
The Literature of Private Wealth Management

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Investment professionals who switch from managing institutional portfolios to managing individuals' portfolios quickly learn the peculiarities of private wealth management. Portfolio design and investment policy development are affected by individuals' views and circumstances with respect to (1) return and spending requirements, (2) risk, (3) taxation, (4) investment horizon, (5) liquidity needs, (6) legal structures and requirements, as well as (7) individual circumstances. Accordingly, we will review the practitioner and academic literature on a range of private wealth management topics that relate to these factors.

Before proceeding, we should clarify what we mean by "private wealth management." Private wealth management encompasses both *taxable investment management* and *personal financial planning* concerns. Wealth management represents a specialization within investment management that addresses the particular concerns of high-net-worth individuals. Wealth management also represents an increase in *professionalism* and *technical acumen* over 1980s-era classical financial planning. The word "private," although not strictly necessary, connotes the intensely personal and consultative relationship of private bankers—something private wealth managers aspire to have with their clients. Private wealth management, although centered on investment management, considers the complete financial picture of individuals and families and does so in a well-integrated fashion.

Annotated bibliographies have been described as "kaleidoscopes of ideas," a label we think fits. Our hope in presenting this annotated bibliography for private wealth management is to provide readers with a varied and discerning selection of the best thinking in the field. Unlike other annotated bibliographies that may be a single list of articles, our bibliography divides the private wealth management literature by topic. Doing so better enables us to highlight the interconnections between articles. However, because private wealth management is an integrated perspective, it is sometimes necessary to draw connections between different topics. We also include a complete list of References at the end of this literature review.

Our first section discusses a few books that provide an overview of the private wealth management landscape. Because our bibliography focuses on articles and books that present a *uniquely* private wealth management perspective, it ignores many excellent books that do not provide such focused perspectives. The second section includes readings that directly apply to the central issue of strategic asset mix and overall investment policy. The next several sections include readings that indirectly apply to this issue—behavioral asset allocation, tax-adjusted asset allocation and the extended portfolio, portfolio implementation, low-basis stock, and asset location. We then present a large section on tax-wise portfolio management. In private wealth management, maximizing pretax returns is insufficient; rather, after-tax returns matter crucially. The next section considers sustainable spending rates—chiefly, the maximum sustainable spending rate in retirement consistent with a desire to not outlive the portfolio. We follow this with shorter sections on philanthropy, estate planning, behavioral issues, and ethics. After-tax performance evaluation is the topic of the final section. We conclude with a smorgasbord of citations not otherwise classified.

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Overviews

The following books cover a range of private wealth management topics. As such, they provide a good introduction to the literature of private wealth management. Brunel (2002) is the benchmark reference for private wealth management—surveying many of the topics we investigate in this literature review. Evensky (1997) provided a survey of wealth management from his financial planning perspective. Reichenstein and Jennings (2003) captured much of our thinking on wealth management.

Brunel, Jean L.P. 2002. *Integrated Wealth Management: The New Direction for Portfolio Managers*. London: Euromoney Institutional Investor Books. (2nd edition, 2006.)

This book is the benchmark reference for private wealth management. The author, Brunel, as editor of the *Journal of Wealth Management*, has been responsible for getting into print some of the most important insights on wealth management. He has also written many important articles on his own. The book is a 300+ page rumination on how private wealth management differs from traditional investment management. The book covers a range of topics, including management of low-basis stock, after-tax management of open-architecture multimanager stables, principles of tax efficiency, and whether style diversification is an impossible challenge after taxes. Brunel's three main observations are (1) managing the relationship and the transition from the current portfolio to the optimal portfolio is important, (2) taxable investors should focus on wealth accumulation and asset location rather than periodic returns, and (3) individuals must focus on the total portfolio, not its components. The book contains its own immense (unannotated) bibliography.

Evensky, Harold. 1997. *Wealth Management: The Financial Adviser's Guide to Investing and Managing Client Assets*. Chicago: Irwin/McGraw-Hill.

This book was written by a practitioner sometimes hailed as the dean of the financial planning community. It marks his delineation of wealth management as a profession distinct from money management and asset gathering. At the time of the book's publication, in 1997, Evensky said wealth management had become a new profession, although it can also be seen as a specialty within financial planning. Investment-focused topics in the book include risk, taxes, investment math and theory, asset allocation, optimization, manager selection and evaluation, and fiduciary duties. More general topics include client goals, data gathering, and client education, as well as specific insight on Evensky's firm's approach. With some exceptions (e.g., software details), the book has aged well.

Reichenstein, William, and William W. Jennings. 2003. *Integrating Investments and the Tax Code*. New York: Wiley.

This book captures much of our thinking on private wealth management topics. It offers a unified approach to many articles we have written on such topics as asset allocation, valuing retirement benefits, and optimal savings vehicles. We advance several core principles. First, before-tax and after-tax dollars are different; that is, asset allocation should reflect embedded tax liabilities. Second, we evaluate asset location and the choice of savings vehicles. We focus on education and retirement savings goals rather than intergenerational concerns. Third, we encourage professionals to manage an individual's extended portfolio that includes the values of "off-balance-sheet" assets, such as Social Security payments and defined-benefit plans. The extended portfolio—not simply the financial portfolio—is the proper focus of the private wealth manager. To some extent, the book is an extended riff on the themes of Reichenstein (1998).

Strategic Asset Allocation and Investment Policy

Asset allocation for private wealth management differs from institutional investment asset allocation in a number of respects. The classic Markowitz mean-variance optimization must reflect after-tax values for both risk and return. There may be "legacy holdings" with a low tax basis. The diversification and return attributes of alternative investments, particularly hedge funds, must be balanced with their tax inefficiency. Individuals may hold stock options. A broad interpretation of asset allocation properly includes off-balance-sheet assets and liabilities, such as defined-benefit pensions or prospective college tuition payments. In an after-tax environment, the hurdles for market timing and tactical asset allocation, which were already high, are worse.

Although many readings in this bibliography have implications for setting an individual's strategic asset allocation and investment policy statement, the readings in this section directly apply to these topics. Bronson, Scanlan, and Squires (2007) took a broad view of the process of setting investment policy and asset allocation specifically. Brunel (1999a) discussed the high costs for a taxable investor of panic-induced selling and thus underscores the importance of getting the asset mix right in the first place. Messmore (1995) demonstrated how volatility widens the spread between the arithmetic and geometric average return; although the message is not new, it is worth repeating. Jacob (1998) provides an interesting overview of the difference between traditional portfolio optimization and optimization for private wealth clients. Campbell (2004) and Wilcox, Horvitz, and diBartolomeo (2006) considered both long-horizon and life-cycle investment perspectives for individuals making the asset allocation decision. Brunel (1999b), Corriero (2005), Milevsky (2004), and Terhaar, Staub, and Singer (2003) examined alternative assets in strategic asset allocation.

Bronson, James W., Matthew H. Scanlan, and Jan R. Squires. 2007. "Managing Individual Investor Portfolios." In *Managing Investment Portfolios: A Dynamic Process*. 3rd ed. Edited by John L. Maginn. Hoboken, NJ: John Wiley & Sons.

Relying chiefly on an extended case study, this chapter considers the "hard" and "soft" issues that go into successfully managing individual investors' portfolios. Significant emphasis is given to developing an investment policy statement. It also considers situational profiling, psychological profiling, and Monte Carlo simulation.

Brunel, Jean L.P. 1999a. "Revisiting the Fallacy of Market-Timing in an After-Tax Context." *Journal of Private Portfolio Management*, vol. 2, no. 2 (Fall):16–25.

The author focuses on a narrow definition of market timing—the after-the-fact reaction to a loss. He characterizes this reaction as a response to a faulty asset mix decision made earlier. We see this as decision-reversal risk. He demonstrates conclusively that the cost of panic-induced market timing is worse for taxable investors than for institutional investors. The results underscore the importance of getting the strategic asset allocation right in the first place.

Brunel, Jean L.P. 1999b. "The Role of Alternative Assets in Tax-Efficient Portfolio Construction." *Journal of Private Portfolio Management*, vol. 2, no. 1 (Summer):9–25.

Using multiperiod after-tax portfolio optimization software, the author evaluates what role alternative assets play for taxable investors. The study is largely motivated by the tax inefficiency of fixed income and the tax benefits of alternative assets, including tax losses generated by their volatility as well as alternatives' low correlations with other assets. The study's definition of alternatives is somewhat nebulous, but the description and risk–return characteristics look like hedge funds. The study suggests that alternative assets should be a part of strategic asset allocation for taxable investors, especially investors with average to above-average risk profiles. The author concludes that taxable investors should favor alternatives more than tax-exempt investors.

Campbell, John Y. 2004. "Measuring the Risks of Strategic Tilts for Long-Term Investors." In *The New World of Pension Fund Management*. Edited by Rodney N. Sullivan, CFA. Charlottesville, VA: CFA Institute.

This practitioner-focused article is a more approachable version of Campbell and Viceira's highly mathematical book, *Strategic Asset Allocation* (Oxford University Press, 2002). In Campbell's world, the word "strategic" denotes an asset allocation being reflective of shifting expected returns as well as investor horizons. This is not to say that Campbell advocates tactical asset allocation. He notes that tactical asset allocation requires good return forecasts to be successful. He also notes that tactical asset allocation may not properly reflect the long-term risks of asset classes. In his version of "strategic asset allocation," special emphasis is given to long-term inflation-linked bonds, such as Treasury Inflation-Protected Securities, as the default risk-free asset for long-horizon investors. The question-and-answer section includes a discussion of such inflation-indexed annuities as the risk-free asset for retirees.

