Chapter 7: 2005–2014

Table 7.1: Decade snapshot: 2004–2014

	2004	2014
Business:	Insurance, utilities, flight services, building products, furniture retailing, candy, jewelry, encyclopedias, home cleaning systems, shoes, newspapers, various finance businesses, miscellaneous manufacturing, significant stakes in several public companies.	Insurance, utilities, railroad, numerous industrial, building, and consumer products businesses, numerous service and retailing businesses, major interest in a branded food product business, significant stakes in several public companies.
Key managers:	Chairman & CEO: Warren E. Buffett; Vice Chair: Charles T. Munger	Chairman & CEO: Warren E. Buffett; Vice Chair: Charles T. Munger
Annual revenues:	$74 billion	$195 billion
Stockholders' equity:	$86 billion	$240 billion
Book value per A share:	$55,824	$146,186
Float (average):	$45 billion	$81 billion

Major capital allocation decisions:

1. Acquired Iscar for $6.05 billion ($4 billion for 80% in 2006 and $2.05 billion for 20% in 2013).
2. Acquired Marmon for $9 billion cash ($4.5 billion for 60% in 2008 and $4.5 billion for the remainder between 2011–13).
3. Invested $14.5 billion over two weeks in three private lending transactions: $5 billion in Goldman Sachs, $6.5 billion in Wrigley, and $3 billion in General Electric (2008).
4. Acquired BNSF railroad for $33.5 billion (aggregate cost). Cost included the issuance of 94,915 Class-A equivalent shares worth $10.6 billion. (2010).
5. Acquired Lubrizol for $8.7 billion cash (2011).
6. Acquired NV Energy for $5.6 billion (2013) and Alta Link for $2.7 billion cash (2014).
7. Invested $12.25 billion to take Heinz private with 3G Capital (2013).
8. Invested over $73 billion in capital expenditures ($36 billion more than depreciation expense) (2005–2014).
9. Increased stake in Wells Fargo by $11.4 billion (various years) and established a major investment in International Business Machines (IBM) at a cost of $13.2 billion (2011–14).

Noteworthy events:

1. In mid-2006, Warren Buffett pledged to give the bulk of his fortune (worth over $40 billion) to philanthropy. The major recipient was the Bill & Melinda Gates Foundation.
2. Between 2007 and 2009 the boom of the mid-2000s goes bust, freezing credit markets worldwide and causing the Great Recession. Markets bottom in early 2009.
3. Class-B shares split 50:1 in connection with the BNSF acquisition. Afterward they have the economic equivalent of 1/1500th of a Class-A share.
4. Berkshire adds new board members: Stephen Burke (2009) and Meryl Witmer (2013).
5. Berkshire Hathaway celebrates 50 years under present management (2014).

This following tables have been omitted from the ebook version because formatting issues would have rendered them unreadable. The reader is welcome to download a pdf version of the omitted tables and bonus material at brkbook.com .

Table 7.2: Berkshire Hathaway pre-tax earnings

Table 7.3: Berkshire Hathaway after-tax earnings

Introduction

he fifth decade of Berkshire Hathaway under Warren Buffett's direction was one of enormous growth for the conglomerate. Cumulative operating

The earnings for the decade topped $100 billion and net worth grew to a level surpassed by very few corporations. But as the dollars increased, the *rate* of increase in shareholders' equity continued to decline. The decade proved what Buffett had been saying all along: size was an anchor to performance. Still, Berkshire's multiple levels of redundant capital and liquidity proved to be an enormous asset. Berkshire was ready when the Great Recession of the late 2000s struck, and it emerged from the decade stronger than ever.

This decade included the addition of many new operating subsidiaries. Among them were an entire railroad (Burlington Northern Santa Fe) and many other major acquisitions costing tens of billions of dollars in aggregate. Nearly $75 billion was spent on existing operations (including in the newly acquired businesses) for capital expenditures, about half of which represented capital to grow the businesses and strengthen their competitive positions. As a result, 70% of the change in net worth during this period came from operations—the largest proportion since the 1965–1974 decade.

Berkshire's insurance operations contributed more than their share. The Insurance Group reported an underwriting profit in *each* of the years of this decade. Better yet, they almost doubled float from $45 billion to $81 billion. Berkshire's superior financial strength and its reputation allowed it to write some of the largest reinsurance contracts in history, including one single premium worth $7 billion.

The financial crisis that came mid-decade provided Berkshire with ample opportunity. Berkshire became the go-to source for near-instantaneous capital during the height of the crisis and invested many billions over a very short period. It also invested tens of billions into its equity portfolio—and the market value of the portfolio nearly tripled in size during the decade. Yet with all this capital allocation, Berkshire still found itself with over $63 billion in idle cash at the end of 2014. A modicum of share repurchases in the latter part of the decade provided glimpses into Berkshire's future, when it would begin returning capital to shareholders.

Table 7.4: Select information 2005–2014

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
BRK book value per share - % change	6.4%	18.4%	11.0%	(9.6%)	19.8%	13.0%	4.6%	14.4%	18.2%	8.3%
BRK market value per share - % change	0.8%	24.1%	28.7%	(31.8%)	2.7%	21.4%	(4.7%)	16.8%	32.7%	27.0%
S&P 500 total return	4.9%	15.8%	5.5%	(37.0%)	26.5%	15.1%	2.1%	16.0%	32.4%	13.7%
US GDP Growth (real %)	3.5%	2.9%	1.9%	(0.1%)	(2.5%)	2.6%	1.6%	2.2%	1.8%	2.5%
10-year Treasury Note (year-end %)	4.5%	4.6%	4.1%	2.4%	3.6%	3.3%	2.0%	1.7%	2.9%	2.2%
US inflation (%)	3.4%	3.2%	2.9%	3.8%	(0.3%)	1.6%	3.1%	2.1%	1.5%	1.6%
US unemployment (%)	5.1%	4.6%	4.6%	5.8%	9.3%	9.6%	8.9%	8.1%	7.4%	6.2%

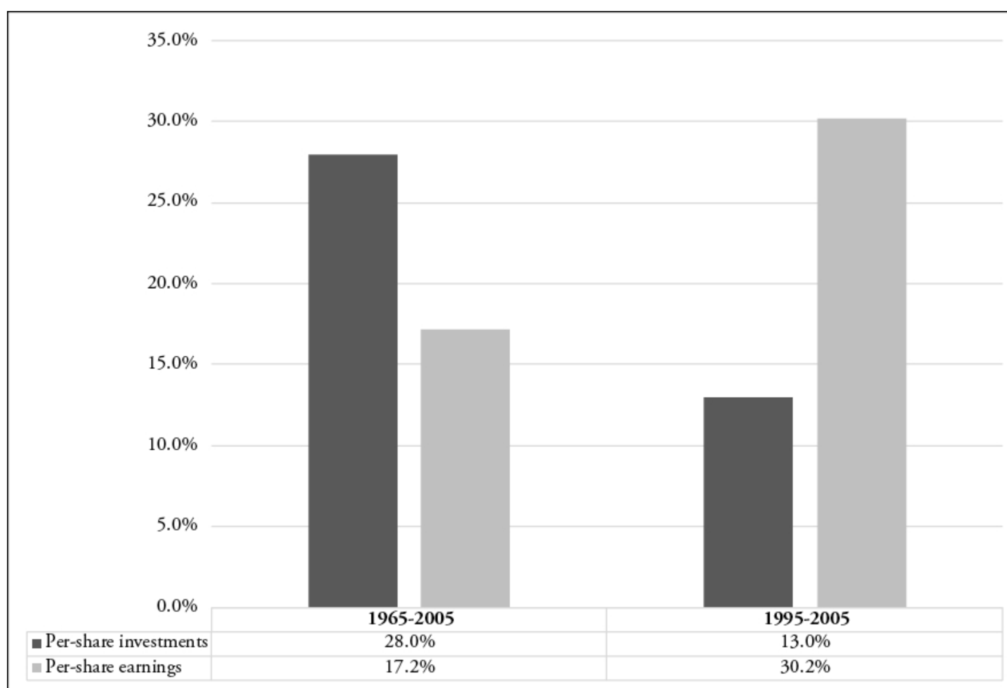
Sources: Berkshire Hathaway Annual Reports 2018, 2019 and Federal Reserve Bank of St. Louis.

2005

From a quantitative standpoint, Berkshire's book value increased 6.4% in 2005. This was below the rate Buffett preferred to see on an absolute basis, but still 1.5 percentage points ahead of the S&P 500 for the year. The Insurance Group reported an overall profit, despite being hit by losses from major hurricanes. Ever on the quest to find new outlets for Berkshire's cash, capital allocators Warren Buffett and Charlie Munger closed three acquisitions and lined up two more to close the following year. Berkshire's businesses were thriving.

Buffett shared updated figures for his two-column method of tracking Berkshire's progress. [451] Breaking down the longer-term track record highlighted the shift toward growth in operating earnings relative to growth in investments. This shift was a direct result of Berkshire's many acquisitions during the preceding decade. The policy of retaining all its earnings (in addition to shares issued for acquisitions) funded this expansion. The result of that capital allocation is evident in the rate of growth in investments compared to pre-tax operating earnings during the 1995–2005 decade compared to the 1965–2005 period (see Figure 7.1). Importantly, the base and ending years did not artificially skew the analysis.

Figure 7.1: Growth rates for per-share investments and per-share pre-tax earnings, select periods



Source: Berkshire Hathaway Annual Report 2005.

Table 7.5: Berkshire Hathaway—select data

($ per A-share)	Investments	Operating earnings
1965	$4	$4
1975	159	4
1985	2,407	52
1995	21,817	175
2005	74,129	2,441

Source: Berkshire Hathaway Annual Report 2005.

Buffett reiterated his and Munger's goal to provide shareholders with the key pieces of information they would want if roles were reversed. He thought the task of estimating Berkshire's intrinsic value could be accomplished more accurately than other companies. Why? Because Berkshire had the following characteristics:

1. A wide variety of relatively stable earnings streams
2. A lot of liquidity
3. Minimum debt

He was quick to note that simply looking at the consolidated parent-level financial statements was not enough. Shareholders did not need to examine the detail of *every* business—but a few broad delineations were important. “We have attempted to ease this problem by clustering our businesses into four logical groups,” he said. Those groups were presented for the first time in 2003:

1. Insurance
2. Regulated Utilities (MidAmerican)
3. Manufacturing, Service, and Retailing
4. Finance and Financial Products

Insurance

Berkshire’s insurance businesses suffered from three major hurricanes (Katrina, Rita, and Wilma) that hit the United States in the latter part of the year. This was the most Category 5 hurricanes recorded in a single season, breaking the old record of two Category 5 hurricanes set in 1960 and 1961, and cost Berkshire $3.4 billion. [452] Hurricane Katrina was the worst in insurance industry history, creating a need for the reinsurance operations to either firm up pricing to compensate for increased super cat risk or begin scaling back volume. Berkshire’s losses from Katrina alone cost it $2.5 billion.

Considering its significant hurricane-related losses, a $53 million pre-tax underwriting profit for the Insurance Group in 2005 was a great result. It provided Berkshire with the all-important negative cost of float, which now totaled $49.3 billion at year-end and amounted to almost 10% of float for the entire American property/casualty industry.

Table 7.6: Berkshire Hathaway—Insurance Underwriting

($ millions)	2005	2004
GEICO		
Premiums written	$10,285	$9,212
Premiums earned	10,101	8,915
Underwriting gain/(loss) - pre-tax	$1,221	$970
General Re		

Premiums written	$6,155	$6,860
Premiums earned	6,435	7,245
Underwriting gain/(loss) - pre-tax	($334)	$3
Berkshire Hathaway Reinsurance Group		
Premiums earned	$3,963	$3,714
Underwriting gain/(loss) - pre-tax	($1,069)	$417
Berkshire Hathaway Primary Group		
Premiums earned	$1,498	$1,211
Underwriting gain/(loss) - pre-tax	$235	$161
Total premiums earned	$21,997	$21,085
Total underwriting gain/(loss) - pre-tax	53	1,551
Average float	47,691	45,157
Cost of float	(0.1%)	(3.4%)
Aggregate adverse (favorable) loss development	($357)	$419
Discount accretion and amortization charges included above	$386	$538

Note: Berkshire Hathaway Primary Group and BHRG written premiums were not detailed.

Sources: Berkshire Hathaway Annual Reports 2004–2005 and author’s calculations.

GEICO

The shining gem of the Insurance Group was GEICO, and it again delivered spectacular results for both its customers and Berkshire. Buffett once more gushed about GEICO’s brilliant CEO, Tony Nicely, who over the past two years had reduced headcount by 4% yet grew policy count by 26%. The result was increased market share to 6.1%, increased profits, and the ability to give more value back to its customers—all of which strengthened the brand.

Digging into GEICO’s 2005 financial results, earned premiums grew 13% to $10.1 billion. Part of that growth came from GEICO’s entrance into the New Jersey market. Overall, GEICO benefitted from a broad-based lower claim frequency offset by higher severity in injury and physical damage. Despite $200 million of losses attributable to Hurricanes Katrina, Rita, and Wilma, GEICO posted a $1.2 billion pre-tax underwriting gain—a combined ratio of 87.9%. Such strong profitability was above GEICO’s 4% underwriting profit target (96% combined ratio), so GEICO reduced premiums and passed more savings to customers.

General Re

Hurricane-related losses at Gen Re were estimated at $685 million and led to its underwriting loss of $334 million.

The bulk of the hurricane-related losses at General Re were in its North American property/casualty line, which reported a pre-tax underwriting loss of $307 million on earned premiums of $2.2 billion. Results in that segment were better than at first glance since $480 million came from hurricane-related losses. Other North American property/casualty underwriting turned in profits of $220 million related to current-year accident gains less $47 million of adverse loss development for prior years. [453] In short, the (hopefully) irregular large super cat losses overshadowed better underwriting discipline in other North American property casualty lines.

Gen Re's international property/casualty segment reported pre-tax underwriting losses of $138 million on earned premiums of $1.9 billion. Included in losses were $205 million from US hurricanes and a windstorm in Europe. It booked $108 million of favorable loss development.

The life/health business reported another increase in underwriting profits, up 30% to $111 million on earned premiums that grew 14% to $2.3 billion. The business benefitted from favorable mortality trends, primarily in international operations. Results also included $66 million of losses from a US-based health business that was in runoff.

Berkshire Hathaway Reinsurance Group

BHRG gave up almost two years of underwriting profits to hurricane-related losses. In 2005, it reported a pre-tax underwriting loss of $1.1 billion on earned premiums of $4 billion. Irregularity was the hallmark of the Berkshire Hathaway Reinsurance Group. While hurricane losses surely stung, the catastrophe and individual risk segment was operating as designed. For one, profits from other underwriting activities within the segment partially offset $2.4 billion of hurricane losses and reduced the loss by half to $1.2 billion. Second, looking at the longer-term track record of catastrophe and individual risk, it earned cumulative underwriting profits of $1.2 billion between 1999 and 2005. This is to say nothing of the value from its float.

BHRG's retroactive reinsurance line stood out for its third year of decline in premiums earned. Retroactive premiums earned fell from $526 million in 2003 to $188 million in 2004—and then plummeted 95% to just $10 million in 2005. Berkshire gave no reason for the precipitous decline in retroactive policies, which indemnified others for past loss events. It was most likely due to a lack of appropriately priced business. Even though Berkshire recorded a $46 million gain from settling one retroactive reinsurance contract, and another $75 million in reduced loss reserves, the large amount of annual deferred charge amortization led the business line to record a $214 million loss in 2005.

Unamortized deferred charges related to BHRG's retroactive reinsurance business amounted to $2.13 billion at year-end 2005. This would all work its way into underwriting expense over time. Berkshire also slowed its deferred charge amortization in 2005 as a result of slower than expected loss payments. This meant float was sticking around longer.

Pre-tax underwriting earnings from BHRG other multi-line were $323 million on $2.3 billion of earned premiums. Its profits were after $100 million hurricane-related losses from Katrina, Rita, and Wilma.

In addition to the physical hurricanes inflicting pain on Berkshire during 2005, it also contended with the improper dealings of several of General Re's former executives (which was naturally picked up by the press). General Re's misbehavior boiled down to improperly using reinsurance contracts to hide underlying issues instead of actually transferring risk. [454] Berkshire quickly severed ties with the executives as their guilt came to light in mid-2005. [455]

Berkshire Hathaway Primary Group

Berkshire's not-so-hidden gem of primary insurers continued to have consistent underwriting profits. Earned premiums grew 24% to $1.5 billion and underwriting profits ballooned 46% to $235 million. But part of that growth was due to a new addition to the team.

Berkshire acquired Medical Protective Company (MedPro) from GE Insurance Solutions, a subsidiary of General Electric, on June 30, 2005. It came about after Buffett struck a deal with General Electric CEO Jeff Immelt. MedPro was based in Fort Wayne, Indiana, and had been in

business for 106 years. It provided professional liability insurance for physicians, dentists, and other health care providers. For $825 million cash, Berkshire acquired the AAA-rated insurance company with over $700 million in premium volume and $2 billion of statutory assets. [456]

Regulated Utility Business

There were two big pieces of news in the Regulated Utility Business segment in 2005. The most important economic development was the agreement to acquire PacifiCorp. PacifiCorp was an electric utility serving 1.6 million customers in California, Idaho, Oregon, Utah, Washington, and Wyoming. MidAmerican purchased it from Scottish Power PLC. To fund the deal, which closed in 2006, Berkshire would purchase $3.4 billion of additional capital stock in MidAmerican, which would in turn issue $1.7 billion of long-term debt to meet the $5.1 billion cash purchase price.

After the PacifiCorp closing, Berkshire's economic interest in MidAmerican would increase to approximately 88.6%, or 86.5% on a fully diluted basis. It would also increase MidAmerican's revenues by $3.3 billion and its assets by $14.1 billion.

The second big piece of news was the repeal of the Public Utility Holding Company Act (PUHCA) on August 8, 2005. Since its original purchase of MidAmerican, Berkshire had operated under a somewhat unique arrangement giving it a majority economic interest but leaving the voting interest with the minority partners (Walter Scott, David Sokol, and Greg Abel). That arrangement had been necessary under law since Berkshire was a holding company. Repeal of the law allowed Berkshire to convert its preferred stock into voting common shares on February 6, 2006, and allowed its voting interest to mirror its economic interest. This ended what Buffett called the "convoluted corporate arrangement PUHCA had forced on us."

The repeal also caused an accounting change. Berkshire's increased voting interest required the full consolidation of MidAmerican into Berkshire's financial statements for accounting purposes. Like the exercise Buffett had performed with Scott Fetzer in 1986 (with old and new columns presenting the same company under different accounting), nothing would change from an economic perspective. But Berkshire's financial statements would look different. For this reason, Berkshire included a separate unaudited pro

forma 2005 balance sheet in its financial reports to highlight the changes. The most noticeable changes were entries on both the asset and liability sides entitled Utilities and Energy, with the corresponding balance sheet items formerly detailed in the notes to the financial statements. Berkshire's consolidated 2005 assets would increase from $198 billion under the old (current-year GAAP) format to $214 billion under the new (future-years' GAAP) format. Berkshire's $91.5 billion of total shareholders' equity remained unchanged, which was to be expected.

Manufacturing, Service, and Retailing

The MSR businesses generated almost $47 billion of revenues and earned $2.6 billion pre-tax during the year. The $1.7 billion of after-tax earnings from these businesses represented a 22.2% return on average tangible equity. Because of the premium Berkshire paid above and beyond the tangible equity for these businesses, [457] Berkshire's return on carrying value was a lower-but-still-satisfactory 10.1%. Furthermore, the businesses operated with very little debt. [458] With two years of balance sheet data we can see the pre-tax return on tangible invested capital improved from 24.5% to 25.1%, which is additional evidence of the underlying quality of these businesses as a group.

The MSR Group gained a new business on August 31, 2005 with Berkshire's acquisition of Forest River. Forest River, a recreational vehicle manufacturer based in Elkhart, Indiana, was founded by Pete Liegl. After Liegl sold a predecessor company, Cobra Industries, [459] to a leveraged buyout operation, it promptly fired him and almost as quickly went bankrupt. Liegl then purchased Cobra's assets out of bankruptcy and rebuilt the business under the name of Forest River.

Although the terms of the sale were not disclosed by Berkshire directly, an article [460] included with the 2005 Berkshire Hathaway Annual Report put the figure at around $800 million. The company had annual revenues of $1.6 billion and operated out of sixty plants with 5,400 employees.

Several of Berkshire's MSR businesses were impacted by higher input costs in 2005, though most nonetheless reported higher profits. Strong prevailing economic conditions caused prices for raw materials, energy, and transportation (among others) to rise, sometimes sharply. Building products,

which contained Acme Building Brands, Benjamin Moore, Johns Manville, and MiTek, the result of Berkshire's mini spending spree in the early 2000s, turned in pre-tax profit of $751 million (up 17%) on revenues of $4.8 billion (up 11%). Shaw earned $485 million pre-tax, up 4%, though its margins slipped due to increased raw material costs. Even though profits were up, and moats gave these businesses pricing power, it would take time to raise customer prices to counter rising input costs.

The apparel category (which included footwear) increased its pre-tax earnings 7% to $348 million on revenues up 4% to $2.3 billion. Result in apparel were largely driven by Fruit of the Loom, the largest business in that segment, which increased its market share in all categories. The footwear businesses were shadowed by Fruit of the Loom. H.H. Brown Shoe Group and Justin Boots turned in a respectable 5.3% increase in sales (profitability was not disclosed).

Buffett's Chairman's letter conveyed his delight at Ben Bridge and RC Willey, which increased same-store sales by 6.6% and 9.9%, respectively. Together, same-store sales for the jewelry and home furnishing businesses increased 2.5%. The increase at RC Willey was that much more impressive considering its closed-on-Sunday's policy. RC Willey's newest location in Reno, Nevada contributed to results and it planned to open another store in Sacramento, California. Jordan's Furniture also opened a new store in 2005, a 60,000 clearance center in Avon, Massachusetts.

The Chairman's letter also reported that Chuck Huggins, Sees Candy's long-time CEO, had passed the reins to Brad Kinstler. Kinstler previously headed Cypress Insurance and Fechheimer, and impressed Buffett greatly. He was the "obvious choice for the See's job," Buffett said.

All told, the jewelry, home furnishings, and candy segment increased pre-tax profit 20% to $257 million.

Within the flight services segment, results were mixed. Increased demand for simulator time at FlightSafety resulted in higher utilization. Profits were up 10% to $200 million. With the increased demand came expansion plans, including a $100 million project underway for fifteen new simulators at a major facility in Farnborough, England. This would bring its total facility count to forty-two.

Results at NetJets were a different story. The business reported a loss of $80 million. The cause: struggles maintaining the European operation thought

necessary to dominate the worldwide fractional ownership industry. Even though European contracts increased 37%, its low efficiency resulted in red ink. [461]

With profits off 5% to $217 million, McLane was a fairly steady generator of revenues and profit. Part of that steadiness was due to Walmart, its former corporate parent, which remained a large customer. [462] Due to the low value-add nature of its business, McLane generated over half (51%) of the MSR Groups' total revenues—yet only 8% of its pre-tax profit.

The individual results of the MSR businesses highlighted the strength of the US economy in 2005 (when there was a 3.5% increase in real GDP [463]). The ability of the building products businesses to pass through input costs over time highlighted the strong housing market and the strength of the businesses. Results from Berkshire's retailers were proof of strong consumer demand.

In hindsight, we know this period was the beginning of a crescendo that would end in disaster. Buffett's comments at the 2006 Annual Meeting suggested caution. He pointed to the "ridiculous credit being extended" to homeowners, and the slowdown in home sales seen at MidAmerican's Home Services business as areas of concern.

Finance and Financial Products

The Finance and Financial Products segment contained a wide variety of businesses. They were an eclectic mix of financial-type businesses and operations. From Clayton Homes, a manufactured housing company (included because of its large financing arm), to the remnants of General Re's securities operations, to Buffett's own proprietary trading, and more, the group was nonetheless very important t o Berkshire.

Buffett said the star of the finance sector was Clayton Homes. It was not hard to see why. The company had grown to include thirty-six manufacturing plants since Berkshire's purchase in 2003. This included twelve acquired via the bankruptcy of competitor Oakwood in 2004. Another four plants came from the purchase of Karsten, a West Coast-based operation, in 2005. Clayton's manufacturing operations were dwarfed only by the size of its lending business, which provided financing for Clayton's customers and others.

Clayton as of 2005 serviced $17 billion of loans, of which $9.6 billion was owned by Clayton. To finance that $9.6 billion, Clayton had borrowed from Berkshire, which had in turn borrowed at an attractive interest rate. To compensate Berkshire for the use of its pristine credit rating, Berkshire charged Clayton a 1 percentage-point spread which, in 2005 cost Clayton $83 million. [464]

Over the years the Finance and Financial Products segment had grown sizable. At year-end 2005 the segment collectively held $24.5 billion of assets This included:

1. $4.1 billion cash
2. $3.4 billion fixed maturity securities
3. $11.1 billion of loans and finance receivables

That last category that contained the Clayton portfolio in addition to other loans and receivables, such as those from World Book and Kirby customers.

The liability side of the Finance and Financial Products segment balance sheet was equally large. The $20.3 billion of debt within this segment was less worrisome than at first glance since it operated more like a bank. Over half or $10.9 billion of liabilities were longer-term notes payable and borrowings used to finance the interest-bearing loans and receivables portfolio. Berkshire took pains to structure its debt to avoid the possibility of an immediate need for liquidity since, unlike a bank, it did not have reliable sources of deposits as funding. There were another $5.1 billion of derivative contract liabilities in addition to some residual liabilities related to Gen Re Securities. [465]

These trading activities and the irregular losses from unwinding General Re Securities meant the earnings of the Finance and Financial Products segment were irregular at best. From a profit of $584 million pre-tax and pre-capital gains in 2004, the segment reported an $822 million profit in 2005. Just over half of the 2005 profit ($416 million) was from Clayton Homes. Most of the remaining profit came from Buffett’s trading ($200 million), and leasing operations of XTRA and CORT ($173 million).

Investments

Buffett thought general stock market levels already reflected a positive economic outlook: “Expect no miracles from our equity portfolio.” Setting characteristically low expectations, Buffett thought Berkshire’s portfolio of equity securities might double over the next decade—an annualized rate of return of about 7%. Still, he and Munger found a few intelligent things to do during 2005. Berkshire increased its Wells Fargo holdings substantially over the preceding year—almost doubling its shares to 95 million shares in 2005. Berkshire now owned 5.7% of the West Coast bank. In addition, Berkshire purchased stakes in two other companies, brewer Anheuser-Busch Company in St. Louis, Missouri, and Walmart Stores, Inc., the Bentonville, Arkansas-based retailer long admired by Buffett and Munger.

Two other names found their way onto the list of investments with a market value greater than $700 million (notice the minimum amount keeps going up). Both were accounting-related more than economics, and the result of corporate actions outside of Berkshire’s control. The first was the spinoff of Ameriprise Financial from American Express. Berkshire now owned 12.1% of Ameriprise (roughly equal to its 12.2% stake in American Express), with a cost of $183 million and a market value of $1.2 billion. Second, during the fourth quarter of 2005, Gillette merged into Proctor & Gamble. This created a lot of accounting noise and much less economic change, providing one of Buffett’s famous accounting lessons.

Berkshire did not sell a single share of Gillette. It simply accepted the 0.975 shares of Proctor & Gamble stock for each Gillette share it owned. However, GAAP rules required a $5 billion non-cash, pre-tax gain [466] be booked through the income account. Many people would rightfully ask why? This was a perfect example of economics vs. accounting. In economic terms, Berkshire’s cost basis in Gillette at the time of the merger was $600 million. Berkshire’s cost basis for tax purposes in Proctor & Gamble was $940 million. [467] This was because Berkshire purchased $340 million of Proctor & Gamble to an even 100 million shares. In accounting terms, the cost basis increased to $5.96 billion, reflecting the non-cash gain booked through the income statement. [468]

With the wind largely at its back, Berkshire had a relatively good year in 2005. The Insurance Group, though not without struggles, turned in the all-important cost-free float and its non-insurance businesses largely did well despite signs of a peak in the booming economy. Berkshire used $2.4

billion of its excess cash to complete acquisitions of Medical Protective and Forest River, in addition to several other bolt-on acquisitions. The following year would see more acquisitions, including Berkshire's first major acquisition overseas.

2006

Berkshire's results in 2006 were probably at the high end of what could be expected for a conglomerate its size. With revenues approaching $100 billion and 217,000 employees, Berkshire Hathaway was the 12th largest US corporation according to *Fortune* magazine. [469] Berkshire's $16.9 billion increase in net worth year over year translated into an 18.4% increase in per share book value.

Buffett wanted shareholders to keep expectations in check going forward. While overall Berkshire's seventy-three business units did outstanding, the Insurance Group benefitted from a large dose of luck. This was not Buffett displaying his usual modesty; the year 2006 for insurers was all good news.

The wind was also at Berkshire's back on the capital allocation front. Berkshire spent $6 billion closing the PacifiCorp, Business Wire, and Applied Underwriters acquisitions that were pending at year-end 2005. It spent an additional $4 billion on Iscar (its first foreign acquisition), $1.2 billion on Russell Corp., plus several other tuck-in acquisitions at MiTek, CTB, Shaw, and Clayton.

Insurance

A combination of luck and continued underwriting discipline was behind the large jump in underwriting profit in 2006. Premiums earned grew 9% to $24 billion aided in part by the addition of Applied Underwriters on May 19, 2006. The real story, though, was Berkshire's loss experience—or rather, lack thereof. While each major segment did not contribute to premium growth, all contributed to a $3.8 billion underwriting profit, which was up from just $53 million in 2005. On top of that, float increased 5% to $50 billion, providing even more capital to put to work.

Table 7.7: Berkshire Hathaway—Insurance Underwriting

($ millions)	2006	2005
GEICO		

Premiums written	$11,303	$10,285
Premiums earned	11,055	10,101
Underwriting gain/(loss) - pre-tax	$1,314	$1,221
General Re		
Premiums written	$5,949	$6,155
Premiums earned	6,075	6,435
Underwriting gain/(loss) - pre-tax	$526	($334)
Berkshire Hathaway Reinsurance Group		
Premiums earned	$4,976	$3,963
Underwriting gain/(loss) - pre-tax	$1,658	($1,069)
Berkshire Hathaway Primary Group		
Premiums earned	$1,858	$1,498
Underwriting gain/(loss) - pre-tax	$340	$235
Total premiums earned	$23,964	$21,997
Total underwriting gain/(loss) - pre-tax	3,838	53
Average float	50,087	47,691
Cost of float	(7.7%)	(0.1%)
Aggregate adverse (favorable) loss development	($612)	($357)
Discount accretion and amortization charges included above	$459	$386

Note: Berkshire Hathaway Primary Group and BHRG written premiums were not detailed.

Sources: Berkshire Hathaway Annual Reports 2005–2006 and author's calculations.

General Re

The favorable insurance climate was most apparent in the two reinsurance units. Underwriting at Gen Re swung from a loss of $334 million in 2005 to a profit of $526 million in 2006, despite premiums earned falling 6% to $6.1 billion.

Gen Re's underwriting discipline was starting to show. Its North American property/casualty segment recorded a pre-tax underwriting gain of $127 million even as earned premiums fell 18% to $1.8 billion. Including gains from current year business and favorable loss development, property lines produced a gain of $348 million. Casualty/workers' compensation reported a loss of $221 million, which included discount accretion, deferred charge amortization, and additional loss reserves.

The International segment reported profits of $246 million on flat volume of $1.9 billion. More net gains from aviation lines and no catastrophe losses led to a strong gain of $360 million, while $114 million in casualty losses reduced profits for the segment. Casualty losses included an unspecified amount of costs related to the ongoing regulatory investigations surrounding misconducts by former executives.

An underwriting gain of $153 million on volume of $2.4 billion continued a long string of profits from Gen Re's life/health segment.

Berkshire Hathaway Reinsurance Group

The story was much the same (but even better) at Berkshire Hathaway Reinsurance Group in 2006. Premiums earned grew 26% to $5 billion and profits rebounded strongly from a loss of $1.1 billion in 2005 to a profit of $1.7 billion in 2006.

BHRG benefitted from both higher rates and higher volumes after other insurers pulled back following large hurricane losses in 2005. It was rewarded for staying the course: Premium volume in catastrophe and individual risk grew 32% to $2.2 billion, and profits rose sharply, from a loss of $1.2 billion in 2005 to a gain of $1.6 billion in 2006. Underwriting results in 2006 included $200 million unfavorable loss development, primarily tied to revised estimates of losses associated with Hurricane Wilma (which occurred during the fourth quarter of 2005).

The big news at BHRG was its huge $7.1 billion retroactive reinsurance deal with Equitas—the largest reinsurance contract in Berkshire's history and very likely the largest in insurance history at the time. Though finalized in 2006, the policy would not begin until 2007.

Equitas was an entity created by Lloyd's of London, the London-based association of insurers and reinsurers. Equitas was an entity created to hold all the risk incurred by thousands of names [470] or underwriters on contracts written by the Lloyd's syndicates prior to 1993. Those names were still on the hook for any losses—no matter how far into the future. The development of latent asbestos and environmental losses caused a pullback in their willingness to write new policies on *any* type of business. This uncertainty froze the market.

Ajit Jain and Buffett offered a policy to insure all 27,972 names backing Equitas. In exchange for $7.1 billion in cash and securities, Berkshire wrote a policy that covered all future claims (on policies in effect prior to 1993) up to a limit of $13.9 billion. Buffett and Jain reasoned that the payment of future claims would either be lower in amount or longer in duration, making the transaction a good bet for Berkshire. The transaction was like a loan, but with an unknown repayment schedule. The sooner and higher the ultimate payments, the higher the cost, and vice versa. The two certain variables were the upfront cash and the upper limit of the policy. Time would reveal the cost of this float.

Before leaving the Equitas transaction, it's worth highlighting Buffett's accounting lesson on reinsurance from his 2006 Chairman's letter. Laying out the debits and credits, he explained exactly how the Equitas accounting worked:

> "The major debits will be to Cash and Investments, Reinsurance Recoverable, and Deferred Charges for Reinsurance Assumed (DCRA). The major credit will be to Reserve for Losses and Loss Adjustment Expense. No profit or loss will be recorded at the inception of the transaction, but underwriting losses will thereafter be incurred annually as the DCRA asset is amortized downward … . Eventually, when the last claim has been paid, the DCRA will be reduced to zero. That day is 50 years or more away."

It's important to reiterate the economics vs. accounting for a reinsurance transaction like Equitas. From an accounting standpoint, there was no impact to profitability on day one. Subsequent periods would show underwriting losses as the DCRA was amortized into expense. From an economic standpoint, any earnings from the $7.1 billion received upfront would be recorded in investment income. Retroactive insurance contracts always produce underwriting losses. The question is whether the float generated via the cash received upfront produced investment income exceeding those losses. Buffett made no guarantee on this bet but wanted shareholders to have the facts. He stressed this by jabbing Enron for its purposely unintelligible 10K filings.

BHRG's retroactive business in 2006 reported an underwriting loss of $173 million on $146 million of earned premiums, which was primarily a result

of deferred charge amortization and gains from commuted/amended contracts.

Other multi-line had a gain of $243 million on premiums of $2.6 billion, which reflected strength in workers' compensation and aviation lines that offset a decline in quota-share volume.

GEICO

GEICO's results were simply splendid—no surprise there. The company grew policies-in-force 10.7% overall and ended 2006 with 8.1 million policies. [471] Its $1.3 billion pre-tax underwriting gain on $11.1 billion of earned premiums produced an 88.1% combined ratio and led GEICO to reduce rates in certain markets.

Berkshire Hathaway Primary Group

Berkshire's Primary Group earned $340 million pre-tax, an 18% underwriting profit on $1.9 billion of premiums earned. Each of its component businesses reported an underwriting gain, and results were bolstered by MedPro, which closed in mid-2005, and Applied Underwriters, which officially joined Berkshire on May 19, 2006.

Applied Underwriters

In December 2005, Berkshire agreed to acquire a majority stake in Applied Underwriters, a writer of workers' compensation insurance to small businesses as well as a provider of payroll services. [472] [473] Even though most of its customers were based in California, the business was based in Omaha. Berkshire purchased an 85% ownership interest [474] and the remaining 15% of the business was retained by Sid Ferenc and Steve Menzies, whom Buffett praised for having built Applied Underwriters from nothing just over a decade before.

The favorable loss experience and strong underwriting profitability in insurance in 2006 suggested conditions were expected to deteriorate soon. Buffett pointed to the flood of capital entering the super cat field. He told shareholders that Berkshire would employ a lesson from investing to the insurance field: "Be fearful when others are greedy, and be greedy when others are fearful." For the time being, Berkshire would reduce exposure to

wind-related events but stand by willing to assume risk at an appropriate price.

Manufacturing, Service, and Retailing

Like the Insurance Group, Berkshire's MSR segment had a good year in 2006. It could be traced to several factors, including a strong US economy and acquisitions of additional businesses. Net earnings grew 29% to $2.1 billion—a very respectable 25.1% return on tangible equity. [475] Pre-tax return on tangible capital expanded four percentage points to 29.1%.

Iscar Metalworking Companies was the most significant newcomer to the MSR Group. The Israel-based company first came on Buffett's radar when Chairman Eitan Wertheimer sent him a short letter in October 2005. The company faced a familiar challenge transferring ownership to the next generation of a large family, and Wertheimer thought Berkshire the perfect fit. Buffett agreed. On July 5, 2006, Berkshire paid $4 billion for an 80% stake in Iscar (valuing the whole business at $5 billion).

Iscar produced cutting tools used in conjunction with expensive machine tools. [476] Iscar's business was a very good one. Although not many details are known, the fact that almost $2.1 billion remained as goodwill on the Iscar balance sheet post-transaction was a major clue.

In thinking through Iscar, we can envision the superior economics at work. Its cutting tools were a crucial element of any metalworking project. While the price of each consumable cutting tool might be very high, its relative price to the overall project was likely relatively low. [477] Iscar can therefore deliver an excellent economic result for itself while continually reinvesting in R&D to further enhance the value delivered to its customers.

Other newcomers and bolt-on acquisitions in 2006 bolstered the MSR Group. Fruit of the Loom spent $1.2 billion (including assumed debt) to purchase Russell Corp., an athletic apparel business; and in December it agreed to purchase the underwear portion of Vanity Fair Corp. [478] Elsewhere, CTB, Shaw, [479] Clayton, and MiTek acquired other businesses during the year. Buffett highlighted MiTek's acquisition of fourteen businesses for $291 million since Berkshire acquired it in 2001. MiTek was now debt free, having repaid all the $200 million Berkshire lent it at the time of its acquisition. These types of expansionary capital allocation

activities were prized by Buffett since they widened the scope of the businesses and managers he knew well.

Berkshire's newest service business was Business Wire, a global wire service that distributed corporate news, including regulatory filings. Acquired February 28, 2006, Business Wire came across Buffett's desk much like Iscar. In November 2005, CEO Cathy Baron Tamraz wrote Buffett a short two-page letter that piqued his interest. Lorry Lokey founded Business Wire in 1961 and grew it to serve over 25,000 clients in 150 countries. Buffett was particularly impressed with the company's relentless focus on value creation. Citing Tamraz in his Chairman's letter, he talked about the parts of the pitch he liked best: keeping unnecessary spending under wraps but investing where there were gains to be had. Buffett shared this approach. The price was not disclosed.

The existing manufacturing businesses, many of which were tied to the building industry, reported higher revenues and earnings during 2006, although weakness was seen going into 2007 as the construction industry began to slow. Shaw, one of the largest, increased revenues just 2% to $5.8 billion, but pre-tax earnings ballooned 22% to $594 million. Shaw was successfully passed along higher prices to customers (7% on average), which resulted in the surge in profits on lower unit volume.

The story was much the same at the other manufacturing businesses including Acme, Benjamin Moore, Johns Manville, and MiTek, which had similarly good years (no specifics disclosed) but looked forward with caution. While these businesses performed well themselves, the addition of Forest River to the segment beginning in mid-2005 was largely responsible for a 29% increase in revenues to $12 billion and a 32% increase in pre-tax earnings to $1.8 billion.

Within the service sector, NetJets' dominance of the fractional jet industry returned it to profitability. NetJets produced a profit of $143 million, finally realizing economies of scale from its large fleet of planes. That fleet was now larger than its three largest competitors combined.

If NetJets was the formerly difficult business getting better, *The Buffalo News* was the formerly great business getting worse. Because of its small size, the paper remained consolidated within dozens of other sister companies for reporting purposes. The Chairman's letter pointed to the deteriorating economics of the newspaper industry and highlighted a once

shining star now dimmed. Earnings were down 40% from its peak. [480] As a newspaper business, *The Buffalo News* was one of the best and had one of the highest penetration ratios in the country. Yet a plethora of online information from low-cost competitors was destroying the once-great economics. Buffett highlighted one of Berkshire's Owner's Manual principles to calm any nerves: "Unless we face an irreversible cash drain, we will stick with *The News* , just as we've said that we would." He continued, "I think we will be successful. But the days of lush profits from our newspaper are over."

Berkshire's retailing businesses were the same story of good results in 2006. Revenues within the segment grew 7% to $3.3 billion and pre-tax profits rose 12% to $289 million. Strong consumer spending bolstered results. RC Willey opened two new stores that added $77 million in revenues. Same-store sales for the home furnishings businesses increased 6% over the prior year. See's was the major contributor in this segment, responsible for $27 million of the $32 million increase in retailing pre-tax profits.

McLane's pre-tax earnings rebounded to 2004 levels. Revenues increased 7% to $25.7 billion and earnings increased 6% to $229 million. These results came in the face of losing a large customer and lower restaurant service revenues. Its grocery business expanded but faced lower margins from higher competition.

Regulated Utility Businesses

Berkshire's MidAmerican Energy Holdings was the parent of its utility operations. It acquired PacifiCorp on March 21, 2006. From no utilities six years earlier, Berkshire now controlled major utility operations spanning the globe. The utility operation lacked the potential for outsized investment returns because of its heavy regulation. But it contained the ability for outsized *additional* investment. It could take the large amounts of capital generated elsewhere within Berkshire and deploy it in relatively safe, long-term assets. Just the PacifiCorp deal alone required $3.4 billion from Berkshire that would likely produce steady returns into the future.

Berkshire's now 86.6% diluted stake in MidAmerican Energy Holdings generated $885 million in net earnings in 2006. This amount included the interest MidAmerican paid to Berkshire on a $1 billion loan, as well as

earnings from PacifiCorp, which was acquired in March 2006. Excluding EBIT from PacifiCorp beginning on its acquisition date. Save for one operating segment, each of MidAmerican's businesses reported an increase in profits in 2006.

The one laggard in the segment was HomeServices. With lower residential real estate demand, earnings in that segment fell 50% to $74 million. Buffett did not let the current climate distract Berkshire from its long-term potential. "[W]e will be seeking to purchase additional brokerage operations. A decade from now, HomeServices will almost certainly be much larger."

Finance and Financial Products

Gen Re's derivative operation was now largely in the history books. From the time the wind down began in 2002 through the end of 2006, Gen Re Securities had recorded a $409 million loss across over 23,000 contracts. At one time, their value was blessed by accountants. Charlie Munger later quipped that the derivatives contracts were "good until reached for."

Clayton Homes was the largest contributor, making up almost half of the segment's $1.2 billion in pre-tax earnings. In addition to earnings, Berkshire received an $86 million fee from Clayton to use Berkshire's credit to finance its $10 billion+ portfolio of mortgages. The industry was unprofitable in 2006. Unit sales were just one-third of 1999 and Clayton itself had its lowest sales volume since 1962. But Clayton was an anomaly. Unlike other homebuilders, Clayton's earnings were largely tied to its portfolio of mortgage receivables (which is why it was included in the Finance and Financial Products segment). Claytons earnings grew 23% to $513 million on 12% higher revenues ($3.6 billion).

Investments

Berkshire's investment portfolio grew to $61.5 billion at year-end 2006. Buffett was pleased with the operating performance of the businesses in the portfolio, singling out stellar results from the CEOs of American Express (per-share earnings up 18%), Coca-Cola (+9%), Proctor & Gamble (+8%), and Wells Fargo (+11%). All exceeded the 6% to 8% range he thought earnings would increase over the next ten years, in aggregate.

Buffett then summarized the profits Berkshire made over the preceding six years in foreign currency and used that as a launching point to discuss the US trade deficit. His long-standing conviction that the US trade deficit would negatively impact the US currency led Berkshire to make sizable foreign currency bets across a portfolio of currencies. From 2002 to 2006, profits from those operations totaled $2.2 billion.

Buffett strongly believed the United States was like a large, rich farm that traded off pieces of the family estate to finance current consumption. In the year 2006, the US had a trade deficit of $760 billion worth of imports above and beyond its "honest-to-God" trade of $1.44 trillion where exports matched imports. This deficit, accounting for 6% of GDP, was what Buffett called "IOU's to the rest of the world".

The evidence against the strength of the dollar was so strong that Buffett couldn't help but find a way to profit from it. He did that using derivatives—even though he had spoken out forcefully against their existence.

"Why, you may wonder, are we fooling around with such potentially toxic material? The answer is that derivatives, just like stocks and bonds, are sometimes wildly mispriced. For many years, accordingly, we have selectively written derivative contracts—few in number but sometimes for large dollar amounts. We currently have 62 contracts outstanding. I manage them personally, and they are free of counterparty credit risk."

In other words, Buffett's derivative activities involved him taking advantage of a few mispricings in the market, not a large-scale operation with the potential to explode like mortgage-back securities would in the future.

Governance

Buffett concluded his 2006 Chairman's letter with an announcement that Malcolm "Kim" Chace was retiring from the board. Kim replaced his father on Berkshire's board in 1992. Buffett was now on the lookout for a director who was "owner-oriented, business-savvy, interested and truly-independent." He found such a candidate in Susan Decker, CFO of Yahoo!.

Buffett: Philanthropist

In July 2006, Buffett pledged 85% of his Berkshire stock (which was comprised of 474,998 A-shares [481]) to five charities. The largest was the

Bill & Melinda Gates Foundation, which was to receive 10 million Class B shares over time, or about $31 billion at the time of the gift. The four other charities were the Susan Thompson Buffett Foundation, the Howard G. Buffett Foundation, the NoVo Foundation, and The Sherwood Foundation. [482]

The gifts were the ultimate display of rationality. Buffett could continue to do what he did best (run Berkshire) and let others do the hard work of giving. Since the shares would be distributed over time and conclude no earlier than ten years after his death, the net effect on Berkshire was effectively nil. [483]

Buffett was quick to point out he was in good health and had an actuarial expected lifespan of twelve years. The actuaries would be proven wrong.

2007

The year 2007 could best be described as the calm before the storm. Berkshire and most other businesses did well, but cracks were beginning to appear in the economy. And no one had better insight into the broader economy than Buffett and Munger, with front-row seats to Berkshire's diverse businesses.

Berkshire's 2007 operating performance delivered a $12.3 billion gain in net worth and an 11% gain in per share book value—exactly double the S&P 500's performance for the year. [484] Most of its businesses did well, except for the canary in the coal mine—housing, which showed signs of weakness foreshadowing what was coming in the next few years. Calm described the insurance market, which again provided a good underwriting year. But its profitability foretold a familiar storm: the entrance of new capital and inadequate pricing.

Insurance

Berkshire's collection of world-class insurance companies ended 2007 with $58.7 billion of float—up 15% in large part due to the Equitas deal described earlier. Better still, underwriting profits came in at $3.4 billion, though this was admittedly due to another year of calm weather with its resulting lack of super cat events.

Table 7.8: Berkshire Hathaway—Insurance Underwriting

($ millions)	2007	2006
GEICO		
Premiums written	$11,931	$11,303
Premiums earned	11,806	11,055
Underwriting gain/(loss) - pre-tax	$1,113	$1,314
General Re		
Premiums written	$5,957	$5,949
Premiums earned	6,076	6,075
Underwriting gain/(loss) - pre-tax	$555	$526
Berkshire Hathaway Reinsurance Group		
Premiums earned	$11,902	$4,976
Underwriting gain/(loss) - pre-tax	$1,427	$1,658
Berkshire Hathaway Primary Group		
Premiums earned	$1,999	$1,858
Underwriting gain/(loss) - pre-tax	$279	$340
Total premiums earned	$31,783	$23,964
Total underwriting gain/(loss) - pre-tax	3,374	3,838
Average float	54,793	50,087
Cost of float	(6.2%)	(7.7%)
Aggregate adverse (favorable) loss development	($1,478)	($612)
Discount accretion and amortization charges included above	$315	$459

Note: Berkshire Hathaway Primary Group and BHRG written premiums were not detailed.

Sources: Berkshire Hathaway Annual Reports 2006–2007 and author’s calculations.

General Re

Gen Re continued to stay the course, rejecting inadequate risks and earning a $555 million pre-tax underwriting profit, up 6% from 2006. This won CEO Joe Brandon and President Tad Montross Buffett’s praise for restoring its luster. Though premiums earned were flat in 2007, at $6.1 billion, two factors caused them to be higher than they otherwise would have. The first was the weakening US dollar, which meant Gen Re’s non-US business translated into more dollars upon conversion. The other was $114 million from a reinsurance to close transaction with a Lloyd’s of London syndicate.

A reinsurance to close transaction is usually associated with Lloyd's of London, an insurance and reinsurance market where syndicates join to insure and spread risks. In a reinsurance to close transaction, a reinsurer takes on the risks and rewards of a particular year. This allows the syndicates to close the books for that year and determine a profit or loss—thus the name reinsurance to close.

In this case, Gen Re was paid a $114 million premium to increase its share of the Lloyd's Syndicate 435 2001 account from 60% to 100%. This reinsurance to close transaction was similar to the Equitas contract. The key difference was the assumption of risk of one year of a particular syndicate, whereas the Equitas deal was for many years covering many syndicates.

In 2007, Gen Re began consolidating its North American and International property/casualty segments into one property/casualty reporting line. This new consolidated segment reported an underwriting gain of $475 million, up 27% on a comparative basis. Gen Re benefitted to the tune of $429 million of favorable loss experience on prior years' property business. On top of that, the current underwriting year produced a gain of $90 million even after $192 million in catastrophe losses. [485] These were offset by $44 million in net losses from the casualty/workers' compensation line, which was heavily impacted by amortization charges.

Life/health reported 48% lower earnings, but the $80 million underwriting profit continued a long streak of profitable operations.

Berkshire Hathaway Reinsurance Group

Berkshire Hathaway Reinsurance Group reported a 139% increase in earned premiums to $11.9 billion. Pre-tax underwriting profit fell 14% to $1.4 billion. The large increase in premium volume was due to the $7.1 billion Equitas reinsurance transaction. The Equitas deal masked a 28% drop in earned premiums from catastrophe and individual risk business as competition and inadequate pricing resurfaced. A lack of major super cat events in 2007 meant $1.5 billion of the $1.6 premiums earned in that segment fell to the bottom line.

Although the Equitas deal provided a large boost to earned premiums, its retroactive nature meant the earned premium was offset by associated incurred losses. Further, while the entire $7.1 billion was available to earn

investment income, deferred charge amortization caused the retroactive segment loss to balloon 116% to $375 million. [486]

The third major segment within BHRG was other multi-line, which reported flat premium volume of $2.6 billion. [487] The other multi-line segment turned in 34% higher profit, to $325 million, largely due to favorable loss experience in both property and workers' compensation.

GEICO

The successful march forward continued at GEICO. With earned premiums up 6.8% to $11.8 billion and 656,000 more voluntary auto policies-in-force, GEICO now boasted a 7.2% market share. Buffett disclosed it also had a 6% share of the motorcycle market, had started lines covering recreational vehicles and, working with National Indemnity, covered select commercial accounts. Based on prior comments about returning value to customers, GEICO's decline in profitability was intentional. Even after allowing average premiums per policy to decline, the year's profitability represented a 90.6% combined ratio—good for over $1.1 billion in pre-tax profits.

Berkshire Hathaway Primary Group

The Primary Group reported a $279 million pre-tax profit which produced a 14% underwriting gain on $2 billion of premium volume. Premiums grew largely as a result of the impact of MedPro, Applied Underwriters, and the newest addition to the team, BoatU.S. Very little was disclosed about BoatU.S; this included its price. Headed by Bill Oakerson, BoatU.S. provided services to an association of about 650,000 boat owners, including a boat insurance offering. It must have been a very small tuck-in acquisition as it was not included in the footnotes at all.

Regulated Utility Business

With a full year of operations from Western utilities (PacifiCorp), in addition to more customers and higher usage due to warmer weather, pre-tax earnings from Mid-American grew 18% to $2 billion. On an after-tax basis Berkshire's share, including the interest on a portion of the company's debt, grew 25% to $1.1 billion. EBIT was flat if PacifiCorp's results were excluded.

Perhaps the biggest news at MidAmerican, though not the best, came from its smallest unit, HomeServices. Pre-tax earnings went from a high of $148 million in 2005, halved to $74 million in 2006 and just about halved again in 2007 to $42 million. The cause was the dramatic slowdown in residential real estate sales. Still, Buffett saw the long-term potential of the business and said Berkshire would look to grow where it made sense. HomeServices was already the second largest real estate brokerage firm in the country, with twenty firms and 18,800 agents.

Manufacturing, Service, and Retailing

Including the recent additions, the MSR segment reported overall pre-tax earnings of $2.4 billion (up 10%) on revenues of $59.1 billion (up 12%). Even with the headwinds faced by the building products businesses and some of the retail businesses, the group earned 22.8% on tangible equity. This translated into a 9.8% return on Berkshire's investment, all while maintaining a strong balance sheet. Pre-tax return on tangible capital slipped 1.5 points to 27.6%.

Buffett laid out the wreckage in the building products market: pre-tax earnings fell significantly at Shaw (-27%), Acme Brick (-41%), Johns Manville (-38%), and MiTek (-9%). Combined pre-tax earnings from these businesses fell 27% to $941 in million compared to 2006. Despite these challenges, Shaw, MiTek, and Acme found tuck-in acquisitions.

Down markets provide an opportunity to examine the dynamics of economies of scale. Consider Shaw, the largest building-related business in the segment. With carpet volumes down 10%, revenues decreased 8% to $5.4 billion. The ratio between volumes and revenues determines the company's relative need to pass through price increases. [488] Working down the earnings statement, Shaw's gross profits decreased 17% due to the lower volume and higher input costs. Management at Shaw was only able to cut overhead costs (selling, general and administrative) by 6%, and as a result pre-tax earnings declined by the 27% seen above. Similar stories likely played out at the other building products businesses.

In addition to having a full year of Iscar included in its results, the manufacturing businesses had two other additions in 2007 with the acquisitions of Vanity Fair Corp. and Richline Group.

- Vanity Fair Corp.: Berkshire acquired the intimate apparel business of Vanity Fair Corp. on April 1, 2007, though it was announced in 2006. The business was tucked-in to Fruit of the Loom along with Russell Corporation, which was acquired in 2006.
- Richline Group: This was a newly formed jewelry supplier. Dennis Ulrich, a vendor of Ben Bridge, contacted Buffett with a plan to combine his company, Bel-Oro with that of Aurafin, another supplier, to form Richline. The deal came about after Buffett visited a Ben Bridge jewelry store in Seattle for a talk to vendors. Richline then made two smaller acquisitions. Buffett noted that the combined enterprise was far below the threshold normally considered for an acquisition by Berkshire, but he was confident the company would grow and maintain good returns on capital employed.

A new business, TTI, Inc., joined the service segment of the MSR Group on March 30, 2007. [489] TTI is a distributor of electronic components that was founded by Paul Andrews, Jr. in the early 1970s. The business was brought to Buffett's attention by John Roach of Fort Worth, Texas. Roach was Chairman of Justin Industries, which Berkshire bought in 2000. Beginning in the 1970s, Andrews built the business from $112,000 in revenues to over $1.3 billion by 2007. The company was based in Fort Worth and had distribution centers globally.

Berkshire's other service businesses performed well in 2007, with gains coming from the Business Wire acquisition in 2006 in addition to growth from FlightSafety and NetJets, which posted a second consecutive year of profits after struggling the prior year. Buffett noted that FlightSafety trained about 58% of US corporate pilots, and its growth seemed to reflect strong demand. Its revenues and pre-tax profits grew 14% and 20%, respectively. The other service businesses as a group earned $968 million on revenues of $7.8 billion, which were up from earnings of $658 million on $5.8 billion of revenues in 2006.

The retailing businesses fared less well than service, though they were not without pockets of good and bad. On the whole, pre-tax earnings from the retailing businesses declined 5% to $274 million, with the fall attributed to the jewelry operations. Among the furniture retailers Nebraska Furniture Mart stood out. “In a disastrous year for many furniture retailers, sales at

Kansas City increased 8%, while in Omaha the gain was 6%." Buffett reported that each store had sales of over $400 million in 2007, which placed them at the top of home furnishing stores in the US by a big margin. See's also had a good year with pre-tax earnings of $82 million on revenues of $383 million. [490]

McLane continued its steady progress. Pre-tax earnings increased 1.3% to $232 million on revenues of $28.1 billion (up 9%).

Finance and Financial Products

Even though the primary driver of earnings in the Finance and Financial Products segment came from Clayton (the housing-related business), earnings were not impacted nearly as much as the building products manufacturers. In fact, earnings at Clayton rose 2.5% to $526 million, even as Finance and Financial Products pre-tax, pre-capital gains income fell 13% to $1 billion. That's because Clayton was both a manufacturer and financer of homes. A detailed breakdown was not provided, but Clayton's finance operations would have been the primary driver of results. Its year-end outstanding loan balances amounted to $11.1 billion, with good credit quality metrics. [491]

Berkshire's leasing businesses, XTRA and CORT, reported a 39% drop in earnings. XTRA was singled-out as the primary reason because its utilization of trailers declined considerably during the year (another example of economies of scale working in reverse). [492] Another reason for the overall decline in earnings in Finance and Financial Products was the life and annuity business, which swung from a profit of $29 million in 2006 to a $60 million loss in 2007 (based on a change to mortality assumptions on certain contracts).

Investments

Berkshire's investment portfolio saw more than its usual glacial pace of change during 2007. Net purchases of equity securities amounted to over $11 billion, funded in part by $3.5 billion of net reductions in fixed maturity investments. Here were the major changes:

- Elimination of its stake in PetroChina, which netted Berkshire $4

billion, about 5.7 times its original investment (after paying the US government taxes of $1.2 billion).

- Purchase of a 17.5% stake in Burlington Northern Santa Fe (BNSF) railroad at a cost of $4.7 billion.
- Purchase of an 8.1% stake in Kraft Foods at a cost of $4.2 billion.

Buffett had teased excitedly and anonymously about two investments, Kraft and BNSF, in his 2006 Chairman's letter but there was no discussion in 2007 and very little at the 2008 shareholders meeting. [493] Both were destined to play much larger roles at Berkshire in future years. Kraft was the well-known, highly profitable, packaged food company Berkshire had owned two-and-a-half decades before through its investment in General Foods. Buffett did comment on the railroad industry in general at the 2008 shareholders' meeting, stating that the economics had improved significantly from twenty-five or thirty years before. With less regulation, little new capacity, and a fuel advantage over long hauls compared to trucks, the railroad business was a better business now but still very capital intensive.

Buffett gave away a hint at his expectations for Berkshire at the 2008 Annual Meeting. He noted that Berkshire would be happy with a 10% pre-tax return from its investment portfolio over time, including dividends and capital gains. The admission of the lower expectations was another reminder to shareholders of the difficulty of growing a very large conglomerate at anywhere near the rates of return achieved in the past.

Opportunities for Berkshire would still exist. In fact, some major future opportunities were foreshadowed by certain discontinuities Berkshire took advantage of during the year. One was high-grade municipal bonds (a big market) that for a short period traded at yields in the 3% to over 10% range. In hindsight, it is easy to see this event as a precursor to the major market disruptions that would happen over the coming months. A large market like municipal bonds is usually very orderly with yields moving tightly within any given band of credit quality. That yields temporarily spiked meant liquidity was hard to come by—a foreshock of the coming major financial earthquake.

Businesses – The Great, the Good and the Gruesome

Buffett's 2007 Chairman's letter included a lesson on what he saw as the three broad types of businesses. Overall, Buffett and Munger looked for businesses they understood and that had favorable long-term economics, able and trustworthy management, and a sensible price tag. Within these parameters they further sorted businesses into great and good, with gruesome businesses to be avoided.

- Great Businesses: Possess an enduring moat protecting excellent returns on invested capital.
    - Example: See's, a "prototype of a dream business."

Berkshire paid $25 million for See's in 1972. Over the course of Berkshire's ownership, See's only got better. Its pre-tax return on capital, already very good at over 60%, grew to over 200%. This happened in conjunction with significant growth in revenues. See's was a great business because it earned more with very little investment. To achieve its dramatic growth required incremental investment of just $32 million. [494] Meanwhile, some $1.35 billion in cumulative profit between 1972 and 2007 was sent to Omaha to pay tax and reinvest elsewhere. A dream indeed. [495]

Table 7.9: See's Candies—select data

($ millions)	2007	1972	Change
Revenues	$383	$30	12.8x
Pre-tax earnings	82	5	16.4x
Capital required	40	8	5.0x
Pre-tax return on capital	205%	63%	3.3x

Sources: Berkshire Hathaway Annual Report 2007 and author's calculations.

The only problem with a business like See's was that it had very little reinvestment opportunity. See's was limited to a few western states (in addition to the Berkshire faithful). Try as they might (and they did) Berkshire couldn't find ways to materially reinvest in the business at anywhere near the returns earned in the current business. Buffett said it wasn't surprising businesses like See's were rare. He elaborated:

> "Typically, companies that increase their earnings from $5 million to $82 million require, say, $400 million or so of capital investment to

finance their growth. That's because growing businesses have both working capital needs that increase in proportion to sales growth and significant requirements for fixed asset investments.

"A company that needs large increases in capital to engender its growth may well prove to be a satisfactory investment. There is, to follow through on our example, nothing shabby about earning $82 million pre-tax on $400 million of net tangible assets. But that equation for the owner is vastly different from the See's situation. It's far better to have an ever-increasing stream of earnings with virtually no major capital requirements. Ask Microsoft or Google."

- Good Businesses: Deliver good benefits to owners but require significant reinvestment of earnings to grow.
    - Example: FlightSafety

Over the course of Berkshire's ownership, FlightSafety increased earnings, but only did so by increasing its investment in fixed assets (see Table 7.10). FlightSafety's simulators, like most investments in fixed assets, were expensive and generated much lower revenues per dollar of incremental investment. The slightly outsized increase in earnings compared to fixed assets indicates the company increased its capital efficiency over that time, but it was nothing like the experience at See's. Buffett laid out the cold truth about good businesses:

"Consequently, if measured only by economic returns, FlightSafety is an excellent but not extraordinary business. Its put-up-more-to-earn-more experience is that faced by most corporations. For example, our large investment in regulated utilities falls squarely in this category. We will earn considerably more money in this business ten years from now, but we will invest many billions to make it."

Berkshire's growing size, and the rarity of finding See's-like businesses of the magnitude needed to move the needle, meant its future would be built mainly within the good category. A more capital-intensive business like MidAmerican Energy Holdings might fall on the low side of the return spectrum, but still in the good category.

Table 7.10: FlightSafety—select data

($ millions)	2007	199	Chang

		6	e
Pre-tax earnings	$270	$111	2.4x
Net fixed assets	1,079	570	1.9x

Sources: Berkshire Hathaway Annual Report 2007 and author's calculations.

- Gruesome Businesses: "The worst sort of business is one that grows rapidly, requires significant capital to engender the growth, and then earns little or no money." [496]
    - Example: Berkshire's former textile business. Enough said.

Marmon

Berkshire shareholders woke up to a Christmas gift: the announcement of a major new operating subsidiary. Berkshire made many large acquisitions during its forty-two years with Buffett at the helm, but the deal inked on Christmas Day 2007 was one of the largest cash purchases for an acquisition in Berkshire's history: $4.5 billion for a 60% initial interest in Marmon. "Charlie and I finally earned our paychecks," Buffett joked. The deal would not close until March 18, 2008. Marmon, which will be described more fully in the section on 2008, was a conglomerate of 125 separate businesses across nine sectors that employed 20,000 people.

Berkshire not only ended the year on a high note but had many reasons to celebrate throughout 2007. With tens of billions of dollars of surplus cash on hand and a fortress-like balance sheet, Berkshire was well positioned to weather any storm—and the one coming would be a doozy.

2008

Any account of 2008 necessarily includes the worldwide economic turmoil considered by many economists as the worst recession since the Great Depression. Since much has been written about the Great Recession of the late 2000s, this book will not attempt to provide a comprehensive explanation. Instead, the focus will remain on Berkshire Hathaway: How Berkshire's businesses managed through the recession, and the ways Berkshire's unique financial strength allowed it to proactively respond to once-in-a-generation-type opportunities.

For just the second time under Buffett's leadership, Berkshire's change in book value was negative, declining 9.6% (compared to a 37% falloff for the S&P 500). Berkshire's relative 27.4% outperformance highlighted its resiliency and focus on insurance and utilities. Neither were highly affected by the economic downturn. To a lesser degree, the strength of its business franchises (both from an operating and balance sheet perspective) protected them and allowed some to use the turmoil to go on the offensive. Still, Berkshire's many businesses tied to the residential construction and retailing sectors were acutely affected.

Insurance

Berkshire's Insurance Group earned $2.8 billion pre-tax, with each of its four major segments turning in an underwriting profit. Overall insurance earnings were down from 2007 due to increasing competition, but its continued profitability in the face of various economic challenges proved the group was what Buffett called an economic powerhouse. The Insurance Group ended the year with $58.5 billion of float [497] and, due to another year of underwriting profits, the sixth consecutive year of negative cost float.

Table 7.11: Berkshire Hathaway—Insurance Underwriting

($ millions)	2008	2007
GEICO		
Premiums written	$12,741	$11,931
Premiums earned	12,479	11,806
Underwriting gain/(loss) - pre-tax	$916	$1,113
General Re		
Premiums written	$5,971	$5,957
Premiums earned	6,014	6,076
Underwriting gain/(loss) - pre-tax	$342	$555
Berkshire Hathaway Reinsurance Group		
Premiums earned	$5,082	$11,902
Underwriting gain/(loss) - pre-tax	$1,324	$1,427
Berkshire Hathaway Primary Group		
Premiums earned	$1,950	$1,999
Underwriting gain/(loss) - pre-tax	$210	$279
Total premiums earned	$25,525	$31,783

Total underwriting gain/(loss) - pre-tax	2,792	3,374
Average float	58,593	54,793
Cost of float	(4.8%)	(6.2%)
Aggregate adverse (favorable) loss development[1]	($1,140)	($1,478)
Discount accretion and amortization charges included above	$550	$315

Note: Berkshire Hathaway Primary Group and BHRG written premiums were not detailed.

Sources: Berkshire Hathaway Annual Reports 2007–2008 and author’s calculations.

