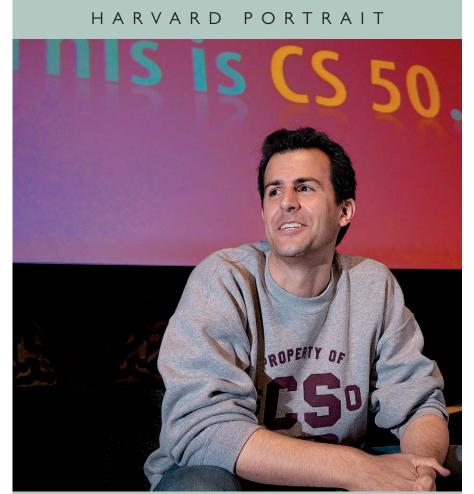
"Resizing," before "Reshaping"

No weekday hot breakfasts in House dining halls. Continued constraint on faculty appointments (a total of just 15 to 19 junior-faculty searches in 2009-2010, down from as many as several dozen in recent years), and severe limits on visiting faculty, lecturers, and appointments from other Harvard schools: all pointing to more limited course selections. Reduction of junior-varsity baseball, basketball, and hockey to club status. Teaching-fellow and external teaching-assistant "allocations" under "close scrutiny," to "ensure compliance with new and existing guidelines on section sizes"—presaging larger discussion sections. A previously announced decrease in doctoral-student admissionsadding to pressure on the future supply of teaching fellows. Thermostats lowered in winter and raised in summer. Lessened reliance on consultants, and tighter travel and entertainment budgets.

These are among the measures listed on the Faculty of Arts and Sciences (FAS) cost-saving website, unveiled on May 11 (www.fas.harvard.edu/home/planning). The academic, administrative, and extracurricular changes are merely those expected to be readily apparent come fall. Neither the economies linked to each measure nor the implications for employees are disclosed, but the actions are meant to realize \$77 million in annual savings.

Unfortunately, these steps, characterized by FAS dean Michael D. Smith as a "resizing" through "better use of resources and increased efficiencies," close only one-third of his faculty's budget gap. In a community meeting on April 14, he disclosed that Harvard's largest academic unit (the College and Graduate School of Arts and Sciences)—and the one most hard-pressed, in absolute terms, by the sharp decline in the endowment—faces a \$220-million shortfall by the 2010-2011 academic year. FAS received \$550 million in endowment distributions to fund operations in fiscal year 2008 and \$650 million this past year. It had expected \$750 million in the year now beginning, and more thereafter—but instead will be reduced to about \$600 million now, and still less in fiscal year 2011. ("A New



David J. Malan

Although he holds two Harvard degrees and teaches here, David J. Malan '99, Ph.D. '07, does not consider himself "that guy who never left." For one thing, he did leave the Connecticut native taught high-school algebra and geometry for one year after graduating, then spent a year working for a wireless software startup in Philadelphia before returning to Cambridge for grad school. Even now, Malan's extracurriculars take him far afield: the lecturer in computer science spends half of each week in New York, providing technical expertise for a startup that advises companies on Web advertising strategy. The rest of the week, he teaches various courses, among them CS 50, the introductory computer-science course that he has reworked to make more accessible. Malan has long kept one foot planted firmly on campus and one foot off: during grad school he launched two startups, including Diskaster, a data-recovery firm that used skills honed during work for the Middlesex County district attorney, searching seized hard drives for evidence. He enjoys this interplay between his academic and non-academic lives; his master's research, involving encryption of sensitive information transmitted by remote sensors in mass-casualty situations, was inspired by his training and service as an emergency medical technician, and he still volunteers each year at the Boston Marathon. Teaching is his first love—and since he took over CS 50 two years ago, enrollment has more than doubled, and female enrollment has risen to a record 36 percent. But he doubts that teaching will ever be the only ball he has in the air. His life's current balance is, for him, "just about perfect."