Corriero, Timothy. 2005. "The Unique Tax Advantages of a Timber Investment." *Journal of Wealth Management*, vol. 8, no. 1 (Summer):58–62.

Timberland has recently gained in acceptance as an institutional asset class. The author considers its particular advantages for taxable investors, including having returns in the form of tax-advantaged capital gains rather than ordinary income, depletion deductions at harvesting, and ability to use passive losses prior to harvesting. He concludes that these tax attributes should cause timberland to be a viable asset for taxable investors.

Jacob, Nancy L. 1998. "After-Tax Asset Allocation and the Diversification of Low Cost-Basis Holdings: A Case Study." *Journal of Private Portfolio Management*, vol. 1, no. 1 (Spring):55–66.

The author is a pioneer of multiperiod, after-tax optimization as an alternative to classic mean–variance analysis. Although this article does consider diversification of low-basis stock, its chief value is in demonstrating the differences between portfolio optimization as traditionally done and optimization for private wealth clients. The study relies on the groundbreaking PORTAX after-tax optimizer.

Messmore, Tom. 1995. "Variance Drain." *Journal of Portfolio Management*, vol. 21, no. 4 (Summer):104–110.

Although this article is a general investment piece, not specialized for private wealth management, the impact of volatility is particularly pernicious for individual investors with concentrated holdings. The article demonstrates how volatility widens the difference between the arithmetic and geometric average return. Because the geometric average drives ending wealth, mastering this concept should be required of all private wealth managers.

Milevsky, Moshe A. 2004. "Illiquid Asset Allocation and Policy Weights: How Far Can They Deviate?" *Journal of Wealth Management*, vol. 7, no. 3 (Winter):27–34.

Many of the so-called alternative asset classes are illiquid. Also, low correlations between returns on alternative assets and traditional asset classes are part of the case for such alternatives. Milevsky demonstrates that low correlation between a given asset class and the remainder of the portfolio increases the likelihood of breaching a given policy weight. Therefore, low-correlation, illiquid asset classes should receive smaller initial allocations than traditional mean–variance analysis suggests. The mathematical appendix uses continuous-time calculus to support the conclusion.

Terhaar, Kevin, Renato Staub, and Brian Singer. 2003. "Appropriate Policy Allocation for Alternative Investments." *Journal of Portfolio Management*, vol. 29, no. 3 (Spring):101–110.

So-called alternative asset classes are playing an increasingly important role in private wealth management portfolios. This article differs from a large body of literature on the appropriate allocation to nontraditional asset classes. The typical approach in the literature is to rely on historical, or history-based, return patterns and mean–variance optimization. Instead, this study uses a factor model and simulation. The article is a general investment piece, not specialized for private wealth management. The authors' approach recommends a much smaller allocation to alternative assets than the typical approach used elsewhere in the literature.

Wilcox, Jarrod, Jeffrey E. Horvitz, and Dan diBartolomeo. 2006. "Life-Cycle Investing." Chapter 3 in *Investment Management for Private Taxable Investors*. Charlottesville, VA: Research Foundation of CFA Institute.

This reading encourages private wealth managers to form a time series of implied balance sheets for each client. Assets and liabilities include both implied and tangible assets and liabilities. For example, the present value of future savings from employment is an implied employment asset, whereas the present value of spending in retirement is an implied liability. The ratio of discretionary wealth to total assets, where discretionary wealth is total assets less total liabilities, determines the client's appropriate level of investment aggressiveness. Clients with large discretionary wealth to total assets can invest aggressively, whereas clients with no or little discretionary wealth to total assets should invest conservatively.

Behavioral Asset Allocation

Brunel (2005–2006, 2006), Chhabra (2005), and Nevin (2004) discussed the wealth allocation framework called “behavioral asset allocation.” Behavioral asset allocation is an alternative approach to mean–variance analysis for explaining an individual’s strategic asset mix. (In general, behavioral asset allocation is a complement to, not a substitute for, mean–variance analysis.) Building on the insights of behavioral finance, behavioral asset allocation relies on a decomposition of the optimal portfolio into subportfolios, where each subportfolio may be based on a specific investor goal or an approximate time horizon. The four articles we include below provide a comprehensive overview of this important contribution to asset allocation thinking.

Brunel, Jean L.P. 2005–2006. “A Behavioral Finance Approach to Strategic Asset Allocation: A Case Study.” *Journal of Investment Consulting*, vol. 7, no. 3 (Winter):61–69.

With Chhabra (2005) and Nevin (2004), this article offers insights into behavioral asset allocation. The case study concerns a family with a net worth of \$50 million.

Brunel, Jean L.P. 2006. “How Sub-Optimal—If at All—Is Goal-Based Asset Allocation?” *Journal of Wealth Management*, vol. 9, no. 2 (Fall):19–34.

This article evaluates whether framing asset allocation in a behavioral asset allocation context leads to suboptimality. Unlike other behavioral asset allocation research where an overall asset allocation is taken as a given, this version optimizes within the goal-based (or timeline-based) subportfolios. Even with this extra burden, the amount of efficiency loss (or suboptimality) is slight.

Chhabra, Ashvin B. 2005. “Beyond Markowitz: A Comprehensive Wealth Allocation Framework for Individual Investors.” *Journal of Wealth Management*, vol. 7, no. 4 (Spring):8–34.

This article is an in-depth exposition of the wealth allocation framework called behavioral asset allocation.

Nevin, Daniel. 2004. “Goals-Based Investing: Integrating Traditional and Behavioral Finance.” *Journal of Wealth Management*, vol. 6, no. 4 (Spring):1–16.

Once an optimal asset mix is decided, the wealth management practitioner must “sell” the portfolio to the clients. This article provides a good introduction to behavioral asset allocation, which relies on a decomposition of the total financial portfolio into a series of subportfolios. Nevin bases his subportfolios on client goals, whereas other behavioral asset allocation approaches use timelines. Nevin’s goal-based approach defines portfolio efficiency in terms of client goals and then considers risk measurement and investment strategies that are appropriate for each goal. Goal-based investing improves upon traditional finance in the areas of measuring risk, risk profiling, and managing behavioral biases. In addition, this study provides a good review of behavioral finance concepts.

Tax-Adjusted Asset Allocation and the Extended Portfolio

This section summarizes articles related to two issues. First, how should the asset allocation be adjusted for taxes? For example, tax-deferred accounts such as a 401(k) contain pretax funds, whereas Roth IRAs contain after-tax funds. When calculating an individual’s asset allocation, should one dollar of pretax funds in a tax-deferred account count the same as one dollar of after-tax funds in a taxable account? Reichenstein (1998) and Reichenstein and Jennings (2003) concluded that a dollar in the tax-deferred account should be reduced by the factor $(1 - t_n)$, where t_n is the expected tax rate in retirement. Horan (2002, 2005) and Sibley (2002) estimated the taxable equivalent values of a dollar in tax-advantaged accounts, where the taxable equivalent values are the amounts of funds in taxable accounts that would provide the same after-tax retirement wealth as a dollar in tax-advantaged accounts. They recommend that these taxable equivalent values be used when calculating an individual’s current asset allocation.

The second issue asks what nonfinancial assets and liabilities should be considered when setting the strategic asset allocation. Stated another way, what should “count” when measuring an individual’s asset allocation? Reichenstein (1998, 2006) and Reichenstein and Jennings (2003) recommended that private wealth managers manage an individual’s extended portfolio, which contains all assets and liabilities that affect cash flows in retirement. Similarly, Black, Ciccotello, and Skipper (2002) advocated for “comprehensive personal financial planning,” including a wide range of off-balance-sheet assets and liabilities; their approach was broader than the retirement focus of Reichenstein (1998) and Reichenstein and Jennings (2003). Chen, Ibbotson, Milevsky, and Zhu (2006) similarly argued for the role of human capital in influencing the allocation of the traditional financial portfolio. They presented a model to help individuals jointly make their asset allocation and life insurance decisions.

Black, Kenneth, Conrad S. Ciccotello, and Harold D. Skipper. 2002. “Issues in Comprehensive Financial Planning.” *Financial Services Review*, vol. 11, no. 1:1–9.

The authors propose a lifetime mean–variance optimization framework for the family—calling it “comprehensive personal financial planning.” The authors include in the family portfolio such assets as “government benefits, insurance, expected inheritances or other family support, and human capital.” In addition, they include such liabilities as mortgages and future expenditures “including but not limited to tax, housing, education, and health care.” This may be the broadest definition of the extended portfolio in the literature.

Chen, Peng, Roger G. Ibbotson, Moshe A. Milevsky, and Kevin X. Zhu. 2006. “Human Capital, Asset Allocation and Life Insurance.” *Financial Analysts Journal*, vol. 62, no. 1 (January/February):97–109.

Human capital should affect asset allocation, but human capital differs from other asset classes insofar as it has mortality risk. Life insurance hedges this risk. The authors develop a framework to make the asset allocation and life insurance purchase decisions concurrently.

Horan, Stephen M. 2002. “After-Tax Valuation of Tax-Sheltered Assets.” *Financial Services Review*, vol. 11, no. 3:253–275.

Horan develops models of the amount of dollars currently invested in a taxable account that will produce the same level of after-tax income in retirement as \$1 in, respectively, a Roth IRA or tax-deferred account such as a 401(k). Although Sibley (2002) assumes the taxable account contains assets whose returns are fully taxable each year at ordinary income tax rates, Horan assumes the taxable account contains an average stock fund in which some of the returns are taxed at ordinary income tax rates, some are taxed at preferential rates, and the remainder are tax deferred. Because Horan’s taxable asset has a lower effective tax rate than the taxable asset in Sibley’s model, Horan’s taxable equivalent values are lower than Sibley’s. Horan provides a flexible model that can be adjusted for the portion of the taxable asset’s returns that is taxed as ordinary income and the portion that is realized each year and taxed at preferential rates. Horan also provides models for a lump-sum withdrawal in n years or equal annual withdrawals over n years. As does Sibley, he advocates using taxable equivalent dollars to calculate an individual’s current asset allocation.