General Re

General Re earned praise in Buffett’s Chairman’s letter for its outstanding year. Now led by CEO Tad Montross, [498] Gen Re reported favorable run-off in its property lines and profits from current year underwriting. This was a 180-degree reversal from when Gen Re first joined Berkshire and brought years of suffering from past underwriting mistakes. With earned premiums of $6 billion and pre-tax profits of $342 million (down 38% from the year before), its third consecutive year of profits resulted from Gen Re’s new culture of underwriting discipline and rejecting unsound risks.

The property/casualty segment reported an underwriting profit of $163 million on earned premiums of $3.4 billion. Property business included $395 million in favorable loss development offset by $120 million of current year losses stemming largely from Hurricanes Gustav and Ike, as well as storms in Europe. Casualty losses amounted to $112 million in large part due to loss reserve discount accretion and deferred charge amortization, and included unspecified amounts of costs associated with regulatory investigations. General Re also agreed to another reinsurance to close transaction with Lloyd’s (like the one completed in 2007), for $205 million, which had a neutral effect on underwriting profit in 2008. [499]

Gen Re’s life/health business reported profits of $179 million on earned premiums of $2.6 billion.

Berkshire Hathaway Reinsurance Group

BHRG reported its third year of billion dollar underwriting profits, earning $1.3 billion on premium volume of $5.1 billion. The comparative headline

premium numbers were skewed due to the large one-time Equitas transaction in 2007 (premiums that year were $11.9 billion).

Retroactive reinsurance reported another year of red ink, a loss of $414 million. But losses were expected given the large amount of float it generated and the ongoing accounting charges bearing little connection to economic reality. After the large Equitas deal in 2007, premiums fell to just $204 million in 2008. The retroactive reinsurance business was chiefly responsible for the $24.2 billion of float at BHRG at year-end 2008.

The catastrophe and individual risk business let premiums fall 39% as increasing industry capacity softened pricing. Even after $270 million of losses from Hurricanes Gustave and Ike, the catastrophe and individual risk segment reported significant profits of $776 million in relation to its $955 million premium volume. Profits included $224 million from a contract that would have required Berkshire to purchase up to $4 billion of revenue bonds issued by the Florida Hurricane Catastrophe Fund Finance Corporation under certain conditions. [500] The entire premium went to the bottom line as the $25 billion threshold for losses wasn't met. The economics of the transaction were favorable to Berkshire since it represented a commitment to lend rather than coverage of losses. In effect Berkshire was paid a 5.6% fee on the $4 billion commitment for incurring credit risk related to the fund and its participating insurance companies. [501] The fund was willing to enter the transaction because of uncertainty in credit markets. [502]

The other multi-line segment benefitted from a five-year, 20% quota-share contract with Swiss Re, which increased premiums 50% to $3.9 billion. Underwriting profits swelled from $325 million in 2007 to $962 million in 2008 largely from a $930 million adjustment to its foreign-denominated liabilities. The worldwide turmoil in 2008 led to a significant strengthening of the dollar as it became a safe haven.

In the turmoil of 2008, Ajit Jain found more opportunity for BHRG. At the end of 2007 BHRG formed Berkshire Hathaway Assurance Corporation, which wrote insurance on municipal bonds. [503] This new entity, licensed in forty-nine states and seeded with $1 billion of capital, wrote $595 million in premium volume during 2008. Some of that was secondary insurance, where Berkshire was paid for taking on the risk of the primary insurer going

broke. [504] In 2008, Ajit and Berkshire were paid handsomely for their willingness to make calculated bets based only on logic while panic gripped almost every financial market. [505] As Buffett put it, “The investment world has gone from underpricing risk to overpricing it.”

GEICO

GEICO’s operating results showed continued strength and growth. By allowing premiums per policy to fall, the company passed along more savings to its customers. This, combined with additional advertising expenditures, led to an 8.2% increase in voluntary auto policies-in-force, a 7.7% market share, and strong profits of $916 million on $12.5 billion of earned premiums.

Berkshire Hathaway Primary Group

The Primary Group continued to produce consistent profits and float for Berkshire, even though volume and underwriting profits declined. Pre-tax underwriting profit fell 25% to $210 million on $1.95 billion of earned premiums (down 2.5%). Buffett assured the managers of the many companies in this group that he and Munger recognized and appreciated their contributions to Berkshire even though Berkshire’s other insurers dwarfed them in comparison.

Regulated Utility Business

Berkshire’s utilities (under the umbrella of MidAmerican Energy Holdings) thrived in 2008. EBIT from its operating units grew 3% to $2 billion and a large one-time gain swelled the bottom line. At Kern River, approved rate increases and stronger demand drove EBIT up 26%. Its PacifiCorp and UK utilities units maintained steady earnings. HomeServices was the glaring exception to the general rule of stability in MidAmerican’s operations and swung to a $45 million pre-tax loss as home sales fell.

MidAmerican earned almost $1.1 billion pre-tax during 2008 (on top of regular operating earnings) from an investment in Constellation Energy Holdings, another energy holding company. Constellation was within hours of bankruptcy when MidAmerican acquired it, proving the value of being able to move very quickly. Buffett told shareholders at the Annual Meeting

the next year that "we literally went from a phone call that Dave [Sokol] made to me at noon or 1 o'clock to handing them a firm bid that evening in Baltimore." Within months of agreeing to the deal, Constellation reneged in favor of another suitor. Berkshire was left without a new operating subsidiary—but with a $175 million breakup fee and a $917 million profit on a last-minute preferred stock investment that provided Constellation with liquidity to keep operating.

MidAmerican's ability to make deals quickly rested on its financial strength and its good reputation with regulators. As Buffett proudly told shareholders in his Chairman's letter, a 2009 report on customer satisfaction with pipelines ranked Kern River and Northern Natural first and third, respectively, a significant improvement from ninth and thirty-ninth when Berkshire acquired them in 2002. MidAmerican's Iowa electric operations had not increased electric prices since 1995 and did not plan to do so until after 2013. By focusing on efficiency and without the need to distribute earnings, [506] Berkshire's utility operations could maintain a strong balance sheet and invest any sums necessary to provide the best service. In return, said Buffett, "we have been allowed to earn a fair return on the huge sums we have invested."

Manufacturing, Service, and Retailing

The diversity of the MSR businesses led to diverse results amid the backdrop of the accelerating recession. Buffett said the full-year results were satisfactory, but "many businesses in this group hit the skids in [the] fourth quarter." Ominously he added, "Prospects for 2009 look worse." The businesses tied to construction and retail suffered the most, though some subsidiaries reported improved results. This group was also joined by a very large sister company during 2008, Marmon Holdings (discussed below). These businesses collectively earned a 21.8% pre-tax return on tangible capital (down from 27.6%) and 17.9% on average tangible equity (down from 22.8%).

Shaw, Berkshire's largest existing MSR business and one directly tied to building and real estate, saw a 6% decline in revenues to $5 billion. Its earnings fell 53% to $205 million as raw material costs eroded gross margins and lower demand prevented economies of scale. Shaw closed

some manufacturing plants and laid off some employees, an unwelcome but necessary reality that also hurt earnings.

The other manufacturing segment included many economically sensitive businesses. Within this segment, pre-tax earnings for Berkshire's building products manufacturers fell 28%. Earnings in apparel fell 34%, and at Forest River, especially subject to consumer spending being in the outdoor recreation equipment business, earnings dropped 56%. Like Shaw, some of these businesses were forced to reduce headcount to right-size operations. The only business in this category identified as growing was Iscar. [507]

Berkshire's only standalone service business was its distributor, McLane. Because the SEC based segment reporting requirements on revenues and not profits, McLane could not be grouped with Berkshire's other service businesses. [508] In 2008, revenues increased 6% to $29.9 billion and earnings increased 19% to $276 million. The company benefitted from additional customers, higher prices, and slightly wider gross margins.

In the other service segment, which included NetJets, FlightSafety, TTI, Business Wire, The Pampered Chef, and International Dairy Queen, the impact of the recession was minimal until the last quarter of 2008 as the recession intensified. Overall, revenues of the other service businesses increased 8%, however, had TTI (the new electronics components distributor acquired in 2007) not been included, revenues would have increased just 2%. The segment's pre-tax earnings of $971 million were on par with the prior year, but augmented in 2008 with the full year of earnings from TTI. NetJets wrote down its fleet by $54 million.

With its direct line to consumer spending, the change in economic fortunes impacted retailing most. This group included Berkshire's four furniture retailers, three jewelry retailers, and See's Candies. Together, revenues in this segment declined 9% to $3.1 billion, with all but one (unidentified) business experiencing a decline. Every one of the businesses, however, had lower earnings and pre-tax earnings, which overall declined 41% to $163 million compared to 2007. If that wasn't bad enough, the fourth quarter was the worst (revenues and pre-tax earnings down 17% and 33%) and conditions were expected to worsen going into 2009.

Amid the weakening economic landscape of 2008, Berkshire's MSR businesses took steps to improve their long-term economic positions via acquisitions. This was the moat building Buffett praised so highly. To be

sure, these businesses reduced overhead and personnel where necessary. But while others were myopically focused on today, many of the building products subsidiaries made tuck-in acquisitions that bolstered their long-term earning power. The most noteworthy acquisition of the year in the MSR segment was Iscar's acquisition of Japanese-based Tungaloy for $1 billion. [509] [510]

Marmon Group, Inc.

Berkshire's newest operating subsidiary was itself a large conglomerate with a long history. It was also Berkshire's largest cash acquisition. Berkshire's $4.5 billion purchase of 60% of Marmon on March 18, 2008, implied a $7.5 billion valuation for the entire business. Marmon's results were included in the MSR segment.

The paths of one of Marmon's founders, Jay Pritzker, and Buffett, crossed in 1954 when Buffett worked in New York for Graham Newman. Over the ensuing decades Jay, and his brother, Bob, grew Marmon to an over 100-business conglomerate operating across many different sectors.

As of 2008, Marmon had 130 independently operated businesses within eleven sectors, and operated more than 250 manufacturing, distribution, and service facilities primarily in North America, Europe and China.

Table 7.12: Marmon's operating sectors

Sector	**Description**
Engineered Wire & Cable	Energy-related markets, residential and non-residential construction, and other industries
Building Wire	Produces copper electrical wiring for residential, commercial and industrial buildings
Transportation Services & Engineered Products	Includes railroad tank cars and intermodal tank containers
Highway Technologies	Primarily serves the heavy-duty highway transportation industry
Distribution Services for specialty pipe and steel tubing	n/a
Flow Products	Producing a variety of metal products and materials for the plumbing, HVAC/R (R is for refrigeration), construction and industrial markets
Industrial Products	Metal fasteners, safety products, metal fabrication, and other products
Construction Services	Leases and operates mobile cranes, primarily to the energy, mining and petrochemical markets

Water Treatment equipment for residential, commercial, and industrial applications.	n/a
Retail Store Fixtures	Store fixtures and accessories for major retailers worldwide
Food Service Equipment	Food preparation equipment and shopping carts for restaurants and retailers worldwide

Source: Berkshire Hathaway Annual Report 2008.

Table 7.13: Marmon Group—select data

($ millions)	2008	2007	2006	2005
Revenues	$6,960	$6,904	$6,933	$5,605
Operating income[1]	977	951	884	556
Operating income %	14%	14%	13%	10%
Total assets	7,390	8,079	7,708	7,758
Shareholders' equity	4,311	5,037	4,486	4,495
Footnote: 1. Before interest income and interest expense				

Source: Berkshire Hathaway Annual Report 2008, 2012 Marmon Brochure, and author's calculations.

We do not have access to the same detailed historical financial reports as Buffett. But the summary information for the three years ending 2007 (the data Buffett had when he made the deal) support the conclusion that he most likely saw a group of well-established businesses with consistent earning power. [511] All the sectors listed above were well established and critical to the economy over the long term. We can also assume they met Buffett's tests of having good management in place and a reasonable purchase price given the quality of the underlying business.

The purchase also included assumed debt and goodwill/intangibles. [512] If we assume Marmon's 2007 and 2008 financial performance was representative of the long-term earnings power of the business, Berkshire acquired a business earning solid double-digit pre-tax returns on tangible capital. Even after considering the premium Berkshire paid for the company, it would still earn more than the 10% pre-tax Buffett expected of Berkshire's stock market investments. It's possible the general economic weakness or weakness in the equity and/or credit markets played a role in keeping the price down.

Table 7.14: Marmon Holdings, Inc.—acquisition analysis

($ millions)	2007
Revenues	$6,904
Revenues/tangible capital	$1.24
EBIT margin	14%
Return on capital - pretax	17%
BRK price/tangible capital	1.34x
BRK return - pre-tax	12.8%

Source: Berkshire Hathaway Annual Report 2008; 2012 Marmon Brochure and author's calculations.

Berkshire also agreed to purchase the remainder of the company over time based on a formula tied to earnings. By the end of 2008, Berkshire had acquired an additional interest, ending the year at 63.6% ownership.

Finance and Financial Products

Berkshire's Clayton Homes subsidiary was at the center of the recession and credit crisis. Its business of building homes and financing them contained many lessons, and Buffett chose to devote over two pages of his Chairman's letter to the subject.

A major lesson was the power of incentives. Brokers earning commissions upon the sale of a home or lenders earning them upon closing a loan transaction had every incentive to see the deals go through—up to and including forging information. Compounding the problem, and perhaps part of the cause of it, was that commissions and fees were earned at closing with no negative repercussions if problems later developed. Lending institutions often securitized loans into packages that were carved up and sold to unsuspecting investors. [513] No one, sometimes not even the homeowners, had much skin in the game.

Home prices reached their peak in 2006. By 2007, they began a two-year nosedive. During the rise, buyers and lenders pushed the envelope. Buyers bid up house prices fast and far. Lenders offered creative and cringeworthy loan terms to accommodate this, sometimes even resorting to forged incomes. Interest-only payments on loans meant the outstanding loan balances would never decline, and in some cases negative amortization

loans (where the interest is higher than the loan payment) allowed principal to grow over time.

“Both parties counted on ‘house price appreciation’ to make this otherwise impossible situation work,” Buffett told shareholders. This price appreciation incented builders to construct new housing. And build they did. Two million housing units were created despite demand of just 1.3 million units. [514] Once supply eclipsed this fundamental demand, housing prices had to fall. Housing starts then receded below demand, but it would take a while for the excess supply to be absorbed. [515]

Against this backdrop, Clayton was bruised but not broken. It avoided the major mistakes of its industry cousins by staying out of the fray. Where its peers securitized their loans, Clayton retained a portfolio of $12.6 billion of its own and others’ loans. Its credit standards required a down payment of at least 10% and verified income. Losses from two hurricanes also inflicted pain during this period.

Clayton’s business was negatively affected by the recession in two major ways:

1. Lower volumes of units sold resulted in a 9% decrease in manufactured home sales and presumably the loss of certain economies of scale in manufacturing. [516] Clayton countered the lower unit volume by closing certain manufacturing facilities, costing it related write-downs and charges.
2. A higher delinquency rate, while better than the industry average, resulted in higher loan loss provisions to cover future losses. [517] Even though Clayton’s average borrower had a credit score below the national average, its prudent lending was rewarded with a delinquency rate of just 3.6% in 2008 (compared to a national average of 5%).

These factors combined resulted in Clayton’s pre-tax earnings falling 61% to $206 million.

Paradoxically, Clayton’s financial strength negatively affected its business. In order to help the country at large, the US government and the Federal Reserve provided funding to banks and other financial companies at rates

far below what their creditworthiness would otherwise have allowed. This meant that the seven AAA-rated [518] companies in the United States, including Berkshire, were penalized for their strength and had a higher cost of borrowing than financially shakier competitors. “At the moment, it is much better to be a financial cripple with a government guarantee than a [Rock of] Gibraltar without one,” Buffett wrote.

Pre-tax earnings from the Finance and Financial Products segment declined 22% to $787 million from the year before. Clayton’s decline in earnings was a large reason for the deterioration, and the leasing operations also experienced a 22% decline in earnings, though each remained profitable.

Investments

Berkshire’s investment portfolio usually changed at a glacial pace, and this was okay with Buffett. “Beware the investment activity that provides applause. The great moves are usually greeted by yawns,” he wrote. Unfortunately, 2008 was memorable in the wrong way. A $15.1 billion after-tax decline in unrealized appreciation of the investment portfolio more than offset Berkshire’s $5.0 billion of net earnings—and was in fact the primary reason Berkshire reported a decline in book value. The silver lining was that stocks were now on sale and Berkshire could invest additional sums at attractive valuations. It did just that, investing a net $3.3 billion in equity securities during the year, as well as additional sums in negotiated transactions.

Comparing the equity portfolio between 2007 and 2008, five names disappeared, and one new investment made the $500 million reporting threshold. Gone were Anheuser-Busch, which was sold to InBev, a Belgium-based beer conglomerate; USG Corp., which remained in the portfolio but fell below the cutoff; and White Mountains Insurance Group, whose shares were sold. Additional purchases of BNSF stock made by Berkshire and share repurchases by Moody’s caused them to fall off the list.

At the close of the year, Berkshire owned 70.1 million shares (or 20.7%) of BNSF, and its 48 million shares of Moody’s, unchanged since 2000, now represented a 20.4% ownership interest. With that level of ownership, accounting rules required that Berkshire begin using the equity method. The change in methods required a $626 million increase in Berkshire’s

shareholders' equity to bridge the gap between the underlying shareholders' equity and the fair value of the investments. [519]

Two equity purchases are of note. The lone new name on the Chairman's table was Swiss Re, a Swiss-based reinsurer, of which Berkshire owned 3.2% at year-end. Another was an almost $6 billion increase (at cost) in ConocoPhillips stock which Buffett told shareholders was a mistake. "Without urging from Charlie or anyone else, I bought a large amount of ConocoPhillips stock when oil and gas prices were near their peak," he confessed. The mistake cost Berkshire $2.6 billion between year-end 2007 and 2008.

Investment opportunities were plentiful in the public stock and bond markets, and in private transactions that leveraged Buffett's and Berkshire's reputation. Over two weeks in October 2008, Berkshire invested $14.5 billion in three companies. The deals were reminiscent of the Convertible Preferred Stock investments of the late 1980s:

- October 1: A $5 billion issue of Cumulative Perpetual Preferred Stock of Goldman Sachs that carried a 10% coupon and came with warrants to purchase shares in the investment bank. [520]
- October 6: A $6.5 billion investment in Wrigley to assist Mars, Inc.'s acquisition of the chewing gum maker. [521]
- October 16: A $3 billion investment in 10% Cumulative Perpetual Preferred Stock issued by General Electric. That investment also came with warrants to purchase shares in GE. [522]

Unlike the Gillette or Salomon investments of the early 1990s, these three new investments didn't carry any serious risk to Berkshire's well-being. Where Salomon represented an investment approaching 10% of Berkshire's equity capital at the time, these were comparatively modest against Berkshire's average equity of $115 billion.

To fund these commitments, and others, Berkshire sold investments it otherwise would have held onto. This included halving its stake in Johnson & Johnson and reducing stakes in other marketable securities. It was a matter of opportunity cost, said Buffett, as well as ensuring Berkshire always had enough cash on hand to meet its obligations. [523]

Buffett also took advantage of mispricing in the derivatives market during 2008. Such moves were seemingly un-Buffett-like given his outspoken criticism of derivatives. That Berkshire wrote four derivatives contracts during the year did not reflect a change in attitude. Buffett's logic instead rested on the fact that even under a worst-case scenario, the four put contracts would amount to a long-term loan with a very reasonable interest rate. [524] The four deals brought in $4.9 billion of premiums that would only pay out if the underlying major indexes declined between then and their expiration dates (which were far into the future). [525] In the meantime, Berkshire could invest the premiums as it saw fit and had no requirements to post collateral.

Berkshire also wrote $4 billion of credit default swap contracts [526] during 2008. In this case, however, it spread the risk over 42 companies because it faced counterparty risk in collecting the $93 million of annual premiums it received.

Berkshire's businesses were negatively impacted by the Great Recession, but not as much as other businesses. Led by Buffett, Berkshire's managers focused on building for the long term. Berkshire spent over $6 billion for acquisitions, which bolstered its earning power even if results would take time to materialize. Its major investments during the year (an additional $3.3 billion, net, in equities and another $14.5 billion in arranged deals) were made on very favorable terms but served as a counterforce in the sea of selling and negativity. Berkshire Hathaway's actions [527] and Buffett's own words (he wrote an op-ed piece in *The New York Times* in October urging investors to "Buy American, I am" [528]) backed his conviction that America had the right recipe and would do fine over time.

As Buffett indicated in his communications with shareholders, the pain of 2008 was just the start of what was to come. The economic recession would continue into 2009 and drag on longer than almost anyone imagined. The stock market itself would bottom in early 2009 before finally reaching positive territory at year-end. Berkshire soldiered on, ever on the lookout for opportunities.

2009

Like the year before, 2009 brought both challenges and opportunities for Berkshire Hathaway. The economy was still reeling from the deepest economic slowdown in generations. There were negative effects to be sure, but there were also unique opportunities. In the latter part of the year, Berkshire lined up one of its largest acquisitions yet, the railroad company Burlington Northern Santa Fe (BNSF). In 2009, Berkshire showed once again that a long-term approach to business and capital allocation was best.

Warren Buffett's high-level performance metric of change in book value gave up some ground during 2009, falling 6.7 percentage points behind its benchmark, the S&P 500. Still, Berkshire's absolute gain of 19.8% was just a half point behind its forty-five-year average, a highly satisfactory result for the 11th largest company on the Fortune 500. [529] With the BNSF acquisition completed when he penned his account of 2009, [530] Buffett reminded all shareholders new and old that "our defense has been better than our offence, and that's likely to continue." In other words, just as in 2008, Berkshire's relative outperformance came in the down years.

Insurance

Berkshire's Insurance Group reported another year of underwriting profits and topped it off with an increase in float. It's $1.6 billion pre-tax underwriting gain marked the seventh consecutive year of underwriting profitability, enough evidence for Buffett to tell shareholders he thought Berkshire's insurers would write to a profit in "most—though certainly not all—future years." Berkshire's significant reinsurance operations, particularly the catastrophe business, would all but guarantee some down years. Each of Berkshire's major insurance segments found ways to grow float except for General Re, where it remained flat. Their combined total float grew 6% to $62 billion at year-end. As usual, GEICO and Berkshire Hathaway Reinsurance Group were the standout performers.

During 2009, General Re acquired the remaining part of Cologne Re it did not already own. Berkshire owned a controlling interest in the German reinsurance operation since the 1998 Gen Re deal and gradually increased its ownership in the ensuing years. Buffett planned to celebrate with a visit to the operation later in 2010.

Table 7.15: Berkshire Hathaway—Insurance Underwriting

($ millions)	2009	2008
GEICO		
Premiums written	$13,758	$12,741
Premiums earned	13,576	12,479
Underwriting gain/(loss) - pre-tax	$649	$916
General Re		
Premiums written	$5,721	$5,971
Premiums earned	5,829	6,014
Underwriting gain/(loss) - pre-tax	$477	$342
Berkshire Hathaway Reinsurance Group		
Premiums earned	$6,706	$5,082
Underwriting gain/(loss) - pre-tax	$349	$1,324
Berkshire Hathaway Primary Group		
Premiums earned	$1,773	$1,950
Underwriting gain/(loss) - pre-tax	$84	$210
Total premiums earned	$27,884	$25,525
Total underwriting gain/(loss) - pre-tax	1,559	2,792
Average float	60,200	58,593
Cost of float	(2.6%)	(4.8%)
Aggregate adverse (favorable) loss development	($905)	($1,140)
Discount accretion and amortization charges included above	$602	$550

Sources: Berkshire Hathaway Annual Reports 2008–2009 and author’s calculations.

General Re

For the fourth straight year, General Re posted underwriting profits, earning $477 million on premiums of $5.8 billion and Buffett’s praise. Property risks appeared well managed and produced a $173 million underwriting gain from current year business along with $305 million of favorable loss development on prior year events. Current year gains were after $48 million of catastrophe losses from a winter storm in Europe, bushfires in Australia, and an earthquake in Italy. Casualty/workers’ compensation again posted a loss. Higher loss trends on business written that year necessitated additional reserves and the usual accounting charges for loss reserve discount accretion and deferred charge amortization amounting to $118 million led to a $178 million loss from the casualty segment. The life/health business

earned $177 million. Gen Re's float was $21 billion at year-end 2009 and represented a third of Berkshire's total float.

Berkshire Hathaway Reinsurance Group

Berkshire Hathaway Reinsurance Group (BHRG) benefitted from no meaningful catastrophe losses in 2009. It posted a smaller underwriting gain of $349 million compared to $1.3 billion the year before. Considering the accounting headwinds from the amortization of deferred charges on retroactive reinsurance contracts, and $280 million of losses in multi-line from a weaker dollar that revalued foreign-denominated liabilities, this result was highly satisfactory. Berkshire benefitted from both profits and float that grew 8.3% to $26.2 billion.

With a new audience of BNSF Railroad shareholders Buffett again recounted the story of Ajit Jain's arrival at Berkshire. [531] He praised Jain and his small team of thirty employees at Berkshire Hathaway Reinsurance Group for their contributions. The team found other ways to increase business even though softening markets restrained volumes generally.

One contribution was a fifty-year life reinsurance contract that would start in 2010 and which might amount to $50 billion of premiums over time. Another was a $1.7 billion [532] retroactive reinsurance contract with Swiss Re known as an adverse loss development policy. The complex policy basically covered Swiss Re in the event its estimates of incurred loss proved incorrect. [533] Swiss Re found itself in trouble after losing 6 billion Swiss francs and the retro policy with Berkshire was one way of shoring up its balance sheet. [534]

Berkshire came to the aide of Swiss Re in another way. Early in 2009, it invested $2.7 billion in a 12% convertible perpetual security that provided the insurer additional capital. Berkshire now had three relationships with Swiss Re: as a partner via the quota-share agreement from 2008, a part owner of the firm via its investment in common equity, and as a creditor.

While BHRG's overall earned premiums grew 32% to $6.7 billion in large part because of the two Swiss Re contracts, it slowed down its written premium volume. Written premiums in catastrophe and individual risk fell 34% to $725 million and other multi-line volume would have fallen 46% if not for the Swiss Re contract. This was both self-imposed and due to

softening markets. As its net worth declined due to the significant drop in equity prices during the first quarter, BHRG reduced volumes to maintain a more conservative premium-to-eq uity ratio. [535]

Another reason to pull back was the pending acquisition of BNSF, which would be held within National Indemnity [536] and soak up liquidity. Only at Berkshire Hathaway would an entire railroad be placed under the corporate umbrella of an insurance company. Why do this? BNSF's consistent earnings would be a natural offset to the volatility inherent in reinsurance.

A drastic reduction in premiums written at the newly formed Berkshire Hathaway Assurance Corporation highlighted the market's shifting willingness to bear risk. During 2008, it wrote $595 million as fear gripped the markets. Volume in all of 2009 was concentrated in the first half of the year and amounted to just $40 million. Berkshire's approach was not the norm. Buffett said other municipal bond insurers took on more risk when premiums became too thin. That risk had reared its ugly head during the credit crisis. Berkshire had the discipline to walk away from bad deals.

GEICO

GEICO's bottom line was in the black thirteen out of the fourteen years under Berkshire's ownership. But that was only part of the luster. While 2009 profits were *just* $649 million on $13.6 billion of earned premiums, the 95.2% combined ratio was right in the company's sweet spot of delivering profits to its owner and value to its customers. Profits in the prior two years were too high and GEICO allowed premiums per policy to fall over that time. Higher accident frequency and severity also played a part. During the recession, GEICO added policies at a record rate and increased its market share from 7.7% to 8.1%. This was counter to an expectation that some might look to reduce insurance costs during tough times by dropping policies. Instead, GEICO's ability to save money for its customers translated into more business as people became more cost conscious with their purchases.

A big part of GEICO's value was its float. At Berkshire, profitability was rule number one; after that growth in float drove value. On that front GEICO delivered: premium growth over the past three years had swelled float by over a third, to $9.6 billion.

Ever on the lookout to expand GEICOs reach, Buffett informed shareholders of a failed experiment to offer credit cards to policyholders. He reasoned its generally above-average drivers were above-average credit risks. He was wrong. Instead, Buffett's idea—which GEICO managers disagreed with—cost the company over $50 million.

Berkshire Hathaway Primary Group

Premium volume and profits fell in the primary lines. Underwriting profit of $84 million was down 60% from the year before on earned premiums of $1.8 billion (down 9%). Competition hit each insurer under this group except for BoatUS.

Regulated Utility Businesses

Berkshire's collection of utility businesses demonstrated their resiliency as essential services, but also proved they weren't immune to the effects of recession. Earnings before interest and taxes (EBIT) declined 16% from the year before (adjusting for the one-time earnings from Constellation Energy in 2008). [537] While some of the decline was due to depreciation on additional assets, unfavorable exchange rates, and milder temperatures, a portion was attributable to reduced demand due to the recession.

Berkshire Hathaway HomeServices, tucked into the utilities segment, returned to profitability in 2009. Its EBIT increased to $43 million from a loss of $45 million the year before. The company added a Chicago firm to its roster of brokerages and continued to build out its business amid the ongoing recession.

Buffett compared the acquisition of BNSF (discussed in more detail in 2010) to Berkshire's utility operations. He noted both had certain "social compacts" with society due to the crucial role each played in the economy. Both also had similar economic characteristics of providing essential fundamental services, requiring large investments in excess of depreciation, and being subject to price regulation. He added they would both use "substantial amounts of debt that is *not* guaranteed by Berkshire." Like the utilities, the railroad would also retain most of its earnings once under the Berkshire umbrella. As economic cousins, the utilities and railroad would share the same reporting segment in Buffett's Chairman's letter going forward.

Manufacturing, Service, and Retailing

Berkshire's MSR businesses were hit hard by the recession. Consequently, pre-tax earnings were cut in half (down 49%) to $2.1 billion. Pre-tax return on tangible capital fell from 21.8% to 9.7% and after-tax return tangible equity fell from 17.9% to 7.9%. But some of the businesses in this category managed to do better despite the challenges.

Buffett specifically identified and praised nine businesses and their CEOs for delivering higher profits despite lower revenues. [538] Special praise was reserved for Grady Rosier who led McLane to both higher revenues and profits.

Not surprisingly, the manufacturing businesses were hit hardest. Revenues at Marmon, Berkshire's newest large acquisition, declined 27%. Owing to improved margins (which earned CEO Frank Ptak Buffett's praise), earnings declined at a slower 26% rate. [539] That earnings fell just about in-line with sales is notable for Marmon since one would expect to see lower revenues negatively affect margins. With a large drop in carpet sales volume, Shaw's revenues declined 21% to $4 billion and its pre-tax earnings fell 30% to $144 million. Shaw's economic sensitivity was somewhat breathtaking: In just three years, pre-tax earnings fell by 67% on 25% lower revenues.

The smaller manufacturing businesses experienced similar pain. Revenues in apparel fell 11%, building products 20%, and other manufacturing businesses were off 16%. Earnings for this sub-segment were hit even harder, falling 51% compared to 2008, to $814 million.

McLane, the largest standalone service business, rightly earned Buffett's praise during 2009. Revenues increased 5% to $31.2 billion as increased grocery business more than offset a decline in food service business. Earnings swelled 25% to $344 million due in part to the increase in revenues and lower operating costs. Another reason, however, was a substantial inventory price change gain related to tobacco product inventory. Manufacturers of tobacco products raised their prices ahead of an increase in taxes, which allowed businesses already in possession of inventory to book a one-time windfall.

Taken as a group, the other service businesses generated the almost unthinkable: a pre-tax *loss* of $91 million. A closer look reveals the cause

was one bad apple: NetJets. NetJets had a massive $711 million loss and was the overwhelming cause of the red ink. It had more planes than needed and the company incurred costs of $676 million to downsize operations. An operating loss made up the difference. Buffett pointed to the sad reality that NetJets' cumulative pre-tax losses since Berkshire acquired the company amounted to $157 million, and its debt had swelled from $102 million to $1.9 billion. He also put David Sokol, "the enormously talented builder and operator of MidAmerican Energy" in charge of NetJets in August 2009. Sokol immediately began to right-size the company and generate a profit.

Excluding NetJets, the other service businesses were impacted by the recession but to a lesser degree. Pre-tax profits fell 18% to $620 million.

Results in the retail segment weren't as bad as manufacturing or service. Revenues dropped 8%, with home furnishings revenues sliding 7% and jewelry off 12%. Pre-tax earnings were flat at $161 million. And even though the year was difficult, See's, Star Furniture, and Nebraska Furniture Mart managed to increase earnings, which garnered Buffett's praise and recognition.

Finance and Financial Products

Clayton was now the largest modular home manufacturer in the US as the three previous industry leaders all went bankrupt (including Oakwood, which Berkshire purchased in 2004). The industry was in shambles. Clayton suffered from broader housing-related issues and manufactured home-specific challenges [540] —but it remained profitable. Its earnings were down 64% from their peak of $526 million in 2007 to $187 million in 2009.

Berkshire's leasing operations, which included CORT Furniture and XTRA, barely eked out a profit in 2009 as fixed costs swamped their income statements. A revenue decline of 14% to $661 million translated into an 84% decline in pre-tax earnings, far below the $182 million earned in 2006.

Because of a jump in life and annuity earnings [541] (the sole line item to see an increase during the year), the Finance and Financial Products segment overall earnings dropped less than 1% to $781 million.

Berkshire's old partners at Leucadia came knocking again at the end of 2009 with another opportunity. The two companies had joined forces in 2001 as Berkadia to buy troubled finance firm FINOVA. With FINOVA

successfully liquidated and the name available, the new venture was also called Berkadia (which prompted Buffett to remark that it should be called Son of Berkadia and jokingly look forward to a Grandson of Berkadia someday).

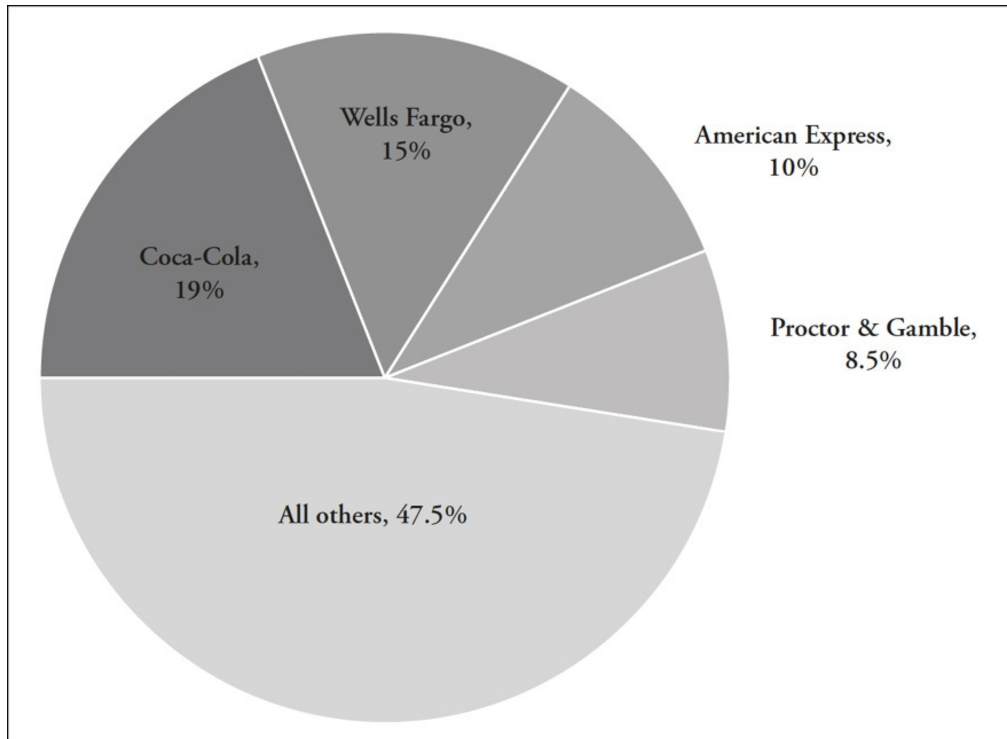
The present Berkadia was Berkadia Commercial Mortgage. [542] Like the 2001 Berkadia, this one was the result of a failed company. Capmark Financial Group, Inc. filed for bankruptcy after overextending itself. Berkshire and Leucadia came to the rescue with a deal to buy the assets out of bankruptcy. They then rehired many former employees. [543]

Investments

With the stock market bottoming in March and companies in need of capital, Berkshire made some opportunistic changes to its equity portfolio and negotiated investments in additional non-traded securities. It also sold some investments to raise capital ahead of the BNSF acquisition.

Within the existing equity portfolio, Berkshire doubled its stake in Walmart, bringing its ownership to $1.9 billion at cost (from $942 million), or 1% of the company. It increased its investment in Wells Fargo too as bank stocks got punished. With almost one-fifth of the $59 billion equity portfolio in one company and over half in the top four, Berkshire continued its philosophy of concentration.

Figure 7.2: Berkshire Hathaway equity portfolio concentration



Source: Berkshire Hathaway Annual Report 2009.

One newcomer made the list in 2009, and it was unconventional in several ways. For starters, the idea came from Berkshire Vice Chairman Charlie Munger, a perennial skeptic who earned himself the nickname of the "abominable 'no' man" from Buffett. The investment was a $232 million stake (at cost) in China-based BYD Company, Ltd. that amounted to 9.9% of the company. This was the largest ownership stake allowed by the Chinese government.

BYD manufactured electric vehicles and lithium batteries. Munger compared company founder Wang Chuanfu, to Thomas Edison. While some outsiders saw the new holding as a venture capital-type investment, Munger saw otherwise: "This is not some unproven, highly speculative activity. What it is, is a damn miracle … ." Munger was impressed that Chuanfu had been born into poverty and founded BYD from nothing to successfully compete against well-established competitors. That the investment was worth nearly 8.5 times its cost (about $2 billion at year-end 2009) was enough to silence more vocal skeptics.

The year also brought additional opportunities to invest in non-traded securities like the Goldman Sachs, Wrigley, and General Electric deals

completed in 2008. In addition to the $1.7 billion Swiss Re deal described earlier, Berkshire assisted Dow Chemical with its acquisition of Haas Company, investing $3 billion in a Cumulative Convertible Perpetual Preferred Stock. Another $1 billion went to Wrigley to assist Mars in the form of four- and five-year senior notes.

A $300 million investment in Senior Notes to Harley-Davidson provided insight into Buffett's decision-making process and how he thought about his circle of competence. In February 2009, Berkshire participated in a $600 million debt offering that carried a 15% coupon rate. The investment was too small to be identified in Berkshire's financial statements, but shareholders nonetheless picked up on it in Harley-Davidson's financials and so did the financial press. They all had the same question: Why did Buffett lend Harley-Davidson money rather than buy the equity, which had more than doubled within a year. Buffett's response was telling. He had no view on Harley-Davidson's equity value, since he couldn't gain clarity on the future of the motorcycle market or the company's margins or returns on capital. Lending to the company was relatively easy, however, since that decision was based on whether it was going to stay in business. He summed up the investment thesis in a way only Buffett could: "I like a business where your customers tattoo your name on their chest," [544] he said.

The few equity sales that occurred in 2009 were made to fund new commitments. ConocoPhillips was reduced by about two-thirds and was admittedly a mistake. [545] Additional sales included Proctor & Gamble and Johnson & Johnson, which were reduced modestly. Berkshire also sold some shares in Moody's, which reduced its holdings below the 20% threshold and therefore ceased reporting that investment on the equity basis. [546]

In a rare move, Buffett publicly criticized the management of an investee. Two inter-related capital allocation decisions made by Kraft Foods got his blood pressure boiling. One was its purchase of Cadbury, a candy company, which he thought overpriced. The other was the divestiture of its frozen pizza business to raise the capital needed to buy Cadbury. He thought the deal underpriced and tax inefficient. "I think the odds are that both deals were dumb. The pizza deal was particularly dumb," he told shareholders in response to a question at the Annual Meeting, adding Berkshire made its fair share of mistakes. Still, Berkshire didn't sell a share of Kraft stock.

The details of the pizza divestiture show the low multiple Kraft received on the net proceeds from the sale and illustrate Buffett's thinking process. It wasn't the headline sale price that mattered to him. The relevant facts were the net proceeds from the sale compared to the pre-tax earnings of the business (see Table 7.16).

Table 7.16: Analysis of the Kraft pizza business sale

($ millions)	
Sale price	$3,700
Less: income tax	(1,200)
Net proceeds	2,500
Pre-tax earnings	$340
Multiple	7.35x

Sources: Berkshire Hathaway Annual Meeting 2010 and Kraft 10K report 2009.

A major lesson from 2009: Big opportunities come in times of fear. Berkshire took advantage of the turmoil and made significant investments. In hindsight Buffett wished he did more:

> "When it's raining gold, reach for a bucket, not a thimble … It's been an ideal period for investors: A climate of fear is their best friend. Those who invest only when commentators are upbeat end up paying a heavy price for meaningless reassurance. In the end, what counts in investing is what you pay for a business—through the purchase of a small piece of it in the stock market—and what that business earns in the succeeding decade or two."

Berkshire's capital allocation activity in 2009 extended to acquiring additional interests from minority partners, a practice that was common. Within the footnotes of the 2009 Annual Report lay a particularly interesting accounting change related to these activities. [547] Effective that year, additional purchases of minority interests (that is, purchases of stock by Berkshire from non-controlling owners where Berkshire owned less than one hundred percent) would be recorded as changes to shareholders' equity. Prior to the change they were recorded as additional investments with any premium to book value placed on the balance sheet as goodwill. This was consistent with the accounting methodology at the time of the original investment. The purchases made this year, though, resulted in a $121 million *reduction* in equity because Berkshire paid a premium to acquire

shares from minority partners. This accounting effectively required an immediate 100% write-off of goodwill created by subsequent investments when a brand-new investment would still place goodwill on the balance sheet. Under the prior accounting, no such reduction in shareholders' equity would have been required for additional investments of this kind. [548]

On December 22, 2009, Berkshire's board of directors announced it had elected Stephen Burke to its board. At the time Burke was COO of Comcast and served on the boards of JPMorgan Chase and the Children's Hospital of Philadelphia (as chairman). At 51 years old, Burke was the second youngest member of the Berkshire board (behind Susan Decker, then 47 years old). [549]

If the name sounded familiar, it's because Burke was the son of Daniel Burke, the former president of Capital Cities, who together with Tom Murphy built and ultimately sold the company to The Walt Disney Company. Stephen Burke cut his teeth at Disney before joining Comcast. Buffett clearly saw a pattern of successful businessmen in the Burkes, saying Stephen Burke was "business-savvy, owner-oriented, and keenly interested in Berkshire, the three ingredients we look for in directors." [550]

The value of the Berkshire operating model was on display during the stress of 2009. One characteristic was not requiring its managers to submit budgets or projections to Buffett in Omaha (some used budgets within their own operations, some didn't). Both Buffett and Munger knew the power of incentives. Buffett said if Berkshire required managers to submit budgets, they might become tempted to meet them by fudging numbers from time to time. Berkshire wanted to "create a structure that minimizes the weakness in human behavior." Its managers were instead expected to tell it how it was and act with integrity, even if it meant reporting bad news. [551]

Berkshire allocated a great deal of capital during the prior two years of turmoil. With perfect hindsight more would have been possible, but the investments Berkshire made set it up for years of additional dividend and interest income. Its subsidiaries, while bruised, nevertheless remained secure within their castles, protected by the advantages of their economic positions.

2010

Berkshire's 13% growth in book value per share trailed the S&P 500 by 2.1 percentage points in 2010. It marked the second consecutive year of underperformance—a first in Berkshire's modern history. Many investors remained cautious about the state of the economy having just come through one of the worst economic recessions in US history. But Berkshire's capital allocators saw things differently. Some of its businesses, such as those tied directly or indirectly to construction, remained sluggish. Others, such as Marmon, Forest River, and Iscar, bounced back. Thanks to a focus on building businesses for the long term and good management, most of Berkshire's diverse operating businesses emerged from the recession stronger than before. They were also joined by a gargantuan newcomer. The Berkshire conglomerate swallowed an entire railroad—its largest acquisition to date by more than fivefold—providing no question that the United States remained a land of opportunity.

That opportunity, Buffett stressed, was only open to the fittest business: "Having loads of liquidity, though, lets us sleep well. Moreover, during the episodes of financial chaos that occasionally erupt in our economy, we will be equipped both financially and emotionally to play offense while others scramble to survive."

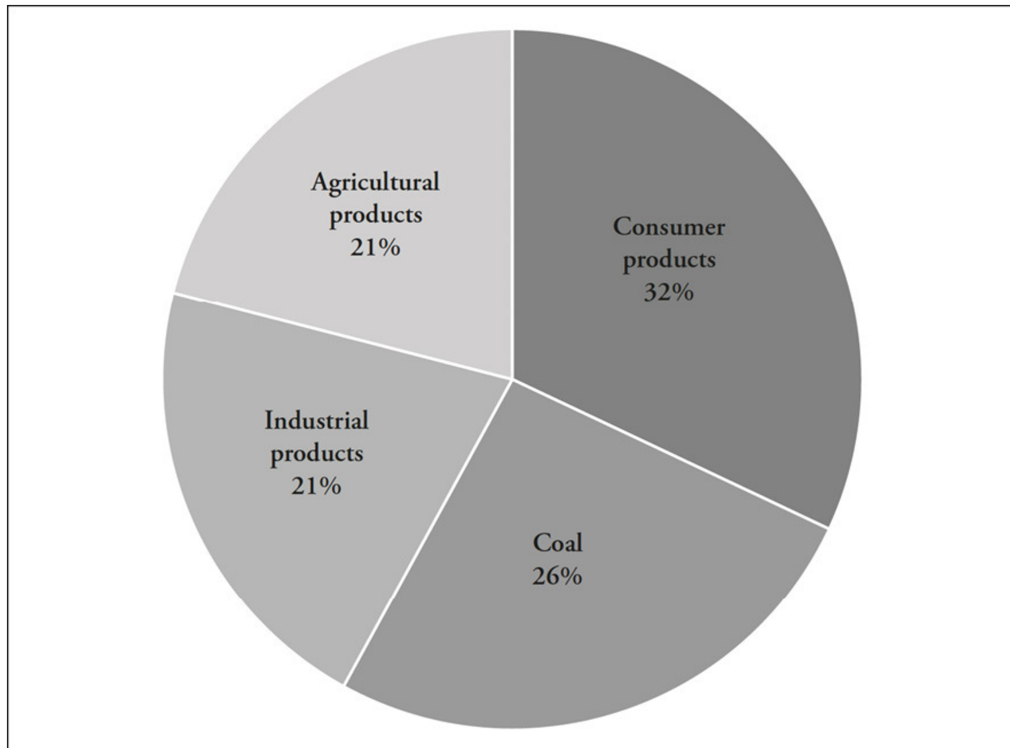
Despite Berkshire's good prospects, its share price in 2010 reflected pessimism. Whether it was a general caution or Berkshire specifically is unclear. The company's market capitalization ranged from a low of $160 billion to a high of $212 billion. This prompted Buffett to be more specific than usual about Berkshire's earning power to nudge shares closer to intrinsic value. Buffett estimated Berkshire's normal earning power at $17 billion pre-tax (or about $12 billion after tax) including the new BNSF acquisition and making allowances for insurance operation variability. His Chairman's letter also supplied the two numerical components he suggested using to estimate Berkshire's intrinsic value (per-share investments and per-share pre-tax operating earnings). These were not-so-subtle hints that Berkshire was meaningfully undervalued. [552]

Burlington Northern Santa Fe (BNSF)

The largest acquisition in Berkshire's history-to-date occurred on February 12, 2010. The acquisition increased Berkshire's normal earning power by 40% pre-tax and over 30% after-tax.

BNSF was the culmination of 150 years of acquisitions and mergers that consolidated 400 railroad lines. [553] The industry had consolidated to the point of having just a handful of major Class I railroads serving large swaths of North America. [554] BNSF moved freight from many industries primarily across the Western part of the United States over 32,000 route miles. [555] Its revenues were classified in four broad categories (see Figure 7.3).

Figure 7.3: BNSF freight revenues by category, 2009



Note: Freight revenues in 2009 were $13.6 billion.

Source: BNSF Annual Report 2009.

What attracted Berkshire to BNSF, an industry historically full of woes? Charlie Munger summarized these past troubles as high capital intensity, heavy unionization, intense regulation, and a comparative disadvantage to long-haul trucks (the main alternative form of transport). That changed over time as the industry consolidated and deregulated. The railroads began successfully negotiating with unions to reduce labor costs and became more fuel efficient compared to trucking. By double-stacking freight cars (which required an investment in raising tunnels and strengthening bridges), the railroads became three times as efficient as trucks and could carry a ton of freight 500 miles on one gallon of fuel.

Buffett said agreeing to buy BNSF during the Great Recession was "an all-in wager on the economic future of the United States." Investing in the common stock of railroads (as Berkshire had done since 2006, including BNSF) [556] was one thing. It was something else to buy an entire railroad. Here are some factors that made BNSF attractive to purchase outright:

1. **Improved industry economics:** As noted above, railroads enjoyed

improved operating margins and returns on capital compared to previous decades. Those returns were protected by a moat since the barriers to entry were sky-high. It would be virtually impossible to assemble the land and rights necessary to build a new long-haul railroad from scratch in the 21st century.

2. **Utility-like characteristics:** As "a major part of the American economy's circulatory system," [557] the regulated railroad industry functioned like a utility, including known investment returns (just like MidAmerican) with the same social compact.
3. **Ability to invest huge sums:** Again, like MidAmerican, BNSF required huge amounts of capital investment to maintain its operations, and importantly, possessed the ability to invest more to expand. A known (but limited) return on additional capital investment would provide a place to invest cash generated from elsewhere within Berkshire.
4. **Western population expansion:** BNSF transported 11% of *all* inter-city ton-miles of freight in the United States. That was likely to increase as population growth in the Western United States outpaced that of the East. BNSF would benefit from having a near monopoly on Western rail traffic, including shipments of products originating in Asia to ports on the Western seaboard.
5. **Deferred taxes:** BNSF's need to grow (and its ability to take additional capital investment) came with tax benefits. The US allows companies to accelerate their depreciation for tax purposes compared to an asset's useful life. The result is an interest-free loan from the government (like deferred taxes on capital gains). BNSF's headline tax rate (total tax divided by taxable income) averaged between 35% and 38% in the five years ended 2009. But it paid an average rate of just 27% on its pre-tax income during this period. In dollar terms, that amounted to $1.5 billion—no small sum. [558]
6. **Lower borrowing costs:** BNSF would benefit from Berkshire's credit rating even though Berkshire did not provide an explicit guaranty of BNSF's debt.

Taken together, the factors above shed light on what appeared to be a very low initial return for Berkshire (see Table 7.17). Berkshire could accept a slightly lower pre-tax return for the existing business since BNSF could defer a portion of its income tax each year. Additionally, any incremental investment BNSF made would be at pre-tax returns solidly in the double digits. And since the company functioned like a utility with stable revenues and earnings, some debt was appropriate and would serve to increase the return on equity capital. Importantly, Berkshire purchased the company during a time of economic weakness. Berkshire's return would thus be higher if BNSF earned the kind of return it had in the recent five-year period.

Table 7.17: Burlington Northern Santa Fe—acquisition analysis

($ millions)	2009	2008	2007	2006	2005
Total revenues	$14,016	$18,018	$15,802	$14,985	$12,987
Revenues/avg. capital	$0.64	$0.90	$0.85	$0.86	$0.79
EBIT margin	23%	22%	22%	23%	23%
Pre-tax return on capital	15%	20%	19%	20%	18%
Purchase price (equity)[1]	$34,194				
Assumed debt	10,335				
Effective purchase price	$44,529				
Purchase multiple	2.03x				
BRK going-in pre-tax return (2009)	7.3%				
Return using 5-year average ROC	9.0%				

Footnote:
1. This is the implied valuation for 100% of the equity based on the $26.5 billion paid for 77.5% of BNSF. The actual cost was $33.5 billion, which includes the $6.6 billion already owned plus $0.4 billion of equity awards. Upon acquiring the company, Berkshire recognized a $1 billion one-time holding gain on the shares it already owned.

Sources: Berkshire Hathaway Annual Report 2010; BNSF Annual Reports 2008–2009; and author's calculations.

The price tag for BNSF was $44.5 billion, including debt assumed in the acquisition. The price accounted for the shares Berkshire already owned. The remainder of the purchase price of $26.5 billion was paid in cash (half borrowed) and Berkshire shares. (Berkshire issued 94,915 Class A share equivalents in connection with the acquisition. [559]) The implied valuation of Berkshire associated with the acquisition was about $184 billion. Berkshire's shares traded at what appeared to be a meaningful discount to

its intrinsic value during 2010, but Buffett and Munger judged the acquisition worthwhile nonetheless. [560]

Simultaneous with the acquisition, Berkshire split its B-shares 50-to-1. This was done to allow more BNSF shareholders the opportunity to take Berkshire shares instead of cash. Before the split, each B-share represented 1/30th of each A-share. After the split, each B-share represented 1/1500th of each A-share. The voting rights were split accordingly, with each B-share having 1/10,000th the vote of each A-share. With BNSF gone from public markets, an opening was created in the S&P 500 index. Splitting the B-shares provided enough liquidity to meet the requirements, and Berkshire replaced BNSF in the index.

One last aspect of the BNSF acquisition highlights the benefits of the Berkshire conglomerate structure. Berkshire reported BNSF as a standalone entity, but the railroad was purchased and is legally owned first by National Indemnity Company. This bolstered the capital and earnings of its insurance companies. As noted in the discussion on 2009, BNSF had utility-like earnings that did not widely fluctuate, which was a natural offset to the variability in underwriting results associated with reinsurance operations. [561]

Regulated, Capital-Intensive Businesses

The pure utility businesses of MidAmerican Energy were joined by BNSF in this category beginning in 2010. Buffett considered the businesses very similar. “A key characteristic of both companies is the huge investment they have in very long-lived, regulated assets, with these funded by large amounts of long-term debt that is *not* guaranteed by Berkshire.” Both operated with a social compact that required them to invest large amounts of capital into growth projects to support the growing needs of the country. In exchange, he expected regulators to be fair with their allowable returns.

Taken together, MidAmerican’s operations reflected the inherent stability of a utility operation. Its various businesses, including electric generation and distribution, and its pipelines, delivered EBIT of $1.9 billion, up just 1% from the year before. Variability in results in some units couldn’t be avoided altogether. EBIT from the pipelines declined 17% because of lower volume and pricing associated with specific economic conditions, and EBIT from the UK utilities swelled 34% from a gain on the sale of an asset in

Australia. HomeServices, the real estate brokerage business, was as profitable in 2010 as the year before with EBIT of $42 million.

While BNSF's business was utility-like, it was more subject to business cycles than its MidAmerican cousin. BNSF's pre-tax earnings dipped 22% to $3.9 billion in 2009 along with the recession but rebounded 48% to $4 billion in 2010. Some questioned the wisdom of Berkshire buying BNSF. Its results in 2010 would convince most people it had been a good investment.

Insurance

Bolstered by the BNSF acquisition, Berkshire's Insurance Group ended 2010 with $94 billion of statutory capital, up 47%. Earned premiums grew 10% to $31 billion but still represented just a third of capital—indicating a rock-solid balance sheet. Berkshire's insurers also delivered another year of underwriting gains (up 38% to $2 billion) that produced the cherished negative cost of float. Float grew 6% to end the year at $65.8 billion. Berkshire's insurers were in very good shape.

Table 7.18: Berkshire Hathaway—Insurance Underwriting

($ millions)	2010	2009
GEICO		
Premiums written	$14,494	$13,758
Premiums earned	14,283	13,576
Underwriting gain/(loss) - pre-tax	$1,117	$649
General Re		
Premiums written	$5,632	$5,721
Premiums earned	5,693	5,829
Underwriting gain/(loss) - pre-tax	$452	$477
Berkshire Hathaway Reinsurance Group		
Premiums earned	$9,076	$6,706
Underwriting gain/(loss) - pre-tax[1]	$176	$250
Berkshire Hathaway Primary Group		
Premiums earned	$1,697	$1,773
Underwriting gain/(loss) - pre-tax	$268	$84
Total premiums earned	$30,749	$27,884
Total underwriting gain/(loss) - pre-tax	2,013	1,460
Average float	63,872	60,200
Cost of float	(3.2%)	(2.6%)
Aggregate adverse (favorable) loss development	($2,270)	($905)

Discount accretion and amortization charges included above	$356	$602
Footnote: 1. The attentive reader will notice BHRG underwriting profit of $250 million in this table contrasts with that of the $349 million figure presented in the discussion of 2009. In 2010, Berkshire moved the life and annuity business under BHRG.		

Sources: Berkshire Hathaway Annual Reports 2009–2010 and author's calculations.

GEICO

Buffett used a section of his Chairman's letter to highlight the value GEICO had delivered to Berkshire and how that value was not always apparent. When Berkshire purchased the entirety of GEICO in 1996, it paid $2.7 billion over the company's net worth—equal to 97% of GEICO's annual premium volume. Since then the resulting goodwill was amortized from $2.7 billion to $1.4 billion. Yet GEICO's premiums rose from $2.8 billion in 1996 to $14.3 billion in 2010. Buffett was hinting that GEICO's value was not fully reflected on Berkshire's balance sheet. Clearly a company able to grow policies in force, and do so profitably, was worth a premium price. Buffett called GEICO the gift that keeps on giving. And it was: a combined ratio of 92.2% delivered another billion dollar underwriting profit in 2010 ($1.1 billion) and went along with a market share of 8.8%, up from 8.1% the previous year.

Berkshire Hathaway Reinsurance Group

Buffett credited Ajit Jain for creating the $30 billion float insurer that was Berkshire Hathaway Reinsurance Group. Jain still found ways to increase business volume amid an industry backdrop of weakening pricing. Earned premiums grew 35% to $9.1 billion and pre-tax underwriting profits declined from $250 million [562] to $176 million.

Earned premiums in catastrophe and individual risk contracted 24% to $623 million and pre-tax underwriting profits fell 67% to $260 million. Significant (but unspecified) losses of $322 million impacted results.

Retroactive premiums grew 32% to $2.6 billion largely from a $2.25 billion contract with CNA Financial Corporation to assume certain asbestos and environmental pollution liabilities. Ongoing deferred charge amortization was responsible for a $90 million loss reported by this line.

Other multi-line earned premiums fell 11% to $3.5 billion but underwriting profits expanded from $15 million to $203 million. More impressive, profits were after $308 million in catastrophe losses relating to earthquakes in Chile and New Zealand, floods in Australia, and the BP Deepwater Horizon oil rig explosion.

The Swiss Re life reinsurance deal negotiated the prior year incepted in 2010 and brought $2.1 billion of earned premiums that year. About $2 billion of annual premiums were expected to continue for decades. Accounting charges related to these contracts would mean significant reported losses, but the long-duration float made the economics of the business highly favorable. Berkshire moved the life and annuity business from Finance and Financial Products to BHRG as Jain expanded activities in this area. It reported a pre-tax underwriting loss of $197 million compared to a $99 million loss the prior year.

General Re

General Re reported another year of underwriting gains, proving it had taken Buffett's four-part test to heart. [563] That included the all-important last test of being willing to walk away if pricing wasn't adequate to cover risks, which happened in 2010. Earned premiums fell 2% to $5.7 billion and pre-tax underwriting profits declined 5% to $452 million.

Its property/casualty line was hurt by several of the same natural disaster catastrophes that impacted BHRG. These cost $339 million and caused 2010 underwriting business to slip $96 million into the red. But favorable loss development of $332 million from business in prior years and $53 million in gains from the casualty segment brought it back into the black.

Favorable mortality trends led General Re's life/health business to a $163 million underwriting profit, down 8% from the year before but continuing a long string of gains in that area.

Berkshire Hathaway Primary Group

The Primary Group was constrained by weak pricing but still managed to report a combined ratio of 84.2%, a profit of $268 million on earned premiums of $1.7 billion.

Manufacturing, Service, and Retailing

The MSR businesses bounced back to report a profit of $2.5 billion and an after-tax return on tangible equity of 17.3%, up from 7.9% the prior year. Pre-tax return on tangible capital expanded from 9.7% in 2009 to 19.5% in 2010. But weakness remained in areas, particularly in those businesses tied to construction.

The largest single reporting unit was Marmon. The mini-conglomerate (remember Marmon was a group of 130 independently operated businesses across eleven sectors) increased pre-tax earnings 19% to $813 million. Except for Distribution Services, each of its eleven lines of business reported higher earnings in 2010, which reflected improvements in the general economy over 2009.

The big news with McLane was its entrance into the wine and spirits distribution business with its purchase of Empire Distributors and Horizon Wine and Spirits. This helped push revenues up 5% to $33 billion. Its pre-tax earnings remained tiny in proportion to revenues but grew 7% to $369 million.

With the addition of Marmon, Shaw lost its status as a single reporting unit and was included with Berkshire's various other manufacturing businesses. The fortunes of most businesses in this category improved, including those tied to building products. From the low of 2009, revenues of these businesses rebounded sharply: Forest River (up 57%), Iscar Metalworking Companies (up 41%), CTB (up 20%), and Johns Manville (up 12%). Overall, the other manufacturing businesses increased revenues 11% to $17.7 billion and pre-tax earnings nearly doubled to $1.9 billion. Looking closer things were better, but not good. Pre-tax earnings from Johns Manville, MiTek, Shaw, and Acme Brick remained 72% below the $1.3 billion earned in 2006. [564] Each also made acquisitions during 2010. [565]

The other service businesses increased revenues 12% to $7.4 billion and pre-tax earnings rebounded from a loss of $91 million in 2009 to a profit of $984 million in 2010. Businesses in this category included Business Wire, Pampered Chef, Dairy Queen, *The Buffalo News* , and TTI. Strong worldwide demand for TTI's products and NetJets' return to profitability were responsible for restoring the group to profitability.

The largest business within other service businesses was NetJets. NetJets struggled during the previous year with too many planes. It was forced to downsize and write off almost $700 million of its jet fleet. Buffett placed

NetJets under the direction of David Sokol, who built and operated MidAmerican Energy. Sokol received praise for turning a $711 million pre-tax loss the prior year into a $207 million profit in 2010.

Berkshire's subsidiaries enjoyed the advantage of operating autonomously. But that autonomy came with rules. Buffett said NetJets had unfairly used its ownership by Berkshire to obtain a lower cost of debt. To correct for this, Berkshire charged a $38 million guarantee fee like the spread it charged Clayton Homes for use of Berkshire's credit. (NetJet's profit was after paying this fee.)

Berkshire's retailing operations were comprised of its four home furnishing businesses, three jewelry businesses, and See's Candies. Though revenues increased just 2% to $2.9 billion, continued cost containment efforts helped collective pre-tax earnings jump 22% to $197 million compared to the prior year.

Finance and Financial Products

XTRA and CORT rightsized their businesses to account for revenues that remained unchanged from the prior year at $661 million. Earnings rebounded strongly compared to 2009 but remained below that of prior years. Pre-tax earnings of XTRA increased 105% to $35 million as its utilization ratios climbed. CORT swung from a pre-tax loss of $3 million to a profit of $18 million.

Clayton Homes remained small but mighty. It could boast producing 47% of the industry's total manufactured homes during 2010. But context matters. This was on an industry base of just 50,046 homes compared to a peak of 372,843 in 1998. Clayton's market share then was 8%. Buffett expressed continued frustration at government policies that favored site-built homes over those of manufactured homebuilders like Clayton (it was harder and more expensive to get a mortgage on a manufactured home).

Buffett was proud of Clayton, which was prudent in its lending. Taking a stab at the recent housing crisis, Buffett told shareholders: "If we were stupid in our lending [at Clayton Homes], *we* were going to pay the price." Clayton retained most of its loans and was therefore incented to make good ones. Even though Clayton lent to people with questionable credit scores, its net loan losses remained remarkably stable and never rose above 2% in

the prior five years. Its mortgage portfolio at year-end 2010 totaled $11.5 billion.

Investments

Perhaps the biggest news relating to Berkshire's investments wasn't an investment. It was a person. In 2010, Berkshire hired Todd Combs to manage a portion of Berkshire's $62 billion equity portfolio. Combs came to Berkshire after working as an analyst and then running his own hedge fund, Castle Point Capital. Hiring Combs was the first step toward a succession plan that would see Buffett's job split into three parts: Non-Executive Chairman, CEO, and one or more investment managers. Berkshire was on the lookout for one or two more individuals to join Combs. This was even more important after the retirement of Lou Simpson, the investment manager at GEICO whom Buffett kept on post-acquisition and praised as one of the invest ment greats.

Berkshire's equity portfolio changed little in 2010. The biggest change was an investment in Munich Re, a German reinsurer. Berkshire reported a cost basis of $2.9 billion at year-end.

In 2010, the country and the world were climbing out of the depths of the recession. An unfortunate consequence of this was the probable redemption of many of the large and highly profitable investments Berkshire had made during the prior two years. Its customized investments in Swiss Re, Goldman Sachs, General Electric, and Wrigley would soon be redeemed by those companies as redemption periods approached and credit markets provided more favorable terms. Goldman Sachs had already stated its intention to do so; the only thing holding it back was the Federal Reserve, which was expected to relax capital restrictions implemented during the recession. Even after accounting for large redemption premiums these companies would have to pay to break their financing arrangements with Berkshire, the conglomerate would be worse off. [566] Interest rates had declined into the low single digits. Finding replacements for securities earning upwards of 12% would not be easy and would cut into investment income.

Financial Crisis Inquiry Commission Interview

In May 2010, members of the newly-formed Financial Crisis Inquiry Commission interviewed Warren Buffett in the hopes that the Oracle of Omaha might add some clarity to what caused the Great Recession and how to prevent something similar in the future. Within the transcript, which was twenty-three pages long (single-spaced), lay several pieces of timeless investing wisdom.

- Home prices as a function of replacement value: While it appeared that buying a home was a good investment because it grew in value over time, in reality the dollar was depreciating. Over time houses reflect replacement value. When home prices began rising, others jumped on board. This eventually caused investors and others to assume home prices could only go up, or at worst never decline on a national scale. When a correlated decline in home prices did happen nationally, many homeowners were left with houses they couldn't afford, and investors were left with loans that would never be repaid. [567]
- Farmland: Another real estate–related example. Buffett personally purchased a farm from the FDIC in 1986 because a bank had over-lent to many similar borrowers and subsequently went under because of poor underwriting standards. Buffett's analysis was as piercingly insightful as it was simple. The bank lent a farmer $2,000 per acre to buy a farm producing a normalized $60 per acre when interest rates were 10%. How could disaster not occur when the asset produced a loan yield of 3%? [568] Buffett purchased the farm from the Bank for $600 an acre, a 10% yield on cost (as of 2020 he still owns it almost thirty-five years later).
- Hedging at Burlington Northern Santa Fe: Buffett told the Commission that if he were running BNSF he would not hedge fuel costs, a major input cost at the railroad. Why? Because over time the plusses and minuses cancel out. And what's left? The frictional cost of the hedging program. Buffett knew why managements used hedging. It allowed for smooth earnings, which Wall Street rewarded.
- No substitute for US Treasuries: At Berkshire there were no substitutes for Treasuries. Even if a little more yield could be had investing surplus cash in commercial paper, Berkshire would not do

> it. Why? "Because I [Buffett] don't know what can happen tomorrow."