JOHN HARVARD'S JOURNAL

Economic Reality," May-June, page 48, reported both the Corporation's decision to reduce distributions from the endowment for the fiscal year begun this July 1 and *again* for the following year, and the pressure on other revenue sources.)

The \$220-million gap is nearly 20 percent of FAS expenditures in the year just ended. Complicating any economies in the roughly \$1.1-billion budget for the new fiscal year, perhaps \$375 million is for items that cannot or, for reasons of University policy, will not, be cut: financial aid, spon-

sored research, and debt service. In fact, each of those items is *increasing* in the new fiscal year. That still leaves FAS to reduce the cost of its core academic activities by nearly 20 percent.

Smith announced at the meeting that he would charter six working groups (their financial goals yet to be disclosed) to produce cost-cutting proposals from now through spring 2010: arts and humanities, science, social science, College life, College academics, and engineering and applied sciences. Their goal, he wrote bluntly in a

May 11 letter, is "a reshaping of the FAS in support of our teaching and research mission through a careful consideration of our academic and programmatic priorities."

What "reshaping" will entail—perhaps closing or consolidating research centers, or retirement incentives for faculty members—is the subject of anxious speculation, even as the first round of efficiency measures is implemented (see "Looming Layoffs," page 56). At the May 19 faculty meeting, Francke professor of German art and culture Jeffrey F. Hamburger asked

COMMENT

Liquidity and Leverage

In one sense, the projected 30 percent decline in the value of the endowment *is* Harvard's financial problem. If the invested assets earn the expected return over time, distributing funds from a \$36.9-billion endowment at a typical rate (about 5 percent) yields \$1.8 billion per year to support academic operations. Because the University made use of \$1.4 billion in funds from the endowment during the academic year just ended, deans could reasonably expect a rising stream of revenues to pay for more faculty, increased financial aid, and new facilities—had the assets remained intact.

But an endowment now worth \$24 billion or so can safely throw off just \$1.2 billion annually: \$200 million less than recent spending, and \$600 million less than the reasonable assumption of a year ago.

Most similar university and college endowments have reported proportional declines in value. But few other institutions (if any) undertook an Allston-sized new campus, or comparable expansions of financial aid, without benefit of a capital campaign. Thus those seeking to understand Harvard's challenges fully need to focus on two other aspects of its financial situation today: liquidity, and leverage throughout its operations.

It may seem unfathomable that an institution holding tens of billions of dollars of investments, plus other assets, needs to worry about its funding. But the endowment has been managed for long-term total returns, and so has been diversified into asset classes that are inherently *not* readily convertible to cash: venture capital, private equity, hedge funds, real estate, commodities. Funding for endowment distributions has been dependent on the disbursements those investment partnerships made as they harvested successful investments (note the past tense). Moreover, the partnerships have the contractual right to summon future cash from their limited partners, like Harvard Management Company (HMC), to make new investments.

Those are not trivial claims: the University's fiscal year 2008 financial report put the outstanding commitments at \$11 billion through 2018. An April I credit report on Harvard's debt by Moody's Investors Service, the rating agency, stated the obvious

concern: "that large future capital commitments...may not be funded from previously expected distributions from other private holdings." Given the unprecedented financial conditions, HMC faces challenging decisions in balancing Harvard's need for strong investment returns with its more sensitive liquidity position.

Moody's also addressed Harvard's balance sheet. The endowment losses, it said, "combined with stress in the debt and swap markets," created "liquidity pressures." That refers, first, to the use of short-term, variable-rate debt, which left the University exposed when the credit market could not renew loans. The second reference is to the large interest-rate swap agreements Harvard put in place in late 2004, when it arranged financing for anticipated construction in Allston. The swaps protected against *rising* interest rates; when they fell, the University became exposed to collateral calls and potential losses in the hundreds of millions of dollars. Among Harvard's remedial responses, Moody's cited the \$2.5 billion in borrowings last December, undertaken to replace short-term and variable-rate debt, increase reserves (lessening untimely cash demands on the endowment), and reduce the costs and risks associated with the swaps.

