Teledyne and a Study of an Excellent Capital Allocator, Mr. _Dr. Henry Singleton_

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INTRODUCTION

Many students of investing know about the great investment record of *Warren Buffett* but few even know of the man *Buffett* called one the greatest capitalists and capital allocators of all-time, *Dr. Henry Singleton*, who built *Teledyne Corporation* from scratch during 1960 to 1986.

The best investors are avid students of history of the market, companies, and great investors. The more you learn from others, the less expensive your own tuition will be. Not to study the *Teledyne* story and the managerial success of *Dr. Henry Singleton* and his management teams would be tragic.

Excerpts are from the book, Distant Force, A Memoir of the *Teledyne Corporation* and the Man who Created it by *Dr. George* A. *Roberts* (2007).

Dr. Henry Singleton was more than just a great capital allocator, he was a visionary, entrepreneur, and excellent business person who believed that the key to his success was people—talented people who were creative, good managers and doers. Once he had those managers in place, he gave them complete autonomy to meet agreed upon goals and targets.

He and his co-founder and initial investor, *George Kozmetsky*, bootstrapped their investment of $450,000 into a company with annual sales of over $450 million, an annual profit of some $20 million, and a stock market value of about $1.15 billion.

An investor who put money into *Teledyne* stock in 1966 achieved an annual return of 17.9 percent over 25 years, or a 53x return on invested capital vs. 6.7x for the S&P 500, 9.0x for GE and 7.1x for other comparable conglomerates. *Teledyne's* investors were rewarded with a triple whammy of increasing earnings with a shrinking capital structure along with an expanding P/E ratio. As the single largest investor in *Teledyne*, *Dr. Singleton* chose to make money alongside his fellow investors not from them. He never granted himself options like the heavily compensated *Michael Dell* of *Dell, Inc (DELL)*, for example.

Dr. Singleton thought independently while making astute capital allocation decisions, he chose the right managers and aligned them with the proper incentive structure, and he imposed strict capital allocation on his operating companies. Managements of those companies were encouraged to focus on generating high margins, cash flow and with returning excess cash to headquarters.

There are many lessons to be learned from studying a great businessman like *Dr. Henry Singleton*. Unfortunately, no business school—that I know of—has done a case study on the *Teledyne* story. You will read several articles on Mr. *Singleton* and *Teledyne* including a case study and letter written by an investor in *Teledyne, Mr. Leon Cooperman.* Then you will learn more about the company from an insider, *Mr. George Roberts*, before pondering several questions.

Warren Buffett and Charlie Munger on Business and Chess Master, *Dr. Henry* E. *Singleton*

"*Henry Singleton* has the best operating and capital deployment record in American business…if one took the 100 top business school graduates and made a composite of their triumphs, their record would not be as good as *Singleton's – Warren Buffett*, 1980.

Sharing *Buffett's* admiration for *Henry E. Singleton*, *Charlie* wonders, "Given the man's talent and record, have we learned enough from him."

***Henry* E. *Singleton* (1916- 1999)**

Singleton was co-founder of *Teledyne, Inc.* and chief executive of the Los Angeles-based conglomerate for three decades. He attended the *Naval Academy*, then transferred to *MIT* where he received Bachelor's, Master's and Ph.D. degrees in electrical engineering. An enormously skilled chess player, he was only 100 points below the Grandmaster level and could play without looking at the board.

From 1963 to 1990, *Teledyne* returned an astounding 20.4% compound annual return to shareholders—a period in which the *S&P 500* returned 8.0%. Adroitly repurchasing 90 percent of *Teledyne's* outstanding shares primarily between 1972 and 1984, *Singleton* built a record as a manger and capital allocator with few peers in modern business history.

Emulate *Dr. Henry Singleton* from *Grant*'s Interest Rate Observer, February 28, 2003:

Something went haywire with American capitalism in the 1990's, and we think we know what it was: There weren't enough *Dr. Henry* E. *Singleton*s to go around. In truth, there was only one *Dr. Henry Singleton*, and he died in 1999. He could read a book a day and play chess blindfolded. He made pioneering contributions to the development of inertial navigation systems. He habitually bought low and sold high. **The study of such a protean thinker and doer is always worthwhile.** Especially is it valuable today, a time when the phrase "great capitalist" has almost become an oxymoron.

Singleton, longtime chief executive of *Teledyne Inc.*, was one of the greatest of modern American capitalists. *Warren Buffett*, quoted in *John Train's* The Money Masters, virtually crowned him king. "*Buffett*," Train reported, "considers that *Dr. Henry Singleton* of *Teledyne* has the best operating and capital deployment record in American business."

A recent conversation with *Leon Cooperman*, the former Goldman Sachs partner turned portfolio manager, was the genesis of this essay. It happened in this fashion: Mr. *Cooperman* was flaying a certain corporate management for having repurchased its shares at a high price, only to reissue new shares at a low price. He said that this was exactly the kind of thing that *Singleton* never did, and he lamented how little is known today of *Singleton*'s achievements as a capital deployer, value appraiser and P/E-multiple arbitrageur. Then he reached in his file and produced a reprint of a critical Business Week cover story on *Teledyne*. Among the alleged missteps for which *Singleton* was attacked was his heavy purchase of common stocks. The cover date was May 31, 1982, 10 weeks before the blastoff of the intergalactic bull market.

The wonder of *Singleton*'s life and works is the subject under consideration,admittedly a biographical subject, as opposed to a market-moving one. We chose it because *Singleton*'s genius encompassed the ability to make lemonade out of lemons, a skill especially valuable now that lemons are so thick underfoot.

Singleton was born in 1916 on a small farm in Haslet, Tex. He began his college education at the U.S. Naval Academy but finished it at *M.I.T.*, earning three degrees in electrical engineering: bachelors and master's degrees in 1940, and a doctorate in 1950. In 1939, he won the *William Lowell Putnam Intercollegiate Mathematics Competition Award*. In World War II, he served in the *Office of Strategic Services*. At *Litton Industries*, in the early 1950's, he began his fast climb up the corporate ladder: By 1957, he was a divisional director of engineering. In 1960, with *George Kozmetsky*, he founded *Teledyne*.

Anyone who was not reading *The Wall Street Journal* in the 1960's and 1970's missed the most instructive phase of *Singleton*'s career. **When the *Teledyne* share price was flying, as it was in the 1960's, the master used it as a currency with which to make acquisitions. He made about 130.** Many managements have performed this trick; *Singleton*, however, had another: When the cycle turned and ***Teledyne* shares were sinking, he repurchased them.** Between 1972 and 1984, he tendered eight times, reducing the share count (from high to low) by some 90 percent. Many managements have subsequently performed the share-repurchase trick, too, but few have matched the *Singleton* record, either in terms of <u>market timing</u> or <u>fair play</u>. *Singleton* repurchased stock when the price was down, not when it was up (in the 1990's, such icons as *G.E.*, *I.B.M.*, *AOL Time Warner*, *Cendant* and, of course, *Tyco* paid up-and up). He took no options awards, according to Mr. *Cooperman*, and he sold not one of his own shares. Most pertinently to the current discussion of "corporate governance," he didn't sell when the company was buying (another popular form of <u>managerial self-enrichment</u> in the 1990's).

The press called him "enigmatic" because he pursued policies that, until the mists of the market lifted, appeared inexplicable. For example, at the end of the titanic 1968-74 bear market, he identified bonds as the "high-risk asset" and stocks as the low-risk asset. Accordingly, he directed the *Teledyne* insurance companies to avoid the former and accumulate the latter. To most people, stocks were riskier, the proof of which was the havoc they had wreaked on their unlucky holders during the long liquidation.

Some were vexed that, for years on end, *Teledyne* paid no dividend. The <u>master</u> reasoned that the <u>marginal</u> dollar of corporate cash was more productive on the company's books than in the shareholders' pockets, and he was surely correct in that judgment. *Teledyne*'s stable of companies (many in defense-related lines, others in specialty metals, offshore drilling, insurance and finance, electronics and consumer products, including *Water-Pik*) generated consistently high margins and high returns on equity and on assets.

Singleton made his mistakes, and *Teledyne*'s portfolio companies made theirs. A catalog of some of these errors, as well as not a few triumphs misclassified as errors, appeared in the <u>Business Week</u> story. **We linger over this 21-year-old piece of journalism because it illustrates an eternal truth of markets, especially of markets stretched to extreme valuations. The truth is that, at such cyclical <u>junctures</u>, doing the wrong thing looks like the right thing, and vice versa.** In the spring of 1982, few business strategies appeared more wrongheaded to the majority of onlookers than buying the ears off the stock market.

On the *BW* cover, the handsome *Singleton* was portrayed as *Icarus* in a business suit, flying on frail wings of share certificates and dollar bills. The article conceded that the master had done a pretty fair job for the shareholders, and it acknowledged that the share repurchases had worked out satisfactorily-to date. They had, in fact, boosted per-share earnings, "and also enabled *Singleton*, who held on to his own *Teledyne* shares, to amass 7.8 percent of the company's stock." He was the company's largest shareholder and its founding and indispensable brain.

Yet the magazine was not quite satisfied, for it perceived that *Singleton* had lost his way. For starters, it accused him of having no business plan. And he seemed not to have one. He believed, as he later explained at a *Teledyne* annual meeting, in engaging an uncertain world with a flexible mind: "I know a lot of people have very strong and definite plans that they've worked out on all kinds of things, but we're subject to a tremendous number of outside influences and the vast majority of them cannot be predicted. So my idea is to stay flexible." To the *BW* reporter, he explained himself more simply: "My only plan is to keep coming to work every day" and "I like to steer the boat each day rather than plan ahead way into the future."