Horan, Stephen M. 2005. *Tax-Advantaged Savings Accounts and Tax-Efficient Wealth Accumulation*. Charlottesville, VA: Research Foundation of CFA Institute.

This monograph extends Horan (2002) by considering a range of related issues: choosing between tax-sheltered vehicles, employee matches, Roth conversions, breakeven time horizons, penalties, and asset location.

Reichenstein, William. 1998. “Calculating a Family’s Asset Mix.” *Financial Services Review*, vol. 7, no. 3:195–206.

This article asks how we should calculate a family’s asset allocation. It concludes that if the assets will be used to finance retirement needs, then the asset mix should be based on assets’ after-tax values. Thus, a dollar in a traditional IRA is worth less than a dollar in a Roth IRA or taxable account. Also,

it asks which assets and liabilities should be included in the portfolio. If the purpose of the calculation is to consider a family's retirement needs, the mix should include such off-balance-sheet items as the values of promises of defined-benefit plans and Social Security. The article concludes that the traditional approach to calculating the family's asset mix is flawed.

Reichenstein, William. 2006. "After-Tax Asset Allocation." *Financial Analysts Journal*, vol. 62, no. 4 (July/August):14–19.

The author advocates the calculation of an after-tax asset allocation in which all account values are converted to after-tax values and the asset allocation is based on these after-tax values. He argues that \$1 in a tax-deferred account, such as a 401(k), should be considered a $(1 - t_n)$ after-tax dollar, where t_n is the expected tax rate in retirement. This article extends prior work by examining how the choice of savings vehicles (i.e., taxable account, Roth IRA, or tax-deferred account) affects the percentage of principal effectively owned, returns received, and risk borne by individual investors. The wealth manager should think of an individual with a tax-deferred account as owning $(1 - t_n)$ of its principal but receiving all returns and bearing all risk. Each dollar in a tax-deferred account is like $(1 - t_n)$ dollar in a Roth IRA. Also, the author shows that in mean-variance optimization, the same asset (e.g., bond or stock) is effectively a different asset when held in a Roth IRA or tax-deferred account than in a taxable account.

Sibley, Mike. 2002. "On the Valuation of Tax-Advantaged Retirement Accounts." *Financial Services Review*, vol. 11, no. 3:233–251.

Sibley develops models of the amount of dollars currently invested in a taxable account that will produce the same level of after-tax income in retirement as \$1 in a Roth IRA or a tax-deferred account such as a 401(k). He assumes the taxable account contains assets whose returns are fully taxable each year at ordinary income tax rates. Assuming the investor pays a positive tax rate, the future value of \$1 in a Roth IRA exceeds the future value of \$1 currently in a taxable account. For combinations of long investment horizons, high returns, and high tax rates, the future value of \$1 of pretax funds in a tax-deferred account exceeds the future value of \$1 of after-tax funds currently in a taxable account. As in Horan (2002), Sibley advocates using these taxable equivalent dollars to calculate an individual's current asset allocation.

Portfolio Implementation

After the strategic asset mix is decided, the work of the private wealth manager is not done. The operational realities of private wealth management differ from those of institutional investment management.

An institutional manager may apply a multimanager, or open-architecture, approach, whereby he tries to select the best manager for each asset class. For example, he may select a large-capitalization value manager and a large-cap growth manager among a stable of managers. A stock price increase might cause a stock to be sold by the value manager and bought by the growth manager, thus producing a tax liability. This example demonstrates one of the tax inefficiencies inherent in a multimanager approach. An alternative approach is a core-and-satellite approach, whereby the core equity portfolio consists of a broad-based (i.e., multicap, multistyle) equity portfolio that is managed tax efficiently. Additionally, specialist satellite managers might be selected to augment the core portfolio and provide size and style tilts to the overall portfolio. Therefore, tax-efficient management for the private wealth manager goes beyond the active-versus-passive debate. Insights from this debate are important when discussing the relative benefits of a core-and-satellite approach versus a broad multimanager approach. Studies by Brunel (2000a), Curtis (2006), Quisenberry (2003), and Rogers (2001) weighted the merits of each approach.

The tax cost of rebalancing is another topic of significance to private wealth managers. Although rebalancing helps control risk, the private wealth manager must compare the costs with the benefits of rebalancing. In general, the optimal solution is often to balance partway back to the strategic allocation. However, rebalancing costs might be partially offset by sound tax-lot accounting and loss harvesting. Donohue and Yip (2003), Horvitz (2002), and Masters (2003) considered these issues.

We also include a varied mix of additional portfolio implementation articles. Modern financial engineering offers the potential to better address client needs than have traditional approaches. In this vein, Bodie (2003a, 2003b) and Merton (2003) offered insights on life-cycle investing and sophisticated financial products. Dollar-cost averaging is often a portfolio implementation concern for individuals. Dubil (2004) provided an analytically sophisticated alternative to much of what has been written on this topic. Finally, Bodie and Crane (1997) examined how individuals really manage their portfolios.

Bodie, Zvi. 2003a. "Applying Financial Engineering to Wealth Management." In *Investment Counseling for Private Clients V*. Charlottesville, VA: Association for Investment Management and Research.

The author contrasts life-cycle investing with single-period Markowitz optimization and explains how advances in financial engineering as well as an understanding of individual investor psychology can help investors reach their goals. Bodie (2003b) contains details.

Bodie, Zvi. 2003b. "Thoughts on the Future: Life-Cycle Investing in Theory and Practice." *Financial Analysts Journal*, vol. 59, no. 1 (January/February):24–29.

This article provides a detailed treatment of the issues raised in Bodie (2003a).

Bodie, Zvi, and Dwight B. Crane. 1997. "Personal Investing: Advice, Theory and Practice." *Financial Analysts Journal*, vol. 53, no. 6 (November/December):13–22.

A number of early studies examined individual investors' retirement accounts and found them under-diversified. Bodie and Crane examine individual investors' retirement accounts in the context of their total portfolio. In contrast to folk wisdom among investment advisers and the conclusions of the earlier studies, Bodie and Crane report that the total portfolios are well diversified and are structured consistently with finance theory and best practices prescribed by experts. That said, Bodie and Crane find opportunities for improving asset location decisions.

Brunel, Jean L.P. 2000a. "Active Style Diversification in an After-Tax Context: An Impossible Challenge?" *Journal of Private Portfolio Management*, vol. 2, no. 4 (Spring):41–50.

Whether or not one believes the broad arguments for a multimanager approach—that is, style timing and/or alpha-producing specialization—the barriers to an after-tax multimanager approach are higher. Using parametric Monte Carlo simulation, Brunel concludes that the only circumstance producing value added requires exceptional style forecasting skills and large bets; even so, the after-tax benefit is minor. In a second simulation, he concludes that a multistyle, multimanager stable is likely to outperform a generalist on an after-tax basis only when the managers' alphas are large; even so, investors must bear a tracking error to obtain that outperformance. As in Rogers (2001), he concludes a broad core portfolio is more likely to produce better after-tax, risk-adjusted performance.

Curtis, Gregory. 2006 "Open Architecture as a Disruptive Business Model." *NMS Exchange*, vol. 7, no. 1 (August):7–11. (Available as a white paper at www.greycourt.com)

This short article makes the case for open-architecture access to best-of-breed specialist managers. The disruption alluded to in the title references the articles and books by Harvard Business School professor Clayton Christensen. Curtis makes the case for the strategic advice, manager evaluation, and centralized performance reporting that private wealth managers adopting an open-architecture approach must embrace. His view contrasts with Brunel (2000a) and Rogers (2001).

Donohue, Christopher, and Kenneth Yip. 2003. "Optimal Portfolio Rebalancing with Transaction Costs." *Journal of Portfolio Management*, vol. 29, no. 4 (Summer):49–63.

Together with Masters (2003), this article is a key reference on portfolio rebalancing, even though it is not written from a private wealth management perspective. It represents a practitioner's distillation of the highly analytical study on rebalancing by Hayne Leland of Berkeley (currently available only as

a working paper).¹ The article's emphasis is on the no-trade regions around target allocations—demonstrating how the no-trade regions change with various input assumptions. Unlike Masters (2003), Donohue and Yip encourage trading back to range edges (e.g., if the relevant range is 55–65 percent stocks and the 65 percent limit is surpassed, go back to 65 percent stocks). We advise private wealth managers to keep in mind that taxes represent a critical transaction cost, likely widening Donohue and Yip's no-trade regions.

Dubil, Robert. 2004. "The Risk and Return of Investment Averaging: An Option-Theoretic Approach." *Financial Services Review*, vol. 13, no. 4 (Winter):267–284.

Much has been written about the efficacy of dollar-cost averaging, often with contrived examples that demonstrate its superiority. In contrast, this article is an approachable introduction to the analytically sophisticated technique of using average-price options to evaluate dollar-cost averaging. Private wealth managers should note that the dollar-cost-averaging concept applies equally to the accumulation and spending life stages.

Horvitz, Jeffrey E. 2002. "The Implications of Rebalancing the Investment Portfolio for the Taxable Investor." *Journal of Wealth Management*, vol. 5, no. 2 (Fall):49–53.

In this no-equations consideration of rebalancing in private wealth management, the author takes the view that practical impediments and operational realities are generally given short shrift in the rebalancing literature. The article gives particular consideration to the problems of rebalancing illiquid assets, such as private equity or real estate. See Donohue and Yip (2003) and Masters (2003) for more-analytical considerations of rebalancing.