Tomorrow for Berkshire, like that of the United States and the world, held much promise.

2011

In 2011, Berkshire broke its two-year losing streak against the S&P 500, outpacing the benchmark by 2.5%. Its overall gain of 4.6% caused its compounded annual gain since 1965 to fall below 20% (to 19.8%). While this made it a middle-ground year, Buffett felt good about Berkshire's progress. Insurance delivered the all-important negative cost of float, and float grew yet again. The year saw improvements in Berkshire's various non-insurance operating businesses, though those tied to construction still lagged. Berkshire made three large investments in 2011: buying Bank of America Preferred Stock, investing in International Business Machines (IBM), and acquiring Lubrizol Corporation. The Lubrizol acquisition brought a rare scandal involving a long-time Berkshire lieutenant.

Berkshire's stock price continued to flounder and Buffett again included several not-so-subtle hints at Berkshire's value in his Chairman's letter. He also presented a novel solution—at least for Berkshire. Berkshire announced it would repurchase its shares up to 110% of book value. Just the year before Buffett had told shareholders "not a dime of cash has left Berkshire for dividends or share repurchases during the past forty years." [569] That changed in September 2011 when Berkshire repurchased $67 million of its own stock over a two-day period. [570] Why? Buffett said he favored share repurchases under two conditions: a company has ample funds (which for Berkshire at the time was cash equivalent holdings above $20 billion) and the stock is selling at a discount to the company's intrinsic business value, when calculated conservatively. Under these circumstances share repurchases increase per-share intrinsic value. The $67 million was the amount purchased before the price advanced beyond the 110% limit.

The purpose of Buffett's commentary and the share repurchase announcement was not to have Berkshire's shares trade at a high price. Over the years, Buffett had at times signaled to the market that Berkshire's

stock was fully priced. Instead Buffett and Munger wished to have Berkshire's share price trade near its intrinsic value—not too high, not too low—so shareholders' financial results would roughly match that of Berkshire's underlying business results. [571]

Table 7.19: Berkshire Hathaway intrinsic value estimation

Per share (A-equivalent):	2011	2010
Investments	$98,366	$94,730
Pre-tax operating earnings (ex. investment income)	6,990	5,926
Estimated value (investments + 10x operating earnings)	168,266	153,990
Year-end share price	114,755	120,450
Year-end book value per share	99,860	95,453
Price/estimated value	0.68x	0.78x
Price/book	1.15x	1.26x
Value/book	1.69x	1.61x
Change in estimated value	9%	
Change in share price	(5%)	

Sources: Berkshire Hathaway Annual Reports 2010, 2011; and author's calculations.

Lubrizol Corporation

Berkshire acquired Lubrizol on September 16, 2011. The company was based in Cleveland, Ohio, and was founded in 1928. Lubrizol was a specialty chemical company that provided additives and advanced materials to industries including transportation, industrial and consumer markets.

Buffett may not have fully understood what the company did, but he loved its superior economics. Between 2004 and 2011 pre-tax profits increased almost tenfold to slightly over $1 billion. "It struck me as a business I didn't know anything about, initially. You're talking about petroleum additives. I never would understand the chemistry of it, but that's not necessarily vital."

Lubrizol had survived a long period of industry consolidation to become the leader in a relatively small market. [572] Lubrizol's financial results reflected this. Its returns on capital were consistently above 20% and shot up to over 45% in 2010, the year before Berkshire acquired it. Its financial statements show that major non-production costs remained in check while the topline continued to grow in the double digits (see Table 7.20) Additionally, the

company's connection with customers, including that it often partnered with them to create additives when new engines were developed, gave it a sustainable competitive advantage—Buffett's beloved moat. Lubrizol also provided a product that was very cheap compared to the exponential impact it had on performance of an end product.

Table 7.20: Lubrizol Corporation—acquisition analysis

($ millions)	2010	2009	2008	2007	2006
Total revenues	$5,418	$4,586	$5,028	$4,499	$4,041
Revenues/avg. capital[1]	$2.19	$2.19	$2.78	$2.46	$2.30
EBIT margin[1]	21%	19%	10%	11%	10%
Pre-tax return on capital	45%	41%	27%	27%	23%
Purchase price (equity)	$8,700				
Assumed debt	1,352				
Effective purchase price	$10,052				
Purchase multiple	4.06x				
BRK going-in pre-tax return (2010)	11.1%				
Return using 5-year average ROC	8.1%				
Footnote: 1. Adjustments were made for goodwill and intangibles, in addition to a minor amount of write-offs and restructuring charges.					

Sources: Berkshire Hathaway Annual Report 2010; Lubrizol Annual Reports 2006–2009; Lubrizol 10K 2010; and author's calculations.

Lubrizol's price reflected its excellence. Berkshire paid $8.7 billion for the company. Considering the debt assumed in the acquisition, the purchase price reflected a multiple of 4x the underlying capital in the business. Such a price seemed to lend confidence to the company's level and sustainability of recent profits. [573] Buffett made it clear how the acquisition should be judged: "You have to judge us based on close to a $9 billion investment. You have to judge [CEO] James Hambrick in running the business based on the much lower capital that he has employed." [574]

The Lubrizol acquisition cost Berkshire more than billions of dollars. It also cost it a trusted lieutenant who many supposed was a leading candidate to someday succeed Buffett as Berkshire's CEO. The full story is long and nuanced but amounted to this: David Sokol (who first came to Berkshire with the MidAmerican acquisition and had recently been put in charge of NetJets) purchased stock in Lubrizol just before recommending Berkshire buy it. Sokol's actions suggested a significant lapse of judgement rather

than an attempt to make a short-term profit. But the hit to Berkshire's reputation cost Sokol his job (he resigned). Buffett had a rule of thumb that employees should be willing to have their actions appear on the front page of the paper. This was not the kind of attention Sokol wanted. [575]

Just the year before, Buffett had included a copy of a biennial letter sent to Berkshire's managers at the end of the 2010 Annual Report. [576] The two-page letter emphasized the priority of each Berkshire employee: "The priority is that all of us continue to zealously guard reputation. We can't be perfect but we can try to be. As I've said in these memos for more than twenty-five years: 'We can afford to lose money—even a lot of money. But we can't afford to lose reputation—even a shred of reputation.'"

Insurance

Berkshire's Insurance Group delivered once again. Earned premiums grew 4% to $32 billion. Float grew 7% to $70.6 billion and came with underwriting profits. Profits declined from $2 billion in 2010 to just $248 million in 2011, but the result was even more impressive amid a backdrop of continued weak pricing industrywide and several large catastrophes. Remember, even breakeven insurance results produce significant economic benefits because of float. All of Berkshire's insurance units citied a constraint in volume due to pricing.

Table 7.21: Berkshire Hathaway—Insurance Underwriting

($ millions)	2011	2010
GEICO		
Premiums written	$15,664	$14,494
Premiums earned	15,363	14,283
Underwriting gain/(loss) - pre-tax	$576	$1,117
General Re		
Premiums written	$5,819	$5,632
Premiums earned	5,816	5,693
Underwriting gain/(loss) - pre-tax	$144	$452
Berkshire Hathaway Reinsurance Group		
Premiums earned	$9,147	$9,076
Underwriting gain/(loss) - pre-tax	($714)	$176
Berkshire Hathaway Primary Group		
Premiums earned	$1,749	$1,697

Underwriting gain/(loss) - pre-tax	$242	$268
Total premiums earned	$32,075	$30,749
Total underwriting gain/(loss) - pre-tax	248	2,013
Average float	68,202	63,872
Cost of float	(0.4%)	(3.2%)
Aggregate adverse (favorable) loss development	($2,202)	($2,270)
Discount accretion and amortization charges included above	$342	$356

Note: Berkshire Hathaway Primary Group and BHRG written premiums were not detailed.

Sources: Berkshire Hathaway Annual Reports 2010, 2011; and author's calculations.

Berkshire Hathaway Reinsurance Group

Most of the newsworthy events took place at Berkshire Hathaway Reinsurance Group. Three of its four lines of business reported losses, all for different reasons, putting BHRG in the red for 2011 to the tune of $714 million on earned premiums which remained flat at $9.1 billion.

Catastrophe and individual risk pricing remained soft. A few new contracts and higher pricing on renewals led to earned premium growth of 21% to $751 million. Major earthquakes in Japan and New Zealand caused losses of $800 million, which led to a pre-tax underwriting loss of $321 million compared to a profit of $260 million the year before. Such a swing in profits was not atypical as a year with major catastrophes worldwide was expected from time to time.

Earned premiums in other multi-line grew 22% to $4.2 billion largely due to the 20% quota-share agreement with Swiss Re. The same two earthquakes that impacted catastrophe and individual risk, in addition to floods in Thailand, caused another $933 million of catastrophe losses. After $455 million of profits on other contracts and foreign currency gains of $140 million, other multi-line reported an underwriting loss of $338 million compared to a profit of $203 million the year before.

The life and annuity line booked a $642 million charge relating to its contract with Swiss Re Life & Health to fix incorrect assumptions relating to mortality rates at the inception of the contract. [577] Pre-tax losses in the segment ballooned from $197 million the year before to $700 million in 2011. Earned premiums declined 9% to $2.2 billion, with most from the

Swiss Re contract, as well as from the acquisition of Sun Life Assurance Company of Canada from its parent company.

Retroactive reinsurance was BHRG's only line in the black in 2011, reporting a $645 million underwriting profit compared to a loss of $90 million the year before. Premiums earned of $2 billion (down 23%) came mostly from a $1.7 billion retroactive contract with a subsidiary of American International Group (AIG). Since it was a retroactive contract, there was no immediate profit or loss associated with it. The primary reason for the large profit was an $865 million reduction in its estimated liability associated with the 2009 Swiss Re contract (this was a separate contract from the one above and covered Swiss Re's non-life insurance losses prior to 2009).

General Re

General Re managed to earn a profit in both its major reporting lines despite similar catastrophe losses as BHRG and the weak pricing environment. It reported a pre-tax underwriting gain of $144 million compared to $452 million the year before. Earned premiums grew 2% to $5.8 billion.

The property/casualty line eked out a $7 million profit even with $861 million of catastrophe losses. Profits of $741 million on other property/casualty contracts and $127 million from casualty/workers' compensation resulted in the small profit. Earned premiums were flat at $2.9 billion.

Gen Re's life/health unit increased earned premiums 6% to $2.9 billion on strength in international markets. It benefitted from favorable mortality in its life business and reported another profitable year with a gain of $137 million compared to a gain of $163 million the year before.

GEICO

GEICO's profitability waned but remained impressive. Both policies-in-force and premiums grew as the company captured a 9.3% market share, up from 8.8% in 2010. GEICO's combined ratio crept up 4.1 percentage points but remained at a very satisfactory 96.3%. The main culprits were higher injury and physical damage severities. A $143 million increase in catastrophe losses (to $252 million) also caused the loss ratio to increase.

Berkshire Hathaway Primary Group

The Primary Group turned in a 14% underwriting gain, earning $242 million on premiums of $1.7 billion, compared to a profit of $268 million on similar premium volume the year before. MedPro and Applied Underwriters both reported favorable loss experience that bolstered results for the group. Berkshire's Home State insurers reported another year of losses, but no reasons were given. At the end of 2011, MedPro acquired Princeton Insurance, a New Jersey-based professional liability insurer. Princeton had annual written premiums of $140 million, surplus of $400 million, and brought $600 million of float. The price was not disclosed.

Manufacturing, Service, and Retailing

Results in the MSR Group reflected America's slow crawl out of the recession. The overall result (adjusting for Lubrizol) was a clear rebound in pre-tax earnings and an increase in return on tangible capital from 19.5% to 24.2%. The after-tax return on tangible equity improved from 17.3% to 22.9%. Even considering the full purchase price of these businesses (i.e. including goodwill), after-tax return on equity improved one percentage point to 8.9%. But those results also included the four housing-related companies, which remained in a distressed state (see Table 7.22).

Table 7.22: Manufacturing, Service, and Retailing—select data

($ millions)	2011	2010	2009
Housing-related businesses[1]	$359	$362	$227
Non housing-related businesses[2]	4,387	3,912	1,831
Lubrizol	291		
Total MSR pre-tax earnings	$5,037	$4,274	$2,058

Footnotes:
1. Acme, Johns Manville, MiTek, and Shaw (Clayton Homes was included in Finance and Financial Products).
2. Lubrizol separated for comparative purposes.

Source: Berkshire Hathaway Annual Report 2011.

Marmon continued to impress with revenues increasing 16% to $6.9 billion and pre-tax earnings rising 22% to $992 million. Marmon CEO Frank Ptak continued to expand the 140-business conglomerate with bolt-on acquisitions, including a recent partnership in an Indian crane company. Just one of Marmon's eleven sectors reported lower revenues and earnings.

Reduced purchases by its largest customer led to weakness in the Retail Store Fixtures sector.

When Berkshire purchased 60% of Marmon in 2008, it also agreed to acquire the remainder of the company over time with the price tied to a multiple of earnings. This multiple was not made public, but Berkshire's subsequent transaction shed light on it. Berkshire spent $1.5 billion to buy 16.6% of Marmon in early 2011, implying a valuation of $9 billion for all of Marmon. That suggests a pre-tax multiple of 11x 2010 earnings, or an earnings yield of about 9%. [578]

Berkshire's growth gradually squeezed many large businesses into its "other" categories. Even Shaw, a business with annual revenues of $5 billion, had succumbed to that financial fate in 2010. Smaller businesses shared this fate in earlier years or immediately went below the surface unless Buffett chose to highlight them. One in particular was CTB, the agricultural equipment company managed by Vic Mancinelli. Since Berkshire's 2002 purchase for $139 million, the company had sent Berkshire $180 million, earned $124 million pre-tax in 2011 alone, and had $109 million cash on the books. It was quite a record.

As good at CTB's cumulative record was, it did not come close to that of See's. Berkshire purchased See's in 1972 for $25 million. See's had earned a total of $1.65 billion pre-tax, including $83 million in 2011 alone. No wonder Buffett referred to the managers of Berkshire's various operating subsidiaries as members of the all-star team.

Jordan Hansell took over as head of NetJets after David Sokol resigned. The business had another good year with pre-tax earnings up 10% to $227 million.

Nebraska Furniture Mart had good news—and it wasn't just for record-setting earnings coming in at ten times the amount it earned when Berkshire purchased it in 1983. [579] The big news was its newly acquired 433-acre plot of land north of Dallas. The company planned to construct another mega store that was expected to rival that of its Omaha, Nebraska and Kansas City, Missouri stores. Each of those stores had revenues of over $400 million in 2011 and ranked among the largest (if not *the* largest) furniture retailers in the United States. Nebraska Furniture Mart's expansion coincided with its familial expansion, now with a fourth generation involved in the business.

Regulated, Capital-Intensive Businesses

Berkshire's share of net earnings from MidAmerican (which included interest on debt owed to Berkshire) grew 6% to $1.2 billion. MidAmerican's EBIT grew at the same rate to $2 billion. Utilities may be boring by design, but the earnings were not. Northern Powergrid, the United Kingdom-based distribution unit, grew earnings before interest and taxes by 41%. Part of the increase was a result of real improvements in the business, but a weaker dollar also made its earnings look comparatively bigger.

Berkshire's ownership of MidAmerican provided a tax advantage over other utilities. It could fully utilize tax credits because income tax was paid at the holding company level, and Berkshire had a large base of taxable income. Other utilities often had little or no taxable income because tax rules already allowed them to accelerate depreciation on investments. MidAmerican was therefore incentivized to invest in renewable energy projects. At the end of 2011, MidAmerican committed to two solar projects (one in California, another in Arizona), and had committed $6 billion to wind generation. That would make the utility the largest wind generator among regulated utilities nationwide.

Results for BNSF reflected the general improvement in the American economy. Unit volume increased 7% in both consumer and industrial products categories offset by a 4% decline in coal. Agricultural volumes were flat. The resulting 3% increase in volume and a 12% increase in revenues per unit combined to grow revenues 16% to $19.5 billion. Pre-tax earnings jumped 19% to $4.7 billion as operating expenses remained in check. This was even more impressive considering efficiencies lost due to severe weather, including over key coal routes that caused flooding.

BNSF's operating performance was better than at first glance. Usually once a subsidiary is acquired by another, much detail is lost. This was the case with many of Berkshire's acquisitions—but not the utilities. BNSF and MidAmerican had to report to the Securities and Exchange Commission because they are regulated entities with public debt. Remember the discussion of deferred taxes from 2010? BNSF's 10K filing for 2011 revealed that it incurred a $1.8 billion tax on $4.7 billion of pre-tax income. Of that amount, just $260 million was due currently, meaning a full $1.5 billion was deferred and remained in BNSF's checkbook. Huge outlays for

capital expenditures (including $3.3 billion or over twice depreciation charges in 2011) would create favorable economic outcomes for years.

Finance and Financial Products

The performance in this segment was buoyed by a return to profitability of CORT and XTRA. Berkshire's two leasing companies grew earnings almost threefold to $155 million. This reflected the significant operating leverage (fixed costs as a percentage of total costs) the companies had as part of their business models. It took just 12% revenue growth to drive the large increase in profits.

Clayton struggled in 2011. The culprits were a combination of lagging home sales causing units sold to decline 14%, a consumer shift toward some of Clayton's lower-priced units, and the government subsidy of mortgages on traditional stick-built homes. On top of that, a federal tax credit program expired the previous year. Clayton's 12.5% decline in pre-tax earnings to $154 million did not look so bad considering these challenges.

Buffett said he expected Clayton's earnings to improve once the country's excess housing inventory was worked off. But he also said the intrinsic value of Clayton, XTRA, and CORT were not significantly different than their current book value, providing another hint at their intrinsic value. These were good businesses, but there was no hidden value in them like GEICO or See's.

Investments

Buffett characterized the changes to Berkshire's investments in equities as few but important. The first was a purchase of 63.9 million shares of International Business Machines (IBM) that cost $10.9 billion. This was the largest outlay for a single security Berkshire had ever made. It represented a 5.5% ownership interest in IBM and almost 7% of Berkshire's average equity capital.

Buffett said it took him only fifty years of reading IBM's annual reports to gain enough comfort to buy its stock. What did he see in IBM? Here are three things:

1. A long history: IBM had reinvented itself many times over the years.

Its strong track record, including results through 2010 that seemed to back the assertion it had a strong competitive position, was reason to believe its recent good performance would continue.

2. Low capital requirements: IBM was not capital intensive and its capital efficiency was improving.
3. Shareholder-friendly management: The company returned over $56 billion to shareholders in dividends and net-share buybacks over the previous five years, including $14.8 billion in 2010 alone. [580]

Table 7.23: IBM investment analysis

($ millions)	2010	2009	2008	2007	2006
Total revenues	$56,868	$55,128	$58,892	$54,057	$48,328
Revenues/avg. capital	$2.31	$2.10	$1.60	$1.30	$1.20
EBIT margin	35%	34%	30%	28%	28%
Pre-tax return on capital	81%	71%	47%	36%	34%
Purchase valuation[1]	$197,382				
Total debt	28,624				
Total enterprise value	$226,006				
Purchase multiple	9.75x				
Implied going-in pre-tax return (2010)	8.4%				
Implied return assuming 5-year average ROC	5.5%				
Footnote: 1. Implied valuation based on Berkshire's purchase of 5.5% of IBM for $10,856 million.					

Sources: Berkshire Hathaway Annual Report 2010, IBM Annual Reports 2006–2010, and author’s calculations.

Bank of America was the other major equity investment in 2011. A $5 billion preferred stock investment carried a 6% dividend rate and warrants to purchase 700 million shares of Bank of America stock at $7.14 per share. Buffett initiated the investment thinking Bank of America and Berkshire could benefit. Berkshire would lend the Buffett seal of approval to a bank Buffett saw as very good, but which Wall Street found unattractive due to prior troubles.

Buffett conveyed some insight into how he generated investment ideas. He said he dreamed up the Bank of America investment while in the bathtub. Better yet, when he went to communicate his idea to Bank of America CEO Brian Moynihan, he first tried reaching him through the call center. Buffett's assistant ultimately contacted the right parties at Bank of America to get Moynihan on the phone.

Berkshire also added $1 billion to its stake in Wells Fargo. This brought its investment to 7.6% of the West Coast bank.

Buffett was candid about some negative developments at Berkshire during the year. One was a $2 billion investment in Energy Future Holdings, an electric utility based in Texas. "That was a mistake—a *big* mistake." Why? Because the company's future was tied to natural gas prices, which tanked after Berkshire purchased it. The investment was written down to $878 million at year-end. Another negative was the return of capital from Swiss Re, Goldman Sachs, and General Electric, three of the unique negotiated investments Berkshire made during the tough years of the Great Recession. Each company paid Berkshire a premium for calling them away early, but the income they generated would be hard to replace in the prevailing low interest rate environment. (The 10-year Treasury Note dipped below 2% at the end of 2011.)

In 2011, Berkshire hired Ted Weschler to join Todd Combs in managing a portion of Berkshire's investment portfolio. Like Combs, Weschler ran his own hedge fund, Peninsula Capital Advisors, before joining Berkshire. To incentivize the managers and foster collaboration, Buffett compensated each manager with a base salary and a performance fee benchmarked to the S&P 500, with 80% tied to individual performance and 20% to the other man. [581]

Berkshire made another investment in 2011 that largely went under the radar. In June, Berkshire acquired the remaining 20% of Wesco Financial Corporation it did not already own. It paid $543 million, including $298 million cash and the remainder in Berkshire shares. Munger remarked that he felt Wesco had finally arrived at its port.

Three Investment Choices

A section of Buffett's 2011 Chairman's letter contained an investing lesson. In it, Buffett sought to convince readers that ownership of productive assets

was the only sure way to prosper over the long run. He lumped the investing universe into three categories, and his main takeaways were as follows:

1. Currency-based investments: These included cash, money- market funds, bonds, and mortgages. The key takeaway here was the ravaging effect of inflation. Nations had a clear bias toward inflation, and this meant the purchasing power of any investment in this category would likely go down over time. Berkshire would only make such investments if there were prospects for large gains. Berkshire's large holdings in US Treasuries would remain no matter how low the interest rate as a near-guarantee of liquidity for when cash was needed.
2. Commodities: This category included anything that did not produce, the most well-known example being gold. The logic was compelling. "If you own one ounce of gold for an eternity, you will still own one ounce at its end." Gold and other commodities were usually held by those fearful of runaway inflation, or because they thought others would buy it from them at a higher price. A visualization really drove home the point. All the gold in the world could be melted together into a 68-foot square cube worth $9.6 trillion that would never grow. Instead, at the current price of gold, one could buy all the farmland in the United States (400 million acres), sixteen Exxon Mobil-sized companies—*and* have $1 trillion left over.
3. Productive assets: This category included businesses, farms and real estate. Continuing the example from above, a century in the future the gold would still be sitting there while the Exxon Mobil-sized companies and farmland would continue producing. Such productivity would remain no matter what the currency or how much it depreciated. Buffett's logic led him to one conclusion: Over the long run, this category of assets was by far the safest. He called them "commercial cows" and said they would "live for centuries and give ever greater quantities of 'milk' to boot. Their value would be determined not by the medium of exchange but rather by their capacity to deliver milk."

Once again Buffett displayed his penchant for teaching and logic. He wanted shareholders to know he was comfortable with uncertainty, and that investments made based on sound economic reasoning may not be foolproof but were most likely to be profitable. Those who preferred a short game and more certain outcomes were likely to disagree, but Berkshire Hathaway was living proof that Buffett's logic was very profitable.

2012

"When the partnership I ran took control of Berkshire in 1965, I could never have dreamed that a year in which we had a gain of $24.1 billion would be subpar … . But subpar it was." This was Buffett's way of explaining why the enormous gain in book value—14.4%—was not as good as it seemed. Why? Because it fell behind the S&P 500 for the ninth time in forty-eight years (1.6 points in 2012). Berkshire's performance over longer periods held, however. It outperformed the S&P forty-three consecutive times when measured in five-year stretches. "We do better when the wind is in our face," he said. That statement reflected Berkshire's ability to invest large sums when the stock market is weak, and a willingness to write large volumes of insurance during times of acute stress. Buffett also lamented that he had come up short yet again in finding a major acquisition.

But it wasn't all bad news. Each of the major operating segments reported higher earnings despite some mixed results within each category. That included the Insurance Group, which produced underwriting gains in each insurance unit. While Buffett might have failed to land an elephant-sized acquisition, Berkshire did make numerous investments in 2012:

1. $2.3 billion: Twenty-six companies acquired via bolt-on acquisitions that were folded into existing operations.
2. $1.4 billion: An additional 10% of Marmon.
3. $4.6 billion: Capital expenditures in excess of depreciation, mostly concentrated within the capital-hungry railroad and utility operations. [582]
4. $1.3 billion: Repurchases of Berkshire shares.
5. $712 million: Net increase in equities (including $2.6 billion additional investment in IBM and Wells Fargo).

Berkshire's shares remained undervalued despite meaningful business progress. During 2012, shares traded between $113,855 to $136,345 compared to an estimated intrinsic value that approached $195,000. Berkshire took advantage of the opportunity to buy back 9,200 Class A shares, spending $1.3 billion or $131,000 per share. [583] Buffett provided no ambiguity on his conviction that Berkshire's shares were undervalued: "It's hard to go wrong when you're buying dollar bills for 80 cents or less."

Table 7.24: Berkshire Hathaway intrinsic value estimation

Per share (A-equivalent):	2012	2011
Investments	$113,786	$98,366
Pre-tax operating earnings (ex. investment income)	8,085	6,990
Estimated value (investments + 10x operating earnings)	194,636	168,266
Year-end share price	134,060	114,755
Year-end book value per share	114,214	99,860
Price/estimated value	0.69x	0.68x
Price/book	1.17x	1.15x
Value/book	1.70x	1.69x
Change in estimated value	16%	
Change in share price	17%	

Sources: Berkshire Hathaway Annual Reports 2011, 2012; and author's calculations.

Berkshire's share repurchases in 2011 and 2012 were also a subtle admission it had excess capital. The repurchases were only incidental to this fact, although its inability to put large amounts of capital to work could have weighed on the share price. Berkshire would not have repurchased shares if they weren't meaningfully undervalued. Dividends, at least for the moment, remained off the table as a means for returning capital to shareholders. Buffett took three pages of his Chairman's letter to explain why:

1. Berkshire's price-to-book value in the market allowed more than one dollar of value to be created for every dollar retained. Paying out retained earnings in dividends meant a loss of value.
2. Shareholders could choose their own dividend policy by selling shares. Not only would they receive more (because of the premium to

book value above), but Berkshire would not impose one dividend policy on all shareholders. Some shareholders were in accumulation mode and didn't want a dividend, while others might wish to sell shares equal to the entirety of earnings each year (or more).

3. Dividends are taxed in their entirety, while the capital gains tax only applied to the gain over one's cost basis. Shareholders wishing to retain capital in Berkshire would have to pay tax on the dividend *and* invest it back in at a premium to the underlying book value.

Buffett used the example of his regular donations of Berkshire shares to illustrate how a sell-off approach made more sense. Since 2006, he had donated an average of 4.25% of his shares to philanthropy. His ownership in Berkshire since that time had fallen from 712 million shares (B-equivalent) to 529 million shares (down 26%). Yet his investment in Berkshire in dollar terms had risen from $28.2 billion to $40.2 billion (up 43%). That was because the retained earnings in Berkshire more than offset the annual selling of shares. Buffett was clear that Berkshire would always consider a dividend when it made sense, but for the time being shareholders were left with a viable yet nonintuitive way to receive capital from their investment in Berkshire. [584] Buffett also used the example of purchasing BNSF, what he called a whale, which would benefit shareholders for years to come and was only possible because Berkshire did not pay dividends and had cash on hand.

Insurance

"Our insurance operations shot the lights out last year," Buffett said, using a familiar phrase to describe 2012. The Insurance Group delivered its tenth consecutive year of underwriting profit. Over that time, Berkshire's insurers delivered a total of $18.6 billion of pre-tax underwriting profit, which came on top of billions of dollars of incremental float. Not all four major units had a positive underwriting result each year, but in 2012 they did, with pre-tax earnings totaling $1.6 billion. They also proved Buffett wrong. He had written in his previous Chairman's letter that float was not likely to grow very much from its base of $70.5 billion. Yet float grew 3.6% to $73 billion. These results were even more impressive considering significant losses from Hurricane Sandy (pre-tax cost of $1.1 billion) and other natural

disasters, and continuing soft reinsurance pricing. The Insurance Group was built to withstand anything and ended the year with statutory surplus of $106 billion.

Table 7.25: Berkshire Hathaway—Insurance Underwriting

($ millions)	2012	2011
GEICO		
Premiums written	$17,129	$15,664
Premiums earned	16,740	15,363
Underwriting gain/(loss) - pre-tax	$680	$576
General Re		
Premiums written	$5,984	$5,819
Premiums earned	5,870	5,816
Underwriting gain/(loss) - pre-tax	$355	$144
Berkshire Hathaway Reinsurance Group		
Premiums earned	$9,672	$9,147
Underwriting gain/(loss) - pre-tax	$304	($714)
Berkshire Hathaway Primary Group		
Premiums earned	$2,263	$1,749
Underwriting gain/(loss) - pre-tax	$286	$242
Total premiums earned	$34,545	$32,075
Total underwriting gain/(loss) - pre-tax	1,625	248
Average float	71,848	68,202
Cost of float	(2.3%)	(0.4%)
Aggregate adverse (favorable) loss development	($2,126)	($2,202)
Discount accretion and amortization charges included above	$381	$342

Note: Berkshire Hathaway Primary Group and BHRG written premiums were not detailed.

Sources: Berkshire Hathaway Annual Reports 2011–2012 and author's calculations.

GEICO

GEICO led the pack. Its $680 million underwriting profit and combined ratio of 95.9% was even better than at first glance. GEICO faced $490 million of catastrophe losses from Hurricane Sandy alone, which inflicted three times the loss Hurricane Katrina had in 2005 because of its large market share in the New York area. [585] GEICOs results were also penalized by an accounting change. Effective 2012, US accounting rules eliminated

the inclusion of most advertising costs in deferred premium acquisition costs. For 2012, that rule added $410 million of expenses compared to the prior method.

The two factors above weren't enough to counter earned premium growth of 9% and growth in policies-in-force of 6.5%. Had the accounting change not been made, GEICO's combined ratio would have been 93.5% (even with the losses from Sandy). The losses from Sandy also offset lower claims frequencies, including a 10% drop in comprehensive coverage fr equencies. [586]

General Re

General Re increased earned premiums 1% to $5.9 billion, which were negatively affected by currency effects. Its pre-tax underwriting gain grew from $144 million in 2011 to $355 million in 2012.

Property/casualty earned premiums were flat at $2.9 billion. Underwriting profits bounced back to a pre-tax gain $399 million from a near breakeven $7 million gain the prior year. Property business reported a profit of $352 million despite $266 million of catastrophe losses tied primarily to Hurricane Sandy, an earthquake in Italy, and tornadoes in the Midwest. Casualty/workers' compensation reported gains of $47 million.

General Re's life/health line reported its first loss since 2002 with a loss of $44 million from changes in reserves on a prior business line and worsening results in an Australian business line. [587] Premiums grew 3% to $3 billion.

Berkshire's culture of conservatism is illustrated by its reserve adequacy compared to other insurers. At year-end 2012, General Re's recorded liability for mass tort claims (those relating to mass claims for asbestos and hazardous waste claims) totaled $1.2 billion. Over the previous three years its payouts averaged $80 million. That meant General Re had reserved over fifteen years of estimated payouts. This ratio is called the survival ratio (how long the reserves will survive the current payout). The industry's survival ratio, by contrast, was just 8.8 years. [588]

Berkshire Hathaway Reinsurance Group

Results at Berkshire Hathaway Reinsurance Group reflected some of the same challenges as its reinsurance sister company. Ajit Jain's group found

ways to increase business even with self-imposed constraints on volume due to weak pricing. It bounced back from an overall loss of $714 million in 2011 to a $304 million profit in 2012 on premiums that grew 6% to $9.7 billion.

Catastrophe and individual risk returned from an underwriting loss of $321 million to earn $400 million on earned premiums that grew 9% to $816 million. That was after $96 million of losses from Hurricane Sandy.

Premiums in the retroactive line fell sharply, from $2 billion in 2011 to $717 million in 2012, mostly due to the large contract with AIG the prior year. Volume in 2012 came from several smaller contracts. A $201 million loss in that segment was mainly due to deferred charge amortization stemming from previous contracts.

Other multi-line property/casualty improved from a $338 million loss to a $295 million gain, even after $268 million in catastrophe losses from Hurricane Sandy. Premiums grew 26% to $5.3 billion This year would mark the last of the four-year, 20% quota-share arrangement with Swiss Re, which was responsible for $3.4 billion of premium volume in 2012.

New contracts increased BHRG's life/health earned premiums 31% to $2.8 billion. Its underwriting loss improved from a loss of $700 million in 2011 to $190 million in 2012. Losses from life reinsurance amounted to $12 million, an improvement from the $582 million loss in 2011, which was from the large reserve adjustment that year. Annuity losses were $178 million and largely due to accounting charges. [589]

Berkshire Hathaway Primary Group

For once, the excitement in the Primary Group was due to more than financial results, though those were again very good. The segment now included a full year of business from Princeton Insurance, the professional liability insurer Berkshire acquired at the end of 2011. In the fourth quarter, the Primary Group also welcomed GUARD Insurance Group, a provider of commercial property and casualty insurance coverage to small and mid-sized businesses. GUARD was based in Wilkes-Barre, Pennsylvania, and had premium volume of $300 million. The purchase price was $221 million, about its book value at the time. With the two newcomers in place, premiums in this segment grew 29% to $2.3 billion and profits grew 18% to $286 million (87% combined ratio).

Manufacturing, Service, and Retailing

The MSR Group continued to make progress. Including a full year of results from Lubrizol, pre-tax earnings increased 22% to $6.1 billion and represented a return on average tangible capital of 25.3% (up from 24.2%). After-tax earnings increased at the same rate to $3.7 billion and represented a 21.4% return on average tangible equity (down from 22.9%) [590] —an impressive result considering the businesses employed on average just 15% of debt compared to equity capital. There were pockets of difficulty, but overall the MSR businesses rebounded from the recession.

Marmon increased revenues 3.6% to $7.2 billion and pre-tax earnings 14.6% to $1.1 billion. A quarter of the increase in profits came from increased operating margins and the rest from bolt-on acquisitions. Marmon, like Berkshire's insurers, focused on profitability first and foremost, and had an eye on expanding into specialized niche markets that allowed a high operating margin and good returns on capital.

Marmon's growth caused the purchase price for the remainder of the company to go up. Berkshire acquired another 10% of Marmon from the Pritzker family during the fourth quarter of 2012. This brought its ownership to 90%. Berkshire paid $1.4 billion but Buffett said the purchase price implied a valuation of $12.6 billion. Buffett's figure is consistent with the 11x multiple Berkshire paid in 2011 for an additional 16.6% of the company. [591]

McLane, Berkshire's distribution business, made a large acquisition of its own in 2012 that increased revenues and earnings. On August 24, 2012, it acquired Meadowbrook Meat Company, Inc. of Rocky Mount, North Carolina. The purchase price was not disclosed. Meadowbrook Meat Company provided food distribution to national restaurant chains and had annual revenues of $6 billion. Including the results from the acquisition, McLane's revenues grew 12.5% to $37.4 billion and pre-tax earnings increased 9% to $403 million.

Berkshire's other manufacturing businesses rebounded moderately, but there were pockets of weakness. Revenues increased 26% to $26.8 billion and pre-tax earnings increased 38% to $3.3 billion. Excluding Lubrizol, revenues and earnings both increased 6%. Forest River, the recreational vehicle manufacturer, increased revenues 27% on higher volumes and

pricing. That was an indication the US consumer was in better shape. Building products revenues increased just 4%, continuing their slow ascent from the depths of the recession. Shaw benefitted from higher sale prices and stable input prices. Weak commercial and industrial business hurt results at Scott Fetzer, Iscar, and CTB, with slowing economies overseas impacting the latter two particularly.

Buffett took the rare action of replacing a manager of Benjamin Moore, one of Berkshire's autonomously operated subsidiaries in the building products segment. The CEO of Benjamin Moore made strategic moves that threatened the company's independent network of dealers. This included a deal to have its paint sold in a major home improvement store. That was contrary to the promise Buffett made when Berkshire acquired the company in 2000 to soothe fears that Berkshire would shift away from its longtime distribution system of independent dealers. The incident proved there were limits to the autonomy Buffett would afford his managers and showed how closely he guarded Berkshire's (and his own) reputation. [592]

Revenues in the other services segment grew 10% to $8.2 billion mainly due to the inclusion of bolt on acquisitions at TTI, and the BH Media Group, which is discussed below. Pre-tax earnings fell 1% to $966 million despite the acquisitions, from weak demand and intense competition at TTI. NetJets and FlightSafety, the two aircraft-related businesses, performed on par with the prior year.

Retailing was up slightly in 2012, with revenues and pre-tax earnings growing 4% to $3.7 billion and 2% to $306 million, respectively. Results were bolstered by the acquisition of the Oriental Trading Company, on November 27, 2012, for $500 million. [593] The retailer sells party supplies, school supplies, and toys and novelty gifts.

Buffett's discussion of the MSR businesses in his Chairman's letter highlighted a flaw he saw in Generally Accepted Accounting Principles (GAAP). He thought amortization charges were an area that analysts should pay close attention to, since there were some important divergences from underlying economics. GAAP previously required the amortization of goodwill, which Buffett disagreed with. But amortization still applied to some items from business acquisitions. One such item was amortization expense related to customer relationships, which was not a real expense.

Other intangibles were very real. Buffett used the example of software that would become obsolete over time as a real amortization expense. He said he included just 20% of the year's GAAP amortization expense in the table presented in the Chairman's letter that laid out results for the MSR businesses. (The full amount was included with the GAAP-compliant results presented in the financial statements.) Buffett's goal was to provide shareholders with the clearest view of how their businesses were performing, and that meant thinking hard about how to translate the language of accounting into economic reality.

Regulated, Capital-Intensive Businesses

As large and important as they were (representing 24% of Berkshire's total assets and 37% of pre-tax operating income in 2012), MidAmerican and BNSF's results do not require much discussion from year to year. That's as it should be. Both were purchased to provide limited but stable earnings year in and year out. Still, some commentary is appropriate.

BSNF increased revenues 7% to $20.8 billion and pre-tax earnings 13% to $5.4 billion. Increased pricing (up 4%) and volume (up 2%) resulted in the topline growth, and operating leverage swelled the bottom line. The modest unit growth masked a 13% increase in industrial products volume from petroleum and construction products and a 6% decline in coal shipments. Consumer products unit volume increased 4% and agricultural products declined 3%. BNSF spent $3.5 billion on capital expenditures during the year. The sum was more than double its $1.6 billion depreciation expense and proof that BNSF and Berkshire saw much opportunity ahead.

Berkshire's share of MidAmerican's after-tax earnings grew 10% to $1.3 billion. The company continued to take advantage of tax incentives and invest in renewable projects, making an analysis of after-tax earnings more useful than a strict EBIT analysis (EBIT declined 1% to $1.6 billion). MidAmerican generated 6% of the wind power in the US and would have 14% of all solar production when several projects were completed. In all, MidAmerican's renewable portfolio cost $13 billion. The company spent $3.4 billion on capital expenditures during 2012 compared to depreciation of just $1.4 billion. That was another reminder of something Buffett often alluded to: "Money will always flow toward opportunity, and there is an abundance of that in America."

MidAmerican's HomeServices business increased pre-tax earnings 110% to $82 million. While small, it is noteworthy for a view into the housing industry. HomeServices participated in $42 billion of home sales in 2012, up 33%. The company also purchased two-thirds of a Prudential franchise operation that would further increase business. HomeServices planned to rebrand itself Berkshire Hathaway HomeServices, taking advantage of the Berkshire brand.

Finance and Financial Products

Pre-tax earnings in the Finance and Financial Products segment jumped 10% to $848 million. Earnings were buoyed by Clayton Homes, which increased its pre-tax earnings 66% to $255 million. That was despite the continued headwind from subsidies given to traditional home manufacturers. During 2012 Clayton sold 14% more units, but at a lower average selling price, which increased overall revenues 9%. Earnings ballooned for th ree reasons:

- Increased unit volume allowed for manufacturing efficiencies.
- Lower insurance claims and lower credit losses bolstered the bottom line.
- Lower interest rates on borrowings more than offset the lower earnings from its loan portfolio.

Combined pre-tax earnings at Berkshire's two leasing companies fell 5% to $148 million. This result followed an almost tripling of earnings the prior year. The decline in 2012 was from additional depreciation expense at XTRA and due to lower foreign exchange gains. The additional depreciation stemmed from investments XTRA was making in its business to take advantage of future opportunities. Like its larger sister companies MidAmerican and BNSF, XTRA spent twice its annual depreciation expense, or $256 million, on capital expenditures during the year. Some business leaders used the uncertain economic landscape to justify holding back on investing. Buffett said Berkshire didn't hold back. "While competitors fret about today's uncertainties, XTRA is preparing for tomorrow."

Pre-tax earnings in the other category were greater than Clayton's. This collection of assets generated solid profits every year. In 2012 these amounted to $445 million, down 4% from the year before. They included Berkadia, Berkshire's 50% commercial mortgage servicing partnership with Leucadia National Corporation, and a portfolio of bond and stock investments Buffett managed himself. Also included were charges to Clayton for use of Berkshire's credit, and the guarantee fee paid by NetJets.

Investments

There was modest activity in the investment portfolio during 2012. Berkshire pared down its stake in ConocoPhillips, an oil producer, by $800 million, while increasing its investment in IBM by $824 million, Well Fargo by $1.8 billion, and Walmart by $944 million. One new name on the list, DIRECTV, wasn't purchased by Buffett. Either Todd Combs or Ted Weschler made the $1.1 billion investment (Buffett wouldn't say). Each man managed around $5 billion for Berkshire by year-end.

Newspapers

Berkshire's purchase of twenty-eight daily newspapers for $344 million (around but not entirely in 2012) caused some to scratch their heads. But the purchases, which included Buffett's hometown newspaper, the *Omaha World Herald* , provided lessons on investing and a history of the media industry.

Buffett summed it up this way: "News, to put it simply, is what people don't know that they want to know." The longer historical version included how newspapers used to be powerhouses before the television and internet ages. What people then didn't know was a lot and newspapers were the only source for sports, stock prices, and local and national news. This primacy attracted advertisers and newspaper owners made *a lot* of money (including Berkshire with *The Buffalo News*).

Slowly but surely television and the internet came along and provided a faster (and cheaper) way to deliver news. With each passing year, more and more people dropped their subscription. The downward spiral of fewer readers led to fewer advertisers, leading to lower profits, and so on.

Buffett thought just a few newspapers would ultimately survive and would need to adapt to the online world. Big national newspapers such as *The Wall*

Street Journal , *The New York Times* , and *The Washington Post* would all do well. So would the smaller local papers that provided information readers couldn't get anywhere else. They would also struggle, but newspapers in tightly-knit communities had the best chance.

Buffett readily admitted nostalgia played a part in the purchase. Afterall, he loved reading newspapers and had even delivered two as a boy. But as a businessman, the financials mattered too. Newspapers were shrinking. Buffett said their earnings were certain to decline. So why would he buy them? At a low enough price, the economics made sense. [594]

2013

By *almost* all accounts, 2013 was a very good year for Berkshire. The one glaring exception was a 14.2 point underperformance to its self-selected benchmark, the S&P 500, which rose 32.4%. Buffett had anticipated Berkshire's relative underperformance in periods of strong gains by the S&P 500 and had written the prior year that Berkshire's unbroken history of beating the S&P 500 over five-year periods could end if the market rose strongly in 2013. [595] His confidence lay with Berkshire Hathaway's underlying businesses, which made significant and meaningful progress during the year.

Continuing our methodology of estimating Berkshire's intrinsic value from earlier, Berkshire's progress was a meaningful 13% increase. Shares rose by over a third, which put the valuation beyond the 1.20x threshold Berkshire established for repurchases.

Table 7.26: Berkshire Hathaway intrinsic value estimation

Per share (A-equivalent):	2013	2012
Investments	$129,253	$113,786
Pre-tax operating earnings (ex. investment income)	9,116	8,085
Estimated value (investments + 10x operating earnings)	220,413	194,636
Year-end share price	177,900	134,060
Year-end book value per share	134,973	114,214
Price/estimated value	0.81x	0.69x
Price/book	1.32x	1.17x
Value/book	1.63x	1.70x

Change in estimated value	13%	
Change in share price	33%	

Sources: Berkshire Hathaway Annual Reports 2012, 2013; and author's calculations.

Berkshire fired on all cylinders during 2013. Its many operating businesses increased their earnings and competitive positions. Berkshire also put tens of billions of capital to work in new acquisitions:

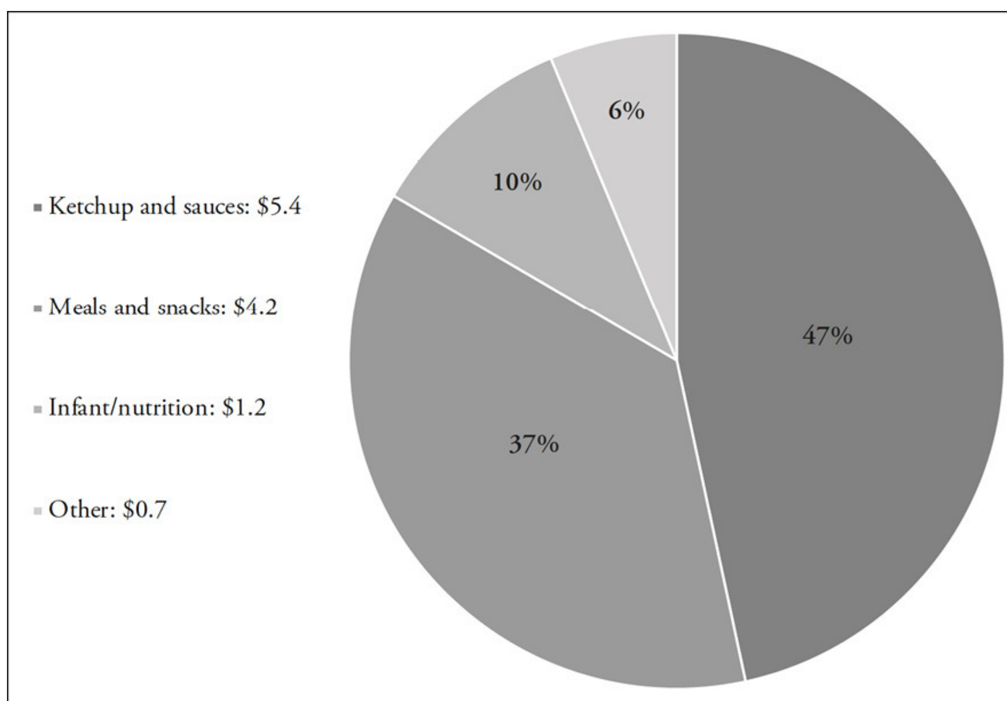
- $12.25 billion for a major interest in ketchup maker H.J. Heinz
- $5.6 billion for NV Energy, a large West Coast utility company
- $3.5 billion for the remaining ownership interests in Marmon and Iscar
- $3.1 billion for twenty-five bolt-on acquisitions by existing subsidiaries

In addition, Berkshire spent $11.1 billion on capital expenditures, which was $5.7 billion more than its depreciation. It also spent $4.7 billion, net, on equity securities.

H.J. Heinz Company

On June 7, 2013, Heinz was acquired by a partnership formed between Berkshire Hathaway and 3G Capital. Buffett loved flagship brands with high, stable market shares and high returns on capital. Under this new template, 3G Capital from Brazil oversaw operations and Berkshire was the financing partner. Heinz was well-known for its signature brand of tomato ketchup and had a family of other brands including, sauces, soups, beans, pasta, infant foods, and Ore-Ida potato products. The company also produced licensed brands such as Weight Watchers and T.G.I. Friday's snacks. Its business was broken down by segment:

Figure 7.4: H.J. Heinz 2013 revenues by segment ($ billions)



Note: Total revenues = $11.5 billion

Source: H.J. Heinz 2013 10K.

The company was headquartered in Pittsburgh, Pennsylvania, but had worldwide operations. Geographically, about a quarter of revenues were from North America, a quarter from Europe, 20% from Asia/Pacific, and the remainder split between a US Foodservice business and the rest of the world.

The strength of its brands was evidenced by its pre-tax return on tangible capital (see Table 7.27). Between 2009 and 2013 the company's average return on tangible capital was a mouthwatering 56%. Its flagship brand of Heinz ketchup commanded a 60% market share in the United States (and even higher overseas). [596] That the runner up (Hunts) accounted for just 20% was evidence of the company's dominance. Most people cannot even name a third ketchup brand.

3G Capital was a force in the investment world. The investment fund was led by Jorge Paulo Lemann, whom Buffett knew during their time serving on the Gillette board together. Prior to the Heinz deal, 3G Capital had taken Burger King private. It also created one of the world's largest beer brewers when a company it controlled, InBev, acquired the Anheuser Busch Company. The partners of 3G Capital, which included Lemann, Alex

Behring, and Bernardo Hees, were known as excellent business operators. Their key operating philosophy was zero-based budgeting, a technique that requires all expenses be justified each period. Their past successes using that methodology, and the steep price that Berkshire and 3G paid for Heinz, suggested they would look to improve margins at Heinz. [597]

The total purchase price for Heinz, including debt assumed in the acquisition, was $29.1 billion. That represented a whopping 7.7 times the company's underlying tangible capital and what appeared to be a low initial return in the mid-single digits. The margin of safety in the deal stemmed from the company's strong historical returns on capital. Future growth could bring the initial return up, as would any improvement in margins the team at 3G Capital could squeeze out. But the price was steep. Buffett admitted they stretched a little because of the qualities of Heinz and what they saw in the 3G Capital management team.

Table 7.27: Heinz—acquisition analysis

($ millions)	2013	2012	2011	2010	2009
Total revenues	$11,529	$11,508	$10,559	$10,495	$10,011
Revenues/avg. capital[1]	$3.07	$3.80	$3.91	$4.25	$3.88
EBIT margin[1]	15%	13%	16%	15%	15%
Pre-tax return on capital	45%	51%	64%	65%	60%
Purchase price (equity)	$8,500				
Berkshire preferred stock	8,000				
Debt	12,600				
Effective purchase price	$29,100				
Purchase multiple	7.74x				
BRK going-in pre-tax return (2013)	5.9%				
Return using 5-year average ROC	7.4%				
Footnote: 1. Adjustments were made for goodwill and intangibles.					

Note: The company's fiscal year was 52 weeks ended in April.

Sources: Berkshire Hathaway Annual Report 2013; H.J. Heinz Annual Reports 2009–2013; H.J. Heinz 10Q 10/27/13; and author's calculations.

Berkshire and 3G Capital each invested $4.25 billion, with each receiving half of the company's common equity. [598] Berkshire also invested $8 billion

in a 9% preferred stock issue. The remainder of the purchase price came from traditional bank debt. That one entity (Berkshire) would provide both equity and debt financing was somewhat unusual. It allowed Berkshire to put more money to work at a lower relative risk than if all the non-equity financing was borrowed. “We have a less-leveraged position in the capital structure than they have. They wanted more leverage, and we provided that leverage on what I regard as fair terms and what they regard as fair terms.” The structure of the deal reflected the governing partnership, which allowed Berkshire to put capital to work with a team of managers already in place. “We [Berkshire] have more money than operating ability at the parent company level, and they have lots of operating ability and wanted to maximize their return on $4 billion.”

Table 7.28: Heinz capital structure and leverage

($ millions)	Amount	Leverage [1]
Debt	$12,600	1.00x
Preferred stock	8,000	1.58x
Equity	8,500	2.42x
Total capital	$29,100	
Berkshire Hathaway total leverage:		
Preferred + equity	$12,250	1.87x
Footnote:		
1. Leverage as measured by the sum of capital more senior in priority divided by source.		

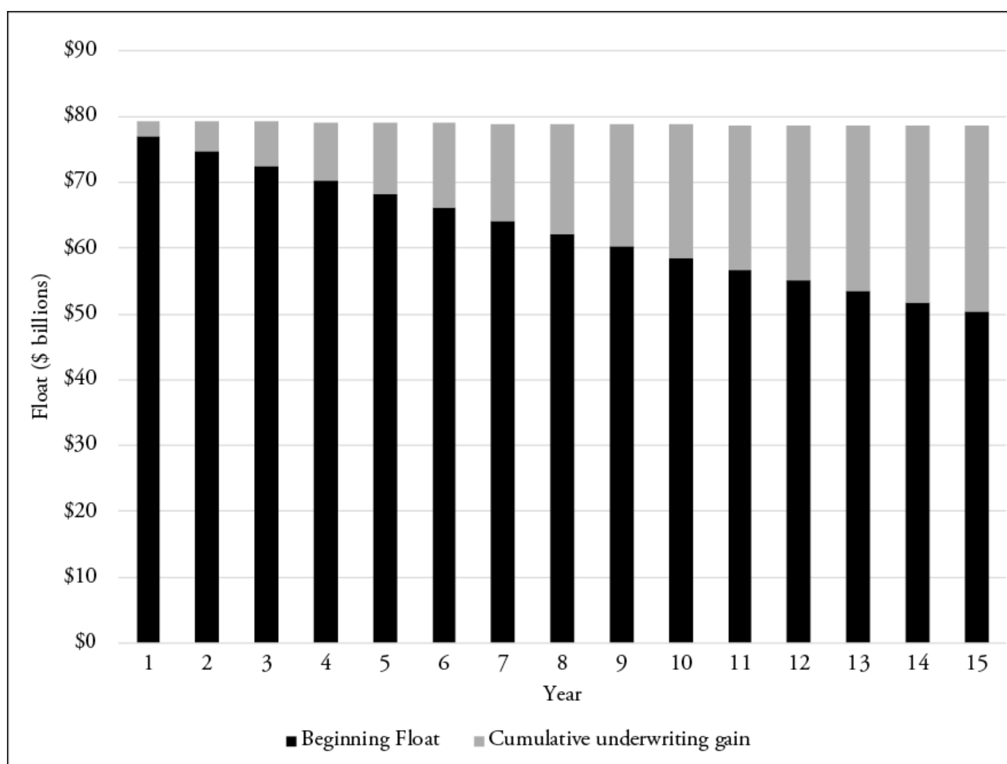
Sources: Berkshire Hathaway Annual Report 2013; H.J. Heinz Annual Reports 2009–2013; H.J. Heinz 10Q 10/27/13; and author’s calculations.

Insurance

Berkshire’s Insurance Group delivered big in 2013. Each operating unit produced an underwriting profit (the 11th year in a row), which resulted in a 4.1% negative cost of float. Better still, year-end float grew 6% to $77 billion. Buffett reminded shareholders that both gifts (negative cost of float and higher float) were not a given. He cautioned that future gains in float would be hard to come by and that Berkshire’s float might shrink. Unlike debt, which could be called away requiring large cash resources, float could not place a large demand on liquidity. He said any future decline in float might only be around 3%. That comment sheds some light on why Buffett was reluctant to include underwriting gains in the calculation of Berkshire’s

earning power (and therefore intrinsic value calculations). If in future years Berkshire's float did shrink, underwriting gains would be offset by the outflow of capital from the decline in float. The resulting economics would still be very favorable because the cumulative underwriting profit would replace the float, leaving the same amount of capital available for Berkshire to use. Including underwriting profits in earnings would therefore be inappropriate.

Figure 7.5: Hypothetical 3% decline in float concurrent with a 3% underwriting gain



Source: Berkshire Hathaway Annual Report 2013 and author's calculations.

Table 7.29: Berkshire Hathaway—Insurance Underwriting

($ millions)	2013	2012
GEICO		
Premiums written	$19,083	$17,129
Premiums earned	18,572	16,740
Underwriting gain/(loss) - pre-tax	$1,127	$680
General Re		
Premiums written	$5,963	$5,984
Premiums earned	5,984	5,870
Underwriting gain/(loss) - pre-tax	$283	$355
Berkshire Hathaway Reinsurance Group		
Premiums earned	$8,786	$9,672
Underwriting gain/(loss) - pre-tax	$1,294	$304
Berkshire Hathaway Primary Group		
Premiums earned	$3,342	$2,263
Underwriting gain/(loss) - pre-tax	$385	$286
Total premiums earned	$36,684	$34,545
Total underwriting gain/(loss) - pre-tax	3,089	1,625

Average float	75,183	71,848
Cost of float	(4.1%)	(2.3%)
Aggregate adverse (favorable) loss development	($1,752)	($2,126)
Discount accretion and amortization charges included above	$186	$381

Note: Berkshire Hathaway Primary Group and BHRG written premiums were not detailed.

Sources: Berkshire Hathaway Annual Reports 2012, 2013; and author's calculations.

GEICO

Front and center in insurance was GEICO. When discussing float, Buffett was quick to point out that GEICO's float would almost certainly grow. Why such certainty? Because GEICO's business model as the low-cost provider created a moat. It could save customers real money, and that meant growth could be expected. In 2013, GEICO had a market share of 10.2% and passed Allstate to become the second largest auto insurer in the United States after State Farm's 18.5% share. Premiums earned swelled 11% to $18.6 billion, and it wrote to 93.9% combined ratio. [599]

Berkshire Hathaway Reinsurance Group

From a standing start in 1985, Ajit Jain created BHRG, which as of 2013 had float of $37 billion and cumulative underwriting profits. During the year, Jain went a step further by forming Berkshire Hathaway Specialty Insurance, a company that would provide direct commercial insurance. Jain placed Peter Eastwood in charge of the new company, one of several executives that sought out a place at Berkshire from competitors. The new entity would be a part of the Primary Group. [600]

The insurance landscape continued to be tough from a pricing perspective, which constrained volume. Still, the division overall outperformed itself over the previous year. Total premiums earned at BHRG fell 9% to $8.8 billion, but profits rebounded strongly, up 325% to $1.3 billion.

Results were expected to be volatile, and in 2013 a lack of major catastrophes led to the second year of profits within the catastrophe and individual risk segment, up 45% to $581 million on earned premiums that fell 2% to $801 million. Catastrophe losses totaled just $20 million from

floods in Europe compared to losses of $96 million in 2012 and $800 million in 2011.

Retroactive premiums fell for the third year in a row, from $2 billion in 2011 to $717 million in 2012 to $328 million in 2013. A small number of contracts were responsible for current year volume and deferred charge amortization caused the line to report a loss of $321 million from a loss of $201 million the year before. Gross unpaid losses from retroactive reinsurance contracts totaling $17.7 billion demonstrate the huge amount of float from these activities. Offsetting unpaid losses were unamortized deferred charges amounting to $4.25 billion at year-end, an amount that was slowly working its way into loss expenses over time and impacting reported results.

Volume in other multi-line fell 18% to $4.3 billion largely from expiration of the Swiss Re 20% quota-share agreement at the end of 2012. Residual premiums of $1.5 billion were earned in 2013 from that contract, far below the $3.4 billion earned in 2012. As with the catastrophe and individual risk segment, other multi-line incurred low levels of catastrophe losses. Losses in 2013 amounted to just $16 million from floods and a hailstorm in Europe compared to $268 million the year before from Hurricane Sandy. As a result, pre-tax underwriting profits swelled 122% to $655 million.

BHRG's life and annuity business was impacted by three large contracts. Earned premiums jumped 17% to $3.3 billion due to two new pieces of business. The increase in life and annuity premiums would have been greater if not for a contract amendment with Swiss Re Life & Health America, Inc. that reversed earned premiums of $1.3 billion but produced a one-time pre-tax gain of $255 million [601] Underwriting results rebounded from a loss of $190 million to a profit of $379 million in 2013.

General Re

"It can be remembered that soon after we purchased General Re, the company was beset by problems that caused commentators—and me as well, briefly—to believe I had made a huge mistake. That day is long gone. General Re is now a gem." Buffett's praise for General Re and Tad Montross reflected the company's eighth consecutive year of underwriting profits, which fell 20% to $283 million on earned premiums up 2% to $6 billion.

Property/casualty earned premiums increased 3.5% to $3 billion but would have been flat without positive currency effects. While pre-tax underwriting profits fell 63% to $148 million, the result was after $400 million of catastrophe losses from a hailstorm and floods in Europe. Property lines recorded $375 million of favorable loss adjustments on prior year business and $178 million in gains on current year business. Casualty/workers' compensation reported a loss of $5 million, almost overcoming $141 million of accounting charges.

Gen Re's life/health business bounced back from a $44 million loss in 2012 to report a $135 million profit in 2013. The improvement was a result of lower than expected mortality and the absence of a large charge taken the prior year.

Berkshire Hathaway Primary Group

Premiums earned at Berkshire Hathaway Primary Group jumped 48% to $3.3 billion. The increase was largely due to the inclusion of GUARD and Princeton for the full year, and from the new commercial specialty insurance business. Total underwriting profit grew 35% to $385 million, a strong 85% combined ratio. Favorable claims experience and the addition of the newcomers drove the increase in profit.

Manufacturing, Service, and Retailing

Pre-tax earnings from Berkshire's MSR businesses increased 10% to $6.7 billion. But the rate of return on tangible capital fell from 25.3% to 21.5% and after-tax return on tangible equity fell from 21.4% to just 16.7%. [602] At least part of the reason had to do with excess cash building up on the books. For the first time, the net debt position of the MSR Group was negative, meaning cash on the books exceeded total debt. [603] Over the previous five years, the MSR Group had gone from a net debt position of $5.1 billion to a net cash position of $605 million. Cash was piling up faster than it could profitability be used; this despite additional bolt-on acquisitions and spending on capital expenditures in excess of depreciation.

Table 7.30: Manufacturing, Service, and Retailing Businesses—net debt (cash)

($ millions)	2013	2012	2011	2010	2009

Total debt	$6,020	$7,280	$7,825	$8,426	$8,082
Cash	6,625	5,338	4,241	2,673	3,018
Net debt (cash)	($605)	$1,942	$3,584	$5,753	$5,064

Sources: Berkshire Hathaway Annual Reports 2009–2013 and author's calculations.

Marmon further organized its businesses. Previously it had classified its 160 businesses across eleven sectors. Those sectors remained but were grouped into three separate companies. The new layout was as follows:

Table 7.31: Marmon Group operating sectors and companies

Company	**Sector**
Marmon Engineered Industrial & Metal Components (Engineered Components)	Electrical & Plumbing Products Distribution, Distribution Services, Industrial Products
Marmon Natural Resources & Transportation Services (Natural Resources)	Transportation Services & Engineered Products, Engineered Wire & Cable, Crane Services
Marmon Retail & End User Technologies (Retail Technologies)	Highway Technologies, Water Treatment, Retail Store Fixtures, Food Service Equipment, Retail Home Improvement Products

Source: Berkshire Hathaway Annual Report 2013.

Results across Marmon's many businesses were mixed. Overall, the unit grew pre-tax earnings 3.4% to $1.2 billion even as revenues fell slightly to $7 billion. Its pre-tax margin grew again, from 15.9% in 2012 to 16.9% in 2013. Results from Marmon's businesses displayed the same bob around pattern Buffett described years earlier with various industry and business-specific changes impacting results from year to year. All the while it continued looking for ways to improve margins and deploy capital into new niches, including through bolt-on acquisitions. It was a successful strategy.

During 2013, Berkshire acquired the remaining portion of Marmon it did not own. Berkshire paid $1.47 billion for 9.7% of the company. That implied a valuation of $15.2 billion for Marmon and represented a multiple of 12.9 times earnings. [604]

Berkshire increased its ownership in Iscar during 2013. The Wertheimer family exercised a put option it held and elected to sell the remaining 20% of the business the family had retained since the sale in 2006. Berkshire paid $2.05 billion, which valued the entire company at $10.25 billion. That

meant the company was worth twice as much as when Berkshire first purchased it in mid-2006. [605] Its earnings were flat compared to 2012.

The other manufacturing segment, which included results from Iscar, reflected strength from consumers. Revenues increased 8.7% to $29.1 billion and earnings increased by the same rate to $3.6 billion. Forest River had another strong year and experienced 24% higher revenues and 32% higher profits, highlighting its manufacturing efficiencies on higher volumes. The building products businesses increased revenues 8% and pre-tax earnings 13%, and the apparel businesses increased revenues 3.5% and pre-tax earnings 25%. Lubrizol's earnings were unchanged from the prior year. Bolt-on acquisitions also contributed to results in this segment.

Earnings from other service businesses increased 10% to $9 billion and included strong showings from TTI (up 11%) and NetJets (up 7.5%). The newspapers, under the heading BH Media, saw 66% higher revenues but only because of acquisitions. Pre-tax earnings for the segment increased 13% to $1.1 billion and included TTI (up 10%), FlightSafety (up 11%), and NetJets (up 7%).

In the retailing segment, a full year of results from Oriental Trading Company led to a 15% increase in revenues to $4.3 billion and a 23% increase in pre-tax earnings to $376 million. The combined effect of an increase in earnings from the home furnishing and jewelry businesses and lower earnings from See's and Pampered Chef was neutral on the segment's earnings.

McLane's revenues increased 23% to $45.9 billion and pre-tax earnings increased 21% to $486 million. Revenues and earnings growth came from Meadowbrook Meat Company, which it acquired in 2012, double-digit organic growth in existing business, and a pre-tax gain of $24 million from the sale of a logistics business in Brazil.

Regulated, Capital-Intensive Businesses

The big news in utilities was the acquisition of NV Energy. NV Energy was an energy holding company that served 1.2 million electric customers and 200,000 natural gas customers in Nevada through two main operating segments: Nevada Power Company and Sierra Pacific Power Company. MidAmerican paid $5.6 billion for the company. [606] The deal closed on

December 19, 2013, and as a result had little effect on Berkshire's 2013 results.

The price tag Berkshire paid suggests it was a fair deal for both sides. MidAmerican would gain a platform to invest in the West, a growing area where Buffett got a foothold with the purchase of BNSF three years earlier. NV Energy would be able to invest in more renewable energy projects, such as solar generation, now that it was part of MidAmerican. And those projects would serve to lower the company's taxable income through accelerated depreciation and deferred taxes, as well as direct tax credits for the renewable projects.

Table 7.32: NV Energy—acquisition analysis

($ millions)	2013	2012	2011	2010	2009
Total revenues	$2,930	$2,979	$2,943	$3,280	$3,586
Revenues/avg. capital	$0.34	$0.35	$0.34	$0.38	$0.42
EBIT margin	25%	26%	21%	20%	16%
Pre-tax return on capital	8.5%	9.2%	7.1%	7.5%	6.6%
Purchase price (equity)	$5,596				
Assumed debt	4,921				
Effective purchase price	$10,517				
Purchase multiple	1.22x				
BRK going-in pre-tax return (2013)	7.0%				

Note: Data for 2013 are the trailing twelve months ending 9/30/13 and the balance sheet values as of that date.

