Taking the Long View

[Investment Committee Behavior]

Source: 2002 4Q *Commentary*

Familiar Faces

In October 2000 TIFF published a report discussing noteworthy perils and opportunities in private capital markets. Entitled Public Thoughts about Private Equity, this report (first editions of which are available at steadily appreciating prices) took the form of a "transcript" of the deliberations of the investment committee of a fictional foundation. This merry band returns to the TIFF stage this quarter, via deliberations that — as with the "transcript" published in October 2000 — focus on potential changes in the foundation's normal asset mix or policy portfolio. Consistent with the distinctive governance principles extolled by TIFF at every opportunity, the committee in question comprises just three members and displays abnormally low turnover. Indeed, its composition remains unchanged since its last appearance: the ever-cautious Graham Bell chairs a committee that comprises the ever-thoughtful Thomas More and the ever-avant garde Victoria Woodhull. The committee is joined, as per usual, by its sagacious and seasoned consultant Abigail Adams.

Qualitative Difference

Bell: Anyone care for a soda before we begin?

More: Given today's agenda, I think we should all pop open a Coke.

Bell: Why's that?

More: Because Coca-Cola (NYSE: KO) just announced changes in its disclosure policies aimed at discouraging short-term speculation in its securities. As we've discussed repeatedly over the years, in light of all of the other structural handicaps under which volunteer investment committees labor — including the fact that we meet on a part-time basis in an environment where consensus comes first — the **only** practical means of gaining an edge over other investors is to do what KO is pushing its shareholders to do: take the long view.

Woodhull: Agreed. But taking the long view doesn't mean we should etch into stone any aspect of our approach to investing. If there's one thing I've learned serving on this committee — besides the fact that no one can accurately and consistently forecast the near-term direction of capital markets — it's that the more comfortable we become with a given set of policies the more critically we should examine their **future** utility.

Adams: Vicky makes a good point. In money management, unlike many other endeavors, if something ain't broke, it may be time to fix it nonetheless — before capitalism's meanreverting tendencies cause it to fail. That's why I pushed Graham to devote today's meeting to a review of the foundation's policy portfolio.

Bell: A portfolio that's served us well, I should add — as have you, Abby. Indeed, if you hadn't done such a good job retooling our asset allocation guidelines back in '95 — and helping us tweak them at opportune times since then [see Exhibit 1] — I would've vetoed your suggestion that we review our policy mix yet again. After all, we tweaked it not long ago, for the second time in as many years. I agree with Vicky that we need to be sensitive to changes in the external environment, but I worry that we're veering perilously close to the indistinct line between policymaking and —

Woodhull: — and market timing!

Bell: Precisely.

Woodhull: I knew you'd wave that bloody shirt today. Put it back in the closet, Graham, **please**. As we discussed the last time we tweaked our policy mix, there's a qualitative difference between the way this committee goes about its work and market timing. Isn't that right, Tom?

More: She's right, Graham. Because it's such an effective means of putting the kibosh on portfolio moves, some folks slap a dysphemistic "market timing" label on any asset allocation shift that makes them uncomfortable, regardless of whether it entails market timing in the classical sense.

Bell: Classical sense? I didn't know the ancient Greeks engaged in market timing — and I don't know what the heck "dysphemistic" means!

More: Dysphemistic is the opposite of euphemistic; it means the substitution of a deprecating or offensive term in place of a relatively neutral one. As for the Greeks, I have no idea whether they did or didn't engage in market timing. Perhaps that fellow who died after legging it from Marathon to Athens to relay news of the Greeks' big win over the Persians worked for a macro hedge fund. The key point is that one needn't roll back the clock too many years to identify an era when market timing rightly understood was in vogue.

Bell: Rightly understood?

More: By my lights, market timing means something very specific: it means the **frequent** shifting of **material** portions of an investor's capital across asset class boundaries on the basis of short-term market or economic forecasts. Remember Joe Granville?

Bell: Do I ever. He was the market timer who could do no wrong during the 1970s but could do no right in the '80s and '90s.

More: That's the guy. Obviously, the higher stock prices climbed during the bull market of the '80s and '90s, the more discredited market timing became —

Woodhull: — because nearly every effort to dial back stock exposure proved misguided.

Adams: If not career-ending. When stocks entered their parabolic phase in the late '90s, it didn't take but a few months for the opportunity costs of having sold stocks to become so large that even accomplished pros who turned bearish prematurely got drummed out of the business.

Painful Memories

Bell: That simply underscores the perils of making abrupt asset allocation shifts, a sin that I'm not going to let this committee commit on my watch.

Woodhull: No one's suggesting that we make major changes in our policy mix, Graham, nor are we proposing to hire a market timer — although I won't be surprised if so-called tactical asset allocators perform uncommonly well over the next several years.

Adams: What Victoria means is that investors who rebalance their asset mixes in a disciplined if not mechanistic manner can gain a big edge in markets that display lots of short-term volatility but move neither sharply higher nor lower on a longer-term basis.

Bell: How can you or Vicky or anyone else possibly know whether US stocks will fluctuate within a relatively narrow range over the next several years?

Adams: We can't. I'm simply observing that strategies that tend to perform suboptimally under certain market conditions — as many tactical asset allocation strategies did during the big bull market in stocks that ended in 2000 — can work surprisingly well under different conditions. More to the point, even if stocks or other asset classes in which this foundation invests routinely move not within narrow bands but steadily higher or lower for the remainder of the decade and beyond, securities prices will likely display enough short-term volatility to make disciplined rebalancing both feasible and profitable.

More: Even that understates the point, doesn't it Abby? As you've often reminded us, the optimizers that we and so many other trustee groups use to identify so-called efficient asset mixes assume that we'll rebalance our portfolio at prespecified calendar intervals, regardless of such real-world complexities and constraints as trading costs, market value reporting delays, liquidity constraints, staffing limitations, and — last but not least — psychological barriers. By barriers, I mean that it's tough for individuals and even tougher for committees to sell into strength and buy into weakness.

Bell: I confess that I had real trouble paring back our bond exposure and shifting the proceeds into stocks when treasuries were soaring and stocks were plummeting earlier this year.

Woodhull: Don't remind us Graham: if we'd rebalanced the portfolio all the way back to our policy weights the instant our stock exposure violated our agreed-upon minimum we would have caught a much larger portion of the subsequent rally in stocks. Instead, we dithered, just as we did when I proposed that we add TIPS [i.e., inflation-linked US Treasury bonds] to our policy portfolio back in 1997. [See Inflation-Linked Bonds and Inflation-Linked Bonds Redux, published in TIFF Funds for 2Q 1996 and 3Q 1996.] It took us almost two years to see the light on TIPS, during which time —

Bell: — during which time our stocks and conventional bonds performed just fine, thank you, while the TIPS you were so keen to buy right after Uncle Sam first floated them in '97 performed relatively poorly. [See Exhibit 2.] I'm glad that we added TIPS to our policy portfolio in the fall of '99, but I make no apologies for having insisted that we adopt a wait-and-see attitude on them when they were first introduced in '97. I admire your pioneering spirit, Vicky, but pioneers sometimes get their heads handed to them. That's one reason I'm so uncomfortable with your proposal to add high yield bonds to our policy mix at today's meeting — and to make other changes that would make our policy portfolio differ noticeably from that of other endowed charities in this community, if not nationwide. [See Exhibit 3.] I'm especially uncomfortable paring our normal allocation to conventional bonds to just 8%. Just because long-term treasuries have had a big rally over the last few years doesn't mean they couldn't move a lot higher. Besides, we hold conventional bonds for insurance rather than total return purposes, and there's definitely a chance that the US could slip into the sort of deflation that has plagued Japan in recent years. If it does so, the longer-term treasuries that you want to trim will perform very well and the high yield bonds and real estate investment trusts (REITs) you want to buy will perform poorly.