Those financing measures reflect real-world pressures—hence, the concern about leverage, on several levels.

First, there is financial leverage. The University now has about \$5.9 billion of debt outstanding—likely near the upper limit of borrowing if it is to retain its triple-A credit rating. In maintaining Harvard's rating, Moody's cited the commitment to reduce distributions from the endowment—the proximate cause of budgetary distress in the Faculty of Arts and Sciences and other schools. It also pointed to major reductions in debt-financed capital spending, perhaps extending beyond the decision to slow or even stop construction on the \$1.2-billion Allston science complex. Such limitations may challenge the schools to maintain their extensive facilities, let alone fit up new scientists' labs.

That brings to the fore the dimensions of what might be called "operating leverage": Harvard's recent, increased willingness to accelerate its academic ambitions even more as the endowment grew.

Capital spending is a tangible example, of course. Beyond the science complex, much—or perhaps all—of the construction envisioned for Allston depended on debt financing, absent any capital campaign to pay for dedicated facilities. The central administration

what was meant by "structural change," as a prelude to the working groups' assignment. "It's difficult to make constructive suggestions without some kind of meaningful framework," he said. He wondered whether there were plans to merge or eliminate departments, and if so, to cut faculty or staff.

President Drew Faust said she hoped that where multiple University units addressed an issue—such as healthcare policy—ways might be found for intellectual collaboration and administrative efficiency.

Smith said that the faculty had to examine the intellectual areas it most wished to tackle in the future, and to focus on how to pursue them with the available resources.

Pellegrino University Professor Peter Galison, an historian of science, said he could identify only two "ten to the eighth" (i.e., hundred-million-dollar) opportuni-

Executive vice president Edward C. Forst, who became Harvard's principal operating officer and de facto financial strategist last September, is departing August 1; full details are reported at harvardmag.com/forst-resigns.

assessment that offsets Allston costs—put in place at the end of Neil L. Rudenstine's tenure and extended through 2031 under President Lawrence H. Summers—levies an annual half-percent fee on the endowment. It yielded \$168.4 million in fiscal year 2008. But that revenue stream in turn could have been used to cover large borrowings (up to \$10 billion in financing was bruited about) to put many of the Allston facilities in place quickly.

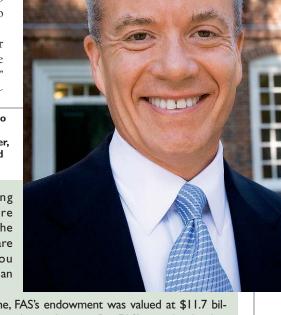
Meanwhile, deferred labs were built. FAS has since mid decade nearly quadrupled its debt service for capital projects, to an estimated \$110 million in fiscal year 2010. And FAS's faculty's ranks, constant at about 600 for 40 years, grew more than 20 percent from 2000. Spending on undergraduate financial aid accelerated from \$81 million in fiscal year 2005 to \$136 million last year.

Across the University, an essential mechanism for effecting these rapid increases in spending was Summers's "incremental" payouts: a process introduced in fiscal year 2006 that offered each dean an *additional* annual increase in a school's endowment distribution for agreed-upon purposes—faculty growth or expanded financial aid—in some years *doubling* the funds made available (see "The Payout Payoff," March-April 2005, page 61, and "Sharing the Wealth," March-April 2006, page 70). In the spirit of the times—with exciting academic ambitions, an endowment compounding at an annual rate of 17.6 percent from 2003 to 2008, and rising pressure from Congress to spend more of the largess—why not?