Sources: Berkshire Hathaway Annual Report 2013; NV Energy 10K filings 2009–2012; NV Energy 10Q 9/30/12; NV Energy 10Q 9/30/13; and author's calculations.

MidAmerican's existing operations performed well during 2013. Its EBIT grew 7% to $2.1 billion and Berkshire's share of net income grew 11% to $1.5 billion. Broken down further, the news was mixed:

- PacifiCorp drove a large part of the gain. It received regulatory approval in 2012 to raise rates, but a costly fire offset the higher revenues. With no adverse event in 2013, PacifiCorp's EBIT swelled 33% to $982 million.
- HomeServices increased its earnings by 70% to $169 million from a

combination of the additional brokerages it had acquired and higher volumes of sales on higher sales prices.

- Northern Powergrid EBIT fell 16% to $362 million due to lower revenues and the strength of the US dollar against the UK pound.

BNSF railroad continued to do well for Berkshire. In 2013, it recorded yet another year of increases in revenues and earnings. Revenues grew 5.7% to $22 billion and pre-tax earnings grew 10% to $5.9 billion. BNSF moved 4.5% more units and received higher prices on those units. Three of its four major segments increased volumes in 2013. Industrial products volume grew 11% (driven by strength in petroleum products), consumer products grew 6% and coal was up 3%. The only exception was agricultural products, which declined 4% amid lower US exports.

Finance and Financial Products

The largest business in this segment, Clayton Homes, increased pre-tax earnings 63% to $416 million. Increased unit volumes led to higher manufacturing efficiencies and allowed an outsized increase in pre-tax earnings on just 6% higher revenues. During and after the recession, its manufacturing volumes dropped precipitously. That caused the high fixed costs associated with manufacturing to put a drag on earnings. Without the lending business, Clayton's earnings might well have been negative during those years. Clayton produced 29,547 homes in 2013, which represented 4.7% of all single-family homes in the United States and made it the country's largest builder, even including site-built homes.

Pre-tax earnings from CORT and XTRA increased 11% to $165 million. Together with $404 million of other income, the Finance and Financial Products segment increased pre-tax earnings 16% to $985 million.

Investments

Berkshire's major investment moves in 2013 amounted to hitting a repeat button. Berkshire added another $1 billion to its Wells Fargo stake, ending the year with 9.2% of the company worth $22 billion. It also added modestly to its IBM position, increasing it from 6% to 6.3% of the company worth $12.8 billion at year-end.

In a surprise purchase, Berkshire disclosed it had amassed close to a 1% stake in Exxon Mobil worth $4.2 billion at year-end. Commentators speculated the company's low price/earnings ratio and the company's history of returning capital to shareholders attracted Buffett. [607] A lack of commentary by Buffett, both in the Chairman's letter and at the Annual Meeting, suggested the purchase was not overly important. That lack of importance would soon be confirmed; it would be sold the next year.

Buffett provided two very interesting and timeless investing lessons in 2013. Both related to non-intuitive transfers of value that tripped up managers and investors alike. One was his logic for thinking through issuing options, which came as a result of a management compensation plan put forth by Coca-Cola. A second was his thinking on pensions, which included a memo he had written to Washington Post Co. CEO Katharine Graham in 1975.

The nineteen-page memo Buffett wrote to Graham in 1975 was included as an appendix to the 2013 Berkshire Hathaway Annual Report and is worth reading. In his 2013 Chairman's letter, Buffett called pensions and other related promises made today with tomorrow's checkbook a "gigantic financial tapeworm". His thoughts hadn't changed much since writing that letter. The problem was that many people in companies and governments across the country vastly underestimated the value transferred by making promises to pay sums in the future. As an example, Buffett said that a promise to pay him $500 a month for life was really a transfer in value of $65,000. And if an "earthquake risk" materialized, such as a combination of high salary inflation coupled with muted investment returns, the present value of such a promise coul d skyrocket.

Companies set aside assets to pay for these future promises, which were usually managed by an outside investment manager. As the liabilities mounted, so too did the requirement to contribute assets to a fund to cover them. These contributions directly impacted the profitability of companies since they were included as an expense. Over time, the value of pension assets sometimes eclipsed the net worth of the companies that sponsored them. Buffett used US Steel Company as an example in his 1975 memo. As of 1972, US Steel had a net worth of $3.6 billion and its pension fund assets amounted to $2.2 billion. The pension fund of US Steel was basically a separate operating division.

Despite these large promises, some managers neglected their pension assets even though the investment returns would drive future pension costs (and therefore a company's future profitability). To Buffett, a company had to be viewed in its entirety, and that included its sometimes-significant pension assets/liabilities. The risks around pensions and post-retirement benefits are so large that they are the only other item, besides large capital expenditures or acquisitions, that Buffett requires his company's managers check with him first before committing.

There is one last item related to pensions which is important to understand. Investments in a pension fund can reasonably be expected to earn a return. Consequently, future returns are projected alongside assumptions of future liabilities. It is a human bias for a management team to make optimistic assumptions about future returns since it lowers the amount a company must contribute in the present. Management's assumptions about future returns are disclosed in financial reports. Some companies, even in times of low interest rates (such as during the mid-2010s), assumed double-digit returns. Buffett has commented on how these assumptions are too high. Berkshire's own pension assumptions in 2013 included an expected long-term rate of return on plan assets of 6.7%. By contrast, the public pension fund median assumed rate of return was 7.75%. [608] The percent difference may seem small, but the difference represents billions of dollars. Berkshire's lower assumptions were another indicator of its conservatism.

In 2013, Coca-Cola's management team put forth a management compensation plan that by many accounts was excessive. The plan called for the issuance of 500 million shares over four years, [609] which on the surface amounted to possible dilution for existing shareholders of 16.8%. Coke's plan led one investor to publicly call out the management team for transferring billions in value from shareholders to management. The spat was covered by the business press.

Berkshire Hathaway owned 9.1% of Coke that was worth $16.5 billion. What did Buffett think? That was the very first question posed by Carol Loomis at the 2014 Annual Meeting. Buffett was not supportive of the plan but felt others' fears of outsized dilution were overblown. He explained his thinking. Even if all the shares were issued at the current price, dilution would be far less than suggested. Coca-Cola would receive proceeds from those exercising the options and a tax benefit from the transfer of value.

Both would serve to reduce dilution if shares were repurchased. The figure Buffett calculated was 2.5%—a lot lower than 16.8%. “I don’t like dilution and I don’t like 2.5% dilution. But it’s a far cry from the numbers that were getting tossed around.” In the end, Berkshire voted to abstain on the management plan and had conversations with Muhtar Kent, Coke’s CEO. Those were enough to cause Coke to scale back the plan and extend it over ten years instead of four.

Table 7.33: Buffett’s calculation of Coca-Cola dilution

($ millions)	
Number of shares	500,000,000
Assumed strike price per share	$40
Assumed share price at exercise	$60
Transfer of value (exercise - strike)	$10,000
Exercise proceeds	20,000
Tax benefit (at 35% of value transfer)	3,500
Total proceeds	$23,500
Share repurchases (at exercise price)	391,666,667
Net share issuance	108,333,333
Dilution rate on 4.4 billion shares	2.46%

Source: Warren Buffett comments at the 2014 Berkshire Hathaway Annual Meeting.

Other news

Berkshire added a new director in 2013. Meryl Witmer was the first new addition to the Berkshire Hathaway board of directors since Stephen Burke in 2009. Witmer, 51 years old, was a managing partner and investment manager at Eagle Capital Partners, L.P. The addition of Witmer expanded the board from twelve to thirteen members.

On the proxy ballot that year (for vote in early 2014) was a suggestion that Berkshire pay a dividend. Shareholders overwhelmingly voted not to have Berkshire pay a dividend. The support was there even after removing Buffett’s shares from the count. It was a vote of confidence for Berkshire’s capital allocators and the strategy of retaining all earnings.

2014

The numbers for 2014 were reason enough to celebrate. Shares advanced 27% against the S&P 500's gain of 13.7%. Berkshire's book value per share increased 8.3%. The year also brought an important milestone for Berkshire Hathaway. It marked fifty years since Warren Buffett took control of the company and built it into one of the world's largest and most admired corporations. (See Chapter 8 beginning on p. 625 for an examination of Berkshire's fifty-year history under Buffett.)

Buffett marked the anniversary with a new measurement in the performance table presented at the beginning of the Annual Report each year. Shareholders were used to seeing the historical change in book value per share and the total return of the S&P 500, Berkshire's selected benchmark. Now presented alongside those figures was the historical record of changes in Berkshire's share price. Buffett's reasoning was that Berkshire's shift toward owning businesses in their entirety made book value an inferior gauge of performance as many companies were worth far more than carrying value. In early years, Berkshire's assets were mostly in securities, where book value and intrinsic value were closely aligned. Now assets were concentrated in operating companies and there was a wide gap.

One might have been suspicious of why the preferred metric was being changed in a year that showed Berkshire in a favorable light. Buffett noted the limitation of market prices over the short run, but said that over decades the market correctly tracked Berkshire's intrinsic value.

Revisiting our rough estimate of Berkshire's intrinsic value, we can observe that the market was roughly right during 2014. Berkshire's intrinsic value appears to have increased more than book value but less than the strong advance of its shares. The 13% increase in estimated value nearly matched the S&P 500 that year and is consistent with Buffett's observation that Berkshire would struggle to beat the market in up years.

Table 7.34: Berkshire Hathaway intrinsic value estimation

Per share (A-equivalent):	2014	2013
Investments	$140,123	$129,253
Pre-tax operating earnings (ex. investment income)	10,847	9,116
Estimated value (investments + 10x operating	248,593	220,413

earnings)		
Year-end share price	226,000	177,900
Year-end book value per share	146,186	134,973
Price/estimated value	0.91x	0.81x
Price/book	1.55x	1.32x
Value/book	1.70x	1.63x
Change in estimated value	13%	
Change in share price	27%	

Sources: Berkshire Hathaway Annual Reports 2013, 2014; and author's calculations.

How Berkshire achieved its gain in intrinsic value is the story of 2014. The year was mostly a good one for Berkshire. Its operating subsidiaries increased earnings and found ways to expand both organically and through bolt-on acquisitions. Buffett loved bolt-on acquisitions because they meant "no more work for us, yet more earnings." Insurance delivered yet another year of underwriting gains and more float. Berkshire also found other profitable outlets for its growing cash pile during the year. One was a multibillion-dollar acquisition in Canada that expanded Berkshire's utility operations. Another deal with 3G Capital presented itself during the year, as did opportunities to acquire both operating businesses and some of Berkshire's own stock via tax-savvy moves. The major blemish was an operating disruption at BNSF that Buffett appeared to bemoan more for its impact on customers and reputation than Berkshire's bottom line.

Insurance

The Insurance Group delivered its twelfth consecutive year of profits with a $2.7 billion pre-tax underwriting gain on earned premiums of $41.3 billion. That represented a negative cost of float of 3.3%. Float grew again in 2014, ending the year up 8.6% to $83.9 billion. All of Berkshire's insurance units benefitted from a year of no catastrophe losses. [610]

Table 7.35: Berkshire Hathaway—Insurance Underwriting

($ millions)	2014	2013
GEICO		
Premiums written	$20,962	$19,083
Premiums earned	20,496	18,572
Underwriting gain/(loss) - pre-tax	$1,159	$1,127
General Re		

Premiums written	$6,418	$5,963
Premiums earned	6,264	5,984
Underwriting gain/(loss) - pre-tax	$277	$283
Berkshire Hathaway Reinsurance Group		
Premiums earned	$10,116	$8,786
Underwriting gain/(loss) - pre-tax	$606	$1,294
Berkshire Hathaway Primary Group		
Premiums earned	$4,377	$3,342
Underwriting gain/(loss) - pre-tax	$626	$385
Total premiums earned	$41,253	$36,684
Total underwriting gain/(loss) - pre-tax	2,668	3,089
Average float	80,581	75,183
Cost of float	(3.3%)	(4.1%)
Aggregate adverse (favorable) loss development	($1,365)	($1,752)
Discount accretion and amortization charges included above	$128	$186

Note: Berkshire Hathaway Primary Group and BHRG written premiums were not detailed.

Sources: Berkshire Hathaway Annual Reports 2013, 2014; and author's calculations.

Berkshire Hathaway Reinsurance Group

Berkshire Hathaway Reinsurance Group, led by Ajit Jain, contributed the bulk of the increase in float during the year. Float at BHRG grew 14% to $42.5 billion and now represented over half of Berkshire's total float. Earned premiums grew 15% to $10.1 billion and pre-tax underwriting gains amounted to $606 million (a decline from $1.3 billion the prior year).

In 2014, BHRG consolidated its other multi-line property/casualty reporting segment with the catastrophe and individual risk segment. On a comparative basis, earned premiums in property/casualty fell 21% to $4.1 billion but pre-tax underwriting gains swelled 36% to $1.7 billion. The Swiss Re 20% quota-share agreement expired at the end of 2012 but contained policies in runoff that contributed $1.5 billion to earned premiums in 2013 and $200 million in 2014. [611] The Swiss Re contract also contributed $283 million to underwriting gains in 2014 from reduced loss estimates. A lack of catastrophe events led to a $700 million gain in property business and foreign currency exchange gains added $315 million to the bottom line.

Retroactive reinsurance earned premiums grew from $328 million to $3.4 billion primarily from a $3 billion contract with Liberty Mutual Insurance Company. [612] The retroactive policy insured Liberty Mutual against adverse development of its asbestos and environmental book prior to 2005 and workers' compensation claims prior to 2014. Berkshire's exposure was capped at $6.5 billion after a $12.5 billion retention (the loss amount the primary or ceding insurer must incur first). Pre-tax underwriting losses from retroactive reinsurance swelled 182% to $905 million due to increases in deferred charge amortization and an $825 million unfavorable adjustment to prior year loss estimates. Total unamortized deferred charges grew 81% to $7.7 billion at year-end 2014. This amount would continue to be amortized into underwriting expense and be a drag on future earnings. Gross unpaid losses grew 37% to $24.3 billion.

The life/annuity business swung from a gain of $379 million in 2013 to a loss of $173 million in 2014. Earned premiums fell 19% to $2.7 billion.

General Re

General Re reported another year of profits, with its underwriting gain falling 2% to $277 million. Earned premiums grew 4.7% to $6.3 billion.

The property/casualty segment increased earned premiums 3% to $3.1 billion and its underwriting gain grew 15% to $170 million. Gains of $466 million from property business reflected no significant catastrophe losses. Casualty/workers compensation reported a loss of $296 million, which included $123 million favorable loss development and recurring accounting charges amounting to $138 million in 2014.

General Re's life/health business continued its steady stream of profits with a $107 million gain. The gain in 2014 was down 21% from the prior year in large part because of increased reserves directly associated with lower interest rates. [613] Earned premiums grew 6% to $3.2 billion.

GEICO

GEICO turned in another strong year with a $1.2 billion underwriting profit and a combined ratio of 94.3%. Its premiums crossed the $20 billion mark (up 10%). That result solidified its standing as the second-largest auto

insurer in the United States with a 10.8% market share, up from 10.2% in 2013.

Berkshire Hathaway Primary Group

Premiums from the Primary Group rose 33% to $4.4 billion from organic growth and the addition of the new commercial unit formed by Ajit Jain. Pre-tax earnings from these insurers grew 62% to $626 million. As small as they were individually or collectively in relation to Berkshire's other insurance operations, the Primary Group deserved its annual praise from Buffett. Their consistent profitability, and float at year-end amounting to $8.6 billion, contributed meaningfully to Berkshire's intrinsic value.

Manufacturing, Service, and Retailing

Marmon, one of the newest and biggest members of the MSR Group, was partly reorganized for reporting purposes in 2014. Buffett moved Marmon's leasing operations into Finance and Financial Products now that it was entirely owned by Berkshire. [614] Results for the prior two years were restated for a clean comparison. Table 7.36 contains the new presentation and the figures as originally presented.

Using the 2014 presentation, pre-tax earnings increased 10% to $6.8 billion for the MSR Group. Net earnings (after tax and non-controlling interests) grew 15% to $4.5 billion. While increases are always better than decreases, it's important to remember these business units were continually making bolt-on acquisitions and employing capital that in some cases came from headquarters. A better way to keep check on their progress was return on tangible equity, which in 2014 came in at 18.7%. [615]

Table 7.36: Original and restated results for MSR businesses

	Without Marmon Leasing			*With Marmon Leasing*	
($ millions)	2014	2013	2012	2013	2012
Revenues	$97,689	$93,472	$81,432	$95,291	$83,255
Operating expenses	90,788	87,208	75,734	88,414	76,978
Interest expense	109	104	112	135	146
Pre-tax earnings	6,792	6,160	5,586	6,742	6,131
Income taxes and minority interests	2,324	2,283	2,229	2,512	2,432

Net earnings	$4,468	$3,877	$3,357	$4,230	$3,699

Sources: Berkshire Hathaway Annual Reports 2013, 2014.

Marmon's manufacturing operations were now included together with Berkshire's other manufacturing businesses. As a result, some details of its operations were lost compared to when it was a standalone reporting segment. Berkshire divulged some details in the notes to its financial statements, reporting revenues increased 15% to $6 billion and pre-tax earnings 19% to $708 million. These increases were largely due to the inclusion of IMI PLC, a British beverage dispensing equipment manufacturer Marmon acquired for $1.1 billion on January 1, 2014. Marmon's existing businesses increased revenues and found cost savings in certain lines of business that contributed to higher earnings.

Berkshire began including a new table in the notes to the financial statements that made viewing the manufacturing businesses easier (see Table 7.37). The table further classified the manufacturing businesses along three lines: industrial and end-user products, building products, and apparel.

Table 7.37: Detail on Berkshire Hathaway manufacturing businesses

	Revenues			Pre-tax earnings		
($ millions)	2014	2013	2012	2014	2013	2012
Industrial and end-user	$22,314	$20,325	$19,003	$3,460	$3,044	$2,912
Building products	10,124	9,640	8,953	896	846	748
Apparel	4,335	4,293	4,149	455	315	251
	$36,773	$34,258	$32,105	$4,811	$4,205	$3,911

Source: Reproduced from the 2014 Berkshire Hathaway Annual Report.

Berkshire included Marmon's many manufacturing businesses (discussed above) in the industrial and end-user products category. As a whole they increased revenues 10% to $22.3 billion while pre-tax earnings increased 14% to $3.5 billion. Bolt-on acquisitions led to most of the 10% increase in pre-tax earnings of Lubrizol. Higher unit sales at Forest River led to its 21% increase in pre-tax earnings. Higher revenues, a higher gross margin, and lower costs increased Iscar's earnings 18%. CTB was also included in this category, but Berkshire made no mention of its results.

Pre-tax earnings in the building products category increased 6% to $896 million on revenues that grew 5% to $10.1 billion. Johns Manville, Acme,

and MiTek improved their top lines. MiTek also benefitted from bolt-on acquisitions. Shaw closed its rug division in 2014. Improvements in its hard flooring unit kept revenues flat, but raw material costs depressed earnings. Every other business in this category increased earnings including Benjamin Moore.

Pre-tax earnings in apparel jumped 44% to $455 million on revenues up 1% to $4.3 billion. Details on earnings were scarce. All that Berkshire disclosed is that some of the six businesses were restructured. Lower manufacturing and pension costs also helped earnings growth. Included in this segment were Fruit of the Loom (including Russell and Vanity Fair Brands), and formerly large parts of Berkshire's operations such as H.H. Brown Shoe.

Revenues in the service businesses category increased 10% to $9.9 billion led by TTI, NetJets, and FlightSafety. TTI grew from higher unit sales as well as bolt-on acquisitions. NetJets and FlightSafety both benefitted from higher utilization rates, including higher sales of aircraft at NetJets. NetJets and TTI led the group to 10% higher pre-tax earnings totaling $1.2 billion. Other businesses in this category included Business Wire, Dairy Queen, *The Buffalo News* , and the BH Media Group that included the *Omaha World Herald* , twenty-eight other daily newspapers and publications, and new in 2014 a TV station (discussed below).

The retailing businesses included Berkshire's four furniture retailers (Nebraska Furniture Mart, RC Willey, Star, and Jordan's), its three jewelers (Borsheims, Helzberg, and Ben Bridge), See's, Pampered Chef, and Oriental Trading Company. Nebraska Furniture Mart's pending megastore outside of Dallas, Texas weighed on the results from this group. Overall, revenues declined 3% to $4.4 billion and pre-tax earnings declined 9% to $344 million.

McLane was the only business to receive its own reporting line. Its $46.6 billion revenues required that because of reporting rules. Its revenues increased 1.5% from the year before from higher foodservice and beverage revenues, but pre-tax earnings declined 10% to $435 million (the decline was 6% excluding the $24 million pre-tax gain on the sale its Brazil-based logistics business in 2013). A decline in earnings from the foodservice business overshadowed higher earnings from grocery and beverage.

Berkshire acquired two MSR businesses during 2014 in a relatively unusual way. The first was a division of Phillips 66 that was renamed Lubrizol

Specialty Products, Inc. Its main product line allowed oil to flow faster in pipelines and was a perfect fit for Lubrizol. The second such acquisition was WPLG, a Miami, Florida television station affiliated with the ABC network. It was placed in the BH Media Group alongside the newspaper properties. These two acquisitions were unusual in that Berkshire bought them in exchange for stock it already owned in Phillips 66 and Graham Holding Company (owner of the TV station and the renamed entity that held *The Washington Post*). This allowed Berkshire a way to sell its investments in Phillips 66 and Graham Holding Company tax-free. [616]

These types of transactions are called cash-rich split-offs and entail using a provision in the tax code allowing no capital gains to be incurred for tax purposes. This was perhaps most important with Graham Holding Company. Berkshire's cost basis, which originated in the 1970s, was just $11 million. Those shares were now worth $1.1 billion, which meant Berkshire would incur a large tax bill if it sold the investment outright. Instead, Berkshire traded its shares for the Miami TV station, cash, and Berkshire Hathaway shares that Graham Holding Company owned. (Berkshire effectively repurchased 2,107 Class A and 1,278 Class B shares via this transaction.) The value of the Berkshire shares alone amounted to roughly what it would have paid on the gain assuming the typical all-in corporate tax rate of 38%. [617] Berkshire realized a total capital gain for GAAP purposes of $2.1 billion related to these two transactions.

Table 7.38: Analysis of Berkshire's 2014 cash-rich split-offs

($ millions)	Value given	Value received
Graham Holding Company		
Graham Holding Company shares	$1,092	
Cash		$328
Miami TV station		364
Berkshire Shares		400
Total	1,092	1,092
Tax savings (assuming 38% rate)	$411	
Phillips 66		
Phillips 66 shares	$1,350	
Cash		$450
Specialty chemicals business		900

	1,350	1,350
Tax savings (assuming 38% rate)	$387	

Sources: Berkshire Hathaway Annual Report 2014 and author's calculations.

In November 2014, Berkshire agreed to another cash-rich split-off. It would acquire Duracell, the battery maker, from Proctor & Gamble in a similar transaction in 2015.

Regulated, Capital-Intensive Businesses

On April 30, 2014, MidAmerican Energy Holdings Company, the holding company that owned all of Berkshire's utility operations, changed its name to Berkshire Hathaway Energy Company. The HomeServices business had changed its name to Berkshire Hathaway HomeServices in 2012. Its corporate parent now followed suit, leveraging the Berkshire Hathaway name which was becoming a brand synonymous with good business and personal values.

Aside from the new branding, the highlight of the year at the utility business was the acquisition of AltaLink from SNC Lavalin Group on December 1, 2014. The company was based in Alberta, Canada. AltaLink's business was very simple. Unlike its new sister companies at Berkshire Hathaway Energy, it only handled the distribution of electricity. It boasted 12,000 kilometers of transmission lines serving 85% of the population of the province of Alberta. [618] Berkshire Hathaway Energy acquired AltaLink for $2.7 billion. The transaction was funded with loans from Berkshire's insurance subsidiaries and debt of $1.5 billion.

Berkshire Hathaway Energy's consolidated EBIT increased from $2.1 billion to $3.1 billion. A large part of the increase was directly a result of the NV Energy acquisition in 2013, which added $549 million in EBIT in 2014. Another other large contributor was Northern Powergrid. The UK-based utility saw EBIT jump 46%, which was from a combination of rate increases and favorable foreign currency exchange. Additionally, EBIT increased from new solar and wind assets placed in service during the year. Berkshire's share of net earnings grew from $1.5 billion to $1.9 billion.

The major blemish of 2014 came from BNSF. Buffett called the railroad Berkshire's most important non-insurance subsidiary. It was clear from the tone in his Chairman's letter that he was not happy about the reputational

hit the company took from service disruptions. “During the year, BNSF disappointed many of its customers. These shippers depend on us, and service failures can badly hurt their businesses.” There were several causes for the disruption. They included strong demand from agricultural shippers and demand for oil shipment from the Bakken region in combination with adverse weather in the first part of the year. BNSF’s extensive work to increase system capacity also played a part, though to a lesser degree. [619]

Buffett gave BNSF management marching orders to repair its reputation. “Though weather, which was particularly severe last year, will always cause railroads a variety of operating problems, our responsibility is to do *whatever it takes* to restore our service to industry-leading levels.” Buffett was clearly also disappointed in BNSF’s financial performance, which lagged its main rival. The Union Pacific railroad (BNSF’s main competitor in the West), though far underspending BNSF in new capital projects, gained market share and earned more money than Berkshire’s railroad. Pre-tax earnings from BNSF grew 4% to $6.2 billion because of a 1.8% increase in volumes and higher pricing. [620] Union Pacific reported in its fourth quarter earnings release that pre-tax earnings grew 18% to $8.3 billion on 7% greater volume.

These missteps in 2014 notwithstanding, Buffett remained optimistic. BNSF planned to spend $6 billion or 26% of revenues on capital expenditures in 2015, a figure far higher than Union Pacific’s 17%. These huge investments were expected to lead to a system with greater capacity, much better service, and improved profits. [621]

Finance and Financial Products

Pre-tax earnings in the Finance and Financial Products segment swelled 18% to $1.8 billion. That increase included Marmon’s earnings from its leasing operations, which were presented on a restated basis looking back to 2012.

Every business in this sector except CORT improved during 2014. No reason was given for its decline from the prior year. Clayton grew its pre-tax earnings 34% on just a 3% increase in revenues. Such outsized improvements in earnings compared to revenues reflected an increase in manufacturing efficiencies. Clayton produced 45% of the manufactured

home volume in the United States during 2014, up from 14% in 2003 when Berkshire purchased the company. Clayton's mortgage portfolio ended 2014 on par with the prior year at $13 billion.

Table 7.39: Finance and Financial Products earnings

($ millions)	2014	2013	2012
Berkadia (50% share)	$122	$80	$35
Clayton	558	416	255
CORT	36	40	42
Marmon - containers and cranes	238	226	246
Marmon - railcars	442	353	299
XTRA	147	125	106
Net financial income[1]	296	324	410
Total pre-tax earnings	$1,839	$1,564	$1,393
Footnote: 1. Excludes capital gains or losses			

Source: Reproduced from the 2014 Berkshire Hathaway Annual Report.

Marmon's leasing operations were extensive and spanned 105,000 rail cars. Its annual volume was 6,000 units. Berkshire's book value of $5 billion for Marmon's rail fleet was understated because it manufactured all its own cars and did not register a profit when transferring the units to the leasing operation. A consequence of this was lower annual depreciation expense over the thirty-year life of each unit.

The nature of the transportation leasing businesses, such as Marmon's and XTRA, was one of high fixed costs. The most significant was depreciation. Higher usage and higher rates had a disproportionate effect on the bottom line of these companies. This was the case with these two businesses during 2014. Their earnings also increased due to higher units in service.

Investments

When Berkshire listed its fifteen largest equity positions in 2014, one did not make the list. Berkshire had warrants to buy 700 million shares of Bank of America which could be exercised by Berkshire any time prior to expiration in September 2021. The warrants were worth $12.5 billion at year-end 2014. If the warrants were converted to shares, Bank of America would have been the fourth largest investment. Because they weren't, the

company didn't even make the list. This was another prime example of economics vs. accounting, where accounting skewed the actual economics.

The top investments on the list were familiar and successful, so much so that Buffett called them the Big Four: American Express, Coca-Cola, Wells Fargo, and IBM. Buffett used simple math and an example to show the value of the Big Four and non-controlling ownership stakes: Each increase of 0.10% in Berkshire's ownership raised Berkshire's portion of annual earnings by $50 million. "It's better to have a partial interest in the Hope Diamond than to own all of a rhinestone."

Buffett also admitted a mistake he made in taking too long to sell Tesco shares. The UK-based grocer ran into problems that turned into a management change, shrinking profits, and accounting mishaps. The real problem wasn't Berkshire's $444 million after-tax loss on its $2.3 billion investment. Buffett said he lost faith in Tesco's management and that led him to sell some shares, but not all. His mistake was acting slowly.

Another position is worth noting. At year-end, Berkshire owned 8.6% of DaVita HealthCare Partners, Inc., a kidney dialysis company. Berkshire did not disclose who of the three investment managers (Buffett, Todd Combs, or Ted Weschler) made each investment. But DaVita was a company long owned by Weschler through his hedge fund.

Another opportunity presented itself to work with 3G Capital, the investment firm that partnered with Berkshire to buy Heinz in 2013. This time 3G Capital was looking for a financing partner to assist with its acquisition of Restaurant Brands International, Inc (RBI). RBI owned the Canadian-based fast food chain Tim Hortons and the well-known US-based fast food chain Burger King. Berkshire invested $3 billion in a 9% cumulative compounding perpetual preferred stock. [622] A unique provision required RBI to pay Berkshire an additional amount, if necessary, to produce an after-tax yield as if the dividends were paid by a US company. That provision provided protection against changes in tax rates and significant appreciation of the US dollar (making the Canadian dollar payments worth less upon conversion). Buffett remained bullish on America, but after a half-century building Berkshire Hathaway into one of the strongest and most respected companies in the world, protection against risk remained at the forefront.

Decade in Review

The fifth decade of Berkshire Hathaway under Warren Buffett's control might be considered its penultimate. It was the last decade in which earnings could profitably be retained in their entirety, and it proved that size was in fact an anchor to future performance. Its earnings and increase in net worth over the 2005 to 2014 period were enormous. Earnings from operations topped $107 billion and net worth rose to almost a quarter of a *trillion* dollars.

The *rate* of increase in shareholders' equity, however, dropped sharply—from 22% to just 11%. Net shares issued in acquisitions drove the rate of book value growth per share to 10.1%. Significantly, this was still two percentage points better than the S&P 500. What Berkshire Hathaway gave up in ability to generate outsized returns it gained in financial strength, which was tested during the worst economic downturn since the Great Depression. Berkshire was a financial fortress as it closed the books on a half-century.

The decade that ended in 2014 saw a marked shift toward ownership of operating subsidiaries. Earnings from operations jumped to 70% of the total increase in shareholders' equity for the period. That level of contribution hadn't happened since the very first decade of Buffett's control. The sum of all acquisitions, net of cash acquired, amounted to $59 billion. Berkshire acquired literally hundreds of businesses during this time including the smaller bolt-on acquisitions made by subsidiaries. But it was the big acquisitions that really moved the needle—and they were collectively known as The Powerhouse Five:

- *$6.05 billion* : Iscar, the Israel-based manufacturer of cutting tools was Berkshire's first major international acquisition. Berkshire acquired it in two stages: 80% in 2006 and another $2.05 billion in 2013. This valued the whole company at over $10 billion (equity value; we don't know what debt, if any, was on the books).
- *$9 billion* : Marmon, a conglomerate with 130 businesses across eleven sectors. Like Iscar, Marmon was acquired in stages: The first 60% in 2008 for $4.5 billion and the remainder for another $4.5 billion between 2011 and 2013.

- *$33.5 billion* : Burlington Northern Santa Fe (BNSF) joined Berkshire in 2010. So too did some of BNSF's shareholders that elected to receive Berkshire shares in the process. Considering debt and the value of the shares Berkshire owned before it bought the rest of the railroad, the deal was worth $44.5 billion.
- *$8.7 billion* : Lubrizol joined Berkshire's ranks in 2011.
- *$13.4 billion* : MidAmerican, whose name was changed to Berkshire Hathaway Energy in 2014, acquired PacifiCorp in 2005 for $5.1 billion (with Berkshire contributing $3.4 billion of additional capital to fund the purchase). It also acquired NV Energy for $5.6 billion in 2013, and Alta Link for $2.7 billion in 2014.

Of the Powerhouse Five, only Berkshire Hathaway Energy in its smaller form as MidAmerican was around in 2005. That year it earned $393 million pre-tax. In 2014 the Powerhouse Five collectively earned $12.4 billion pre-tax. For perspective, Berkshire's many other non-insurance businesses in the aggregate earned $5.1 billion pre-tax. [623] Over the decade, the Powerhouse Five had a cumulative $12 billion gain in earnings that came with only minor dilution. "That satisfies our goal of not simply increasing earnings, but making sure we also increase *per-share* results."

The Powerhouse Five, though, were not the only big investments of the decade. The third largest investment of the decade was the $12.25 billion deal where Berkshire and 3G Capital acquired Heinz. In that deal, Berkshire contributed 50% of the equity for $4.25 billion and partially financed the deal with $8 billion of preferred stock. It was a unique structure where Berkshire provided financing and 3G oversaw operations.

Berkshire also invested a massive $73 billion in property, plant, and equipment. About half represented replacement of existing fixed assets and half represented growth capital. The big spenders were the railroad and utility operations, which could soak up huge amounts of capital but at a lower regulated rate of return.

Berkshire's insurance operations expanded mostly organically between 2005 and 2014. The Insurance Group earned an underwriting profit every year, bringing the total over the twelve years of consecutive underwriting profit to $24 billion pre-tax. Each year also included net favorable loss development, a trend that proved Berkshire's conservatism in estimation

and accounting. Insurance results were bolstered by several smaller acquisitions (MedPro, Princeton Insurance Co., Applied Underwriters and GUARD), and from new entities formed in-house (Berkshire Hathaway Assurance Corp. to take advantage of municipal bond insurance and Berkshire Hathaway Specialty Insurance to take advantage of an opportunity in the primary commercial market). Over the decade GEICO moved into the number two spot as the second largest auto insurer in the United States behind State Farm.

Average float grew 80% to $81 billion, providing even more capital for Buffett and Munger to deploy. Earned premiums grew 95% from 2004 to $41 billion in 2014. A big contributor to both premium and float growth was Berkshire Hathaway Reinsurance Group, Led by Ajit Jain. Jain's group contained over half of Berkshire's total float at year-end and contributed 72% of the increase in float generated by Berkshire over the decade (see Table 7.40). BHRG wrote some of the largest reinsurance contracts in history:

- $7.1 billion: A retroactive reinsurance contract with Equitas in 2007, which provided retroactive coverage to thousands of Lloyd's of London underwriters.
- $1.7 billion adverse loss development contract with Swiss Re in 2009.
- $2.25 billion with CNA Financial Corporation for reinsurance in 2010 to assume asbestos and environmental pollution liabilities.
- $1.7 billion with AIG in 2011 to reinsure asbestos liabilities.

Other contracts written by BHRG and General Re included quota-share arrangements and large catastrophe risks. Buffett frequently praised General Re during this decade for sticking to the four insurance commandments and focusing exclusively on underwriting profitability.

Table 7.40: Berkshire Hathaway insurance float, select data

($ millions)	2014	2004	$ Change	% Change
GEICO	$13,569	$5,960	$7,609	128%
Gen Re	19,280	23,120	(3,840)	(17%)

BHRG	42,454	15,278	27,176	178%
Primary	8,618	1,736	6,882	396%
	83,921	46,094	37,827	82%

Sources: Berkshire Hathaway Annual Reports 2004, 2014; and author's calculations.

The most severe economic recession since the Great Depression of the 1930s arrived in 2008. It caused financial markets to fall and credit markets to freeze. Berkshire's financial strength allowed it to go on the offensive and provide capital to the market during this period. Berkshire put to work tens of billions of dollars in a series of privately negotiated transactions. These included:

- $14.5 billion over two weeks in 2008 to Goldman Sachs ($5 billion), Wrigley ($6.5 billion), and General Electric ($3 billion)
- $5.7 billion in 2009 to Swiss Re ($2.7 billion) and Dow Chemical Company ($3 billion)
- $5 billion in 2011 to Bank of America

The recession proved Berkshire's model of operating with multiple layers of protection was not unduly conservative but instead allowed it to go on the offensive when others were scrambling for liquidity. This translated into double-digit interest rates and often warrants to acquire shares at a ba rgain price.

Berkshire's equity investment portfolio grew substantially during the decade. It was funded by the gusher of cash coming into Omaha from the operating subsidiaries, and the billions in additional float from the insurance companies. Buffett's Big Four earned their moniker. The most meaningful change during this time period was the addition of IBM, which was a new investment costing $12 billion. Over ten years, Berkshire put another $11 billion into its favorite bank, Wells Fargo. Its investment in American Express and Coca Cola remained virtually untouched, but appreciation contributed billions to Berkshire's increase in net worth over the period. Concentration remained a hallmark, though the top four positions edged down from 65% of the portfolio in 2004 to 59% in 2014. Three of the four remained in the top position at both points of measurement (the IBM investment was first made in 2011).

Table 7.41: Berkshire Hathaway—equity portfolio, select detail

	2014		2004		Change	
($ millions)	*Cost*	*Market*	*Cost*	*Market*	*Cost*	*Market*
American Express	$1,287	$14,106	$1,470	$8,546	(183)	$5,560
The Coca-Cola Company	1,299	16,888	1,299	8,328	0	8,560
The Gillette Company			600	4,299	(600)	(4,299)
Proctor & Gamble	336	4,683			336	4,683
Wells Fargo & Company	11,871	26,504	463	3,508	11,408	22,996
IBM	13,157	12,349			13,157	12,349
All other	27,106	42,940	5,224	13,036	21,882	29,904
Total equity securities	$55,056	$117,470	$9,056	$37,717	$46,000	$79,753

Note: Gillette merged into Proctor & Gamble in 2005.

Sources: Berkshire Hathaway Annual Reports 2004, 2014; and author's calculations.

Too numerous to mention are the other investments purchased and sold over the course of the decade as opportunities arose. Buffett quickly admitted his mistakes such as Energy Future Holdings and Tesco, both of which caused Berkshire permanent capital losses.

In 2014, Berkshire changed its yardstick from measuring progress based on change in book value to change in market value. It was done because the discrepancy between Berkshire's book value and its intrinsic value became too great. Buffett stressed that it was market value over time that was the best judge, not any given year. Part of the reason for the change was the shift toward owning more operating businesses, whose values were not regularly updated like the market prices of securities. This change was critical as Berkshire's contribution toward change in equity due to net income from operations almost tripled from 26% in 1995–2004 to 70% in 2005–2014.

In some cases, such as with Marmon and Iscar, huge write-offs (totaling $3.3 billion) were required for accounting purposes when Berkshire purchased the remaining ownership interests from the selling families.

Buffett provided many clues to Berkshire's true value during this decade. He even provided two quantitative measures (per-share investments and per-share operating earnings) to nudge shareholders in the right direction. Communications were designed to help shareholders understand

Berkshire's true intrinsic value. Both Buffett and Munger desired to see Berkshire's shares sell as close to intrinsic value as possible so that business results would translate very closely to shareholder returns. Berkshire implemented a share repurchase program in 2011 and modified it in 2012 to allow the company to purchase shares at up to 1.20x book value.

Table 7.42: Reconciliation of shareholders' equity, 1965–2014

($ millions)	1965–74	1975–84	1985–94	1995–04	2005–14	1965–14
Beginning of period shareholders' equity	$22	$88	$1,272	$11,875	$85,900	$22
Net income - operations	57	366	2,869	19,344	107,301	129,937
Net income - realized gains	7	199	1,354	14,096	15,897	31,554
Unrealized appreciation of investments	0	486	5,877	15,000	25,720	47,083
Mergers/divestitures	0	133	433	25,085	12,816	38,467
Dividends/treasury stock	(3)	0	69	0	(1,763)	(1,697)
Issuance of Class-B stock	0	0	0	565	0	565
Other/misc.	4	0	0	(65)	(5,701)	(5,761)
End of period shareholders' equity	$88	$1,272	$11,875	$85,900	$240,170	$240,170
Change in equity during period	$66	$1,184	$10,602	$74,026	$154,270	$240,148

Note: Figures may not add due to rounding.

Sources: Berkshire Hathaway Annual Reports and author's calculations.

Table 7.43: Contribution toward change in equity during period

	1965–74	1975–84	1985–94	1995–04	2005–14	1965–14
Net income - operations	86%	31%	27%	26%	70%	54%
Net income - realized gains	11%	17%	13%	19%	10%	13%
Unrealized appreciation of investments	0%	41%	55%	20%	17%	20%
Mergers/divestitures	0%	11%	4%	34%	8%	16%
Dividends/treasury stock	(4%)	0%	1%	0%	(1%)	(1%)
Issuance of Class-B stock	0%	0%	0%	1%	0%	0%
Other/misc.	7%	0%	0%	(0%)	(4%)	(2%)
Total	100%	100%	100%	100%	100%	100%

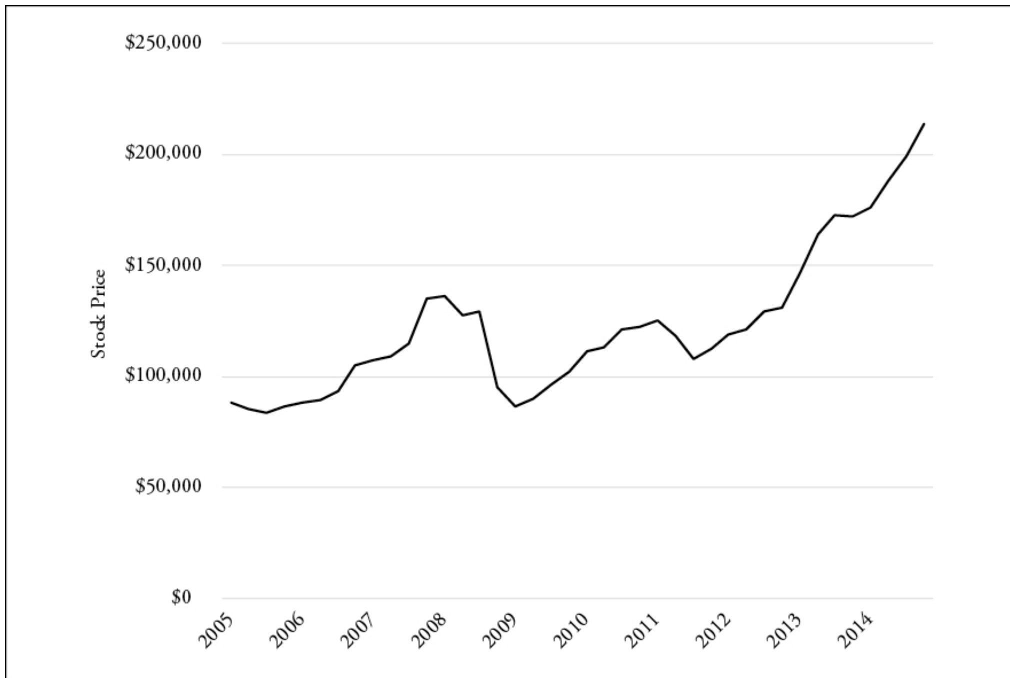
Note: Figures may not add due to rounding.

Sources: Berkshire Hathaway Annual Reports and author's calculations.

Berkshire's shareholders' equity grew at a rate of 10.8% per year over the course of the decade. A negative 0.7% net effect from share repurchases in 2011 and 2012, and the cash-rich split-offs in 2014, [624] combined with shares issued (primarily for the BNSF acquisition) to bring the rate of per share book value growth down to 10.1% per year. Berkshire's share price advanced at a still slower rate of 9.9% because of the small decline in average price/book ratio the market placed on the shares. Berkshire's share price still outperformed the 7.7% average annual advance of the S&P 500—a solid 2.2% edge but far below its historical average. (For context, the 10-year Treasury Note declined from 4.2% at the end of 2004 to 2.2% at the end of 2014.)

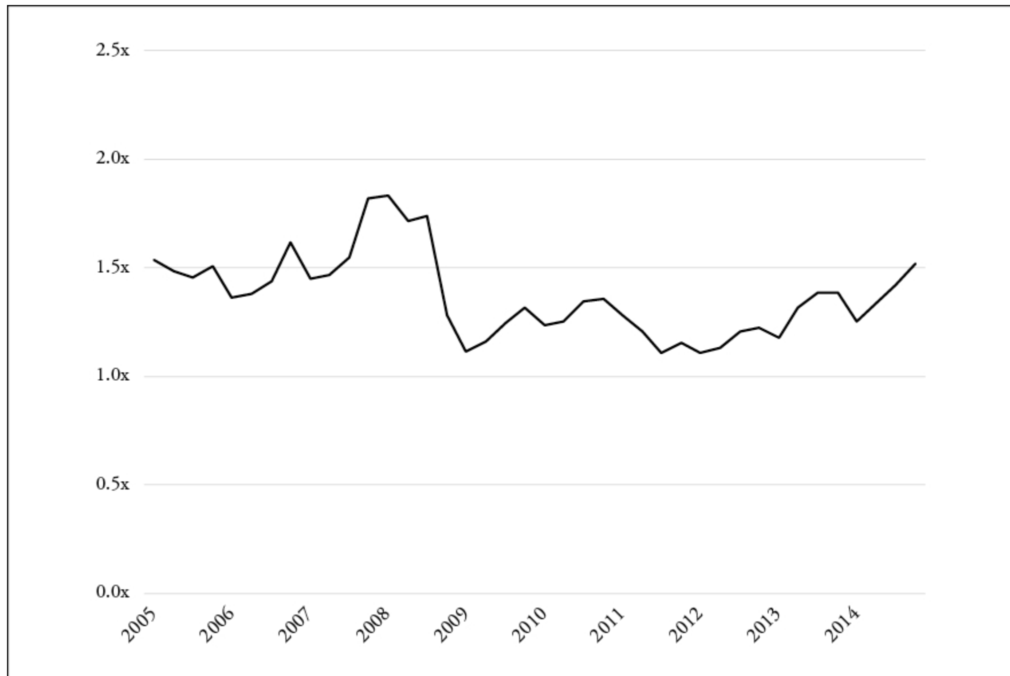
Berkshire's market capitalization rose from an average of $131 billion at year-end 2004 to over $350 billion in 2014. Berkshire found itself up ten spots to fourth on the Fortune 500.

Figure 7.6: Berkshire Hathaway stock price, 2005–2014



Sources: *Of Permanent Value* (Kilpatrick, 2015), Berkshire Hathaway Annual Reports 2005–2014, and author's calculations.

Figure 7.7: Berkshire Hathaway price to book ratio, 2005–2014



Sources: *Of Permanent Value* (Kilpatrick, 2015), Berkshire Hathaway Annual Reports 2005–2014, and author's calculations.

At year-end 2014, Warren Buffett and Charlie Munger oversaw the financial equivalent of the Rock of Gibraltar. Just as its size, diversity, and liquidity provided strength second only to sovereign nations, it also meant almost no chance of achieving returns like in prior decades. The fifth decade under Warren Buffett's control would be the last decade of full-steam-ahead growth. Berkshire ended 2014 with $63 billion in cash and equivalents even after the multibillion-dollar capital allocation decisions made during the decade. The share repurchases in 2011 and 2012 provided inklings of the shift toward returning capital to shareholders that was to accelerate during the next decade.

Berkshire Hathaway's place in the pantheon of business was secure after fifty years of careful building. The sixth decade would surely bring more opportunity for Berkshire, as well as its challenges. Warren Buffett and Charlie Munger would lead Berkshire Hathaway into a decade that would undoubtedly prove that the company they built was ready for them to step down. But much more lay ahead and the two men showed no signs of slowing down.

Lessons: 2004–2014

1. Large opportunities can present themselves very quickly. It pays to be ready. Berkshire Hathaway was able to put billions of dollars of capital to work during the Great Recession of 2008–09 because its balance sheet was very strong. During boom times it is tempting to push the envelope by borrowing too much or by reducing redundancies and introducing fragility into an organization. As Buffett says, you never know who's swimming naked until the tide goes out.
2. "[C]redit is like oxygen. When either is abundant, its presence goes unnoticed. When either is missing, that's *all* that is noticed." A company can substantially hurt itself or even go out of business under the right conditions if it faces a significant liquidity need at the wrong time. Berkshire's cash was placed in US Treasuries, which are the safest form of liquidity under almost any circumstance. It also kept its need for liquidity low by borrowing long term. Its float, while representing significant liabilities, was structured so it could never be a large drain on cash.
3. Businesses do not need to be sold during times of distress. Berkshire never thought of selling its wholly-owned businesses during the recession. That owner mentality also extended to many of its long-term equity investments. Business owners (whether in whole or part) don't panic and sell or seek to time the market. They instead look to the long-term cash-generating ability of the assets.
4. Share prices frequently diverge from intrinsic value. Berkshire's communications to shareholders often contained explicit hints to the company's value. Yet at times it sold for below what it was worth. Berkshire created value for continuing shareholders by repurchasing its shares at a price below intrinsic value. Companies that buy back shares above intrinsic value (no matter the purpose) destroy value for continuing shareholders.
5. Capital intensive businesses can be satisfactory investments under the right conditions. Berkshire's growing size forced it to find outlets for mountains of cash. It found such an outlet in regulated businesses including traditional electric and gas operations and the railroad industry. The key attribute for both was the ability to earn a protected-but-limited return on equity capital.

6. High rates of return eventually forge their own anchor. Berkshire's growth in book value per share increased at its highest-ever dollar amount while increasing at the lowest-ever rate in its modern history. Larger and larger sums shrink the investable universe and make it harder to earn above-average returns over time. But as Berkshire demonstrated through its fifty-year modern history, a long run is possible.

This following tables have been omitted from the ebook version because formatting issues would have rendered them unreadable. The reader is welcome to download a pdf version of the omitted tables and bonus material at brkbook.com .

Table 7.44: Reconciliation of shareholders' equity

Table 7.45: Berkshire Hathaway—select parent-level financial information

Table 7.46: Berkshire Hathaway—Insurance Underwriting

Table 7.47: Berkshire Hathaway—Insurance Underwriting

Table 7.48: Berkshire Hathaway Insurance Group float, select data and information

Year-end Float ($ millions)							
Year	GEICO	General Reins.	BH Reins.	Other Primary	Total	Avg. Float	Float Cost
2004	5,960	23,120	15,278	1,736	46,094	45,157	(3.4%)
2005	6,692	22,920	16,233	3,442	49,287	47,691	(0.1%)
2006	7,171	22,827	16,860	4,029	50,887	50,087	(7.7%)
2007	7,768	23,009	23,692	4,229	58,698	54,793	(6.2%)
2008	8,454	21,074	24,221	4,739	58,488	58,593	(4.8%)
2009	9,613	21,014	26,223	5,061	61,911	60,200	(2.6%)
2010	10,272	20,049	30,370	5,141	65,832	63,872	(3.2%)
2011	11,169	19,714	33,728	5,960	70,571	68,202	(0.4%)
2012	11,578	20,128	34,821	6,598	73,125	71,848	(2.3%)
2013	12,566	20,013	37,231	7,430	77,240	75,183	(4.1%)
2014	13,569	19,280	42,454	8,618	83,921	80,581	(3.3%)

Year-end Float (% Growth)						
Year	GEICO	General Reins.	BH Reins.	Other Primary	Total	Avg. Float
2004	12.7%	(2.3%)	9.5%	30.4%	4.2%	5.7%
2005	12.3%	(0.9%)	6.3%	98.3%	6.9%	5.6%
2006	7.2%	(0.4%)	3.9%	17.1%	3.2%	5.0%
2007	8.3%	0.8%	40.5%	5.0%	15.3%	9.4%
2008	8.8%	(8.4%)	2.2%	12.1%	(0.4%)	6.9%
2009	13.7%	(0.3%)	8.3%	6.8%	5.9%	2.7%
2010	6.9%	(4.6%)	15.8%	1.6%	6.3%	6.1%
2011	8.7%	(1.7%)	11.1%	15.9%	7.2%	6.8%
2012	3.7%	2.1%	3.2%	10.7%	3.6%	5.3%
2013	8.5%	(0.6%)	6.9%	12.6%	5.6%	4.6%
2014	8.0%	(3.7%)	14.0%	16.0%	8.6%	7.2%

Year-end Float (% Total)					
Year	GEICO	General Reins.	BH Reins.	Other Primary	Total
2004	12.9%	50.2%	33.1%	3.8%	100.0%
2005	13.6%	46.5%	32.9%	7.0%	100.0%
2006	14.1%	44.9%	33.1%	7.9%	100.0%
2007	13.2%	39.2%	40.4%	7.2%	100.0%
2008	14.5%	36.0%	41.4%	8.1%	100.0%
2009	15.5%	33.9%	42.4%	8.2%	100.0%
2010	15.6%	30.5%	46.1%	7.8%	100.0%
2011	15.8%	27.9%	47.8%	8.4%	100.0%
2012	15.8%	27.5%	47.6%	9.0%	100.0%
2013	16.3%	25.9%	48.2%	9.6%	100.0%
2014	16.2%	23.0%	50.6%	10.3%	100.0%

Sources: Berkshire Hathaway Annual Reports and author's calculations.

This following tables have been omitted from the ebook version because formatting issues would have rendered them unreadable. The reader is welcome to download a pdf version of the omitted tables and bonus material at brkbook.com .

Table 7.49: Berkshire Hathaway property and casualty loss development

Table 7.50: Regulated, Capital-Intensive Businesses

Table 7.51: Manufacturing, Service, and Retailing businesses—balance sheets, 2004–2014

Table 7.52: Manufacturing, Service, and Retailing businesses—income statements, 2004–2014

Table 7.53: Manufacturing, Service, and Retailing businesses—ratios and key figures, 2004–2014

Table 7.54: Finance and Financial Products businesses—select earnings data

Table 7.55: Berkshire Hathaway deferred tax analysis

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451 Investments per share were $74,129 and pre-tax earnings per share were $2,441. Continuing the rough valuation exercise from the previous chapter, we can estimate Berkshire's intrinsic value in 2005 at approximately $98,500 per share. For reference, Berkshire's Class A shares traded in a range of $78,800 to $92,000 during the year. (It is important to note here that insurance underwriting did not skew the analysis up or down. Significantly above- or below-average underwriting experience is an important adjustment.)

452 NOAA press release, "Hurricanes and Tropical Storms-Annual 2005," June 2006, https://www.ncdc.noaa.gov/sotc/tropical-cyclones/200513 .

453 This $47 million figure was the net result of many different factors, both positive and negative, and included: $228 million of increased reserves in workers' compensation, $136 million related to deferred charge amortization on retroactive reinsurance contracts and $102 million of increases to reserves for asbestos and environmental development. This was offset by a net $419 million of decreases, including $72 million related to Berkshire's liabilities stemming from the September 11th terrorist attacks.

454 Gen Re was paid a fee to allow accounting that hid improper loss reserving at other insurers. The contracts worked by inflating loss reserves so that it appeared to have appropriate levels. Little or no actual transfer of risk occurred. The two insurers purchasing the contracts were Reciprocal of America, and American International Group.

455 Berkshire Hathaway press releases: May 20, 2005, http://berkshirehathaway.com/news/may2005.pdf ; June 10, 2005, http://berkshirehathaway.com/news/jun1005.pdf ; June 6, 2005, http://berkshirehathaway.com/news/jun0605.pdf .

456 Berkshire Hathaway press release, July 1, 2005, http://berkshirehathaway.com/news/jul0105.pdf .
457 Goodwill and intangibles amounted to $9.3 billion. Some intangibles existed, such as those related to MiTek's software, but the bulk of it was of the purchase-accounting goodwill type.
458 Long-term debt represented just 8.7% of equity.
459 *RV Business* magazine, December 2005 http://www.berkshirehathaway.com/letters/rvbiz.pdf .
460 Ibid.
461 Buffett commented at the 2006 Annual Meeting that he thought NetJets would have more economies of scale.
462 According to the footnotes to the 2005 Annual Report, Walmart represented 33% of McLane's 2005 revenues.
463 Federal Reserve Bank of St. Louis accessed 10/25/20.
464 The $416 million of earnings reported by Clayton was after this $83 million interest cost.
465 The notes to the financial statements disclose that Berkshire had written equity index options and credit default swap contracts "during the last two years". Gen Re Securities was in run-off mode and would not have engaged in these types of transactions.
466 $3.25 billion after-tax.
467 "Buffett profit no close shave," *CNN Money* , January 28, 2005, https://money.cnn.com/2005/01/28/news/newsmakers/buffett/index.htm .
468 Its financial accounting cost basis increased on par with the capital gain booked through the income account. This was offset by a corresponding decrease in unrealized investment gains (again, only for financial accounting purposes; for tax purposes it was still unrealized). See p. 62 of the 2005 Berkshire Hathaway Annual Report.
469 "Fortune 500 2005," *Fortune* magazine, http://fortune.com/fortune500/2005/ .
470 Names are participants in syndicates.
471 The growth came from 11.3% growth in the preferred risk category and 8.6% in the standard category.
472 According to one source, the deal was valued at $288.8 million, which would have put the implied value of the business at about $340 million.
473 S&P reports, Berkshire Hathaway acquisition of AU Holding Company, Inc, parent company of Applied Underwriters, Inc, accessed on January 23, 2020, http://www1.snl.com/irweblinkx/mnahistory.aspx?iid=100501&KeyDeal=125872&print=1 .
474 The footnotes to the 2006 financial statements disclose that "Under certain conditions, existing shareholders of Applied may acquire up to an additional 4% interest in Applied from Berkshire."
475 Berkshire's carrying return (due to purchased goodwill) was a lower-but-still-good 10.8%.
476 The end of the 2006 Berkshire Hathaway Annual Report lists the company as having 6,518 employees. The footnotes to the report also disclose that it did business in 61 countries and had manufacturing facilities in Israel, Korea, the United States, Brazil, China, Germany, India, Italy, and Japan.
477 IMC's products are often the last link in a chain of equipment needed to shape metal. Opting for a lower-quality product at the last step is akin to introducing a weak link in a chain.
478 The transaction closed on April 1, 2007.
479 Shaw benefitted from two vertical acquisitions late in 2005 that allowed it to lower and stabilize input costs.
480 At the 2007 Annual Meeting, Buffett said the paper's earnings were "certainly down over 40% from the peak." The highest earnings *The Buffalo News* reported before being consolidated into other businesses in 2000 was $56 million pre-tax in 1997. That would put its 2006 earnings at less than $28 million.

481 Carol J. Loomis, "Warren Buffett Gives it Away," *Fortune* magazine, July 10, 2006, http://berkshirehathaway.com/donate/fortune071006.pdf .
482 The first three are charities run by Buffett's children Susan, Howard, and Peter, respectively. The last was formerly the Susan T. Buffett Foundation, a charity formed by Buffett's late wife, who died in 2004.
483 The actual mechanics called for 5% of shares to be distributed annually with each subsequent year based on the residual value. In this way, the gifts could grow in value if Berkshire's share price increased greater than 5%. It would also spread the sales out over a number of years and thus have very little negative impact on Berkshire's share price. Buffett estimated it would take twenty-five years for all the shares to be distributed and sold.
484 An update on the two-column valuation method figures: Per share investments in 2007 were $90,343. Per share pre-tax earnings were $4,093 but also included about $2,200 in insurance underwriting gains.
485 While this dollar amount is large, the footnotes classified it as a low loss level.
486 The footnotes disclose that deferred charge amortization was $156 million for contracts written in 2007, which was primarily related to the Equitas contract.
487 The footnotes to the financial statements disclosed that the workers' compensation casualty business in BHRG was transferred to the Primary Group. No reason for this change was given. It can be surmised that the Primary Group was better equipped to handle these transactions.
488 Higher volumes translate to lower per unit costs as fixed costs are spread over more units. Lower volumes can result in higher costs, as fixed costs are spread over a smaller number of units. Buffett confirmed the difficulty in passing through cost increases at the 2008 Annual Meeting.
489 The original deal was struck in December of 2006 and discussed in the 2006 Chairman's letter.
490 Buffett provided these numbers in his Chairman's letter without comparable figures.
491 The footnotes disclose that loan charge-offs fell to $197 million from $243 million. This represented a charge-off rate of about 1.65% on the average loans and finance receivables portfolio.
492 Fixed costs included deprecation.
493 The news became public in April of 2007 when Berkshire filed its securities holdings as of year-end 2006.
494 Buffett also noted that the business required seasonal debt (read: a line of credit) to handle the large seasonal volumes.
495 Buffett elaborated on just how this result was achieved, from a financial standpoint: "First, the product was sold for cash, and that eliminated accounts receivable. Second, the production and distribution cycle was short, which minimized inventories."
496 Buffett went on to say "Think airlines." He then went on to offer a typical Buffett remark: "Indeed, if a farsighted capitalist had been present at Kitty Hawk, he would have done his successors a huge favor by shooting Orville down." The economics of airlines have changed since this time, now perhaps falling into the good category.
497 Year-end float decreased less than 0.5%, but this deficit was more than offset by underwriting profits.
498 Joe Brandon stepped down in 2008 under good circumstances. The footnotes to the financial statements disclosed that in February 2008 certain former Gen Re executives had been convicted of various crimes committed in prior years.
499 Specifically, it was the Syndicate 435 2000 year of account, from 39% to 100%. It increased premiums earned but the net effect on 2008 underwriting results was neutral because increases losses and loss reserves offset premiums earned.
500 Insurers pay premiums to the fund which in turn can borrow money to reimburse losses of participating insurers.

501 Berkshire was in effect betting that there was less than a 1 in 17 chance that a series of events would occur: a) hurricane losses exceed $25 billion *and* b) the fund borrows all $4 billion *and* c) the fund defaults causing a 100% loss. Such a series of events seemed unlikely enough that one of the three-person board in Florida approving the transaction with Berkshire voted against it.
502 "Florida, Berkshire Hathaway Strike $224 Million Deal on Insurance Fund," *Insurance Journal* , Bill Kaczor, July 31, 2008. https://www.insurancejournal.com/news/southeast/2008/07/31/92371.htm accessed 11/6/20 .
503 At the Annual Meeting the next year, Buffett quipped that Berkshire was now insuring financial hurricanes in addition to natural ones.
504 Berkshire would then be obligated to provide insurance on the underlying bonds.
505 Buffett notes in his Chairman's letter that Berkshire received rates averaging 3.3%—a huge sum considering the primary insurer likely received just 1%. Berkshire wrote $15.6 billion of such coverage in 2008.
506 Buffett noted that MidAmerican had not paid a dividend since Berkshire's investment in 2000.
507 Note that the Annual Report only provides the aggregate revenues and earnings for the other manufacturing category. The percentages listed were the only detail provided.
508 McLane's annual revenues were greater than 10% of Berkshire's consolidated revenues. If the test was based on profits, McLane would not have met the threshold.
509 In November 2008, Iscar purchased Tungaloy, "a leading Japanese producer of small tools," according to Buffett's letter.
510 "Iscar Ltd of Israel acquired Japanese tungsten carbide tool maker Tungaloy for US$ 1 billion," Japan strategy, September 22, 2008, https://www.japanstrategy.com/2008/09/22/iscar-ltd-of-israel-acquired-japanese-tungsten-carbide-tool-maker-tungaloy-for-us-1-billion accessed 11/6/20 .
511 Marmon has periodically published a brochure that includes select financial information. Its 2012 report included return on equity figures beginning in 2005, which indicate Marmon had a consistent history of earning returns in the high-teens.
512 Total debt assumed with the transaction was $1.07 billion and goodwill/intangibles were $1.9 billion.
513 Investors' senses were dulled by the fact that rating agencies allowed the packaged, repackaged (and in some cases packaged many more times) loans to be given investment-grade ratings. This kept demand for loans high.
514 According to data from the Federal Reserve Bank of St. Louis.
515 That housing starts would need to remain low had clear implications for Berkshire's building products businesses.
516 Buffett noted that the industry's volume had fallen 78% since its peak in 1998. Even though Clayton's 27,499 units sold in 2008 represented 34% of the industry, that figure was in relation to a sharply lower industry base.
517 The footnotes disclosed a $125 million increase to the loan loss provision. Earnings were also impacted by $25 million from losses due to Hurricanes Gustav and Ike, and $38 million from asset write-downs and plant closures.
518 A triple-A rating was the highest rating available.
519 Readers interested in the finer details of accounting may also be interested in the $1.8 billion other-than-temporary impairment charge booked in 2008 and relating to the declines in values of twelve securities. The charge only impacted the cost basis of the investments, with shareholders' equity remaining unchanged because they were already carried at fair value. See Berkshire's response to the Securities and Exchange Commission comment dated May 22, 2009 (available on SEC EDGAR).
520 Berkshire acquired warrants allowing it to purchase 43,478,260 shares at $115 per share,

expiring in 2013. The Preferred Stock could be redeemed by Goldman Sachs at 110% of par at any time.
521 The Wrigley investment consisted of $4.4 billion of 11.45% subordinated notes due 2018 and $2.1 billion of preferred stock with a 5% coupon and a redemption tied to Wrigley's future earnings. Of historical note, Berkshire purchased 1,600 shares of Wrigley common stock in 1968.
522 Berkshire acquired warrants allowing it to purchase 134,831,460 shares at $22.25 per share, expiring in 2013. The Preferred Stock could be redeemed by General Electric beginning in October 2011 at 110% of par.
523 In addition to unfunded commitments, Berkshire had insurance obligations to others stretching decades into the future.
524 The maximum payout was $37.1 billion if all the indexes went to zero at expiration, a highly improbable event. Buffett said a 25% decline across the indexes would cost Berkshire $9 billion (using the weighted average life of 13.5 years this equates to an implied interest rate of 4.6%; a total loss would imply a cost of capital of 16%).
525 The indexes were the S&P 500, FTSE 100, Euro Stoxx 50, and the Nikkei 225. The expiration dates ranged from September 2019 through January 2028 with a weighted average life of 13.5 years at year-end 2008. Unlike American-style options which allowed the purchaser to exercise the option anytime up to expiration these were European-style options which could only be exercised on the *day* of expiration.
526 A credit default swap is akin to insurance in that it protects the owner of a debt instrument if the underlying company goes bankrupt or defaults. A few of the CDS contracts required posting of collateral, which amounted to $550 million at year-end 2008.
527 Berkshire spent $6.1 billion on capital expenditures during 2008—a full $3.3 billion more than its depreciation of $2.8 billion.
528 Warren E. Buffett, "Buy America. I am," *The New York Times* , October 16, 2008, https://www.nytimes.com/2008/10/17/opinion/17buffett.html .
529 2008 Fortune 500 list, *Fortune magazine* , May 5, 2008, https://money.cnn.com/magazines/fortune/fortune500/2008/snapshots/980.html .
530 The BNSF acquisition was completed on February 12, 2010. Buffett's 2009 Chairman's letter was dated February 26, 2010.
531 While it's impossible to know exactly how many new shareholders came with the BNSF acquisition because of shares held with brokers, the 2009 BNSF 10K report lists 29,000 shareholders of record.
532 The contract was 2 billion Swiss francs and translated into dollars.
533 The policy was for Swiss Re's non-life insurance losses and provided for 5 billion Swiss francs coverage over the 58.725 billion Swiss Francs loss reserves, less 2 billion Swiss francs.
534 David Jolly, "Swiss Re Gets $2.6 Billion From Berkshire Hathaway," February 5, 2009, https://www.nytimes.com/2009/02/06/business/worldbusiness/06swiss.html .
535 We do not know what Berkshire targets for a premium-to-equity ratio, if any. However, Buffett would likely want to maintain a healthy margin of safety, and probably chose to reduce the amount of business versus stretch the balance sheet.
536 The first SEC filings for BNSF post-acquisition noted that it is owned by National Indemnity, an indirect wholly-owned subsidiary of Berkshire Hathaway: Burlington North Santa Fe, Securities and Exchange Commission, 10-k/A form, February 11, 2010, https://www.sec.gov/Archives/edgar/data/934612/000095012310042892/c00146e10vkza.htm .
537 The steepest decline in EBIT came from MidAmerican Energy Company, which dropped 33% to $285 million due to lower revenues and higher depreciation on new wind farms. This was partially offset by lower input costs.