Woodhull: I'm not proposing to eliminate our deflation hedges altogether, Graham. The proposed mix includes a 8% allocation to conventional bonds, plus a 13% allocation to TIPS. As Abby argued when TIPS were first introduced, TIPS can provide meaningful protection against deflation as well as inflation, provided that they're purchased at or close to par.

More: I was as skeptical as Graham that TIPS would perform satisfactorily under the market conditions we've experienced since the economy and stock prices turned south a few years ago, but I must admit that Abby was right. Of course, the very fact that TIPS have appreciated so smartly causes them to violate the condition that Vicky just laid down, does it not Abby?

Adams: A very good question, Tom, to which the only correct answer — and I know this will frustrate the committee — is yes and no. Let me explain. As investors increasingly recognize that TIPS can potentially serve as hedges against deflation as well as inflation, they're bidding up the prices of securities that are still in relatively short supply. [Editor's note: Uncle Sam has issued approximately $153 billion in TIPS to date, representing roughly 2% of all outstanding Treasury issues.] But the Treasury insists it will continue issuing TIPS, and in light of the way in which Treasury auctions typically get conducted it's likely that you'll be able to roll out of premium TIPS and into those trading at or near par without great difficulty in coming months and years. So the answer to your question is yes, TIPS trading well above par don't provide as much deflation-hedging potential as those trading at par or below, but no — we shouldn't abandon the idea of using TIPS as deflation as well as inflation hedges as long as we can continue to buy them at the right price.

Woodhull: True. But even if we assume a continuous supply of TIPS trading at or below par we shouldn't necessarily maintain a 15% normal weight in them. If we think the expected returns that Abby used when she cranked various asset mixes through her computer are even remotely accurate [see Exhibit 4], then we should move from the current mix to the proposed one, lightening up on both types of high grade bonds — inflation-linked and conventional — so that we can shift some dough into high yield bonds.

Bell: Abby's also proposing that we shift some dough into REITs.

Woodhull: I don't think we should fund the REIT allocation immediately, but I do want to lay the groundwork for shifting a small portion of the fund into REITs in due course, so I'm supportive of Abby's recommendation to include REITs in our policy mix as a goad to future action on that front. I also support Abby's suggestion that we lighten up on conventional bonds and add high yield debt to our mix ASAP, for reasons you've already alluded to, Graham: precisely because so many investors share your concern that the US will go the way of Japan and slip into deflation, asset prices today already discount a deflationary scenario to a very considerable extent.

Get Real

More: Come now, Vicky, you know that's not true, certainly not across the board. Look at what's going on with Class A real estate. Investors are snapping up trophy properties left and right, at prices that make no sense unless one makes heroic assumptions about future rent increases.

Adams: The sky-high prices to which you're referring may have less to do with the ultimate buyers' mistaken economic assumptions than they have with their prior mistake of entrusting huge sums to realty managers whose interests aren't aligned with their clients'.

More: What makes you think that the folks running publicly traded REITs will be more solicitous of our interests than the private realty managers you just critiqued? Aren't you the one who's warned us repeatedly over the years that the best investment minds typically don't hold themselves out to retail investors?

Adams: As a general rule, that's true. Indeed, it's becoming increasingly so as talented stock and bond managers leave traditional money management firms and enter the hedge fund arena, where they can pocket guaranteed incomes almost as large as the ones they're leaving behind while also enjoying much more upside potential. A similar phenomenon manifests itself in the realty arena, due in part to the fact that real estate pros who operate privately always have the option of bundling up the properties they control and selling them to the public when publicly traded REITs are in favor. We saw numerous sales of this sort as the broad US stock market slumped and publicly traded REITs rose in 2000 and 2001. [See Exhibit 5.] REIT stock prices today generally don't reflect as rosy an outlook as they did a few years back, but they're far from cheap, due in part to the relatively high yields that REITs generate. With stock and bond yields still hovering near historic lows, investors are clamoring for current income —

Woodhull: — unless, of course, it takes the form of coupon payments made by issuers of high yield bonds!

Adams: There is a disconnect of sorts between the high yield bond market, which has performed poorly since the economy began slowing at the beginning of the decade [see Exhibit 6], and the REIT market, which has held up reasonably well despite the fact that the tenants from whom REITs draw their income have an aggregate credit rating not materially higher than that of many high yield bond issuers. That's one reason why I'm not pushing you to shift funds into the proposed REIT segment right away.

Woodhull: Another reason is that there's lot of talk in Washington about eliminating the double taxation of corporate dividends. If Congress decides that all shareholders should enjoy the same relief from double taxation of dividends that REIT shareholders now enjoy, REIT shares could get repriced unfavorably relative to other dividend-paying equities. Abby and I think it makes sense to keep most if not all of our REIT powder dry for the time being in case that happens.

More: Why invest in publicly traded REITs at all — ever? Abby conceded that the best minds in the realty business tend not to inhabit the listed REIT arena on a permanent basis. And you've just highlighted the fact that listed REITs are highly vulnerable to big swings in investor emotion. Wouldn't we better off investing in realty on a private rather than public basis?

Adams: Probably. But it's pretty difficult for a fund of your relatively small size to assemble a diversified roster of private realty managers.

Woodhull: Even if we could . . . well, we couldn't, in a manner of speaking, because our esteemed chairman won't let this foundation tie up its money in private partnerships. He thinks we should invest exclusively in marketable assets, although for the life of me I can't understand why. As Tom said at the outset of today's meeting, just about the only edge that a perpetual life charity such as this one can gain as an investor is to take the long view. If we do so, there's no reason why we shouldn't dial some private investments into our portfolio.

Bell: You made the same argument when we took up your proposal to add private equity to our normal mix two years ago. Obviously, we're better off now because we didn't do so, and I see no reason why now is a better time to start locking up our money in private partnerships.

Woodhull: On the contrary, Graham, it's not clear that we're better off for having passed on private equity opportunities presented to us over the last year or two. I don't want to rehash the arguments that we had about private equity back in the fall of 2000, but let's not forget two vital points: first, the only legitimate reason to invest in private equity ("PE") is to enhance returns relative to more liquid forms of stock ownership; second, because it takes so long for the typical PE partnership — or fund of funds — to put its money to work, most of the money that I wanted to commit to private equity when we had our memorable arguments on this issue two years ago would still be on the sidelines awaiting investment. Meantime, the marketable stocks we've continued to hold have gone down a lot.

More: I gave Graham the second vote that he needed to nix private partnerships two years ago, but I try to keep an open mind on everything this committee does or does not do and I'm willing to take a fresh look at private investing. Abby, what further changes in our policy portfolio would you make — above and beyond the ones on today's agenda — if we permitted ourselves to invest a larger fraction of our capital in non-marketable assets?

Ready Answers

Adams: I was hoping one of you would ask that question here today. Here's the answer [see Exhibit 7]. As you can see by comparing the first set of proposed allocations, which reflects my best thinking if you continue to shun private investments, and the second set of proposed allocations, which includes privates, I'd like to see you move to a 16% normal weight in private equity over time. I'm also recommending that you consider investing in realty via private partnerships rather than REITs, assuming that the committee approves the use of non-marketable investments.

Woodhull: I certainly hope it does. We've paid too high a price for liquidity over the years, due in part to the fact that the liquidity Graham prizes and insists upon tends to evaporate when we need it the most.

Bell: Come again?

Woodhull: Unlike an individual investor or even an operating charity such as a college, which might have legitimate reasons for liquidating and spending a sizeable fraction of its invested capital over a short time period, a well-established grantmaking foundation like ours isn't going to spend more than a small and relatively predictable portion of its assets in any given year. Consequently, assuming that we employ enough asset classes and strategies to essentially guarantee that one or more segments of the portfolio will perform satisfactorily at all times, the only legitimate reason to favor marketable holdings over non-marketable ones is to enable us to change our minds.