There were warning signs. In January 2006, FAS disclosed a projected annual deficit of \$40 million—and foresaw much higher costs through the end of the decade (see "Fraught Finances," March-April 2006, page 61). In a briefing, its Resources Committee outlined ways to offset the swelling deficits: internal cost-cutting (which succeeded in 2006); anticipated higher endowment distributions; "decapitalization" of unrestricted endowment assets; added central administration spending on FAS (itself dependent on the value of central endowment funds); and fundraising.

One risk was identified by Olshan professor of economics John Y. Campbell, an HMC board member, who said, "Bad stuff could happen" to the endowment. If so, he foresaw Allston as the "shock absorber"—development could slow to cover FAS's ballooning costs. His then-colleague, Caroline M. Hoxby (now at Stanford), noted that aggressive use of unrestricted funds could lead to trouble, as the capital covering the costs of unendowed faculty growth and financial aid was stretched thin. Observing

that faculty hiring and buildings were not "reversible," she said, "Even if you are very, very rich, you can spend more than you have."



Indeed: at that time, FAS's endowment was valued at \$11.7 billion—which likely exceeds its value now. But FAS's spending has become ever more reliant on endowment distributions, which contributed 30 percent of income in 1995, 47 percent in 2005, and 56 percent in the year just ended—a much higher proportion, it seems, than at any peer institution.

The anticipated fundraising remains deferred. Within weeks of that January 2006 faculty meeting, FAS's dean was on his way out; a few months later, Summers himself had left office, and any hope of planning a capital campaign was gone. And in the past year, much of the wealth that might have been tapped has been vaporized.

In 1908, Charles W. Eliot was nearing the end of his ambitious, expansive 40-year Harvard presidency. In his Harris Lectures at Northwestern University, published as *University Administration*, he touched on finances: "For enlargements, new equipments, and the occupation of new fields of usefulness," he said, a university "should rely on new endowments or new annual receipts.... In endeavoring to use all its proper income, it may sometimes incur a deficit; but it should forthwith take measures to prevent the recurrence of such a deficit, since habitual deficits...must be charged either to past endowments which ought to be held unimpaired, or to future resources which are only hoped for. Each of these methods is objectionable...." Though the twenty-first-century University differs greatly from Eliot's Harvard, his voice still resonates.

A style of financing Harvard's academic aspirations that seemed apt in the halcyon years through 2008 now appears to have been risky in many ways. The University became accustomed to living large—even larger than its world's-largest endowment could sustain. Of course, hindsight cannot undo past decisions. Now, paying their costs will likely impose sweeping consequences on Harvard's teaching and research, and on its faculty, staff, and students, beyond whatever steps are necessary to repair its balance sheet.

University People

Overseers Elevated

The Board of Overseers, the University's junior governing board, has elected Merrick B. Garland '74, J.D. '77, as president and Ann M. Fudge, M.B.A. '77, as vice chair of the executive committee for 2009-2010. Garland is a judge on the U.S. Court of Appeals for the District of Columbia. Fudge is former chair and CEO of Young & Rubicam Brands.

HRO's Maestro

Federico Cortese has been appointed conductor of the Harvard-Radcliffe Orchestra, succeeding James Yannatos,



Federico Cortese

whose 45-year tenure concluded at the end of the academic year (see "Two Centuries of Sound," May-June 2008, page 23). Cortese, who will also serve as a senior lecturer on music, has been music director

of the Boston Youth Symphony Orchestras since 1999 and of the New England String Ensemble since 2005. From 1998 to 2002, he was assistant conductor of the Boston Symphony Orchestra.