This improvisational grand design the magazine saw as the "milking" of tried-and-true operating businesses and the diverting of funds to allow the chairman to "play" the stock market. A Business Week reader could imagine *Singleton* as a kind of *Nero* watching Rome burn while talking on the phone with his broker. He didn't invest in businesses, the magazine suggested, only in pieces of paper. He either managed too little (as with the supposedly aging and outmoded operating companies) or too much (as with the insurance businesses, where, according to Business Week, he managed to no great effect). His reserve was "icy."

Singleton's disdain for the press was complete and thoroughgoing: The Business Week article just rolled off his back. **It puzzled him that his friend *Cooperman* would bother to draft a nine-page rebuttal, complete with statistical exhibits.** Why go to the trouble? *Mr. Cooperman*, who has fire where *Singleton* had ice, wanted the magazine to know that, during the acquisitive 1960's, *Teledyne*'s sales and net income had climbed to about $1.3 billion and $58.1 million, respectively, from "essentially zero," and that during the non-acquisitive 1970's, profit growth had actually accelerated (with net income of the 100-percent-owned operating businesses rising six-fold).

As for those share repurchases, Mr. *Cooperman* underscored an achievement that appears even more laudable from the post-bubble perspective than it did at the time. "Just as *Dr. Singleton* recognized [that] he had an unusually attractive stock to trade with in the 1960's," wrote Mr. *Cooperman*, "he developed the belief that the company's shares were undervalued in the 1970's. In the period 1971-1980, you correctly point out that the company repurchased approximately 75 percent of its shares. What you did not point out is that despite the stock's 32 percent drop from its all-time high reached in mid-1981 to the time of your article, the stock price remains well above the highest price paid by the company (and multiples above the average price paid) in this ten-year period." And what Mr. *Cooperman* did not point out was that none of these repurchases was earmarked for the mopping up of shares issued to management. He did not point that out, probably, because the infamous abuses of options issuance still lay in the future.

Business Week, however, was right when it observed that nothing lasts forever and that *Singleton* couldn't manage indefinitely. In 1989, he formally relinquished operating control of the company he founded (and, by then, owned 13.2 percent of). Even then, it was obvious that the 1990's were not going to be *Teledyne*'s decade. Appended to *The Wall Street Journal 's* report on *Singleton*'s withdrawal from operations was this disapproving note: "The company hasn't said in the past what it plans to do. It doesn't address analyst groups or *Grant* many interviews." *Teledyne*'s news releases and stockholder reports are models of brevity. Some securities analysts have given up following the company because they can't get enough information." Imagination cannot conjure a picture of *Singleton* on CNBC.

The dismantling of *Teledyne* began in 1990 with the spin-off of the *Unitrin* insurance unit (later came the sale of *Argonaut*, another insurance subsidiary). *Singleton* resigned the chairmanship in 1991, at the age of 74. Presently, the financial results slipped, the defense businesses were enveloped in scandal, and *Teledyne* itself was stalked as a takeover candidate. Surveying the troubles that came crowding in on the company after the master's departure (and-unhappily for the defense industry-after the fall of the *Berlin Wall*), Forbes magazine remarked: "For many years *Dr. Henry Singleton* disproved the argument that conglomerates don't work. But it turns out *Teledyne* was more of a tribute to *Singleton* than to the concept."

In retirement, *Singleton* raised cattle and became one of the country's biggest landowners. He played tournament chess. "Most recently," according to a tribute published shortly after his death (of brain cancer, at age 82), "he devoted much time to computers, programming algorithms and creating a fine computer game of backgammon …. "

To those not attuned to the nuances of corporate finance, *Singleton*'s contribution appeared mainly to concern the technique of share repurchases. Thus (as an obituary in the *Los Angeles Times* had it), *Teledyne* was the forerunner to the white-hot growth stocks of the *Clinton* bubble, including *Tyco International* and *Cendant*. *Singleton* knew better. To *Leon Cooperman*, just before he died, the old conglomerateur confided his apprehension. Too many companies were doing these stock buybacks, he said. There must be something wrong with them. © *Grant*'s Interest Rate Observer, 2003.

Article from Business Week May 31, 1982

Henry Singleton of *Teledyne*: A Strategy Hooked to Cash Is Faltering *(Cover Story with a sketch of Dr. Singleton flying like Icarus with paper stock certificates as ailerons).*

Led by its reclusive founder, *Dr. Henry* E. *Singleton*, *Teledyne Inc.* pursued two different strategies over two decades, flourishing as other conglomerates foundered. In the 1960s it devoted itself to straight acquisition, putting together 150 companies as a base for the second, 1970s phase of its plan—siphoning off these companies' earnings to build a huge portfolio of stocks. But today a double whammy is hitting *Teledyne*: Many of its largest stock investments are crumbling in value, and its cash squeezed manufacturing and service companies are taking a drubbing in several of their most important markets.

For years, *Singleton* has wrung cash from *Teledyne*'s wholly-owned manufacturing units by reinvesting only a small portion of their earnings in research and developments and plant and equipment. (An inserted charts shows that *Teledyne* allocates approximately 55% less to capital spending and 30% less to R&D spending than competitors.) In his drive to build *Teledyne*'s stock portfolio, *Singleton* made little distinction between the company's mature operations and its growth businesses, demanding almost equal returns from both. Now *Teledyne* the cash cow is drying up, and *Teledyne* the portfolio manager seems to have lost its investment wizardry.

That may be why the company appears to have reversed course again this year, heading back to the acquisition trail. It tried unsuccessfully to buy *Chrysler Corp's* tank business--*Singleton*'s first big acquisition bid in 12 years. Although he denies it, *Singleton* may be tacitly conceding that a strategy based on milking operations to play the stock market can not go on forever.

To be sure, *Singleton* has given *Teledyne* a $1.29 billion stock portfolio that includes a 26% gain when *Teledyne* had operating profits of $734.3 million fully $326 million was investment income from stock dividends, interest payments, and *Teledyne*'s equity in profits earned by companies of which it owned more than 20%. The equity earnings--$109.2 million pretax last year—were a balance sheet entry, of course, for which *Teledyne* received no actual cash viewed as a financial genius when he made smart stock picks, *Singleton* built investment income into a sizable part of *Teledyne*'s total earnings.

Now many of *Teledyne*'s investments look weak. One of them—16% of ill-starred International stock in *Litton Industries Inc.* purchased mainly during the past 18 months—recently showed a paper loss of $100 million. Overall, *Teledyne*'s common stock portfolio lost some $380 million last year; this unreported loss almost matched the company's reported net income in the same period: $412 million, on revenues of $4.3 billion.

Far more serious, *Teledyne*'s manufacturing operations, starved of corporate resources, are starting to lose competitiveness. In a wide range of businesses--including defense, consumer products, oil services, and metals—*Teledyne* has either missed opportunities or is losing market share, new contracts, or its technological edge. Decay is even more advanced in the company's insurance operations, which contribute 25% of total revenues. Insurance lost $79.2 million before taxes and interest in 1981, and the units are slipping in rank in their industry.

Singleton, however, seems unperturbed about the operating problems. Nor does he view his abortive *Chrysler* bid, which he calls an "isolated instance," as a change in strategy. In a rate interview with Business Week, the he disclaims ever having a business plan for *Teledyne*. "My only plan, "he says nonchalantly, "is to keep going to work every day."

Yet *Singleton* has clearly steered his company in two different directions during the past, and now he will probably have to change course again. In the 1960s, when conglomerates were kings, *Singleton* ensured steady earnings increased by trading *Teledyne* stock to make a torrent of small acquisitions. In the 1970s, when diversification fell out of fashion, he stopped acquiring and started using corporate money to build a stock portfolio.

The second strategy worked in on respect. Although *Teledyne* never paid dividends, it became one of the top U.S. companies in terms of total rewards for its stockholders. *Singleton* managed this by making a lot of good decisions in the stock market and by using *Teledyne*'s cash to repurchase 75% of its own outstanding shares. The repurchases boosted per share earnings fast, along with the market price of *Teledyne*'s stock. They also enabled *Singleton*, who held on to his own *Teledyne* shares, to amass 7.8% of the company's stock. As *Teledyne*'s founder, sole leader, and largest private shareholder, *Singleton* does admit to one plan: to stay on the job beyond normal retirement age. He is 65.

Observers suspect he can easily do so. But *Singleton* will have to spend these latter years paying more attention to the base businesses. Although the company's manufacturing units showed an operating earnings increase of 21% in 1981, danger signals are beginning to emanate from all over *Teledyne*'s empire. Ominously, first-quarter operating profits in manufacturing slumped 12%, and a more precipitous decline is expected for the second quarter.

Singleton dismisses the current downturn as a typical result of a company's heavy mix of capital goods businesses, which tend to suffer late in any general recession. "We are a lagging indicator," he says. But *Teledyne* watchers, including competitors, argue that the problems run deeper than *Singleton* lets on.

In offshore drilling a profit gusher for the company in recent years, *Teledyne*'s timing has been off. It failed to expand its six-rig fleet during the boom years. "*Teledyne* has made such a lot of money out of offshore drilling and not put much back in," says *Loran R. Sheffer*, president of *Offshore Rig Data Services Inc*. in Houston. What is worse, *Teledyne* will finally take delivery of a new, $45 million unit later this year-just as the oil glut is torpedoing the rates commended by drilling rigs. Industry observers estimate the company will need a $45,000 per day contract on the new unit to make its investment pay off but predict that it will be lucky to settle for two-thirds of that amount.

Outsiders see the *Chrysler* bid as an attempt to shore up another *Teledyne* unit, its sagging *Continental Motors* tank-engine operation in Muskegon, Mich. The *Chrysler* unit, prime contractor for the new M-1 tank, was captured by *General Dynamics Corp.* for $336 million. *Teledyne* had offered $300 million.