538 The businesses were: Benjamin Moore, Borsheims, CTB, Dairy Queen, H.H. Brown, Nebraska Furniture Mart, Pampered Chef, See's, and Star Furniture.
539 The 13.5% pre-tax profit margin was a record according to Buffett.
540 The main challenge with the industry was a bias toward traditional homes over manufactured ones.
541 No reason was given for the jump in life and annuity earnings from $23 million in 2008 to $116 million in 2009. In hindsight we know this was Ajit Jain beginning to ramp up Berkshire's operations in this area, a business that was transferred to the Berkshire Hathaway Reinsurance segment in 2010.
542 It serviced a $235 billion portfolio, according to Buffett, in addition to originating $10 billion annually.
543 "Berkadia Commercial Mortgage LLC Completes Acquisition of Capmark's North American Loan Origination and Servicing Business," *Business Wire* , December 11, 2009, https://www.businesswire.com/news/home/20091211005586/en/Berkadia-Commercial-Mortgage-LLC-Completes-Acquisition-Capmark%E2%80%99s .
544 In the credit offering Harley-Davidson's fixed charge coverage ratio (a measure of how many times the company earned its debt service) was *just* 10.7x as of the end of the third quarter 2008. This, and its history of coverage up to nearly sixty times indicated that Harley-Davidson's debt was a very safe credit risk.
545 In his 2008 letter, Buffett recounted the "unforced error" he made buying ConocoPhillips when oil prices were high.
546 Buffett was asked about the Moody's position at the 2010 Annual Meeting. Keeping his cards close to his chest, he only said the ratings agencies remained wonderful businesses.
547 The accounting change was ASC 810 Consolidation, which also required non-controlling interests (aka minority interests) be separately identified on the balance sheet and income statement.
548 Taking things to the extreme to illustrate, if Berkshire acquired 51% of a company for $100 with underlying assets of $100 it would record $51 of shareholders' equity and $49 of minority interests. Consider the purchase of the remaining $49 the next year, however, at a premium of $10 (that is, for $59). Under this example the $10 would be deducted from Berkshire's shareholders' equity, leaving the $100 basis for $100 of assets. The $10 would simply disappear. Under the old system, a $10 entry for goodwill would have been recorded.
549 Berkshire Hathaway, Securities and Exchange Commissions Schedule 14A filing, March 12, 2010, https://www.sec.gov/Archives/edgar/data/1067983/000119312510053975/ddef14a.htm .
550 Berkshire Hathaway press release, December 22, 2009, http://berkshirehathaway.com/news/dec2209.pdf .
551 At the Annual Meeting, Buffett referenced a study that had been conducted of corporate earnings, which showed it statistically impossible to find such low frequencies of the number four in the tenths spot in reported earnings. This meant managers were fudging numbers to get the five, which rounded up. (The paper was written by Nadya Malenko and Joseph Grundfest and entitled "Quadrophobia: Strategic Rounding of EPS Data," originally released in 2009.)
552 Investments per A-share were $94,730 and pre-tax earnings per share were $5,926. Using our 10x multiple from earlier, this equates to a value of $154,000 per A-share or a $250 billion market capitalization. The year-end stock price of $120,000 implied a value of $200 billion, 20% lower.
553 *Of Permanent Value* . Kilpatrick. 2015 edition. p. 579.
554 A Class I railroad is defined by the Surface Transportation Board as having annual revenues of $250 million or more in 1991 dollars.
555 Of those, 23,000 miles were owned by BNSF.
556 *Of Permanent Value* . Kilpatrick. 2015 edition. p. 580.
557 Buffett's words.

558 The Surface Transportation Board does factor in deferred taxes to its calculation of allowable return, but this is still a net plus since it comes at no cost from the government.
559 The shares accounted for $10.6 billion of the purchase price. It valued Berkshire at about $111,500 per A-share, or a market capitalization of $184 billion.
560 Charlie Munger's comments at the 2011 Annual Meeting (which was held shortly after the BNSF acquisition closed) sheds some light on Berkshire's thinking: "When we did it, we knew it would be better for their shareholders than it was for ours, because, after all, they were getting into Berkshire. But we also thought it was good for our shareholders. And why should we care that it was better for theirs, if it was satisfactory for us?"
561 While this was true, insurance regulators discounted BSNF more for regulatory capital purposes as a 100%-owned entity than when National Indemnity owned its publicly traded shares.
562 This figure is changed from the $349 million presented in the section in 2009 for comparative purposes. In 2010, Berkshire moved the life and annuity operation from Finance and Financial Products to BHRG.
563 Buffett said a sound insurance operation had the following characteristics: (1) An understanding of *all* exposures that might cause a policy to incur losses; (2) A conservative evaluation of the likelihood of any exposure actually causing a loss and the probable cost if it does; (3) The setting of a premium that will deliver a profit, on average, after both prospective loss costs and operating expenses are covered; and (4) The willingness to walk away if the appropriate premium can't be obtained.
564 Johns Manville, MiTek, Shaw, and Acme Brick had pre-tax earnings of $362 million in 2010.
565 Acme purchased Jenkins Brick & Tile in Alabama which had been severely impacted by the recession, including one mothballed plant. It was an example of thinking beyond the current business climate. "Nobody else was bidding for a brick plant in Alabama with no customers to speak of," quipped Munger at the 2011 Annual Meeting. Sources: Berkshire Hathaway Annual Meeting transcript 2011, Birmingham Business Journal, January 24, 2011.
566 Buffett put the figure at $1.4 billion for the Goldman Sachs, General Electric, and Wrigley issues. Swiss Re redeemed its preferred in early 2011.
567 Not content to take Buffett's word on it I checked the math. Between 1973 and 2018 (the latest data available), the median home price in the US rose 5.1% per annum. Over that same period the Consumer Price Index rose 3.8% per year. The median home size also rose by 1.0% per year during this time. This leaves 0.3% unaccounted for, which might be associated with general upgrades in standards of living. Sources: St. Louis Federal Reserve Bank FRED, United States Census Bureau Characteristics of New Housing.
568 Take the $60 per acre yield divided by the $2,000 loan.
569 Buffett apparently forgot about the $433,055 spent in 1976 to repurchase 6,647 shares and the $229,162 spent in 1977 for 2,244 shares.
570 Berkshire repurchased 98 Class A shares and 801,985 Class B shares, or 633 Class A-equivalent shares in total.
571 They went so far as to say they wished they could set a price once a year at which Berkshire's shares traded. This is similar to how private companies effect transfers of ownership.
572 Buffett said at the 2011 Annual Meeting he thought the market was $10 billion annually.
573 Even if the business reverted to earning returns in the mid-20% range Berkshire's return would be around 6.5%–7% and incremental growth would be at a very attractive rate.
574 Buffett said the business employed about $2.5 billion of capital. That figure can be derived from the 2010 Lubrizol 10K as follows: $2,271 million shareholders' equity plus $1,352 million debt less $1,065 million goodwill and intangibles. Total capital employed in 2010 was $2,558 million; average capital employed was $2,479 million.

575 Sokol bought Lubrizol shares two months before the Berkshire acquisition was announced. The deal increased the value of his shares by $3 million. The profits Sokol made in connection to Lubrizol paled in comparison to his earnings and net worth. Buffett defended Sokol, pointing to an incident years earlier in which Sokol voluntarily reduced his own compensation in favor of Greg Abel as an example of his good conduct. For more background, see the proxy report from the Lubrizol acquisition and the April 26, 2011 Berkshire Hathaway Audit Committee report.
576 The letter was dated July 26, 2010. The 2010 Annual Report was released in February 2011, a month before Buffett learned of Sokol's improprieties.
577 Buffett was asked about the apparent contradiction between the higher mortality adjustment with the BHRG Swiss Re life insurance contract and a favorable adjustment relating to lower mortality with life policies at General Re. Buffett said mortality had developed worse than initially assumed, and that the adjustment made in 2011 was to bring reserves to a worst-case estimate.
578 An interesting accounting footnote is appropriate here. In connection with the additional purchase of Marmon, Berkshire was required to write off $614 million of the purchase price. This was the difference between the amount paid and the prior carrying amount of the non-controlling interests acquired. The adjustment was made retroactively to December 31, 2010 since that is the date that the valuation was fixed and determinable. It was as if the $614 million just disappeared. In acquisitions where there is no existing controlling interest, the difference is booked as goodwill. See the accounting discussion on page 159.
579 Buffett failed to mention the number, but it would have been around $70 million pre-tax.
580 In his 2011 Chairman's letter, Buffett used IBM as an example of how an investor benefitted when a company's share price remained low. This was especially true if the company repurchased its own shares in the market. His logic was that the remaining shareholders would be left with a higher ownership of the company (and therefore a higher share of future earnings) if the share price lagged.
581 It was later disclosed that Weschler and Combs each made a base salary of $1 million per year. Buffett noted that even with the performance arrangement, each man was giving up far more by joining Berkshire than could be gained at a hedge fund with the usual fee arrangement of 2% of assets and 20% of profits. Their incentive compensation would be paid on a rolling three-year basis, based on 10% of the amount they outperformed the S&P.
582 Total capital spending was $9.8 billion.
583 The shares were bought from the estate of Al Ueltschi, the founder of FlightSafety International, who died in October 2012. The move required Berkshire's board to authorize an increase in the buyback threshold from 1.10x to 1.20x book value to accommodate the purchase of the Ueltschi shares at 1.16x book value.
584 The Chairman's letter also provided a hypothetical example of a private company whose owners chose between a dividend policy and a sell-off policy. It is worth reading in its entirety.
585 Total catastrophe losses were $638 million in 2012 compared to $252 million in 2011. It wasn't unusual for GEICO to have catastrophe losses in any given year but the magnitude of the loss in 2012 was exceptionally high.
586 The notes to the financial statements disclose a $736 million favorable loss adjustment relating to lower frequency and/or severity assumptions. That figure amounted to 4.4% of premiums earned and 7.2% of prior year loss reserves.
587 Two factors were to blame: a premium deficiency reserve established on a runoff book of business and adverse development in a book of business in Australia. Runoff is coverage of operations that have ceased producing new business. This can happen when a primary insurer goes out of business, merges, or if it simply stops writing certain policies.
588 BHRG's survival ratio was not disclosed. However, if we use the $12.4 billion liability figure from 2012 and divide it by the $862 million (a figure close to those of the prior two years) claims

paid that year relating to those policies we come up with fourteen years, which is comparable to General Re's survival ratio.

589 Periodic discount accretion is an accounting charge that reflects the time value of money inherent in life insurance policies. As policies (and the underlying policyholders) age, the present value of the liability also grows. Interest rates also factor in. These factors are considered at the inception of the contract, and like other assumptions can change over time.

590 The apparent discrepancy between ROIC and ROE comes from leverage declining from 21% to 15%.

591 Using Marmon's pre-tax earnings of $1,137 million against the $12.6 billion valuation. The purchase also required a $700 million write-off like that taken in 2011. It's possible that the $140 million differential (the difference between the $1.4 billion paid for 10% of the company vs. the $1.26 billion Buffett's figure implied) represented undistributed earnings of minority interests.

592 Erik Holm, "Buffett Gets Hands-On at Benjamin Moore," *The Wall Street Journal* , June 27, 2012, https://www.wsj.com/articles/SB10001424052702304830704577493153732326984 ; James Covert, "Warren Buffett fired Benjamin Moore CEO after Bermuda cruise," *The New York Post* , June 15, 2012, https://nypost.com/2012/06/15/warren-buffett-fired-benjamin-moore-ceo-after-bermuda-cruise/ ; Sheeraz Raza, "The Wrath of Warren Buffett: How Benjamin Moore Almost Broke his Promise," *Value Walk* , September 27, 2014, https://www.valuewalk.com/2014/09/warren-buffett-benjamin-moore/ .

593 Matt Wirz, "Berkshire Buys Oriental Trading," *The Wall Street Journal* , updated November 5, 2012, https://www.wsj.com/articles/SB10001424052970203707604578095082919727020 .

594 Charlie Munger would later use an analogy that expressed the economics perfectly. He said newspapers were no different than an oil well that depletes over time. What was the difference between an oil well with a known limited quantity of value to extract and a newspaper with a limited quantity of cash to extract?

595 Buffett said he expected a modest outperformance over market cycles with Berkshire doing better in down or flat years. Charlie Munger pointed out that Berkshire's past performance is even that much better considering that its after-tax book value performance was tracked against the S&P 500, which is pre-tax.

596 Javier E. David, "The Ketchup War that Never Was: Burger Giants' Link to Heinz," *CNBC.com* , updated February 17, 2013, https://www.cnbc.com/id/100464841 .

597 Buffett was asked at the shareholder's meeting if 3G's techniques could be applied to Berkshire. Buffett and Munger thought Berkshire was already lean, but also dismissed 3G's involvement in operations at Berkshire. He said that while he admired 3G Capital, the two systems would not blend well. A very strong reason against such involvement was Berkshire's system of letting its managers run their businesses without any interference.

598 Berkshire and 3G Capital each acquired 425 million shares in a new holding company that purchased the public company. Berkshire also had warrants to purchase an additional 46 million shares, and another 39.6 million shares were reserved for stock options.

599 Buffett stated in the Chairman's letter that GEICO's true economic goodwill was approaching $20 billion, as compared to the carrying value of $1.4 billion for its accounting goodwill. Based on his previous comments, it would suggest confirmation that GEICO's goodwill was worth a little more than its annual premium volume.

600 Buffett was asked why Berkshire didn't just buy a commercial primary operation. His answer was that a good operation would likely be pricey. Berkshire could build its own from scratch at book value and would not have any of the baggage that came from buying another company.

601 The gain was for accounting purposes. BHRG paid Swiss Re a $675 million. Losses under the contract had been booked in prior years that more than offset the gain in 2013.

602 Return on carrying value (which includes goodwill) fell from 8.7% to 8.3%.
603 The debt/equity ratio fell from 15% in 2012 to 11.2% in 2013. The MSR Group paid down $1.26 billion in total outstanding debt during the year.
604 This multiple is higher than the 11x multiple paid in previous transactions. It's possible the improved margins drove the higher price. Another reason might have been the large acquisition it had pending at year-end. Or, it might have been due to excess cash on the books that belonged to the selling family (i.e. retained earnings accrued but not paid as dividends).
605 Berkshire paid $4 billion for the initial 80% stake in Iscar, which valued the company at $5 billion. The Marmon and Iscar purchases required similar write-offs as in prior years. This year the total was $1.8 billion of the $3.5 billion spent; the amount greater than the carrying value of the non-controlling interests. Buffett expressed his amazement that such an accounting procedure was required. He said it was another reason Berkshire's intrinsic value far exceeded book value.
606 The purchase price was financed as follows: $2.0 billion of new debt issued by MidAmerican and $3.6 billion additional equity from MidAmerican shareholders, which included $3.5 billion from Berkshire. The remaining $0.1 billion came from MidAmerican's minority shareholders.
607 Alex Crippen and Reuters, "Berkshire Hathaway takes $3.7 billion stake in Exxon Mobil," *CNBC.com* , updated December 3, 2013, https://www.cnbc.com/2013/11/14/warren-buffetts-berkshire-hathaway-takes-40-million-share-stake-in-exxon-mobil-sec-filing.html .
608 Issue brief, "State Pension Funds Reduce Assumed Rates of Return," Pew Trusts, December 19, 2019, https://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2019/12/state-pension-funds-reduce-assumed-rates-of-return .
609 This figure included the 2014 plan and those leftover from previous plans.
610 Berkshire defined catastrophe losses as losses of $100 million or more from a single event.
611 Calculated based on the dollar declines stated in the 2013 and 2014 Annual Reports.
612 Buffett said he knew of just eight property/casualty policies in history with a single premium over $1 billion. *All* were written by Berkshire Hathaway. The Liberty Mutual policy was behind only the $7.1 billion Lloyd's of London contract written in 2007.
613 Lower interest rates increase the present value of liabilities associated with business such as long-term care and disability insurance.
614 This was for reporting purposes only. The business continued to be managed on a decentralized basis like before.
615 This is the figure Buffett quoted on average tangible equity of $24 billion. I've calculated 17.3% based on average tangible equity of $25.9 billion, which uses the old 2013 balance sheet. The difference arises due to the balance sheet figures associated with Marmon's leasing business, which isn't calculable from the financial statements. A comparative balance sheet for the prior years was not provided in the 2014 Chairman's letter. As a rough reference, the 2013 figure was 16.7%.
616 Buffett noted that Todd Combs worked on the Phillips 66 deal. Combs also worked on the acquisition of Charter Brokerage, a deal that largely went below the radar.
617 Antoine Gara, "Berkshire May Avoid $400 Million Tax Bill In Graham Holdings Swap," *The Street* , March 14, 2014, https://www.thestreet.com/markets/mergers-and-acquisitions/berkshire-may-avoid-400-million-tax-bill-in-graham-holdings-swap-12529683 .
618 Berkshire Hathaway Energy news release, "Berkshire Hathaway Energy Announces Acquisition of AltaLink L.P. and Joint Transmission Development Agreement with SNC-Lavalin," May 1, 2014, https://www.brkenergy.com/news/berkshire-hathaway-energy-announces-acquisition-of-altalink-l-p-and-joint-transmission-development-agreement-with-snc-lavalin .
619 Russell Hubbard, "Service problems in 2014 give BNSF 'a lot of work to do,' Buffett says," *The Omaha World-Herald* , March 1, 2015, https://www.omaha.com/money/buffett/service-problems-in-give-bnsf-a-lot-of-workto/article_36d807e8-8644-5c92-a8d0-3e999299571d.html .

620 The unit volume increase came from industrial products (up 9%) and agriculture (up 16%). Consumer products was flat and coal volume decreased 2%.
621 Through 2014, BNSF paid Berkshire a total of $16 billion in dividends. This was nearly half its purchase price just five years earlier.
622 The preferred investment, together with warrants to acquire a small number of shares, gave Berkshire a 14.4% voting interest in RBI.
623 Buffett stratified these into groups: two companies earned between $400 million and $600 million, six earned between $250 million and $400 million, and seven earned between $100 million and $250 million.
624 Share repurchases above book value decrease shareholders' equity and book value per share but increase intrinsic value per share (assuming they are undervalued). Conversely, shares issued above book value increase book value per share but don't necessarily change intrinsic value.

Chapter 8: The First Fifty Years: 1965–2014

“It is not necessary to do extraordinary things to get extraordinary results.”
—Warren Buffett

Extraordinary is the only word that singularly captures the arc of Berkshire Hathaway’s fifty-year transformation under Warren Buffett’s control. The company that existed at the end of 2014 looked *nothing* like it did fifty years earlier despite bearing the same name. The struggling textile company that once formed the foundation of Berkshire Hathaway had cracked, leading to major structural issues that once rebuilt became a well-respected conglomerate. Its extraordinary transformation took place using what in hindsight were fairy ordinary and timeless basic principles of business. Applied step by step, year by year, and decade by decade, the ordinary was molded into the extraordinary.

Berkshire’s transformation can easily be attributed to the one man who was the constant during this time. Yet Buffett is only part of the story—albeit a big part. The other man is Charlie Munger, whom Buffett credited as the architect of Berkshire Hathaway for his influence turning Berkshire’s focus toward buying good businesses to hold for the long term. “The blueprint he gave me was very simple. Forget what you know about buying fair businesses at wonderful prices; instead buy wonderful businesses at fair prices.”

These businesses were deceptively simple. Yes, they were in understandable industries such as insurance, retail, manufacturing, newspapers, and financing. But many shared a trait that most businesses only wish for: an economic moat or a sustainable competitive advantage. Berkshire’s protective umbrella and autonomous operating philosophy were a system that maximized human potential and allowed businesses to flourish. [625]

Berkshire Hathaway’s story also includes hundreds of owners and families that built up the many companies Berkshire came to own after shifting focus away from textiles. It includes the hundreds of thousands of

employees that worked along with them. And it includes the hundreds of thousands of shareholders who made a long-term commitment to the company. Berkshire, then, is an amalgamation of these parts, all working together over a very long period.

In 1965, when Buffett took over, Berkshire Hathaway did not make the Fortune 500 list. [626] In 2014, it was number four behind Walmart, Exxon Mobil, and Chevron and ahead of Apple. [627] We can see the evolution of the company by examining its history in the broad decades-long periods outlined in this book.

1965–1974

Table 8.1: Select data

($ millions)	1974	1964	Change
Revenues	$101.5	$50.0	103%
Pre-tax operating earnings	6.5	0.5	1,128%
Average float	79.1	0	n/a
Shareholders' equity	88.2	22.1	298%
Book value per share	$90.02	$19.46	363%

Sources: Berkshire Hathaway Annual Reports 1965, 1974.

After taking control of Berkshire in May 1965, Buffett quickly learned how difficult it was to operate a commodity business in a declining industry. Buffett's raw material was a dying textile company with $22 million in net worth, no durable competitive advantage, and high capital costs. He quickly set to work redeploying as much of the available capital as possible into other businesses.

Two seminal acquisitions occurred during this decade that shaped the future trajectory of Berkshire Hathaway. One was the acquisition of National Indemnity, which became the platform for future expansion into insurance. Buffett quickly grasped the value of low-cost liabilities in the form of float to fuel expansion in other areas. The beginnings of Berkshire's insurance activities provided valuable lessons on the importance of focusing on underwriting profitability above all else. The second influential acquisition was See's Candies. See's provided lessons on the value in buying great

businesses for keeps. It set the bar very high for future acquisitions and was a marked contrast to its sister textile companies.

Buffett made other important capital allocation decisions during this time. Berkshire purchased a newspaper, a bank, and made investments in marketable securities. One of those marketable securities was Blue Chip Stamps. Deploying the float in the shrinking trading stamps business, Buffett and Munger used Blue Chip Stamps as a platform to acquire See's, and eventually other good businesses before the core trading stamps business withered to almost nothing.

By the end of the decade, textiles had shrunk from the entirety of Berkshire Hathaway's business to about 30% of consolidated revenues and just 5% of total assets. The decline came from a combination of shrinking textile operations and expanding into new business lines. Textiles remained much longer than they probably would have had Buffett not chosen Berkshire as his investment vehicle.

1975–1984

Table 8.2: Select data

($ millions)	1984	1974	Change
Revenues	$729	$101.5	618%
Pre-tax operating earnings	82.0	6.5	1,165%
Average float	253	79	220%
Shareholders' equity	1,272	88.2	1,342%
Book value per share	$1,109	$90.02	1,132%

Sources: Berkshire Hathaway Annual Reports 1974, 1984.

The decade that ended in 1984 was marked by continued expansion of insurance operations and the acquisition of other non-insurance operating businesses. Written insurance premiums swelled 129% from $61 million in 1974 to $140 million in 1984 as Berkshire expanded operations organically and by forming numerous insurance companies. Its entry into reinsurance meant not only more float, but also longer-lived float. The big news of the decade was the acquisition of 36% of GEICO. Berkshire's share of GEICOs

premium volume amounted to $336 million—which dwarfed its home-grown operations.

This decade also witnessed the mergers of Diversified Retailing and Blue Chip Stamps into Berkshire. With Blue Chip Stamps came Wesco, yet another platform for expansion, this time into banking and insurance. Through Blue Chip Stamps, Berkshire acquired other non-insurance operations including *The Buffalo News* and Precision Steel.

The non-insurance companies acquired during this decade illustrated Buffett's appreciation of locally dominant businesses. While *The Buffalo News* experienced some initial threats, Buffett and Munger saw that one-newspaper towns would create a protective moat allowing for superior returns on capital. Buffalo was a two-paper town at the time of the acquisition but became a one-paper town within five years with *The Buffalo News* the last one standing. Buffett also correctly identified Nebraska Furniture Mart as a dominant local business whose competitive advantage was created and reinforced by low margins coupled with huge volumes.

Berkshire's investment activities during this period showed the value of taking partial ownership interests in wonderful companies. Gains from the investment portfolio were responsible for 58% of the increase in Berkshire's net worth during this decade compared to just 11% the prior decade. The investment portfolio reflected lessons learned elsewhere. Berkshire's success owning *The Washington Post* stock and *The Buffalo News* led it to invest in other media company stocks including American Broadcasting Companies, Inc., Capital Cities, and Time, Inc. Other stocks acquired during this time were mostly in simple, understandable businesses whose share prices had declined out of line with their underlying intrinsic values.

Like a threadbare shirt, the last bit of Berkshire Hathaway's original business held on through this decade. By the end of 1984, though, the writing was on the wall for textiles. Almost immediately after acquiring Waumbec Mills, it was recognized as a mistake. The additional textile mill was eventually shuttered and faded along with the remainder of Berkshire's original textile operations. Textiles were no longer a profitable business.

1985–1994

Table 8.3: Select data

($ millions)	1994	1984	Change
Revenues	$3,847	$729	428%
Pre-tax operating earnings	839	88	857%
Average float	3,057	253	1,108%
Shareholders’ equity	11,875	1,272	834%
Book value per share	$10,083	$1,109	809%

Note: The figure for 1984 operating earnings presented here uses the revised presentation for comparability with 1994.

Sources: Berkshire Hathaway Annual Reports 1984, 1994.

The decade that ended in 1994 marked when Berkshire hit its stride. During this decade, Berkshire perfected its understanding of insurance. It lost money in all but two of these years (1993–94) and used those lessons to engrain in the entire organization a philosophy of underwriting profitably first and foremost. Berkshire moved confidently into reinsurance and generated huge amounts of float to invest in marketable securities. Its strong balance sheet provided a double benefit. One was little restriction on where it could invest its float. Another was the ability to advertise its financial strength to attract additional reinsurance business.

The major capital allocation decisions made during this decade were not complicated. Some of the businesses, such as Scott Fetzer and Fechheimer, were easy to understand but had been shunned by others. Berkshire provided a permanent home for these and many other simple businesses, and importantly allowed managers to operate with autonomy almost unheard of in corporate America. Buffett could do this because of a basic tenet he followed “to go into business only with people whom I like, trust, and admire.”

The marketable securities portfolio was responsible for 68% of the increase in Berkshire’s net worth during this period. Here too the investments were not complicated and easy to fully understand in hindsight. Berkshire’s experience with See’s Candies led it to acquire a large stake in The Coca-Cola Company. Other investments during the decade included banks and consumer goods companies. Some of the investments, such as *The Washington Post* , ABC (which had merged with Capital Cities), and GEICO remained undisturbed and were viewed as near-permanent

investments. Buffett's commentary to shareholders highlighted the large look-through earnings [628] the portfolio represented to Berkshire and by extension its shareholders.

The decade was not without its mistakes. Buffett later pointed to the acquisition of Dexter Shoe as the worst in Berkshire's history because of the shares issued to acquire a business whose value quickly evaporated. Two of Berkshire's investments in convertible preferred stocks also caused trouble. USAir almost caused a loss. And its Salomon preferred caused a major distraction for Berkshire when Buffett temporarily took the helm of the investment bank to save it, something he had never done before. This short stint proved the advantages of allowing subsidiaries much autonomy.

Berkshire Hathaway ended 1994 free of the financial and managerial drag of the dying textile business, having shuttered the last of the operations in 1986.

1995–2004

Table 8.4: Select data

($ millions)	2004	1994	Change
Revenues	$74,382	$3,847	1,834%
Pre-tax operating earnings	7,447	839	787%
Average float	45,157	3,057	1,377%
Shareholders' equity	85,900	11,875	623%
Book value per share	$55,824	$10,083	454%

Sources: Berkshire Hathaway Annual Reports 1994, 2004.

The 1995–2004 decade represented a rounding out and expansion of Berkshire's core operations. It also set the stage for the next phase of Berkshire's existence. During this decade Berkshire purchased the remaining half of GEICO it did not already own. It also acquired General Re by issuing shares. These insurance acquisitions were the final two pieces of Berkshire's insurance empire, which now included a major auto insurer, two reinsurance operations, and a host of smaller primary insurers that

filled various niches of the insurance world. The acquisitions and organic growth swelled average float nearly fifteenfold to $45 billion.

Berkshire acquired dozens of simple and essential non-insurance businesses during this decade. Many were shunned over emerging tech companies during the dot-com boom of the early 2000s. The numerous larger acquisitions in the non-insurance category were bolstered by many more bolt-on acquisitions. These fell under the direction of existing management and caused little to no additional work at headquarters.

The acquisition of MidAmerican set the stage for Berkshire's future. In the utility Berkshire obtained an outlet for its growing streams of cash. Future returns would be lower in more capital-intensive businesses like utilities, but the certainty attached to those capital outlays and ability to invest large sums of incremental capital made it an attractive platform. Berkshire's large base of taxable income elsewhere within the conglomerate provided an added advantage to its utility operations not available to its standalone peers.

Berkshire ended the decade with $40 billion in cash and not enough attractive outlets to invest in despite the frenzy of acquisition activity. The idle cash was a symptom of Berkshire's growing size and the shrinking universe of investment opportunities available to move the needle.

2005–2014

Table 8.5: Select data

($ millions)	2014	2004	Change
Revenues	$194,673	$74,382	162%
Pre-tax operating earnings	24,024	7,447	223%
Average float	80,581	45,157	78%
Shareholders' equity	240,170	85,900	180%
Book value per share	$146,186	$55,824	162%

Sources: Berkshire Hathaway Annual Reports 2004, 2014.

The decade that ended in 2014 may well have been the last where Berkshire was able to retain most of its earnings. Its rate of growth in book value per share slowed dramatically as cash accumulated without enough investment

opportunities. Berkshire implemented a buyback policy and bought back its own shares on two occasions totaling $1.7 billion.

The acquisitions made during this decade were numerous. It ended the decade with the Powerhouse Five, consisting of Iscar, Marmon, BNSF, Lubrizol, and Berkshire Hathaway Energy (formerly MidAmerican). Only the last was around in 2005. These businesses were easy to understand and provided a product or service sure to be needed long into the future. Two of them (BNSF and Lubrizol) were large public companies before joining Berkshire. With BNSF, Berkshire gained another utility-like operation that could take massive amounts of capital investment. These and numerous other acquisitions (including many bolt-on acquisitions) resulted in 70% of the change in net worth coming from operations, up from 26% the previous decade.

Berkshire's size and cash reserves had its advantages. During the Great Recession of the mid-2000s, it made very attractive fixed maturity investments at a time of very low interest rates when other businesses were short on cash. Berkshire also secured significant equity stakes along with them. Berkshire's unparalleled balance sheet strength created reinsurance opportunities other companies couldn't offer, including a single premium totaling $7.1 billion.

Concentrated Investments

Examining the broad arch, we can see that this half-century of Berkshire Hathaway's history consisted of a series of large, concentrated capital allocation decisions mixed with many smaller ones (see Table 8.6). At the end of the decade, Berkshire's equity investments were highly concentrated, with the Big Four (American Express, Coca-Cola, IBM, and Wells Fargo) accounting for 59% of the portfolio. Berkshire's acquisitions were similarly concentrated. The largest acquisition in each decade represented no less than 15% of equity capital at the time of acquisition. Berkshire's capital allocation strategy was one of patient opportunism. It made or held large partial interests in companies via the stock market and acquired successively larger companies as each decade went on.

Table 8.6: Significant capital allocation decisions by decade

Decade ended:	1974	1984	1994	2004	2014
Common stock portfolio:					
Largest single common stock investment (% of portfolio[1])	23%	31%	34%	23%	23%
Top four common stock investments (% of portfolio)	47%	75%	57%	65%	59%
Top four (% of average equity at end of year)	20%	79%	78%	30%	30%
Acquisitions (% average equity capital at time of purchase):					
Illinois National Bank & Trust (1969)	44%				
National Indemnity (1967)	28%				
Buffalo News (1977)[2]		15%			
Nebraska Furniture Mart (1983)		6%			
Scott Fetzer (1986)			19%		
Dexter Shoe (1993)			4%		
General Re (1998)[3]				18%	
GEICO (1996)[4]				12%	
BSNF (2010)[5]					18%
Heinz (2013)[6]					6%

Footnotes:
1. Washington Post (1974); GEICO (1984); Coca-Cola (1994); American Express (2004); Wells Fargo (2014).
2. Buffalo News acquisition price compared to the combined average equity of Berkshire Hathaway, Blue Chip Stamps, and Diversified Retailing.
3. Size of General Re acquisition based on the 272,000 shares issued divided by the 1,518,548 shares outstanding at the end of the year.
4. Using the $2.33 billion purchase price for the remaining half of GEICO Berkshire did not already own.
5. Using the $26.5 billion purchase price for the 77.5% of BNSF Berkshire did not already own.
6. Using the $12.25 billion equity + preferred investment.

Sources: Berkshire Hathaway Annual Report 1974, 1984, 1994, 2004, 2014; and author's calculations.

Rocket Fuel: Insurance Float

Insurance float was perhaps the single most important factor driving Berkshire's growth over the first fifty years. Float produced both capital to deploy advantageously and substantial underwriting profits. Berkshire was in the insurance business forty-eight of the first fifty years of its modern existence. Discounting the partial first year in 1967, there was a negative cost of average float for twenty-seven years. In just eight of those years was Berkshire's cost of funds higher than that of the long-term US government bond. As time went on, Berkshire perfected its underwriting. This double benefit (increasing float *and* a loss experience that improved over time)

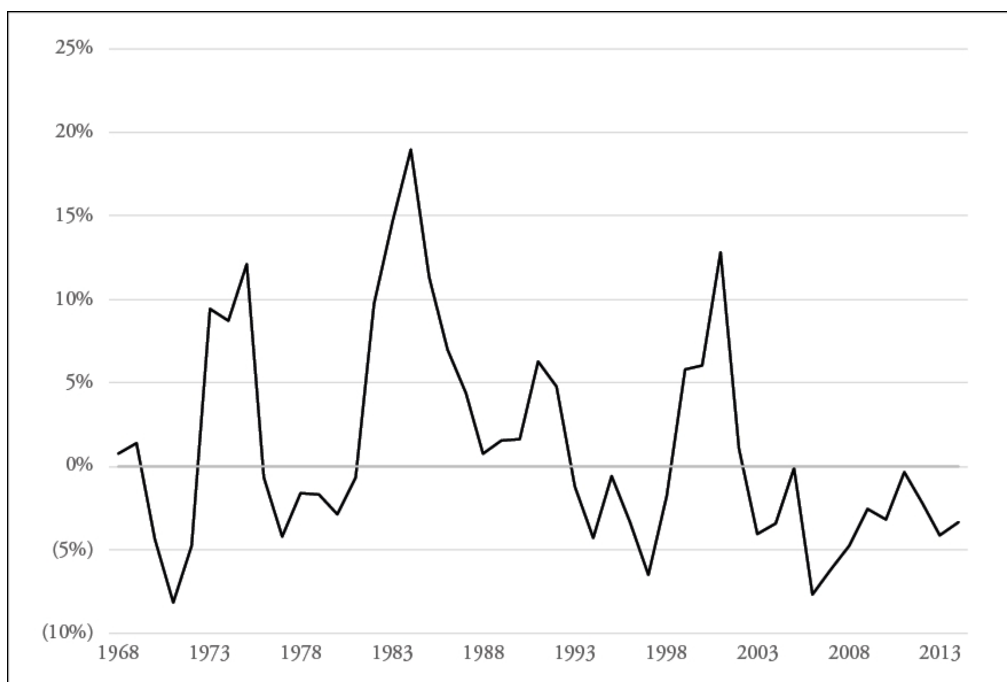
resulted in substantial profits. Most of Berkshire's cumulative underwriting profits came in the last decade (see Table 8.7).

Table 8.7: Berkshire Hathaway pre-tax underwriting gain/(loss) by decade

($ millions)	
1968–1974	($5)
1975–1984	(93)
1985–1994	(285)
1995–2004	(3,248)
2005–2014	21,259

Sources: Berkshire Hathaway Annual Reports and author's calculations.

Figure 8.1: Berkshire Hathaway insurance cost of float 1968–2014



Source: Berkshire Hathaway Annual Reports.

A Self-Forged Anchor

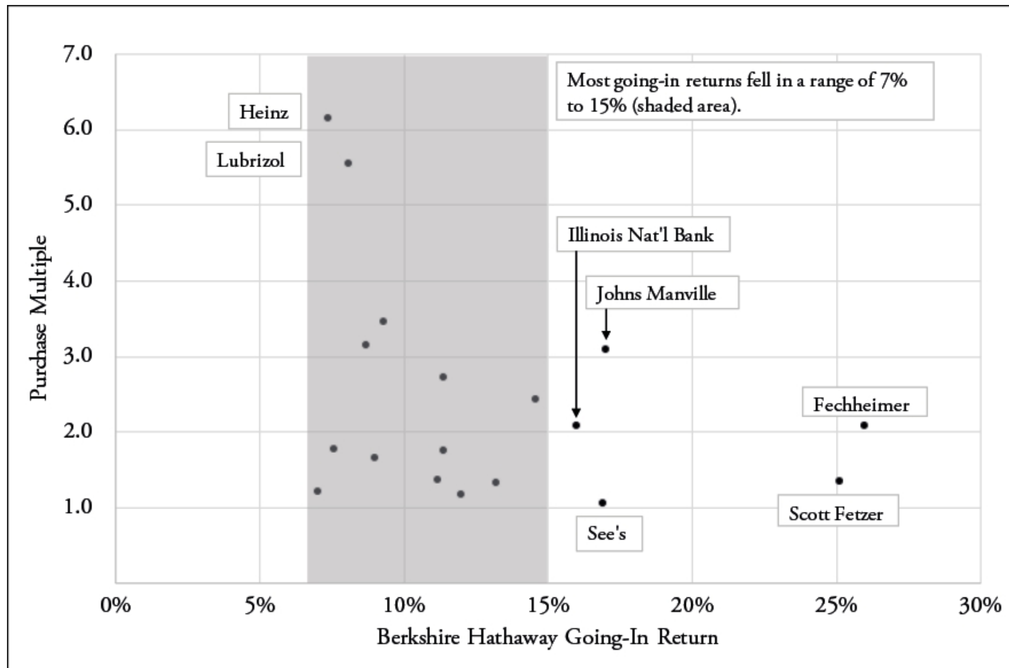
Berkshire Hathaway was the victim of its own success. As the conglomerate grew larger and larger by retaining earnings, the universe of investment opportunities shrank dramatically. Compounding the problem was a market for businesses (either in part via the stock market or in whole) that became more efficient as the years went by. In Berkshire's early years, good companies were available for bargain prices. It bought the Illinois National Bank & Trust Company and *The Buffalo News* at book value, and the discarded Scott Fetzer and Fechheimer at premiums that still produced going-in pre-tax returns in the mid-20% range. During the decade ended in 2014, it purchased a variety of businesses, some with underlying returns on capital well into the double digits. But the prices paid for these acquisitions cut the going-in returns down to the low double-digit or even single-digit range.

By charting a sample of Berkshire's acquisitions by purchase multiples and going-in returns, we can see both the value of different companies and a hint of the market situation when they were purchased (see Figure 8.2). Generally, the better the business was, the higher its price (as represented by purchase multiple paid compared to the company's underlying value). The

return on capital of the underlying businesses (the company-level return) ranges widely.

The three major outliers are See's, Scott Fetzer, and Fechheimer. See's was one of Berkshire's earliest purchases and was made when markets were not as efficient. The low Scott Fetzer and Fechheimer purchase multiples reflected that Berkshire could act as a safe port amid the leverage buyout storm of the mid-1980s. By contrast, Lubrizol and Heinz were excellent companies earning great returns on capital, but the price Berkshire paid reflected the market's correct appraisal of that fact.

Figure 8.2: Distribution of Going-In Returns, Select Acquisitions*



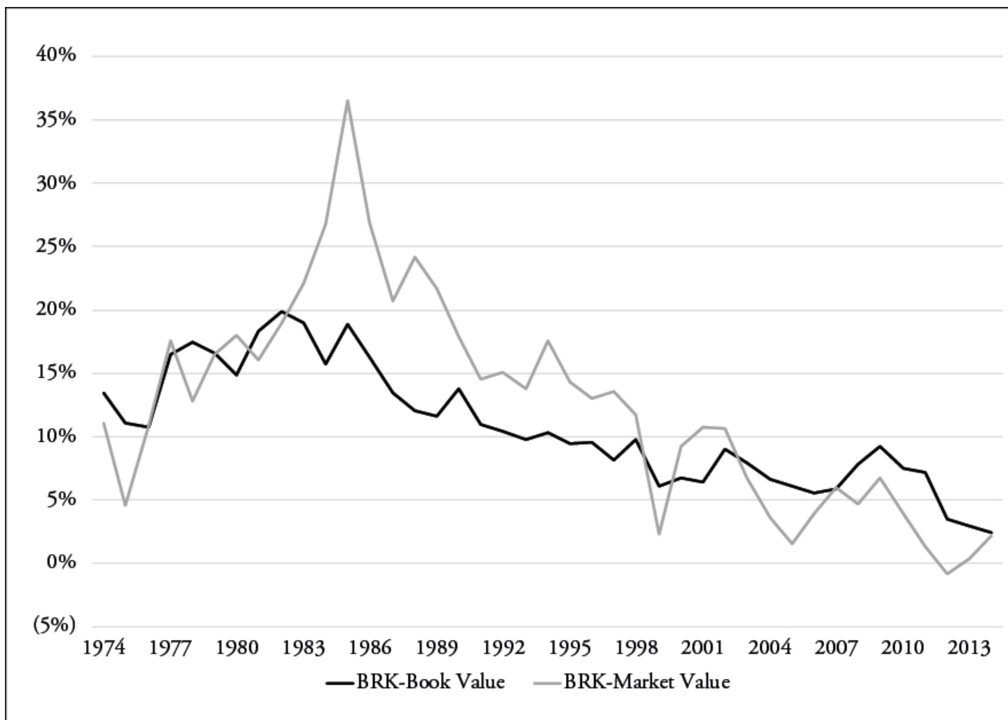
*Limited to acquisitions where the purchase multiple and going-in return were calculable.

Source: Berkshire Hathaway Annual Reports.

We can see the outperformance of Berkshire's book value and market values compared to the total return of the S&P 500 decline over its fifty-year history (see Figure 8.3). Its advantage in compounding book value per share peaked at 20% in the early 1980s and steadily declined to the single-digit percentage point range at the end of 2014.

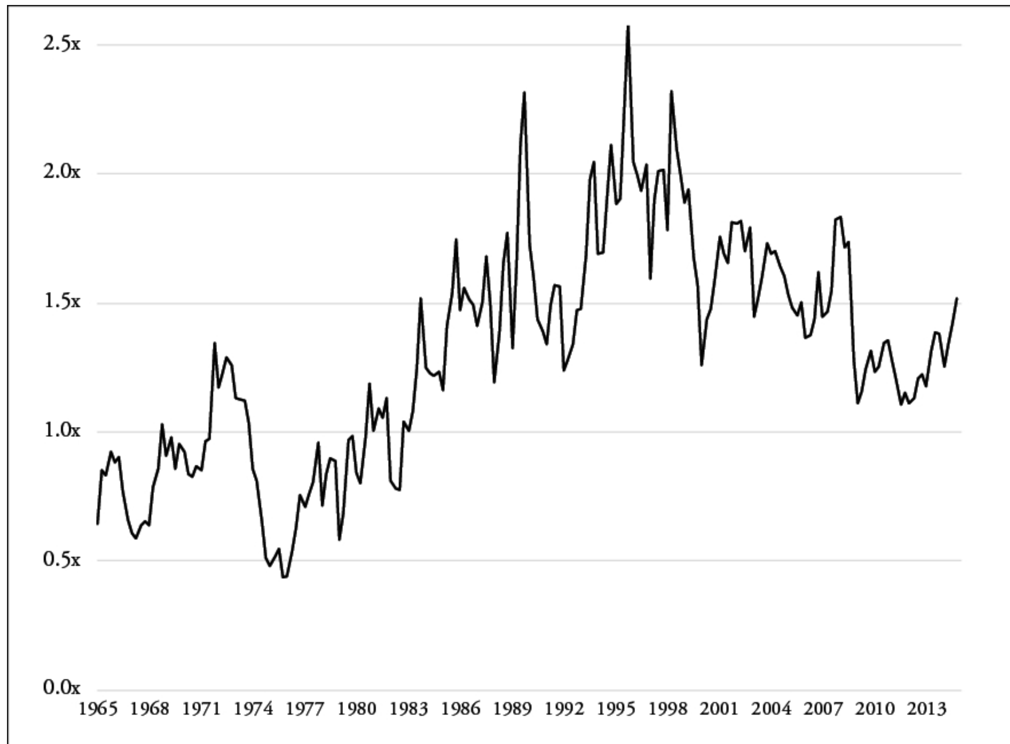
Buffett was direct in his 2014 special letter discussing Berkshire's past, present, and future: "The bad news is that Berkshire's long-term gains—measured by percentages, not by dollars—cannot be dramatic and will not come close to those achieved in the past 50 years. The numbers have become too big. I think Berkshire will outperform the average American company, but our advantage, if any, won't be great."

Figure 8.3: Trailing ten-year difference between Berkshire Hathaway's per-share book value and market value to S&P 500 (with dividends)



Source: Berkshire Hathaway Annual Report 2014 and author’s calculations.

Figure 8.4: Berkshire Hathaway price-to-book ratio, 1965–2014



Sources: *Of Permanent Value* (Kilpatrick, 2015), Berkshire Hathaway Annual Reports 1965–2014, and author's calculations.

Broad Lessons

Examining Berkshire's fifty-year history through 2014 several major lessons stand out:

- **Circle of competence:** Buffett and Munger, for the most part, stayed within their circle of competence. Building Berkshire used common sense and a focused strategy of choosing long-term businesses and investments with good economics that they understood well.
- **Business focus:** A central guiding principal was to focus on the underlying business. It did not matter whether the actual investment was a whole company, part of a company via stocks, or lending to a business via fixed income investments. A focus on the long-term economic characteristics of businesses was paramount to Berkshire's success. This included seeking businesses with strong economic moats.
- **Financial and operational conservatism:** Berkshire benefitted to an enormous degree from the float in insurance, and to a lesser extent

the trading stamp business at Blue Chip Stamps (before it faded). Some debt was used when it was available on attractive terms, and later the utility businesses used debt as appropriate. Berkshire did not seek to increase returns by employing leverage. Its conservatism also extended to accounting. Countering the tendency toward optimism (and under-reserving) its loss reserving consistently overestimated insurance losses, which led to many years of favorable loss development. Berkshire took calculated risks with its capital and never suffered a large loss in relation to equity. It moved forward quicker by avoiding significant backward steps and common pitfalls.

- **Opportunism:** Building Berkshire was an exercise in patience combined with opportunism and a reminder that opportunity cost matters. There was no grand strategy. Rather, Berkshire stood ready to make decisions as they arose. Each new investment was measured against what was already available. This included if and when to issue or repurchase its own shares. Related, Buffett maintained an entrepreneurial spirit that encouraged those within Berkshire to continually push the boundaries. Some of these entrepreneurial ventures failed, such as some of the early Home State operations, GEICO's credit card, and multiple attempts to expand See's beyond the West Coast.
- **Concentrated investments:** As was discussed above, Berkshire combined its patience and its financial resources to make large investments when they became available. On more than one occasion, Buffett and Munger made investments that would not have been made if their objective was to avoid any risk.
- **Conglomerate structure:** The conglomerate structure conferred many advantages to Berkshire. The two biggest were the ability to move capital seamlessly between operating segments and take advantage of tax benefits not available to others. Berkshire's purchase of several public companies meant those companies no longer had to spend time attracting capital for worthwhile projects or otherwise appease a sometimes shortsighted investor base. Buying for keeps also meant Berkshire could offer a permanent home for businesses built by individuals or families whose primary motivation was not to maximize the sale price. (Berkshire's conglomerate structure will be

discussed in more detail in Part 10.)

- **Autonomy:** Related to the conglomerate structure, the extreme autonomy given to operating managers meant the company could scale almost without limit and not become unwieldy. Autonomy had the added benefit of providing managers with a sense of ownership that motivated them outside of any monetary benefits. Berkshire maximized business potential by maximizing human potential.

The transformation Berkshire underwent during the 1965–2014 period was nothing short of breathtaking.

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625 To the extent the businesses had the potential to flourish. No system could have stopped the few businesses that floundered, such as Dexter.

626 Its last appearance was 1959 when it ranked 499th .

627 *Fortune magazine* archives: 2014 Fortune 500, https://fortune.com/fortune500/2014/ ; 1965 Fortune 500, https://archive.fortune.com/magazines/fortune/fortune500_archive/full/1965/401.html .

628 Berkshire's share of retained earnings not paid out as dividends.

Chapter 9: 2015–2019

Table 9.1: Half-decade snapshot: 2014–2019

	2014	2019
Business:	Insurance, utilities, railroad, numerous industrial, building, and consumer products businesses, numerous service and retailing businesses, major interest in a branded food product business, significant stakes in several public companies.	Insurance, utilities, railroad, numerous industrial, building, and consumer products businesses, numerous service and retailing businesses, major interests in branded food product businesses, significant stakes in several public companies.
Key managers:	Chairman & CEO: Warren E. Buffett; Vice Chair: Charles T. Munger	Chairman & CEO: Warren E. Buffett; Vice Chair: Charles T. Munger
Annual revenues:	$195 billion	$255 billion
Stockholders' equity:	$240 billion	$425 billion
Book value per A share:	$146,186	$261,417
Float (average):	$81 billion	$126 billion

Major capital allocation decisions:

1. Acquired Van Tuyl Automotive Group for $4.2 billion cash (2015).
2. Invested an additional $5 billion in Heinz to acquire Kraft Foods Group (2015).
3. Acquired Precision Castparts Corp. (PCC) for $32.6 billion cash (2016).
4. Acquired Duracell from Proctor & Gamble in a cash-rich split-off transaction for $4.2 billion, gross of $1.8 billion acquired cash (2016).
5. Invested $8.9 billion in the four largest US airlines.
6. Acquired 38.6% initial stake in Pilot Flying J for $2.8 billion (2017).
7. Sold entire investment in IBM for approximately $13 billion (2017).
8. Acquired Medical Liability Mutual Insurance Company for $2.5 billion cash (2018).
9. Acquired a significant stake in Apple, Inc.: $6.7 billion (2016), $14 billion (2017) and $15 billion (2018) for a total investment of $36 billion or 5.4% of the company.
10. Sold 81% interest in Applied Underwriters for $920 million (2019).
11. Invested $10 billion in Occidental Petroleum preferred stock.
12. Invested over $71 billion in capital expenditures ($32 billion more than depreciation expense) (2015–2019).
13. Repurchased $6.4 billion of its own stock (2018–2019).

Noteworthy events:

1. The Insurance Group breaks its 14-year record of consecutive underwriting profits with a pre-tax loss of $3.2 billion. GEICO reports its first underwriting loss since 2000. (2017)
2. Completes the largest retroactive reinsurance deal in history with a $10.2 billion premium with AIG (2017).
3. Buffett wins a ten-year bet that an index fund will beat a group of hedge funds (2017).
4. Congress passed the Tax Cuts and Jobs Act of 2017 which reduces the US Corporate tax rate from 35% to 21%.

This following tables have been omitted from the ebook version because formatting issues would have rendered them unreadable. The reader is welcome to download a pdf version of the omitted tables and bonus material at brkbook.com .

Table 9.2: Berkshire Hathaway pre-tax earnings

Table 9.3: Berkshire Hathaway after-tax earnings

Introduction

Berkshire Hathaway entered its sixth decade of transformation in uncharted territory. It wasn't just that one man held the reins for so long, though that is noteworthy. A conglomerate of Berkshire's size simply hadn't existed before. How would the playbook change as capital began to accumulate faster than it could profitably be allocated? Since this book is being finalized in 2020, we must wait to see the longer story unfold. The first five years of the 2015–2024 decade looked much like the decade that preceded it. In short, Berkshire continued to make the most intelligent decisions at any time.

The conglomerate generated huge amounts of capital between 2015 and 2019 thanks to retained earnings and the effects of compounding. Berkshire continued to benefit from a playbook that included options to allocate capital into wholly-owned businesses or stocks. It found some smart uses of capital in the face of sky-high business valuations and an ever-advancing stock market fueled by continued low interest rates. One major acquisition materialized, as did a host of smaller bolt-on acquisitions that soaked up some capital. So too did Berkshire's partnership with 3G Capital, which allowed it to add another household name to the roster of businesses it owned or controlled.

Berkshire's future in a post-Buffett world became clearer during this time. It restructured management and promoted two long-time lieutenants to vice chairmen. However, the question of who would succeed Buffett as CEO remained. The gusher of cash found a partial relief valve in an expanded share repurchase program. Berkshire modified the criteria and returned a modicum of capital to shareholders in the form of buybacks. Would Berkshire have opportunity to return more cash through buybacks? Would it institute a dividend? These questions remained as cash built to a record $128 billion at year-end 2019 despite best efforts to use it.

One fact remained very clear. Warren Buffett and Charlie Munger weren't done shaping Berkshire Hathaway.

Table 9.4: Select information 2015–2019

	2015	2016	2017	2018	2019
BRK book value per share - % change	6.4%	10.7%	23.0%	0.4%	23.0%
BRK market value per share - % change	(12.5%)	23.4%	21.9%	2.8%	11.0%
S&P 500 total return	1.4%	12.0%	21.8%	(4.4%)	31.5%
US GDP Growth (real %)	3.1%	1.7%	2.3%	3.0%	2.2%
10-year Treasury Note (year-end %)	2.2%	2.5%	2.4%	2.8%	1.9%
US inflation (avg. annual %)	0.1%	1.3%	2.1%	2.4%	1.8%
US unemployment (avg. annual %)	5.3%	4.9%	4.3%	3.9%	3.7%

Sources: Berkshire Hathaway Annual Reports 2018, 2019 and Federal Reserve Bank of St. Louis.

2015

Berkshire's gain in net worth during 2015 amounted to $15.4 billion, an increase of 6.4%. This was significantly ahead of the 1.4% gain recorded for the S&P 500. But in 2014, Buffett had switched his preferred yardstick to Berkshire's change in market value per share, which fell 12.5%. These were two competing data points. Which to believe? Buffett was confident the market value metric would prevail over time. He knew Berkshire's share price, like that of the market in general, would rise and fall but eventually settle close to intrinsic value. A single year was not enough data to draw any definitive conclusion. Buffett preferred to look at Berkshire's progress building normalized earnings power (earnings excluding any gains or losses from marketable securities or derivatives) to evaluate a single year, and he thought Berkshire had a good year on that front.

The Powerhouse Five, the largest non-insurance businesses (comprised of Berkshire Hathaway Energy, BNSF, Iscar, Lubrizol, and Marmon), reported record earnings. That included a turnaround by BNSF, which earned Buffett's praise in 2015 after disappointing the prior year. The dozens of other non-insurance businesses increased their earnings too. Insurance turned in its thirteenth consecutive year of underwriting profits and again increased float. Large capital expenditures and many bolt-on acquisitions increased the earnings power of Berkshire's existing businesses. The partnership with 3G Capital expanded again when Heinz merged with Kraft to create a consumer brand giant. Additional capital was put to work in equity securities.

In Buffett's Chairman's letter he provided an update on the two quantitative factors he thought useful for estimating Berkshire's intrinsic value. For the first time he included underwriting profit in the per-share operating earnings figure. [629] His reasoning was the underwriting business had changed substantially; earnings were more stable than a decade or two ago and were less heavily influenced by catastrophe coverage. Still, Buffett was quick to point out that an underwriting loss remained possible as the super cat business hadn't gone away; it just diminished in relation to other business.

Table 9.5: Berkshire Hathaway intrinsic value estimation

	With insurance underwriting		W/out insurance underwriting	
Per share (A-equivalent):	2015	2014	2015	2014
Investments (Kraft Heinz at market)	$159,794	$140,123	$159,794	$140,123
Pre-tax operating earnings (ex. investment income)	12,304	12,471	11,186	10,847
Estimated value (investments + 10x operating earnings)	282,834	264,832	271,654	248,593
Year-end share price	197,800	226,000	197,800	226,000
Year-end book value per share	155,501	146,186	155,501	146,186
Price/estimated value	0.70x	0.85x	0.73x	0.91x
Price/book	1.27x	1.55x	1.27x	1.55x
Value/book	1.82x	1.81x	1.75x	1.70x
Change in estimated value	6.8%		9.3%	
Change in share price	(12.5%)		(12.5%)	

Sources: Berkshire Hathaway Annual Reports 2014, 2015; and author's calculations.

Insurance

The Insurance Group delivered a $1.8 billion pre-tax underwriting gain in 2015 in addition to increasing year-end float by 4.5% to $87.7 billion. Each major insurance segment was profitable, though not without their unique challenges.

Table 9.6: Berkshire Hathaway—Insurance Underwriting

($ millions)	2015	2014
GEICO		
Premiums earned	$22,718	$20,496
Underwriting gain/(loss) - pre-tax	460	1,159
General Re		

Premiums earned	$5,975	$6,264
Underwriting gain/(loss) - pre-tax	132	277
Berkshire Hathaway Reinsurance Group		
Premiums earned	$7,207	$10,116
Underwriting gain/(loss) - pre-tax	421	606
Berkshire Hathaway Primary Group		
Premiums earned	$5,394	$4,377
Underwriting gain/(loss) - pre-tax	824	626
Total premiums earned	$41,294	$41,253
Total underwriting gain/(loss) - pre-tax	1,837	2,668
Average float	85,822	80,581
Cost of float	(2.1%)	(3.3%)

Sources: Berkshire Hathaway Annual Report 2016 and author's calculations.

GEICO

GEICO reported mixed results. In the plus column, a combination of rate increases and policyholder growth expanded earned premiums 10.8% to $22.7 billion. Its market share grew from 10.8% to 11.4%. Underwriting expenses (at 15.9% of premiums) had a fourth consecutive year of improvement. That's where the good news ended. Losses ballooned by 4.4 percentage points to 82.1% of premiums. The cause was an increase in both frequency and severity of claims. Such an increase could only be attributed to more drivers using smartphones. [630] [631] The higher loss experience caused GEICO's underwriting profit to decline 60% to $460 million, a 98% combined ratio. It would have to increase premium rates even more to counter the higher loss experience and return to historical rates of profitability.

General Re

General Re also faced headwinds in 2015. High industry capacity depressed pricing and reduced Gen Re's appetite for new business. But Gen Re remained profitable, a reflection of its culture of aiming for underwriting profits irrespective of volume. Its overall pre-tax underwriting gain fell 52% to $132 million on earned premiums that declined 5% to $6 billion. Gen Re

was the only insurance unit to experience a decline in float during the year, which fell 3.7% to $18.6 billion.

Earned premiums in property/casualty were $2.8 billion, a decline of 10% (2% adjusted for currency). Pre-tax underwriting profits fell 26% to $150 million. An explosion in Tianjin, China costing $50 million was the only major catastrophe loss, but higher loss ratios elsewhere weighed on profitability. Property gains totaled $289 million and benefitted from favorable loss development. Casualty losses of $139 million included charges for discount accretion on workers' compensation liabilities and deferred charge amortization on retroactive reinsurance contracts, a drag that would continue largely independent of year-to-year changes in premium volume. Consistent current year losses on casualty business largely stemmed from Gen Re's conservative underwriting. In each year since 2009 the casualty lines reported favorable development of prior year business. Gen Re's troubled history was close enough in the past to remind it that continued discipline was required for good results in reinsurance.

The life/health lines reported losses of $18 million compared to a $73 million gain the year before. Earned premiums were flat at $3.2 billion but would have increased 8% if not for currency headwinds. New business came from markets in Canada and Asia. Weakness in its North American long-term care business and in individual life caused profitability to decline.

Berkshire Hathaway Reinsurance Group

BHRG also faced headwinds from depressed pricing. It too remained profitable, though its pre-tax underwriting gain fell 31% to $421 million on earned premiums that declined 29% to $7.2 billion. Ajit Jain earned his usual praise from Buffett in the Chairman's letter. It's easy to see why. Even in the face of industry headwinds, Jain's group increased float 4% to $44 billion.

Earned premiums in property/casualty increased 8% to $4.4 billion but profits fell by 33% to $994 million—a stellar result by any measure. A new ten-year, 20% quota-share contract with Insurance Australia Group that started on July 1 more than offset declines in earned premiums from property catastrophe, property quota-share, and London markets. The only notable catastrophe loss was an $86 million loss from the same explosion in China that hurt Gen Re's results.

The retroactive reinsurance segment all but disappeared. Premiums written and earned amounted to just $5 million in 2015, down 99.9% from the $3.4 billion the year before. Such a large decline reflected Berkshire's willingness to walk away when business was not available at appropriate prices. Shutting off the spigot revealed the impact of the deferred charges Buffett frequently pointed to as a drag on reported earnings. The retroactive segment reported a loss of $469 million with all but $60 million stemming from deferred charge amortization. [632]

Earned premiums from life/health increased 4% to $2.8 billion. A loss of $54 million was an improvement from a $173 million loss the year before. In 2015, Berkshire broke down the life/health segment into three additional categories. Each category was tied to time-value-of-money concepts and produced accounting charges that hid the valuable economics of its float. The categories were:

1. *Periodic payment annuity* : Berkshire received upfront premiums and made payments stretching over decades. This type of business records no gain or loss upfront. Instead, charges are recognized over time like the deferred charge amortization on retroactive reinsurance business. In this case, they arise because liabilities are discounted upfront to account for the time value of money, and the charges (called discount accretion) are taken into earnings.
2. *Life reinsurance* : Berkshire took the risk from the direct writers of life insurance.
3. *Variable annuity* : This business guaranteed closed blocks of variable annuity business written by direct writers.

Berkshire Hathaway Primary Group

The Primary Group grew earned premiums 23% to $5.4 billion and pre-tax underwriting profit by 32% to $824 million (an 84.7% combined ratio). Major contributors were the new Berkshire Hathaway Specialty Group, NICO Primary, the Home State companies, and GUARD. BH Specialty Group grew premium volume to $1 billion, an incredible achievement considering the unit was formed in 2013.

Regulated, Capital-Intensive Businesses

In 2015 BNSF regained its good graces with Buffett by improving its service levels. Just as Buffett predicted the previous year, the railroad's financial performance followed suit. Pre-tax profits grew 10% to a record $6.7 billion. Bolstering growth were massive capital expenditures of $5.7 billion—almost three times depreciation charges. [633] This was as it should be. Berkshire's railroad carried 17% of all intercity freight in the US during the year.

BNSF's 5.5% decline in revenues to $22 billion illustrates the importance of understanding the underlying business model of a company and paying attention to the right variables. One of the largest expenses of any railroad is fuel, and most pass these costs through to shippers. A 41% decline in fuel costs during the year was the major reason why BNSF's revenues declined during 2015. Its freight volume was flat at 10.3 million units, which shows the railroad regaining control of expenses.

Berkshire Hathaway Energy (BHE) increased EBIT 6.8% to $3.4 billion. Berkshire's share of net earnings grew $13% to $2.1 billion. A large part of that increase came from the addition of Alta Link, the Alberta, Canada-based electric distribution business acquired in late 2014. BHE's existing businesses continued to generate the stability inherent in their business models. Two items of note affected the financials. One was a strong increase in the value of the US dollar. This had the effect of reducing reported revenues and earnings from UK-based Northern Powergrid. The other item affecting the financials was a decline in energy costs. Like BNSF, BHE passed along these savings to customers. This was to be expected from a heavily regulated business.

Manufacturing, Service, and Retailing

Berkshire again revised its presentation of the MSR business (nothing changed operationally). The businesses were split into two broad categories: manufacturing businesses, and service and retailing businesses. Both were further delineated into three main segments (see Table 9.7). McLane was reported separately because its revenues were large compared to Berkshire's total. Earnings for the group totaled $36.1 billion, down 2%.

Comparative results (undisclosed) were poorer considering Berkshire made acquisitions in this segment during the year.

Table 9.7: Manufacturing, Service, and Retailing businesses—pre-tax earnings

($ millions)	2015	2014	% Change
Industrial products	$2,994	$3,159	(5%)
Building products	1,167	896	30%
Consumer products	732	756	(3%)
Subtotal - manufacturing	4,893	4,811	2%
Service	1,156	1,202	(4%)
Retailing	564	344	64%
McLane	502	435	15%
Subtotal - service and retailing	2,222	1,981	12%
Total pre-tax earnings	7,115	6,792	5%
Income taxes and non-controlling interests	(2,432)	(2,324)	5%
Earnings after tax	$4,683	$4,468	5%

Sources: Berkshire Hathaway Annual Report 2015 and author's calculations.

With so many businesses to report, the categories were logical. But some analysts pined for additional data. Results from large companies like Shaw, Lubrizol, IMC (as the parent company of Iscar [634]), and Marmon were aggregated and discussion squeezed into just a few paragraphs along with many other businesses instead of being individually reported. Some had previously been public companies that produced annual reports hundreds of pages long. Much of that data was now gone as part of Berkshire's reporting. Many of the businesses were similar enough that the consolidated data was still valuable. The report did identify specific businesses where the impact was meaningful, but Berkshire's growth diminished the importance of individual businesses compared to the whole.

Industrial Products (revenues of $16.8bn, down 5%) : A big part of the 5% decline in pre-tax to $3 billion earnings from industrial products came from a stronger US dollar. IMC was likely responsible for most of the impact, as it was the largest business in the segment and located overseas. A

slowdown in demand began over the second half of the year and was expected to continue into 2016.

Building Products (revenues of $10.3bn, up 1.9%) : This was the only manufacturing segment to increase earnings. The large 30% jump in earnings to $1.2 billion on just a 2% increase in revenues was a result of higher unit volume, lower raw materials costs, and energy savings, offset by the strong US dollar and restructuring costs. Bolt-on acquisitions increased earnings as well. The large increase in earnings illustrated the pricing power of those businesses. The segment included Shaw, Johns Manville, Acme Building Brands, Benjamin Moore, and MiTek. These businesses did not face price regulation and were not required (like Berkshire Hathaway Energy and BNSF) to pass along savings to customers. Crucially, their competitive positions did not require it either. Some unregulated businesses nonetheless face competition so intense they must pass on savings to customers to retain business.