Masters, Seth. 2003. "Rebalancing." *Journal of Portfolio Management*, vol. 29, no. 3 (Spring):52–57.

This article is a key reference, together with Donohue and Yip (2003), on portfolio rebalancing, albeit not written from a private wealth management perspective. Masters approaches rebalancing from a cost-benefit perspective and concludes that rebalancing "halfway back" from range edges is best (e.g., if the relevant range is 55–65 percent stocks and the 65 percent limit is surpassed, go back to 62.5 percent stocks). We advise private wealth managers to keep in mind that taxes represent a critical transaction cost; adjusting Master's thinking on costs and benefits to include taxes likely makes rebalancing ranges asymmetric because taxes increase transaction costs when an asset has appreciated but lower transaction costs through realizing capital losses when an asset has depreciated.

Merton, Robert C. 2003. "Thoughts on the Future: Theory and Practice in Investment Management." *Financial Analysts Journal*, vol. 59, no. 1 (January/February):17–23.

This article appears in the same issue as Bodie (2003b) and is similar in theme—relating advanced financial engineering concepts to helping investors address their concerns. For individual investors, Merton advocates for considering the risk of human capital (see Chen, Ibbotson, Milevsky, and Zhu 2006 and Reichenstein 1998), the risk of future reinvestments, volatility of spending versus volatility of wealth, the importance of targeted expenditures (i.e., liabilities), and "condo value insurance" (which hedges against residential real estate declining in value). We include this article chiefly because of how it relates to Bodie (2003a, 2003b), but it can fruitfully be read in conjunction with Chen, Ibbotson, Milevsky, and Zhu (2006) as well.

Quisenberry, Clifford H. 2003. "Optimal Allocation of a Taxable Core and Satellite Portfolio Structure." *Journal of Wealth Management*, vol. 6, no. 1 (Summer):18–26.

¹See Hayne E. Leland, "Optimal Portfolio Management with Transactions Costs and Capital Gains Taxes," 1999, at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=206871.

This article, along with Brunel (2000a) and Rogers (2001), focuses on a core–satellite method. Using an information ratio approach, the author concludes that allocating 50 percent or more of a portfolio to a tax-managed core is appropriate. Increased core allocations are warranted with (1) higher expected market returns, (2) less-skilled satellite managers, (3) more-risky satellite managers, and (4) tax-inefficient satellite managers.

Rogers, Douglas S. 2001. “Tax-Aware Equity Manager Allocation: A Practitioner’s Perspective.” *Journal of Wealth Management*, vol. 4, no. 3 (Winter):39–45.

In this article, Rogers considers whether typical tax-oblivious multimanager approaches make sense after taxes (see also Brunel 2000a). Rogers concludes that a core–satellite approach dominates multimanager approaches. In particular, he finds the three-sizes-by-three-valuations approach (e.g., Morningstar’s style box) to be too complex and tax inefficient.

Low-Basis Stock

Many high-net-worth clients have a disproportionate share of their portfolio in “legacy holdings” of low-basis stocks. It is a common observation in wealth management circles that the rich got wealthy by being concentrated in their investments, but they must be diversified to stay wealthy. Boyle, Loewy, Reiss, and Weiss (2004) discussed problems and challenges associated with holding low-basis stocks, including both financial problems (such as excess risk) and nonfinancial challenges (such as emotional barriers to selling). Welch (2002) discussed techniques for disposing of low-basis stocks with particular emphasis on charitable techniques. Other relevant publications (previously discussed) are Jacob (1998), which focused on the asset allocation consequences of low-basis stocks, and Chapter 10 of Brunel (2002), which comprehensively covered low-basis stock.

Boyle, Patrick S., Daniel J. Loewy, Jonathan A. Reiss, and Robert A. Weiss. 2004. “The Envious Dilemma: Hold, Sell, or Hedge Highly Concentrated Stock.” *Journal of Wealth Management*, vol. 7, no. 2 (Fall):30–44.

This article is a distillation of one of the “black books” put out by tax-aware investment pioneer Bernstein Global Wealth Management. The “dilemma” of the title arises because the concentrated equity position typically has a low basis, so selling it would generate large tax consequences. The article emphasizes the “risk drag” of the concentrated position (see Messmore 1995) and considers emotional barriers to diversification. Using Monte Carlo techniques, the authors investigate diversification strategies for concentrated stock positions.

Welch, Scott. 2002. “Comparing Financial and Charitable Techniques for Disposing of Low Basis Stock.” *Journal of Wealth Management*, vol. 4, no. 4 (Spring):37–46.

This survey of methods for reducing the risk of holding a concentrated position in a low-basis stock provides a useful introduction to the challenges of holding and selling low-basis stocks before proceeding to the more detailed article by Boyle, Loewy, Reiss, and Weiss (2004). Welch, alone and with various co-authors, has written frequently on different methods of dealing with low-basis equity holdings; he is consistently insightful.

Asset Location and Ownership Structure

It is an aphorism around military academies that amateurs talk strategy while professionals talk logistics. That is, amateurs talk about the glamorous topic, while professionals talk about the details. With private wealth management, the equivalent saying might be: Amateurs talk returns while professionals talk asset location.

The asset location decision is a distinguishing characteristic of private wealth management. By “asset location,” we mean determining which assets to hold in each savings vehicle. For example, if an individual has funds in a tax-deferred accounts, such as a 401(k), and taxable accounts, should she hold bonds in tax-deferred accounts and stocks in taxable accounts, or vice versa? One school of thought encourages putting higher-return assets (such as stocks) in the tax-advantaged accounts. The other school locates tax-inefficient assets (such as bonds and real estate investment trusts) in the tax-advantaged accounts. Although this is an evolving debate, the best and most current critical thinking supports sheltering the tax-inefficient assets in the tax-advantaged accounts.

Siegel and Montgomery (1995) demonstrated the importance of taxes by re-creating the Ibbotson studies but doing so after tax. Shoven and Sialm (1998), among others, asked which location strategy will likely maximize the projected after-tax ending wealth. Dammon, Spatt, and Zhang (2004) and Reichenstein (2001) considered the location strategy's impact on expected ending wealth and the volatility of ending wealth; that is, they consider returns and risk. They encouraged holding tax-inefficient assets (e.g., bonds and REITs) in tax-deferred accounts and stocks, especially passively held stocks, in taxable accounts. Brunel (2001) expanded the asset location decision to include assets held in trusts and other savings vehicles, and Hughes (2001) expanded the decision to include multiple generations of the same family. Internationally, the asset location decision might hinge on which assets to hold onshore and offshore. In addition, Chapter 5 of Brunel (2002) covered multiple asset locations; his perspective included the broad array of tax structures available to ultra-high-net-worth families and had a greater focus on intergenerational concerns than most other works cited in this literature review. Finally, Chapter 7 of Horan (2005) detailed his views on asset location.

Brunel, Jean. 2001. "Asset Location—The Critical Variable: A Case Study." *Journal of Wealth Management*, vol. 4, no. 1 (Summer):27–43.

This case study considers a hypothetical wealthy family and discusses the holding structures or locations for the assets. These locations include taxable accounts, tax-deferred accounts [such as 401(k) funds], grantor retainer annuity trusts, generation-skipping trusts, charitable remainder trusts or charitable lead trusts, variable life insurance policies, and foundations. He concludes that effective use of asset locations can improve a portfolio's after-tax expected returns and decrease volatility while incurring lower initial portfolio diversification costs. The article is a good primer on the benefits of various trusts and other holding structures.

Dammon, Robert M., Chester S. Spatt, and Harold H. Zhang. 2004. "Optimal Asset Location and Allocation with Taxable and Tax-Deferred Investing." *Journal of Finance*, vol. 59, no. 3 (June):999–1037.

This article is a highly analytical approach to asset location based on intertemporal consumption. After much advanced mathematical analysis, the authors conclude stocks should be held in the taxable account and bonds in the tax-deferred account. The result holds even when tax-exempt bonds are an investment option.

Hughes, James E. 2001. "Asset Allocation for Family Groups." In *Investment Counseling for Private Clients III*. Charlottesville, VA: Association for Investment Management and Research.

This article presents an intergenerational treatment of asset location issues, which the author calls "investor location." A key idea is to manage the "family bank" that grants and loans money to the younger generations to finance their personal and professional growth. (It need not be a literal bank.) An important goal in intergeneration asset location, or investor location, is to hold the fastest-growing assets in the younger generations' "accounts." The author also addresses mentorship and family governance. Be aware that the author assumes away "defection risk" within his happy and optimally invested subject family; that is, no one takes his or her money out of the familywide investment scheme.

Reichenstein, William. 2001. "Asset Allocation and Asset Location Decisions Revisited." *Journal of Wealth Management*, vol. 4, no. 1 (Summer):16–26.

The author applies mean-variance optimizations to determine the optimal asset allocation and asset locations for hypothetical individual investors. He shows that an asset's after-tax risk and after-tax return varies with the savings vehicle. Thus, bonds held in a taxable account are effectively a different asset than bonds held in a Roth IRA or tax-deferred account, such as a 401(k). Except for an extreme case and while attaining the target asset allocation, the optimal asset location is to hold bonds in retirement accounts (i.e., Roth IRA and tax-deferred accounts) and stocks in taxable accounts. In addition, as in Reichenstein (1998), this study advocates the calculation of an individual's after-tax asset allocation.

Shoven, John B., and Clemens Sialm. 1998. "Long Run Asset Allocation for Retirement Savings." *Journal of Private Portfolio Management*, vol. 1, no. 2 (Summer):13–26.