Until the turbine-powered M-1 was introduced in 1980, *Continental* supplied diesel engines for all U.S. tanks. Defense experts expect future generations of U.S. tanks to be turbine-powered, so that *Continental* will be relegated to the replacement engine market for existing tanks. In fact, Pentagon officials sighed with relief when *Teledyne* lost the *Chrysler* contest. "*Continental* is stagnating, "says a Washington source. "The Pentagon wanted a live-wire company building the tanks."

The decline at *Continental* may be the best example of the operating problems facing *Singleton*. Last year he watched the unit make an embarrassing attempt to persuade the Army to use one of its diesel engines for the M-1. Army sources say that a scheduled 1,000 hour lab test of *Teledyne*'s engine was halted after only 218 ours on Sept. 14, 1981, because by then the engine had failed 51 times. The failures involved a turbocharger, fuel injection pump, variable fan control and supercharger drive system.

The reasons for these new problems at *Teledyne* units have emerged most clearly at *Water Pik*, the company's best-known consumer-goods operation. *Water Pik* shows profits--but to do so it had to discontinue product development spending and cut advertising and marketing support drastically (see further explanation at the end of this article).

Singleton's bid to garner the M-1 business by purchasing *Chrysler* surprised long-time observers. It market a "highly significant change: in direction for the company, says *Robert M Haniss*, president of *AMDEC Securities* in Los Angeles. For years, *Singleton* has disparaged the wave of high priced takeovers in U.S. industry, saying he preferred to buy smaller chunks of companies in the stock market for well below book value. But on the *Chrysler* offer, he bid three times book value.

With it s bulging coffers, *Teledyne* could prove a formidable player in the acquisition game. Most of the company's $2.9 billion wad of stock is sequestered in the policy reserves of its insurance units, where state regulators discourage the use of such funds for big takeovers. But *Teledyne* has ready access to almost $1 billion-$622 million in cash and securities at headquarters and $360 million in short-term loans to its unconsolidated insurance subsidiaries. With only $629 million in long-term debt, or 27% of total capital *Teledyne* could probably borrow an additional $1 billion.

But diverting its investment trove into acquisitions could prove perilous to *Teledyne*'s earnings, partly because those profits have grown to depend on investment income. The 45% of total operating profits provided by investments last year grew from just 15% three years earlier. Admittedly, analysts scorn a sizable portion of these earnings as more mirage than substance. *Teledyne* uses equity accounting for its investments in four companies,--*Litton, Curtis-Wright, Brockway,* and *Reichold Chemicals*—adding a share of their earnings into parent company's even though no cash changes hands.

The real danger could be that acquisitions would further divert cash from reinvestment in *Teledyne*'s existing operation units. When *Teledyne* acquired them, most of the companies boasted strong, often dominant, positions in their markets. For example, *Teledyne*'s *Wah Chang* operation in Albany, Ore, had a virtual monopoly on free-world production of zirconium, a crucial metal in building nuclear reactor.

But *Wah Chang*, where production capacity has been stagnant for a decade, watched French producers walk off with some 40% of the market by 1980. And this year a new zirconium plant build by *Westinghouse Electric Corp.* in Italy may pare *Wah Chang's* share to less than half of the estimated $1250 million free-world output. Although *Teledyne* does not break out profit figures for its units, *Wah Chang* is also believed to be reeling from the recent dive in specialty metals process.

In his recent interview with Business Week, *Singleton* offered no prescription for *Teledyne*'s declining fortunes, "I like to steer the boat each day rather than plan ahead way into the future," he says. And although associates credit him with almost total recall of business details, *Singleton* claimed not to know such operating data as the number of seismic crews recently laid off at the company's geophysical unit in Houston.

Teledyne's chief is equally uncommunicative in his dealings with the financial community and shareholders. The company's *Fireside Thrift & Loan*, a California consumer finance unit with $125 million in deposits, rated seven pages in *Teledyne*'s 10-K report to the SEC when it was profitable in 1979. Since then the unit has lost more than $4 million pretax each year and turned in one of the worst performances among the state's 50 thrifts. But *Fireside's* results were boiled down to a single line, labeled only: "Equity in net loss of unconsolidated subsidiary."

Interviews with more than a dozen former *Teledyne* executives—many of whom admire *Singleton*—provide insight into some sources of the company's troubles. *Teledyne*'s top officers are immersed in an incredible meeting schedule. Approximately 390 meeting a year, for example, are held with offers of 130m units designated as profit centers. *Singleton* himself attends most of the important sessions, while his second-in-command, President *George A. Roberts*, attends all the meetings.

Manufacturing units have apparent autonomy in devising their own plans. But a tacit imperative has been deeply ingrained in *Teledyne*'s corporate culture. "Their philosophies that cash is king," says *Eugene Rouse*, former head of *Water Pik*. All profit-center managers are viscerally aware that ***Singleton* wants his businesses to be net generators rather than users of cash.** That syndrome is reinforced by a compensation package stressing rewards for turning cash over to headquarters---a reward system not uncommon in business but reportedly heightened in importance at *Teledyne*.

The stress on cash generation helps explain how such vital expenditures as those for research and development can get short shrift. Indeed, *Teledyne* spends an average of less than 1.57%of manufacturing sales on its own research more than 25% below the all-industry average. "*Dr. Henry* likes cash cows where the money keeps churning out," says a former electronics executive who left *Teledyne* to form his own company. As a result, he continues, the emphasis is on "updating the product with ingenuity," not money.

Such penny pinching on project development has proved especially costly at the company's San Diego based *Ryan Aeronautical* subsidiary, formerly the premier producer of robot aircraft used for military target practice and reconnaissance. *Ryan's Firebee* model controlled 75% of the market in the early 1970s, defense sources estimate. But *Teledyne*'s emphasis on garnering cash from its operations opened the field to more innovative rivals. *Northrop Corp.*, for example, has introduced cheaper, easier-to-launch alternatives that rely on sophisticated electronics to match the *Firebee's* capabilities. Consequently, the *Firebee* faces a minuscule production run this year and will likely be shot down entirely in next year's defense budget.

In line with the cash-generating philosophy, *Teledyne*'s manufacturing units get little input from either *Singleton* of President *Roberts* if they achieve their goals, "They manage you by numbers," says former executive *Rouse.* "As long as you are performing, you never hear from them."

But the consequences of coming up short can be excruciating. At budget review meetings the craggily handsome *Singleton* turns "hard, cynical, and cold,: speaking in measured, clipped tones "like his is biting a bullet," recalls a former associate. *Singleton* has been known to explode in rage if a subordinate speaks out of turn. *Teledyne* officials "quake in mortal fear" of *Singleton*, says one retired company executive.

Deepening their fear is *Singleton*'s stated preference for summarily closing down weak units rather than selling them. He folded *Teledyne*'s big *Packard Bell* television manufacturing operation in 1974, for instance, when an expansion effort failed.

But walking away from its problems has not always worked for *Teledyne*, as the company is now discovering at its toxic waste disposal unit, *U.S. Ecology Inc.* In 1979 the subsidiary tried to abandon a low level nuclear waste dump, after it was filled up, that it had operated for 11 years on land near Sheffield, IL, leased from the state. Enjoined by court order from leaving the site, *U.S. Ecology* continues to monitor and maintain the facility, although it no longer gets revenues from new shipments.

Earlier this year radioactive tritium--so far not at hazardous levels—began to leak from the dump into nearby private property, creating potential liability for damages. "I don't feel we have any liability there," says *Singleton* without elaborating. But the Illinois attorney general has sued *U.S Ecology* for $97 million in damages, and negotiations between the state and the company continue. The *Teledyne* unit operates three other nuclear and toxic waste disposal dumps elsewhere.

Until recent years, *Singleton* gave his insurance subsidiaries operating autonomy within the same tight performance parameters as his manufacturing operations. But an earnings debacle of one unit, *Argonaut Insurance Co.*, changed all that. To boost earnings, *Argonaut* chased after risky medical malpractice insurance in the early 1970s, ultimately sticking *Teledyne* with a $105 million pretax loss in 1974. At the time, say state insurance officials, *Singleton* carefully pondered the impact of letting *Argonaut* go bankrupt. Instead he stepped in, got rid of all *Argonaut's* top officers, and uncharacteristically gave the unit a needed infusion of cash.

Since then, we have stayed very close to the details of those (insurance) businesses," acknowledges *Singleton*. One former officer describes *Singleton*'s role in the units as "unbelievable involvement of a chief executive in minor decisions." *Singleton* reportedly decided, for example, which of several small branch offices should be closed down in an austerity drive at one *Argonaut* subsidiary.

In spite of such close scrutiny, the results of *Teledyne*'s insurance operations have been mediocre. According to *A. M. Best Co.*, which analyzes insurance companies, *Teledyne*'s major life insurance subsidiary, *United Life Insurance Co. of America*, fell to 68th place in its industry in 1980, from 47th in 1970, in premium revenues. At the same time, *Teledyne*'s property and casualty units, primarily *Argonaut* and *Trinity Universal Insurance Co.*, dropped to 40th from 33rd by the same measure.

On underwriting results, another key yardstick, the property and casualty units ranked a dismal 74th among the 100 top firms in 1980. Industry sources believe that *Argonaut* is also being hurt by rate-cutting in one of its major lines—California workers' compensation insurance.