Consumer Products (revenues of $9.1 bn, flat) : Earnings from consumer products fell 3% to $732 million because of a loss at Fruit of the Loom (related to selling an unprofitable unit) and declines in footwear. Earnings at Forest River increased on higher unit sales and increased prices.

Service (revenues of $10.2bn, up 3.5%) : This was the only service and retailing segment to see a decline in earnings, which fell 4% to $1.2 billion. NetJets expanded operations but faced lower margins and higher costs (including a one-time lump-sum payment related to a collective bargaining agreement) that weighed on the results of the entire segment. Newspaper revenues (and presumably profits) declined. Offsetting this was the addition of WPLG, the Miami, Florida television station Berkshire acquired in 2014, and the addition of Charter Brokerage.

Retailing (revenues of $13.3bn, up 214%) : This segment welcomed two new businesses in 2015 which increased pre-tax earnings by 64% to $564 million. The first was the Van Tuyl Group, a group of eighty-one automotive dealerships located in ten (mostly western US) states. The acquisition also included Van Tuyl's two related insurance businesses, two auto auctions, and a distributor of automotive fluid maintenance products. Buffett met Larry Van Tuyl years before and the Van Tuyls decided Berkshire would be a good permanent home for the business. Upon joining Berkshire Van Tuyl was renamed Berkshire Hathaway Automotive. The

business was built by Larry Van Tuyl and his father, Cecil, over sixty-two years. A key insight the Van Tuyls had, and Buffett shared, was creating a sense of ownership with each local manager. "We will continue to operate with extreme—indeed, almost unheard of—decentralization at Berkshire," he explained to shareholders. This allowed them to successfully grow the business to the fifth-largest auto group in the US. [635]

A limited amount of data was available on the Van Tuyl acquisition. Buffett put the company's annual sales volume at $9 billion. Industry commentators thought pre-tax earnings might be between $350 and $471 million. [636] The purchase price of $4.1 billion included $1.3 billion in cash and investments. Adjusting for cash, it appears Berkshire paid between six- and eight-times pre-tax earnings. This apparent bargain price looks less rich considering that light vehicle sales (sales of cars, vans, SUVs and smaller pickup trucks) were at or near recent highs of about 17 million annually. [637]

The second acquisition of 2015 in this segment was Detlev Louis Motorrad. The company was one of the largest retailers of motorcycle accessories in Germany. The acquisition was too small to be detailed in the Berkshire Annual Report. Some sources put its annual revenues at around 270 million Euros (about $300 million) and the purchase price at about 400 million Euros (about $444 million). [638] The deal was notable in another way. Buffett tapped Ted Weschler to negotiate the deal and then made him chairman to oversee the investment.

Earnings from Berkshire Hathaway Automotive and Detlev Louis Motorrad were the primary reason for the 64% increase in retailing earnings in 2015. Furniture retailing revenues increased 24% from the new Nebraska Furniture Mart store in Texas and increases from RC Willey and Jordan's.

McLane (revenues of $48.2bn, up 3%) : Berkshire's only standalone business other than BNSF, McLane, increased volumes in foodservice (up 6%), beverage (up 8%), and grocery (up 2%). This was another business able to directly benefit (at least in the short run) from the decline in fuel costs. Pre-tax earnings grew 15% to $502 million. A $19 million gain (or about 4 percentage points) came from a one-time gain from the sale of an undisclosed subsidiary.

Finance and Financial Products

Pre-tax earnings in Finance and Financial Products jumped 13% to $2.1 billion. The major driver of the increase was a 27% increase (to $706 million) in earnings from Clayton. Clayton increased unit sales and benefitted from lower interest costs and lower delinquencies/foreclosures. Marmon's tank leasing business (UTLX) and XTRA's trailer leasing business were lumped into transportation equipment leasing. Pre-tax earnings of those businesses increased 10% to $909 million. Part of that increase was a $1 billion purchase of 25,085 tank cars from General Electric (bringing its total to 133,280). UTLX also acquired several businesses during the year to continue building out its full-service maintenance operation. Berkshire couldn't come close to the financing advantage of banks to conduct pure leasing operations. Both the tank leasing business and XTRA's trailer leasing business had important service components that added value above and beyond a simple financing arrangement. Everything else from CORT to Berkadia and the fees charged to Clayton and NetJets for use of Berkshire's credit fell to the other category. Earnings in that category increased 4% to $471 million.

Investments

Berkshire's investment portfolio saw few changes in 2015. A net $1.5 billion was invested in equities funded by a few sales. The most notable sales were Berkshire's positions in Swiss Re and Munich Re, two European-based reinsurers. The position in Munich was valued at $4 billion at year-end 2014; Swiss Re was too small to be specifically identified. Buffett elaborated on his reasoning for selling the investments at the 2016 Annual Meeting. He said it came down to two factors, and neither was related to management, which he continued to admire:

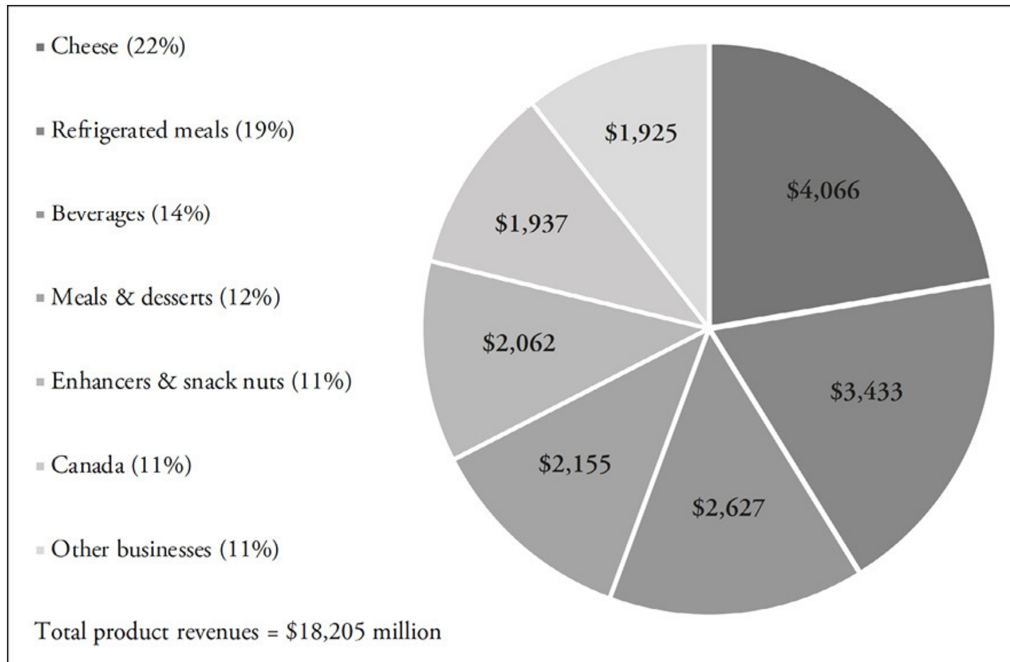
1. An influx of capital that flooded the reinsurance industry and pressured premium rates. This was likely to continue for some time.
2. Low interest rates made insurance float much less valuable. That was more important for European-based insurers since interest rates there were low or even negative. Berkshire would be hurt by the competition and low rates, but it had more options to invest its float, including the acquisition of non-insurance subsidiaries.

The largest additions to the investment portfolio were not new companies, but bigger investments in existing companies, in this case two of the Big Four investees: Berkshire increased its investment in Wells Fargo by an additional $859 million and IBM by $634 million. Berkshire's interest in the other two Big Four investees also increased as American Express and Coca-Cola repurchased shares during the year. Buffett estimated that a 1 percentage point increase in any of those companies increased Berkshire's portion of their annual earnings by $500 million. He was enthusiastic about their management and long-term potential and reminded shareholders why he didn't mind owning non-controlling interests in other companies. Having stocks as an outlet for capital allocation provided two other advantages. One was the ability to put capital to work when it represented the best opportunity available. The other was the reverse as "having a huge portfolio of marketable securities gives us a stockpile of funds that can be tapped when an elephant-sized acquisition is offered to us."

Kraft Heinz

Berkshire again found opportunity with 3G Capital. This time it was the purchase of Kraft Foods Group, Inc. Like Heinz, Kraft was a well-known consumer packaged food and beverage company that owned many iconic food brands. In addition to its signature Kraft-branded lines, the company owned Oscar Mayer, Philadelphia cream cheese, Velveeta, JELL-O, Cool Whip, Kool-Aid, and Maxwell House coffee, among many others. Kraft's business was broken down by segment:

Figure 9.1: Kraft 2014 revenues by segment ($ millions)



Source: Kraft Foods 2014 10K.

The Kraft that merged with Heinz had a history with Berkshire Hathaway. Berkshire owned General Foods (Kraft's predecessor company) in the 1980s before it was taken over in a leveraged buyout. General Foods was later combined with Kraft, Inc., and in 2012 was split off from its renamed parent, Mondelez. Mondelez focused on international food and snack brands while Kraft contained the mostly US-based food and beverage brands.

The qualities that attracted Berkshire and 3G Capital to Heinz also attracted it to Kraft. Kraft's brands were iconic and had a long history of consumer purchasing habits. The quality of the brands resulted in significant amounts of goodwill and intangible assets on the balance sheet. Operating them required far less tangible capital, as evidenced by the strong historical pre-tax returns on capital (see Table 9.8).

The purchase price for Kraft reflected the quality of its underlying businesses and the expectation that the management team at 3G Capital could implement their cost-cutting playbook. To do that, the existing Heinz shareholders (3G Capital and Berkshire Hathaway) had to retain control of the post-merger company. The merger was structured such that 3G Capital and Berkshire would end up with 51% of Kraft Heinz, the new post-merger company. Existing Kraft shareholders would receive 49% of the company

and a one-time $10 billion dividend funded by an additional equity contribution by 3G Capital and Berkshire. Because Berkshire owned slightly more of Heinz prior to the merger, it ended up with a 26.8% stake in Kraft Heinz.

Table 9.8: Kraft—acquisition analysis

($ millions)	2014	2013	2012	2011	2010
Total revenues	$18,205	$18,218	$18,271	$18,576	$17,797
Revenues/avg. capital[1]	$3.27	$3.35	$3.63	n/a	n/a
EBIT margin[2]	17%	16%	16%	17%	17%
Pre-tax return on capital	55%	55%	59%	n/a	n/a
49% of Heinz capitalization[3]	$14,334				
BRK & 3G equity contribution[4]	10,000				
Value given for 51% of Kraft equity	24,334				
Implied purchase price of 100% of Kraft equity	$47,714				
Debt	9,286				
Effective purchase price	$57,000				
Purchase multiple	10.8x				
BRK going-in pre-tax return (2014)	5.1%				

Footnotes:
1. Average capital calculated using specific working capital and fixed asset accounts for consistency. Data for 2011 did not contain comparable figures for accrued pension costs and accrued postretirement health care costs.
2. Adjustments were made to exclude changes to defined benefit plans.
3. Heinz capitalization at year-end 2014 consisted of equity ($7,336), total debt ($13,597) and preferred stock ($8,320).
4. Berkshire invested $5,260 and 3G invested $4,740.

Note: Balance sheet data for Kraft for 2010 was not available.

Sources: Berkshire Hathaway Annual Report 2015; Kraft Annual Reports 2012–2014; H.J. Heinz Holding Corporation S-4 registration statement filing; and author's calculations.

The Kraft Heinz merger was not without its accounting complications. The transaction included the issuance of shares, which reduced Berkshire's ownership from 52.5% to 26.8%. The equity method (the accounting applicable to Berkshire's ownership interest) accounts for that reduction in ownership as a sale. This holds true even though no cash changed hands. If Heinz had issued new shares in exchange for cash it would have had the same economic effect as Berkshire selling some of its shares. In this case, Berkshire was selling a part of its ownership in Heinz not for cash but in exchange for part of Kraft. As a result of the accounting requirement,

Berkshire was required to book a $6.8 billion non-cash gain. Because it was only for accounting purposes, there were no tax implications.

Productivity and Prosperity

Productivity is the amount of output per hour of labor input. Buffett devoted a section of the 2015 Chairman's letter to productivity, connecting it to both Berkshire's and America's prosperity. The topic was timely (and probably prompted by) Heinz and Kraft, whose new management at 3G Capital were known for ruthlessly improving productivity, most often by reducing headcounts. Buffett thought the connection between productivity and prosperity was not entirely clear to some, so he provided examples.

- *Farming* : The most dramatic example was America's shift away from farming during the 20th century. In 1900, 40% of the country was employed growing America's food. As of 2015, just 2% of the population worked on farms. Productivity allowed this to happen, beginning with the invention and perfection of the tractor and extending to better farming techniques and seed quality.
- *Railroading* : After World War II there were 1.35 million workers employed in the railroad industry, and they moved 655 billion revenue ton-miles. Fast forward to 2014 and Class I railroads moved 1.85 *trillion* ton-miles with just 187,000 workers. The result was a 55% decline in the inflation-adjusted cost of moving a ton-mile of freight. Safety improved dramatically too. Using BNSF as an example, Buffett said injuries fell 50% from 1996.
- *Utilities* : Berkshire Hathaway Energy's (BHE) Iowa utility in 1999 employed 3,700 people and produced 19 million megawatt-hours of electricity. Fast forward to 2015 and it generated 29 million megawatt-hours while employing just 3,500 people. Such improvements in productivity allowed BHE to keep rates the same for sixteen years. Like BNSF, safety improved too.

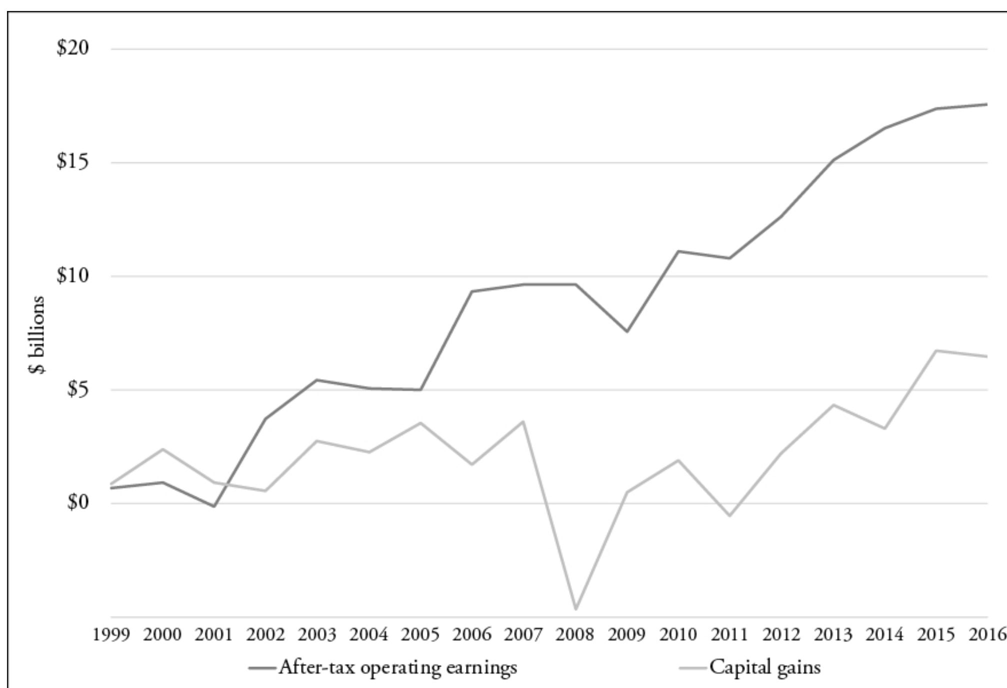
The examples above proved that increased productivity resulted in real gains to civilization and allowed more to be employed in other industries. But they came with short-term costs, most notably the workers who lost their jobs. Buffett was aware of these costs and had experienced some up

close. When Berkshire shuttered its mills in the mid-1980s (and at Dexter Shoe years later) it employed older workers with non-transferrable skills. Buffett thought the solution was social safety nets that cushioned the blow to the unfortunate workers while leaving productivity to continue working its magic for the benefit of society at large. [639] Both Buffett and Munger were clearly on the side of making operations at Kraft Heinz more efficient. They detested sloppy operations and were ever on the lookout for inefficiencies at Berkshire, noting that once costs crept in, they tended to proliferate. A large and highly profitable conglomerate required continual diligence to protect itself from such tendencies.

2016

Berkshire's gain in net worth in 2016 was 10.7%. Its market value rose 23.4% against a gain in the S&P 500 of 12%. Business results in 2016 (and perhaps the strong rise in share price) reflected another good year. The acquisition of Precision Castparts Corp. sopped up some of Berkshire's excess cash. More importantly, it added to the conglomerate's normalized earnings power. [640] Buffett presented a history of Berkshire's progress adding to its earnings power in a table in the Chairman's letter (see Figure 9.2). The data show operating earnings grew irregularly but clearly upward over time as Berkshire retained earnings and added earning power.

Figure 9.2: Berkshire Hathaway After-Tax Operating Earnings and Capital Gains 1999–2016



Source: Berkshire Hathaway Annual Report 2016.

Buffett chose to start his analysis above in 1999 because it was the year after Berkshire acquired General Re by issuing shares. Issuance of additional shares since that time grew the share count by a modest 8.3%. [641] Over that time Berkshire's operating earnings grew steadily, with a few down years along the way. The only loss year during that time was 2001. After-tax operating earnings totaled $159 billion over the seventeen-year period. Capital gains were a different story; those were erratic. Berkshire made no effort to manage the timing or magnitude of capital gains and deemphasized their importance to any single year. Over time, net capital gains (totaling $39 billion since 1999) were an important source of funding to acquire additional operating businesses, he said.

Buffett's goal for Berkshire was to increase operating earnings over time without increasing shares, which would translate into satisfactory increases in per share value over time. After-tax operating earnings grew from $670 million in 1999 to $17.6 billion in 2016, a compounded annual rate of return of 20%. By this measure the goal has been met.

Precision Castparts Corp.

On January 29, 2016, Berkshire acquired Precision Castparts Corp. (PCC) for $32.6 billion in cash. PCC was based in Portland, Oregon, and made complex metal components and fasteners primarily for the aerospace and oil & gas industries. Buffett did not hesitate to credit Todd Combs with the idea. "The PCC acquisition would not have happened without the input and assistance of our own Todd Combs, who brought the company to my attention a few years ago and went on to educate me about both the business and Mark [Donegan, its CEO]." [642]

Many of its products were critical to the proper functioning of aircraft jet engines, airframes, and industrial turbines, among others. Aerospace represented a significant majority (70% in 2015) of PCC's business. PCC was one of just a few suppliers able to manufacture products of the size and quality needed for aircraft engine manufacturers and other customers. This technological know-how gave PCC a competitive advantage that was evident in the multi-year contracts it had with major customers. With lives and reputations at stake, PCC's customers thought twice before taking the low bid.

PCC's business results reflected its deserved success winning customers. Between 2011 and 2015, PCC increased revenues 61% to $10 billion (see Table 9.9). Its margins were remarkably stable and translated into a pre-tax return on tangible capital in the mid-40% range. Buffett had high praise for Donegan. "Mark's accomplishments remind me of the magic regularly performed by Jacob Harpaz at IMC, our remarkable Israeli manufacturer of cutting tools. The two men transform very ordinary raw materials into extraordinary products that are used by major manufacturers worldwide. Each is the da Vinci of his craft."

Buffett's enthusiasm for PCC and Donegan was reflected in the acquisition price. Berkshire paid 6.7 times PCC's underlying capital, which gave it a pre-tax going-in return below 7%. He readily admitted that the low interest rate environment played a part in the price Berkshire paid for PCC.

Table 9.9: Precision Castparts Corp.—acquisition analysis

($ millions)	2015	2014	2013	2012	2011
Total revenues	$10,005	$9,533	$8,347	$7,202	$6,209
Revenues/avg. capital[1]	$1.79	$1.80	$1.77	$1.69	$1.67
EBIT margin[1]	26%	28%	26%	25%	24%

Pre-tax return on capital	46%	50%	46%	43%	41%
Purchase price (equity)	$32,658				
Debt	4,586				
Effective purchase price	$37,244				
Purchase multiple	6.66x				
BRK going-in pre-tax return	6.9%				
Footnote: 1. Adjustments were made for goodwill and intangibles.					

Note: Fiscal years ended in March.

Sources: Berkshire Hathaway Annual Report 2016; Precision Castparts Corp. Annual Reports 2011–2015; and author’s calculations.

Some wondered how Buffett could agree to spend such large sums of money so quickly. Andrew Ross Sorkin, a journalist invited to ask questions at the Annual Meeting, summed up the question as follows: “Other successful acquisitive companies use teams of internal people, outside bankers, consultants, and lawyers to due diligence, often over many months to assess deals … Speed may be a competitive advantage. You’ve done some amazing deals. But does your diligence process also put us at greater risk?” While the PCC deal was not as rapid as others in Berkshire’s past (Buffett had a couple of years to study it), Berkshire’s omission of the multitudes of personnel to assist in the transaction was much different than almost any other acquisition in the business world. Buffett’s answer was instructive.

> “It’s interesting. We’ve made plenty of mistakes in acquisitions … the mistakes are always about making an improper assessment of the economic conditions in the future of the industry or the company. They’re not a bad lease, they’re not a specific labor contract, they’re not a questionable patent. They’re not the things that are on the checklist, you know, for every acquisition by every major corporation in America. Those are not the things that count. What counts is whether you’re wrong about—whether you really got a fix on the basic economics, and how the industry is likely to develop or whether Amazon is likely to kill ’em, you know, in a few years, or that sort of thing. And we have not found a due diligence list that gets at what we think are the real risks when we buy a business.”

Buffett was telling shareholders he has a different system for assessing acquisitions. [643] It might not have fit into the conventions of Wall Street, but the success of Berkshire was proof it worked well.

PCC contributed about $1.5 billion to Berkshire's normalized earning power. Yet the size of Berkshire Hathaway's existing operations meant it would be included alongside other manufacturing companies in Berkshire's results and not as a standalone business. The conglomerate had swallowed up another Fortune 500 company.

Duracell

Berkshire completed another cash-rich split-off [644] like the ones in 2014. This time it exchanged shares of Proctor & Gamble for Duracell, the well-known maker of alkaline batteries. Buffett had been on the board of Gillette when it purchased Duracell in 1996. [645] The exchange was valued at $4.2 billion (including $1.8 billion in cash) and closed on February 29, 2016. The transaction resulted in a non-cash gain of $1.1 billion and likely saved Berkshire about $400 million in taxes. [646]

Although Duracell had a long history of operations and commanded a quarter of the market, [647] the company came to Berkshire needing improvement. In 2016, Duracell incurred $109 million in one-time restructuring and integration costs. [648]

Manufacturing, Service, and Retailing

Table 9.10: Manufacturing, Service, and Retailing businesses—pre-tax earnings

($ millions)	2016	2015	% Change
Industrial products	$4,209	$2,994	41%
Building products	1,178	1,167	1%
Consumer products	824	732	13%
Subtotal - manufacturing	6,211	4,893	27%
Service	1,161	1,156	0%
Retailing	659	564	17%
McLane	431	502	(14%)
Subtotal - service and retailing	2,251	2,222	1%

Total pre-tax earnings	8,462	7,115	19%
Income taxes and non-controlling interests	(2,831)	(2,432)	16%
Earnings after tax	$5,631	$4,683	20%

Sources: Berkshire Hathaway Annual Report 2016 and author's calculations.

Earnings from the MSR segment increased in 2016 due to the addition of PCC. The rest of Berkshire's businesses in both major categories (manufacturing, and service and retailing) were flat. Results varied widely depending on industry and sensitivity to both the US dollar and oil and gas prices. This group nonetheless earned an impressive 24% on average tangible equity of $24 billion. [649]

Industrial Products (revenues of $24.7bn, up 47%) : With the addition of Precision Castparts, pre-tax earnings of industrial products grew 41% to $4.2 billion. Adjusting for PCC, revenues declined 5% as demand fell and competition pressured prices. Earnings of this segment would have fallen too without PCC but the magnitude wasn't disclosed. This segment was hit hardest by a decline in the price of oil. Lubrizol a specialty chemical company, was probably hit the hardest. It took a $365 million hit to its earnings to dispose of an unnamed underperforming business. IMC was one of the only businesses in this category to report a small earnings increase (unspecified).

Building Products (revenues of $10.8bn, up 4.4%): The decline in oil prices combined with increased demand for their products benefitted the building products businesses modestly. Revenues and earnings increased, and both Shaw and MiTek completed bolt-on acquisitions during the year. Pre-tax earnings grew 1% to $1.2 billion.

Consumer products (revenues of $11.0bn, up 22%): These businesses shined in 2016. Pre-tax earnings grew 13% to $824 million despite a loss from Duracell (as a result of its restructuring costs). Revenues at Forest River, the recreational vehicle manufacturer, increased 12% and earnings grew even more, up 28%. Lower one-time costs compared to 2015 led to a 22% increase in apparel earnings. Footwear earnings declined by an unspecified amount.

Service businesses (revenues of $10.4bn, up 1.8%): Earnings were flat at $1.2 billion. TTI, the electronics components distributor, grew revenues 7%

but changes in the sales mix and competitive pressures resulted in no change to earnings. This was a good reminder that what mattered was the bottom line profit. Earnings at NetJets increased 19%, but the comparison year had higher subcontracting expenses and asset impairments. Newspapers reported lower earnings, but no figures were provided. None of the other businesses in this category were discussed, including FlightSafety, Dairy Queen, and Business Wire.

Retailing (revenues of $15.1bn, up 14%): Pre-tax earnings increased 17% to $659 million and included a full year of results from Berkshire Hathaway Automotive and Louis, the German motorcycle accessory retailer. Earnings from those businesses and increased earnings at other unspecified retailers in this segment contributed to higher overall earnings. Both Nebraska Furniture Mart and Jordan's Furniture opened new stores during 2015 that contributed to results in 2016. Home furnishing revenues increased 8%.

McLane (revenues of $48.1bn, down 0.3%): McLane had the rare off year. Revenues were almost flat, but its earnings fell by 14% to $431 million. The cause was an increase in labor costs and a comparative year that included a $19 million gain from the sale of a subsidiary.

Insurance

The Insurance Group delivered its fourteenth consecutive year of underwriting profits. It was also the fifth straight year where each of the four major segments reported profits. Berkshire's insurers reported a consolidated pre-tax underwriting gain of $2.1 billion and grew year-end float by 4.4% to $91.6 billion (see Table 9.11). Buffett put forth Berkshire's not-so-secret reasons for its success, writing that "a sound insurance operation needs to adhere to four disciplines." It must:

1. Understand all exposures that might cause a policy to incur losses.
2. Conservatively assess the likelihood an exposure causes a loss, and the cost of it.
3. Set a premium that delivers a profit (on average) after prospective loss costs and operating expenses.
4. Be willing to walk away from business that is not profitable.

"Many insurers pass the first three tests and flunk the fourth," he said, but Berkshire was different. Berkshire often left the table with money in its pocket—in search of a better deal. [650] Its two reinsurers knew this playbook well and continued to swim well against a strong tide. New capital entering the industry continued to pressure rates. Buffett went so far as to say he thought the next ten years could be difficult, and almost certainly not as good as the previous decade. Notwithstanding the headwinds, both General Re and Berkshire Hathaway Reinsurance Group (BHRG) reported underwriting profits for the year.

Table 9.11: Berkshire Hathaway—Insurance Underwriting

($ millions)	2016	2015
GEICO		
Premiums earned	$25,483	$22,718
Underwriting gain/(loss) - pre-tax	462	460
General Re		
Premiums earned	$5,637	$5,975
Underwriting gain/(loss) - pre-tax	190	132
Berkshire Hathaway Reinsurance Group		
Premiums earned	$8,504	$7,207
Underwriting gain/(loss) - pre-tax	822	421
Berkshire Hathaway Primary Group		
Premiums earned	$6,257	$5,394
Underwriting gain/(loss) - pre-tax	657	824
Total premiums earned	$45,881	$41,294
Total underwriting gain/(loss) - pre-tax	2,131	1,837
Average float	89,650	85,822
Cost of float	(2.4%)	(2.1%)

Sources: Berkshire Hathaway Annual Report 2016 and author's calculations.

GEICO

High expenses continued to weigh on GEICO's results, but its 98.2% combined ratio and $462 million profit were only poor in comparison to its past profitability. Losses from hail storms and flooding kept the loss ratio elevated even after the company instituted price increases. Those price increases and additional policies-in-force led to a 12% increase in earned

premiums to $25.5 billion. Growth was good when GEICO was underwriting profitably. More appropriately priced policies-in-force would lead to more profits and more float—a simple recipe for success. Incentives were a key reason GEICO's market share continued to grow year after year, ending 2016 at 12%, up from 11.4%.

GEICO's incentive compensation system is beautifully simple. It consists of two primary variables. The first is growth in policies-in-force. [651] The second is the profitability of seasoned business. Everyone at GEICO from the frontlines up to the CEO depended on those two variables. (The more senior you are, the larger the incentive compensation is in relation to your base pay.) This accomplished Buffett's goal of having GEICO deliver both more business and profitable business. "It totally aligns the goals of the organization, in terms of compensation, with the goals of the owner," he told shareholders at the 2016 Annual Meeting.

Didn't other insurers use this simple (and almost obvious) two-pronged approach? Not necessarily. And why not reward employees for GEICO's bottom line? The answer lay in the way the incentive structure shaped behavior. Buffett knew focusing on GEICO's bottom line could have adverse effects. If employees were rewarded based on profits, an easy place to scale back would be its huge advertising budget. Such short- term thinking would hamper new business growth. On numerous occasions in the past, GEICO maintained large advertising expenditures when others were cutting back. This was again the case during the latter part of 2016.

The focus on the profitability of seasoned business (returning customers) accomplished two things. For one it properly incentivized underwriting for profitability, not just growth—a bedrock principle of *all* Berkshire's insurers. Second, those advertising expenditures cost a lot in relation to the premiums they generated. First-year customers are typically not profitable, but it really pays to have them stick around. [652]

GEICO first implemented this incentive structure in 1995. Two decades later, it was still proving its effectiveness.

General Re

General Re pulled back writing policies due to weak pricing and let earned premiums fall 6% to $5.6 billion. Pre-tax underwriting profits, however,

grew 44% to $190 million as a rebound in life/health offset a decline in profits in property/casualty.

Property/casualty earned premiums fell 8% to $2.6 billion. Profits of $211 million on property business came after no significant catastrophe losses but declined from the prior year because of lower favorable loss development. Casualty/workers' compensation reported a $94 million loss, which came from the same pattern of current year losses from conservative reserving, favorable loss development on prior year business, and accounting charges related to discount accretion and deferred charge amortization. Gen Re's life/health line swung from an $18 million loss in 2015 to a $73 million profit in 2016 due to gains in international business, lower claims severity in North America, and reserving changes.

In 2016, Gen Re announced Tad Montross would be retiring at the end of the year after thirty-nine years at the company. Both Buffett and Ajit Jain (who would be elevated to oversee Gen Re in addition to BHRG), praised Montross for turning Gen Re around. Montross would be replaced by another longtime Gen Re insider, Kara Raiguel.

Berkshire Hathaway Reinsurance Group

BHRG earned premiums grew 18% to $8.5 billion and pre-tax underwriting profits nearly doubled (up 95%) to $822 million. Lower gains in property/casualty, lower losses in retroactive reinsurance, and a return to profitability in life and annuity were responsible for the increase in profits.

The property/casualty segment increased earned premiums 5% to $4.6 billion. The ten-year, 20% quota-share contract with Insurance Australia Group that began on July 1, 2015 represented 37% of earned premiums in this line. A catastrophe-free year led to another strong year of profits of $767 million but lower than the prior year because of lower reductions in prior year loss reserves (i.e. lower favorable loss development adjustments).

The retroactive reinsurance line sprang back to life after essentially taking a year off in 2015 (premiums were just $5 million). Almost all the $1.3 billion in premiums earned in 2016 in retroactive reinsurance came from three policies, including $670 million from a contract with Hartford Fire Insurance Company. That policy covered adverse development on asbestos and pollution claims losses (aggregate limit of $1.5 billion). The segment reported a $49 million loss, which would have been worse had the US

dollar not appreciated and caused a $392 million currency gain from revaluation of liabilities in other currencies.

BHRG's life and annuity business reported an underwriting profit of $104 million on $2.6 billion of premium volume. That line was further delineated into three types of business based on implicit or explicit time value of money concepts, as described more fully earlier in the discussion on 2015.

Berkshire Hathaway Primary Group

Primary Group earned premiums grew 16% to $6.3 billion but underwriting profits fell 20% to $657 million. The combined ratio deteriorated from 84.7% to 89.5%. Causes of the lower profitability were declines in the level of favorable loss development and higher losses on current year business. The footnotes warned readers not to assume favorable loss development going forward. The primary insurers wrote a lot of business with long claim-tails, such as healthcare malpractice and workers' compensation business, that could develop unfavorable in future years.

Regulated, Capital-Intensive Businesses

BNSF fixed its internal service issues in 2015 only to be hit by external factors that negatively impacted results in 2016. A combination of carload volume declines and a reduction in shipping revenues largely driven by lower fuel costs resulted in a 10% decline in BNSF's overall revenues to $19.8 billion. Pre-tax earnings fell 16% to $5.7 billion.

Carload volume declined 5% as demand for industrial products fell and coal volume contracted sharply, down 21%. Agricultural volume increased 6% and consumer products increased 1%. Coal volumes decreased in part due to a long-term shift away from using it as a fuel for electrical generation. Low natural gas prices made coal relatively more expensive, leading utilities to stop using it or to just use existing stockpiles. The decline in industrial products reduced revenues from that segment by 14% and reflected weakness in oil and gas industries (its volume wasn't disclosed).

Berkshire Hathaway Energy EBIT grew 2.6% to $3.4 billion, while Berkshire's share of net earnings grew 7% to $2.3 billion. The flat result in EBIT masked a wide range of earnings at its many operating subsidiaries. Higher rates and volume combined with lower input costs to increase MidAmerican Energy Company's pre-tax earnings by 34% to $392 million.

Part of the reason for the strong increase lay with an approved rate increase phased in over three years that MidAmerican received in 2014. The increase compensated the company for additional wind assets put in place that cut into returns on equity. The last time it increased rates was almost twenty years prior. [653]

On the negative side of the ledger, pre-tax earnings at Northern Powergrid fell 20% to $367 million. About half of the decline came from appreciation of the US dollar against the UK pound. The remainder of the decline came from lower distribution revenues and higher depreciation and impairment charges. Earnings fluctuated to a much smaller degree at BHE's other operating subsidiaries. Some benefitted from lower input costs, while others passed along most of the savings to customers. Fluctuations in temperatures also played a part in any year by impacting the demand for energy.

Finance and Financial Products

Pre-tax earnings in the Finance and Financial Products businesses grew 2.1% to $2.1 billion. Clayton's revenues grew 30% to $4.2 billion due to strong demand for homes and an expansion into site-built homes. Clayton purchased its first site-built homebuilder in 2015, added two more in 2016, and expected to acquire more in the future. Clayton's large mortgage portfolio overshadowed the manufacturing portion of its business, which resulted in its earnings growing just 5% to $744 million. The transportation equipment leasing businesses (Marmon's containers, cranes, and railcars; and XTRA) increased pre-tax earnings 5.5% to $959 million. Revenue growth of a similar magnitude and lower depreciation charges were responsible for the increase in earnings. A 9% decline in other earnings within Finance and Financial Products offset the increases at Clayton and transportation equipment leasing. Beginning in 2016 Berkshire began charging Marmon's rail and tank car unit for capital like it did for Clayton's mortgage portfolio. Curiously, NetJets wasn't included in that list, which appeared to indicate it paid off its debt or did not seek to benefit from Berkshire's strong credit rating.

Investments

Berkshire sold a net $12 billion of its equity portfolio in 2016. DaVita fell off the table presented in the Chairman's letter but remained unchanged.

USG Corp., a drywall manufacturer, also went untouched but an increase in its market value caused it to make the cutoff. Some notable sales were AT&T, Deere & Company (the maker of John Deere equipment), and Walmart, which was mostly sold ($96 million, or 2.5% of the original investment, remained at year-end). Berkshire's Proctor & Gamble shares were exchanged for Duracell.

The additions to the portfolio were notable and garnered much press. The biggest addition was Apple, the maker of iPhones, computers, and other technology. Over the year, Berkshire amassed a $6.7 billion stake valued at $7.1 billion. The purchase was made not by Buffett but by one or both of Todd Comb and/or Ted Weschler, Berkshire's two investment managers. Each managed over $10 billion at year-end 2016. Buffett gave them wide discretion over the money they managed and only learned about their moves in reviewing month end reports. [654]

The other big move was a series of investments in the airline industry. Berkshire initiated positions in American, Delta, Southwest, and United, together worth $8.9 billion at year-end. [655] Why was Berkshire interested in airlines, especially after almost losing its entire investment in USAir decades earlier and bemoaning the terrible industry economics many times afterward? "The worst sort of business is one that grows rapidly, requires significant capital to engender the growth, then earns little or no money. Think airlines." Over the ensuing decades, industry consolidation created stable market shares and less intense price competition. Spreading the investment over the four largest US carriers was a bet on the industry rather than one airline. Buffett also liked that the airlines were buying back a lot of their own shares.

Two of Berkshire's biggest investments weren't in the table at all as they were not simple common stock purchases. Its $5 billion investment in Bank of America preferred stock was worth $10.5 billion due to an option to purchase common shares. The other was Kraft Heinz, which was purchased with 3G Capital and had to be accounted for on an equity basis despite Berkshire owning publicly traded common stock. The accounting for Kraft Heinz proved that the value of private businesses could diverge quite drastically from their underlying value. The common stock cost $9.8 billion and was on the books for $15.3 billion. Yet its market value was over $28 billion. Extend the situation at Kraft Heinz to many of Berkshire's other

businesses and one can see why Buffett considered book value an understated estimate of intrinsic value.

An ongoing scandal at Wells Fargo shed light on Berkshire's risk management practices. The Wells Fargo scandal involved the bank's incentive structure that rewarded cross-selling accounts. The system backfired when it led to improper account openings. Wells Fargo was Berkshire's largest marketable security holding at year-end and Carol Loomis used it as the subject of the first question for Buffett at the 2017 Annual Meeting.

> Loomis: "How do you satisfy yourself that Berkshire isn't subject to the same risk, with its highly decentralized structure and the very substantial autonomy given to senior leadership of the operating companies?"

Buffett's response boiled down to a couple factors. One was Berkshire's culture. "We count very heavily on principles of behavior rather than loads of rules." Buffett reinforced that behavior wherever he could. This included a biannual letter to Berkshire's managers instructing them never to go near the gray area and by airing a key part of Buffett's congressional testimony related to the 1980s' Solomon scandal every year at the Annual Meeting.

Buffett also said Berkshire was not completely hands-off. It had an internal auditing system that included ways to submit anonymous tips to headquarters in Omaha, a system that brought in over 4,000 tips annually. Some tips amounted to merely griping but others led to real change. Munger went so far as to say he believed Berkshire would be blindsided by something someday. Munger thought Berkshire would gain more by over-trusting, even if it meant they would miss something big now and again (which would garner an outsize share of press). The Wells Fargo scandal offered two lessons for managers.

1. Incentives work and must be crafted carefully to avoid unintended consequences. Even well-intentioned plans can backfire and cause misery.
2. It's important to act quickly when problems surface. The Salomon and Wells Fargo scandals proved that things only get worse, not better, by delaying.

Table 9.12: Berkshire Hathaway—equity portfolio, select detail

	2016		2015		Change	
($ millions)	Cost	Market	Cost	Market	Cost	Market
American Express	$1,287	$11,231	$1,287	$10,545	$0	$686
Apple	6,747	7,093			6,747	7,093
AT&T			1,283	1,603	(1,283)	(1,603)
Charter Communications	1,210	1,955	1,202	1,367	8	588
The Coca-Cola Company	1,299	16,584	1,299	17,184	0	(600)
DaVita Healthcare Partners			843	1,291	(843)	(1,291)
Delta Airlines	2,299	2,702			2,299	2,702
Deere & Company			1,773	1,690	(1,773)	(1,690)
Goldman Sachs	654	2,727	654	2,053	0	674
International Business Machines	13,815	13,484	13,791	11,152	24	2,332
Moody's Corporation	248	2,326	248	2,475	0	(149)
Phillips 66	5,841	6,445	4,357	4,530	1,484	1,915
Sanofi	1,692	1,791	1,701	1,896	(9)	(105)
Southwest Airlines	1,757	2,153			1,757	2,153
Proctor & Gamble			336	4,683	(336)	(4,683)
US Bancorp	3,239	5,233	3,239	4,346	0	887
United Continental Holdings	1,477	1,940			1,477	1,940
USG Corp.	836	1,253			836	1,253
Walmart			3,593	3,893	(3,593)	(3,893)
Wells Fargo & Company	12,730	27,555	12,730	27,180	0	375
All other	10,697	17,560	10,276	16,450	421	1,110
Total equity securities	$65,828	$122,032	$58,612	$112,338	$7,216	$9,694

Sources: Berkshire Hathaway Annual Reports 2015–2016 and author’s calculations.

More of Berkshire’s many investments made during the recession began winding down in 2016. In September, Wrigley redeemed its preferred stock for $4.6 billion, a hefty sum compared to the $2.1 billion investment and the preferred dividends received since 2008. In December, Dow elected to

convert its $3 billion, 8.5% preferred stock investment into 72.6 million shares, which Berkshire immediately sold. In addition to these redemptions, Kraft Heinz repaid its $8 billion, 9% preferred stock for $8.3 billion. The pre-tax capital gains from these investments amounted to more than $4.2 billion. The total cash received was much higher and left Berkshire with more cash to add to its growing pile, now at $86 billion at year-end 2016.

2017

Berkshire's book value per share increased 23% during 2017. That result was 1.2 percentage points better than the S&P 500. [656] Berkshire's $65.3 billion gain in net worth was extraordinary for a conglomerate of its size. Had Berkshire's capital allocators finally found the secret to growing a company with a quarter-trillion-dollar net worth by almost a quarter in twelve months? Sadly, no. It came from a tax code change. In December 2017, Congress passed the Tax Cuts and Jobs Act of 2017. That legislation reduced the corporate tax rate from 35% to 21% (among other things) and diminished Berkshire's deferred tax liabilities by $29.1 billion. The lower tax rate meant Berkshire's shareholders were entitled to keep more of the conglomerate's profits, and those were growing.

Berkshire's operations contributed the other $36.2 billion or 12.8% of the prior year's net worth. On balance the year was a good one for Berkshire. Aided by the largest retroactive reinsurance deal in history, the Insurance Group increased float to record levels. On the negative side of the ledger, several catastrophe losses broke the fourteen-year streak of overall underwriting profitability. Most of Berkshire's many non-insurance subsidiaries did well during the year, although a few struggled with specific issues. A low interest rate environment made it difficult to compete for acquisitions and swelled Berkshire's cash hoard to $116 billion. Berkshire found modest success during the year on the acquisition front. It spent $2.7 billion on bolt-on acquisitions and made one notable partial acquisition.

Pilot Flying J

On October 3, 2017, Berkshire acquired a 38.6% interest in Pilot Travel Centers, LLC, based in Knoxville, Tennessee. [657] The company operated 750 travel centers across the US and Canada making it the largest in North

America with $20 billion in annual revenues. Better known as Pilot Flying J (from the name of its travel centers), the company resulted from the 2010 merger of Pilot Travel Centers and Flying J, and was led by Jimmy Haslam III, whose father founded a predecessor company in 1958. Berkshire's initial purchase price went undisclosed, but sources later put the figure at $2.8 billion. That implied a valuation of about $7.25 billion for the company. [658]

Insurance

Berkshire's fourteen-year streak of overall underwriting profits ended in 2017. Six catastrophes, including three hurricanes in the United States and Puerto Rico, caused major losses. [659] The Insurance Group recorded a pre-tax underwriting loss of $3.2 billion on $60.6 billion of earned premiums (up 32%), which caused it to give back some of the $28 billion in pre-tax profit accumulated over the long winning streak. In that light, the loss wasn't so bad. Nor was the 3.1% cost of float on $103 billion of average float. [660]

Buffett repeatedly told shareholders to expect a loss year at some point. This was a fact of life for a big insurer. He estimated Berkshire's share of industry losses to be about 3% and placed a worst-case mega cat (mega-catastrophe) at $400 billion. Such an event would cost Berkshire $12 billion, a sum easily covered by Berkshire's non-insurance businesses—but one that would probably bankrupt other insurers. [661]

Table 9.13: Berkshire Hathaway—Insurance Underwriting

($ millions)	2017	2016
GEICO		
Premiums earned	$29,441	$25,483
Underwriting gain/(loss) - pre-tax	(310)	462
Berkshire Hathaway Reinsurance Group		
Premiums earned:		
Property/casualty	$7,552	$7,218
Retroactive reinsurance	10,755	1,254
Life/health	4,808	4,587
Periodic payment annuity	898	1,082
Total premiums earned	24,013	14,141

Underwriting gain/(loss) - pre-tax:		
Property/casualty	(1,595)	895
Retroactive reinsurance	(1,330)	(60)
Life/health	(52)	305
Periodic payment annuity	(671)	(128)
Total underwriting gain/(loss) - pre-tax	(3,648)	1,012
Berkshire Hathaway Primary Group		
Premiums earned	$7,143	$6,257
Underwriting gain/(loss) - pre-tax	719	657
Total premiums earned	$60,597	$45,881
Total underwriting gain/(loss) - pre-tax	(3,239)	2,131
Average float	103,039	89,650
Cost of float	3.1%	(2.4%)

Note: In 2017, results for General Re were consolidated with BHRG. Results for 2016 were restated to conform to the new presentation.

Sources: Berkshire Hathaway Annual Reports 2017, 2019; and author's calculations.

Berkshire Hathaway Reinsurance Group

Beginning in 2017, General Re's results were consolidated with BHRG. The reporting was now delineated between four major lines of business: property/casualty, retroactive reinsurance, life/health, and periodic payment annuity, with some detail on activities from General Re separated for comparative purposes. A high-level analysis showed the NICO Group (BHRG's original operations) eclipsed General Re in property/casualty by about half. Gen Re's life/health business remained about double that of Berkshire Hathaway Life Insurance Company of Nebraska (BHLN Group, BHRG's original operations).

Led by Ajit Jain, Berkshire Hathaway Reinsurance Group underwrote the largest retroactive reinsurance deal in history. For a $10.2 billion premium, Berkshire agreed to pay up to $20 billion to cover losses AIG incurred prior to 2016. [662] The deal was attractive to both sides. It drastically lowered the risk that AIG would find itself with inadequate reserves and allowed Berkshire to put its superior financial strength to work. The AIG deal caused earned premiums for the retroactive reinsurance segment to grow from $1.3 billion in 2016 to $10.8 billion in 2017 and was responsible for

BHRG overall earned premiums growing 70% to $24 billion. BHRG as a whole reported a pre-tax underwriting loss of $3.6 billion compared to a $1 billion gain the year before.

Remember that a retroactive reinsurance contract does not impact profitability on day one. Instead, future expected losses in excess of the premium received are booked as a deferred charge asset that is amortized into losses over the life of the contract. That amounted to $6.2 billion for the AIG contract alone. In theory this asset represented what Berkshire would earn on the premium it received upfront. The variables that would determine Berkshire's ultimate economic result were the timing and amount of future payments. More broadly, its ability to invest the float would also play a part. Even before year-end 2017, estimates were being revised. In the fourth quarter of 2017, Berkshire increased its estimate of ultimate claim liabilities on the AIG contract by $1.8 billion. It also increased the deferred charge asset by $1.7 billion because most of those losses would occur in the future. That left $100 million as the net hit to profits in 2017. The ultimate judge of its profitability would be seen over decades. [663]

Accounting charges dominated the retroactive reinsurance line. About $1 billion of the $1.3 billion underwriting loss in 2017 was due to deferred charge amortization. [664] Charges of a similar magnitude would hit earnings in future years and create a strong headwind to an overall underwriting profit. Another $264 million foreign currency loss related to revaluation of foreign denominated liabilities also impacted results. The $100 million net adjustment from the AIG contract discussed above made up the difference.

Property/casualty earned premiums grew 5% to $7.6 billion. The 20% quota-share agreement with Insurance Australia Group from NICO Group represented 40% of its $4.5 billion earned premiums. Gen Re's property/casualty business increased earned premiums 21% to $3.1 billion despite continued headwinds from high industry capacity by adding new business and increasing participation for renewal business. Losses from hurricanes Harvey, Irma, and Maria, an earthquake in Mexico, a cyclone in Australia, and wildfires in California caused $2.4 billion of losses for the combined property/casualty segment. Profit on other property/casualty contracts and $295 million favorable loss development mitigated the overall loss to *just* $1.6 billion.

A change to assumptions used in workers' compensation reinsurance illustrated the leeway management has over financial statements. Prior to the fourth quarter of 2017, Berkshire discounted its workers' compensation claim liabilities assumed under reinsurance contracts (reflecting the fact that payments in the future were worth less than in the present). The change eliminated the discount to make those contracts consistent with other contracts. This resulted in a $1.43 billion increase to losses and loss expenses and hit shareholders' equity to the tune of $931 million. [665] This move demonstrated Berkshire's conservatism and highlighted how managements could influence financial statements. Accounting for insurance was full of such assumptions and sometimes tempted unscrupulous management teams to hide losses—or even engage in outright fraud. [666] In every round of accounting versus economics, Buffett and Berkshire leaned toward realism, even if it made results looks worse.

A $52 million loss from the life/health line resulted from changes in underlying assumptions. Gen Re reported a loss largely from such charges related to its US long-term care business while gains were reported from Berkshire Hathaway Life Insurance Company of Nebraska related to its variable annuity business.

The periodic payment annuity business reported a $671 million loss. Part of that loss was due to depreciation of the US dollar against the UK pound and a reduced discount rate (which increased the liability). [667]

GEICO

GEICO reported its first underwriting loss since the year 2000, but growth in float more than offset the loss. Its 86.6% loss ratio was the highest on record under Berkshire's ownership and included $450 million (1.5% of earned premiums) of losses from hurricanes Harvey and Irma and $517 million (1.75% of earned premiums) from unfavorable loss development on prior year claims. The $310 million pre-tax underwriting loss represented a combined ratio of 101.1%. The topline was a different story. Earned premiums grew 15.5% to $29.4 billion driven by a combination of 8.6% growth in policies-in-force and 6.9% higher pricing. GEICO's float was not detailed but estimating float at 65% of premiums earned (its historical average) put it at approximately $19 billion, an increase of about $2.5

billion over the prior year. GEICO's market share increased from 12% to 12.8%. [668]

Berkshire Hathaway Primary Group

The Primary Group was in the black and delivered both 14% growth in premiums earned, to $7.1 billion, and 9% higher profit, to $719 million. Double-digit growth at GUARD (26%) and BH Specialty (23%) led the group, and growth from MedPro and the Home State companies also contributed to premium growth. Losses from the many catastrophe events in 2017 negatively impacted results. Favorable loss development amounted to ten percentage points compared to eight the prior year. In each of the last three years, favorable development occurred in healthcare malpractice and workers' compensation lines.

Regulated, Capital-Intensive Businesses

Revenues at BNSF grew 8% to $21.4 billion and pre-tax earnings 11% to $6.3 billion, with volumes and pricing contributing to results. Carload volumes increased in the mid-single digits in each of consumer products, industrial products, and coal; volume in agricultural products was flat. The full-year results masked somewhat slower growth in the second half of the year. The change in coal volume over the prior two years illustrated the basic economic principle of substitute goods (one that can be substituted for another). In the case of BNSF and coal, natural gas was the cheaper substitute good due to a decline in natural gas prices during 2016. This led consumers and electric utility generating plants to switch to natural gas. As natural gas prices rose during 2017, coal again became attractive and demand increased. Substitute goods are part of all business cycles, and which side a product or service falls on seals its financial fate.

EBIT at Berkshire Hathaway Energy was flat at $3.4 billion with little change in operational results at most units. The two natural gas pipelines increased EBIT 8% to $446 million. That resulted from a rate structure change at the beginning of the year which allowed Kern River to be more competitive with existing customers in order to retain more business. [669] AltaLink, the Alberta, Canada-based electric transmission utility, increased its revenues 39% due to a regulatory decision allowing it to recover construction-in-progress quicker. [670] Some units, such as Northern

Powergrid (located in the UK) were hurt by foreign exchange rates, specifically a decline in the US dollar against the UK pound.

The accounting for interest expense illustrates the importance of understanding the nuances of accounting. During the year BHE completed a tender offer for some of its debt. This was favorable from an economic standpoint. [671] But the transaction caused a large one-time charge that accounting rules dictated be recorded on the interest expense line. On the books, it appeared interest expense increased from $465 million to $844 million, even though actual interest expense declined 7%. Including the accounting charge, Berkshire's share of net earnings fell 9% to $2.1 billion.

Impact of the 2017 Tax Cut

The 2017 tax law change that contributed to the outsized increase in net worth had an important subtlety. The key question was: Who would benefit from the lower tax rate? The answer depended on the industry:

- *Heavily regulated businesses: Customers*
  Utility businesses like BNSF and BHE were allowed a rate of return on equity calculated on an after-tax basis. Any benefit must be passed on to customers via lower prices. Berkshire put this figure at about $6 billion.
- *Unregulated businesses with strong moats: Companies*
  A business like See's would keep all or most of the benefit since it faced low pricing pressure from competition. (The reduced liabilities associated with deferred tax on unrealized investment gains accrued to Berkshire's benefit too.)
- *Unregulated businesses facing competition: Customers*
  These businesses would find they had to give most or all the benefit of lower taxes to customers in order to retain business. Businesses without a moat would have to lower prices to compete, thus losing most of the benefit of the lower taxes.

Manufacturing, Service, and Retailing

When Buffett told shareholders in 2016 that competitors read Berkshire's Annual Reports, he was setting the stage for a new format with less

discussion of Berkshire's individual businesses. This new format was implemented in 2017, and the table summarizing the balance sheet and earnings for the MSR businesses was entirely gone. Only a rough calculation could be made using the business segment data provided in the notes to the financial statements.

Buffett suggested that more detail, while desirable to shareholders, wasn't as important as when Berkshire was smaller. "Be aware, though, that it's the growth of the Berkshire forest that counts. It would be foolish to focus over-intently on any single tree."

Buffett long counseled that profits must be analyzed in relation to the capital that produces them. Calculating return on tangible equity became all but impossible without the summary balance sheet historically provided to shareholders in the Chairman's letter. Information previously provided on the balance sheet was largely absent, aside from amounts for goodwill and identifiable assets at year-end. [672]

Table 9.14: Manufacturing, Service, and Retailing businesses—pre-tax earnings

($ millions)	2017	2016	% Change
Industrial products	$4,367	$4,209	4%
Building products	1,382	1,178	17%
Consumer products	1,112	824	35%
Subtotal - manufacturing	6,861	6,211	10%
Service	1,298	1,161	12%
Retailing	785	659	19%
McLane	299	431	(31%)
Subtotal - service and retailing	2,382	2,251	6%
Total pre-tax earnings	9,243	8,462	9%
Income taxes and non-controlling interests	(3,035)	(2,831)	7%
Earnings after tax	$6,208	$5,631	10%

Sources: Berkshire Hathaway Annual Report 2017 and author's calculations.

Industrial products (revenues of $26.4bn, up 6.8%) : Earnings (up 4% to $4.4 billion) were hurt by one-time charges related to the Precision Castparts (PCC) acquisition, which led its pre-tax earnings to fall 12.5%. [673]

Its earnings were not detailed. Nor were the earnings of IMC and Marmon. The footnotes disclosed strong revenue growth at those two companies (IMC up 13%, Marmon up 7%) but did not specify how much translated into earnings. Lubrizol's earnings were detailed. On just 3% revenue growth Lubrizol's pre-tax earnings grew 17% due to a combination of factors including a lower comparable year in 2016 as a result of the $365 million write-off of an underperforming business.

Building Products (revenues of $11.9bn, up 10.8%) : Pre-tax earnings grew 17% to $1.4 billion. Half of the increase in revenues was due to bolt-on acquisitions at Shaw and MiTek, which presumably also contributed to earnings. About half of the increase in earnings was a result of a lower base in 2016 from $107 million of asset impairments, pension settlements, and environmental claim charges from Shaw and Benjamin Moore.

Consumer Products (revenues of $12.1bn, up 10%) : Earnings from the consumer products businesses swelled 35% to $1.1 billion. Forest River contributed to organic growth (growth from existing operations, not bolt-on acquisitions). Its revenues increased 14% and its earnings increased by 23% as strong demand for RVs bolstered results. Duracell bounced back strongly. Its results in 2016 were penalized by transition and restructuring costs. In 2017 its revenues increased 25% (compared to a ten-month period in 2016) and pre-tax earnings amounted to $82 million. [674] Apparel and footwear increased earnings 5%.

Service businesses (revenues of $11.2bn, up 8%) : Segment pre-tax earnings grew 12% to $1.3 billion. Results at TTI and NetJets led the growth within the service segment. Higher demand for electronic components and increased flight hours translated into higher revenues and earnings for the two companies. Earnings for the service businesses increased strongly, even with lower earnings (unspecified) from FlightSafety, the media companies, and the logistics businesses.

Retailing (revenues of $15.1bn, flat) : Berkshire's retailers had flat revenues but managed to increase earnings by 19% to $785 million. Earnings growth came from Berkshire Hathaway Automotive (which represented 63% of revenues within the segment), the home furnishings retailers, and the Pampered Chef. Results for the jewelers, See's, Oriental Trading Company, and Detlev Louis Motorrad were not discussed in detail.

McLane (revenues of $49.8bn, up 3.5%) : McLane had a bad year. While revenues increased, earnings fell off a cliff, down 31% to $299 million. The large decline in earnings was attributed to a 57% decline in grocery business attributed to pricing pressures from competition and higher costs. Here too the analyst was left wanting reasons behind the large shift in business fortunes, especially one that had been relatively stable in prior years. Luckily, Buffett received a question from Jonathan Brandt, an analyst at Ruane, Cunniff & Goldfarb, one of three analysts invited to ask questions at the 2018 Annual Meeting. The decline in grocery was worse than it appeared since McLane's liquor distribution business was relatively more profitable. McLane had large and strong suppliers on one side and equally formidable customers on the other side; what was left (less than 1% of revenues pre-tax) is what McLane had to live on. Buffett said McLane's woes would likely persist and were evidence of the competitive pressures of capitalism.

Finance and Financial Products

Pre-tax earnings in the Finance and Financial Products businesses declined 3% to $2.1 billion. Clayton's earnings increased 3% to $765 million on much stronger revenue growth of 18%. Clayton's $13.7 billion loan portfolio acted as a counterweight to manufacturing results (good or bad). Part of Clayton's revenue growth came from an increase in site-built homes. It acquired two additional site-built homebuilders in 2017. [675] Revenues from conventional construction were expected to top $1 billion in 2018, a large increase for Clayton but a tiny fraction of the overall industry. Clayton remained a powerhouse in manufactured homes—its 49% market share was three times its nearest competitor.

Earnings from transportation equipment leasing fell 9% to $869 million. Industry supply was part of the problem. Railcar capacity was thought to exceed demand, causing lower lease rates. Since depreciation and other fixed costs do not vary with revenues, a modest 2% decline in revenues translated into the larger drop in earnings.

Investments

Two investment moves in 2017 made big splashes—but neither were mentioned in the text of the 2017 Chairman's letter. If shareholders hadn't

already heard about it in the business press, they would have noticed that IBM [676] disappeared from the list of top investments (where it was formerly third in market value) and Apple vaulted from fifth to second. Berkshire's initial stake in Apple was credited to one of the two investment managers, Todd Combs or Ted Weschler (Buffett again wouldn't specify). The enlarged Apple position, with a market value of $28 billion at year-end 2017, was Buffett's move. Buffett admitted to not understanding technology and being wary of such companies, so why divest of IBM and invest further in Apple?

The answer: Apple had a huge moat and IBM did not.

Apple's moat was wide and deep. While its first successful business reinvention was the iMac personal computer in the late 1990s, the company hit true paydirt with the very portable iPod (which replaced bulkier CDs and CD players) and then again with the iPad (a tablet that can browse the internet) and iPhone (a smartphone that could be a telephone or used to browse the internet). These innovations made Apple more of a consumer products company than a technology company. They sold products people liked, and created an app technology ecosystem around those products that consumers invested in. Every time a new device or version of a device came out, people rushed to buy it. Having an iPhone was a status symbol, and Apple became a household name.

These consumer habits combined with significant switching costs created and maintained Apple's moat. Consumers would invest in apps and music that could only be used on Apple devices. Over time the market had consolidated to two large competitors: Apple and Google's Android system. Consumers had little incentive to adopt the competing system since it offered little added benefit compared to the large cost of repurchasing the apps and music already on their Apple system.

IBM, meanwhile, was a technology and service company. Its products are not as easily recognizable in day-to-day life, but that is not the reason for its narrow moat. IBM's products include supercomputers and various cloud computing services, including storage. That market proved to be more prone to competition from other large technology players such as Amazon, Microsoft, and Google than Buffett first realized. When Buffett first invested in IBM in 2011, he named it among four "exceptional companies" and praised its financial management. Years later, he admitted his

investment had been a mistake. It was not that IBM did not make Berkshire money—it did, primarily through share repurchases and dividends—but another investment could have made Berkshire more. Berkshire's loss was one of opportunity cost. Its investment stagnated while the market advanced.

Apple's success as a business enterprise is captured in one remarkable statistic: The company required no tangible capital to operate. [677] Payables, accruals, and deposits exceeded everything needed to operate the business, from receivables, inventories, and fixed assets. In other words, Apple's suppliers and customers financed *all* its operations (and then some)—shareholders didn't need to supply any capital but were entitled to profits. What was such a company worth?

Berkshire paid $21 billion for its 3.3% stake in the company. This valued Apple at over $635 billion (see Table 9.15). Was Apple worth that much? The answer was yes, and more. Apple had $238 billion of cash and investments on the books at the end of its fiscal year in September 2016. Adjusting for excess cash and investments, and the debt the company had on its books, Berkshire's going-in pre-tax return was around 12%. Berkshire's margin of safety was inherent in the quite-satisfactory going-in return and Apple's business moat (stemming from strong customer habits reinforced by high switching costs). That Apple could grow without needing additional capital was yet another benefit. "In effect we're betting on the ecosystem of Apple products led by the iPhone. And I see characteristics in that that make me think that it's extraordinary." Perhaps chastened by his experience with IBM, Buffett added, "But I may be wrong." He was not wrong, and nor was he alone in his bet. In July 2016, Apple hit the 1 billion mark in iPhone sales.

Apple also warmed Buffett's heart by buying back its own undervalued shares. "I'm delighted to see them repurchasing shares … with the passage of a little time we may own six or seven percent simply because they repurchase shares." A similar result played out with Berkshire's investment in American Express over its long holding period. Berkshire's initial position had grown from 13% of the company to almost 18% over the prior decade simply by virtue of share repurchases costing Berkshire nothing.

Table 9.15: Apple—investment analysis

($ millions)	2016	2015	2014	2013	2012

Total revenues	$215,639	$233,715	$182,795	$170,910	$156,508
Pre-tax operating income[1]	61,524	72,530	53,603	49,959	55,846
EBIT margin[1]	28%	30%	29%	29%	35%
Average tangible capital employed	(33,643)	(26,271)	(13,323)	(6,120)	(4,688)
Purchase price (equity)[2]	$635,182				
Debt	78,927				
Less: excess cash & investments[3]	(232,194)				
Effective purchase price	$481,915				
Average operating income (5 years)	58,692				
BRK going-in pre-tax return	12.2%				

Footnotes:
1. Adjustments were made for goodwill and intangibles.
2. Implied valuation based on Berkshire's cost of $20,961 million for 3.3% of the company.
3. Consists of cash & equivalents in excess of 2.5% of revenues plus long-term marketable securities.

Note: The company's fiscal year ended in September.

Sources: Berkshire Hathaway Annual Report 2017; Apple, Inc. Annual Reports 2011–2016; and author's calculations.

Berkshire exercised its Bank of America warrants in 2017 and exchanged its $5 billion preferred for 700 million shares of Bank of America. Those shares were worth $20.7 billion as of year-end, giving Berkshire a 6.8% stake in the bank.

Shares of Kraft Heinz had a market value of $25.3 billion at year-end. More exciting was the triple-play 3G Capital nearly pulled off in 2017. Berkshire and 3G Capital acquired Heinz in 2013 for $29 billion and then Kraft in 2015 for $57 billion. Two years later it was bidding for the consumer products giant Unilever. The price tag? $143 billion. The deal ultimately fell through after it was revealed the company wasn't interested in merging. The team at 3G Capital mistakenly thought Unilever was open to a friendly offer. Buffett told shareholders they were only interested in friendly transactions and the deal quickly died. Berkshire and 3G Capital were each prepared to inject an additional $15 billion of new equity to make the deal work. [678]

Restaurant Brands International redeemed Berkshire's preferred stock investment in December 2017. The $3 billion return of capital added to the growing cash pile at headquarters. The continued low interest rate

environment meant Berkshire wouldn't be able to come close to matching the 9% yield it obtained on the investment made three years before. [679]

Protégé Bet

On December 19, 2007, Buffett made a ten-year bet through longbets.org that concluded on the same date in 2017. Long Bets was an organization set up to take long-term bets for periods of years stretching far into the future. Each side put up money, and the winner's charity received the proceeds after the bet concluded. Buffett bet that the S&P 500 index would outperform a portfolio of funds of hedge funds net of fees and expenses over the course of a decade. His bet put his own money (not Berkshire's) where his mouth had been for many years. He thought most investors would do better over time sticking to an unmanaged index, and that the fees hedge funds charged clients would negatively impact performance.

Buffett bet against Ted Seides, a co-manager of Protégé Partners who stepped up and contributed the $318,250 necessary to seed its $500,000 position. The money purchased zero-coupon bonds that would mature in ten years at the face value of the bond (no different than a savings bond). After an initial period of underperformance, the S&P 500 came out far ahead. At the end of the ten years, the S&P gained 125.8% (9.5% per year) compared to 36.3% (an average of 3% per year) for the group of five funds of funds. Buffett wrote that the managers of the 200-plus hedge funds and the fund of fund managers all had incentives to do well over that time. And all of them likely did well personally owing to the fees they charged. But in each case, the performance of the funds they managed fell short of an unmanaged index.

The bet offered an unforeseen lesson. The low-interest rate environment that accompanied the Great Recession drove the price of the zero-coupon bonds to almost 96% of par in just five years. Remember that the proceeds at maturity would be par or 100%. Buffett thought more money for charity could be had by switching from bonds to Berkshire stock. Protégé agreed to cash in the zero-coupon bonds and invest the proceeds in 11,200 shares of Berkshire Hathaway stock (B-shares). Buffett personally guaranteed their value would be at least $1 million at the end. At the conclusion of the bet, Girls Inc. of Omaha received much more. Over $2.2 million went to Buffett's charity and he also took home bragging rights. Buffett used the

publicity to reinforce his message that fees matter and that an investor could do well by betting on America via a low-cost fund and sitting tight.

