# Warren E. Buffett, 2005

Teaching Note

**Synopsis and Objectives**

**Suggested complementary case about investment managers and superior performance:** “Bill Miller and Value Trust”
(UVA-F-1481).

Set in May 2005, this case invites the student to assess Berkshire Hathaway’s bid, through MidAmerican Energy Holdings Company, its wholly owned subsidiary, for the regulated energy-utility PacifiCorp. The task for the student is to perform a simple valuation of PacifiCorp and to consider the reasonableness of Berkshire’s offer. Student analysis readily extends into the investment philosophy and the remarkable record of Berkshire’s chair and CEO, Warren E. Buffett.

The case is an introduction to a finance course or a module on capital markets. The analytical tasks are straightforward and intended to provide a springboard into discussion of the main tenets of modern finance. Thus, the case would be useful for:

* *setting themes* at the beginning of a finance course, including risk-and-return, economic reality (not accounting reality), the time value of money, and the benefits of alignment of agents and owners
* *linking valuation to the behavior* of investors in the capital market
* *modeling good practice* in management and investment using Warren Buffett as an example by returning to the image of Buffett repeatedly during a finance course to ask students what Buffett would likely do in a situation
* *characterizing stock prices* as equaling the present value of future equity cash flows
* *exercising simple equity-valuation skills*

While the numerical calculations in the case are simple, novices will find it to be a meaty introduction to a number of important concepts in finance. Ideally, the case could be positioned near the beginning of a course or module, after which it can be reinforced by other cases and exercises.

**Suggested Questions for Advance Assignment**

1. What is the possible meaning of the changes in stock price for Berkshire Hathaway and Scottish Power plc on the day of the acquisition announcement? Specifically, what does the $2.55 billion gain in Berkshire’s market value of equity imply about the intrinsic value of PacifiCorp?
2. Based on the multiples for comparable regulated utilities, what is the range of possible values for PacifiCorp? What questions might you have about this range?
3. Assess the bid for PacifiCorp. How does it compare with the firm’s intrinsic value? As an alternative, the instructor could suggest that students perform a simple discounted cash-flow (DCF) analysis.
4. How well has Berkshire Hathaway performed? How well has it performed in the aggregate? What about its investment in MidAmerican Energy Holdings?
5. What is your assessment of Berkshire’s investments in Buffett’s Big Four: American Express, Coca-Cola, Gillette, and Wells Fargo?
6. From Warren Buffett’s perspective, what is the intrinsic value? Why is it accorded such importance? How is it estimated? What are the alternatives to intrinsic value? Why does Buffett reject them?
7. Critically assess Buffett’s investment philosophy. Be prepared to identify points where you agree and disagree with him.
8. Should Berkshire Hathaway’s shareholders endorse the acquisition of PacifiCorp?

**Suggested Supplemental Readings**

As the case indicates, there is a growing library of books and articles about Buffett and his investment style. The instructor may choose to assign readings from one or more of the publications listed in **Exhibit TN1**. Alternatively, it may be appropriate simply to share the list of books with students to illustrate the breadth of scholarship and reportage about the Sage of Omaha, Warren Buffett.

**Suggested Teaching Plan**

The following questions could be used to motivate a 90-minute discussion of the case:

1. *What does the stock market seem to be saying about the acquisition of PacifiCorp by Berkshire Hathaway?*

This opening offers the opportunity to develop the notion that stock prices are the present value of expected cash flows. Moreover, it deals with the immediate opening problem of the case: the market’s response to the PacifiCorp announcement. Finally, it should help to motivate a discussion of Buffett’s investment philosophy.

2. *Based on your own analysis, what do you think PacifiCorp was worth on its own before its acquisition by Berkshire?*

This question expands upon the opening question and helps deepen the mystery about the acquisition—the bid price seems to be a fairly full-price offer for PacifiCorp.

3. *Well, maybe Buffett is overpaying—does he have a record of overpaying in the past?*

Here, the discussion should shift to an analysis of Berkshire’s general record, its experience with MidAmerican, and its experiences buying equity positions in the Big Four. The general conclusion will be that Buffett has done very well as an investor and as the manager of Berkshire.

