout, but shares sold only for STA funds

Proper Funding of STA Payout
Payout growth in recent years has lagged Stanford’s expense growth and will decrease in FY21 for non-Student Aid awards.

2016-17 Payout held flat by Board

2020-21 STA Payout +2.7%
2020-21 Other Funds Payout -10%

FORECAST
TIMELINE FOR APPROVAL OF ENDOWMENT

December
- Determine proposed payout per share for next fiscal year, using November share price

February
- Board of Trustees approval of endowment payout per share

June
- Board of Trustees approval of Budget Plan

September (Begin Fiscal Year)
- New payout per share goes into effect
HOW IS ENDOWMENT PAYOUT CALCULATED?
Shares Types are Important

<table>
<thead>
<tr>
<th>Payout Resources by Share Type:</th>
<th>Earnings</th>
<th>Appreciation</th>
<th>Original Principal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pure A</td>
<td>Y</td>
<td>NO</td>
<td>NO</td>
</tr>
<tr>
<td>Pure B Limited</td>
<td>Y</td>
<td>If available</td>
<td>NO</td>
</tr>
<tr>
<td>Pure B Unlimited</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Quasi B</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Quasi T</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
</tbody>
</table>
### 4 Steps to Calculate Payout

**STA awards subject to one extra step**

<table>
<thead>
<tr>
<th>Step</th>
<th>Normal Awards</th>
<th>STA Awards</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>Calculate Maximum Payout</strong></td>
<td>Approved payout per share x # of shares</td>
<td>FY21 Rate: $17.33</td>
</tr>
<tr>
<td>2. <strong>Evaluate Payout Resources</strong></td>
<td>Resources = Earnings + Appreciation + Principal (if allowed)</td>
<td>FY21 Rate: $19.84</td>
</tr>
<tr>
<td>3. <strong>Allocate Payout to the Income Fund</strong></td>
<td>If Resources &gt; Max Payout → Allocate full Payout</td>
<td>No change for STA</td>
</tr>
<tr>
<td></td>
<td>If Resources &lt; Max Payout → Allocate Earnings + Appreciation</td>
<td></td>
</tr>
<tr>
<td>4. <strong>Reinvest Undistributed Payout (if applicable)</strong></td>
<td>Funds that don't receive full payout (e.g., underwater award): Reinvest undistributed payout to purchase new shares.</td>
<td></td>
</tr>
</tbody>
</table>

#### STA Awards Only

- **Sell Shares to Fund Extra Payout**
  - Sell Shares to Fund Extra Payout: $19.84 - $17.33 = **$2.51 to be sold**

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**Sell Shares to Fund Extra Payout:**

- $19.84 - $17.33 = **$2.51 to be sold**
Fingate Endowment Info and Resources

Includes video tutorials and additional Powerpoint presentations

https://web.stanford.edu/group/fms/fingate/staff/fundsmgmt/endowment.html
Tidemark Endowment Process

Step 1: Review growth in Book Value as a guide for future principal additions

Step 2: Review pledges and enter future principal assumptions to appropriate version

Step 3-4: After Calculations complete: Check results and compare versions

Step 5-8: Explore other reports
Review growth in Book Value as guide for future principal additions. Open Annual Trend Panel and select time and metric.

Set Metrics to Ending Book Value to evaluate principal growth over time.

Time defaults to current year which displays 2 years of actuals, current year and 2 years of projection. Setting Time back by 3 years will display 6 years of Actuals to evaluate.

Evaluate the Org year over year growth to gain insight into how much growth to project in the coming years. Your principal growth assumptions may be entered as a pool or you may choose to project growth on specific awards.
Review pledges and enter future principal assumptions
Open ENTRY: Principal Assumptions panel

Scroll through awards and review pledge data. We recommend entering pledges as new gifts.
Select the initiative icon on the sidebar to enter new gift assumptions.

Itemization entry shown on next page
Use Itemizations to enter new gift assumptions

<table>
<thead>
<tr>
<th>Date</th>
<th>Version</th>
<th>Award</th>
<th>Share Type</th>
<th>Datasrc</th>
<th>Amount</th>
<th>Notes</th>
</tr>
</thead>
</table>

Use Version to enter other what-if scenarios as appropriate to compare with Base Case.

