Endowment & Similar Funds
Investment Review
As of June 30, 2003

This cover page provides a summary overview of the PSU Endowment and Similar Funds for fiscal 2003. The next page summarizes pertinent information that is discussed on the remaining pages.

Executive Overview

Endowment and Similar Funds Market Value — Penn State University’s Endowment and Similar Funds were valued at $965.5 million as of June 30, 2003, including the Long-Term Investment Pool’s $882.4 million in investment assets.

Review of Investment Markets — US stocks reversed the downward trend that had hung over the equities markets for the last two years, as favorable earnings prospects enabled the S&P 500 Index to finish essentially unchanged for the year ending June 30. The Nasdaq Index and the Lehman Bond Index both posted double-digit gains, as illustrated below:

![Graph showing investment performance by asset class and manager performance for 2002 and 2003.]

(Detailed analysis can be found on page four inside.)

Investment Diversification and Asset Mix — As of June 30, 2003, 45% of the pool assets was invested in domestic and foreign equities, 32% in fixed income/cash, and 23% in alternative investments (real estate, private capital, and energy). This was consistent with Penn State’s Strategic Asset Allocation.

Comparative Fund Performance — Penn State’s Long-Term Investment Pool returned 0.5% for the fiscal year ending June 30, 2003. For the trailing 3- and 5-years, the fund averaged -3.3% and 3.0% annually. These net-of-fee returns are in line with Penn State’s Strategic Policy Portfolio.

Asset Class/Manager Performance — Although most equity-based portfolios performed modestly last year, emerging market portfolios were standout performers, as were bonds.

Long-Term Investment Pool and Spending — Penn State’s Long-Term Investment Pool has grown markedly over the last 10 years, allowing spending to increase steadily at the same time.
The Penn State Investment Council (PSIC) met on June 20, 2003 and approved:

- Terminating Value and Growth Opportunities portfolios managed by the Commonfund and redeploying assets gradually among current domestic equity managers
- Hiring Chartwell Investment Partners as the Endowment’s Small Cap Growth Manager
- Committing $5 million to Oaktree Opportunities Fund V
- Investing $31 million in recent gifts in accordance with Strategic Policy

The Investment Council met on March 7, 2003 and approved:

- Committing $3 million to Commonfund Natural Resources Fund V, and $5 million to Natural Gas Partners VII
- Terminating Tactical Asset Allocation portfolio managed by Mellon Capital Management and redeploying assets to an S&P 500 equity index fund
- Reaffirming equity allocation not to exceed 70% of Endowment assets

The Investment Council met on December 13, 2002 and approved:

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### Year Endowment Facts and Figures

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<tbody>
<tr>
<td><strong>Investment Performance</strong></td>
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<tr>
<td>LTIP* (annualized returns)</td>
<td>0.5%</td>
<td>-6.1%</td>
<td>-4.3%</td>
<td>17.2%</td>
<td>9.6%</td>
</tr>
<tr>
<td><strong>Market Values ($ millions)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LTIP*</td>
<td>882.4</td>
<td>842.1</td>
<td>899.0</td>
<td>926.5</td>
<td>730.7</td>
</tr>
<tr>
<td>Similar Funds**</td>
<td>83.1</td>
<td>100.7</td>
<td>87.3</td>
<td>77.1</td>
<td>59.9</td>
</tr>
<tr>
<td><strong>Total Endowment</strong></td>
<td>965.5</td>
<td>942.8</td>
<td>986.3</td>
<td>1,003.6</td>
<td>790.6</td>
</tr>
<tr>
<td>Gifts &amp; Other Additions ($ mls)</td>
<td>75.3</td>
<td>64.6</td>
<td>56.2</td>
<td>101.9</td>
<td>119.6</td>
</tr>
<tr>
<td>Current Spending ($ mls)</td>
<td>51.3</td>
<td>46.4</td>
<td>42.5</td>
<td>32.4</td>
<td>23.9</td>
</tr>
</tbody>
</table>

* Long-Term Investment Pool — Includes Endowment assets over which Penn State’s Office of Investment Management has direct investment control
** Similar Funds — Includes Deferred Gifts and funds in transit to LTIP
• Amending Endowment spending policy to calculate spending rate on a five-year moving average (previously, three-year moving average)

The Investment Council met on September 27, 2002 and approved:

• Reviewing and rebalancing, if necessary, the Long-Term Investment Portfolio (LTIP) at calendar and fiscal year-ends
Endowment and Similar Funds Market Value

As of the end of fiscal 2003, Endowment and Similar Funds were valued at $965.5 million, which includes $882.4 million in Long-Term Investment Pool assets. Non-pooled funds – charitable remainder trusts, charitable gift annuities, and other life income funds in addition to some donor restricted funds – accounted for an additional $83.1 million. The annual market values for the University’s Endowment Pool and Similar Funds over the last six years are shown below:

Penn State's Endowment & Similar Funds
Market Value
Fiscal Years Ending June 30

- The Endowment and Similar Funds’ net value increased 2.4% during fiscal 2003. As seen in the table on page 2, new gifts added to the Pool over the last 12 months totaled $75.3 million, while program support (from the Endowment) amounted to $51.3 million.