4. *Here are the major elements of Buffett’s philosophy. What do those elements mean? Do you agree with them?*

On a sideboard, one could list the major topic headings given in the case. The aim here should be to discuss the intuition behind each point: why Buffett holds those views and what they imply for his work. If the students already have been exposed to the major underpinnings of modern finance, this segment of the discussion would take the form of a quick review. For novices, this segment would warrant slower development.

5. *Let’s return to the basic issue. Is the PacifiCorp acquisition a good or bad deal? Why?*

This question returns the discussion to the opening and aims to rationalize some of the contradictions that will have emerged during class. The main contradiction is the full price and the positive market reaction to the announcement. As a value investor, Buffett would probably say that he sees something that others do not—the positive market reaction is just the market revising its expectations about the future profitability of PacifiCorp.

6. *Take a vote on whether the shareholders should endorse the acquisition.* *For those of you who believe that PacifiCorp will be a good purchase, what justifies your belief? For those of you who voted no, why did you oppose it?*

Hearing from both sides will serve as a summary of the major themes in the case and will invite a discussion about the sustainability of Buffett’s record.

The instructor could close with a discussion of the core tenets of finance and then discuss how the class will return to those themes repeatedly during the course. The instructor could also augment the discussion of tenets with more reading of material about Buffett. Finally, students could be updated on Berkshire Hathaway’s performance since the date of the case. See the firm’s Web site, http://www.berkshirehathaway.com, for updated reports as well as a compilation of Buffett’s letters to shareholders.

**Case Analysis**

**Investor reaction to the PacifiCorp announcement**

The investor reaction suggests that the deal will not only create value for PacifiCorp’s acquirer, Berkshire Hathaway, but also for the seller, Scottish Power. In fact, as a relative matter, it would appear that the market sees more value accruing to Scottish Power because of its divestiture of PacifiCorp than to Berkshire, as a result of its acquisition of the company. Students could be encouraged to consider why this might be so (i.e., why Scottish Power would seem to gain more benefit from the deal than Berkshire Hathaway).

Discussion question 1

The $2.55 billion increase in Berkshire Hathaway’s market value indicates an expected benefit to Berkshire from the acquisition. Some students will measure the extent of this benefit as a gain of $2.55 billion in Berkshire’s market value of equity divided by PacifiCorp’s 312.18 million shares outstanding or $6.95 per PacifiCorp share *more* than Buffett is paying. Berkshire is offering $5.1 billion in cash for PacifiCorp’s equity, for a per-share price of $16.34; altogether, this would imply a per-share expected value for PacifiCorp’s shares of $23.29. Is this a fair estimate of PacifiCorp’s intrinsic value? Students must perform their own valuation of PacifiCorp in order to arrive at an independent judgment about this value.

**Valuation of PacifiCorp**

Because PacifiCorp is a privately held company that does not pay a dividend, the case does not contain enough information to derive a valuation for PacifiCorp using market values or the dividend discount model. It is necessary, therefore, to rely on an implied valuation for the firm using multiples from comparable regulated utilities. Case Exhibit 9 provides financial data for the comparable firms, and case Exhibit 10 presents implied valuations for PacifiCorp using averages and medians of those firms’ multiples. **Table 1** presents a summary of the range of valuations provided in the case:

Discussion questions 2 and 3

Table 1. Summary of PacifiCorp valuation estimates.

|  |  |
| --- | --- |
| **Enterprise Value as Multiple of**: | **MV Equity as Multiple of:** |
| **Rev.** | **EBIT** | **EBITDA** | **Net Income** | **EPS**  | **Book Value** |
|  |  |  |  |  |  |
| 6,252 | 8,775 | 9,023 | 7,596 | 4,277 | 5,904 |
| 6,584  | 9,289  | 9,076 | 7,553  | 4,308  | 5,678 |

Because the case states that it would take 12 to 18 months for the deal to acquire PacifiCorp to close, the instructor may wish to solicit a present value for Berkshire Hathaway’s offer for the equity portion of PacifiCorp. An appropriate discount rate may be derived using the capital asset pricing model (CAPM). Footnote 13 in the case explains that the yield on the 30-year U.S. Treasury bond was 5.76% and that Berkshire’s beta was 0.75, and the case states that the long-run market return was 10.5%. So Berkshire’s cost of equity may be estimated as 9.32%. Using this rate to discount Berkshire’s $5.1 billion offer over 12 or 18 months, we get a present value of about $4.7 billion.