2018

Berkshire's 2018 business results were helped by the reduction in the corporate tax rate from 35% to 21%, which became law late in 2017. Operating results were strong in addition to (and perhaps partly because of) the reduction in the tax rate. Each of its major segments reported gains, including insurance, which returned to an overall underwriting profit. The dry spell for major acquisitions continued. But the stock market, including a downdraft late in the year, presented a chance to invest tens of billions into equities. Most of that money went into Apple, Berkshire's newest and largest holding.

A major change to accounting rules left Buffett opening his Chairman's letter with a lesson on accounting. Beginning in 2018, GAAP required unrealized gains and losses on equity securities to flow through the income statement instead of directly to book value as had been the practice for decades. Buffett primed shareholders on the change in his 2017 Chairman's letter and actual figures in 2018 proved the analytical limitations. Berkshire's record $24.8 billion of after-tax operating earnings resulted in $24.6 billion of net income under the old rules and a relatively dismal-seeming $4 billion net income under the new rules (see Table 9.16). Which should shareholders believe?

It came down to two questions: how best to present results to shareholders and what constituted earnings. The accounting authorities at the Financial Accounting Standards Board, the rulemaking body for GAAP, deemed the change beneficial to users of financial statements. Buffett and Munger disagreed. They suggested shareholders ignore *realized* gains and losses long before this rule change. Including *unrealized* gains and losses was going further in the wrong direction. Buffett warned in 2017 it would create "wild and capricious swings" in earnings that rendered the bottom line useless. That's exactly what happened in 2018. The accounting was at odds with the reality of common stock investment; owning stocks means owning businesses. Business values fluctuated but the magnitude of those changes was at odds with what the stock market would suggest through its frequent ups and downs.

Importantly, the accounting changes did not affect Berkshire's true economic performance. The unrealized gains or losses included in earnings were adjusted for taxes but did not create an actual tax bill. Like before, taxes would be due on realized gains only when a sale was made. From a financial statement presentation perspective, ASU 2016-01 (the name of the rule change) simply moved unrealized gains and losses from the statement of comprehensive income to the income statement. The statement of comprehensive income is an often-overlooked statement that contains items affecting net worth but not necessarily a component of income. This was another case of accounting versus economic reality. In both instances the unrealized gains and losses were presented net of taxes, so the impact to net worth was the same.

Table 9.16: Impact of ASU 2016-01 on Berkshire's reported earnings

($ billions, after tax)	Old rules	New rules
Income Statement:		
Operating earnings	$24.8	$24.8
Non-cash impairment[1]	(3.0)	(3.0)
Realized gains/losses	2.8	2.8
Unrealized losses		(20.6)
Net income	$24.6	$4.0
Statement of Comprehensive Income:		
Unrealized gain/losses	($20.6)	
Increase in shareholders' equity[2]	**$4.0**	**$4.0**

Footnotes:
1. Related to Kraft Heinz (discussed later).
2. Increase in shareholders' equity from earnings and securities gains. Does not account for share repurchases and certain other items.

Notes:

1. ASU 2016-01 is the accounting rule that changed the reporting of unrealized gains/losses.

2. Amounts are after non-controlling or minority interests.

Sources: Berkshire Hathaway Annual Report 2018 and author's calculations.

Buffett worried that too much emphasis would be placed on Berkshire's reported bottom line. Most reporters used the net income figure in their reporting and many, unfortunately, were not trained to dig much deeper. This was not as much of a problem at many companies. Berkshire was different in its huge holdings of marketable securities. The daily, quarterly, or yearly fluctuations of its $173 billion portfolio could overshadow the operating results at its many businesses. Buffett's advice to shareholders: "Focus on operating earnings, paying little attention to gains or losses of any variety." Capital gains, whether realized or unrealized, were important to Berkshire over time, but short-term movements were devoid of analytical information.

In years past, a solution to the accounting issue discussed above would be to focus on the change in book value per share. The fluctuations in marketable securities prices would find their way to book value under either accounting method. But that metric gradually lost its relevance as Berkshire allocated more capital to owning businesses in their entirety. Berkshire's change in book value per share made its last appearance in the 2018 Annual

Report (it could still be easily calculated in the future). Preparing for this change, Buffett first presented market value data in 2014 as an imperfect but better guide over time.

Kraft Heinz is a perfect example of why book value was a bad metric. Berkshire's many companies were on the books at their purchase price and never revalued upward to their market value. [680] Although Berkshire didn't own 100% of Kraft Heinz, the accounting treatment was very close. Kraft Heinz was on Berkshire's books for $17.6 billion at year-end 2017, but its value based on publicly traded shares, was $25.3 billion. Nowhere on Berkshire's books did the excess value show up. [681] Berkshire's shift toward owning businesses in their entirety made book value an increasingly poor measure of performance as time went on. When marketable securities represented a larger portion of Berkshire's net worth their value was reflected in book value immediately.

Change in book value per share as a measurement tool would become even more problematic as Berkshire began returning capital to shareholders. In fact, Berkshire repurchased $1.3 billion in 2018 at an average price of $295,000 per A-share. We can be confident the price paid was below Berkshire's intrinsic value otherwise Buffett and Munger would not have done it. We know for a fact the price paid was above book value. Such repurchases would create a wider gap between intrinsic value and book value that would only intensify as time went on.

The Berkshire Forest

Buffett used the analogy of a forest and its trees to provide shareholders a way to estimate Berkshire's intrinsic value. [682] Forget the mind-numbing exercise of trying to assess every tree, he said.

> "Fortunately, it's not necessary to evaluate each tree individually to make a rough estimate of Berkshire's intrinsic business value. That's because our forest contains five 'groves' of major importance, each of which can be appraised, with reasonable accuracy, in its entirety. Four of those groves are differentiated clusters of businesses and financial assets that are easy to understand. The fifth—our huge and diverse insurance operation—delivers great value to Berkshire in a less obvious manner … ."

The five groves are:

- *Grove #1: Non-insurance businesses with ownership between 80% and 100%*
  This most valuable grove includes Berkshire's many businesses "ranging from twigs to redwoods," from the smaller bolt-on acquisitions to giants BNSF and Berkshire Hathaway Energy. These businesses earned $16.8 billion after-tax in 2018. *All* expenses, including interest, depreciation, and corporate overhead, were deducted to arrive at that figure.
- *Grove #2: Equity securities*
  The market value of the second most valuable grove at year-end was $173 billion. But Berkshire would owe $14.7 billion in tax on the amount of unrealized gains. That left approximately $158 billion of net value.
- *Grove #3: Control group businesses*
  This grove contains businesses where Berkshire shares control with other parties. This included Berkshire's 26.7% ownership of Kraft Heinz, 50% of Berkadia and Electric Transmission Texas, [683] and 38.6% of Pilot Flying J. Together these companies earned $1.3 billion in 2018.
- *Grove #4: Cash, US Treasuries, Fixed Income (bonds)*
  At year-end, Berkshire had $112 billion of cash and $20 billion in fixed income investments. Buffett noted that $20 billion (a coincidence with the value of bonds) would always be reserved as a buffer.
- *Grove #5: Insurance*
  The insurance businesses were a source of value on the liability side of the balance sheet. Through the float they generated ($123 billion at year-end), Berkshire could hold far more assets than it otherwise would be able to. Buffett said float financed the first four groves but stopped short of saying it could be considered equity. Considering the long-term profitability of Berkshire's insurers, one could make the argument its float was at least as valuable as equity. [684]

"I believe Berkshire's intrinsic value can be *approximated* by summing the values of our four asset-laden groves and then subtracting an appropriate amount for taxes eventually payable on the sale of marketable securities." The analysis was an extension of the previous method of adding cash and investments per share to a capitalized amount of per share operating earnings. Buffett's equation left out one important variable in both cases. How should shareholders think about capitalizing the earnings from groves one and three? Berkshire's earnings might be worth more or they could be worth less depending on where interest rates went long term. That was a factor Buffett could not control, so he left it up to shareholders to decide.

We can approach the valuation problem in two ways. First by assuming an interest rate, and second by determining the going-in rate of return implied by Berkshire's market capitalization (see Table 9.17). To be consistent with our previous valuations of Berkshire, we'll use 15x after-tax earnings as our multiple to capitalize earnings. This is consistent with our use of 10x pre-tax earnings under the 35% tax rate. The decline in interest rates up to this time means our analysis is conservative, if anything. [685] For a business like Berkshire with modest levels of debt and subsidiary businesses earning good-to-great returns on capital, a meaningful margin of safety existed in the shares around 2018. The market appeared to completely discount any potential for growth or the optionality in its significant cash resources. [686] Berkshire was undervalued by at least 14% under the first framework. Using the second method, the implied return of over 9% suggests the market discounted Berkshire's earnings too heavily.

Table 9.17: Berkshire Hathaway valuation, 2018

($ billions)	
Direct Calculation Method:	2018
Grove 1: Non-insurance[1]	$252
Grove 2: Equity securities[2]	158
Grove 3: Control group businesses[3]	20
Grove 4: Cash, Treasuries, bonds	132
Total	$562
Implied Yield Method:	
Implied market value[4]	485
Less: sum of Groves 2 & 4 above	(290)
Implied value of Groves 1 & 3	195

After-tax earnings of Groves 1 & 3	18
Going-in rate of return, after-tax	9.3%
Footnotes: 1. 15x $16.8 billion after tax earnings. 2. $173 billion less $15 billion tax on unrealized gain. 3. 15x $1.3 billion after tax earnings. 4. Based on Berkshire's 2018 share repurchases.	

Notes:

1. I've used Buffett's figures, which presumably represented something close to normalized earnings.

2. A 15x multiple is consistent with our use of 10x pre-tax earnings earlier in this book and assuming the new 21% tax rate.

Sources: Berkshire Hathaway Annual Report 2018; and author's calculations.

With book value no longer a worthwhile proxy, Berkshire's board authorized repurchases anytime Buffett and Munger thought the price went below intrinsic value, conservatively calculated. Previously, Berkshire could repurchase shares when they reached 120% of book value. Price-to-value would always be a key consideration for repurchases and Berkshire would always put its own businesses first. Growing existing operations and buying new businesses would come before share repurchases. All capital allocation decisions would be weighed against opportunity costs.

Insurance

The Insurance Group returned to profitability in 2018 with a $2 billion pre-tax underwriting gain on earned premiums down 5% to $57.4 billion. That brought the record of profits to $27 billion in fifteen of the prior sixteen years. Better still, float grew 7.2% to $122.7 billion at year-end.

A new acquisition bolstered results. On October 1, 2018, National Indemnity acquired Medical Liability Mutual Insurance Company (MLMIC) for $2.5 billion. The company changed its name to MLMIC Insurance Company upon joining Berkshire. MLMIC was a New York City-based writer of medical professional liability insurance that demutualized. The acquisition was a long time coming. National Indemnity first agreed to the acquisition in 2016 but the required demutualization process (which converted it from a mutual company owned by policyholders to a stock company) took some time. MLMIC wrote $400 million in premiums in 2018 and brought with it $5.4 billion of cash and investments. [687] Its results were reported with the Primary Group.

Table 9.18: Berkshire Hathaway—Insurance Underwriting

($ millions)	2018	2017
GEICO		
Premiums earned	$33,363	$29,441
Underwriting gain/(loss) - pre-tax	2,449	(310)
Berkshire Hathaway Reinsurance Group		
Premiums earned:		
Property/casualty	$8,928	$7,552
Retroactive reinsurance	517	10,755
Life/health	5,343	4,808
Periodic payment annuity	1,156	898
Total premiums earned	15,944	24,013
Underwriting gain/(loss) - pre-tax:		
Property/casualty	(207)	(1,595)
Retroactive reinsurance	(778)	(1,330)
Life/health	216	(52)
Periodic payment annuity	(340)	(671)
Total underwriting gain/(loss) - pre-tax	(1,109)	(3,648)
Berkshire Hathaway Primary Group		
Premiums earned	$8,111	$7,143
Underwriting gain/(loss) - pre-tax	670	719
Total premiums earned	$57,418	$60,597
Total underwriting gain/(loss) - pre-tax	2,010	(3,239)
Average float	118,616	103,039
Cost of float	(1.7%)	3.1%

Note: In 2017, results for General Re were consolidated with BHRG.

Sources: Berkshire Hathaway Annual Report 2019 and author's calculations.

Berkshire Hathaway Primary Group

The Berkshire Hathaway Primary Group (of which MLMIC was a part) grew earned premiums 13.6% to $8.1 billion. Written premiums increased 32% at BH Specialty, 19% at GUARD, 14% at NICO Primary, and the Home State companies increased volume 8%. Catastrophe losses of $190 million from Hurricanes Florence and Michael and wildfires in California, as well as lower favorable loss development, led profitability to slip

slightly. The Primary Group's combined ratio of 91.8% in 2018 (compared to 89.9% in 2017) remained strong and reflected the strength of this collection of insurers.

GEICO

Buffett had nothing but praise for GEICO's Tony Nicely. Nicely retired as CEO in 2018 after almost sixty years with the company. Buffett credited him with leading GEICO to become the second largest US auto insurer with a market share of 13%. He estimated Nicely increased Berkshire's intrinsic value by $50 billion over his tenure leading GEICO from 1993 to 2018. [688] Nicely passed the reins to Bill Roberts, another longtime GEICO insider, and remained on as chairman. [689] He chose a fitting year to depart as CEO, as the company had one of its best years ever.

GEICO rebounded sharply in 2018. Earned premiums grew 13% to $33.4 billion from a combination of 3.3% policyholder growth and 6.4% higher premiums. GEICO successfully increased premium rates to compensate for the elevated levels of losses experienced over the prior two years. The loss ratio declined 7.8 percentage points compared to 2017 (to 78.8%), even after $105 million in catastrophe losses, leading GEICO's profit to swell to record levels at nearly $2.5 billion—a combined ratio of 92.7%. Favorable loss development of $222 million also played a part in the gain.

Berkshire Hathaway Reinsurance Group

Berkshire Hathaway Reinsurance Group was the only major insurance segment to report a loss, although that loss was significantly less than the prior year. A comparative year that included the world's largest retroactive reinsurance contract (the $10.2 billion AIG deal) caused the unit's earned premiums to decline by a third to $15.9 billion. Earned premiums were up 13% over 2016. BHRG improved to a pre-tax underwriting loss of $1.1 billion from a loss of $3.6 billion in 2017. Considering the significant drag from accounting charges and a more normal year for catastrophe losses, such a result was not bad.

Property/casualty earned premiums grew 18% to $8.9 billion. The property/casualty line faced four catastrophe events in 2018 from Hurricanes Florence and Michael, Typhoon Jebi, and wildfires in California. Together these cost $1.3 billion and led to a $207 million loss.

[690] Results were bolstered by $469 million of favorable loss development. Back-to-back years with catastrophe losses were expected occasionally. Berkshire remained committed to pricing appropriately regardless of the timing of catastrophe events. Annual repricing of policies is an important factor in catastrophe underwriting. Assumptions about the long-term impact of things like climate change could be worked into pricing over time. As a rule, Berkshire did not write catastrophe contracts for more than a year. [691]

After the record $10.2 billion AIG contract in 2017 that swelled earned premiums to $10.8 billion, retroactive reinsurance premiums fell to $517 million in 2018. The AIG contract alone was responsible for $611 million of the $778 million loss in this segment, most of which was related to deferred charge amortization. The retroactive line also benefitted from favorable loss development that contributed $185 million and exchange rate effects that added $169 million to segment results. [692] Gross unpaid losses from retroactive reinsurance contracts were $41.8 billion at year-end and deferred charge assets amounted to $14.1 billion.

Life/health reinsurance was the only BHRG line to report a gain. It swung from a loss of $52 million in 2017 to a gain of $216 million in 2018 on earned premiums up 11% to $5.3 billion. The gain was due to lower losses from US long-term care business and gains (though lower than the prior year) from variable annuity guarante e contracts.

Earned premiums grew 29% to $1.2 billion in the periodic payment annuity business. Volumes in that business, like all of Berkshire's insurance lines, ebbed and flowed based on pricing. These produced a pre-tax underwriting loss of $340 million compared to a loss of $671 million in 2017. The losses included a $93 million gain in 2018 and a $190 million loss in 2017 from changes in foreign exchange rates.

Regulated, Capital-Intensive Businesses

BNSF benefitted from the strong US economy with a 4.1% increase in overall unit volume and 6.2% higher average pricing that increased revenues 11.5% to $23.9 billion. Car loadings totaled 10.3 million and increased in each freight category except for coal, which declined 0.8%. Volume increases came from industrial products (up 16% driven by strength in end markets) and agricultural products (up 9% driven by exports). The

advantage of rail over trucks during a time of tight trucking capacity brought gains in consumer products freight, but an unspecified contract loss muted the overall volume increase in consumer products to just 2.9%. Pre-tax earnings grew 8.5% to $6.9 billion. Higher pre-tax earnings and the new lower Federal Tax Rate translated into a 32% increase in after-tax earnings to $5.2 billion. [693]

The new tax law immediately impacted Berkshire Hathaway Energy. Its regulated utilities began passing on savings to customers in various forms, including lower electric rates and regulatory modifications that indirectly affected consumer rates. The largest unit, PacifiCorp, experienced a 4% decline in revenues with most attributed to the impact of the tax cut. Pre-tax earnings, however, fell 34% to $745 million from a combination of reduced revenues and accelerated depreciation on a thermal generating facility. The increased depreciation expense was a non-cash charge in 2018 (after all, physical depreciation does not increase due to a change in tax rate), but it would lower the rate of assets on which future revenues could be based.

A similarly large decline in pre-tax earnings (26% to $417 million) occurred at NV Energy due to the tax cut. The natural gas pipelines benefitted from colder weather and higher volumes, leading to a 14% increase in pre-tax earnings. No major changes were reported from Northern Powergrid (the UK utility) or the other energy businesses. MidAmerican Energy Company (the Iowa and Illinois utility) was impacted by the tax bill but still reported 9% higher pre-tax earnings which reflected higher volumes and prices unrelated to the tax cut.

The net effect across all BHE utilities was a 14% decrease in EBIT to $2.9 billion and a 1% decline in pre-tax earnings to $2.5 billion. Berkshire's share of net earnings increased 29% to $2.6 billion in large part due to taxes. BHE's tax rate was negative in 2018, causing higher after-tax earnings than pre-tax earnings. Tax credits for wind-generating assets more than offset any tax liability. Berkshire Hathaway could take advantage of such credits immediately because it paid federal taxes on a consolidated basis. Such tax credits were less valuable to standalone utility companies. At year-end 2018, BHE's cumulative investment in renewables such as solar, geothermal, and biomass was $25 billion.

Manufacturing, Service, and Retailing

Perhaps a result of the work classifying Berkshire's many businesses into groves, Berkshire consolidated the Finance and Financial Products businesses into the Manufacturing, Service, and Retailing businesses beginning in 2018. [694] As a result:

- Marmon's UTLX, the rail and mobile crane leasing business, went back with its parent company within industrial products.
- Clayton Homes became part of the building products segment.
- XTRA and CORT were reported with the service businesses.

These changes accounted for approximately $1.7 billion of 2017 pre-tax earnings reclassified to the MSR presentation. The remainder (about $375 million) went elsewhere. Table 9.19 contains the modified presentation with 2017 revised by Berkshire to reflect the new arrangement.

Table 9.19: Manufacturing, Service, and Retailing businesses—pre-tax earnings

($ millions)	2018	2017	% Change
Industrial products	$5,822	$5,065	15%
Building products	2,336	2,147	9%
Consumer products	1,208	1,112	9%
Subtotal - manufacturing	9,366	8,324	13%
Service	1,836	1,519	21%
Retailing	860	785	10%
McLane	246	299	(18%)
Subtotal - service and retailing	2,942	2,603	13%
Total pre-tax earnings	12,308	10,927	13%
Income taxes and non-controlling interests	(2,944)	(3,645)	(19%)
Earnings after tax	$9,364	$7,282	29%

Note: 2017 as revised to the presentation in 2018, which includes some businesses formerly reported in Finance and Financial Products.

Sources: Berkshire Hathaway Annual Report 2018 and author's calculations.

The MSR businesses performed impressively considering its 13% increase in pre-tax earnings was not affected by the tax rate explicitly. [695] After-tax earnings grew 29% to $9.4 billion through a combination of the gain in pre-tax earnings and lower taxes. Earnings were not boosted by acquisitions. Berkshire spent a total of $1 billion on bolt-on acquisitions in 2018 (not necessarily all within MSR). A strong US economy provided a tailwind to most MSR businesses, although specific factors impacted each differently. New tariffs imposed by the US hurt demand in certain businesses, while others reported higher earnings in part due to a we aker dollar.

Industrial Products (revenues of $30.7bn, up 7.4%) : Pre-tax earnings grew 15% to $5.8 billion. Part of the strong gain in industrial products in 2018 resulted from one-time charges at Precision Castparts and Lubrizol the prior year. [696] [697] Those charges notwithstanding, strong demand for aerospace parts and additives led to unit volume growth and higher pre-tax earnings at both companies. IMC grew revenues and earnings because of higher demand for its products and weakness in the dollar. CTB and Marmon were the only two businesses whose pre-tax earnings declined. Marmon achieved 6% higher revenues but weakness in the railcar leasing business, and its Foodservice Technologies and Retail Solutions sectors, weighed down results and caused a 6% decline in pre-tax earnings.

Building Products (revenues of $18.7bn, up 10.2%) : Pre-tax earnings in this segment grew 9% to $2.3 billion, mostly due to strength at Clayton Homes and Shaw. Clayton Homes led the building products businesses with a 19% increase in pre-tax earnings to $911 million. Clayton now boasted eight site builders in addition to its manufactured home operations. Earnings at Berkshire's other building products companies increased just 3.1%. Shaw and Johns Manville both grew revenues in the high single-digits, but cost pressures left Johns Manville with lower earnings. The shortage of truck drivers that benefitted BNSF hurt the building products companies as their products required short-haul transport. They also faced higher input costs for raw materials, not all of which could be immediately passed on to customers. Some of the factors above might have played a part in Acme Brick closing several brick, concrete, and limestone plants in 2018. [698] Acme depended heavily on basic materials and short-haul trucking.

Consumer Products (revenues of $12.5bn, up 3.2%) : Pre-tax earnings grew 9% to $1.2 billion but results from these businesses were mixed. Forest River's unit sales were flat year over year, but that belied significant changes throughout the year. Unit sales declined 7% during the second half of the year and the company was negatively impacted by higher material costs. Fourth quarter earnings declined 28%. The company was lucky to escape the year with a pre-tax decline in earnings of 9%. [699] Larson Juhl's earnings also declined, though they were not detailed. The weakness in those businesses were more than made up by increased earnings at Duracell (also not detailed) and in the apparel and footwear businesses (up 6.4%).

Service businesses (revenues of $13.3bn, up 9.7%) : TTI, the electronics components distributor, led the service businesses to a 21% increase in pre-tax earnings to $1.8 billion. Its results accounted for most (84%) of the increase in pre-tax earnings, a result of strong demand industrywide on top of acquisitions and favorable effects from a weaker dollar. Political advertising boosted revenues 21% at WPLG, the Miami, Florida television station. Charter Brokerage saw its topline grow by half; its earnings increased but were not disclosed. Earnings increased at XTRA and NetJets but FlightSafety again lagged. Lower margins on simulators and an impairment charge to fixed assets (likely on outdated simulators) reduced earnings.

Retailing (revenues of $15.6bn, up 3.6%) : Pre-tax earnings grew 10% to $860 million. Berkshire Hathaway Automotive dominated the retailing segment, accounting for over 60% of its revenues. Berkshire did not disclose its earnings, only stated that BHA and Louis, the German motorcycle accessory retailer, were the primary reasons for the increase in pre-tax earnings. We can surmise that some of the other retailers, such as the jewelry businesses, See's, Dairy Queen, and Pampered Chef, also contributed at least something to earnings growth (as they were not identified). The home furnishings businesses were identified. Their revenues increased in part due to increased same-store sales from some markets and a new store. But their earnings fell 2.4% in part due to higher costs at Star Furniture.

McLane (revenues of $50.0bn, up 0.4%) : Competitive pressures continued to weigh on McLane's results. Grocery revenues, which accounted for two-thirds of overall revenues, increased 1%. The loss of a

large foodservice customer largely negated that gain. Higher operating costs ate into the company's already thin margins leading to another double-digit decline in earnings, which fell 18% to $246 million. Berkshire saw no let-up of the difficult operating conditions.

Investments

Apple took center stage in Berkshire's investment portfolio in 2018, with Berkshire investing an additional $15 billion in the iPhone creator. It ended the year with 255 million shares, or 5.4% of the company. At year-end, Berkshire's investment in Apple was worth over $40 billion—making it the largest holding and almost a quarter of the equity portfolio. The top five positions (in order: Apple, Bank of America, Wells Fargo, Coca-Cola, and American Express) represented 68% of the entire portfolio. Despite its size and the difficulties finding attractive investments in a continuing bull market, Berkshire hadn't lost its penchant for concentrating its investments.

Banks received the bulk of the remaining net investments made in 2018. Berkshire added to several of its holdings in banks and bought into a new one. Another $6.6 billion went into Bank of America, ending the year with 9.5% of the company. Berkshire also topped off its holdings in Bank of New York Mellon and US Bank but stopped short of breaching the 10% threshold. Crossing the 10% mark could bring unwanted regulatory headaches. [700] Berkshire sold shares in Wells Fargo to counter the effect of the bank repurchasing its own shares and remain below the threshold. Another $1.7 billion went into Goldman Sachs, and $5.6 billion into a new position in JPMorgan Chase. [701] Altogether, banks comprised 36% of the equity portfolio. And that wasn't counting the 8% of the portfolio in American Express, a financial services company.

Berkshire reported Kraft Heinz outside the investment portfolio because of its large ownership position. But it remained publicly traded. In 2018, the market value of Berkshire's Kraft Heinz shares fell 45% to $14 billion. Kraft Heinz took a massive $15.9 billion write-down of its goodwill and intangible assets that reflected weakness in its iconic brands. Remember, Berkshire and 3G Capital paid a huge premium over the net tangible assets of both Heinz and then Kraft. In 2018 Kraft Heinz management determined those intangible assets weren't worth as much and wrote them down. [702]

Berkshire's financial statements weren't affected by the precipitous drop in the share price of Kraft Heinz because it accounted for its investment using the equity method. (It hadn't been affected by the strong gains either.) It was as if the market for Kraft Heinz shares did not exist. If Berkshire's ownership in Kraft Heinz had been below the 20% threshold for equity method accounting, it would have necessitated flowing the market value decline through the income statement and reducing shareholders' equity by the after-tax amount of the decline. Instead, the asset impairment charges flowed proportionately to Berkshire and through its income statement. Berkshire's share was $2.7 billion after-tax. The equity method of accounting also meant its $814 million dividend received in 2018 was recorded as a reduction to Berkshire's investment in the company. But that cash was real, as were similar amounts received in the two prior years. Not a terrible result for an investment with a cost basis of $9.8 billion.

The impairment charges taken by Kraft Heinz reflected real weakness in what Berkshire and 3G Capital originally thought it was worth. Buffett admitted they erred. "I was wrong in a couple ways on Kraft Heinz." The Heinz purchase was sensible but Berkshire and 3G Capital had overpaid for Kraft. While its brands were well known and continued to be purchased by consumers, it had lost some bargaining power with retailers due to the emergence of strong private label brands. For example, Costco's younger Kirkland Signature brand had revenues greater than all of Kraft Heinz. Costco customers choose Kirkland not just because it's at a lower cost, but because the products are high quality and easily recognizable. Kirkland brands accounted for about 27.5% of Costco's sales in fiscal 2018. [703] [704] Store brands at many retailers have taken an increasing share while branded products lost ground. [705] Buffett was aware of these trends and competitive forces but concluded Kraft Heinz brands would be more resistant.

The issue wasn't so much the company; it was the purchase price. Kraft Heinz's underlying business was excellent. It earned approximately $6 billion pre-tax on $7 billion of net tangible assets. But the all-in purchase price was about $100 billion more. Berkshire thought it was paying a fair price for a great company. Instead, it found itself with a great company unable to produce the returns needed to justify the rich price its owners paid. [706]

Kraft Heinz was a reminder of three important investing concepts:

1. A great company could become a poor investment if the price paid is too high.
2. Competitive advantages aren't static. Competition and changing preferences can affect the strongest of companies.
3. A margin of safety protects the investor from unknowns, and it can come in the form of quality.

Kraft Heinz had many iconic brands that remained engrained in consumer purchasing habits. The underlying business reflected those advantages. The mistake of paying too much resulted in a lower rate of return than initially expected, but Berkshire hadn't lost money on Kraft Heinz. It intended to hold on to the investment and would continue to collect cash dividends.

Outside of the equity portfolio, Berkshire made a $2 billion secured loan to Seritage Growth Properties. Seritage was a real estate investment trust holding properties leased back to Sears, the struggling retailer. The loan was made by Berkshire Hathaway Life Insurance Company of Nebraska. Terms of the deal included an initial funding of $1.6 billion at an interest rate of 7%, with a 1% annual fee on the undrawn commitment of $400 million.

A Glimpse into Succession

Buffett received countless questions on Berkshire's succession planning over the decades. But as he neared the end of his eighties, and with Charlie Munger already into his nineties, the question came up more and more. Part of the question had been answered. His role would be split into a non-executive chairman (likely his son, Howard), a CEO, and two or more investment managers. Berkshire already had two highly capable investment managers in Todd Combs and Ted Weschler, and Howard's appointment was all but certain. That left the CEO post.

Berkshire's move in early 2018 removed some of the fog but left the question open. Berkshire's board voted Greg Abel (age 56) and Ajit Jain (age 67) as vice chairmen alongside Charlie Munger. Abel, the longtime Chairman and CEO of Berkshire Hathaway Energy, became vice chairman, non-insurance operations. Jain became vice chairman, insurance operations. Buffett said the move was long overdue. "You and I are lucky to have Ajit and Greg working for us. Each has been with Berkshire for decades, and

Berkshire's blood flows through their veins. The character of each man matches his talents. And that says it all."

A layer of management between Buffett and the many managers of Berkshire's businesses left him and Munger with the primary job of investment and capital allocation. Not much would change for Buffett. Berkshire's policy of giving extreme autonomy to the managers of its many subsidiaries already made his job easier than almost any other CEO of a large conglomerate. The Salomon Brothers incident in the early 1990s already proved Berkshire could function without Buffett there day-to-day.

Uncle Sam: Business Partner

Discussion of taxes provided Buffett a unique way to explain the taxing power of governments. "Like it or not, the US government 'owns' an interest in Berkshire's earnings of a size determined by Congress. In effect, our country's Treasury Department holds a special class of our stock—call this holding the AA shares—that receives large 'dividends' (that is, tax payments) from Berkshire." The reduction in the US corporate tax rate from 35% to 21% equated to Congress appropriating 40% of its ownership back to Berkshire's other shareholders. Viewed this way it's easy to see that a reduced tax rate equated to a higher intrinsic value for all companies.

The key question was how much would remain after the effects of competition. Buffett touched on the subject in his prior Chairman's letter. BHE would give back all the benefit of lower taxes explicitly through regulation. Other Berkshire businesses would find competition erode the newfound profits. A few, such as See's, might be able to hang on to the entirety of the benefit. All things being equal, Berkshire was better off with a lower tax rate.

2019

Berkshire's results again required explaining thanks to another round of accounting versus economics. A strong stock market in 2019 following weakness in 2018 changed reported profitability significantly. But the nonsensical GAAP accounting rules caused Berkshire's bottom line to grow 1,900%. The GAAP requirement that unrealized gains and losses flow through the income statement made the bottom line useless for analytical

purposes. Berkshire's results were good in 2019, just not *that* good. What really counted, operating earnings after-tax, amounted to $24 billion—a 3% decline from the prior year. [707]

Buffett reminded shareholders once again that it was the long game that counted and that reality trumped accounting, even when it showed results to be worse. "Charlie and I urge you to focus on operating earnings—which were little changed in 2019—and to ignore both quarterly and annual gains from investments, whether these are realized or unrealized."

The details of Berkshire's operating performance in 2019 revealed a year very much on par with the prior year. The Insurance Group delivered another year of underwriting profits. Growth in float brought more investable assets and higher investment income. The railroad and the utilities, along with the Manufacturing, Service, and Retailing businesses all reported higher profits. Berkshire found no major acquisitions. An opportunity to invest $10 billion in a negotiated preferred stock deal soaked up some of the continually growing cash pile. So too did repurchases that reduced Berkshire's share count by 1%. Nonetheless, cash and equivalents swelled to $128 billion at year-end. Amid the longest bull run in American history, Berkshire waited patiently for opportunity.

Valuation and Share Repurchases

Berkshire spent $5 billion repurchasing its shares in 2019. The sum was large but represented a small fraction of the company. We can estimate that Berkshire's intrinsic value increased by about 15% in 2019 using the same valuation methodology suggested by Buffett and presented in the section on 2018 (see page 684). Recall that Buffett divided Berkshire into five groves, four of which were used to calculate value (insurance was the fifth and supplied the float to fund the other groves). Those four groves were:

- Grove #1: Non-insurance businesses with ownership between 80% and 100%
- Grove #2: Equity securities
- Grove #3: Control group businesses
- Grove #4: Cash, US Treasuries, Fixed Income (bonds)

It's unclear why Berkshire did not repurchase more of its own shares during the year. The discount between the calculated value (see Table 9.20) and the level at which Berkshire repurchased its shares appeared wide. The highest price paid during the fourth quarter implied a valuation of around $545 billion. [708] The price/value relationship appears favorable even if we use an average of the estimated year-end intrinsic values. Yet Buffett's comments suggested the repurchases were not a screaming bargain. "Calculations of intrinsic value are far from precise. Consequently, neither of us feels any urgency to buy an *estimated* $1 of value for a very real 95 cents."

Table 9.20: Berkshire Hathaway valuation, 2018 and 2019

($ billions)		
Direct Calculation Method:	2019	2018
Grove 1: Non-insurance[1]	$266	$252
Grove 2: Equity securities[2]	216	158
Grove 3: Control group businesses[3]	15	20
Grove 4: Cash, Treasuries, bonds	147	132
Total	$644	$562
Implied Yield Method:		
Implied market value[4]	$508	$485
Less: sum of Groves 2 & 4 above	(363)	(290)
Implied value of Groves 1 & 3	145	195
After-tax earnings of Groves 1 & 3	19	18
Going-in rate of return, after-tax	12.9%	9.3%

Footnotes:
1. 15x $17.7 billion (2019) and $16.8 billion (2018) after-tax earnings.
2. Deducts $32 billion (2019) and $15 billion (2018) tax on unrealized gain.
3. 15x $1 billion (2019) and $1.3 billion (2018) after-tax earnings.
4. Based on Berkshire's share repurchases.

Notes:

1. I've used Buffett's figures for 2018 (which presumably represented something close to normalized earnings) and followed the logic to 2019.

2. A 15x multiple is consistent with our use of 10x pre-tax earnings earlier in this book and assuming the new 21% tax rate.

Sources: Berkshire Hathaway Annual Reports 2018–2019; and author's calculations.

Valuation and Share Repurchases – Berkshire Hathaway Energy

Berkshire wasn't the only entity that repurchased its shares in 2019. Little press has been given to Berkshire Hathaway Energy's (BHE) repurchases of its shares. This despite Buffett at times mentioning the modest increases in Berkshire Hathaway's majority ownership of the utility. When Berkshire first purchased BHE in 1999 its ownership amounted to 76%. Additional purchases of equity to assist BHE in making certain acquisitions and purchases of stock from BHE non-controlling shareholders raised its interest to almost 91% at year-end 2019. Its more recent purchases shed light on the value of the company (see Table 9.21) and backed up Buffett's assertion that BHE was worth far more than its carrying value.

Table 9.21: Berkshire Hathaway Energy—select data

Year	BRK ownership	Shares repurchased	Price per share	Implied value of BHE ($ millions)
2019	90.9%	447,712	$654.44	$50,097
2018	90.2%	177,381	603.22	46,553
2017 [1]	90.0%	216,891	548.66	42,442
2016	89.9%	0	n/a	n/a
2015	89.9%	75,000	480.00	37,148

Footnote:
1. Series of two transactions: 35,000 shares for $19 million and 181,891 for $100 million (5% junior subordinated debenture).

Note: Valuation is at the Berkshire Hathaway Energy level and includes investments such as BYD, Inc. (worth $1.1 billion at 12/31/19).

Source: Berkshire Hathaway Energy 10K filings 2015–2019 and author's calculations.

Regulated, Capital-Intensive Businesses

The higher implied valuation for BHE reflected its financial results. Pre-tax earnings grew 6% to $2.6 billion. [709] Another year of tax credits from wind power generation again caused after-tax income to exceed pre- tax income, which grew 7.5% to $3.1 billion. Beginning in 2019, Berkshire began presenting a table in the footnotes to the Annual Report detailing after-tax earnings of the utility businesses, "reflecting how the energy businesses are managed and evaluated." [710] MidAmerican Energy, the Iowa and Illinois utility, had significant wind-generating capacity and experienced strong demand from industrial customers, even in the face of lower demand from residential customers because of weather. Its after-tax earnings grew 12% to $781 million and benefitted from higher tax credits. NV Energy

experienced a similar increase in after-tax earnings, up 15% to $365 million; higher volumes and rates led to earnings of $422 million for the gas pipelines, up 9%; and Northern Powergrid increased earnings 7% to $256 million. PacifiCorp's earnings fell 3% to $773 million. The real estate brokerage division increased after-tax earnings by 10% to $160 million. This was largely driven by its mortgage business and acquisitions. No explanation was given for the lower volume and margin at existing brokerage offices, but a shortage of homes nationwide could have played a part.

Volumes declined 4.5% to 10.2 million units at BNSF. Revenues declined at a slower 1.4% to $23.5 billion because of an increase in average prices. Weather, including flooding, played a part. So too did competing forms of freight transport and international trade policies. Consumer products, agricultural products, and coal volumes fell by 5%. Industrial products volume fell 3%. Operating expenses benefitted from cost controls and the curtailment of a retirement plan (which more than offset higher weather-related costs). These were in addition to lower expenses due to lower volume. Pre-tax earnings grew 5.6% to $7.3 billion from a combination of lower operating expenses and higher average pricing.

Insurance

The Insurance Group underwrote to a second-consecutive year of profits. A $417 million pre-tax underwriting profit in 2019 brought the record to $27.5 billion in total profit in sixteen out of seventeen years. The lone loss year in 2017 was caused by numerous catastrophe losses. Float grew 5.5% to $129.4 billion at year-end.

Table 9.22: Berkshire Hathaway—Insurance Underwriting

($ millions)	2019	2018
GEICO		
Premiums earned	$35,572	$33,363
Underwriting gain/(loss) - pre-tax	1,506	2,449
Berkshire Hathaway Reinsurance Group		
Premiums earned:		
Property/casualty	$9,911	$8,928
Retroactive reinsurance	684	517
Life/health	4,883	5,343

Periodic payment annuity	863	1,156
Total premiums earned	16,341	15,944
Underwriting gain/(loss) - pre-tax:		
Property/casualty	16	(207)
Retroactive reinsurance	(1,265)	(778)
Life/health	326	216
Periodic payment annuity	(549)	(340)
Total underwriting gain/(loss) - pre-tax	(1,472)	(1,109)
Berkshire Hathaway Primary Group		
Premiums earned	$9,165	$8,111
Underwriting gain/(loss) - pre-tax	383	670
Total premiums earned	$61,078	$57,418
Total underwriting gain/(loss) - pre-tax	417	2,010
Average float	126,078	118,616
Cost of float	(0.3%)	(1.7%)

Sources: Berkshire Hathaway Annual Report 2019 and author's calculations.

GEICO

GEICO was the star of the show most years, and in 2019 it delivered again. Its value proposition led to over 1 million new auto policies-in-force, which represented unit growth of 6.4%. GEICO ended the year with a 13.6% market share, up from 13%. Lower average pricing offset some of the strong growth in policies-in-force as the company fine-tuned its pricing to balance profitability with passing savings on to customers. Higher loss severity drove losses up 2.5 percentage points (to 81.3% of premiums earned). Severities increased in the mid-single-digits for property and collision damage and in the high single-digits for bodily injury. The footnotes to the financial statements do not detail why bodily injury severity increased at such a high rate. Claims frequencies increased low single-digits. Earned premiums grew 6.6% to $35.6 billion and a 95.8% combined ratio delivered a pre-tax underwriting gain of $1.5 billion.

Berkshire Hathaway Primary Group

The Berkshire Hathaway Primary Group reported a strong 15% growth in premiums earned. But pre-tax underwriting profits fell 43% to $383 million

(combined ratio of 95.8%) because of higher losses and lower (but still positive) favorable loss development. It is important to remember that insurance profitability comes from two components: underwriting and investing. Berkshire's insurance managers focused solely on underwriting, while the investing component was handled centrally in Omaha. A decline in underwriting profit is not as good as an increase, but it is still a satisfactory result because it means a negative cost of float. Additionally, the strong growth in premiums very likely led to an increase in float. [711] The value of Berkshire's insurers come from the low-cost capital they provide. That capital can come in the form of float and profits. [712]

A very rare event occurred in 2019 that affected the results of the Primary Group. In October, Berkshire sold its 81% interest in Applied Underwriters. The company increasingly came into conflict with other Berkshire insurance units selling the same workers' compensation product. Berkshire sold its ownership interest back to one of its founders, Steve Menzies, and an investment firm. The $920 million price tag valued the company at $1.1 billion, about equal to annual premium volume. [713] Berkshire purchased 85% of Applied Underwriters in 2006 for an estimated $290 million. [714]

Berkshire Hathaway Reinsurance Group

Premiums earned in the reinsurance unit increased 2.5% to $16.3 billion. Pre-tax underwriting losses widened from $1.1 billion in 2018 to $1.5 billion in 2019. Individual segment results reflected the basic design of the reinsurance units. Losses widened in retroactive reinsurance and periodic payment annuity (two lines tied to long-duration float with recurring accounting charges), and profits increased in property/casualty and life/health compared to the prior year.

Property casualty delivered underwriting profits of $16 million from a loss of $207 million on earned premiums up 11% to $9.9 billion. Volume included $1.7 billion from the 20% quota-share agreement with Insurance Australia Group. The barely breakeven profit was a good result considering it was after $1 billion in losses from catastrophe events (Typhoons Faxia and Hagibis, and wildfires in California and Australia). Favorable loss development added $295 million to the bottom line.

The life/health unit recorded underwriting profits of $326 million, up 51% from the year before. A contract amendment with an undisclosed major reinsurer was responsible for a one-time pre-tax gain of $163 million that swelled the bottom line in 2019 but reduced premium volumes. A single $228 million contract covering health insurance risks replaced some of that volume but still left earned premiums down 9% for the year to $4.9 billion.

Periodic payment annuity premiums declined 25% to $863 million and the loss widened from $340 million in 2018 to $549 million in 2019. Berkshire took pains to note that this business is almost entirely price dependent. Berkshire stood ready to write large amounts of business when other market participants stepped away for whatever reason and pricing firmed up. Like the retroactive reinsurance business, unpaid losses in periodic payment annuities were large. At year-end 2019, the discounted value of the liabilities (at a 4.1% rate) was $13.5 billion.

Premiums written and earned in retroactive reinsurance were the result of a few contracts booked during the year and amounted to $684 million, up from $517 million. Such low volume was typical of the business, which came in spurts. Results were penalized by $125 million of unfavorable loss development (net of changes to unamortized deferred charges) compared to favorable development of $185 million in 2018. [715] Deferred charge amortization related to contracts booked in prior years caused most of the reported loss of $1.3 billion.

Unamortized deferred charges (the asset placed on the books at inception of the contract comprising the difference between the premium received and estimated ultimate losses) related to retroactive reinsurance amounted to $13.7 billion at year-end. That sum would eventually work its way through the income statement along with any future loss development. The 2017 AIG contract alone was responsible for $646 million of deferred charge amortization in 2019 that directly flowed to the bottom line as a loss. Berkshire estimated that total deferred charge amortization would be $1.2 billion in 2020, an amount that would produce an underwriting loss absent any changes to reserves.

Cash flows often illustrate economics better than accounting (see Table 9.23). In 2019, Berkshire’s income statement said it lost $1.3 billion on retroactive reinsurance. But it paid just $909 million to claimants under these policies. It also brought in $624 million of cash from premiums. That

means just $225 million went out the door, net, costing less than 1% of average float. The result remains favorable even assuming no written/earned premium activity. Berkshire would eventually have to pay out the full amount of its incurred losses—a whopping $42.4 billion (assuming it reserved appropriately). In the meantime, it had a huge amount of float to invest for its benefit. The ultimate economic result hinged on the timing and amount of future payments.

Table 9.23: Economics of reinsurance float at BHRG, 2019

($ millions)			
Float:		2019	2018
Gross unpaid losses		$42,441	$41,834
Deferred charges		(13,747)	(14,104)
Net liabilities (float proxy)		$28,694	$27,730
Average float	(A)	$28,212	
		Data from 2019:	
		Economics	Accounting
Written premiums		$684	
Paid losses and adj. exp.		(909)	
Net cash flow	(B)	($225)	
Written premiums			$684
Foreign currency remeasurement			(76)
Increase estimated liabilities			(378)
Increase deferred charges			253
AIG deferred charge amortization			(646)
Other deferred charge amortization			(1,102)
Reported accounting loss	(B)		($1,265)
Cost of float (B / A)		(0.8%)	(4.5%)
Cost of float assuming no premiums		(3.2%)	(6.9%)

Sources: Berkshire Hathaway Annual Report 2019 and author's calculations.

Manufacturing, Service, and Retailing

The headline result of a 0.5% increase in pre-tax earnings from the MSR businesses masked a wide range of individual business results. Results from

the six major sub-segments ranged from an increase of 17% to a decline of 8%.

Table 9.24: Manufacturing, Service, and Retailing businesses—pre-tax earnings

($ millions)	2019	2018	% Change
Industrial products	$5,635	$5,822	(3%)
Building products	2,636	2,336	13%
Consumer products	1,251	1,208	4%
Subtotal - manufacturing	9,522	9,366	2%
Service	1,681	1,836	(8%)
Retailing	874	860	2%
McLane	288	246	17%
Subtotal - service and retailing	2,843	2,942	(3%)
Total pre-tax earnings	12,365	12,308	0%
Income taxes and non-controlling interests	(2,993)	(2,944)	2%
Earnings after tax	$9,372	$9,364	0%

Sources: Berkshire Hathaway Annual Reports 2018–2019 and author's calculations.

Industrial Products (revenues of $30.6bn, flat) : Pre-tax earnings fell 3% to $5.6 billion. Results lagged largely due to weakness at Lubrizol and IMC. A fire in one of Lubrizol's plants in France caused its pre-tax earnings to fall 15%, including a 50% drop in the fourth quarter, negatively impacting the segment. One of Lubrizol's major insurance companies was Berkshire Hathaway, an irony Buffett noted in his Chairman's letter. "In Matthew 6:3, the Bible instructs us to 'Let not the left hand know what the right hand doeth.' Your chairman has clearly behaved as ordered." That was perhaps a reflection of the breadth of Berkshire's operations and an illustration of how risks can combine withi n an entity.

IMC's pre-tax earnings fell 13% from a combination of foreign currency effects, sales of lower margin products, and impacts from an ongoing trade war between the US and China. Precision Castparts increased earnings 5%, although a part of the favorable comparison had to do with one-time gains in 2019 and one-time losses in 2018. The company did not expect the

suspension of Boeing's 737 MAX aircraft, a new plane that was beset with major issues, to have a major impact on its business. Marmon's results were flat when considering the effects of a new acquisition. On October 31 it acquired 60% of Colson Medical companies and agreed to purchase the remainder over time. Colson was the second act for Marmon founder Robert Pritzker. Pritzker founded Colson to acquire companies in the orthopedic surgery field after he left Marmon. [716]

Building Products (revenues of $20.3bn, up 8.8%) : Pre-tax earnings in building products increased 13% to $2.6 billion. Clayton Homes again led the strong results. Its pre-tax earnings swelled 20% to $1.1 billion from higher sales of manufactured and site-built homes. Strength in home sales also translated into strong 12% higher earnings in its financing unit. The other building products companies within the segment increased pre-tax earnings by 8% as a result of higher selling prices and lower costs. Earnings would have increased more if not for facility closure costs.

Consumer products businesses (revenues of $11.8bn, down 5.7%) : Pre-tax earnings increased 4% to $1.3 billion. Duracell benefitted from a new product line. The apparel and footwear businesses experienced headwinds from private label products. Brooks, a running shoe company, [717] increased revenues 3.5% despite problems with a distribution center. Cost controls improved pre-tax margins for the consumer products businesses by a full percentage point to 10.6%. These factors more than offset continued weakness at Forest River, where revenues declined 13% on lower unit sales. Berkshire provided no information on its earnings.

Service businesses (revenues of $13.5bn, up 1.2%) : Pre-tax earnings declined 8% to $1.7 billion. TTI and FlightSafety caused the decline in pre-tax earnings in this sector. TTI came off a strong year in 2018 and was hurt by softer demand for its products, lower margins, and higher expenses from acquired businesses. Currency-related losses and tariffs compounded the pain. The loss of a government contract hurt earnings at FlightSafety. Higher revenues and margins increased NetJets' earnings. Charter Brokerage divested a low margin business during the year but the impact on the bottom line wasn't disclosed.

Retailing (revenues of $16.0bn, up 2.5%) : A small 2% increase in pre-tax earnings to $874 million hid wide differences in fortunes. Strong pre-owned car sales and financing activities led to a 23% increase in earnings from

Berkshire Hathaway Automotive. That was the only good news in the segment. Pre-tax earnings at the home furnishings companies (representing 20% of overall segment revenues) fell 15% on a 1.3% decline in revenues and higher costs. The remainder of the segment, which included such companies as the jewelry retailers and See's Candies, fell 8%.

McLane (revenues of $50.5bn, up 0.9%) : McLane's earnings rebounded strongly as its margin clawed back some ground lost in prior years. Pre-tax earnings grew 17% to $288 million. The business remained very competitive with no apparent end in sight. The comparison of McLane's earnings benefitted from an extra week of results since its business operated on a 52/53 week fiscal year. [718]

Investments

Berkshire's investment portfolio swelled along with strong double-digit advances in the overall stock market (the S&P 500 rose 31.5%). Berkshire sold $14 billion worth of equities and purchased $18.6 billion for a net purchase of $4.6 billion. But a privately negotiated $10 billion preferred stock investment was classified as an equity security. Adjusting the information presented on the statement of cash flows downward to reflect the preferred investment meant Berkshire *sold* a net $5.4 billion in other equities. Sales included 4.4 million shares of Apple, 3 million shares of Bank of New York Mellon, 104 million shares of Wells Fargo, and its entire stake in USG Corp. Berkshire added to its holdings of Bank of America, JP Morgan Chase, and US Bancorp.

Buffett used an obscure book from 1924 to illustrate the power of retained earnings. In *Common Stocks as Long Term Investments* , Edgar Lawrence Smith illustrated how companies grow by retaining earnings. In the case of Berkshire's ten largest holdings, their retained earnings were more than double dividends. Buffett reminded readers that only the dividends showed up in Berkshire's financials each year. He also pointed out that some of Berkshire's investees used their retained earnings to repurchase stock, "an act that enlarges Berkshire's share of the company's future earnings." Looking at the table Buffett provided, we can see that Berkshire's ownership in American Express increased from 17.9% in 2018 to 18.7% in 2019 without Berkshire buying a single share. Even more amazing was

Apple. Berkshire's ownership increased from 5.4% in 2018 to 5.7% in 2019 despite the sale of some shares.

He also used a more recognizable historical reference to make his point. "It was no secret that mind-boggling wealth had earlier been amassed by such titans as Carnegie, Rockefeller, and Ford, all of whom had retained a huge portion of their earnings to fund growth and provide ever greater profits." These titans, like him, were among the most successful of their time.

The sale of shares in USG Corp. amounted to a relatively small dollar amount (under $2 billion). But it represented one of the rare occasions that Buffett both disagreed with and voted against proposed directors of a company. Berkshire owned 31% of USG Corp., a maker of gypsum wallboard (sheetrock), that it purchased in 2006. [719] The business struggled over the ensuing decade. In 2018, Knauf (a competitor) offered a buyout that Berkshire thought attractive, but USG's management team and certain board members opposed the deal. Buffett thought the deal was good value for shareholders and publicly criticized the directors saying they "did not represent our interests." After voting against the directors, the deal with Knauf was ultimately approved and the company was sold midway through 2019.

In August, Berkshire again acted as creditor in a privately negotiated preferred stock deal. Unlike prior deals it was not the result of a general pullback in available credit. Instead, the $10 billion deal assisted Occidental Petroleum with its acquisition of competitor Anadarko. The deal was almost immediately criticized—but not for Berkshire's involvement. The criticism fell on Occidental's management for providing an astute investor with a sweetheart deal to finance an overpriced acquisition. Leading the criticism was legendary investor Carl Icahn. Buffett received praise for his shrewd business deal that included an 8% dividend yield for Berkshire's preferred stock—a benefit worth $800 million a year. Berkshire also got warrants to purchase 80 million shares at $62.50 per share, and a 105% liquidation preference. The deal also included a provision that Occidental could pay its preferred stock dividend in shares.

Berkshire's cash continued to build amid the dearth of opportunities to allocate large amounts of capital amid sky-high valuations for public and private businesses. Yet it continued its practice of borrowing money when favorable terms were available. For the first time, Berkshire issued Japanese

yen-denominated bonds, raising $4 billion to bolster its war chest. [720] Its $128 billion of cash at year-end 2019 was criticized by those wanting the Oracle of Omaha to return some of it to shareholders. But Warren Buffett's fifty-five year seat at the helm of Berkshire Hathaway gave him confidence that an intelligent use of capital would present itself sooner or later. Berkshire was prepared for anything.

Half-Decade in Review

In just five years, Berkshire Hathaway generated more capital than the entirety of the prior decade (see Table 9.25). Operations produced about half of it. High prices for businesses created headwinds that stemmed the flow of acquisitions. Those headwinds broke the trend of increasing contributions from wholly-owned operating subsidiaries. That holds true even if the one-time gain from the tax law change in 2017 is removed. Making that adjustment, operations produced 61% of the increase in net worth during the period. Strong gains in the stock market led to significant realized and unrealized gains for Berkshire's portfolio, but hurt Berkshire's relative stock performance. It also made it more difficult to find attractive places to put Berkshire's large and growing cash pile.

Table 9.25: Reconciliation of shareholders' equity, 1965–2019

($ millions)	1965–74	1975–84	1985–94	1995–04	2005–14	2015–19	1965–19
Beginning of period shareholders' equity	$22	$88	$1,272	$11,875	$85,900	$240,170	$22
Net income - operations	57	366	2,869	19,344	107,301	95,122	225,059
Net income - realized gains	7	199	1,354	14,096	15,897	20,299	51,853
Unrealized appreciation of investments	0	486	5,877	15,000	25,720	50,297	97,380
Mergers/divestitures	0	133	433	25,085	12,816	328	38,795
Dividends/treasury stock	(3)	0	69	0	(1,763)	(6,362)	(8,059)
Issuance of Class-B stock	0	0	0	565	0	0	565
Tax Cuts and Jobs Act of 2017	0	0	0	0	0	29,106	29,106
Other/misc.	4	0	0	(65)	(5,701)	(4,169)	(9,930)
End of period shareholders' equity	$88	$1,272	$11,875	$85,900	$240,170	$424,791	$424,791
Change in equity during period	$66	$1,184	$10,60	$74,02	$154,27	$184,62	$424,76

			2	6	0	1	9

Note: Figures may not add due to rounding.

Sources: Berkshire Hathaway Annual Reports and author's calculations.

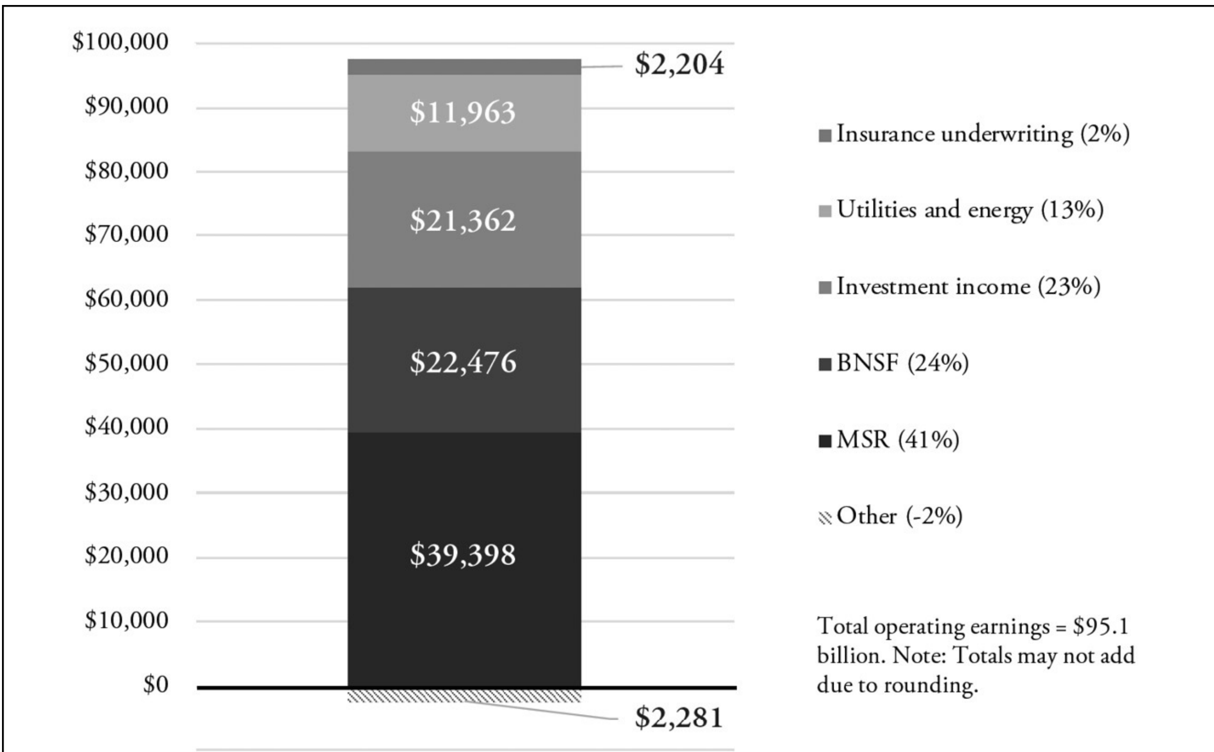
Table 9.26: Contribution toward change in equity during period

	1965–74	1975–84	1985–94	1995–04	2005–14	2015–19	1965–19
Net income - operations	86%	31%	27%	26%	70%	52%	53%
Net income - realized gains	11%	17%	13%	19%	10%	11%	12%
Unrealized appreciation of investments	0%	41%	55%	20%	17%	27%	23%
Mergers/divestitures	0%	11%	4%	34%	8%	0%	9%
Dividends/treasury stock	(4%)	0%	1%	0%	(1%)	(3%)	(2%)
Issuance of Class-B stock	0%	0%	0%	1%	0%	0%	0%
Tax Cuts and Jobs Act of 2017	0%	0%	0%	0%	0%	16%	7%
Other/misc.	7%	0%	0%	(0%)	(4%)	(2%)	(2%)
Total	100%	100%	100%	100%	100%	100%	100%

Note: Figures may not add due to rounding.

Sources: Berkshire Hathaway Annual Reports and author's calculations.

Figure 9.3: Sources of after-tax operating income 2015–2019 ($ millions)



Sources: Berkshire Hathaway Annual Reports 2015–2019 and author’s calculations.

Figure 9.3 breaks down the source of Berkshire’s after-tax operating income for the half-decade. Taken together, BNSF and the utility businesses generated over a third of after-tax operating earnings in the period. Berkshire’s fourteen-year record of underwriting profits came to an end in 2017 on the heels of six catastrophes. But it generated a profit in each of the other four years, which meant Berkshire’s cost of float was negative. Better still, average float grew from $81 billion to $126 billion. A large part of the growth in float came from the retroactive reinsurance contract with AIG in 2017. The $10.2 billion premium Berkshire received was the largest in history and solidified Berkshire’s reputation as one of (if not *the*) go-to reinsurer in the world.

Berkshire found reasonable opportunity to allocate capital during the five years under review. Acquisitions soaked up the most capital:

1. $4.2 billion: Van Tuyl Automotive Group joined the conglomerate in 2015 and changed its name to Berkshire Hathaway Automotive Group. Such renaming reflected the growing power and name recognition of the Berkshire Hathaway brand.

2. $33 billion: Precision Castparts was the only elephant or large acquisition that soaked up cash in 2016.
3. $2.8 billion: Pilot Flying J put one foot in the door with Berkshire's initial 38.6% stake in 2017. The deal called for Berkshire to increase its stake to 80% in 2023.
4. $2.5 billion: Medical Liability Mutual Insurance Company converted to a stock company to put itself up for sale to Berkshire in 2018.
5. $7.9 billion: Berkshire and its subsidiaries completed numerous bolt-on acquisitions.

Another cash-rich split-off transaction brought Duracell into the Berkshire fold. The partnership with 3G Capital found opportunity to invest another $5 billion in equity to acquire Kraft Foods Group.

Berkshire also invested an additional $32 billion in growth capital spending during the half-decade. The bulk of that capital went into BNSF and Berkshire Hathaway Energy. Berkshire also allocated additional capital to marketable securities. It continued its practice of concentrating its investments by buying $35 billion of Apple stock that was worth more than double the purchase price by year-end 2019. Berkshire also invested $10 billion in a privately negotiated preferred stock deal with Occidental Petroleum.

Table 9.27: Major capital allocation decisions 2015–2019

Acquisitions	$43,971
Capital expenditures, net	32,324
Net investment in equity securities	19,064
Share repurchases	6,362
	$101,721
Net increase in cash & fixed maturity investments	$115,022

Sources: Berkshire Hathaway Annual Reports 2014–2019 and author's calculations.

Two statistics from Berkshire's investment portfolio are too irresistible to pass over. Berkshire's share of 2019 earnings from American Express and Coca-Cola amounted to an exceptionally large proportion of their cost basis. Its share of American Express's 2019 earnings was $1.26 billion—almost equal to its $1.29 billion cost basis. Its share of Coke's earnings

amounted to nearly two-thirds of the purchase price. [721] These statistics reflected the long holding periods and Berkshire's view of the investments as close to permanent. Both holdings were proof of the value of long holding periods. Deferred taxes on the significant unrealized gains allowed significantly more dividends than if the investments had been sold and reinvested elsewhere (or back into the same company).

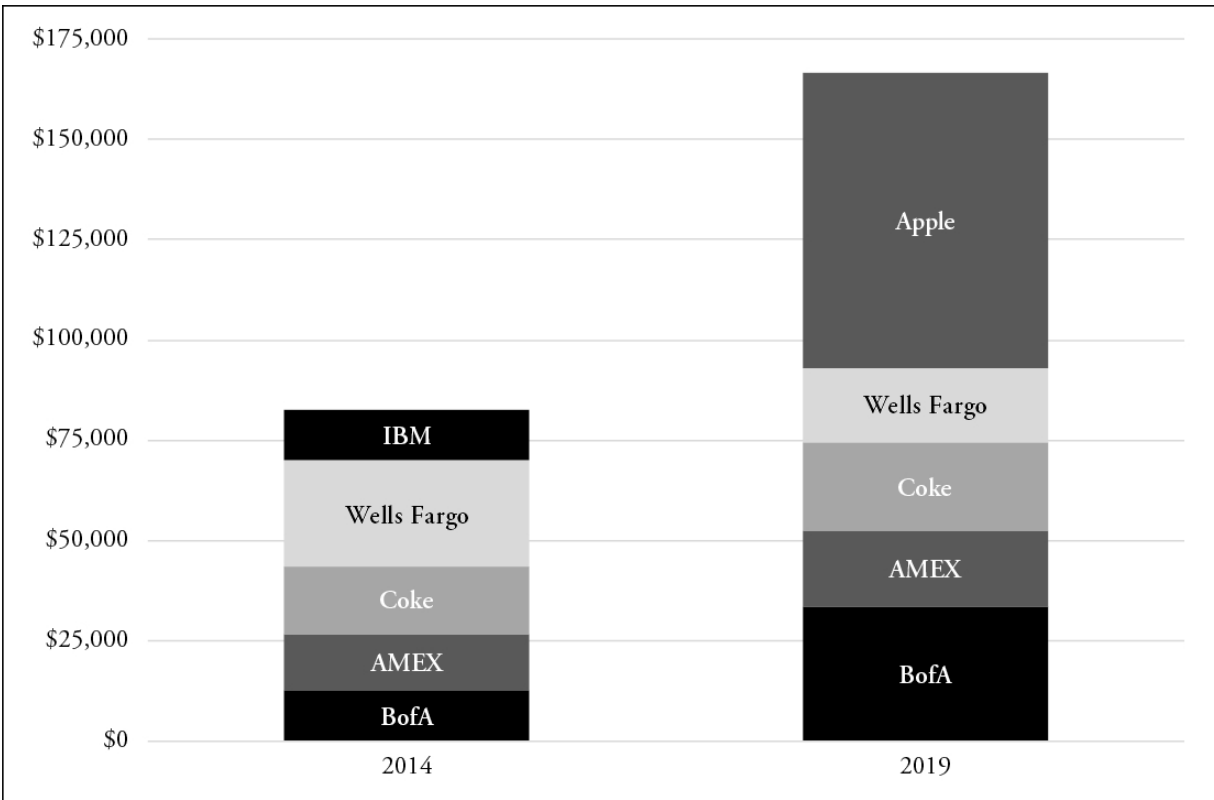
Table 9.28: Berkshire Hathaway—equity portfolio, select detail

	2019		2014		Change	
($ millions)	*Cost*	*Market*	*Cost*	*Market*	*Cost*	*Market*
American Express	$1,287	$18,874	$1,287	$14,106	$0	$4,768
Apple, Inc.	35,287	73,667			35,287	73,667
Bank of America	12,560	33,380			12,560	33,380
The Coca-Cola Company	1,299	22,140	1,299	16,888	0	5,252
JP Morgan Chase	6,556	8,372			6,556	8,372
IBM			13,157	12,349	(13,157)	(12,349)
Moody's Corp.	248	5,857	248	2,364	0	3,493
US Bancorp	5,709	8,864	3,033	4,355	2,676	4,509
Wal-Mart Stores, Inc.			3,798	5,815	(3,798)	(5,815)
Wells Fargo & Company	7,040	18,598	11,871	26,504	(4,831)	(7,906)
All others	40,354	58,275	20,363	35,089	19,991	23,186
Total equity securities	$110,340	$248,027	$55,056	$117,470	$55,284	$130,557

Note: Investments with a market value of $5 billion or greater in either period.

Sources: Berkshire Hathaway Annual Reports 2014, 2019; and author's calculations.