- The Funds’ nominal $174.9 million increase over the five-year period reflects new gifts and reinvested earnings, after providing cumulative program support of about $196.5 million.

Consistent annual inflows of new gifts, along with positive long-term investment returns, have resulted in a net 22% increase in the Endowment’s value over the last five years.
Review of Investment Markets in Fiscal 2003

After more than 2 years of virtually steady declines, equities turned positive as the S&P 500 and Nasdaq Indexes gained 11.8% and 21.5%, respectively in the first six months of calendar 2003. Bonds continued their positive performance. On the other hand, Real Estate Investment Trusts (REITs) and bonds again registered strong gains for the year ending June 30, 2003. The performance of investment markets that impact the Penn State University’s Long-Term Investment Pool is summarized below.

- **U.S. Equities** — The S&P 500 Index managed a 0.3% gain for the 12 months ending June 30, 2003, led by the Index’s 15.4% gain in the second quarter of 2003. The Nasdaq performed even more dramatically, climbing 21% in the final quarter of fiscal 2003 en route to a 10.9% gain for fiscal 2003. The rally in the first six months of 2003 represents a direct reversal from last year, when the S&P 500 fell 18% and the Nasdaq dropped nearly 33% for the 12 months ending June 2002.

- **Foreign Equities** — Equities in developed economies outside the US trailed the S&P 500 Index, as the Morgan Stanley World Index (ex-U.S.) declined 5.5% for fiscal 2003. However, in fiscal 2002 foreign stocks fared much better than the S&P, resulting in essentially equal performance compounded over the last two fiscal years. In contrast, Emerging Market stocks in less-developed countries gained 4.0% over the last twelve months and 1.5% annualized over the last 2 years.

- **Fixed Income** — Bonds continued their upward march, as the Lehman Aggregate Bond Index (representing various maturities of government and corporate bonds) rose 10.4%. Leading all fixed income assets, long-term government bonds leaped 20.6% in fiscal 2003. The Federal Reserve’s lowering of interest rate has lifted the Aggregate Bond Index by more than 33% over the last three years. In contrast, 91-day Treasury Bills returned just 1.5% in fiscal 2003 versus 2.1% in fiscal 2002 and versus 5.9% two years ago.

- **Real Estate** — Real estate stocks continued to rise, although at a slower pace than in recent years. Real Estate Investment Trusts (REITs) gained 4.0% for the year ending June 30, 2003, and over the last three years, REITs have climbed over 50%.

- **Venture Capital** and **Private Equity** markets continued their declines that began in calendar 2000. While benchmark returns for the current quarter are not yet available, the Cambridge Private Equity Index was down 8.8% and the Cambridge Venture Capital Index was down 26.3% for the 12 months ending March 31, 2003. By comparison, the Russell 2000 Index declined 27.0% for the same period.

**Economic and Market Outlook** — The stock market took a dramatic upturn in the second quarter of 2003. The S&P 500 enjoyed its biggest gain in over 4 years, as investor’s optimism was fueled by better than expected corporate earnings. In addition, the Federal Reserve’s continued expansionary money policies drove interest rates to their lowest levels in nearly 50 years. Nonetheless, the economy’s sluggishness makes it unlikely that equity market performance will be able to match the extraordinary returns of the 1990’s. This scenario suggests that Penn State’s well-diversified endowment portfolio – consisting of bonds, real estate, and private capital in addition to marketable equities – is the proper investment approach for long-term growth and sustainable spending.
**Investment Diversification and Asset Mix**

As we have often stressed, asset allocation is the primary determinant of investment performance and risk control over the long run. The strategic policy asset mix targets a combination of the four major asset classes to maximize return while minimizing volatility. Penn State’s strategic asset mix reflects the Endowment’s infinite investment horizon and the need to preserve purchasing power. It is shown below, along with Penn State’s actual asset mix for fiscal years 2003 and 2002:

- As seen in the left column, the Strategic Policy Asset Mix calls for a 70% allocation to equities – including US-equities, non-US equities, and “alternative” equities (real estate, private capital, and energy) – in order to take advantage of superior asset growth and purchasing power protection offered by equity investments. The remaining 30% is targeted to fixed income (bonds and money market investments) in order to stabilize returns and to provide current income.