Berkshire’s offer for PacifiCorp was, therefore, roughly in line with the range of peer firm valuations. This does not explain why the market reacted so positively to the news of the acquisition. It is possible that the investors perceived potential synergies between PacifiCorp and MidAmerican, but in the highly regulated and regionally focused electric-utility business, such synergistic benefits may be weak. Was there perhaps something in Buffett’s record as an investor that led to the market’s response?

**Buffett’s record**

Discussion questions 4 and 5

The case affords three opportunities to analyze Berkshire Hathaway’s historical record.

*Berkshire Hathaway’s historical wealth creation*: The case offers a range of evidence about shareholder wealth creation at Berkshire Hathaway. The case gives a rate of 24% compound annual growth in stock prices from 1965 to 1995. In comparison, wealth creation for large firms averaged 10.5% per year over the same period. The first chart in the case helps students visualize the supernormal performance of Berkshire Hathaway. Novices to finance should be encouraged to consider how difficult it is to beat the market by such a wide margin.

*Berkshire’s experience with MidAmerican*: Data in the case and case Exhibit 6 give information with which to perform a simple analysis of Berkshire’s return on investment in MidAmerican. Beginning in 2000, Berkshire Hathaway made an outlay of $1.642 billion for an eventual 80.5% economic interest in MidAmerican. Berkshire’s economic interest in MidAmerican was composed of both equity and debt investments such that the cash flows to Berkshire included interest payments, common dividends, and preferred dividends. Therefore, Berkshire’s return on investment can be approximated by computing Berkshire’s share of MidAmerican’s free cash flows, the cash flows available to all debt and equity claims. The income statement and balance sheet data in case Exhibit 6 may help us derive Berkshire’s share of MidAmerican’s free cash flows from 2001 to 2004, revealing that Berkshire had an internal rate of return (IRR) on this investment of 71%. **Exhibit TN2** presents those calculations.

*Berkshire’s experience with equity investments*: The data in case Exhibit 3 give a foundation for a simple assessment of the major equity investments by Berkshire. With a class of novices, the instructor could motivate them to observe that all those issues have market values considerably higher than their costs. With a class of students more experienced in finance, it would be possible to estimate a holding-period return for Berkshire’s investments in the Big Four. Using the information in this exhibit and its footnote, we find that Berkshire’s investments in American Express, Coca-Cola, Gillette, and Wells Fargo generated a compound annual growth rate of 16.07%. Students could be encouraged to compare this return with the long-term return for all large stocks, 10.5%.

**Buffett’s Investment Philosophy**

Discussion questions 6 and 7

Buffett’s investment philosophy reads mostly like a summary of the theory of modern finance. As the subheadings in the case indicate, the elements of the philosophy are as follows:

1. Economic reality, not accounting reality

2. Account for the cost of the lost opportunity

3. Focus on the time value of money

4. Focus on wealth creation

5. Invest on the basis of information and analysis

6. The alignment of agents and owners is beneficial to firm value

Buffett strongly disagrees, however, with three other elements of modern finance:

1. *Use of risk-adjusted discount rates*: The method he uses seems rather similar to the certainty equivalent approach to valuation (i.e., discount certain cash flows at a risk-free rate). Although it seems doubtful that the cash flows he discounts are truly certain, the very fact that he matches riskless cash flows with a risk-free discount rate implies an approach consistent with the risk-and-return logic of the CAPM.