While *Singleton* pays extraordinary attention to insurance, managing *Teledyne*'s stock portfolio is dearest to his heart. Right now, he has weighted the portfolio heavily with international oil producers, conglomerates, banks, and insurance companies. Since he began his dedicated stock purchased in 1976, *Singleton* had racked up some spectacular gains. His 26% stake in *Litton*, for example, purchased for an estimated $140 million, soared above $900 million before sliding back to its current level of $470 million. But last year, *Singleton*'s sinning gambles on takeover plays such as *Conoco* and *Norris Industries* were skunked by such losers as *Mobil Oil* and *International Harvester.*

Singleton's fascination with *Teledyne*'s financial side is surprising in light of his background. After earning his PhD in electronics at *Massachusetts Institute of Technology*, he put in brief stints at *General Electric Co.* and *Hughes Aircraft Co.* before coming to prominence as head of *Litton's Guidance & Control Systems Division*. He left in 1960 to found *Teledyne* after a clash with *Litton's* financial chief, *Roy L. Ash*, now better known as architect of *AM International's* abortive plan for becoming a high-technology company. Associates say that *Singleton*, an operating man by training, learned one crucial lesson from *Ash*: **The person at the financial throttle exercises terrific control.**

Whether his enthusiasm for stock market plays will continue to determine *Teledyne*'s future is an open question—one that *Singleton* himself will probably decide. An avid jogger, he says he has no intention of giving up control of *Teledyne*--despite his age—"while I'm still healthy and strong." Insiders indicate that *President Roberts*, 63, makes none of the important strategic decisions. They also note that the president's outgoing style contrast sharply with *Singleton*'s icy reserve.

It may be that *Singleton*'s strategy will come under more pressure from Wall Street than from insiders or the company's six-member board, which included such luminaries as *Arthur Rock,* the legendary venture capitalist. *Teledyne* pleased Wall Street for years: Its stock repurchases between 1972 and 1980 helped push its share price to $175 by mid-1981, from $10 when the repurchased began. But since them, in a troubled market, *Teledyne* stock has declined to a recent price of $119. As the company's operating difficulties become more obvious, Wall Street analysts—as unforgiving as *Singleton* is with his own subordinates—could quickly turn from allies into enemies.

Singleton now seems to have three main options in resuscitating returns to shareholders. *Teledyne* can continue to buy its own stock—a tack that cannot continue indefinitely. Or it can try the acquisition route, as it did with Chrysler's defense unit. Although it is often rumored to be a takeover target, *Litton* is probably too pricey for *Teledyne*'s pocket book.

The third option—and least likely, in most observers' view—is for *Teledyne* to try to regain its lost operating muscle by boosting investment in its current businesses. The company still has some potential powerhouse in its vast stable. In defense which accounts for about 125% of manufacturing sales, Pentagon officials praise *Teledyne CAE,* a turbine-engine maker in Toledo. *CAE* now has less then $40 million in sales but as prime producer of engines for the Navy's *Harpoon* missile and as second source supplier (after *Williams International*) of cruise missile engines, it is in-line for fast growth. *Teledyne* also has a number of small but respected machine tool units that could provide groundwork for expansion.

Singleton will have to bolster all his operations to restore the manufacturing base that once bankrolled his stock market plays. But a Catch-22 is involved: To have enough liquidity to boost capital investment and research significantly *Singleton* might have to dismantle at least part of his portfolio, at a time when the market is down. True to his reputation, he offers no hint about what he will do, although *Teledyne*'s future hangs in the balance.

Example: The String of flops that clogged *Water Pik*

The decay that remains hidden at many *Teledyne* Inc. operations is rapidly becoming evident at the company's *Water Pik* subsidiary, maker of such familiar products as the *Water Pik* dental appliance and the shower massage pulsating showerhead. After an initial success with new product launches, *Teledyne* now appears to be siphoning cash from *Water Pik* with little regard for the offshoot's future health.

At first the 1967 purchase of the outfit, based in Fort Collins, Colo. Proved to be one of *Teledyne*'s star acquisitions. Revenues soared to $130 million by 1976 from less than $20 million before the takeover. Sales of the *Water Pik* device that gave the company its name continued to grow, peaking at about 1 million units that year. The Shower Massage, launched in 1973, became of the hottest gift items of its time, and its sales spurted to 9 million units.

Absurd device. But the company stumbled badly when it introduced a string of new products that flopped. Mothers snubbed the company's Nurture baby food grinders, preferring household blenders. And what one former insider calls "the most absurd consumer product ever devised" –an electronic counter of a dieter's bites that signaled how fast to chew—met a quick death. Both the *insta-pure water filter* and the *Pume Step-At-A-Time* cigarette filter, rolled out in the mid-1970s and still being distributed, are reported to be barely profitable.

After these sorry events, *Teledyne* virtually shut down new product development, leaving *Water Pik* dependent on two main lines: The Shower Massage, which is down about 75% from its peak sales level, and the now 20 year old *Water Pik*, which has plummeted almost one-third from its high point. The only product the subsidiary has introduced recently—the Smart Tip cigarette filter, which cuts tar and nicotine intake by 50%--has had a slow start since its debut last year.

Water Pik's sales have dropped 50% to $65 million, since 1976. Expenses have been slashed, too. For example, advertising costs have been cur more than 80% over the past six years. Sources say *Teledyne* has kept the unit strongly profitable. But with aging products and weak promotional support, *Water Pik* is almost certainly headed for troubled times.

***Teledyne* is highly diversified:**

Industrial products and services: $1,2003.7 million in 1981 revenues

Insurance and finance: $1,104.4 million

Specialty metals $870 million

Aviation and electronics $865.2 million.

Consumer $298.7 million

….but spends little on its manufacturing: 55% less on capex and 30% less on R&D than competitors

….to free cash for stock investments

Companies	Number of shares owned (000)	Percent of Ownership	Market Value Dec. 31, 1981 (mil.$)	Percent change in value since Dec. 31, 1980*
Aetna Life	4,445	6%	196	+24
Borden	1,481	5	41	+9
Brockway	2,275	33	33	+4
Colt Industries	1,145	8	64	+24
CT General**	2,269	6	113	+8
Crown Cork	1,204	8	36	+6
Curtis Wright	2,602	52	107	Unchanged
Dart & Kraft	2,376	4	121	+16
Exxon	4,046	****	126	-14
Int'l Harvester	5,497	16	47	-59
Kidde	3,898	21	91	+3
Kimberly-Clark	888	4	58	+23
***Litton* Ind.**	10,400	26	586	-35
Mobil	2,375	1	57	-29
National Can	1,227	14	26	-6
Reichhold Chem.	1,535	22	17	-4
Security Pacific	1,310	5	53	+19
Texaco	5,633	2	186	-9
Travelers	2,251	5	99	+13
Wells Fargo	1,103	5	28	-11
60 other companies	NA	NA	838	-5
TOTAL	NA	NA	2,923	-11
*Adjusted for purchases during 1981 **Merged into CIGNA on March 31, 1982				
***Includes 1.7 million common-equivalent shares of convertible preferred stock				
****Less than 1% Data: computer Directions Advisors Inc., company filings, BW estimates				

End of Business Week Article

Comments: *Note the tone and adjectives used by the writer. What point of view did the reporter take towards Mr. Singleton? Was the writer objective? If you were the reporter, how would you have written the article? What did the* *writer neglect in analyzing Teledyne? If you were judging Dr. Singleton's performance managing Teledyne what would you focus on? Think about these questions before you read on.*

The Singular *Henry Singleton* by Robert J. Flaherty, Forbes (July 9, 1979)

One of the three most profitable multibillion–dollar companies in the U.S., and a brilliant performer in a dull stock market, *Teledyne*, Inc. is an unique company. In no way more than in the style and *contrary* thinking of the man who runs it.

When the business history of this era is written, *Dr. Henry E. Singleton* will probably be one of its towering figures, the equal in accomplishment, if not in fame, of great corporate entrepreneurs like *Alfred P. Sloan Jr., Gerard Swope, David Sarnoff, Royal Little*. This aloof son of a well-to-do Texas rancher is noteworthy in two respects: for the size and quality of the company, *Teledyne, Inc*., that he built from scratch; and for his almost arrogant scorn for most conventional business practices. *Henry Singleton* has always marched to his own drummer-and to music that most of his peers could not even hear.

His record speaks for itself. Until 1960 *Teledyne* did not even exist. Five years ago, when it was barely 14 years old, it ranked 202nd among major U.S. corporations listed in Forbes' Profits 500. Year-by-year it has climbed in the *Forbes* lists and last year stood number 68, an upstart that had climbed over the heads of great American corporation like *International Paper, Avon Products, Texas Instruments, Ingersoll-Rand*. When the 1979 listings come out next year, *Teledyne* is almost guaranteed to have moved up several more rungs on the profits ladder.

But what really distinguishes *Teledyne* beyond its position on various lists is that during a period when inflation has been eroding most corporate profit margins, a period when corporation have been selling more and enjoying less, *Teledyne*'s profitability has been growing, not shrinking. Its return on equity is nearly 33% last year, was matched among multi-billion-dollar (sales) companies only by *American Home Products* and *Avon Products*. After taxes, its return on manufacturing sales was a fat 7.2%, vs. 5.4% for industry as a whole.

Has *Teledyne* had setbacks? Indeed it has, but look how it has pulled out of them: Its *Packard Bell* division couldn't make it in home TV sets and quit the market. By emphasizing the profitable remainder, *Packard Bell* is larger and more profitable than ever today.

During the medical malpractice fiasco, *Teledyne's Argonaut Insurance* had to withdraw from writing such policies and *TDY's* casualty business took a $104 million write-off. But by pushing its conventional workman's compensation and other casualty businesses, *Argonaut* rebuilt its profits and last year they set a new record--$56.7 million.

Who is this business genius *Henry Singleton*, who turns setbacks into successes, who rarely appears at the Business Round Table or rubs shoulders with his corporate peers? How does he do it? Can he keep it up?