The authors examine several issues and reach the following conclusions. First, when saving for retirement, individuals should exhaust their ability to save in tax-deferred pension accounts, such as 401(k)s, before saving in taxable accounts. Second, individuals in higher tax brackets should invest in municipal bonds held in taxable accounts instead of corporate bonds held in tax-deferred accounts. Third, in general, individuals should locate stocks in tax-deferred pension accounts and municipal bonds in taxable accounts. The authors conclude, "The typical actively managed equity fund gains more from being in a pension account [such as a 401(k)] than a typical bond fund" (p. 25). However, bonds should be located in the pension if the equity fund is extremely efficient.

Siegel, Laurence B., and David Montgomery. 1995. "Stocks, Bonds, and Bills after Taxes and Inflation." *Journal of Portfolio Management*, vol. 21, no. 2 (Winter):17–25.

This article adapts the classic Ibbotson returns series to incorporate taxes and emphasize real returns. The article focuses on marginal tax rates paid by a single taxpayer earning \$75,000 in 1989, or the equivalent amount in other years. It omits small-cap stocks, corporate bonds, and intermediate bonds, but it adds municipal bonds to Ibbotson's returns series. It demonstrates conclusively that taxes and inflation substantially dampen the astounding compound returns demonstrated in the Ibbotson series—especially for equity investors.

Tax Management

For many private wealth management clients, a substantial part of their financial portfolio will be held in taxable accounts. In taxable accounts, private wealth managers should be less concerned with pretax returns than with after-tax returns. Therefore, they must consider the tax costs of realizing capital gains and the benefits of allowing unrealized gains to grow tax deferred. In addition, they must consider the tax benefits of harvesting capital losses.

A seminal article by Jeffrey and Arnott (1993) concluded that "passive indexing is a very difficult strategy to beat on an after-tax basis." Articles by Arnott, Berkin, and Ye (2000, 2001) and Berkin and Ye (2003) extended this work. Arnott, Berkin, and Ye (2001) was important also because, along with Dickson, Shoven, and Sialm (2002), it emphasized the fact that other investors' actions, such as contributions and withdrawals, can affect your after-tax returns in a commingled investment vehicle. Chincarini and Kim (2001) examined the tax burden of dividends, which is sizable even for index funds. Several studies considered the tax benefits of loss harvesting, including Berkin and Ye (2003), Chincarini and Kim (2001), Horvitz and Wilcox (2003), and Stein and Narasimhan (1999). Davidson (1999) examined the tax management of fixed-income portfolios. Bergstresser and Poterba (2002) concluded that mutual fund inflows and outflows are better explained by funds' after-tax returns than their pretax returns. Constantinides' (1984) study was an early and important work emphasizing the tax-timing option implicit in trading.

Arnott, Robert D., Andrew Berkin, and Jia Ye. 2000. "How Well Have Taxable Investors Been Served in the 1980s and 1990s?" *Journal of Portfolio Management*, vol. 20, no. 4 (Summer):84–93.

This article represents a partial reprise and extension of Jeffrey and Arnott (1993), but it controls for survivorship. It uses the after-tax returns on a Vanguard 500 Index fund to judge the ability of active stock managers to add alpha on an after-tax basis. Although the Vanguard 500 fund is a feasible investment, it may have a large-capitalization bias relative to many actively managed funds. The main conclusion is that, when funds are held in taxable accounts, it is difficult for active stock managers to match the after-tax returns on a passively managed index fund.

Arnott, Robert D., Andrew L. Berkin, and Jia Ye. 2001. "The Management and Mismanagement of Taxable Assets." *Journal of Investing*, vol. 10, no. 1 (Spring):15–21.

This article is closely related to Jeffrey and Arnott (1993) and Arnott, Berkin, and Ye (2000), but it is shorter. It focuses on three sources of mismanagement of taxable assets: unnecessary realization of capital gains, failure to harvest losses, and failure to take an appropriate yield tilt (toward lower-dividend-yield stocks). The study discusses considerations in selecting a manager for a taxable account. Also, it provides lists of what managers of taxable assets should and should not do. This article also highlights the fact that other investors' actions, such as contributions and withdrawals, can affect your after-tax returns in a commingled investment vehicle; see Dickson, Shoven, and Sialm (2002) for more on tax externalities.

Bergstresser, Daniel, and James M. Poterba. 2002. "Do After-Tax Returns Affect Mutual Fund Inflows?" *Journal of Financial Economics*, vol. 63, no. 3 (March):381–414.

The authors find that after-tax returns have greater explanatory power than pretax returns in explaining mutual fund flows. Also, large unrealized capital gains discourage inflows. The empirical evidence, therefore, is that mutual fund investors are tax aware—providing tangible feedback to wealth managers who wonder if their clients are likely to care about taxes.

Berkin, Andrew L., and Jia Ye. 2003. "Tax Management, Loss Harvesting, and FIFO Accounting." *Financial Analysts Journal*, vol. 59, no. 4 (July/August):91–102.

Closely related to Jeffrey and Arnott (1993) and Arnott, Berkin, Ye (2000), this study uses parametric Monte Carlo simulation to quantify the benefits of loss harvesting and highest-in, first-out (HIFO) tax-lot accounting. Although cumulative alphas from tax management continue to rise over time, the annual alpha is largest in the early years and decreases through time. Portfolios with contribution streams enhance the benefits of loss harvesting, whereas withdrawals reduce them. Equity markets with higher stock-specific risk, lower average return, and higher yield produce greater benefits to tax management. Loss harvesting and HIFO accounting are complementary tax management tactics.

Chincarini, Ludwig, and Daehwan Kim. 2001. "The Advantages of Tax-Managed Investing." *Journal of Portfolio Management*, vol. 28, no. 1 (Fall):56–72.

The authors demonstrate that even a passive equity fund can have a significant tax burden. In particular, taxes on dividends impose a large tax bill. The authors show that tax management, including systematic liquidation of stocks in a low-dividend portfolio, can add significant value.

Constantinides, George M. 1984. "Optimal Stock Trading with Personal Taxes: Implications for Prices and the Abnormal January Returns." *Journal of Financial Economics*, vol. 13, no. 1 (March):65–89.

This article clearly defines the timing option in the tax code: the option to realize capital losses and defer capital gains. By thinking of this tax-shifting ability as a literal option, Constantinides highlights the value of high-variance stocks in a taxable environment (because, according to Black–Scholes, variance increases the value of options). The article is analytically sophisticated. Private wealth managers would do well to remember that volatile assets, particularly if uncorrelated with other assets, are more valuable in after-tax investment management than traditional mean–variance thinking would suggest.

Davidson, R.B. 1999. "The Value of Tax Management for Bond Portfolios." *Journal of Private Portfolio Management*, vol. 1, no. 4 (Spring):49–58.

The author demonstrates the importance of taxes when managing municipal and high-yield corporate bonds. With municipals, individuals should harvest losses and avoid gains because they would be taxed. With high-yield corporate bonds, individual investors should realize gains and losses; the "gain harvesting" benefits from lower capital gains tax rates. For both municipal and high-yield corporate bond portfolios, the value of tax management increases with the average maturity of the portfolio. For municipal bonds, the value of tax management declines with investment horizon. For high-yield bonds, the value of tax management is not sensitive to the investment horizon.

Dickson, Joel M., John B. Shoven, and Clemens Sialm. 2002. "Tax Externalities of Equity Mutual Funds." *National Tax Journal*, vol. 53, no. 3 (September):607–628.

As in Arnott, Berkin, and Ye (2001), this work addresses the classic externality of mutual funds, namely, that the actions of others affect your after-tax investment return. Using simulations of hypothetical mutual funds built from the 50 largest U.S. stocks, the authors demonstrate that the consequences of the externality are large.

Horvitz, Jeffrey E., and Jarrod W. Wilcox. 2003. "Know When to Hold 'Em and When to Fold 'Em: The Value of Effective Taxable Investment Management." *Journal of Wealth Management*, vol. 6, no. 2 (Fall):35–59.

This article advocates tax-deferral of gains and loss harvesting. It considers estate taxes in greater depth than much of the tax management literature. It discusses the "leverage" implied by deferred capital gains. In addition, it suggests splitting the portfolio into a buy-and-hold component and a high-turnover subportfolio designed to throw off tax-loss benefits. The results hold even after the 2003 tax changes.

Jeffrey, Robert H., and Robert D. Arnott. 1993. "Is Your Alpha Big Enough to Cover Its Taxes?" *Journal of Portfolio Management*, vol. 19, no. 3 (Spring):15–25.

This is a seminal work in private wealth management and the landmark study on taxable investment management. It considers the tax consequences of actively managing stocks in taxable accounts. The quest for alpha by active investment managers generates turnover. In taxable accounts, turnover generates capital gains taxes, which lower after-tax returns. The article documents the significant cost of turnover to after-tax returns. A 10 percent turnover ratio implies a 1/0.10 or 10-year average holding period, whereas a 25 percent turnover ratio implies a 4-year holding period. Because of this inverse relationship between turnover and holding period, even a low level of turnover is costly. In a comparison of 10-year results from 71 actively managed equity funds with a passively managed S&P 500 Index fund, only two funds were able to provide substantially higher returns after capital gains taxes than the index fund. The authors conclude that "passive indexing is a very difficult strategy to beat on an after-tax basis." The article has generated a series of follow-on articles and much debate.

Stein, David M., and Premkumar Narasimhan. 1999. "Of Passive and Active Equity Portfolios in the Presence of Taxes." *Journal of Private Portfolio Management*, vol. 2, no. 2 (Fall):55–63.