- As of June 30, 2003, 45% of pool assets were invested in domestic and international equities. Alternative investments – including real estate, private capital, and energy amounted to 23%. Fixed income securities comprised 32% of total assets, of which nearly 3% was invested in money markets.

- Comparing the middle and right columns above shows a shift away from US Equities in favor of fixed income investments over the past 12 months. This movement from 71% equities in fiscal 2002 to 68% in fiscal 2003 represents a drift away from riskier assets, largely reflecting the previously mentioned weaker performance of stocks relative to bonds.

Our commitment to equities remains substantial because of our expectation that equities will outperform other asset classes in the long run. However, the slowness in the economic recovery has resulted in a temporarily more conservative tilt in the Endowment’s investments. Nonetheless, the fund’s assets are well diversified among liquid domestic and international equities, relatively stable fixed income issues, and high-return, less-liquid “alternative” assets.

The fund’s broad diversification, as embodied in the above asset mix, is designed to moderate the adverse impact of a market decline, while benefiting both present and future generations. As always, our philosophy embraces adherence to a prudent, rational long-term strategy.
Long-Term Strategy and Endowment Performance

The composition of the Endowment’s investment portfolio is guided by the strategic asset mix, as discussed above. Our hypothetical Strategic Policy Portfolio serves as a composite benchmark against which the Endowment’s performance is monitored. In the table and graph below, the respective weightings of the four major asset classes are associated with an appropriate market benchmark to generate Strategic Policy Portfolio returns over 1-, 3-, and 5-year horizons:

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>Benchmark</th>
<th>Weighting</th>
<th>1 Year</th>
<th>3 Years</th>
<th>5 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Equities</td>
<td>S&amp;P 500</td>
<td>35%</td>
<td>0.3%</td>
<td>-11.2%</td>
<td>-1.6%</td>
</tr>
<tr>
<td>Non-U.S. Equities</td>
<td>MSCI World (ex-US)</td>
<td>12</td>
<td>-5.6%</td>
<td>-13.3%</td>
<td>-3.6%</td>
</tr>
<tr>
<td>Alternatives</td>
<td>Custom Index</td>
<td>23</td>
<td>-6.1%</td>
<td>-5.7%</td>
<td>9.8%</td>
</tr>
<tr>
<td>Fixed Income/Cash</td>
<td>Lehman Bonds</td>
<td>30</td>
<td>10.4%</td>
<td>10.1%</td>
<td>7.6%</td>
</tr>
<tr>
<td>Strategic Policy Portfolio (net of fees)</td>
<td>100%</td>
<td>1.2%</td>
<td>-4.5%</td>
<td>3.0%</td>
<td></td>
</tr>
</tbody>
</table>

(It is noted that the static asset allocations used above bias the Strategic Policy Portfolio returns relative to the investment pool whose target mix has varied over the years, as discussed on the previous page.)

Penn State's Pooled Endowment
Comparative Investment Performance

TOTAL FUND to 6/30/03

-5% 0% 5%

*Long-Term Investment Pool
Annualized Total Return Includes Interest, Dividends, Realized and Unrealized Gains/Losses (net of fees)

- Penn State’s Strategic Policy Portfolio returned 1.2% for fiscal 2003 versus 0.5% for the Long-Term Investment Pool. The shortfall is largely due to PSU’s sizeable money market reserves that earned significantly less than the Lehman Bond Index, as well as the Endowment’s allocation to smaller cap equities which underperformed the S&P 500, as explained on the next page.

- For the trailing 3- and 5-years, the endowment has returned -3.3% and 3.0%, respectively, versus a corresponding -4.5% and 3.0% for the Strategic Policy Portfolio.

The Strategic Policy Portfolio provides a guidepost to help achieve long-term results that are consistent with the twin objectives of purchasing power preservation, along with stable endowment spending.
**Asset Class/Manager Performance**

**Domestic Equity Managers:**
As of June 30, 2003, Domestic Equities represented 33% of Endowment assets and were structured in a Core/Satellite configuration. The 22.6% “Core” is indexed to the S&P 500 and the remaining 10.6% is spread among six “Satellite” managers. These managers specialize in assigned style/size disciplines that are reflected in returns which, in the short-run, can vary widely from the “core” benchmarks as follows:

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>Benchmark Return</th>
<th>Manager</th>
<th>Mgr Gross Rtn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large/Mid-Cap</td>
<td>0.3%</td>
<td>Siphron Capital Mgmt</td>
<td>1.8%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Commonfund Value Opps</td>
<td>8.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Commonfund Growth Opps</td>
<td>0.9</td>
</tr>
<tr>
<td>Small-Cap</td>
<td>-1.6%</td>
<td>Reich &amp; Tang</td>
<td>-7.9%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SmallCap Growth</td>
<td>-9.8</td>
</tr>
</tbody>
</table>

(Please note that Institutional Capital Management [ICAP] was hired in the second half of 2002 and therefore does not have a full 12 months of performance history. Also, Chartwell Partners replaced BlackRock in June 2003 as the Endowment’s SmallCap Growth portfolio manager.)