First the "who." He is a ramrod-erect, austerely handsome man of 62 who spent three years at *Annapolis*, then switched to the *Massachusetts Institute of Technology*, where he earned his bachelor's master's and doctorate of science, all in electrical engineering. Educated as a scientist not as a businessman, he did not leap into entrepreneurship but trained for it over several decades at the best schools of practical management in the U.S.—first as a scientist at *General Electric*, then as a management man at *Hughes Aircraft*, then in the early days at *Litton Industries* when founder *Charles "Tex" Thornton* and *Roy L. Ash* were building one of the first truly "hot" companies of the post-World War II era. Not until 1960, when he was 43, did *Singleton* found *Teledyne*. He did so in company with two of the best brains of the modern business world: *George Kozmetsky*, now dean of the *College of Business Administration* at the *University of Texas*, and *Arthur Rock*, perhaps the U.S. most imaginative venture capitalist.

Maybe because of his unusual background, *Singleton* has an almost uncanny ability to resist being caught up in the fads and fancies of the moment. Like most great innovators, *Henry Singleton* is supremely indifferent to criticism. During the early Seventies, when investors and brokers lost their original enthusiasm and deserted *Teledyne, Singleton* had *Teledyne* buy up its own stock. As each tender offer was oversubscribed by investors of little faith, *Singleton* took every share they offered. When Wall Street—indeed, even his own directors—urged him to ease up, he kept right on buying. Between October 1972 and February 1976 he reduced *Teledyne's* outstanding common 64% from 32 million shares to 11.4 million.

Normally a serious man, *Singleton* allows himself to laugh when he recounts how his stubbornness prevailed. "In October we took them all at $20 and figured that was a fluke and that we couldn't do it again. But instead of going up, our stock went down. So we kept tendering, first at $14 and then doing two bonds-for-stock swaps. Every time one tender was over the stock would go down and we'd tender again and we'd get a new deluge. Then two more tenders at $18 and $40."

Shareholders who tendered happily at $14 or $40 watched in dismay as, only a few years later, the shares soared to $130. *Henry Singleton* had been right. The rest of the world—including some of his own directors—had been wrong. "I don't believe all this nonsense about market timing." *Singleton* says. "Just buy very good value and when the market is ready that value will be recognized."

What is most impressive is that *Teledyne*'s capital shrinkage was not achieved at the expenses of growth, or by partially liquidating the company. All during these years, *Teledyne* kept growing. Where in its early days it had grown through acquisition—145 in all—in its capitalization—shrinking days *Teledyne* grew from within, and steadily. In 1970, when acquisitions had ceased, revenues were $1.2 billion; in 1974, $1.7 billion; in 1976, $1.9 billion, and so on. This year *Teledyne* will do $2.6 billion. Yet in the years sales were more than double from the $1.2 billion level, *Teledyne* made only one minor acquisition. Nor did *Teledyne* get deeply into debt. In the early stages of his stock-buying program, *Singleton* did have *Teledyne* borrow rather heavily but he paid the debt down aggressively out of cash flow. In the process he wiped out all of *Teledyne*'s convertibles and warrants. Dilution? *Singleton* virtually dehydrated *Teledyne*'s capital structure--growing the business while shrinking its capital. Quite a trick. Certainly unique in recent business history.

When investors, disillusioned with growth, again began to be dividend conscious, *Teledyne* continued to <u>refuse</u> to pay a cash dividend. The second-highest-priced stock on the Board (after *Superior Oil*), *Teledyne's* cash yield is zero.

But there were other rewards for investors. With revenue growing, profit margins thickening and capitalization shrinking, *Teledyne*'s remaining stockholders enjoyed fantastic leverage. During the years 1969 to 1978 revenues increased by 89%, net profits rose 315%. But look at earnings per share! They soared <u>1,226%</u>. With all those profits being plowed back, *Teledyne*'s equity per share jumped from $11.38 to ____ between 1969 and the end of 1978. All through the early Seventies Wall Street ignored the stock. It was a conglomerate. It had four bad years. It wouldn't pay a dividend. It kept buying its stock against all rhyme and reason. Ugh! Scarcely any analyst bothered with it. For years *Teledyne* was stuck in a narrow range, rarely getting above $20 but finally Wall Street caught on. After selling as low as $7.75 in late 1974, *Teledyne*'s stock leaped to over $69 in 1976 and, in 1978, finally passed the $100 mark. *Teledyne*, which broke all the rules, was one of America's best-performing stocks.

Let's put *Henry Singleton* in perspective. During the year when he was all but ignoring Wall Street, many of American's top executives were trimming their sails to Wall Street's slowing winds. Consider several of the most visible examples:

In 1974 *Textron Chairman G. William Miller*, now chairman of the *Federal Reserve Board*, had a brilliant plan to revive trouble *Lockheed* at little risk to his own shareholders. *Textron* stock dropped because analysts questioned the move. Feeling the pressure, *Miller* backed away from what would have been a bargain for *Textron*. *Lockheed* stock was selling at $3 per share. Today it is selling at $21 per share.

Early this year *Chairman James D. Robinson III* of *American Express* made a tempting tender offer for *McGraw-Hill*. But bad publicity blistered *American Express* and *Robinson* backed away. "Jimmy Three-Sticks, "as his *Harvard Business School* classmates called *Robinson*, faced a battle of wills between himself and *McGraw-Hill's Harold W. McGraw Jr.* Faced with *McGraw's* unexpected pluck, *American Express* backed down.

In 1968, *Xerox*, which then had a price/earnings multiple of 53, was about to merge with *C.I.T. Financial*. It was a beautiful deal. *Xerox* was going to pay $1.5 billion in its stock for *C.I.T.* on a ratio that would have enhanced both *Xerox* earnings and book value. Today the value of that same *Xerox* stock package has shrunk to less than $1 billion in market value, while *C.I.T's* assets have increased by almost 50% to $5 billion. At the time, however, investment analysts turned up their noses. Dilute a high-technology stock, with a grubby money-lending business? *Xerox* stock retreated and so did *Xerox Chairman C. Peter McColough*. Today *Xerox's* multiple is down to 11 times earning anyhow. Instead of buying rock-solid C.I.T., *Xerox* paid $920 million in stock for *Scientific Data Systems*, a fledgling computer company. Wall Street applauded but *SDS* subsequently all but collapsed. *Arthur Rock*, *Henry Singleton*'s original backer and one of *SDS'*s backers, cleaned up again.

It would be hard to picture *Henry Singelton* trying an unfriendly takeover, but it would be harder to picture him backing away—as *American Express* did—once he had made an offer. It would be inconceivable for him to back away from the *Lockheed* deal or the *C.I.T.* deal just because the brokerage fraternity disapproved. He kept buying up his own stock with both hands, when the Street called him crazy.

So far, we have not even mentioned what *Teledyne* makes or sells. That's because what *Teledyne* makes or sells is less important than the style of the man who runs it. The fact is that *Singleton* unashamedly runs a conglomerate. What are the products and services upon which *Singleton* has put his stamp? Offshore drilling units, auto parts, specialty metals, machine tools, electronic components, engines, high fidelity speakers, unmanned aircraft and *Water Pik* home appliances.

A conglomerate, of course, but *Singleton* is not even slightly disturbed by the label "conglomerate." Says he: "Today, being a conglomerate is neither a plus nor a minus. While not many companies are classed conglomerates, most are." He ticks off some names: *GE, Westinghouse* and *RCA*.

This diffuse company is actually quite tightly run. Its board of directors consists of only six people, not the usual dozen or more, and all of them close friends and associates: *Singleton*, co-founder and fellow *Litton* alumnus *George Kozmetsky*; the father of information theory and former *M.I.T* Professor; *Teledyne*'s president and his *Annapolis* roommate *George A. Roberts*; original backer *Arthur Rock*; and finally, *William W. Shannon*, one of the first entrepreneurs to sell his company to *Teledyne*.

Teledyne's management team is a seasoned one. Of the 150 principal executives who worked there in 1976, most are still with the company. They have grown with the organization. Rarely has *Teledyne* had to reach outside for a turnaround man in a bad situation.

Singleton works closely with his president, *George Roberts*, who has his doctorate from *Carnegie-Mellon* in metallurgy. *Roberts* is the chief operating officer, and an extremely effective one. This is not the kind of conglomerate where headquarters staff only loosely supervises a number of good-size semi-independent operation. Taking a leaf from

Harold Geneen's book, *Teledyne* has super-tight financial controls. Taking a leaf from *3M's* corporate books, it breaks up a huge business into a cornucopia of small profit centers—129 in *Teledyne*'s case.

The largest of *Teledyne*'s 129 companies, *TDY Continental Motors*, is under $300 million in annual sales. It is one of nine companies created out of *Teledyne*'s *Continental Motor's* acquisition. Some of the really small *TDY* companies are only a few million in annual sales—for example, *TDY Engineering Services.* "We go to an extreme in splitting businesses up so we can see problems which would be passed over in companies where the units are larger," says *Roberts*. "By our plan no one business, all by itself, will become momentous." This means the survivability of the entire company will never be jeopardized by failure of one single operation.

What matters is this: So far in 1979, all 129 are profitable. For the last two years only one, semiconductors, was in the red, and that by just a few million.

By setting up computer controls, by training each manager to do what is expected of him, *Roberts* can handle as many as five companies annual profit reviews in a single day. Nor does he waste time and energy in airports and limousines. The heads of the 129 companies take turns coming to him and *Singleton* in their modern, clean but lean *Century City* offices on *L.A.'s Avenue of the Stars.*

Forbes interviews over a thousand company managements every year and we turn instantly skeptical when they tell us: "we're profit-oriented not product-oriented." The fact is that few companies really are that way. *Teledyne* is a rare exception. "Forget products," *Roberts* begins, "Here is the key: We create an attitude toward having high margins. In our system a company can grow rapidly and its manager be rewarded richly for what growth if he has high margins. If he has low margins, it is hard to get capital from *Henry* and me. So our people look and understand. Having high margins gets to be the thing to do. No one likes to have trouble getting new money."