Despite a title suggesting a horse race between active and passive management, this article emphasizes tax-aware management of the portfolio whether actively or passively managed with respect to the benchmark. The authors offer the idea that portfolios can be "passive with respect to tax management," a twist on the classical conception of "passive" with respect to security selection. The authors discuss gain-minimizing FIFO tax-lot accounting and loss harvesting. The authors estimate that the value added by active tax management of equity portfolios can be quite large—0.7–1.8 percent annually.

Sustainable Spending Rates

When planning for an individual's retirement needs, wealth managers face the unique problem of not knowing the length of the investor's lifespan (and thus the investment horizon that is applicable to the portfolio) or future returns. A key question is: What is the maximum initial percentage of the financial portfolio that can be withdrawn each year, such that the individual can be reasonably confident that he will not outlive the portfolio? Because someone's lifespan is uncertain, most studies assume a long horizon (e.g., 30 years) to be reasonably confident that the portfolio will last a lifetime. Most studies assume an inflation-adjusted equivalent amount is withdrawn each year after the first year. Other factors affecting the portfolio's longevity include the asset allocation and whether or not the individual annuitizes part of the portfolio. In an annuitization, an individual exchanges part of the portfolio for a guaranteed lifetime monthly income.

Several studies have examined the withdrawal rate, which is sometimes called the “sustainable withdrawal rate.” Bengen (1994) and Cooley, Hubbard, and Walz (1998) may have been the first studies to estimate the maximum sustainable withdrawal rate. In general, sustainable withdrawal rate studies conclude that the maximum initial withdrawal rate is about 4.0–4.5 percent, and this maximum rate occurs when the portfolio contains at least 50 percent stocks. These seemingly low sustainable withdrawal rates are because of the risk of beginning retirement shortly before a bear market, such as occurred in 1973–1974. Ameriks, Veres, and Warshawsky (2001) concluded that the withdrawal rate can be raised if part of the portfolio is annuitized; Dus, Maurer, and Mitchell (2005) found value in delaying annuitization until after retirement. As in earlier studies, Milevsky and Robinson (2005) considered the random nature of investment returns, but they also accommodated the random nature of life expectancy. Garland (2005) estimated sustainable withdrawal rates when the portfolio is intended to fund multiple generations. Milevsky’s (2006) book was written for the actuarially inclined student of retirement income planning.

Ameriks, John, Robert Veres, and Mark J. Warshawsky. 2001. “Making Retirement Income Last a Lifetime.” *Journal of Financial Planning*, vol. 14, no. 12 (December):60–76.

Ameriks, Veres, and Warshawsky use historical sequences of returns and Monte Carlo simulations to estimate the maximum initial withdrawal rate (with inflation-adjusted equivalent withdrawal amounts each year thereafter) that would allow a retirement portfolio to survive 20–40 years. The authors conclude that the portfolio should include “significant stock market exposure.” Separately, they conclude that allocating part of the portfolio to an immediate fixed annuity would improve the probability that the portfolio will last a lifetime. This study’s unique contribution is that it demonstrates the favorable impact of annuitizing part of a portfolio on the probability that the portfolio will produce the desired real income over a lifetime.

Bengen, William P. 1994. “Determining Withdrawal Rates Using Historical Data.” *Journal of Financial Planning*, vol. 7, no. 4 (October):171–180.

This article uses historical sequences of returns since 1926 to estimate the maximum initial withdrawal rate (with inflation-adjusted equivalent withdrawals each year thereafter) that would have allowed a portfolio to survive at least 30 years. It concludes that portfolios with 50–75 percent stocks would have supported a maximum initial withdrawal rate of about 4 percent. Portfolio ruin (i.e., running out of money) is most likely to occur when retirement begins immediately before a poor series of inflation-adjusted returns, such as 1973–1974. This study is an important early analysis of retirement income sustainability issues.

Cooley, Philip L., Carl M. Hubbard, and Daniel T. Walz. 1998. “Retirement Savings: Choosing a Withdrawal Rate That Is Sustainable.” *AAIL Journal*, vol. 20, no. 2 (February):16–21.

The authors examine the probabilities that a given initial withdrawal rate (with either nominal or real-equivalent withdrawal amounts each year thereafter) will survive a retirement period. It uses historical sequences of returns for 1926–1995 to estimate the probabilities that bond/stock portfolios will survive 15- to 30-year retirement periods. They conclude that the portfolio is more likely to survive if it contains at least 50 percent stocks. If annual withdrawals are increased with inflation, then initial withdrawal rates above 5 percent are susceptible to high probabilities of ruin within 30 years.

Dus, Ivica, Raimond Maurer, and Olivia S. Mitchell. 2005. “Betting on Death and Capital Markets in Retirement: A Shortfall Risk Analysis of Life Annuities versus Phased Withdrawal Plans.” *Financial Services Review*, vol. 14, no. 3 (Fall):169–196.

Although annuitization eliminates the risk of outliving one’s portfolio, annuitization is often costly because of adverse selection; that is insurance firms assume individuals who annuitize will live longer than average. This article weighs the relative merits of phased withdrawals and annuitization. Although the analysis takes place in a German context, a key conclusion—that delayed annuitization may be optimal—has more general relevance.

Garland, James P. 2005. "Long-Duration Trusts and Endowments." *Journal of Portfolio Management*, vol. 31, no. 3 (Spring):44–54.

This article is the best of a series of studies attributed to Garland on spending goals for very long horizon investors. The goal here is to sustain an intergenerational cash flow stream; this goal is in contrast to the single-generation perspective of most sustainable withdrawal rate studies. He emphasizes a portfolio's "fecundity" or the inflation-adjusted spendable cash it generates. He provides estimates of the perpetually sustainable spending rate; for equities, it is a small increment over dividend yield. Because of the intergenerational wealth management perspective, Garland's approach yields a much lower sustainable payout rate than the main body of work in this section.

Milevsky, Moshe. 2006. *The Calculus of Retirement Income*. New York: Cambridge University Press.

This book is an advanced treatment of the mathematics of retirement income. The question of retirement income sustainability is answered in the complex interaction of unknown mortality and unknown investment returns. Milevsky, founder of the *Journal of Pension Economics and Finance*, provides in this book a treasure trove for the serious student of actuarial science and retirement planning. Although some readers may find the mathematics difficult, he does a good job of explaining the results to the less mathematically inclined.

Milevsky, Moshe A., and Chris Robinson. 2005. "A Sustainable Spending Rate without Simulation." *Financial Analysts Journal*, vol. 61, no. 6 (November/December):89–100.

The authors develop a forward-looking model that provides estimates of sustainable withdrawal rates for individuals. The sustainable withdrawal rate increases with the portfolio's arithmetic average return and individual's mortality rate, which is the reciprocal of expected lifetime, and it decreases with the standard deviation of annual return. Based on forward-looking average returns and standard deviations that are below historical averages, and assuming a 65-year-old with average life expectancy is willing to tolerate a 10 percent chance of running out of funds in his or her lifetime, the maximum sustainable withdrawal rate is about 4.4 percent. If the individual is willing to tolerate a 5 percent chance of running out of funds, the maximum sustainable withdrawal rate is about 3.3 percent. The key contribution of this article is that it models the stochastic nature of both returns and life expectancy analytically—that is, with a formula, not simulation.

Philanthropy

Many wealthy families support various charities. For them, philanthropic activity is often complicated by tax structures and noneleemosynary goals. BWMR (2005) provided an overview of the role of private foundations for the philanthropically inclined, and Paulson (2002) considered the role of charitable lead trusts. Boyle, Loewy, Reiss, and Weiss (2004) and Welch (2002) considered philanthropic vehicles in discussing techniques for disposing of low-basis stock. Hauser (2004) and Trickett (2002) provided contrasting views on the underlying motivation for charitable giving.

BWMR. 2005. "Looking Beyond Perpetuity: Customizing a Private Foundation." Black book, Bernstein Wealth Management Research (August).

This 40-page document contrasts the attributes of private foundations with other charitable vehicles. In particular, the tax advantage of a private foundation maximizes the amount of money operating charities eventually receive, making them viable giving vehicles even for gifts under \$1 million. The study considers how much can be directed to the private foundation—particularly when in conflict with a bequest/legacy motive. Once the money is inside a foundation, the study calibrates the likelihood of maintaining a given level of real annual contributions; even with a heavy equity tilt, perpetual viability is doubtful for a private foundation with a 5 percent payout requirement.

Hauser, Barbara R. 2004. "Charitable Giving: Noblesse Oblige, 'The Gospel of Wealth,' and Other Shibboleths." *Journal of Wealth Management*, vol. 7, no. 2 (Fall):23–29.

Hauser deconstructs a range of possible motivations for charitable giving—*noblesse oblige*, Andrew Carnegie's Gospel of Wealth (deleterious consequences of inheritance), social recognition, duty, tax benefits, social venture philanthropy, and family dynastic justifications. In the end, the author concludes that the etymology of the word "philanthropy," that is, love of mankind, is at the root of charitable giving. Hauser's perspective contrasts with Trickett (2002).

Paulson, Bruce. 2002. "Charitable Lead Trusts." *Journal of Wealth Management*, vol. 5, no. 1 (Summer):62–70.

This article is an overview of charitable lead trusts as philanthropic, tax, and estate planning vehicles. Particular consideration is given to the consequences of the current low-yield environment.

Trickett, David G. 2002. "Wealth and Giving: Notes from a Spiritual Frontier." *Journal of Wealth Management*, vol. 5, no. 1 (Summer):79–82.

The author articulates the connection between faith and philanthropy. His perspective contrasts with that of Hauser (2004).