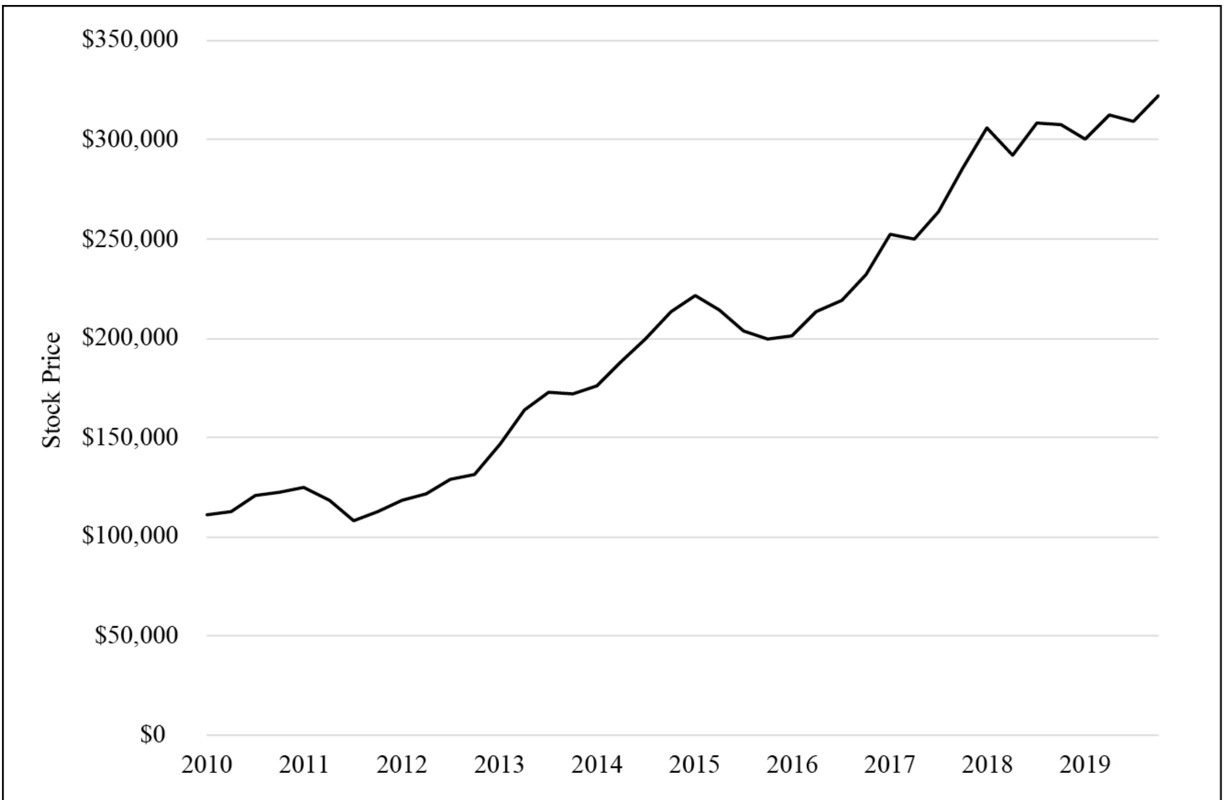
Figure 9.4: Top Five Investment Portfolio Components, 2014 and 2019



Sources: Berkshire Hathaway Annual Reports 2014, 2019 and author's calculations.

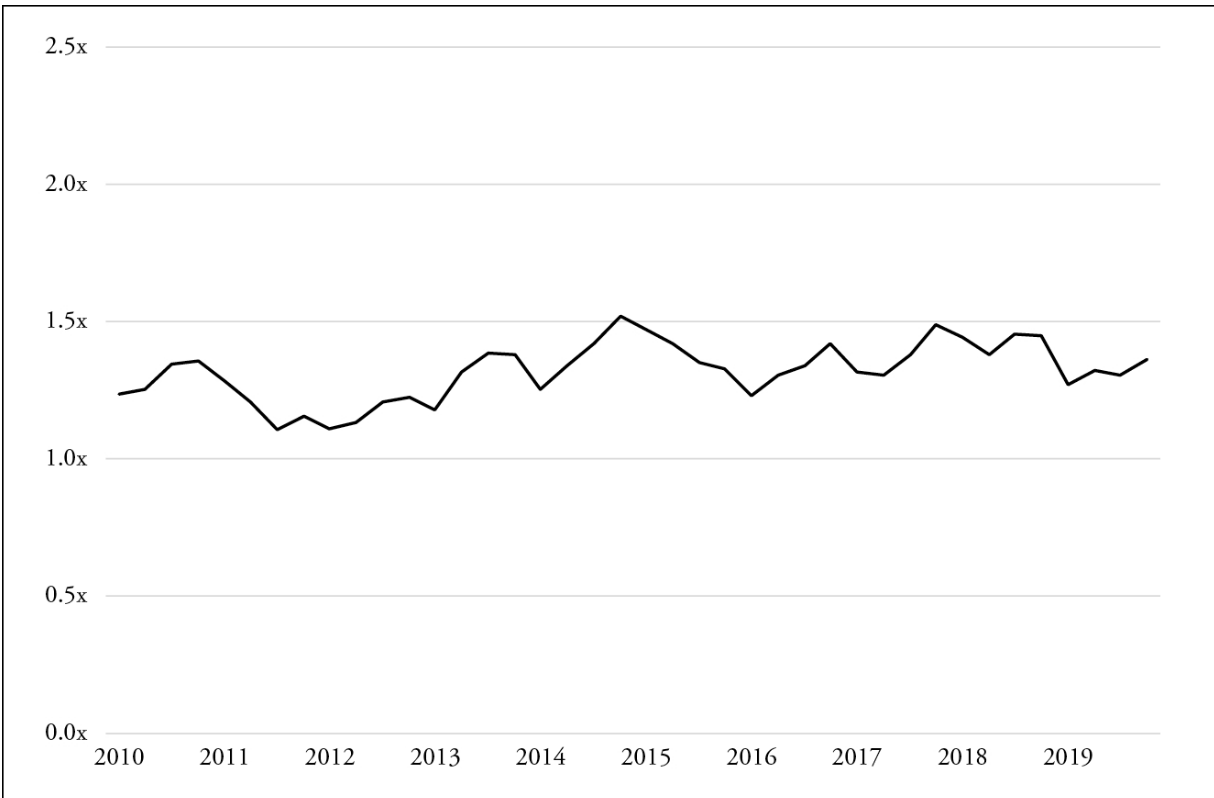
Berkshire's stock price continued to track the underlying progress being made in the business. Shares advanced past the $300,000 mark for the first time in late 2017 and Berkshire's market capitalization was in the $550 billion range by the end of 2019. While the price-to-book value during this time was steady, evidence pointed to the conglomerate being undervalued. Berkshire did its best to communicate this to shareholders and bring about a more rational valuation. When this failed, Berkshire repurchased undervalued shares to the benefit of continuing shareholders. Figures 9.5 and 9.6 present ten years of data for context.

Figure 9.5: Berkshire Hathaway stock price, 2010–2019



Sources: *Of Permanent Value* (Kilpatrick), Berkshire Hathaway Annual Reports 2010–2017, Yahoo! Finance, and author's calculations.

Figure 9.6: Berkshire Hathaway price to book ratio, 2010–2019



Sources: *Of Permanent Value* (Kilpatrick), Berkshire Hathaway Annual Reports 2010–2017, Yahoo! Finance, and author's calculations.

Lessons: 2015–2019

1. It is okay to admit you were wrong about an investment thesis. Acting to correct a wrong move is difficult but important. Buffett initially invested in IBM stock thinking the company had a stronger competitive advantage. A few years later, he realized he was wrong and sold Berkshire's investment in the company. Buffett also overcame the human tendency toward maintaining a commitment when you have publicly stated your opinion. Berkshire went on to purchase a large stake in Apple, which subsequently doubled in value.
2. Don't let cash burn a hole in your pocket. Berkshire's cash continued to build despite billions spent on growth capex and acquisitions. Buffett resisted pressure to invest cash in a market unsuitable for major investment and waited patiently for opportunity.
3. Compounding is a powerful force. In just five years, Berkshire

generated more capital than the previous decade, and over 40% of the *entire* total since 1965. Assessing future capital allocation becomes that much more important for a company that retains a significant portion of its earnings.

4. Incentives are superpowers and can have unintended consequences. The scandal that enveloped Wells Fargo related to opening fraudulent new accounts was unintentional but unfortunately a result of the design of its incentive systems. Berkshire's businesses are managed in a very decentralized manner, but there are protections in place. For example, Berkshire maintains a hotline and a way to send direct and anonymous written communications to headquarters. When a problem arises the best thing to do is act quickly. Problems usually do not get better with time.
5. Focus on the right variables. Buffett said Berkshire's 2016 acquisition of Precision Castparts would undoubtedly come with some problems. He focused his thinking on the company's long-term economic position. Similarly, Buffett suggested an analyst would do better viewing Berkshire as a few collections of businesses rather than try to gain insight into each of Berkshire's many operating subsidiaries.
6. Accounting is a language and only the starting point. The 2018 accounting change that required unrealized gains to flow through the income statement caused Berkshire's bottom line to become analytically useless. Investors must understand the accounting rules as written and then use the financials to determine economic reality.
7. Productivity creates wealth for all citizens. The way a civilization advances its well-being is by producing more goods and services per individual. The process is disruptive in the short term as businesses figure out ways to do the same work with fewer workers. But in the long term productivity gains help all citizens. How to distribute those productivity gains and the best way to mitigate the impact on individuals affected are important political questions.

This following tables have been omitted from the ebook version because formatting issues would have rendered them unreadable. The reader is welcome to download a pdf version of the omitted tables and bonus material at brkbook.com .

Table 9.29: Berkshire Hathaway—select parent-level financial information

Table 9.30: Berkshire Hathaway—Insurance Underwriting

Table 9.31: Berkshire Hathaway Insurance Group float, select data and information

Table 9.32: Manufacturing, Service, and Retailing businesses—pre-tax earnings

Table 9.33: Manufacturing, Service, and Retailing businesses—balance sheets, 2004–2016

Table 9.34: Manufacturing, Service, and Retailing businesses—income statements, 2004–2016

Table 9.35: Manufacturing, Service, and Retailing businesses—ratios and key figures, 2004–2016

Table 9.36: Regulated, Capital-Intensive Businesses

($ millions)	2019	2018	2017	2016	2015	2014
Berkshire Hathaway Energy (formerly known as MidAmerican Energy)						
UK utilities		$304	$311	$367	$460	$527
Iowa utility[1]		407	372	392	292	270
Nevada utility		417	567	559	586	549
PacifiCorp		745	1,131	1,105	1,026	1,010
Gas Pipelines (Northern Natural and Kern River)		507	446	413	401	379
Canadian transmission utility[2]				147	170	16
Renewable projects[2]				157	175	194
HomeServices		204	220	225	191	139
Other (net)[2]		296	296	73	49	54
Earnings before corporate interest and taxes		2,880	3,343	3,438	3,350	3,138
Interest		408	844	465	499	427
Pre-tax earnings	2,618	2,472	2,499	2,973	2,851	2,711
Income taxes	(526)	(452)	148	431	481	616
Net earnings	$3,144	$2,924	$2,351	$2,542	$2,370	$2,095
Net earnings applicable to Berkshire[3]	$2,840	$2,621	$2,033	$2,287	$2,132	$1,882

Burlington Northern Santa Fe (BNSF)	2019	2018	2017	2016	2015	2014
Revenues	$23,515	$23,855	$21,387	$19,829	$21,967	$23,239
Operating expenses (including depreciation)	15,195	15,951	14,043	13,144	14,264	16,237
Operating earnings before interest and taxes	8,320	7,904	7,344	6,685	7,703	7,002
Interest (net)	1,070	1,041	1,016	992	928	833
Income taxes	1,769	1,644	2,369	2,124	2,527	2,300
Net earnings	$5,481	$5,219	$3,959	$3,569	$4,248	$3,869

Footnotes:

1. For the 2016 presentation, Berkshire reclassified $22 million from Iowa utility to Other for results in 2015 and $28 million for results in 2014. The more recent presentation is included here.
2. Canadian transmission utility and renewable projects reported in other beginning in 2017.
3. Earnings applicable to Berkshire consist of its share of net earnings plus after tax interest income from debt owed to Berkshire.

This following tables have been omitted from the ebook version because formatting issues would have rendered them unreadable. The reader is welcome to download a pdf version of the omitted tables and bonus material at brkbook.com .

Table 9.37: Reconciliation of shareholders' equity

Table 9.38: Berkshire Hathaway deferred tax analysis

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629 Underwriting earnings per share amounted to $1,118 in 2015 and increased the intrinsic value estimate by 4%. Doing so also reduced the change in estimated intrinsic value if the $1,624 underwriting earnings per share in 2014 are included that year.

630 The Insurance Information Institute partially corroborated this theory in an October 2016 report. It referenced a National Safety Council Survey where 74% of drivers reported using Facebook while driving. The title of that report told it all: More Accidents, Larger Claims Drive Costs Higher.

631 Robert P. Hartwig, James Lynch and Steven Weisbart, "More Accidents, Larger Claims Drive Costs Higher," Insurance Information Institute whitepaper, October 2016, https://www.iii.org/sites/default/files/docs/pdf/auto_rates_wp_092716-62.pdf .

632 The notes to the financial statements state that a $150 million gain was realized from foreign currency effects and a $90 million loss was booked relating to readjustment of ultimate liabilities (unfavorable loss development net of additional deferred charges). Any gain or loss from the $5 million premium earned in 2015, if any, would have been trivial.

633 Buffett did take pains to point out that GAAP depreciation underrepresented the amount the railroad would have to spend to remain competitive. He went so far as to suggest shareholders make a downward adjustment to Berkshire's earnings to account for it.

634 The original business was now one of numerous operating units.

635 Buffett noted at the 2014 Annual Meeting that the advantages Van Tuyl had were largely at the local dealership level. It was a reminder that scale only matters in certain contexts. Economies of scale only arise from leveraging fixed costs and sharing resources. Dealerships do not benefit much from scale because more dealerships equal more fixed costs and marketing is local. Van Tuyl's profitability came from running many dealerships efficiently in their local markets rather than any major advantages gained from having multiple dealerships (such as buying power with the manufacturers). The distinction is subtle but important.

636 Jamie Lareau, "$4 billion deal? A win all around, experts say," *Automotive News* , October 6, 2014, https://www.autonews.com/article/20141006/RETAIL/141009861/4-billion-deal-a-win-all-around-experts-say .

637 According to the Federal Reserve Bank of St. Louis.

638 Jonathan Stempel and Ludwig Berger, "Berkshire to buy German motorcycle equipment retailer," *Reuters* , February 20, 2015, https://www.reuters.com/article/us-detlevlouis-m-a-berkshire/berkshire-to-buy-german-motorcycle-equipment-retailer-idUSKBN0LO1X120150220 ; *Bloomberg News* wire story, "Warren Buffett buys German motorcycle apparel firm," *The Kansas City Star* , February 20, 2015, https://www.kansascity.com/news/business/article10739990.html .

639 There was also the political question of distribution of those gains, whether they accrued to the wealthy or the average citizen.

640 Normalized earning power is what a company could expect to earn in a normal year, free of any one-time factors pushing earnings up or down.

641 The Gen Re acquisition increased Berkshire's shares by 21.8%. Buffett went so far as to say that

issuing so many shares had been foolish and a terrible mistake. Most of the subsequent increase occurred with the purchase of BNSF in 2010.
642 Berkshire owned a small number of shares prior to acquiring the whole company.
643 Munger's summation of the PCC deal and Berkshire's approach is too irresistible to pass over. After Buffett gave his lengthy explanation, Munger asked rhetorically, "How many people who, in this room, are happily married, carefully checked their spouse's birth certificate and so on? My guess is that our methods are not so uncommon as they appear." His remark had insight. Due diligence checklists had no way of assessing the qualitative factors of management that would have an outsize impact on future results.
644 A cash-rich split-off is the exchange of (usually) appreciated shares of a company in exchange for an operating business and cash without incurring tax in the process.
645 Jonathan Stempel and Devika Krishna Kumar, "Buffett's Berkshire Hathaway buys P&G's Duracell," *Reuters* , November 13, 2014, https://www.reuters.com/article/us-duracell-m-a-berkshire-hatha/buffetts-berkshire-hathaway-buys-pgs-duracell-idUSKCN0IX1F020141113 .
646 Applying a 35% tax rate to the gain; other sources put the tax savings higher. It should also be noted that not just anyone could conduct a cash-rich split-off (otherwise everyone would do it to save taxes). Shares had to be held for at least five years, among other requirements.
647 According to the Proctor & Gamble annual report.
648 Buffett explained more in his Chairman's letter, criticizing management teams that frequently put forth adjusted earnings that added back restructuring costs. This was yet another chapter in the accounting versus economics story where managers seek to put the company's earnings in a more favorable light. Buffett considered these costs a part of doing business and noted that Berkshire incurred expenses every year that other management teams might add back when presenting results to shareholders. Instead of falling for what Buffett called baloney, the costs weighed on Berkshire's results.
649 Buffett provided these figures in the Chairman's letter. The summary balance sheet and income statement disappeared from the Chairman's letter the next year.
650 It is interesting to note how Berkshire's patience in waiting out low prices effectively allows it to participate in the business at better rates later. It lets others rush in and make unprofitable deals and then turns around years later and takes the risk off their books in the form of retroactive or retrocessional reinsurance contracts.
651 Specifically, GEICO rewards the number of policies-in-force, not premium growth. Premiums are a separate item and more related to profitability.
652 At the 2017 Annual Meeting, Buffett said the loss ratio on first-year business ran 10 percentage points higher than renewal business.
653 Staff story, "Iowa Utilities Board signs off on MidAmerican rate increase, but final order still pending," February 28, 2014, https://www.desmoinesregister.com/story/money/business/2014/02/28/iowa-utilities-board-signs-off-on-midamerican-rate-increase-but-final-order-still-pending/5899817/ .
654 They were restricted from investing in certain existing investments that could cause regulatory headaches or might make it appear Berkshire had insider knowledge (such as with Microsoft and Berkshire board member Bill Gates) but otherwise were free to invest however they saw fit.
655 It's not clear why the American shares, worth $2.2 billion at year-end, weren't included in the Chairman's table.
656 Berkshire's market value increased 21.9%.
657 Knoxville was also home to Clayton Homes. Buffett said Kevin Clayton, a friend of the selling family, played a part in helping the deal come through.
658 Nicole Friedman, "How America's Largest Truck Stop Owner Stays on the Right Path," *The*

Wall Street Journal , October 19, 2019, https://www.wsj.com/articles/how-americas-largest-truck-stop-owner-stays-on-the-right-path-11571457602 .
659 Berkshire defined catastrophe losses as $100 million or greater pre-tax from a single event.
660 Year-end float increased from $91.6 billion in 2016 to $114.5 billion in 2017.
661 Buffett put the odds of such an event at 2% annually, a figure some thought too high.
662 The contract specified that Berkshire would indemnify AIG for 80% of losses up to $25 billion in excess of $25 billion retained by AIG.
663 At the 2018 Annual Meeting, Buffett stated that about $15 billion had been paid by AIG to date. Berkshire's payments would kick in beginning at the $25 billion mark. He also noted that payments tended to slow down in future years, an effect that can be seen in historical claims duration statistics in financial filings.
664 Of the total $1.33 billion underwriting loss in retroactive reinsurance, $264 million related to changes in exchange rates and $100 million we know was from the AIG contract, so $966 million remained. The AIG deal was responsible for $10.2 of the $10.8 earned premiums in the retroactive segment, which left $700 million of other retroactive volume. The footnotes also disclosed that reserve development in retroactive "relatively insignificant in 2017 and 2016".
665 The difference was a $502 million reduction in income tax liabilities.
666 Retained earnings and shareholders' equity were restated for 2014–2016 to reflect the revised assumptions.
667 See the discussion of the economics of these time-value-of-money activities in the section on 2015.
668 "Just 3 of the Top 10 Largest Auto Insurers Grew Market Share During 2018 in the U.S." *CollisionWeek* , March 27, 2019. https://collisionweek.com/2019/03/27/just-3-top-10-largest-auto-insurers-grew-market-share-2018-u-s/ accessed 10/26/20.
669 Federal Energy Regulatory Commission, Docket RP17-248-000 on Kern River, www.ferc.gov .
670 AltaLink's pre-tax earnings were not disclosed. In the 2017 Berkshire Hathaway Energy 10K report filed with the SEC, AltaLink is consolidated with its US-based transmission assets. The increase in pre-tax earnings for that segment was 25%.
671 According to an offer memorandum published on December 28, 2017, the bonds redeemed had interest rates ranging from 5.95% to 8.48% and were replaced by borrowings with an average rate (according to the notes to the financial statements) of 2%.
672 Many analysts and shareholders (the author included) bemoaned this change. The MSR businesses are a significant source of Berkshire's value and understanding the nuances of its businesses is important. A fun statistic: the 1987 Berkshire Hathaway Annual Report was 56 pages long. The 2017 report registered 148 pages. Said another way, Berkshire's Annual Report increased at a rate of just 3.3% per year over 30 years while its business expanded far beyond the budding conglomerate it was at the beginning of that period. Buffett: buster of footnote inflation.
673 These one-time inventory and impairment charges were unrelated to the amortization charges Berkshire was required to take in connection with the acquisition. Buffett said there was a little over $400 million a year of amortization of goodwill related to PCC in 2017. Berkshire aggregated such purchase accounting-related charges into one line item as they were not considered useful in assessing the operating performance of the businesses.
674 Duracell's earnings appear low compared to the $4.2 billion purchase price. Its earnings appear inadequate even when deducting the $1.8 billion cash from the purchase price. Duracell was a relatively small part of Berkshire. Buffett did note at the 2018 Annual Meeting that Duracell was expected to earn more after it finished working through ongoing transition problems. It appeared from Buffett's comments that management needed to right-size certain operations but was prevented from doing so, at least temporarily, because of employment laws, among other things.

675 The two were Oakwood Homes in Colorado and Harris Doyle in Alabama.
676 At year-end 2017, two million shares worth $314 million remained, down from 81 million shares at year-end 2016.
677 This holds true even if we include goodwill and intangibles, and we capitalize R&D expenses.
678 Martinne Geller and Pamela Barbaglia, "Kraft Heinz bids $143 billion for Unilever in global brand grab," *Reuters* , February 17, 2017, https://www.reuters.com/article/us-unilever-m-a-kraft/kraft-heinz-bids-143-billion-for-unilever-in-global-brand-grab-idUSKBN15W18Y ; Antoine Gara, "Kraft Heinz Withdraws Its $143 Billion Bid For Unilever," *Forbes* , accessed on April 20, 2020, https://www.forbes.com/sites/antoinegara/2017/02/19/kraft-heinz-withdraws-its-143-billion-bid-for-unilever/#fdf47f440639 .
679 The 10-year Treasury Note traded around 2.5% all year.
680 Technically, retained earnings would be added to net worth. But to the extent that intrinsic value exceeded growth in book value it would not be reflected.
681 I'm using 2017 here because of significant changes that occurred during 2018. These changes will be discussed later. The differential between the value carried on the financial statements and market value is instructive.
682 Buffett emphasized that it was an approximation.
683 Electric Transmission Texas was a 50/50 joint venture formed a decade earlier between Berkshire Hathaway Energy and American Electric Power Company to own and operate electric transmission assets in Texas. Buffett mentioned it for the first time ever in his Chairman's letter in 2018. The company was relatively small. At year-end 2018, it was on BHE's books as an equity method investment for $527 million.
684 See the discussion of GEICO's float in the section on 1995 on page 342. If float declined someday (as Buffett expected) and the underwriting gain was equal to the rate of decline in float, its value would be akin to equity. That investments are counted in full without considering their funding source already incorporates this to a degree.
685 Because we are using the same rate to discount earnings when interest rates have declined. Lower interest rates, all things being equal, would warrant a lower discount rate (higher multiple).
686 Buffett provided a major hint at the 2018 Annual Meeting. He said he thought Berkshire's normalized earnings power under the new tax environment was around $20 billion to $21 billion and pointed to the huge cash pile as the source of future earning power. At the 2019 Annual Meeting, he stated he and Charlie would have different answers to Berkshire's intrinsic value and that each would be a range within a band of 10%.
It should also be emphasized that Berkshire's debt was very modest. Debt at the parent company level amounted to $16.9 billion at year-end and total debt other than the railroad and utility businesses amounted to $35 billion. This amount could be repaid in less than two years of after-tax operating earnings. Additionally, it did not guarantee any debt of BNSF or BHE. Debt levels at those subsidiaries were also modest considering their business models. Finally, Berkshire's significant cash position dwarfed all debt, regulated businesses included.
687 The footnotes to the 2016 Annual Report stated that the acquisition price would be equal to tangible book value (GAAP) plus $100 million. The company's policyholders received the proceeds of the sale. MLMIC's unpaid losses and loss adjustment expenses were $3.2 billion, which may be an estimate of the company's float.
688 Buffett said pre-tax underwriting profits totaled $15.5 billion since Berkshire bought full control and float grew from $2.5 billion to $22.1 billion. Premiums earned increased about $30 billion from 1995 to 2018. If we use our prior conclusion that the company's goodwill was worth about its earned premiums and add the $15.5 billion in pre-tax profits we come close to the $50 billion figure Buffett cited. (An alternative method could assume a steady-state combined ratio of 4% produced $1.2

billion of annual profits; capitalize earnings at 10x then add the $15.5 billion in prior pre-tax profits plus incremental float of $19.6 billion.)

689 That Berkshire's subsidiary companies retain boards of directors is an overlooked fact. Their function is more akin to an advisory board and is another way Berkshire keeps talent connected to the conglomerate.

690 Of the $1.3 billion catastrophe losses, $1.1 billion occurred in the fourth quarter.

691 Shareholder proposals have been put on the Berkshire proxy from time to time calling for action on climate change. Buffett discussed the effect on insurance companies in his 2015 Chairman's letter.

692 A finer detail for the interested reader: The actual decrease in reserves was $341 million. Part of the adjustment affected deferred charges and therefore did not impact the income statement.

693 BNSF's headline tax rate was 24% in 2018. Its ability to defer taxes led the rate to be just 18% compared to 23% the prior year.

694 For financial reporting purposes only. Management of the businesses remained as before.

695 It's possible the lower tax rate improved economic conditions and led to the increases in operating performance indirectly.

696 Precision Castparts's 2017 acquisition of a German pipe manufacturer fell apart almost immediately. The company fraudulently inflated its results prior to the acquisition. In April 2020 an American arbitration panel awarded Precision Castparts 643 million euros ($696 million). This was a partial refund of the 800 million euro purchase price ($912 million). Lubrizol in 2017 disposed of an underperforming unit that hurt earnings by $190 million. On a comparative basis Lubrizol's earnings would have increased 17%.

697 Jonathan Stempel, "Berkshire Hathaway unit wins 643 million euro award over 'fraudulent' German pipemaker purchase," *Reuters* , April 15, 2020, https://www.reuters.com/article/us-berkshire-buffett-arbitration-award/berkshire-hathaway-unit-wins-643-million-euro-award-over-fraudulent-german-pipemaker-purchase-idUSKCN21X29I .

698 After these closures, Acme operated 15 clay brick manufacturing facilities at 12 locations in seven states, and three concrete block plants in Texas.

699 The recreational vehicle business will always be subject to wide fluctuations in unit volume and earnings. Forest River's market share was estimated at 33% in 2018 behind industry giant Thor Industries at 48%.

700 The Bank Holding Company Act applies once ownership of a bank crosses 10%. A 10% ownership requires quicker filing if any purchases or sales are made. If an owner of 10% of a company sells any shares within six months, any profits must be remitted to the company (this is called the short-swing rule).

701 Todd Combs was elected to the JP Morgan board in September 2016.

702 Kraft Heinz wrote down goodwill by $7 billion and intangible assets by $8.9 billion pre-tax.

703 Charlie Munger is on the Costco Board of Directors.

704 Amit Singh, "How Costco Manages Its Inventory and Supply Chain," *Market Realist* , December 31, 2019, https://marketrealist.com/2019/12/analyzing-costcos-inventory-supply-chain-management-strategies/ .

705 Allison Reck, "What is Driving the Growth of Private-Label/Store Brands?," Martec white paper, accessed on June 3, 2020, https://www.martecgroup.com/growing-private-label-store-brand-purchasing/ .

706 Fred Imbert, "Buffett, after last week's stock plunge, says Berkshire Hathaway 'overpaid' for Kraft," *CNBC* , February 25, 2019, https://www.cnbc.com/2019/02/25/buffett-says-berkshire-hathaway-overpaid-for-kraft-following-last-weeks-stock-plunge.html .

707 Operating earnings appeared to increase 10%. However, adjusting for $3 billion of one-time non-cash intangible asset impairment charges (included in other) in 2018, the results in 2019 are seen to

be lower.

708 Using the share count as of the end of the third quarter 2019.

709 I'm using pre-tax earnings to highlight the effects of income taxes on net income. EBIT grew 5% to $4.5 billion in 2019.

710 It makes sense that the managers of the individual units would be evaluated for finding ways to increase economic outcomes, tax advantages included.

711 Berkshire stopped providing specific detail on float at each major segment, but we can glean some information from the financial statements. The financials break out unpaid losses and allocated loss adjustment expenses (ALAE). Using this data, we can see that BH Primary Medical Professional Liability and BH Primary Workers' Compensation and Other Casualty unpaid losses and ALAE grew 9% net of reinsurance recoverable.

712 From an economic standpoint, float and profits can be equal. If float is permanent/revolving, or at least stays for an exceptionally long time, it is indistinguishable from equity. Profits in one year become equity the next.

713 Nicole Friedman, "Buyout of Berkshire Hathaway Insurance Unit Under Scrutiny," *The Wall Street Journal* , October 21, 2019, https://www.wsj.com/articles/buyout-of-berkshire-hathaway-insurance-unit-under-scrutiny-11571706822 ; Nicole Friedman, "Warren Buffett Is Doing Something Rare: Selling a Business," *The Wall Street Journal* , updated February 26, 2019, https://www.wsj.com/articles/warren-buffett-is-doing-something-rare-selling-a-business-11551221992?mod=article_inline .

714 There was an option for existing shareholders to purchase 4% of the company from Berkshire.

715 The gross values were a $378 million increase in reserves in 2019 and a $341 million decrease in 2018.

716 Marmon press release, "Marmon Acquires Majority Interest in Colson Medical Companies," *Business Wire* , November 1, 2019, https://www.businesswire.com/news/home/20191101005396/en/Marmon-Acquires-Majority-Interest-Colson-Medical-Companies ; Jonathan Stempel, "Berkshire's Marmon unit buys medical device provider from Pritzker company," Reuters, November 1, 2019, https://www.reuters.com/article/colson-ma-berkshire-marmon/berkshires-marmon-unit-buys-medical-device-provider-from-pritzker-company-idUSL2N27H0YG .

717 Brooks was a subsidiary of Fruit of the Loom before being separated as a standalone unit in 2012.

718 A 52/53 week reporting method is more common in retailing. The benefit is a more consistent measurement period since the fiscal year always ends on the same day of the week and 52 weeks isn't easily divisible without leaving off one day each year.

719 Naureen S. Malik, "Buffett Sees Value in Beaten-Down USG," *The Wall Street Journal* , October 9, 2006, https://www.wsj.com/articles/SB116040937003386976 .

720 The issue contained multiple tranches with maturities ranging from 2024 to 2049 and with a weighted average interest rate of 0.50%.

721 Another historical note: In 2010, Buffett wrote in his Chairman's letter that he expected Berkshire's share of Coke's earnings to equal its purchase price by 2021. Based on the $834 million figure for 2019 it appears it will take a few years longer to get to $1.299 billion.

Chapter 10: World's Greatest Conglomerate

The many pages written on Berkshire Hathaway thus far give away the ending. Berkshire Hathaway is the world's greatest conglomerate—and will remain the standard by which all future conglomerates are measured.

By any measure, Berkshire Hathaway has secured its spot in the pantheon of successful modern businesses. While Warren Buffett runs a conglomerate, he in some ways has more in common with the industrial greats than he does the historical conglomerate executives. Andrew Carnegie, John D. Rockefeller, Sr., Henry Ford and Cornelius Vanderbilt all built huge business empires and wealth within a particular industry that earned them lots of ink in history books and significant name recognition. These men had an outsized impact on the industrial revolution, directly impacting steel production, mass market car production, and the expansion of the railroads depending on the individual. Conversely, most people haven't heard of Charles Bluhdorn and Royal Little unless they are students of history or business. Yet those men were integral parts of the history of the conglomerate as a business structure. [722] Buffett too is a household name. Why? Because the success of Berkshire Hathaway earned him that reputation. Berkshire has stood the test of time as the standard-bearer for the best of business, investing, and value creation. This is Buffett's legacy: a formula for long-term sustainable success that maximizes human potential. Like the switch to mass-produced automobiles (Ford) and the revolution of steel production (Carnegie), Buffett's innovative business approach stands the test of time.

The conglomerate craze of the 1960s saw the rapid growth of conglomerates including Textron (founded by Royal Little), Litton Industries, Ling-Temco Vought and Gulf + Western (founded by Charles Bluhdorn). Their strategies included artificially inflating share prices and acquiring companies by issuing shares and borrowing heavily. Those companies made the usual lists and headlines for their successes and failures—but they weren't sustainable. The result of these strategies was

often a whole that was eventually worth less than the sum of its parts (a conglomerate discount) and a company producing accounting fictions rather than real results. This often led to the companies being broken up, sold off, or both.

Berkshire achieved its position as the world's best conglomerate through a combination of business mastery and a bit of luck. The luck component is easy to observe. Warren Buffett and Charlie Munger were born at the right time to fill their sails, and that of their conglomerate, with incredible tailwinds. First, they were lucky to begin solidifying Berkshire's economic position when market inefficiencies were much more prevalent. Taking advantage of these inefficiencies paid handsomely. Second, the dawn of Berkshire Hathaway as the modern conglomerate powerhouse of today began at the end of the conglomerate craze of the 1960s. Buffett and Munger had the good fortune to observe what worked and what didn't. Critically, their minds wouldn't let go until they figured out why. These lessons were then applied to their canvas at Berkshire to create a masterpiece.

Business mastery is the only term sufficient to convey the decades of study and application necessary to forge one of the most respected companies in the world from a dying textile company. Yet that is what Warren Buffett and Charlie Munger did, along with much help—and a few mistakes. We can observe this business mastery in the way they maximized every element of business while allowing managers to independently run their businesses. Many of Buffett and Munger's techniques have since been copied by modern operators. And as they say, imitation is the sincerest form of flattery.

Capital Allocation

> **Berkshire's philosophy:** Treat subsidiaries as investments, providing for operational independence. Use the cash flow from them, along with capital gains from investments, for organic expansion.
>
> **Early conglomerates:** Acquire diverse businesses to achieve synergies or take a hands-on approach to managing them post-acquisition.

A successful business of any kind is the result of rational capital allocation over time. Berkshire Hathaway grew out of the philosophy Warren Buffett

internalized from Benjamin Graham early in his career. A bedrock principle was that stocks represented ownership in a business. This framework gave Buffett an important vantage point to survey the economic landscape. No business or industry would be out of reach if Buffett could understand the business and its economics. Berkshire could allocate capital to wholly-owned businesses or buy pieces of businesses in the stock market, depending on which was more attractive at the time.

Crucially, the ownership philosophy set the stage for decentralization. Buffett and Munger's early years were spent buying stocks as part of a portfolio. Berkshire was constructed using what might be termed a portfolio approach. It became a collection of businesses and not one large business with operational oversight of multiple business activities. This is an important distinction. Berkshire's capital allocators were accustomed to acting as owners, not managers. If a hands-off approach worked for passive investments in stocks, why should the approach change much upon gaining control? Berkshire could view ownership of a subsidiary as equivalent to a stock in a portfolio and let it operate independently. The only difference between the two approaches was that Berkshire had a much higher threshold for divesting an operating subsidiary.

The advantages of buying good businesses arose organically. For example, Berkshire purchased The Illinois National Bank & Trust of Rockford because it was a good business. Once part of Berkshire, the Bank's tax bill was reduced by losses arising from its new sister companies. The acquisition was *not* made because of the tax savings, but a consolidated tax bill was one advantage. Another advantage was the ability to move capital between subsidiaries without tax consequences. Two stocks owned within a portfolio might have one common owner, but cannot share resources without tax implications. Once owned through a conglomerate, this barrier is removed.

The conglomerate structure also provided an important relief valve to subsidiaries. Berkshire's subsidiaries could grow to their optimal size and send surplus cash flow to headquarters. Buffett and Munger were in the best position to allocate capital to the highest use once it could not be used for expansion at the subsidiary level. This afforded Berkshire the opportunity to buy businesses with strong competitive positions but little growth potential. See's is perhaps the best example. The capital that remained within See's

would earn a great return, and the cash it generated could earn a good return too, just not in See's.

Economics Over Accounting

> **Berkshire's philosophy:** Act based on economics over accounting but present business results that are accurate, even if the economics are worse than the accounting.
>
> **Some early conglomerates:** Use financial engineering to artificially increase earnings per share.

From Buffett's earliest communications with Berkshire shareholders, he stressed he cared more about economics than accounting. Berkshire's 1965 Chairman's letter highlighted that its reported earnings were significantly more than reality. That statement was made at a time when some other companies, but certainly other conglomerates, did everything in their power to make earnings look better. Buffett and Munger saw the spectacular rise and fall of the 1960s conglomerate leaders that were made possible by financial engineering designed to increase earnings per share. Their fatal flaw was reliance on accounting to paint a picture of robust health and growth that wasn't fully supported by the businesses they purchased with expensive shares. In short, their strategy wasn't sustainable.

Berkshire let others make business decisions based on accounting while it used opportunity cost as a guide. When more earnings could be purchased through the stock market, which was frequently the case, Berkshire purchased those. It didn't matter that only a part of the earnings accruing to its ownership interest was reflected in Berkshire's financials. That philosophy extended to its acquisition of entire businesses. "Accounting consequences do not influence our operating or capital-allocation decisions. When acquisition costs are similar, we much prefer to purchase $2 of earnings that is not reportable by us under standard accounting principles than to purchase $1 of earnings that is reportable." Berkshire's entry into the reinsurance field was aided by the fact that Berkshire cared more about the long-term economics of insurance than short-term accounting implications. It wrote huge retroactive reinsurance contracts and other time-value-of-money policies that penalized earnings immediately but were economically sound transactions long term.

Separate Management of Assets and Liabilities

Berkshire's philosophy: Opportunistic borrowing even when capital is not needed, and using low-cost insurance float to fund growth.

Other companies: Borrowed heavily and focusing on short-term returns over long-term gains.

Berkshire focused on maximizing the value of each side of its balance sheet largely independent of the other. Decisions on what assets to buy were not predicated on available financing, because ample resources were usually on hand. Conversely, availability of cheap financing did not by itself lead to asset purchases. The assets, whether whole companies or pieces of companies via stocks, had to stand on their own. Berkshire bought businesses with an all-equity mindset. It viewed acquisitions as entirely financed by equity even if some debt was used or assumed. Attention was on the economics of the underlying business and not what financial returns could be had by enhancing equity returns with debt. This properly focused attention on better businesses.

Insurance float is undoubtedly a major reason for Berkshire's rapid growth. It provided Berkshire with a low-cost way to finance the asset side of the balance sheet. Buffett recognized that float was only valuable if it could be obtained at a low cost, and he used the government's own borrowing rate as a benchmark. In most years, Berkshire could finance at a lower cost than the US government. Beginning in the 1990s, it realized a consistent profit in underwriting.

Berkshire intentionally structured its insurance liabilities to ensure near permanence of capital. The primary insurers (including GEICO) were in short-tail lines that could consistently generate float so long as they maintained their cost and underwriting discipline. The reinsurance contracts stretched out over years and contained limits on maximum payouts. Underwriting discipline pervaded Berkshire's insurance underwriting culture—it only wrote business that made sense. Structured this way, Berkshire could never be called on to remit large amounts of capital at one time. If Berkshire's float did begin to decline, it would be very gradual and could be offset by underwriting profits. From an economic standpoint, Berkshire has structured its float to act very much like equity.

Some other insurance companies recognized the value in float but did not properly calculate its cost. These companies would push down premiums to be competitive. By exchanging long-term profits for short-term gains, their actions affected the entire industry. Berkshire maintained its discipline in the face of ebbs and flows of capital into the industry and only wrote business it thought had a reasonable expectation of profit. Its conservatism effectively allowed it to capture business from weaker pricing environments by writing more advantageously priced reinsurance deals later to shore up the balance sheets of competitors.

Modern day conglomerates have also used insurance as fuel for their growth too. Companies like Markel, Alleghany, and Canada-based Fairfax Financial—which are just a fraction of the size of Berkshire—have similar structures to Berkshire. All three employ largely the same strategy of discipline of underwriting insurance and reinsurance, and opportunistic acquisition of well-understood and profitable non-insurance operating businesses and marketable securities. The only disadvantage these modern conglomerates have is starting later when asset prices were more expensive than Berkshire's early purchases. Other even smaller mini-conglomerates have been formed to duplicate Berkshire's success in insurance in the modern era.

Discussion of Buffett's management of Berkshire's liabilities is often limited to insurance float. Float was a huge factor in Berkshire's success, but not the only one. On several occasions, Berkshire borrowed money with no clear immediate use for it. This was because the optimal time for financing did not necessarily coincide with the optimal time to buy assets. Even as late as 2019, Berkshire borrowed low-cost funds in Euros and yen at a time when it was flush with cash.

Berkshire's subsidiaries benefitted from lower borrowing costs by being a part of a conglomerate. In some cases, Berkshire borrowed the money directly then relent it to the subsidiary that needed the capital. An important aspect to financing arrangements like this was that the subsidiaries were charged a spread that amounted to a fee for using Berkshire's pristine credit and corporate guarantee. This reduced the distorting effects that a heavily subsidized interest rate might have on the subsidiary. Even BNSF and Berkshire Hathaway Energy, whose debt Berkshire does not explicitly guarantee, benefit to some degree by having a well-capitalized parent.

Deferred taxes are also a misunderstood liability that provided Berkshire with additional capital. While these arose from the primary objectives of holding investments for a long time (deferring capital gains taxes) and capital spending to buildout future earnings (deferring income taxes), they nevertheless provided Berkshire with real econom ic benefits.

Risk Management

> **Berkshire's philosophy:** Take a long-term approach to business acquisition and investing that incorporates wide-ranging possibilities and probabilities.
>
> **Other companies:** Place short-term profits ahead of considerations of long-term risks and fail to account for risk aggregation and correlation.

Berkshire benefitted from astute risk management. By using insurance float to fund assets, it could generate a higher return on equity while taking less risk. It consistently operated with far more capital than insurance regulators required. This conservatism allowed Berkshire to invest in better assets like businesses while its peers were restricted to lower-yielding bonds. What it gave up in additional underwriting premiums it gained in the certainty attached to equity ownership compared to cash-denominated investments over longer periods of time. Berkshire's stable of cash-generating, non-insurance businesses then backstopped the insurance businesses. This made them even stronger. The unsurpassed capital strength of the insurance company balance sheets brought reinsurance transactions in the billions that no other insurer could handle. It also allowed Berkshire to accept higher expected returns in exchange for bearing large but infrequent losses. Each individual risk mitigation factor looked unduly conservative on its own; taken together they provided Berkshire with valuable advantages.

Berkshire gained from judicious risk management in other ways. It was willing to accept huge risks for the right premiums in its insurance operations and make concentrated investments in marketable securities. When it came to Berkshire's cash, however, nothing but US Treasuries would do. Buffett only wished to make investments with certain payouts over long periods of time. In the short run, *anything* could happen. The September 11th terrorist attacks, and the Great Recession when markets froze, proved him right. Buffett's awareness of risk also saved Berkshire money by avoiding unnecessary costs. Taking the very long-term view,

Buffett knew the cost of hedging over time resulted in unnecessary costs. When he was asked whether BNSF had insurance to cover large accidents, Buffett explained that Berkshire was basically self-insured. Why would Berkshire pay another insurer to cover the same type of risk its insurers would be willing to write itself?

Another nuanced risk Berkshire successfully managed was trust. Berkshire understood there were risks related to its policy of extreme autonomy. A delicate balance existed between maximizing human potential (and by extension business potential) by being hands off, all the while maintaining adequate oversight. Berkshire took the position that it was better to over trust and incur infrequent but public embarrassments than impose strict controls that were a net negative. It continually reinforced the message that it cared for Berkshire's reputation first and foremost.

Berkshire successfully managed risks in the businesses it purchased—but it did make mistakes. Berkshire lost money on those investments, but its winning bets *by far* exceeded losers. The largest loss Berkshire suffered was Dexter Shoe. Yet the shares issued for Dexter represented just 2% of Berkshire's outstanding shares—an extremely good result for a loss considering the degrees of concentration Berkshire employed elsewhere in businesses and investments. With insurance Berkshire had not only more assets working in its favor but safer assets too. The key was recognizing risk as a factor that could interrupt or destroy years of profitable compounding. [723] These examples of Berkshire's risk management prove it gained by thinking carefully and long term.

Governance

Berkshire's philosophy: Let managers run businesses independently.

Some early conglomerates: Meddled in subsidiary management and/or attempted to find synergies between s ubsidiaries.

Another element of Berkshire's success was its governance practices. Its policy of "delegation just shy of abdication" rested on first acquiring businesses that could be managed autonomously. Buffett's skill at recognizing managers who cared more about their businesses than money they would receive is often overlooked. By carefully selecting and then placing an enormous amount of trust in its managers, coupled with proper incentives, Berkshire created what amounted to ownership of individual

subsidiaries. Managers were rewarded for the contributions they made to their specific businesses without any regard to Berkshire as a whole. Tying incentive compensation to factors like return on capital focused attention on the variables that would drive long-term business success for its owner, Berkshire.

Berkshire's acquisitions came intact and without any illusion that managerial skill would further enhance their operations. The wholly-owned businesses were managed much like Berkshire's investments in marketable securities. No attempt was made to find or create synergies between operating units. Buffett kept his distance even when opportunities for cross sales seemed obvious, because he knew meddling in the affairs of subsidiaries would ultimately cost Berkshire far more. No attempt was made to have Clayton Homes buy from Shaw, Johns Manville, or Benjamin Moore, for example. When Van Tuyl joined Berkshire with an insurance arm of its own, its new owner did not require it to offer GEICO insurance to buyers of its automobiles. The key was allowing operating managers to act independently and locally. Communication between operating units was inevitable and not discouraged, but it was organic and spontaneous, not forced.

Berkshire left its managers alone to focus on what they did best. The hallmark of a Berkshire manager is a long tenure with no required retirement age. Think Mrs. B.

Per Share Thinking

> **Berkshire's philosophy:** Rarely issue shares to keep business and per-share resu lts in line.
>
> **Some early conglomerates:** Grew by issuing shares, often coupled with copious amounts of debt.

Berkshire Hathaway differentiated itself from the early conglomerates by a marked respect for the individual shareholder. This is not surprising given Buffett and Munger's pre-Berkshire days operating investment partnerships for close family and friends. They treated Berkshire Hathaway shareholders with the same respect as business partners.

Berkshire's share count increased by just 44% during the first fifty years of Buffett's control. The largest increase came with the 1998 acquisition of General Re and increased Berkshire's shares outstanding by 22%.

Berkshire's reluctance to issue shares meant the results from its underlying businesses translated into nearly equivalent results for its shareholders. Berkshire understood that issuing shares was the economic equivalent of selling pieces of its existing businesses, which it was hesitant to do since those businesses were of such high quality.

The conglomerates of the 1960s that issued shares to grow (in some cases many multiples of their beginning share counts [724]) were forced to turn inward after the go-go years ended. Many of the conglomerates were turned over to managers that could attempt to maximize the value of assets accumulated during the prior decade. In the worst cases, executives were fired and bankruptcies occurred. In the better cases, divestures shrunk the business and raised needed cash. In some cases, companies grew, but the executives were not as mindful or respectful of shareholders as Berkshire was. [725]

Reputation/Brand

> **Berkshire's philosophy:** Acquire and invest in strong brands with good reputations that protected strong returns on capital and build a trustworthy brand in the insurance industry. Protect Berkshire's reputation first and foremost.
>
> **Some early conglomerates:** Chose companies with well-known names but whose economics were often average.

Berkshire Hathaway recognized and maximized the power of reputation and brands. Buffett's appreciation for brands started before he took control of Berkshire. In the mid-1960s he purchased a stake in American Express for his investment partnership, Buffett Partnership Limited. The credit card company became embroiled in a then-famous salad oil scandal that almost took down the company. Buffett recognized the power of the American Express brand and put almost one-third of the partnership's assets into its stock. When the brand prevailed, Buffett and his partners realized a significant profit.

Charlie Munger also appreciated brands and pushed Buffett in the direction of buying better businesses at a fair price over fair businesses at a great price. The first was See's Candies, which had a powerful brand on the West Coast. Berkshire went on to acquire other companies that had a strong

brand awareness that translated into valuable economic benefits. Berkshire's investments in publicly traded companies, such as Coca-Cola, reflected this strategy. Many of these businesses, due to their reputation and operations, also had business moats protecting them.

Berkshire grew the Insurance Group by leveraging its reputation. Insurance, Buffett said, is nothing more than a promise. The insured pays the premium and the insurance company promises to provide coverage as agreed. Nowhere is that promise more important than reinsurance. As Berkshire built its reinsurance operations, its reputation became more and more valuable. Berkshire was capitalized far greater than industry minimums (or even norms). Over time this became a powerful advantage that attracted reinsurance business that very few competitors could even have a shot at bidding on. Berkshire became the gold standard of the insurance industry, a reputational and brand advantage that will only grow as Berkshire grows.

Over time, Berkshire cultivated a reputation for fast and fair business dealings with sellers of businesses. Families that built businesses over generations turned to Berkshire as a permanent home for their businesses. They could realize all the advantages of selling, such as liquidity, diversification, and estate planning, while maintaining what amounted to full operational control of the business if they so chose. In exchange for this operational control, the sellers accepted a slightly lower selling price than if they marketed the business more widely. Berkshire received a fair price and a turnkey operation that wouldn't require much from headquarters. Under the conglomerate's wing, the family businesses would be spared meetings with bankers, analysts, and investors, and they would have access to almost unlimited capital for worthwhile projects—a classic win-win scenario. Berkshire's promise never to sell unless under exceedingly rare circumstances and the way it treated its existing businesses created a powerful reputational and brand for the conglomerate.

Tax advantages

Berkshire's philosophy: Use the conglomerate structure to move capital without tax consequences.

Some early conglomerates: Let taxes drive business decisions or disregard the impact of taxes on long-term results.

The conglomerate structure provided meaningful tax advantages. Berkshire could move capital between subsidiaries without tax consequences. Capital could be taken from a business like See's that had strong returns on capital but little reinvestment opportunity and moved to opportunities elsewhere at sister companies. Businesses not united by a corporate parent, or smaller ownership stakes owned in a portfolio, would not have this advantage. The conglomerate structure also allowed Berkshire Hathaway Energy to maximize the tax incentives available to utilities. These tax savings represented real value creation.

While Berkshire took full advantage of the tax code, it did not let taxes drive the business. Some operators past and present have let taxes dictate business decisions, choosing companies to acquire based on the tax advantages they would bring. Short-term this could work, but businesses that are losing money are doing so for a reason, and there are often long-term consequences.

Other factors

The factors discussed so far could be considered a blueprint to create a successful conglomerate. As was discussed at the beginning, Berkshire also benefitted from a degree of luck, and this cannot be controlled. Other factors helped too. Buffett and Munger did not have to worry about outside shareholders or a board of directors that would second guess them. Buffett controlled enough of Berkshire's voting power for so long he could make the best long-term capital allocation decisions. Berkshire also treated shareholders as partners and cultivated like-minded manager-partners that shared their vision and reinforced this strategy.

Berkshire had one corporate office and one board of directors. The savings surely added up from the elimination of multiple boards of directors, proxy statements and annual reports, and other regulatory and compliance costs. Tenure at the company is another important factor. With a tenure closing in on sixty years, Berkshire benefitted from the compounding of business knowledge over time as Buffett, Munger, and many other managers remain committed to the business well beyond a typical corporate retirement age.

Berkshire even went so far as to minimize the costs of its own public company status. No corporate-level human resources, legal, or investor relations existed. Communication to shareholders consisted of the annual

Chairman's letter and Annual Meeting, in addition to three quarterly reports and the Annual Report/10K. Berkshire shunned analysts and maximized the time its capital allocators could spend working on things that benefitted the business directly. As a testament to the efficiency at Berkshire, it prepares its quarterly reports in-house and doesn't consolidate the financial statements of its many busines ses monthly.

Why Berkshire Hathaway is the World's Greatest Conglomerate

The factors above created a lollapalooza, to borrow a phrase from Charlie Munger. Its success stemmed from maximizing every aspect of business. Over a long period, Berkshire found the optimal financial structure, use of a permanent and low-cost source of capital, motivated and properly incentivized management teams, judicious risk management techniques, care for the individual shareholder, and a base of owners that supported the company's strategy.

It would be foolish to state categorically that the record of Berkshire Hathaway will never be overtaken. However, considering the alignment of all the factors discussed, the probabilities are against it. Berkshire added an element to the conglomerate structure, long-term sustainability, that was missing from the early conglomerates. And it had the benefit of doing it first. Warren Buffett and Charlie Munger were driven by a desire to paint their own canvas and achieve business mastery. It's no surprise they did not succumb to the short-term strategies employed by the early conglomerators who sought short-term gains or a quick rise to fame.

Berkshire Hathaway's record transcends business history to enter the full pantheon of human achievement. Berkshire today represents an ideal of business and human accomplishment, not just in financial terms but in setting an example for taking the high road in all walks of life. Warren Buffett and Charlie Munger, and their many associates, have shown us how to conduct business in the very best way possible. Berkshire mastered its domain and left a complete record for anyone to see. Today there are a host of smaller contemporary conglomerates and a legion of followers emulating and building on their work. That is proof enough that Berkshire, Buffett, and Munger mastered not only business but the art conveying wisdom to future generations. Berkshire Hathaway is the world's greatest

conglomerate because it was a good teacher—and that is perhaps the highest prais e to bestow.

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722 Eric Pace, "Royal Little, Pioneer in Forming Of Conglomerates, Is Dead at 92," *The New York Times* , January 14, 1989, https://www.nytimes.com/1989/01/14/obituaries/royal-little-pioneer-in-forming-of-conglomerates-is-dead-at-92.html ; William G. Blair, "Charles G. Bludhorn, The Head of Gulf and Western, Dies at 56," *The New York Times* , February, 20, 1983, https://www.nytimes.com/1983/02/20/obituaries/charles-g-bluhdorn-the-head-of-gulf-and-western-dies-at-56.html .

723 Berkshire's worst mistakes were errors of omission, investments that should have been made but weren't. These included not buying Walmart sooner and recognizing Google as a powerful and entrenched business.

724 Two of the worst offenders were Ling-Temco-Vought and Gulf + Western, which increased share counts by well over 1000%.

725 Teledyne, run by Henry Singleton (and cited favorably by Buffett and Munger), was one of the only conglomerates to reverse course and repurchase undervalued shares after they became cheap.

Chapter 11: Afterward—Berkshire After Buffett

The question of Berkshire Hathaway after Warren Buffett has been asked since the beginning of his tenure running the company. It had more validity during the early years when a large part of the conglomerate was comprised of stocks, which Buffett managed. Back then, the question wasn't age but the proverbial bus. What would happen if Berkshire's shareholders woke up one morning to find Buffett no longer able to run the company? No one can argue that Berkshire would have been quite different if Warren Buffett left the scene prior to, perhaps, the mid-2000s. As Warren Buffett instead entered his tenth decade of life as this book was being finalized, different questions face Berkshire Hathaway and its shareholders. Buffett turned 90 years old in 2020. Biology guarantees Berkshire will one day be without the man synonymous with creating one of the world's most admired businesses. Buffett guaranteed the conglomerate had a bright future by hiring skilled investment managers, continually seeking companies with sound economics, and widely sharing his business principles. After all, as Buffett himself said, "If a business *requires* a superstar to produce great results, the business itself cannot be deemed great."

Management Succession

Not much will change in the immediate period surrounding Buffett's departure from Berkshire. Management of the individual business units will continue unchanged. The question of who will take over Buffett's role has already been partially decided. Buffett's role as chairman, CEO, and chief investment officer will be split into three parts:

1. *Non-executive chairman* : Buffett has strongly suggested his son, Howard Buffett, be chosen for this role. His sole purpose will be to ensure that the culture of Berkshire remains intact. That includes serving as a safety valve of sorts in the remote chance that the next CEO is unfit for the job.

2. *One or more investment managers* : The addition of Todd Combs in 2010 and Ted Weschler in 2011 largely completed this step.
3. *Chief executive officer* : The addition of Greg Abel and Ajit Jain in 2018 as vice chairmen supervising non-insurance and insurance operations, respectively, solidified the suspicions of outside observers that one of those two men would succeed Buffett. The background and skill set of Greg Abel suggests the board will choose him as CEO. The primary reason is his extensive experience with capital allocation. During his time running Berkshire Hathaway Energy, and later as vice chairman overseeing non-insurance operations, Abel oversaw many acquisitions. He is also much more comfortable in the spotlight, and about ten years younger than Jain, which would give him a longer run at the helm. Jain, by contrast, is a brilliant handicapper more comfortable evaluating insurance risks (though he is also one of the best executives in the world, having overseen acquisitions of his own).

Capital Allocation

Perhaps the single most important question regarding Berkshire is its future capital allocation. After all, Buffett acquired companies whose management he trusted to independently run operations and hired skilled managers, most importantly in the insurance business, who increased float. The excess money made by these businesses and their leaders was then sent back to Berkshire for redeployment. The conglomerate is already one of the world's largest companies and consistently in the top five on the Fortune 500. Most observers agree with Buffett and Munger that Berkshire's size makes matching the results of the past impossible. How then should Berksh ire proceed?

Berkshire's earning power all but guarantees it will have enough cash to invest in worthwhile projects at the subsidiary level, and ample cash to make opportunistic acquisitions. That means cash will need to be returned to shareholders. Here Berkshire has two main options and a blended third.

1. *Pay a dividend* : This option is the most logical on its face as it immediately provides a relief valve. It is also something Berkshire

avoided doing for years, and with good reason, as dividends have drawbacks. Perhaps the biggest is imposing a uniform standard on all shareholders of the company. Some shareholders might prefer receiving their share of earnings in cash to pay for retirement, say. Others might be younger and in savings mode and therefore prefer the company reinvest their earnings without incurring unneeded taxes. But Berkshire's net profits continue to grow and have reached a level that will require returning capital to shareholders. Dividends may be the only option if repurchasing shares is unavailable.

2. *Share repurchases* : Returning capital to shareholders via repurchases makes the most sense from an economic standpoint. It allows the company to increase intrinsic value per share while reducing excess cash. Shareholders wishing to maintain or increase their ownership can hold their shares. Those wanting income can simply sell a portion of their shares to raise a desired amount of cash. Having the company in the market as a buyer means the price will be better (theoretically) than if it wasn't. The only drawback to share repurchases as the primary means of returning capital is that it is price dependent. The Berkshire board of directors would be limited to repurchases only during times of undervaluation. What happens when shares are fully valued?
3. *Combination of regular and special dividends, and share repurchases* : The middle ground option would see Berkshire implement a small regular dividend that provided an automatic relief valve to drain excess cash off the books. This might be set equal to 25% of normalized annual operating earnings. Then, irregular special dividends could be declared to reduce excess cash when earnings cannot be fully utilized internally or for share repurchases. If a large acquisition materializes, Berkshire's management would have an easy lever to pull to rebuild its cash position.

Should Berkshire Be Dismantled?

Some commentators have argued that Berkshire should be partially or wholly dismantled in the post-Buffett era. The idea is that the sum of Berkshire's parts would be worth more as separate businesses than as one.

The logic of this argument rests largely on market multiples. The analyst takes Berkshire's many businesses and compares the multiple of revenues, earnings, or book value the market is valuing other similar companies. The analyst then arrives at the conclusion that Berkshire's conglomerate structure is causing a conglomerate discount (where the whole is worth less than the sum of its parts). Ergo, dismantling the company would unlock value for shareholders.

There are several flaws to the argument for dismantling Berkshire Hathaway. To summarize some of the points that have been discussed elsewhere in this book, Berkshire gains more from having its businesses under one roof. Here is why:

1. *Tax efficiency* : Capital can flow between operating units without taxation. And the utility subsidiaries can take full advantage of tax incentives because of Berkshire's consolidated tax bill.
2. *Diversification* : Berkshire can operate each business unit to its full potential because of the many businesses under its corporate umbrella. This also reduces the risk of the entire enterprise. The diverse collection of cash-generating businesses, combined with a conservatively financed balance sheet, additionally allows for lower borrowing costs.
3. *Capital allocation* : Diversification extends to Berkshire's opportunity set. There is value in having the ability to buy whole companies or invest in the stock market, buy bonds, or act as a merchant banker to facilitate an acquisition, all depending on relative availability and valuation. Separate companies would be restricted to reinvesting internally or be forced to pay the cash to shareholders (incurring taxes on dividends, if the shareholder is taxable, in the process).

Many of Berkshire's businesses and investments have been a part of it for decades. Breaking up Berkshire would face a major hurdle in the form of taxes on top of the lost advantages just enumerated. It is possible Berkshire might be required to spin off or sell a subsidiary for anti-competitive reasons or choose to for other reasons. This could be done in a tax efficient

way. But a wholesale dismantling of its many businesses would face a large tax bill.

A policy of spinning off subsidiaries could harm Berkshire's future in another way. One of its major advantages is as a permanent home for family businesses. If Berkshire began selling off units to "maximize their value" it could lose out on future value creation if sellers thought this trust would be broken.

Perhaps the strongest argument for keeping Berkshire Hathaway whole is the problem of reinvestment. If broken up by selling off business units, Berkshire's shareholders would be trading productive assets (businesses) for an unproductive one (cash). Cash in hand, Berkshire's shareholders would face the problem of what to do with their newfound liquid wealth. They could leave it in cash, spend it on current consumption, or reinvest it (likely at high prices) into other businesses. Buffett put it succinctly in his Chairman's letter: "Truly good businesses are exceptionally hard to find. Selling any you are lucky enough to own makes no sense at all." A spin-off strategy where shareholders owned the exact same businesses with value "unlocked" (i.e. higher valuation) would lose the connecting conglomerate structure and create the same reinvestment problem at the company or shareholder level too. It seems likely that present value would be diminished, even considering a hypothetical higher breakup value of the parts compared to the consolidated whole.

The crux of the argument comes down to what constitutes value. Berkshire was built on the notion that value is independent of the market's appraisal of that value. The value of a company is the present value of all future cash flows. In short, the underlying cash flows of Berkshire's many subsidiaries would not change upon being separated into pieces. In fact, as separate businesses they would incur additional costs for boards of directors, financial filing requirements, and financing costs, among other factors. This is to say nothing of the very real but often invisible costs of lost time to attend to various internal and investor-related meetings. Even setting these added costs aside, cash flows and therefore value would not increase post breakup. The subsidiaries already take advantage of opportunities for organic investment and bolt-on acquisitions that come their way, and Berkshire has taken care of the reinvestment problem by allowing excess cash to be sent to headquarters. *No additional value could come from the*

underlying businesses themselves, which means the argument for breaking up Berkshire is a chimera. [726]

Without question, Berkshire Hathaway's potential for incremental value creation compared to a broadly diversified list of companies will be minimal going forward. That is okay so long as some value can be achieved —after all, compounding even a small edge adds up over time. Berkshire's future value creation will likely come in the form of minimizing the downside to allow infrequent but meaningful advantages to accrue and accumulate to the benefit of ongoing shareholders. Value can be created by:

1. *Time arbitrage* : Taking advantage of the short-term thinking that guides markets to properly evaluate and capture the long-term value of businesses, whether public or private. [727]
2. *Private market discount* : Berkshire's reputation as a permanent home for businesses will continue if nurtured and protected. The small amount of value given up by sellers for this permanence will accrue to Berkshire's shareholders.
3. *Alternative source of financing* : Berkshire will be able to act as a lender of last resort to businesses that need lightning-fast access to capital. The so-called Buffett blessing of the past will be replaced by the Berkshire blessing. Berkshire's prudence in lending in one-off situations will make it sought after for companies wishing to telegraph to the market their staying power during crises.
4. *Opportunistic share repurchases* : During times of market turmoil, or when Berkshire becomes out of favor, it can repurchase undervalued shares to the benefit of continuing shareholders.

Berkshire's operating structure and governance will not change much at all in the first decade following Buffett's death. This is because Buffett's estate will own a significant block of voting stock. These shares are all slated to go to charities, a process that will take time, perhaps upwards of a decade or more. During that time, Berkshire's board and management will have time to prove the system put in place by its modern founders can continue unabated. It will also allow Berkshire to double in size (assuming even a 7% compounding rate, Berkshire's equity will double in about ten years).

This will make it extremely hard for corporate raiders on Wall Street to attempt to break up the conglomerate.

The ultimate fate of Berkshire Hathaway rests with its shareholders. As the owners of Berkshire's assets, shareholders hold the key to Berkshire's future governance and capital allocation. Shareholders have a duty and obligation to ensure the conglomerate holds true to its culture and values. This has always been true, but will become more important as Buffett, Munger, and the first generation of Berkshire's builders step down. This will happen during a period of transformation in ownership that sees some of Buffett's early partners and longtime Berkshire shareholders pass their ownership interests to the next generation. If this new generation of shareholders steward and safeguard the culture so carefully built and maintained by the first it will allow Berkshire to thrive for the next one hundred years. Berkshire will undoubtedly not look the same in twenty-five, fifty, or one hundred years, but it's not inconceivable that it maintains a reputation for upholding proven and timeless ideals of business and investing.

Berkshire's future after Warren Buffett has been studied extensively. In his book, *Berkshire Beyond Buffett, The Enduring Value of Values* , Lawrence A. Cunningham, a well-recognized Berkshire scholar, discusses the momentum the conglomerate already enjoys. That momentum is a result of the long history and cultivation of an enduring culture now separable from the man who put it all in motion. Buffett was once asked how Berkshire would continue to find the types of deals conducted under his tenure after he is gone. "I like to think I'll be missed a little bit, but you won't notice it."

The short answer to the question of Berkshire after Buffett is that the conglomerate will thrive without Warren Buffett. That is perhaps the highest praise one can give a man who took a blank canvas and turned it into one of the finest and most highly valued pieces of artwork the business world has ever seen.

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726 We can also use a thought experiment and consider we own all businesses, everywhere. With no one to buy or sell we're left with the business itself. It is a closed system, a zero-sum game. Any value created in breaking up Berkshire Hathaway would actually be a diminution of another investor's pocketbook to benefit Berkshire's shareholders.

727 The stock market provides the most opportunity, but private business does too. Acme Brick buying a mothballed plant in a downturn is a good example. Berkshire knew it was a good long-term business and thought in terms of the complete business cycle.

Sources

1. Berkshire Hathaway Annual Reports/10K, 1955–2019
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