Bell: What's wrong with that? You yourself said earlier today that we shouldn't etch into stone any aspect of our approach to investing.

Woodhull: I did say that, but the flexibility I referred to earlier is hugely different from the flexibility that compels many investors to favor marketable assets over non-marketable ones — even if the latter have higher expected returns. The flexibility I applauded earlier is the willingness to modify long-term asset allocation guidelines when doing so is likely to enhance the foundation's long-term expected returns, especially after taking catastrophic risks such a hyperinflations or depressions into account. As a general rule, we want to be contrarians in our policymaking, rotating capital from asset classes or strategies — however sound fundamentally — that are attracting too much capital and toward those that are attracting too little.

Bell: I'm not sure we have the skills or stomach to buck the crowd as much or as often as your comments imply, but even if we do I don't see how my preference for marketable assets constitutes a hindrance. The more liquid a portfolio is, the more opportunistic its owner can be in exploiting other investors' mistakes, no?

Adams: Not necessarily, Graham. As we discussed earlier, the most talented money management pros are increasingly unwilling to manage other people's money unless the capital is locked up for extended periods — even if the underlying securities are themselves quite liquid under normal market conditions. We all recognize that clients' unilateral right to withdraw their capital whenever they wish constitutes a Damoclean sword that can help instill discipline in managers who might otherwise misbehave. But even the best managers suffer occasional bouts of underperformance, and it's usually in the midst of such bouts that clients demand their money back. As Vicky implied a minute ago, liquidity tends to evaporate when one needs it the most — when securities that have already become cheap become compellingly so due to big imbalances between would-be sellers and potential buyers. Experienced money managers do everything they can to avoid participating in fire sales — as sellers, that is.

Bell: Understood. But why would anyone in their right mind let a manager investing in marketable assets lock up their money for an extended period? I can see why that's a good deal for managers, but I can't see why it's sensible for clients.

Adams: It's sensible because it enables managers to spend less time worrying about how their clients will behave and more time pondering how current or potential portfolio holdings will behave. My colleagues and I talk with hundreds of money managers every year, and it never ceases to amaze us how distracting and counter-productive it is for some of them to worry constantly about their clients' willingness to stay the course. Mind you, I'm not talking about second-rate managers whose clients would be better off investing elsewhere. I'm talking about managers who have a clear and discernible edge as investors — or rather who **would** have such an edge if they could jockey themselves into positions where they could focus more time on investing and less worrying about their clients bailing out if the portfolios they manage happen to perform poorly over short-term periods. I suspect that this is what Vicky had in mind when she noted earlier that the typical investment committee arguably displays too much flexibility in adjusting manager allocations to reflect recent performance trends but not enough flexibility in adjusting long-term policies to reflect changed external circumstances.

Woodhull: That is indeed what I had in mind: liquidity is a fine and dandy thing in theory, and it's often helpful in practice, but it can be a curse when it induces investors to reverse what **appear** to be mistaken judgments yet which are likely to prove otherwise over the long term.

More: Like our ill-fated foray into emerging markets not long ago?

Woodhull: I wasn't going to bring that up today, Tom, because it pains me to consider how shortsighted we were to eliminate our focused exposure to emerging markets. We still have some exposure to emerging markets through our global equity managers, of course, but given the short-term performance pressures to which most money managers are subject many aren't going to make material bets against their global equity benchmarks, less than 5% of which comprise emerging markets today. This is unfortunate, because emerging markets stocks have held up relatively well since we bailed out of them a year ago [see Exhibit 8].

Lingering Discomfort

Bell: Vicky, you've just done what you accused me of doing when I insisted that we bail out of that emerging markets fund in which we had invested a year ago: driving with my eyes on the rear-view mirror. I confess that I stopped monitoring emerging markets after we bailed out of them a year ago, so the fact that they outperformed developed markets — including the US — in 2002 is news to me. But we would have lost money investing in them anyhow, and I'm as uncomfortable investing in them today as when I insisted that we get out of them a year ago.

More: If you don't mind my saying so, Mr. Chairman, you also pushed us to unload all of our foreign stocks at our meeting in December 2001, on grounds that they'd underperformed US stocks in five of the six prior calendar years (1996?2001). I'm glad we didn't follow your lead on that one, because foreign stocks have performed materially better than US stocks in dollar terms over the last 12 months [see Exhibit 8]. I assume from your proposals, Abby, that you remain bullish on foreign stocks?

Adams: Not exactly, Tom. Agnostic would be a better word, by which I mean something quite precise: in both my constrained and unconstrained proposals [see Exhibits 3 and 7], I'm recommending that you equally weight US and foreign stocks. I'm doing this for two reasons: first, because over the very long time horizon that should govern such a choice, it would be presumptuous of me to forecast that US stocks will perform materially better or worse than their foreign counterparts; second, because it so happens that US and foreign stocks comprise roughly equal parts of the world's total stock market capitalization at present [see Exhibit 9].

More: I admire your humility in declining to forecast whether US stocks will perform better or worse than foreign stocks over the very long term on a passive or indexed basis. But we don't index our stocks. Rather, we use active stock managers, both home and abroad — and the record shows that the foreign managers have added more value to their benchmarks than have our US stock-pickers. Given this fact, why not tilt the policy portfolio even more heavily to foreign stocks than you've proposed, if only to capture the incremental value added from active management of our non-US equities?

Adams: Good question, Tom. You could in fact dial in a permanent bias by assigning a higher normal weight to foreign stocks than to US ones. But I'd rather see you maintain neutrality at the policy level and let the managers themselves dial in an overweight as they see fit based on evolving opportunities in global stock markets. After all, there may be times when they'll want to overweight US stocks relative to capitalization-weighted global indices.

More: Why don't we take your preference for global stock management one step further and combine our US and foreign stock segments into a single global stock segment benchmarked against the world stock index?

Adams: That would be a logical next step, Tom — one that some of my other clients have already taken. But Graham cautioned me prior to today's meeting that the foundation's board isn't quite ready to take that plunge, even if this committee is, so the policy portfolios I've recommended continue to distinguish between US and foreign stocks. Of course, as I've already indicated, given global stock market capitalizations at present, this is a distinction without a difference, because your US and foreign stock norms are very close to what they'd be if you combined the two segments and benchmarked all of your marketable stocks against a global equity basket.

Bell: For the record, I remain uncomfortable with Abby's assumption that foreign stocks will produce roughly the same returns as US stocks over the long term. Indeed — no offense to Abby — I'm not sure we should place much faith in any of the assumptions underlying her policy recommendations [see Exhibit 4]. She herself admitted that she's not very good at forecasting — and I don't think any of us can forget the essay that Tom distributed to the committee a few years back critiquing computer-based approaches to asset allocation. [See Message in a Bottle, published in the TIFF *Commentary* for 1Q 1999.] It went on for pages and pages, so I don't remember all of it, but I do remember its bottom line, which is that models of the sort Abby has put before us today aren't worth the paper they're printed on.

More: That wasn't quite what the essay said, Graham, although I agree that it was sharply critical of mean-variance models in particular. My take-away from it was not that we should abandon modeling altogether but rather that we should use models for **descriptive** rather than **prescriptive** purposes — as a tool for analyzing the impact of policy choices reached by more intuitively appealing means.

Bell: Point well taken, although I'll note again for the record that my own intuition tells me that Abby's assumptions could prove mistaken, especially her assumption that foreign stocks will keep pace with US stocks over the long term. I don't think they will.

Familiarity Breeds Contempt

Woodhull: Neither do lots of foreigners, Graham, which is one reason that I disagree with you — as usual! More specifically, I think our normal allocation to foreign stocks should be **at least** equal to our normal allocation to US stocks. There are other reasons also [see **US vs. Foreign Stocks: The Arguments for Equal Weighting**], but one compelling reason for us to invest at least as heavily in foreign stocks as we do in US stocks is because many foreign stocks are priced in a manner reflecting more pessimistic economic outcomes than our own market. This is especially true of the stocks of many very well-run companies based in southeast Asia, to say nothing of many small- and middle-sized companies based in Japan, where stock prices are hovering near levels they first reached back in the early 1980s [see Exhibit 10].