1. *Benefits of portfolio diversification*: Although Buffett disavows portfolio diversification, the breadth of Berkshire Hathaway’s holdings probably approaches efficient diversification. Case Exhibit 2 gives a breakdown of Berkshire’s diverse business segments (also described in the case); case Exhibit 3 gives a listing of Berkshire’s 10 major investees. From the list, students could be asked whether the portfolio looks diversified—this should stimulate a discussion of what diversification means to them and what it might mean in finance theory.

The case does not provide the data with which to complete an analysis based on market values and asset allocations, but by just looking, one might identify possible industry concentrations in Berkshire’s holdings. Those concentrations do not seem to account for the bulk of Berkshire’s market value. The firm’s portfolio consists of an assortment of odd manufacturing and service businesses suggested in the case, plus some major equity holdings (case Exhibit 3) that are not easily classified in the concentration groups. The mass of research on portfolio diversification suggests that it does not require very many different equities to achieve the risk-reduction benefits of diversification. Despite his public disagreement with the concept of diversification, Buffett seems to practice it.

1. *Capital-market efficiency*: Buffett’s emphasis on the value of information asymmetries seems to confirm some appreciation for efficiency in security prices. From his public statements as reported in the case, Buffett’s disagreement with efficiency focuses on two aspects:
* The concept of passive portfolio management (i.e., indexing)
* The implication that quoted prices equal intrinsic values

The theory of efficiency does not absolutely preclude benefits of active management or the possibility that prices may not equal intrinsic values. But it does suggest that without an information advantage or some unusual skill, it would be very difficult to earn supernormal returns consistently over time. It is in this context that Warren Buffett appears to be a major anomaly. The supernormal returns of Berkshire Hathaway suggest that it is possible to beat the market by a wide margin. Still, Buffett’s investment style is consistent with efficiency in some important ways:

* *Discipline and rationality*: If one is trying to beat the market, it makes no sense to invest in shares that are fairly priced. Buffett’s quotations in the case and his acquisition philosophy in case Exhibit 8 suggest that he is looking for the market’s pricing anomalies. Looking for the anomalies (the rationality part) and waiting to find them (the discipline part) are not inconsistent with a market that generally prices securities efficiently. Indeed, one could argue that the activities of investors such as Buffett help to create the efficiency that he denies.
* *Information*: By virtue of Berkshire’s large stockholdings in selected firms, Buffett holds directorships and enjoys an informational advantage unavailable to outside investors. Information advantages are valuable in a world of only semi-strong efficient markets.

**Conclusion**

The final issue raised by the case has to do with the sustainability of Buffett’s record. A bid for PacifiCorp of $9.4 billion does not seem unreasonable relative to current comparable valuations. For the PacifiCorp acquisition to be a success in the sense of matching historical returns at Berkshire, Buffett’s expectations for PacifiCorp must be radically different from current, implied, and expected values for peer firms. With an investment of this size, a mistake will have lasting adverse consequences for Berkshire and Buffett. Even if Buffett’s bet on PacifiCorp in May 2005 is correct, the need to deploy larger amounts of money will invite mistakes—as Buffet said, “A fat wallet is the enemy of superior investment results.” With more than $40 billion in cash and cash equivalents, Buffett would have been mindful of this admonition.

As described here, the case gives the novice a broad introduction to the valuation of, and investment in, equities. The elements of this introduction include the following:

* ex post analysis of investment returns (Berkshire, MidAmerican, and the Big Four) and comparison of those returns with a benchmark, such as the S&P 500 Index or the Ibbotson total return figures
* peer multiples valuation analysis of PacifiCorp
* discussion of the meaning of share-price movements following the announcement of the PacifiCorp acquisition
* review of the major tenets of finance in the context of Buffett’s investment philosophy

Exhibit TN1

**WARREN E. BUFFETT, 2005**

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Exhibit TN2

**WARREN E. BUFFETT, 2005**

Example of Completed IRR Analysis for Berkshire

Hathaway’s Investment in MidAmerican

($ in millions except per-share figures)