Click +NEW to add new blank rows.
Use drop down selections to enter Date, Version, Award, Share Type, and Datasrc.
Enter Amount and optional Notes
Use checkbox to Clone or Delete rows
Click SAVE
Check payout results after overnight calculations are complete

Compare versions against base case

Select your Version here to compare with Base Case
Check payout results after overnight calculations are complete

Open Monthly Trend panel

On the Monthly Trend panel, look for payout changes in the month after new gifts were added to principal.
**Org Tree View**
- Use to view payout, principal data in Org tree view
- Shows 5 year growth percentages by Org
Full Detail Report
- use to view all award attributes
- useful as a data dump panel

<table>
<thead>
<tr>
<th>AWARD</th>
<th>TIME</th>
<th>METRICS</th>
<th>SHARE TYPE</th>
<th>ENDOWMENT CATEGORY VERSION</th>
<th>SHARE TYPE</th>
<th>Award Purpose</th>
<th>CB Award Type</th>
<th>Share Type</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDFA - UG Aid</td>
<td>FY 2021</td>
<td>Payout</td>
<td>All Share Types</td>
<td>Approved Version: FY21 Payout @ $17,33; STA Payout @ $19,84</td>
<td>All Share Types</td>
<td>$117,151,620</td>
<td></td>
<td>Pool A Pure</td>
<td>$269,903</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Pool B Limited</td>
<td>$54,877,886</td>
<td></td>
<td>Pool B Quesi</td>
<td>$23,115,642</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Pool B Unlimited</td>
<td>$38,886,109</td>
<td></td>
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</tr>
<tr>
<td>KAAAB</td>
<td></td>
<td></td>
<td>No Payout Exception</td>
<td></td>
<td>All Share Types</td>
<td>$30,006</td>
<td></td>
<td>Pool B Limited</td>
<td>$30,006</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>Pool B Unlimited</td>
<td>$113,315</td>
<td></td>
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<tr>
<td>KAAAC</td>
<td></td>
<td></td>
<td>No Payout Exception</td>
<td></td>
<td>All Share Types</td>
<td>$30,006</td>
<td></td>
<td>Pool B Unlimited</td>
<td>$113,315</td>
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<td>Pool B Unlimited</td>
<td>$113,315</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
Principal Health Report
- use to view awards that are Above/Underwater

<table>
<thead>
<tr>
<th>Award</th>
<th>Time</th>
<th>Metrics</th>
<th>Share Type</th>
<th>Endowment Category</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>KAAAB - Fabela, Augie...</td>
<td>2019 Feb</td>
<td>All Principal</td>
<td>All Share Types</td>
<td>All Categories</td>
<td>Base Case</td>
</tr>
<tr>
<td>KAAAC - Frink, Lloyd...</td>
<td>2019 Feb</td>
<td>All Principal</td>
<td>All Share Types</td>
<td>All Categories</td>
<td>Base Case</td>
</tr>
<tr>
<td>KAAAD - Kauffman, Rich...</td>
<td>2019 Feb</td>
<td>All Principal</td>
<td>All Share Types</td>
<td>All Categories</td>
<td>Base Case</td>
</tr>
</tbody>
</table>

### Base Case

#### All Categories

<table>
<thead>
<tr>
<th>Ending Book Value</th>
<th>Ending # of Shares</th>
<th>Market Value</th>
<th>$ Above/Underwater</th>
<th>% Above/Underwater</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019 Feb 477,238</td>
<td>1,518</td>
<td>499,345</td>
<td>22,107</td>
<td>4.4%</td>
</tr>
<tr>
<td>2019 Feb 1,489,423</td>
<td>4,838</td>
<td>1,591,761</td>
<td>102,338</td>
<td>6.4%</td>
</tr>
<tr>
<td>2019 Feb 375,226</td>
<td>1,614</td>
<td>531,049</td>
<td>155,823</td>
<td>29.3%</td>
</tr>
</tbody>
</table>
## Planning Assumptions
- Updated monthly and view only