Estate Planning

Many wealth management clients will not consume all of their wealth in their lifetimes and thus will leave an estate. Intergenerational planning requires an understanding of estate tax consequences. Although there is a large literature on estate planning in the legal and insurance traditions, the private wealth management professional is properly concerned with investment considerations of estate planning. That is, the traditional thinking on estate planning must be integrated with an investment perspective to be useful to the private wealth manager. There has been little writing that provides such integration.

Joulfaian and McGarry (2004) and Poterba (1998) considered lifetime gifts as an estate reduction mechanism. Friedman (2000) evaluated the estate planning toolkit from an investment perspective. Stevens (2006) discussed current prospects for family limited partnerships and limited liability companies. In addition, Hughes (2001) considered asset location within a multigenerational family as an estate planning mechanism.

Friedman, Gregory R. 2000. "Combining Estate Planning with Asset Allocation." In *Investment Counseling for Private Clients II*. Edited by Dorothy Kelly. Charlottesville, VA: Association for Investment Management and Research.

This article focuses on the financial implications of such estate planning tools as charitable remainder trusts and grantor retained annuity trusts. Using a case study involving a family with \$100 million, the author demonstrates the substantial benefit (in terms of ending wealth) to estate planning techniques.

Joulfaian, David, and Kathleen McGarry. 2004. "Estate and Gift Incentives and *Inter Vivos* Giving." *National Tax Journal*, vol. 52, no. 2 (June):429–444.

Building on papers the two authors wrote separately in 2000, this 2004 article examines *inter vivos* giving. The authors emphasize that an individual with two married children and four grandchildren could (in 2004) transfer \$88,000 a year without a tax filing. Updating this for the 2006 gift tax increases (and assuming a married couple is doing the giving) yields almost \$2 million in tax-free gifts over a decade. Many individuals, who would otherwise be subject to the estate tax absent a giving program, could avoid estate taxes entirely, particularly in combination with using the unified credit. As in Poterba (1998), the authors find the wealthy dramatically underutilize tax-free lifetime giving.

Poterba, James M. 1998. "Estate Tax Avoidance by High Net Worth Households: Why Are There So Few Tax-Free Gifts?" *Journal of Wealth Management*, vol. 1, no. 2 (Summer):1–10.

Using the Survey of Consumer Finances, the author examines whether high-net-worth families underutilize tax-free lifetime giving. After confirming they underutilize *inter vivos* giving, Poterba examines a number of possible explanations: unawareness, "control" within a family, precautionary savings against medical expenses, better investment opportunities, illiquidity, and other estate planning options.

Stevens, Commie. 2006. "Family Limited Partnerships: An Update." *Journal of Practical Estate Planning*, vol. 8, no. 4 (August–September):35–44.

Family limited partnerships are important estate planning vehicles that facilitate coordination and management of family wealth. Historically, family limited partnerships were subject to sizable minority-interest and lack-of-marketability discounts when they were valued for estate tax purposes. This article considers family limited partnerships in light of a series of court cases that attacked these discounts.

Behavioral Finance

The emergent field of behavioral finance lies at the intersection of psychology and finance. As such, it is an important topic for private wealth managers. Although individuals who manage institutional investments are subject to the same behavioral biases as private wealth managers' clients, institutions are more likely to have systems and processes that help limit the negative consequences of behavioral biases.

Our focus here is on works of specific relevance to private wealth managers. Belsky and Gilovich (1999) and Shefrin (2000) provided good introductions to behavioral finance, the latter more rigorously. Barber, Odean, and Zheng (2005) provided insights both on the importance of expenses to mutual fund investors and the behavioral finance concept of framing, which emphasizes that how information is conveyed can be as important as the information content. Odean (1998) considered the behavioral finance "disposition effect," the tendency to hold losers and sell winners. In addition, Poterba's (1998) coverage of the underutilization of lifetime gifts was directly related to behavioral finance. Brunel (2005–2006, 2006), Chhabra (2005), and Nevin (2004) (discussed previously in this literature review) applied the findings of behavioral finance to asset allocation in the wealth allocation framework called behavioral asset allocation.

Barber, Brad M., Terrance Odean, and Lu Zheng. 2005. "Out of Sight, Out of Mind: The Effects of Mutual Fund Expenses on Mutual Fund Flows." *Journal of Business*, vol. 78, no. 6 (November):2095–2119.

This article considers an application of the behavioral finance concept of framing—it matters how expenses are conveyed to investors. Investors tend to avoid load funds but are less reluctant to buy high-expense funds. They prefer "no-transaction-fee" funds despite their higher expense ratios. Private wealth managers might well consider the importance of how expenses and other investment issues are framed to clients.

Belsky, Gary, and Thomas Gilovich. 1999. *Why Smart People Make Big Money Mistakes and How to Correct Them: Lessons from the New Science of Behavioral Economics*. New York: Simon & Schuster.

Wealth managers are increasingly realizing the importance of behavioral finance to being effective in their jobs. This book provides an outstanding and wide-ranging introduction to the field. Although there are more rigorous surveys of behavioral finance (such as Shefrin 2000), this book is particularly approachable.

Odean, Terrance. 1998. "Are Investors Reluctant to Realize Their Losses?" *Journal of Finance*, vol. 53, no. 5 (October):1775–1798.

Although the benefits of loss harvesting are well documented (Berkin and Ye 2003; Horvitz and Wilcox 2003), investors are reluctant to do so. This article finds evidence of the behavioral finance "disposition effect," the tendency to hold losers and sell winners. Despite controlling for a range of alternative explanations, Odean finds the disposition effect lowered after-tax returns in a sample of 10,000 investors.

Shefrin, Hersh. 2000. *Beyond Greed and Fear: Understanding Behavioral Finance and the Psychology of Investing*. Boston: Harvard Business School Press.

This book is the seminal comprehensive treatment of behavioral finance. Part III of this book focuses on individual investors, but Part IV on institutional investors is also relevant to private wealth managers. This book provides a more advanced treatment of behavioral finance than that in Belsky and Gilovich (1999).

Legal and Ethical Concerns

The Uniform Prudent Investor Act is law in most states and jurisdictions. Fender (1998) and Meyers (2005a, 2005b) examined its implications. Although the focus of the Uniform Prudent Investor Act is on trusts, it represents a modern articulation of fiduciary standards that reflects modern portfolio theory and an emphasis on total return. The pamphlet *Prudent Investment Practices* (FFS 2003) considered a broader range of fiduciary standards.

Fender, William E. 1998. "Trustee Investment and Management Responsibilities under the Uniform Prudent Investor Act." *Journal of Private Portfolio Management*, vol. 1, no. 3 (Winter):5–17.

After summarizing key provisions of the Uniform Prudent Investor Act, Fender lays out a series of steps that demonstrate "procedural prudence": Analyze the current position, design optimal investment portfolio structure, formalize an investment policy statement, implement the investment policy, then monitor and evaluate.

FFS. 2003. *Prudent Investment Practices: A Handbook for Investment Fiduciaries*. Edited by the American Institute of Certified Public Accountants. Pittsburgh: Foundation for Fiduciary Studies.

This handbook attempts to codify procedurally prudent investment practices. This work draws on a broader menu of fiduciary standards than do Fender (1998) and Meyers (2005a, 2005b), including ERISA, case law, and the Restatement of Trusts. The idea of this pamphlet is that, although the various legal standards may not apply in every situation, there are valuable concepts to be extracted from particular laws and applied more generally. Although not everyone will agree with all of the practices proscribed and prescribed in this handbook, this is a valuable review of numerous fiduciary standards. A separate book, *Legal Memorandums to Accompany the Handbook Prudent Investment Practices*, goes into more detail.

Meyers, Darryl L. 2005a. "Investment Considerations under the Prudent Investor Act: Applicable Law." *Journal of Wealth Management*, vol. 8, no. 2 (Fall):25–35.

Meyers, Darryl L. 2005b. "Investment Considerations under the Prudent Investor Act. Part Two: Translation Analysis." *Journal of Wealth Management*, vol. 8, no. 3 (Winter):50–64.

Together, these two articles present a detailed analysis of the Uniform Prudent Investor Act. More so than in Fender (1998), the focus is on the Uniform Prudent Investor Act's interaction with the Uniform Principal and Interest Act. Meyers bifurcates the classic mean–variance–efficient frontier into the income beneficiary frontier (more bonds) and the remainder beneficiary frontier (more stocks); in so doing, he emphasizes a key conflict. Because the Uniform Prudent Investor Act has a total return focus, this conflict between income and remainder beneficiaries is difficult. Meyers also emphasizes the difficulties taxes introduce into balancing income and remainder beneficiaries' interests. Part One is focused on the fiduciary standard, and Part Two back tests alternative investment and distribution strategies.

Performance Evaluation

After-tax performance measurement is a difficult and specialized area. It must consider the appropriate tax rate, whether embedded capital gains are realized at period's end, and how to handle client-induced cash flows.

Price (1996), Poterba (1999), and Stein, Langstraat, Narasimhan (1999) represented early recognition in the performance evaluation literature of the complexity of dealing with unrealized capital gains. Minck (1998) and Price (2001) emphasized that each taxable investor has a unique relevant benchmark. Rogers (2006) reflected current best practices. In an under-recognized article, Brunel (2000b) borrowed from the private equity world to come up with a means of performance evaluation that allows for meaningful cross-sectional peer comparisons. Performance attribution is the next step beyond performance measurement, Rogers (2005) may be the first, and perhaps only, study to address this issue.

Brunel, Jean L.P. 2000b. "An Approach to After-Tax Performance Benchmarking." *Journal of Private Portfolio Management*, vol. 3, no. 3 (Winter):61–67.

