equivalent of the Library of Congress... bringing millions of books and digitized material in other media within clicking distance of public libraries, high schools, colleges, universities, retirement communities, and any individual with access to the Internet."

Darnton has argued in the past that a "united front of foundations," if persuaded that creating a digital library would be in the interests of the American people, could overcome any financial hurdles to launching such a resource. That intuition was correct. "The very first session concerned costs," he reports. Even though estimates ranged widely, depending on what the library would hold (and in particular the cost of digital preservation: see "Gutenberg 2.0," May-June 2010, page 36), "everyone agreed that it is a feasible project and the funding is not the major obstacle." For example, a project to digitize all books in the public domain (no longer in copyright) as well as so-called orphan books (those published between 1923 and 1964 for which no copyright owner can be found) might cost $1 billion, Darnton says. Given a coalition of foundations, each contributing a share across five years, he says, "There is no question but that we could afford it."

Mary Lee Kennedy, executive director of the Business School's Baker Library, presented research on the national digitization efforts of 21 countries, with particular emphasis on models in Norway and the Netherlands. The ambition of the Dutch, for example, is to digitize every Dutch book, newspaper, and pamphlet from 1470 to the present. Interestingly, their national library, which began the project in 1996, has entered into a partnership with Google to digitize more than 160,000 public-domain books from the eighteenth and nineteenth centuries, with Google paying for the cost of digitization. Among the lessons learned from the Dutch, Kennedy said, is that preservation costs are difficult to predict, and that copyright issues are a significant challenge.

Experts on copyright also made presentations. Darnton hopes that bipartisan support in Congress may eventually lead to some sort of accommodation or change to copyright laws that would allow more books still in copyright to become part of the digital library. Innovative technological solutions that enable limiting the number of loaned copies of books in digital form may also play a role in facilitating a digital public lending library. Darnton imagines "a core which you could think of as a huge digital database that would expand indefinitely over time." Other resources might be added later, such as the database of newspapers from all 50 states already digitized by the Library of Congress.

Such details will doubtless be worked out at subsequent meetings. For now, the group has come up with what Darnton calls "the beginnings of a strategy." Two follow-up conferences are planned: one of foundation leaders, in order to organize their support; and a second, much larger, public conference in Washington, D.C., this spring intended to organize support among the great cultural institutions in the nation's capital. Of the Harvard gathering, Darnton said, "We just provided an occasion to get things started."

Unifying Harvard's Libraries

After "exhaustive analysis," an implementation work group of the Task Force on University Libraries has recommended creating a coordinated management structure for the entire University library system (see "Libraries on the Edge," January-February 2010, page 41). A new position, executive director of the University library, will report to a board of directors, chaired by Provost Steven Hyman, comprising Pforzheimer University Professor Robert Darnton, currently director of the Harvard University Library, and deans (or their designates) and faculty members from Harvard's schools. This new administrative structure seeks to preserve local autonomy—by serving scholarly interests within specialized areas of study such as business or medicine—while facilitating the "global strategic, administrative, and business processes" of the library system as a whole.

HM Is the book an endangered species? Visit harvardmag.com/whybooks to read about a Radcliffe Institute conference on the history and future of the book.

No Surprises

The *Harvard University Financial Report* for the fiscal year ended last June 30 appears to fulfill administrators' hopes: it conveys essentially no surprises. In this, the mid-October report contrasts sharply with the fiscal 2009 version, which disclosed nearly $3 billion of previously unreported losses sustained from investing Harvard's cash reserves alongside the endowment and from unwinding interest-rate swaps intended to buttress financing for future campus construction in Allston. (The swaps backfired badly, given the recession and record-low interest rates; see "Further Financial Fallout," January-February 2010, page 45.)

Nonetheless, the 2010 report outlines a new state of University financial affairs. Operating revenue *declined* to $3.72 billion, down from $3.81 billion in 2009, and operating expenses were modestly lower, too: $3.73 billion, down from $3.76 billion. During the five fiscal years from 2005 to 2009, revenues had *risen* by more than a billion dollars (from $2.80 billion to $3.81 billion), and spending had kept pace (climbing from $2.76 billion to $3.76 billion). The days of an 8 percent compound annual growth rate in spending—of $200-million increases in annual outlays—are over.

Fiscal 2010's 2.2 percent decrease in revenue is a surprisingly good result. The Corporation had directed an 8 percent reduction in the endowment funds distributed for operations during the year—the source of 38 percent of operating revenues in fiscal 2009. The fiscal 2010 report indicates that the actual reduction came in at 7 percent ($1.32 billion, down from $1.42 billion); the slight difference reflects the buffering effect of distributions on new gifts to the endowment. "Decapitalizations" of endowment principal remained nearly level, at $237.4 million in fiscal 2010; the "administrative assessment"—formerly called the "strategic infrastructure fund," a half-percent annual levy on the endowment for University expenses associated with Allston campus development—apparently declined to about $130 million from fiscal 2009's $176 million. But there were offsetting pockets of strength: tuition income from graduate- and professional-degree programs rose a robust $23 million, and nearly $15 million from continuing-education and executive programs; and federal support for sponsored research—augmented by national stimulus appropriations—soared 11 percent, increasing almost $62 million.