Roberts is saying nothing exceptional. What *is* exceptional is the way *Teledyne* practices what it preaches. There are very few companies of any size, and certainly none of the billion-dollar class, that are as tight with a capital dollar as *Teledyne*. This year its capital spending will exceed $100 million for the second straight year, but this is a rather miserly sum in relation to *Teledyne*'s cash flow of more than $300 million. *Texas Instruments*, a company of equal size and technological orientation, will spend more than three times as much. Many companies normally spend more for capital projects than they take in as cash. Not so with *Teledyne*. This is the real secret to *Teledyne's* ability to grow.

The key, then, is discipline: no ego trips, only new investment that will quickly pay off in the form of enhanced cash flow. Says *George Roberts*: "The only way you can make money in some businesses is by not entering them.

Internally we hold up high-margin companies as examples. Our margin on sales is now over 7% after taxes, vs. a national average for manufacturing of 5.4%. Since we run a broad cross section of businesses, it is clear the rest of American industry can improve, too.

"Take any big old giant company like *U.S. Steel*. If they really accounted for their business conservatively and line by line in detail as we do, they might conclude they didn't have any margins at all. We make the point that margin on every product, every project, is important. We preach that out average and the company average is only the average of all their individual moves."

Risk, too, is carefully rationed. A coolly rational man, *Singleton*, despised surprises. It is company policy that divisions which are federal contractors will remain relatively small. "We don't want any big prime contracts, says *Roberts*. "We prefer to be important, technically oriented subcontractors who serve those who want to be prime contractors." That way, if a large contract is aborted *TDY* will not be hurt.

The effect of all this emphasis on restricting risk and insisting on high return, *Roberts* says, is that he's been able to stop preaching. **"Now everyone understands that all new projects should return at least 20% on total assets.** When leveraged up, return on equity can be 30% to 50%. This is so ingrained that few lower-returning proposals are ever presented anymore. We hardly ever discuss one."

"Our attitude toward cash generation and asset management came out of our own thought process," says *Singelton*. "It is not copied. After we acquired a number of businesses, we reflected on aspects of business. Our own conclusion was that the key was cash flow."

Singleton may be a scientist and an intellectual but he has an old-fashioned respect for cash. You can't pay bills with book-keeping profits. He knows that companies have gone broke after reporting big profits for years—*Penn Central*, for example, and *W.T. Grant*. He wants to see the color of some of that money in his companies' reports. He wants each company to throw off cash over and above its reinvestment needs, cash that can be utilized for overall corporate purposed. This kind of real, hard cash flow enabled *Singleton* to buy up his company's stock when it was lying on the bargain counter. It has enabled *Teledyne* to reduce debt to the point where it amounts to only about 22% of total capital as against 32% and 52% for conglomerated like *ITT* and *Gulf & Western.*

Of course, every management wants—or says it wants—a high return on its capital. *Henry Singleton* wants something more: a *cash* return. *Singleton* won't pay cash dividends to his own shareholders but he expects them from his company presidents—all 129 of them—over the long run. *Roberts* says: "Net income without cash is not necessarily net income. We build cash generation into the system of paying our managers. Bonuses can be 100% of base salary."

If it is curious that a man who started as a scientist and became an operating man should finally make his greatest mark in finance, *Singleton* has nevertheless done just that. American business is still gripped with a mania for bigness. Companies whose stocks sell for five times earnings will think nothing of going out and paying 10 or 15 times earnings for a nice big acquisition when they could tender for their own stock at half the price. Shrinking – al la *Teledyne*-still isn't done except by a handful of shrewd entrepreneurial companies.

You can explain quite simply what *Singleton* did financially when stocks like *Teledyne* sold for 40, 50, or 60 times earnings he used his high-priced stock as currency to buy other companies relatively cheaply. Then, when his own stock became cheap after the conglomerate crash of 1969 he went in and bought enough of it to shrink the capitalization back to where it was when *Teledyne* had been a much smaller company. It was as though he had been able to renegotiate his earlier purchases at 85% off the original prices. He did so not by selling off assets—the more conventional way of shrinking capitalization—but first by borrowing, then by husbanding cash from operations.

More recently, *Singleton* has been turning his hand to the stock market. He was thrust into the role of portfolio manager quite by accident. It might never have happened, he says, if *Teledyne's Argonaut* insurance subsidiary had not got into serious trouble writing medical malpractice insurance in 1974. *Singleton* converted all his insurance portfolios into liquid cash to be ready for a disaster. The disaster never came. The job or reinvesting faced him and he decided to be innovative and during in his approach there, too. No investing fads for him. "The idea of indexing isn't something I believe in or would follow," he says with scorn.

In choosing stocks, he rejected Wall Street dogma and relied on his own experience. *Teledyne* had a below-average-multiple he was sure would rise in time. Many other conglomerates were in the same situation. *Singleton* decided to buy those he felt were well run and undervalue. That analysts were shunning other conglomerates as they shunned Teledyne only made it easier for him to get a good price.

Singleton converted all his insurance portfolios into liquid cash to be ready for a disaster

Singleton's biggest move was to put over $130 million—25% of his equity portfolio–into *Litton*. *TDY* now holds 27% of *Litton*, 9.3 million shares, at an average cost of about $14; there is 69% of a share of *Litton* behind every share of *Teledyne*. *TDY's Litton* holdings are worth $270 million; and still 25% of its insurance company's equity portfolio.

"A fabulous ($140 million) gain," says *Chairman Fred R. Sullivan* of *Walter Kidde & Co.*, "but when *Henry* first put all that in one stock I thought he'd gone crazy." Fellow *Litton* alumnus *Sullivan* didn't think *Singleton* crazy, however, when he bought 19% of *Walter Kidde*.

I felt *Litton* was a sound investmet," *Singleton* says. "It's good to buy a large company with fine businesses when the price is beaten down over worry about one problem." (He refers to *Litton's* costly and protracted shipbuilding fracas with the *U.S. Navy*) He adds "*Litton's* problem was not a general one but an isolated problem—as ours was with *Argonaut Insurance*. To me it was hard to believe the heads of a $3 billion or $4 billion business would not be able to handle one business problem."

Currently *Singleton* has over 50% of his equity portfolio in Conglomerates.

They include *Curtis-Wright, Studebaker-Worthington, Northwest Industries, TRW, Cost Industries, Dart Industries, Norris Industries, GAF, Eltra*. All these conglomerates are companies in fields that are related to *TDY's* own experience. *Singelton* has shunned services, hotels, restaurants, land—that kind of thing. He has bought many insurance companies, including *Aetna Life & Casualty* and *Lincoln National Corp*.: Insurance is a business *Singleton* knows well.

Singleton also has a block of oil stocks with good gains, including *Mobil* and *Standard Oil of Indiana. TDY* companies go geological, exploration and make drilling rigs; so again, he has chosen a field he clearly understands.

Singleton is still waiting for the payoff on Teledyne's big chunks of specialized companies. *TDY* owns 31% of *Brockway Glass*, buying more while the stock drops as he did with his own shares and with *Litton*. He also holds 22% of *Reichhold Chemicals*, 7% of *Federal Paper Board*; 16% of *National Can*, 6% of *Rexnord*.

Only in *Litton* does *Teledyne* have a spectacular gain—but that unrealized gain alone amounts to $9 on every *Teledyne* share. Nor is *Singleton* ruffled because he hasn't yet made a killing in *Kidde* or *Reichold* or *National Can.* The market, he feels, will in the end reward his patience with a higher price earnings ratio on higher earnings. After all, look how the market came in the end to give his own stock the nod.

Singleton has long since put to rest the speculation that he was accumulating shares to go for control of *Litton* and the other companies whose stocks he was buying. People who speculated that way were making conventional judgments. That is the way most *conglomerateur*s work; buy enough stock to get a good look at the books and a feel for the situation, then go for control via a tender offer. But *Singleton* isn't like most *conglomerateur*s.

Listen to his reasoning on the subject of tenders:

"In this climate, where tender offers mean overpaying by managements which want to grow at any price, I prefer to buy *pieces* of other companies or our own stock or expand from within. The price for buying an entire company is too much. Tendering at the premiums required today would hurt, not help, our return on equity, so we won't do it."

Where many businessmen say that it is cheaper—even at big premiums over the market price—to buy rather than to build, *Singleton* is saying, why pay ten times earnings in a tender for a company when I can buy pieces of companies for six times earnings and my own stock for five times earnings? Rigid logic that, but not the fashionable view.

Singleton may not have to wait forever to be taken out of some of these companies at a good profit. Last year *Teledyne* bought a block of 450,000 shares of its own stock--$40. 1 million worth at the then-going price of $90—from *American Financial Corp.*, a Cincinnati-based financial holding company. Having studied *Singleton*, *American Financial* bosses knew he would be a logical buyer for the shares when he had the cash. And so we have the clue to what may be *Singleton*'s trump card with his stock portfolio. He may simply be waiting until the managements come to the same conclusion he came to: **A company's own stock is its best investment.** When that day comes he'll be happy to sell their own stock to them. At a nice profit, of course. But potential raiders, beware. *Singleton* says he couldn't sell any of his blocks to would-be acquisitors.

Liquid as *Teledyne* is, why does *Henry Singleton* still flatly refuse to disburse any cash to his own stockholders—except in exchange for their shares? A few years ago, when *Teledyne* stock was selling around 10, one of his closest associates begged him to pay at least a token dividend. *Singleton* refused. He still refuses. To begin with, he asks, what would the stockholder do with the money? Spend it? *Teledyne* is not an income stock. Reinvest it? Since *Teledyne* earns 33% on equity, he argues, he can reinvest it better for them than they could for themselves. Besides, the profits have already been taxed; paid out as dividends they get taxed a second time. Why subject the stockholders' money to double taxation?

In his somewhat regal manner, *Singleton* says: "Our people don't want any more income. They want to see increases in book value and ultimately in the price of the stock when the underlying buildup in values is reflected." How does *Singleton* know what "our people" want? Not by asking them. He simply assumes that he is running a certain kind of company and those who like his style will invest in it. Those who don't can go elsewhere.