This article morphs the private equity world's "vintage year" performance evaluation to after-tax performance benchmarking. Performance evaluation in private equity compares funds raised in the same "vintage year" as a means of keeping the investment opportunity set comparable. By analogy, tax-aware managers' investment opportunity sets are also a function of when a portfolio was started. Measuring portfolio performance by vintage year captures any consequences of "legacy" trades as well as the fact that older portfolios are more likely to have constraining unrealized capital gains. Although the idea has had little traction, we see great merit in it. As a simpler alternative to tracking decades' worth of different vintage years, Brunel also suggests tracking portfolios' performance by their beginning market-to-tax-basis ratio. Brunel's approaches are particularly relevant to the issue of peer-relative performance.

Minck, Jeffrey L. 1998. "Tax-Adjusted Equity Benchmarks." *Journal of Private Portfolio Management*, vol. 1, no. 2 (Summer):41–50.

The author emphasizes three tax adjustments that are necessary to form equity benchmarks for taxable portfolios—(1) gains are taxed at realization, not when earned, (2) losses offset gains, and (3) bequeathed assets have their basis "stepped up." In consequence, each investor has a unique after-tax benchmark.

Poterba, James M. 1999. "Unrealized Capital Gains and the Measurement of After-Tax Portfolio Performance." *Journal of Private Portfolio Management*, vol. 1, no. 4 (Spring):23–34.

Poterba proposes a means of dealing with prospective taxes on unrealized gains in calculating after-tax portfolio performance. Rather than simply imposing current capital gains tax rates on the unrealized gain, the author computes the effective tax burden as the present value of the probable path of gain realizations. Individuals can get a better perspective on their likely tax burden this way, but this approach makes cross-sectional comparisons difficult.

Price, Lee N. 1996. "Calculation and Reporting of After-Tax Performance." *Journal of Performance Measurement*, vol. 1, no. 2 (Winter):6–13.

In this early exposition of the difficulty of creating reasonable after-tax performance measures, the author emphasizes that properly reflecting capital gains is the crux of after-tax performance measurement. In fairness to the managers being evaluated, client-driven capital gains realizations should not penalize the manager. As in Poterba (1999), this article advocates including the present value of prospective taxes on unrealized capital gains in performance calculations.

Price, Lee N. 2001. "Taxable Benchmarks: The Complexity Increases." In *Investment Counseling for Private Clients III*. Charlottesville, VA: Association for Investment Management and Research.

Price highlights the complexity of creating after-tax benchmarks. In addition to the classic indicators of a good benchmark (appropriate, unambiguous, prespecified, investable, and measurable), the author emphasizes that the benchmark should be subject to the same tax considerations as the clients whose portfolios are being evaluated. The author encourages tracking the year-by-year capital gains realization rate and individual tax lots. The article's Table 4 highlights the importance of start- and end-points for benchmarks because the annual difference between pretax and after-tax returns for the S&P 500 ranges from 0.99 percent to 2.39 percent.

Rogers, Douglas S. 2005. "A Call to Arms! The Next Frontier for Taxable Accounts: After-Tax Return Performance Attribution." *Journal of Performance Measurement*, vol. 9, no. 3 (Spring):43–46.

After-tax performance measurement is the next step beyond performance measurement. The author notes that taxable performance attribution techniques cannot simply be ported to a tax-aware context. The author claims that although half of the world's investable assets are taxable, only about 2 percent of managers are sophisticated, tax-aware managers.

Rogers, Douglas S. 2006. "After-Tax Reporting and Measures of Tax Efficiency." Part Two of *Tax-Aware Investment Management: The Essential Guide*. New York: Bloomberg Press.

Part Two of Rogers' book includes three chapters on evaluating after-tax performance. This book provides a nontechnical consideration of tax-aware performance measurement issues.

Stein, David M., Brian Langstraat and Premkumar Narasimhan. 1999. "Reporting After-Tax Returns: A Pragmatic Approach." *Journal of Private Portfolio Management*, vol. 1, no. 4 (Spring):10–21.

The authors recommend an approach to calculating and reporting after-tax returns. They incorporate the economic value of the portfolio, including prospective taxes on unrealized gains. As an ideal comparative benchmark, they propose an indexed portfolio with a mandate and cash flows identical to the portfolio being evaluated.

Additional Reading

We include in this section an eclectic montage of private wealth management readings that did not fit in the preceding categories.

Bicker, Lyn. 1996. *Private Banking in Europe*. London: Routledge.

This survey of private banking in Europe offers a useful international perspective. This book is more relevant to wealth managers than other books on European private banking that we reviewed. In particular, the discussion of Swiss private banking partnerships and independent "gérants de fortune" is relevant to wealth managers anywhere. We suggest reading this book alongside the IBM survey (IBM 2005).

Chorafas, Dimitris N. 2005. *Wealth Management: Private Banking, Investment Decisions, and Structured Financial Products*. London: Butterworth Heineman/Elsevier.

This rather general survey of wealth management is interesting for its consideration of the "mass affluent" category as an expansion opportunity for wealth managers with a high-net-worth focus. Another unique feature is its focus on structured financial products (derivatives with embedded options).

Gray, Lisa. 2004. *The New Family Office: Innovative Strategies for Consulting to the Affluent*. London: Euromoney Institutional Investor Books.

This well-written overview of family offices includes both an historical perspective and a survey of current service models. Gray's historical focus, elucidated in numerous case studies, is on the classic definition of "family office," with its emphasis on both financial and nonfinancial concerns of

ultra-high-net-worth clients. The author emphasizes how modern technology and outsourcing can help bring family office services to high-net-worth families able to benefit from family office capabilities but with insufficient means to establish their own family offices. This book complements Brunel (2002) by focusing on softer issues and augments Bicker (1996) and Healey (1992) by emphasizing the U.S. perspective.

Hauser, Barbara R. 2002. "Family Governance: Who, What, and How." *Journal of Wealth Management*, vol. 5, no. 2 (Fall):10–16.

This article is a readily approachable discussion of formal family governance structures. Although not an investment topic directly, it is important to long-term stability and to the intergenerational version of asset location described in Hughes (2001).

Healey, Edna. 1992. *Coutts & Co., 1692–1992: The Portrait of a Private Bank*. London: Hodder and Stoughton.

This book details the long history of the Anglo-Scot private bankers to European royalty and English notables. Although the tone is somewhat hagiographical (as with many company histories), the book captures the private banking ambiance. Until recently in its history, Coutts was a private bank in the classic sense of a privately held entity offering broad financial services to the wealthy or distinguished; private wealth managers reading this book might contemplate the advantages and disadvantages family ownership offered Coutts.

IBM. 2005. *European Wealth and Private Banking Industry Survey 2005*. White paper, IBM Business Consulting Services (May).

This biennial survey covers a range of wealth management issues. It provides a useful contrast between the perspectives of wealth managers and their clients. Despite a European focus, the issues raised have global relevance. This survey can be read in conjunction with Bicker (1996).

Lee, Andrew R. 2006. "Family Vacation Properties: The Ties that Bind the Family Together or the Source of Family Division?" *Journal of Retirement Planning*, vol. 9, no. 4 (July–August):37–48.

The author considers a range of issues surrounding family vacation properties and compounds. Vacation properties present a microcosm of the governance issues raised in Hauser (2002).

Levin, Ross. 1997. *The Wealth Management Index: The Financial Advisor's System for Assessing and Managing Your Client's Plans and Goals*. Chicago: Irwin/McGraw-Hill.

Levin advances the idea of creating a numerical index to evaluate the success of a private wealth management or personal financial planning adviser–client relationship in which points are awarded for asset protection, disability and income protection, debt management, investment planning, and estate planning. Levin's definition of wealth management is broader than the definition in Evensky (1997).

Woerheide, Walt, and Rich Fortner. 1994. "The Pension Penalty Associated with Changing Employers." *Financial Counseling and Planning*, vol. 5:101–116.

An undeservedly obscure topic—what are the pension benefit consequences of changing jobs?—receives a solid treatment here. Because much of the value of defined-benefit pensions accrues in the last few years of long service, switching jobs can lead to severe pension penalties.

Keeping Current

The literature cited here represents our snapshot of the most important writings on private wealth management as of September 2006. Many of the authors cited are consistent contributors to the wealth management literature. CFA Institute and the Institutional Investor Group sponsor useful conferences on wealth

management topics, and CFA Institute publishes proceedings of many of their conferences. To keep current in private wealth management, we suggest that readers review the following journals:

- *Financial Analysts Journal*
- *Financial Services Review*
- *Journal of Financial Planning*
- *Journal of Investing*
- *Journal of Portfolio Management*
- *Journal of Wealth Management*

Of these, *Financial Services Review* is the most academic journal; it is the flagship journal of the Academy of Financial Services, which is a major academic association for financial planning and “individual finance” professors. The *Journal of Financial Planning* is the flagship publication of the Financial Planning Association; as such, the *Journal of Financial Planning* covers a range of topics from investment strategies to managing the office. In general, the *Journal of Financial Planning* is focused on broad financial planning topics and is less concerned with the topics of special interest to high-net-worth clients. The *Journal of Wealth Management* (previously published as the *Journal of Private Portfolio Management*) also covers a range of topics from investment strategies to managing an investment office; in comparison with the *Journal of Financial Planning*, this journal spends more time on issues pertaining to high-net-worth investors. The *Financial Analysts Journal*, *Journal of Investing*, and *Journal of Portfolio Management*, as general investment journals, have broader mandates than private wealth management.² The “mainline” academic finance sources, such as the *Journal of Finance* and the *Journal of Financial Economics*, only rarely include private wealth management articles.

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²The authors of this annotated bibliography have or have had some affiliation with each of these six journals.

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