More: And with good reason! I don't have time to follow closely what's going on in Japan —

Bell: — or the dozens of other foreign markets that Vicky wants us to risk capital in —

More: — but I know enough about Japan to know that the situation over there is essentially hopeless: the central bank has slashed interest rates to negligible levels, the banking system is in shambles, the politicians in charge continue to fiddle and diddle and the economy continues to falter. I don't see even the remotest sign that things are going to get better over there anytime soon. I could say similar things about Germany, by the way, and perhaps France also, although nominal interest rates aren't as low in Europe as they are in Japan so the ECB (European Central Bank) has at least a few more arrows in its quiver that it could fire in an effort to jump-start the European economy.

Adams: I don't want to sidetrack the conversation by focusing undue attention on what's going on in Europe, but I will note that the ECB has a real dilemma on its hands: it's charged with the responsibility of setting a benchmark overnight borrowing rate for all of the countries that use the euro, including the second largest economy in the world — Germany's. For reasons we don't have time to discuss, Germany is running an inflation rate well below that of most other countries in the euro bloc, which means that real interest rates in Germany are higher than those elsewhere in euro-land. I mention this not because this committee wants or needs to get into the business of tilting toward or away from individual countries or regions outside the US but because the committee bears responsibility for manager selection, and I think it should keep the ECB's dilemma in mind when assessing its external managers' evolving grasp of global opportunities and perils.

Woodhull: Let me jump in here and reinforce something Abby just said: I don't think this or any other committee made up of part-time volunteers should decide which countries or regions outside the US an institutional portfolio should tilt toward or against. So I don't want to spend too much time discussing the outlooks for Japan or Europe or any other part of the world outside our own borders. But I do want to respond to what Tom said a minute ago, because I worry that if we don't understand **why** the external managers we employ are pursuing certain opportunities we'll fall into the same trap that many investment committees fall into — bailing out of potentially winning positions before we've given them enough time to work.

Bell: You mean 18 years isn't enough time to prove that Japanese stocks aren't worth owning?

Woodhull: That's certainly the conclusion that the Japanese themselves have reached. On average, Japanese individuals have 4% of their net worth invested in Japanese stocks. That's a lower fraction of household net worth invested in stocks than the typical American family displayed at any time during the Great Depression seven decades ago. Japanese pension funds have bailed out of stocks also, favoring government bonds over stocks even though stock dividend yields exceed government bond yields in Japan by a material margin. Basically, the whole society has become incredibly risk-averse — so much so that the typical Japanese pension fund discounts its liabilities at an actuarial rate below 2%.

Bell: Forgive me, Vicky, but why should we care what rate Japanese pension funds use in determining how much capital they need to defray future liabilities?

Woodhull: We should care for the same reason that Tom pushed all of us to grab a Coke at the beginning of today's meeting: because the only way we can gain and hold an edge when investing the foundation's capital is to take the long view — directly when we're allocating our funds across available asset classes and indirectly when we're selecting external managers. Like the typical Japanese investor, the typical global or foreign stock manager is decidedly bearish on Japanese stocks. It's easy to see why: there are no reasons to suppose that Japanese stocks will move sharply higher over the next year or two and plenty of reasons to suppose that they'll keep moving sideways or downward. But there are even more reasons to suppose that Japanese stocks will outperform US stocks by a material margin over the next decade or two, which is a time horizon more appropriate for the tasks this committee performs than the time horizons by which most institutions assess performance.

Bell: We don't have all day, Vicky, and we still haven't brought Abby's proposals to a vote. But I can't let us turn back to the action items on our agenda without giving you at least a minute to list the reasons why you think we should back up the truck and fill it with Japanese stocks.

Woodhull: I don't think we should, necessarily. I'm simply using the Japanese stock quandary to underscore the crucial importance of our taking the long view, especially when selecting outside advisors. The way I see it, I wouldn't want to repose much if any trust in a global stock manager — or a consultant, for that matter — who hasn't thought long and hard about the generational changes that are just beginning to gather steam in Japan, especially in corporate boardrooms. In a nutshell, an economic system that exalted employees' interests over shareholders and hence top-line revenue growth over all other measures of corporate success, including return on equity, is giving way to a system that places far greater emphasis on shareholder returns. As the new mindset takes root, seniority-based pay schemes are being replaced by meritocratic ones — not universally, but one company at a time, with companies exposed to global competition getting religion first and those serving primarily domestic customers lagging behind. But Japan's domestic-oriented companies won't be able to cling to their old ways forever, because the Japanese electorate is fed up, and it's pushing its elected leaders to in turn push even the most closeted industries to clean up their act.

Adams: And the prime minister himself is essentially trying to destroy his own political party. I can't recall an elected leader in history who's made that his conscious goal.

More: Excepting possibly Trent Lott.

Adams: I said conscious goal, Tom!

Absurd Assumptions

Woodhull: One more point about Japan, if I may Graham, before we vote on Abby's proposals. I noted earlier that Japanese pension funds are using absurdly low expected returns in determining how much money to set aside to meet future liabilities — actuarial rates that are below stock dividend yields in Japan, to say nothing of reasonable projections of corporate ROEs (returns on equity) adjusted for the premium over book value that investors must pay when investing in Japan. That premium is about 30% today, as compared to a price-to-book value ratio of about 2.3 (i.e., a premium of 130%) for the average US stock. I'm not sure that Japan, Inc. stock merits a **higher** price-to-book ratio than America, Inc., but I'm pretty sure it doesn't merit a materially **lower** one — not when the Japanese corporate sector has fully funded its pension obligations — using an absurdly low discount rate — while the US corporate sector has not, despite its continued use of return assumptions and hence discount rates that are as shockingly high (north of 9% on average) as Japan, Inc.'s are shockingly low. That's one reason among many why I support Abby's proposal to reduce our normal allocation to conventional bonds and beef up our allocations to asset classes that may perform better if inflation heats up again, such as real estate and natural resources.

Bell: Vicky! What on earth are you talking about? One minute you're talking about Japanese pension funds —

More: — pretty impressively, I might add —

Bell: — and the very next minute you're telling us we should dump our domestic bonds. What's the connection?

Adams: No one is proposing a zero normal allocation to conventional bonds, Mr. Chairman. But I **am** recommending a lower norm for them and a new benchmark for your conventional bond segment that will cause it to favor high quality issues to the maximum possible extent, the premise being that bonds held for deflation hedging purposes should entail little or no default risk. As for the connection between pension actuarial rates and potential changes in your policy portfolio, some but perhaps not all of you know that Uncle Sam is the ultimate guarantor of corporate pension liabilities in this country, through the PBGC (Pension Benefit Guarantee Corporation). Unfortunately, the recent bear market in stocks coupled with a big decline in high quality bond yields has created a roughly $250 billion funding shortfall in US corporate pension plans — and that assumes an average long-term return on plan assets north of 9% gross of inflation. That's very unlikely to happen — not unless the assumed returns underlying my policy proposals [see Exhibits 3, 4, and 7] prove unduly low in hindsight.