The report breaks out expenses in a new way. The 1 percent decline in *total* spending reflects the 8 percent *increase* in direct sponsored spending and a 2 percent *decline* in "non-sponsored outlays." In their section of the report, vice president for finance Daniel S. Shore (Harvard's chief financial officer), and University treasurer James F. Rothenberg characterize the latter as "more squarely within the University's control, and…demonstrat[ing] progress made in planned cost reductions." Excluding "certain costs that tend to be fixed in the near term (i.e., tenured faculty compensation, financial aid, depreciation, and interest)" and adjusting for one-time items in both fiscal years ($59 million of fiscal 2009 expenses for retirement incentives and severance and benefits costs associated with layoffs; and a $52-million item in fiscal 2010, discussed below), Harvard's "controllable non-sponsored operating expenses decreased by 6 percent," from $2.30 billion to $2.17 billion. In other words, expense reductions valued at $130 million were realized during the year—not an easy feat after routine increases in spending. Among the salient details:

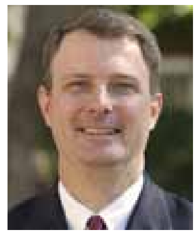
• Given workforce reductions and a fiscal 2010 salary freeze for faculty and nonunion staff members, non-sponsored salaries and wages declined 3 percent, or $31 million.

• Sharp savings were effected in discretionary expenses, with non-sponsored costs for supplies and equipment, utilities and building maintenance, travel, and purchased services reduced by $88 million. The University did most of its budget dieting here, rather than in permanent changes in the workforce. Accordingly, it is now notably more challenging to add employees or to fill vacancies (the term of art is "position control").

But other expenses rose. Total interest expense increased 26 percent, to $265 million (accounting for more than 7 percent of the University's spending in the year). Total indebtedness, $2.85 billion in fiscal 2005, climbed steadily in subsequent years before ballooning to $5.98 billion in fiscal 2009, when Harvard placed $2.5 billion of new debt issues to restore its impaired liquidity, refinance variable-rate debt, and unwind some of the costly interest-rate swaps. Interest expenses *not* associated with specific capital projects rose to $89.4 million in fiscal 2010, up from $56.6 million in the prior year (and just $13.3 million in fiscal 2008), reflecting the burden of servicing these new University-level obligations. Bonds and notes payable at the end of fiscal 2010 increased modestly, to a total of $6.28 billion, reflecting new issues, principally to pay for construction projects such as the Law School's Northwest Corner building.

During the year, capital spending was essentially cut in half, to $324 million. Although work continues at the Law School and on renovations of the Fogg Art Museum and the Fairchild Biochemistry Building (to outfit it for stem-cell researchers), the $1.4-billion Allston science complex has been suspended. For the foreseeable future, these projects and renovation of the physical plant seem likely to be the major capital initiatives. A new capital-planning process, overseen by executive vice president Katie Lapp and meant to provide a University-wide, five-year building program, will shape future commitments Harvard will make; there will surely be pressure to restrict new debt financing, despite current low interest rates (see "Back to the Bond Market," below).

(To manage the process, Mark R. Johnson has been appointed vice president for capital planning and project management. His planning responsibilities span Cambridge, the Longwood Medical Area, and Allston, and he will direct the resulting construction projects—all within Harvard's financial resources. Johnson has worked at Harvard since 2002, managing in turn the Business School's Baker Library/Bloomberg Center project and now the Northwest Corner building under construction at the Law School, where he has also led campus master planning and a five-year capital plan.)



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Mark R. Johnson

Among other items of interest, during fiscal 2010, the University entered into $695.5 million of additional swap agreements, all designed to offset *existing* swaps and so to reduce further long-term risk of loss if interest rates stay low or decline even more. It did so without laying out additional cash, by agreeing to new contracts that offset the terms of the original ones—but giving up the opportunity to recover past losses should rates increase over the life of the original contracts. To the extent possible, the University is getting out of the business of bearing interest-rate risk for those past contracts.

Continuing the emphasis on enhancing liquidity that was announced last year, the General Operating Account (GOA)—Harvard's cash and operating funds—is now relatively less heavily invested along-

Back to the Bond Market

The University issued $601 million of tax-exempt bonds and $300 million of taxable bonds in early November. Because the former issues refinance existing debt and long-term borrowing under Harvard's commercial-paper program, total debt outstanding rose to $6.6 billion from $6.3 billion at the end of the last fiscal year (June 30). The refinancing may enable the University to reduce higher rates incurred earlier, to fix the rates on variable-rate obligations that could rise in the future, or both. Harvard initially filed to sell about $741 million in the refinancing, but the market deteriorated by the time the offering was made. Interest expense increased 26 percent, to $265 million, during fiscal 2010.