- Both Commonfund Value Opportunities (+8.8%) and Siphron Capital (+1.8%) outpaced the S&P 500 Index in fiscal 2003 by 8.5 points and 1.5 points, respectively. Commonfund Growth Opportunities returned 0.9%, to essentially match the S&P 500.

- Small-cap stocks trailed the overall market, as both the Reich & Tang value approach (-7.9%) and the Small-Cap Growth portfolio (-9.8%) underperformed the Russell 2000 Index’s -1.6%.

**Foreign Equity Managers:**
As of June 30, 2003, non-US Equities represented 12% of Endowment assets, with approximately half invested in “developed” economies and half in “emerging markets” as follows:

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>Benchmark Return</th>
<th>Manager</th>
<th>Mgr Gross Rtn</th>
</tr>
</thead>
<tbody>
<tr>
<td>World ex-U.S.</td>
<td>-5.6%</td>
<td>Commonfund</td>
<td>-3.9%</td>
</tr>
<tr>
<td>Emerging Mkts</td>
<td>+4.0</td>
<td>Commonfund</td>
<td>+7.1</td>
</tr>
<tr>
<td>Emerging Mkts/Far East</td>
<td>-0.9</td>
<td>Oaktree Capital</td>
<td>+4.9</td>
</tr>
</tbody>
</table>

- Commonfund International (-3.9%), Commonfund Emerging Markets (+7.1%), and Oaktree Capital Emerging Market (+4.9%) outperformed their respective benchmarks. The Endowment especially benefited from its holdings in emerging markets, as both the Commonfund and Oaktree Emerging Markets’ portfolios generated solid, positive returns.

**Fixed Income** — The Mellon Bond portfolio’s 10.4% return matched the Lehman Aggregate Bond Index for fiscal 2003, while Commonfund’s Multi-Strategy Bond Fund’s 12.4% return outpaced by 2.0 percentage points. As of the end of 2003, the fixed income portfolio overall had an average maturity of 5.1 years, compared with 6.6 years for June 30, 2002, and 8.6 years for June 30, 2001.

**Alternatives** — Penn State’s Venture Capital and Private Equity composite portfolios returned -34.6% and -6.6%, respectively, while the Real Estate and Energy sectors gained 3.7% and 8.8%, respectively, for the one-year period ending March 31, 2003. By comparison, small capitalization stocks, as measured by the Russell 2000 Index, declined 27.0% for the same period.
**Endowment Growth and Spending**

The chart below illustrates the impact of total investment return, program support, and inflation (as measured by the Higher Education Price Index [HEPI]) on the long-term purchasing power (real growth) of Penn State’s Endowment.

Since June 30, 1984, the total Endowment Pool has returned an average of 10.6% net per year. As illustrated above, approximately half of the Endowment’s growth has supported ever-increasing program spending. The balance has offset the erosive effects of inflation and provided a cushion against market fluctuations. Accordingly, the Long-Term Investment Pool has met the twin (and somewhat conflicting) objectives of generating ample current spending, while maintaining real Endowment growth for future generations.

The 19-year period above includes the prolonged bull market of the 1990s, as well as the sharp sell-off since 2000. To gauge the impact of the stock market sell-off over the last few years, the table below shows annualized returns for the 10- and 15-year periods ending June 30, 2003:

<table>
<thead>
<tr>
<th>Period</th>
<th>S&amp;P 500</th>
<th>Bond Index</th>
<th>Endowment Pool</th>
<th>HEPI</th>
<th>Net Real Rtn</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-years</td>
<td>10.0%</td>
<td>7.2%</td>
<td>8.0%</td>
<td>3.5%</td>
<td>4.5%</td>
</tr>
<tr>
<td>15-years</td>
<td>11.4%</td>
<td>8.6%</td>
<td>8.9</td>
<td>3.9%</td>
<td>5.0%</td>
</tr>
<tr>
<td>Difference</td>
<td>-1.4%</td>
<td>-1.4%</td>
<td>-0.9%</td>
<td>-0.4%</td>
<td>-0.5%</td>
</tr>
</tbody>
</table>

As seen in the differences between the 10- and 15-year annual averages, recent market declines have lowered the returns for both stocks and bonds by 1.4% per year. For the same periods, the net Endowment Pool return declined 0.9% per year. At the same time, inflation (HEPI) decreased 0.4% per year, resulting in a 0.5% reduction in the Endowment’s inflation-adjusted (real) return, from 5.0% per year over the last 15 years to 4.5% per year for the most recent 10 years.