Woodhull: I wouldn't bet the ranch that they will — but I **would** bet a large sum that a different set of assumptions will prove unsound in hindsight — the assumptions underlying long-term forecasts of US government spending and hence also this nation's cumulative federal debt. The national debt exceeds $6 trillion at present, more than 60% of America's current GDP of roughly $10 trillion. Healthcare-related spending accounts for almost 15% of America's GDP at present, a fraction that has risen materially in recent years due to the healthcare sector's relatively high inflation rate. As we all know, pressures are building to create new healthcare-related entitlements, including prescription drugs for seniors as well as some form of universal health insurance. But even if such proposals get **defeated**, official estimates call for Medicare spending **alone** to reach almost 5% of GDP by the year 2040. If that fact doesn't frighten bond investors, this fact will: the official projection that I just cited assumes that real or inflation-adjusted Medicare outlays per capita will grow at an annualized rate of 1.3%. The actual historical experience since Medicare was introduced is roughly 5%, a real growth rate which if extrapolated through 2040 would cause Medicare spending alone to exceed 15% of GDP. I won't bore the committee with a discussion of the equally fanciful assumptions underlying official projections of the long-term costs of other entitlement programs, but suffice it to say that most objective analysts find them as credible as the weapons inventory that Iraq submitted recently to the UN.

Bell: What's your point, Vicky — beside the obvious one that the social safety net Americans have woven is pretty costly? After all, that's true of other civilized nations' entitlement programs, including Japan's.

Woodhull: My point is that the policy changes Abby is recommending reflect lots of sober thought about long-term economic trends — and the extent to which consensus expectations do or do not reflect the full range of potential outcomes, including the substantial probability that the US and perhaps also other liberal democracies will try to reflate their way out of their current economic torpor, spending beyond their means and debasing their currencies and sovereign debts in the process. Asset prices today assign a very low probability to that scenario.

Bell: I guess you haven't read George Soros's book about investing.

Woodhull: Parts of it. Why do you ask?

Bell: I figured that anyone who could go from being a penniless immigrant to the US in the late 1940s to one of the world's richest men just a few decades later must know something about money management, so I picked up a copy of Soros's "The Alchemy of Finance".

Woodhull: And?

Bell: And Soros makes it crystal clear that the key to his extraordinary success as an investor was his capacity not only to anticipate inflection points in capital and currency markets but his ability to divine how governments, companies, and consumers would in turn respond to the market moves he anticipated. I mention this because Soros would argue that America's political leaders simply aren't going to let entitlement spending spiral out of control.

Woodhull: In other words, as soon as investors sense that government spending could be spiraling out of control they'll act **reflexively** to discipline policymakers into trimming entitlements, with capital markets responding **reflexively** and assumedly favorably to news that entitlements have been trimmed, and so on.

Bell: Obviously, you've read Soros's book, because you've mentioned twice the word that he uses to describe the self-adjusting character of both economic actors and capital markets: reflexivity.

Woodhull: To be honest, I found Soros's book to be as opaque and convoluted as most of his public pronouncements. But I did read the part about reflexivity, and I agree that we should keep the concept in mind as we go about our work. Indeed, I'm the first to acknowledge that we can't assign 100% certainty to long-term forecasts about anything — excepting possibly which major league baseball team will have the highest payroll over the next several decades. But we can and **must** adjust our thinking when asset prices reflect too narrow a range of future results. That was emphatically true when investors throughout the world were piling into technology stocks in general and US technology shares in particular at the beginning of the decade, and —

More: — and we debated endlessly whether to make wholesale changes in our policies and strategies to reflect the possibility that America's technological edge would prove less material or enduring than other investors were assuming. I distinctly recall spending hours reading and discussing at this table a stridently bearish essay on US stocks that Abby called to our attention. [See **A Look Ahead-Part I** and **Part II**, published in TIFF *Commentaries* for 4Q 1999 and 1Q 2000.]

Bell: The record shows that we did make some adjustments in our manager mix and manager guidelines that helped our actual portfolio outperform our policy portfolio [i.e., a weighted average of the policy portfolio's segment benchmarks per Exhibit 3] by wide margins in 2000 and 2001. We would have done even better if our outside managers as a group had done a better job assessing the risks to which they were subjecting our capital.

Woodhull: Rubbish. As Abby never fails to remind us, the money management business is structured in a manner that makes it virtually impossible for traditional money managers to act on long-term opportunities — or perils — if doing so entails a risk of huge short-term underperformance. Some of the most dedicated investment professionals available to us recognized and warned us of the risks to which our portfolio was subject when stock prices were levitating a few years ago — but we and assumedly many of their other clients kept badgering them to explain why we were paying them hefty fees for performance materially below what we could have been earning by investing in a low-cost stock index fund. It's naive to expect money managers catering to clients like us to make potentially career-threatening bets in the portfolios they manage — however confident they are that such bets will prove profitable over the long term.

Paradigm Shift

More: But is it naive to think that we could find a team of full-time investment professionals to whom we could confidently and prudently delegate most if not all of the policymaking chores we now perform ourselves? I ask the question because we've already run over our allotted time for this committee meeting, we haven't taken up any of the action items on today's agenda and all of the talk we've heard from you, Vicky, and Abby about TIPS-this and Japan-that and REITs and high yield bonds has left me more convinced than ever that we're structured for failure rather than success. No offense to Abby, who has definitely added value to our deliberations over the years, but I'm increasingly convinced that the only way we're going to achieve uncommonly good results is to abandon our traditional approach of having a committee of lay volunteers that meets infrequently perform certain vitally important investment tasks in favor of a new paradigm under which we delegate such tasks to full-time professionals. The full board to which this committee reports might be puzzled by our recommendation that we make this paradigm shift, but making it would represent a logical extension of the thought process that induced the board to delegate rather sweeping investment powers to this committee in the first place — and rightfully so.

Bell: Those are mighty radical notions you're advancing, Tom. What's gotten into you — besides three or four cans of Coke?

More: Nothing, except that this is the umpteenth investment committee meeting I've sat through thinking not so much about the agenda items at hand but rather about the possibility if not certainty that there must be a better way to invest this foundation's assets. To be perfectly blunt, it troubles my conscience to know that there may be trained professionals out there who are both able and willing to perform more diligently than this committee ever can the tasks delegated to it.

Bell: More diligently, perhaps, but more expensively also.

More: I'm happy to have our investment-related costs go up if our net returns go up even more.

Bell: Obviously. We don't want to be penny-wise and pound-foolish. But isn't it reasonable to assume that any professionals with the requisite energy, experience, and skills to furnish truly comprehensive asset management services to us already have enough capital to supervise?

More: As a general rule, that's probably true. But there are exceptions to every rule, and I think it would behoove this committee to roll up its sleeves and investigate whether a paradigm shift of the sort I've outlined would work in practice. Indeed, I'd go further and argue that we **must** consider such a shift if we're going to exploit fully future opportunities in private capital markets. I sit on the board of another endowed charity that makes extensive use of private investments. Its staff has to devote lots of time and care to administering these investments — even those implemented via funds of funds. There are capital calls to contend with, reporting delays that need to be understood and factored into the investment committee's thought processes and rebalancing protocols, and a host of other complications that cause me to wonder whether we shouldn't outsource the whole ball of wax.

Bell: Are there in fact vendors available to us that could do the job better than we can — at reasonable cost? Abby, what's your take on what Tom is suggesting?

Woodhull: I'm going to jump in here and spare Abby the embarrassment of answering your question, Graham. Obviously, as a paid consultant to this committee, Abby has a conflict of interest respecting Tom's suggestion that we delegate more of the tasks this committee has traditionally performed to an outside vendor. But Abby and I go way back together and it won't surprise the rest of you to learn that we've actually discussed on not a few occasions the merits of doing approximately what Tom has suggested. To her credit, Abby actually supports the idea, on four conditions: first, that we're able to identify and hire at reasonable cost an outside vendor with demonstrated skill at investment policymaking **and** implementation — not only in public markets but in private markets also; second, that any such vendor have a demonstrated track record of putting its clients' interests first, as measured most conspicuously by its willingness to adhere to self-imposed limits on the amount of capital invested in such size-constrained niches as private equity and hedge funds; third, that the vendor we pick be willing to put its money where its mouth is by working for minimal base fees plus perhaps a percentage of the excess returns it's able to produce for us; and fourth, that we ourselves are both able and willing to make a long-term commitment to a vendor displaying all of the attributes I just ticked off. All four conditions are crucial — the first three for obvious reasons, and the fourth for reasons that are both obvious and subtle. The obvious reason we must be willing to lock up our money for an extended period under Tom's committee-for-hire model is that no such vendor worth hiring is going to accept such a mandate unless we let it employ a broad range of investment strategies, some of which necessarily entail long-term lock-ups.