### Financial Planning >> Endowment Planning >> FY 2020: Planning Assumptions for FDFA - UG Aid

<table>
<thead>
<tr>
<th>TIME</th>
<th>VERSION</th>
<th>Approved Version: FY21 Payout @ $17.33; STA Payout @ $19.84</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 2021</td>
<td>Approved Version: FY...</td>
<td>APPLY</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pool B</th>
<th>FY 2021</th>
<th>FY 2022</th>
<th>FY 2023</th>
<th>FY 2024</th>
<th>FY 2025</th>
<th>FY 2026</th>
<th>FY 2027</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual / Projected Payout per Share</td>
<td>$17.33</td>
<td>$18.31</td>
<td>$19.23</td>
<td>$20.11</td>
<td>$20.95</td>
<td>$21.77</td>
<td>$22.59</td>
</tr>
<tr>
<td>Actual / Projected Growth Rate</td>
<td>(9.97%)</td>
<td>5.65%</td>
<td>5.02%</td>
<td>4.58%</td>
<td>4.18%</td>
<td>3.91%</td>
<td>3.77%</td>
</tr>
<tr>
<td>Actual / Projected Payout from Earnings</td>
<td>$1.69</td>
<td>$1.73</td>
<td>$1.77</td>
<td>$1.81</td>
<td>$1.86</td>
<td>$1.9</td>
<td>$1.94</td>
</tr>
<tr>
<td>Student Aid Actual / Projected Payout per Share</td>
<td>$19.84</td>
<td>$19.84</td>
<td>$19.84</td>
<td>$20.11</td>
<td>$20.95</td>
<td>$21.77</td>
<td>$22.59</td>
</tr>
<tr>
<td>Student Aid Growth Before Sale of Shares</td>
<td>3.06%</td>
<td>0%</td>
<td>0%</td>
<td>1.36%</td>
<td>4.18%</td>
<td>3.91%</td>
<td>3.77%</td>
</tr>
<tr>
<td>Student Aid Growth Adjustment for Sale of Shares</td>
<td>(0.35%)</td>
<td>(0.6%)</td>
<td>(0.32%)</td>
<td>(0.09%)</td>
<td>0%</td>
<td>3.91%</td>
<td>3.77%</td>
</tr>
<tr>
<td>Student Aid Actual / Projected Payout Growth</td>
<td>2.71%</td>
<td>5.68%</td>
<td>1.27%</td>
<td>5.38%</td>
<td>4.18%</td>
<td>5.45%</td>
<td>5.48%</td>
</tr>
<tr>
<td>Student Aid Actual / Projected Payout Rate</td>
<td>5.88%</td>
<td>9%</td>
<td>5.49%</td>
<td>9%</td>
<td>5.42%</td>
<td>9%</td>
<td>5.48%</td>
</tr>
<tr>
<td>Actual / Projected Total Return</td>
<td>$337.2397</td>
<td>$349.3103</td>
<td>$361.4635</td>
<td>$373.7623</td>
<td>$386.2634</td>
<td>$399.0199</td>
<td>$412.0711</td>
</tr>
<tr>
<td>11/30 Share Price</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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**Note:** The values are updated monthly and are view-only, as indicated.
## Troubleshooting Payout Lower Than Expected

- Typically due to an underwater Pool B Limited award
- Use Principal Health report to confirm underwater status and see payout drop
**Troubleshooting Payout Higher Than Expected**

- Typically due to a mid-year gift to principal
- Use Principal Health report to view changed book value and mid-year payout

### FY20: Annual Trend for AA00 - Stanford University

<table>
<thead>
<tr>
<th>Payout</th>
<th>FY 2020</th>
<th>FY 2021</th>
<th>FY 2022</th>
<th>FY 2023</th>
<th>FY 2024</th>
<th>FY 2025</th>
<th>Y1 - Y2 Growth %</th>
<th>Y2 - Y3 Growth %</th>
<th>Y3 - Y4 Growth %</th>
<th>Y4 - Y5 Growth %</th>
<th>Y5 - Y6 Growth %</th>
</tr>
</thead>
<tbody>
<tr>
<td>KEJAK - The Sea Group Fellowship Fund</td>
<td>$118,214</td>
<td>$291,386</td>
<td>$289,597</td>
<td>$288,613</td>
<td>$289,905</td>
<td>$301,675</td>
<td>146.49%</td>
<td>(0.61%)</td>
<td>(0.34%)</td>
<td>0.45%</td>
<td>4.06%</td>
</tr>
</tbody>
</table>

### FY20: Principal Health Report for AA00 - Stanford University

<table>
<thead>
<tr>
<th>Ending Book Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>KEJAK - The Sea Group Fellowship Fund</td>
</tr>
<tr>
<td>Historical Payout</td>
</tr>
</tbody>
</table>
Other Notes

- This model only forecasts Pool A, Pool B, and Pool T payout
  - Only payout reinvestments tagged in Oracle as monthly and required are calculated automatically; users can enter elective reinvestments
  - Payout from specific investments is not forecasted

- Updated with monthly Actuals on ~16\textsuperscript{th} of each month
Next Steps

- Budget Officers can grant authority using Endowment Manager/Viewer roles
- Use of additional versions - versions allow ‘what-if’ analyses
  (https://stanford.box.com/v/EndowmentVersionsJobAid)
- Email ubo-budgetsys@lists.stanford.edu when you want payout forecast moved to Booked Budget

Future Enhancements

- Automatic Migration of Payout Data – timing TBD
- More reports – Award Dashboard, Forecast Accuracy report – Timing TBD
Send questions to:

1) Your Budget Officer
2) ubo-budgetsys@lists.stanford.edu