Top Teachers

The Faculty of Arts and Sciences has recognized several members for outstanding teaching and advising. Named Harvard College Professors (a five-year designation honoring distinguished teaching and mentoring) were Lea professor of history Ann Blair; Aramont professor of the history of science Janet Browne; professor of physics and of astronomy Christopher Stubbs; and professor of Greek and Latin Richard Thomas. The Abramson Award for outstanding undergraduate teaching was conferred on assistant professor of English Matthew Kaiser and assistant professor of history of art and architecture and of visual and environmental studies Carrie Lambert-Beatty. The Undergraduate Council's Levenson Memorial

Teaching Prizes went to professor of mathematics Dennis Gaitsgory; preceptor in Chinese Qiuyu Wang; and teaching fellow Julia Hildreth. And the Mendelsohn Excellence in Mentoring Award, for supporting graduate students, was conferred on professor of anthropology Daniel Lieberman; assistant professor of sociology and of social studies Jocelyn Viterna; and MacArthur professor of health policy and management Joseph Newhouse.

Fellowships Aplenty

Five faculty members and one Radcliffe Institute Fellow have been awarded Guggenheim fellowships: Pellegrino

University Professor Peter Galison; Jones professor of African-American music Ingrid Monson; professor of music Alexander Rehding; lecturer on law Jessica Eve Stern; assistant Ingrid Monson professor of law Jeannie





Rehding

Suk; and Radcliffe fellow Priyamvada Natarajan. Separately, 17 faculty members and one Radcliffe Institute fellow were elected to the American Academy of Arts and Sciences; for the complete list, see

www.amacad.org/news/new2009.aspx.

Retirement Roster

Among the more prominent staff members to take the University's early-retirement offer are Georgene Herschbach,

who has been the College's dean for administration; Judith Kidd, the College's associate dean for student life and activities; and Thomas E. Vautin, associate vice president for facilities Thomas E. and environmental ser-



vices, who oversees the huge University Operations Services, responsible for buildings, grounds, transportation, and ties for meaningful savings: debt service and buildings, which were already incurred and in place; and the size of the faculty, which has grown by more than 120 positions this decade. In the end, he said, FAS would "have to be a smaller faculty than we are now," so it made sense to stop talking about that prospect "in code."

By planning for a 12 percent reduction in FAS's endowment distribution for fiscal year 2011 (the Corporation has indicated a cut of "at least" 8 percent), Smith has seemingly built in a budget margin. But financial aid may rise further; past decisions have yielded a still-growing faculty and costly new labs; and faculty and nonunion staff are already going without salary increases.

ALTHOUGH ATTENTION focuses on FAS, similar issues play out across Harvard: for example, the Radcliffe Institute for Advanced Study, proportionally the most endowment-dependent academic unit, has reduced by 20 percent its number of fellows in the coming year. The same story is unfolding at comparable institutions that grew increasingly reliant on copious funding from their endowments—until last fall.

On April 1, Moody's Investors Service, the credit-rating agency, issued a report maintaining its Aaa and associated ratings on the University's debt, while taking into account "the deleterious effects of the global financial crisis and recession" on its finances. Moody's reviewed Harvard's remedial actions, observing that in the next few years "the University will face constraints in its capital program while also dealing with a significant reduction in revenues available to support its operations from endowment." That said, the credit analysts advanced a "stable" outlook, in the context of one large risk: "[T]he University is more exposed than other organizations (outside of higher education)...to rapid and large additional declines in investment markets, given the magnitude of its balance sheet and equity exposures and the high reliance on endowment income over the long term for operations." (For more perspective, see "Liquidity and Leverage," page 52.)

Some other universities with diversified, complex portfolios report on their results throughout the year. In documentation for a bond offering this spring, Cornell dis-

Looming Layoffs

Harvard has begun downsizing its workforce. On May 11, Marilyn Hausammann, vice president for human resources, announced that 534 of 1,628 staff members eligible for an early-retirement incentive—33 percent—had accepted the offer. (The Faculty of Arts and Sciences alone offered early retirement to 521 staff members, of whom 30 percent accepted—a small fraction of its nearly 3,700-person staff.)