Having failed to get a cash dividend, some *Teledyne* shareholders now are asking for a stock split. All the other Big Board stocks over $100 a share have announced one, except *Superior Oil*, *Dome Mining* and *Teledyne*.

"I have nothing against a stock split," says *Singleton*. "I did two in the Sixties, but this is really a <u>nonevent.</u> So is the stock dividend. It is really paper shuffling. In that case why pay out a stock dividend—as *Teledyne* has since 1967?

Singleton was a bit flustered at the question. Clearly, he didn't believe in shuffling pieces of paper, but in this case he had been bowing to convention. "The shareholders are used to getting an annual stock dividend and, what the heck, they don't do any harm." He replied a bit sheepishly. A rare *Henry Singleton* concession to other people' sense of reality!

What is *Henry Singleton's* own sense of economic reality? At a time when many top businessmen are gloomy about the future of the country, *Singleton* has this to say: "I'm convinced the coming recession will not be too deep or long and we will have a good recovery following it. It is so fashionable to complain about the restrictive regulatory environment in Washington. That makes people forget how very much worse things could be. Long run, I am happy about the prospects for America, for business and for *Teledyne*."

One of the things that put people off about *Henry Singleton*, that has hurt his stock on Wall Street, is his Delphic way of talking with outsiders. He can be charming when he wants to be so, but charmingly vague. He speaks in general terms, leaving the questioner to fill in the vital details. For example:

"I believe in maximum flexibility, so I reserve the right to change my position on any subject when the external environment relating to any topic changes, too." A CEO's most important job, he goes on, is to anticipate trends and act to help his company.

Meaning in the present context? In modifying behavior based on what is outside, so *TDY* will not be hurt in the recession," *Singleton* replies. "Our economy appears to suffer from a general leveling, which typically precedes an economic downturn. In the newest reports of our companies I see a slight reduction in the anticipated amount of sales in many unrelated market." He is saying: If the recession isn't any worse than we expect it to be, *Teledyne* isn't going to suffer much, probably a few mediocre quarters at worst.

An now for the last of the three questions we posed early in this story: Can *Henry Singleton* keep it up? He does, after all, face a recession, he has shrunk his capitalization to a probably irreducible core and he has as yet no high priced stock to use for a new bout of acquisitions, has he then played all his cards? Not necessarily. *Teledyne* still has some strong things going for it. Its high return on capital, for example. As long as it can continue growing from within on a tight capital base and earning anything close to its present high rate of return, *Teledyne* functions as powerful compound income machine. Money invested and reinvested at a 30% return doubles itself in less than three years; and *Teledyne* is earning well over 30%!

Henry Singleton hates projections gut a little simple arithmetic might be in order here. Without allowing the effect of stock dividends, *Teledyne*'s equity per share will be close to $90 by the end of 1979. It should grow to $200 a share within a few years. What happens if *Singleton* can't find enough projects to invest in that will produce the kind of return he demands on all the money? In that case, unconventional as ever he will probably slow his company's growth and look for other things to do with the surplus cash. Like what? Well, with good companies selling at only five times earnings, *Teledyne* can buy their shares and, in effect, sit with a 20% return while it waits for the stock market to come through with a more generous multiple. Why expand in new or existing businesses if the potential return is less?

Then, there is the possibility that *Teledyne* might become a market favorite again and enjoy a higher multiple. At 12 times this year's probably earnings *Teledyne* would sell at close to $300 a share. At that price, *Singleton* might decide to begin acquiring once more. If the market collapse again, look for him to be out there buying his own stock in huge handfuls. Even last year he bought in 7.3% of *TDY's* shares.

Finally, *Teledyne* could go the venture capital route. It has already taken a tentative step in that direction in 1978 and earlier, *Teledyne* joined *Arthur Rock*, one of its directors and largest stockholders, in backing *Qantel*, maker of small business computers. *Teledyne*'s commitment was of $1 million, but if *Quantel* should show signs that it can give *Singleton* the 30% returns he likes, he could up the ante.

But all this is sheer speculation. Nobody knows precisely what *Henry Singleton* is going to do next year or next decade because nobody knows what the world is going to be like next year or next decade.

As *Singleton* himself puts it: "I do not define my job in any rigid terms but in terms of having the freedom to do what seems to me to be in the best interests of the company at any time." As his record shows, this is no empty phrase.

If there is a serious weakness in this otherwise brilliant picture, it is this: *Teledyne* is not so much a system as it is the reflection of one man's singular discipline and his contrary style of thinking and acting. *Henry Singleton* is trim and healthy at 62 and has no interest in retiring, but man is not immortal. "*George Roberts* could run this company without me," *Singleton* replies when asked about *Teledyne*-without-*Singleton*. Time will tell.

At any rate, *Singleton* has found a way to run a multi-billion-dollar company in an entrepreneurial, innovative way. Only a handful of giant companies have succeeded in doing that. *General Electric, General Motors, IBM, 3M, Dow Chemical* perhaps. It may sound farfetched but *Teledyne* has a fair chance of ending up in that league.

Leon Cooperman, Defends Dr. Singleton in Response to Business Week Article (See page 4)

Mr. Leon G. Cooperman, C.F.A., Partner of *Goldman, Sachs & Co.* replies to the above Business Week Article.

An Open Letter to the Editor of Business Week.

I have been a reader of your publication for about 20 years, and only on one previous occasion (cover story, Death of Equities, August 13, 1979) was I sufficiently aroused to write to the Editor. Now your May 31, 1982 cover story on *Teledyne*, Inc. and its chairman, *Dr. Dr. Henry Singleton*, is a second occasion.

I found the article to demonstrate a blatant lack of understanding of the company (bordering on the irresponsible in its thrust as well as a lack of appreciation of what, in my opinion, is one of the greatest managerial success stories in the annals of modern business history. The reporter simply portrays the company's success to date as the result of an acquisition binge in the 1960s and a stock-buying surge in the 1970s, the latter being financed by "siphoning" off the cash flow of its operating businesses to get where it is today. These are gross simplifications of rather elaborate, well-conceived, and, most importantly, well-executed business judgments and strategies for better than 20 years.

Speaking in general terms, *Dr. Singleton* has followed the principle of allocating cash to assets (real or financial) that offer, in his view, the highest potential return given the investment risk involved. You criticize this shifting of capital from real to financial assets. An intelligent investor would recognize that, in point of fact, that is precisely the responsibility of management. More importantly, *Dr. Singleton* has not, as have many other chief executive officers, restricted himself solely to real assets but rather has built a company able to take advantage of returns in both financial markets and the real sector.

More specifically, as a *Teledyne* observer, I can identify at least five different strategies utilized to foster the company's development over the past 20 years.

Strategy One: Growth Through Acquisition

In the period 1960-1969, *Dr. Singleton* recognized the unusually low cost of equity capital the company enjoyed and relentlessly used the company's common stock as a currency to acquire. In this period of acquisition growth (in excess of 130 acquisitions), the company's sales and net income increased from essentially zero to about $1.3 billion and $58.1 million, respectively.

Strategy Two: Intensively Manage Your Business

In the period of 1970-1981, *Dr. Singleton* and his management team demonstrated an ability to manage second to none. Net income, without the benefit of any acquisitions, rose from $61.9 million in 1970 (a peak year) to $4,412.3 million in 1981, a compound growth of approximately 19%. (In that period, the S&P 400 earning grew at a 12% rate off a depressed base.) Net income of the 100% owned manufacturing businesses rose more than six-fold in that period, to $269.6 million from $46.7 million. (Exhibit 1 presents a breakdown of operating earnings.) The company's ratios of profitability (Exhibit 2) are among the best in American industry—return on equity ranged for 25% to 30%. In the past few years, and its return on total capital exceeds 20%, both approaching twice that of American industry. In the last few years, each line of business in the company's manufacturing sector has earned in excess of 50% before taxes on identifiable assets, with pretax profit margins in the manufacturing sector in the area of 15%.

Do you possibly believe that this record of growth and profitability could be achieved in a competitive world economy with a tactic of "siphoning-off" the operating earnings to finance the build up of a stock portfolio? Doubtful. And in fact, as seen in Exhibit 3, the company while not one of the more aggressive spenders on plant and equipment, has spent well in excess of its cumulative depreciation in the period of 1973-1981. More to the point, I would suggest that a conservative approach to capital additions may have been more appropriate given the economic realities of the world may have been more appropriate given the economic realities of the world economy, which is today awash with excess capacity and it likely to recover in a sluggish fashion.

Strategy Three: Repurchase Your Undervalued Equity

Just as *Dr. Singleton* recognized he had an unusually attractive stock to trade with in the 1960s. he developed the belief that the company's shares were undervalued in the 1970s. In the period 1971-1980, you correctly point out that the company repurchased approximately 75% of its shares. What you did not point out is that despite the stock's 32% drop from its all-time high reached in mid-19871 to the time of your article, the stock price remains well above the highest pride paid by the company (and multiples above the average price paid) in this ten-year period. Contrary to many corporate managements whose stock repurchases have proven ill-timed, *Teledyne* has been extremely astute from both a stock market stand point and a return on investment approach. The effect on earnings per share has been dramatic, with earnings-per-share growth about twice that of net income in the 1971-1981 period.

Strategy Four: Stocks Preferable to Bonds for the Taxable Investor

You seem to miss the key aspect of *Dr. Singleton*'s emphasis of common stocks in early 1976. In owning an insurance company, *Teledyne*, like other insurance companies, has to invest its cash flow and can do so in a number of different financial and non-financial assets.