The $300-million sale of new bonds will finance various capital projects, including the wholesale reconstruction of the Fogg Art Museum. It is the first such financing since Harvard borrowed $480 million last January, in part to pay for construction of Harvard Law School's Northwest Corner project. The two projects, with a combined cost estimated at more than $600 million, each attracted major gifts, but required external financing as well. They are, presumably, among the last projects of their size for which the University intends to resort to significant debt financing.

Moody's Investors Service rated both bond offerings Aaa. That indicates that Harvard's financial adjustments since the sharp decline in the value of the endowment, and other losses, in 2008 have enabled it to retain its top-tier credit rating.

side the endowment. Of its current net asset value of $3.75 billion, liquid assets held outside the University's General Investment Account have risen to approximately $1 billion; two years ago, when the GOA totaled $6.57 billion, the cash portion was $300 million. The "de-risking," as it is called, will continue: gaining liquidity, at the cost of lower potential returns.

Finally, a review of the "fair value" of investment assets in the footnotes suggests that the portfolio as a whole (for endowment and other holdings) is more oriented to liquid holdings. At the same time, the portfolio managers are redeploying funds into certain areas that they deem attractive—notably certain kinds of new real estate, commodities, and natural-resources holdings.

In all, said Shore in a conversation, fiscal 2010 was "a good year." Harvard set out to make progress in addressing controllable expenses, and did so, relatively quickly. He also pointed to the improved risk profile of financial resources, especially in light of the University's debt load. And the growth in tuition and sponsored-funding revenues demonstrated, he said, that Harvard is "quite resilient" in its core operations, teaching and research.

The current year poses new challenges. Employee benefit costs are still rising, the salary and wage freeze has ended, and a further reduction in endowment distributions for operations will subtract $130 million or more from revenues.

Two factors will offset about half that apparent gap. First, fiscal 2010 expenses are inflated by a one-time $52-million charge associated with restructuring the Broad Institute, a genomics-research center, into an independent entity. Second, the sponsored-funding awards under the federal stimulus program should provide an additional $20 million in revenue this year.

Dealing with the rest, Shore suggested, requires further "administrative aggregations" of functions (from human resources and communications to information technology) to effect longer-term expense savings. Savings in fiscal 2009 and 2010 were realized principally within each school and unit; the current opportunities, he suggested, lie in identifying better ways to work between and among those autonomous units and the central administration. Realizing such savings will take time; the Faculty of Arts and Sciences, he noted, is on a two-year path to eliminate its remaining budget deficit, using reserves to fund the work in the interim. (Retirements may help; see page 48.)

For the foreseeable future, Shore said, there is too much uncertainty about all sources of revenue—tuition net of financial aid, endowment investment income, and federal research funding—to relax any efforts to identify and pursue efficiencies. That is the University's financial outlook, and priority, for the next few years.

THE UNDERGRADUATE

Comparing Notes

by MADELEINE SCHWARTZ '12

Last June, as we were both preparing for our summer internships, my mother and I traded fashion advice. We had each gone shopping for the first day of work (I at a weekly magazine, she in a judge's chambers), and now we were comparing outfits in the living room. My skirt and blouse were quickly assessed ("Needs ironing") and hung back in the closet. But my mother walked around the living room shrugging her gray suit on her shoulders. My words of encouragement—"You look professional!"—seemed to have little effect. "Should I really wear this? Are you sure it doesn't look too square?"

My mother started law school at the same time I started college, and because hers is a four-year night program, our school schedules are synched. We take our exams during the same busy weeks and experience similar relief at the end of December and May. Last spring, we compared notes on cover letters and interviews for our job applications. We will probably graduate within days of each other.

As students, we've shared study habits (take notes by hand), general truths (You can't avoid having a few bad professors), and encouraging platitudes (It's okay! No one will care how you did on your "Science of Cooking"/"Constitutional Law" midterm!). Where she's listened to my complaints about freshman-year roommates and dining-hall food, I've helped her buy textbooks online and wished her luck in moot-court practice. Occasionally, we've even studied together. When mom came to visit during Freshman Parents Weekend, I swiped her into Lamont on the pretext that she was touring the library. Instead, we sat side by side in the big, open room on the first floor—she diligently taking notes on a huge red volume that she had lugged from New York City on the train, I casually reading about Greek myths. Eventually I left to meet friends, and she stayed at the wide desk alone, papers spread out.

I asked my friend Erika Pierson, a junior history and literature concentrator in Lowell House, what it's been like seeing her mother get a master's in costume design while she's been at college. "My mom didn't have a set career when I was growing up," she told me, "so I had never seen her do something she was really passionate about." Now her mother drives around San Diego taking measurements and buying fabric, and Erika is thrilled at how enthusiastic her mom is: "It's been an inspiration because it's an unconventional career. And it's been a great support system. She knows college better than most people." The only inconvenience? "When I left, she took over my desk as a sewing station. I'll go home for vacations, and my house looks like a scene from *Project Runway.* The closet in my bedroom is full of princess costumes."

It's true that a parent in school can bring certain advising advantages. I know that my mother has felt the frustration of a paper that won't write and the excitement of mastering a difficult topic. I don't need to explain my elaborate theory that I am a "bad test-taker"—she's said the same thing about herself. And talking with her