The retirements will lessen, but not eliminate, layoffs, given pressure to cut spending. As of October 2008, Harvard employed about 12,950 full-time-equivalent non-faculty staff members—coincidentally, nearly 500 more than were employed a year earlier, and almost as many as are retiring early. For the year ended June 30, 2008, compensation accounted for 48 percent of University expenses (\$1.7 billion). Hausammann noted, "Although Harvard's schools and departments are now analyzing the impact of the pending retirements on their budgets...for many schools further reductions in force will likely be necessary to meet budget tar-

gets...." FAS dean Michael D. Smith's letter on the same date reiterated an earlier warning. Although the efficiencies outlined on the FAS website were "staffing neutral," he wrote, "the financial challenge before us makes it increasingly likely that staff reductions will eventually be necessary."

The Student Labor Action Movement (SLAM), which led the living-wage campaign for lower-paid University employees at the beginning of the decade, re-emerged around the slogan, "Greed is the new Crimson" (a play on Harvard's environmental theme), and organized rallies against layoffs (see www.hcs.harvard.edu/slam). SLAM leaflets distributed before the May 19 faculty meeting suggested alternatives (graduated pay reductions of 5 percent to 15 percent and reduced pension contributions for employees earning more than \$100,000 per year, reduced paid vacation time) and detailed cuts adopted by senior administrators at Brown, Stanford, and other universities.

Layoffs were widely expected to be announced beginning in late June, after the Commencement crowds dispersed. For updates, consult www.harvardmagazine.com.

closed that its investments, down 27 percent as of December 31, had depreciated to a 31 percent loss two months later (an estimate that did not include updated, quarterly valuations of private-equity and realestate investments). In the meantime, it has more than quadrupled relative holdings of cash from the beginning of the year. The University of Virginia Investment Management Company's March 31 report also indicated a sizable increase in cash, in part to be ready to make mandated future investments in private asset pools.

Both reports suggest what will attract notice when Harvard Management Company reports fiscal year 2009 performance in late summer: how defensive the portfolio has become (insulating against current losses, but depressing potential returns), and what results large holdings of illiquid and hard-to-value assets have produced.

In the meantime, Princeton president Shirley M. Tilghman on April 6 notified her community that the financial markets had "unhappily" not improved from the beginning of the year, compelling a further round of budget cuts for fiscal years 2010 and 2011—following similar rounds of deeper cuts announced by Yale and Stanford. Tilghman forecast uncomfortable pressure on endowment spending extending beyond 2011, even as Princeton pursues its capital campaign, and concluded,

"The steady growth in both faculty and staff that we have enjoyed over the last 10 years will end, and the university will have to contract in size."

The same is likely for much of Harvard. At the May 19 meeting, Faust said the community faces "very hard choices" and acknowledged, "We have to give some things up." She urged the faculty to "focus not on what we have lost but on what we still have"—superb libraries, laboratories,

students, and professorial colleagues.

For Smith, the immediate problem remains: FAS's large financial chasm could not be closed in one year, so his working groups face months of effort to find additional cuts. In the future, he said on April 14, "it is increasingly likely...that we will not have a need for as many faculty and staff" as today. How the College and graduate school are reshaped looms as a particularly daunting set of issues for Harvard.

Renewing the Houses

In Early April, dean of Harvard College Evelynn M. Hammonds released the results of a year-long review of the residential House system, commissioned as part of the preparations for a major physical renovation of the Houses [see "What Makes (and Remakes) a House," July-August 2008, page 66]. The *Report on Harvard House Renewal* includes undergraduate survey results, the findings of focus groups, and the recommendations of the House Program Planning Committee (see www.orl.fas.harvard.edu); as Hammonds wrote in an accompanying letter to col-

leagues, it affirms "that the House system is essential, not ancillary, to a Harvard education as it aims to engage students in the intellectual life of the College and the University beyond the classroom."

the College and the University beyond the classroom."

Dining halls (such as Eliot's) are "the hub of House life," says a report on the residences, and every House should have its own.

July - August 2009

Reprinted from Harvard Magazine. For more