Bell: I knew that was coming!

Woodhull: The less obvious reason we'd need to make a long-term commitment under Tom's model is one we touched on earlier today: the types of people to whom we'd comfortably entrust most of the powers delegated to this committee are increasingly demanding that their clients enter into long-term commitments. This is especially true of investment professionals engaged in asset allocation and manager selection, two arenas where major opportunities to add value appear infrequently and at highly irregular intervals. Of course, that's true with respect to security selection also — an unfortunate fact of life that many trustee groups ignore at their peril.

More: By which you mean that they expect active managers to generate excess returns more consistently than market realities permit — if not every quarter then at least every year.

Woodhull: That is indeed the Achilles heel of many institutions' investment programs — that and the fact that trustees trust statistics far more than they trust words.

Bell: How so?

Woodhull: We've already noted and assumedly agreed that capital markets toss up major opportunities to investors on an infrequent and irregular basis. Given this fact, and the impossibility of identifying precisely in real-time when such inflection points have been reached, it's obvious that even the most competent investment professionals are going to suffer occasional bouts of underperformance. Because they recognize instinctively that they don't know enough about investing to judge with certainty whether the underperforming managers they employ have lost their marbles, trustee groups often ascribe too little importance to managers' stated reasons for behaving as they do and too much importance to the only hard facts available to them, namely returns.

Bell: But some managers are incredibly tight-lipped about what they're doing with their clients' money and why — and many have a tendency to clam up when they're underperforming.

Woodhull: True. But we don't have a huge pot of money to put to work, and we can therefore afford to be highly selective when choosing outside vendors, favoring those that go to great lengths to explain precisely what they're doing with the capital entrusted to them and why. This is especially true with respect to any vendors we might tap to do asset allocation or manager selection for us.

Bell: But you and Abby have scolded me in the past for demanding that managers who've underperformed come before the committee to explain what's gone wrong and how they intend to fix it.

Woodhull: Only in cases where the managers have behaved in a manner different from what they led us to expect — **and** failed to explain why in **writing**. After all, it can be hugely counterproductive to make the professionals we've hired to manage our capital spend their time visiting with **us**.

Bell: Don't insult my intelligence, Vicky. I've never insisted that the persons actually managing our money visit with us; I've simply insisted that **someone** from the underperforming firms in question show up to explain what's gone wrong and why.

Woodhull: Apologies, Graham, but I'd rather spend my time reading a piece written by someone actually managing our capital than meeting face-to-face with a marketing or client relations rep — especially if the fees we're paying are higher than they'd be if we didn't insist that someone show up in person on a regular basis to hold our hands. Besides, I have a strong bias in favor of managers who can and do articulate clearly in writing the reasons underlying their evolving strategies and tactics — **before** such strategies misfire.

Bell: We don't want to employ investment pros whose guns misfire.

Write This Down

Woodhull: Speak for yourself. For all the reasons Tom outlined, we should be delegating more rather than less of the discretion we've been given to steward this foundation's capital. If we go down this road, we simply must expect occasional bouts of underperformance, if not relative to our own long-term return goals then at least relative to peer institutions. That certainty is one reason among many that I think we should keep paying Abby to consult to us, so that she can continue pushing us to take the long view. She can also help us assess whether the investment pros to whom we've delegated tasks now performed by the committee are discharging their duties as professionally and energetically as we would hope, including their clear articulation in writing of the reasons underlying major portfolio moves.

Adams: I won't comment on what Vicky just said, for obvious reasons, except to note that the utility of having investment pros furnish written justifications of their principal moves **in real time** goes way beyond their clients' interests in knowing what went wrong if such moves prove unprofitable.

Bell: Explain.

Adams: We all know that clients tend to chase recent success when hiring money managers, often with regrettable results. They do so because they attribute superior returns to skill — and inferior returns to its absence. But stellar results sometimes reflect luck more than they do skill. One effective means of determining whether they do is to scrutinize contemporaneous justifications for winning moves, so that you can confirm that in hindsight the manager didn't make the right moves for the wrong reasons — or for no logical reason at all.

More: Maybe we should hire George Strait to manage our money.

Adams: Who's that?

More: You should get out more often, Abby. He's the country music star who performs the big hit "Write This Down".

Woodhull: I'm late for my next meeting, Graham. Are we going to vote on Abby's proposals or not?

Graham: I'll entertain a motion that we approve her first set of changes to our current policy mix [see Exhibit 3], but I don't think the time is ripe to vote yea or nay on her proposal to dial private investments into our mix [see Exhibit 7].

Woodhull: Why not?

Bell: Because we might want to follow Tom's lead and delegate to an outside firm responsibility for deciding when and to what extent we should access private as well as public opportunities.

Woodhull: There's hope for you, yet, Graham. I move that we approve Abby's first set of changes — and set a date to vet Tom's suggestion in earnest.

Bell: I'll rule the first motion is in order but not the second.

Woodhull: Why's that?

Bell: Because we need to understand much better how Tom's model would work before this committee decides whether to adopt it. I'm especially interested in knowing whether there's a vendor out there that satisfies all of the selection criteria you ticked off, Vicky, but that's also willing to honor reasonable demands for liquidity — not so that we can change our minds whenever we wish but so that we can be reasonably assured of having enough cash on hand to meet our targeted spending needs.

Woodhull: I suspect that there is, Graham. But even if there isn't a vendor offering precisely what we're looking for at present, I'd wager a tidy sum that one will emerge, just as your friend Mr. Soros would predict.

Bell: I don't recall Soros saying anything about the kind of turnkey approach to endowment management that Tom has encouraged us to investigate.

Woodhull: I didn't mean that Soros himself has said or written anything along the lines of Tom's proposed solution to our long-term investment needs. From what I hear, Soros may still be able to sniff out attractive opportunities to make big bucks in the currency and capital markets, but he's proven himself a bit too reflexive — meaning: impatient —

when hiring and firing investment talent. No, what I meant Graham is that demand for the kind of turnkey approach to endowment management that Tom favors will likely elicit its own supply — reflexively!

Bell: Do I have a second for Vicky's motion that we approve the policy changes outlined in Exhibit 3?

More: So moved.

Bell: Further discussion? There being none, the motion carries. Meeting adjourned.

EXHIBITS

Exhibit 1: Policy Portfolio Over Time

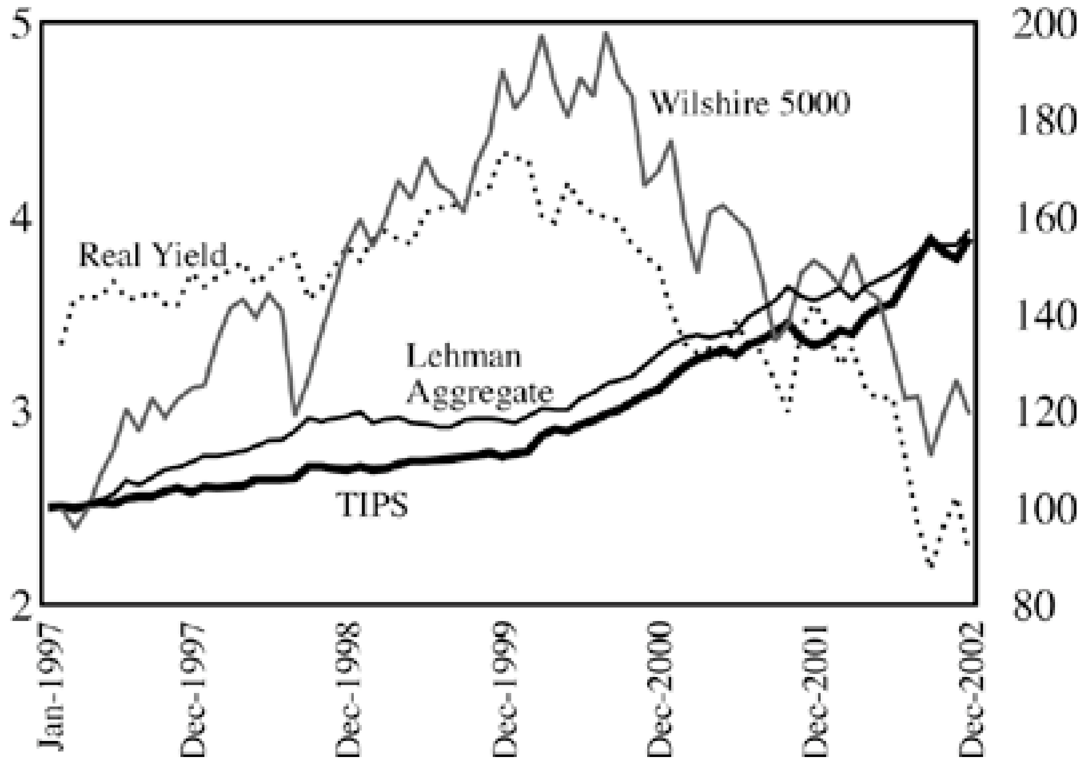
Neutral Weights					
Policy Portfolio	Orig	V.2	V.3	V.4	V.5
Inception Date	3/95	12/97	9/99	12/00	7/02
US Stocks	25%	25%	25%	25%	25%
Foreign Stocks	30%	**25%**	25%	25%	25%
Absolute Return	15%	**20%**	20%	20%	20%
Resource-Related Stocks	10%	10%	**5%**	5%	5%
US Bonds	15%	15%	**20%**	**15%**	**10%**
Foreign Bonds	5%	5%	**0%**	0%	0%
Inflation-Linked Bonds	0%	0%	**5%**	**10%**	**15%**
Total	100%	100%	100%	100%	100%
Note: Changes highlighted in boldface.					

Value Added by Policy Portfolio Changes

	3/95-12/02	12/97-12/02	9/99-12/02	12/00-12/02	7/02-12/02
Cumulative Impact	+11.2	+8.0	+6.8	+4.6	+1.1

The data immediately above indicate in cumulative percentage terms the incremental returns produced by the policy portfolio changes depicted in the upper panel over the time periods shown. Thus, had the original policy portfolio remained intact since its initial construction in March 1995, a constructed index reflecting its segment weights would have produced a cumulative return 11.2% lower than the return produced by the linked monthly returns of the evolving constructed index — an index revised four times since 1995. Importantly, each version has produced returns superior to its predecessor over all measurement periods (detailed data available upon request).

Exhibit 2 — TIPS Perform Well



Solid lines depict cumulative total returns for the 10-year Treasury Inflation Protected Security, Wilshire 5000 Index, and Lehman Aggregate Bond Index (right y -axis). Dotted line depicts 10-year TIPS real yields (left y-axis).

Exhibit 3 — Current versus Proposed Policy Mix

Asset Class	**Current Norm**	**Proposed Norm**	**Change**	**Current Benchmark**	**Proposed Benchmark**
US Stocks	25%	23%	-2%	Wilshire 5000	No Change
Foreign Stocks	25%	23%	-2%	MSCI ACWFxUS	No Change
Absolute Return	20%	20%	-	T-Bills + 5%	No Change
High Yield Bonds	-	3%	+3%	-	ML US HY Constrained Index
REITS	-	3%	+3%	-	Morgan Stanley REIT Index
Resource-Related Stocks	5%	7%	+2%	Global Index of RR Stocks*	Revised Global Index*
Conventional Bonds	10%	8%	-2%	Lehman Aggregate	SSB 10-year US Treasury Bond
Inflation-Linked Bonds	15%	13%	-2%	10-year TIPS	No Change
Total	100%	100%	NA	Weighted Average of Segmented Benchmarks	Revised Weighted Average of Segment Benchmarks

*Current resource-related benchmark comprises MSCI World Index sectors of 75% energy, 20% metals and mining, and 5% paper and forest products; revised benchmark comprises 50% energy, 30% metals and mining, and 20% paper and forest products.

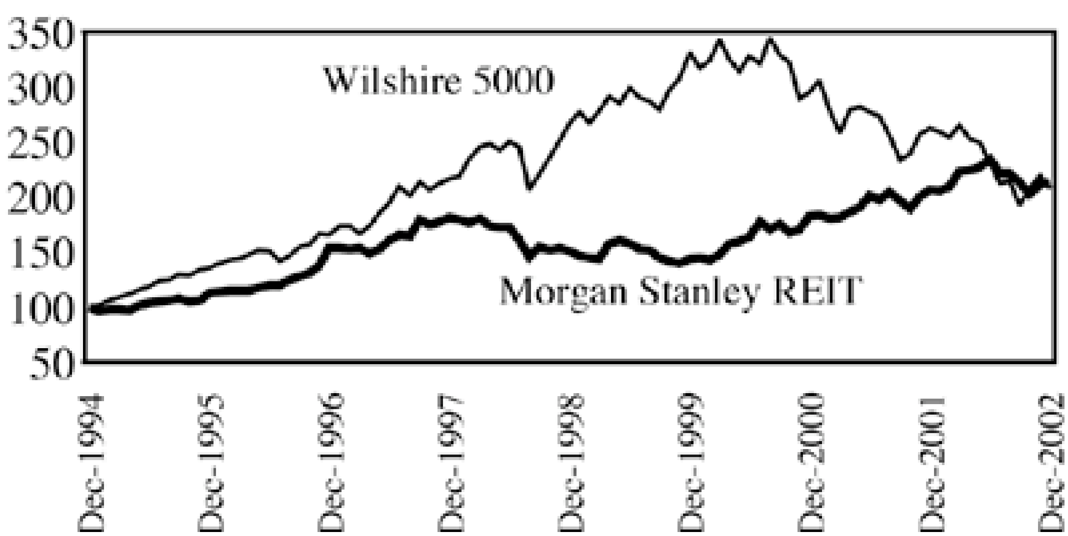
Exhibit 4 — Mean-Variance Optimization Inputs

						Correlations									
Real Return	Value Added*	Total Real Return	Total Nominal Return**	Std Dev	Asset Class	US Stocks	Foreign Stocks	Global Private Equity	Absolute Return	High Yield Bonds	Inflation-Linked Bonds	Conven-tional Bonds	Private Real Estate	REITs	Resource-Related Stocks
3.5	1.0	4.5	7.0	16%	US Stocks	1.00									
5.0	1.5	6.5	9.0	17%	Foreign Stocks	0.60	1.00								
8.0	[s]	8.0	10.5	20%	Global Private Equity	0.50	0.40	1.00							
5.0	[s]	5.0	7.5	8%	Absolute Return	0.70	0.60	0.50	1.00						
5.0	2.5	7.5	10.0	12%	High Yield Bonds	0.55	0.35	0.20	0.50	1.00					
2.5	0.0	2.5	5.0	3%	Inflation-Linked Bonds	0.10	0.00	0.10	0.10	0.20	1.00				
1.5	0.0	1.5	4.0	7%	Conventional Bonds	0.35	0.15	0.15	0.25	0.40	0.40	1.00			
6.0	[s]	6.0	8.5	12%	Private Real Estate	0.20	0.15	0.15	0.15	0.10	0.20	0.40	1.00		
3.0	1.5	4.5	7.0	13%	REITs	0.60	0.40	0.20	0.20	0.40	0.20	0.20	0.70	1.00	
3.0	1.5	4.5	7.0	13%	Resource-Related Stocks	0.40	0.40	0.20	0.20	0.30	0.20	0.20	0.20	0.20	1.00

* Expected value added from the use of assets or strategies that could cause a segment's returns to deviate from the returns of its benchmark
** Assumes 2.5% inflation (uncompouned for simplicity's sake), a 15-year time horizon, and access to top-tier managers in all markets.
[s] Subsummed in Total Return.

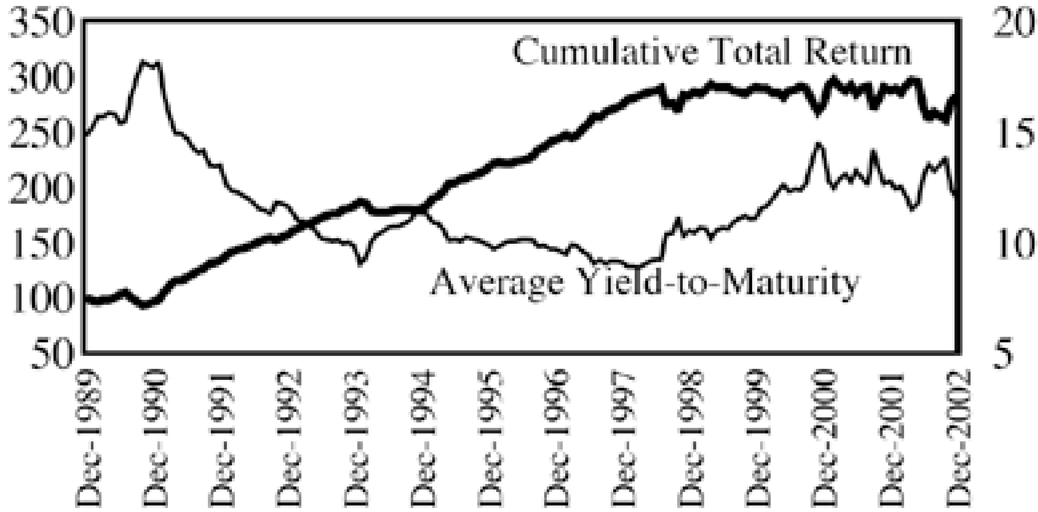
Source: TIFF estimates.

Exhibit 5 — Morgan Stanley REIT vs Wilshire 5000



Data represent cumulative total return of the Morgan Stanley REIT Index and the Wilshire 5000 Index.

Exhibit 6 — ML High Yield Index



Data represents cumulative total return (left axis) and average yield-to-maturity (right axis) of the Merrill Lynch US High Yield Master II Index (Unconstrained).

Exhibit 7 — Proposed Policy Mix Including Private Investments

Asset Class	**Proposal 1**	**Proposal 2**	**Change**	**Proposed Benchmark**
US Stocks	23%	16%	-7%	Wilshire 5000
Foreign Stocks	23%	16%	-7%	MSCI All Country World Free ex US Index
Global Private Equity	-	16%	+16%	Wilshire 5000 + 3.5% per annum
Absolute Return	20%	20%	—	Treasury Bills + 5% per annum
High Yield Bonds	3%	3%	-	Merrill Lynch US High Yield Constrained Index
Private Real Estate	-	7%	+7%	CPI + 3% per annum
REITS	3%	-	-3%	Morgan Stanley REIT Index
Resource-Related Stocks	7%	5%	-2%	Global Index of Resource-Related Stocks
Conventional Bonds	8%	8%	-	SSB 10-year US Treasury Bond
Inflation-Linked Bonds	13%	9%	-4%	10-year Treasury Inflation Protected Security
Expected Real Return*	4.7%	5.3%	0.6%	
Expected Standard Deviation	9.1%	9.0%	-0.1%	
Return/Standard Deviation	0.52	0.59	+0.07	

*Computed using assumptions set forth in Exhibit 4.

Exhibit 8 — US vs Foreign Returns

	Annualized Returns through 12/31/02			
	1 Yr	5 Yrs	10 Yrs	15 Yrs
US Stocks	-20.9	-0.9	8.8	11.1
Developed Foreign Stocks	-15.9	-2.9	4.0	3.1
Emerging Markets Stocks	-8.0	-6.7	-0.8	7.4

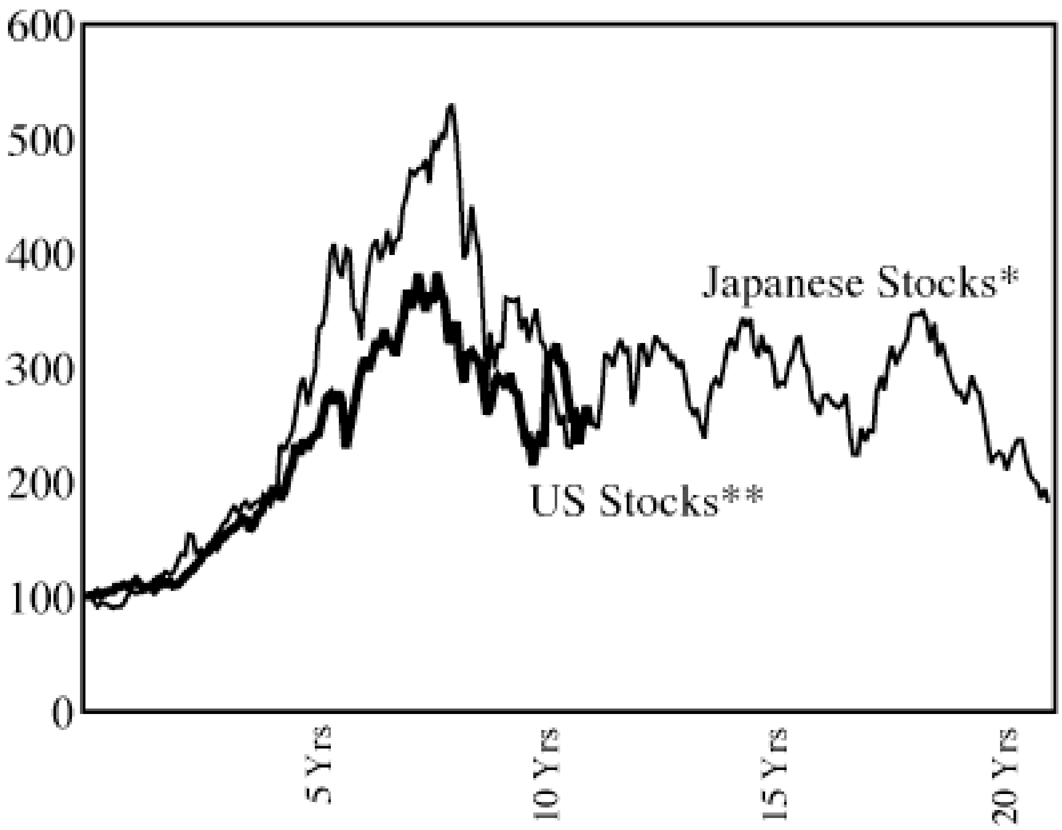
Data represents Wilshire 5000 total return, MSCI EAFE Index (with net dividends reinvested), and MSCI Emerging Markets Free Index (price change only). The MSCI EMF Index inception date was December 31, 1987.

Exhibit 9 — Global Stock Market Capitalizations

United States	54.0%
Developed Foreign Markets	42.1%
Emerging Markets	3.9%

Data represents MSCI All Country World Free Index weights.

Exhibit 10 — Precedence or Mere Coincidence?



* Cumulative total return for the MSCI Japan Index (in local currency) from January 1982 through December 2002.
** Cumulative total return for the Wilshire 5000 Index from January 1993 through December 2002.