At a time when most insurance companies were still reeling from the devastating effects of the vicious 1973/74 bear market and were busy buying 9.5% - 10% long-term bonds over common stocks, *Teledyne* determined that stocks were more attractive than bonds.—particularly on an after tax basis given the tax preferred nature of dividend income from on corporation to another (85% excluded) and the better prospect of capital appreciation and income growth over time. (Exhibit 4 traces *Teledyne*'s movement into stocks beginning in 1976.) The record thus far suggests that management's judgment was correct as indicated in Exhibit 5. The spread in asset performance is dramatic and quite relevant given the size of the company's asset base.

Lastly, I would point out (Exhibit 4) that the current market value of *Teledyne*'s invested assets in stocks and fixed maturity investments is substantially above its cost basis—a situation very few insurance companies enjoy today because few had his prescience to emphasize stocks over bonds.

Strategy Five: Build Cash for Uncertain Times

At a time when American industry is saddled with the most illiquid financial position and highest debt load in the post-World War II period, *Teledyne* is in its most liquid financial position ever. I can assure you it is not an accident but rather the result of a correct assessment some 12 months ago of our current economic problems. The company currently has cash and equivalents of nearly $1 billion, no bank debt, and less then $5 million per year of maturing long term debt in the ten-year period, 1984-1993. In addition, at recent levels of profitability, the company (excluding non-cash equity accounting earnings) generates approximately $400 million per year of cash flow.

In sum, then, you can see the company has utilized not only a multiplicity of strategies (as opposed to just two), but the timing of their adoption has been nothing short of brilliant. While I (and they) will readily concede to having their share of mistakes (*International Harvester* being the most visible), your article chose to concentrate on what appears to be a half-dozen examples of isolated difficulties without any consideration to the overwhelming successes of the company. Their record of operating and asset management is second to none. Their strategy in no way has been completely "hooked to cash" as you portray, and I believe your article is a poor excuse for good journalism and borders on a betrayal of the public confidence. While a more effusive person could have "pumped up" your writer, *Dr. Singleton* marches to his own drummer with a concentration of blood around his brain not his mouth.

The cover picture of the May 31st edition portrays *Dr. Singleton* as the mythical Greek character, *Icarus*, who fell to his death when he flew too close to the sun and his was wing melted. However, I see *Dr. Singleton* (and his management team) as a group of exceedingly competent industrialists, working for the benefit of the *Teledyne* shareholder (yes, I am one of them), and my only regret is that I can not find more *Henry Singletons* and *Teledynes* in which to invest.

Leon G. Cooperman, C.F.A, Partner and Chairman, Investment Policy Committee May 25, 1982.

EXHIBIT 1	**1971**	**1972**	**1973**	**1974**	**1975**	**1976**	**1977**	**1978**	**1979**	**1980**	**1981**
Sales											
Industrial	376.0	404.3	487.8	599.6	613.3	701.8	814.5	914.6	936.4	1017.0	1203.7
Specialty metals	263.9	287.2	375.7	433.2	455.0	508.3	600.8	698.0	841.2	898.6	870.0
Aviation and electronics	331.5	366.5	408.9	487.0	460.3	453.4	491.1	539.1	642.6	726.8	865.2
Consumer	130.6	158.1	183.1	180.2	186.4	274.1	303.4	289.9	285.4	284.0	298.7
TOTAL SALES	**1102.0**	**1216.1**	**1455.5**	**1700.0**	**1715.0**	**1937.6**	**2209.8**	**2441.6**	**2705.6**	**2926.4**	**3237.6**
Insurance and finance revenues	446.6	512.6	601.5	732.3	758.0	703.7	750.7	779.1	893.1	985.3	1104.4
TOTAL Revenues	**1548.6**	**1728.7**	**2057.0**	**2432.3**	**2473.0**	**2641.3**	**2960.5**	**3220.7**	**3598.7**	**3911.7**	**4342.0**
Income Before Taxes											
Industrial	*NA*	*NA*	*NA*	*NA*	80.3	98.4	134.4	130.3	148.2	156.0	216.2
Specialty metals	*NA*	*NA*	*NA*	*NA*	37.6	69.8	81.9	115.7	135.2	146.7	147.5
Aviation and electronics	*NA*	*NA*	*NA*	*NA*	41.9	57.3	68.0	72.7	83.3	86.3	112.5
Consumer	*NA*	*NA*	*NA*	*NA*	28.8	45.2	49.5	32.1	40.7	35.6	40.9
TOTAL Operating profits					**188.6**	**270.7**	**333.8**	**350.8**	**407.4**	**424.6**	**517.1**
Expenses (Income)											
Corporate expense					8.9	24.8	16.8	14.1	16.5	22.2	29.6
Interest expense	12.3	12.8	22.2	22.6	22.3	18.8	16.0	15.8	12.5	21.5	26.3
Interest and dividend income	-2.9	-4.2	8.2	-10.5	-10.4	-9.2	-11.6	-16.8	-22.7	-27.8	-49.4
Pretax Income	57.2	60.1	78.0	127.0	167.9	236.3	311.6	357.6	401.1	408.7	510.6
Provision for taxes	-27.1	-29.3	-39.4	-64.2	-85.3	-123.0	-159.8	-181.6	-193.8	-194.2	-240.9
Income of consolidated companies	**30.1**	**30.8**	**38.6**	**62.8**	**82.6**	**113.3**	**151.8**	**176.0**	**207.3**	**214.5**	**269.7**
Equity in NI of unconsol. Cos.											
Insurance companies	27.3	28.5	27.3	-31.3	19.1	21.6	31.8	89.5	120.9	78.2	70.6
Equity accounting	0.0	0.0	0.0	0.0	0.0	1.9	11.1	-16.9	43.8	51.0	72.0
TOTAL	**27.3**	**28.5**	**27.3**	**-31.3**	**19.1**	**23.5**	**42.9**	**72.6**	**164.7**	**129.2**	**142.6**
Net Income	**57.4**	**59.3**	**65.9**	**31.5**	**101.7**	**136.8**	**194.7**	**248.6**	**372.0**	**343.7**	**412.3**

Net per share	$0.62	$0.67	$1.01	$0.55	$2.57	$4.75	$7.28	$9.40	$14.71	$15.24	$19.96
Average shares outstanding, millions	88.8	85.8	63.3	53.2	38.8	28.4	26.5	26.4	25.3	22.6	20.7
Chg. In Avg. OS in Pct.		***-3.4%***	***-26.2%***	***-16.0%***	***-27.1%***	***-26.8%***	***-6.7%***	***-0.4%***	***-4.2%***	***-10.7%***	***-8.4%***

(a)(includes $28.4 million of unusual capital gains related to Elira Corp. and Studebaker-Worthington takeovers. (b) Due to write-off by *Litton*.

(c) Included $15.6 million nonrecurring contribution from Curtis-Wright resulting from stock exchange with Kennecott copper

Exhibit 2: Comparison of Selected Financial Characteristics (Data through 1981)

	***Teledyne*, Inc.**		**S&P 400**		***Teledyne* Relative to S&P 400**	
	10-Year	3-Year	10-Year	3-Year	10-Year	3-Year
EBIT Margin (a)	13.5%	20.5%	11.9%	11.3	1.13x	1.81x
Return on Assets	18.1	24.5%	14.5	14.6	1.25	1.68
Return on equity	19.3	25.9	14.2	15.3	1.36	1.69
Sustainable growth (b)	32.1	34.9	9.6	10.3	3.34	3.39
Book Value Growth	32.7	35.0	8.8	9.3	3.72	3.76
EPS Growth	50.0	26.0	10.8	7.5	4.63	3.47
Leverage	1.91x	1.64x	1.86x	1.90x	1.03x	0.86x

(a) EBIT is earnings before interest and taxes.
(b) ROE times retention rate.

Exhibit 3: Capital Spending and Depreciation/Amortization, 1973-1981 in (millions)

Year	**Capital Spending**	**Depreciation & Amortization**
1973	$50.9	46.3
1974	45.0	46.5
1975	38.9	52.2
1976	37.3	53.4
1977	60.4	48.2
1978	102.0	57.2
1979	92.5	67.4
1980	99.2	78.9
1981	133.0	90.8
Cumulative Total	**$658.4**	**$541.9**

Exhibit 4: Insurance Companies' Investments, 1975-1976 and 1981 in $millions

	1975	1976	1981
Unicoa corporation and Subsidiaries			
Fixed maturities, at amortized cost (a)	$283.6	$242.9	$315.6
Equity securities, at market (b)	81.0	232.3	646.1
Mortgage loans on real estate	136.2	121.1	68.1
Real estate, at cost, less accum. depreciation	45.0	46.4	31.9
Other Loans and investments	23.7	17.5	32.4
Total Investments	**$579.5**	**660.2**	**1,094.1**
Casualty Insurance Subsidiaries			
Fixed maturities, at amortized cost (c)	$576.4	402.0	296.2
Equity securities, at market (d)	77.1	311.6	1,822.1
Other Investments	14.0	26.6	6.8
TOTAL Investments	**$667.5**	**$740.2**	**$2,125.1**

(a) Respective market values are $259.0, $239.0 and $283.5 in millions.
(b) Respective costs are $83.1, $214 and $479.6 million
(c) Respective Market values are $490.0, $394.0 and $265.7 million
(d) Respective costs are $76.4, 293.5, $1,279.3 million.

Exhibit 5: Comparison of Stock and Bond Returns, 1976-1981

	Average Annual Return	
Year	**S&P 500**	**AA Industrials**
1976	23.6%	18.2%
1977	(7.2)	3.3
1978	6.4	(4.3)
1979	18.2	(12.2)
1980	31.5	(5.5)

1981	(4.9)	(1.7)
Average 1976-1981	***12.5***	***(1.2)***

TELEDYNE **SELF-TENDER OFFERS 1972-1984**

Announcement Date	Share Price On Prior Day ($)	Tender Price ($)	Premium (%)	Shares* Offered (Millions)	Shs** Tendered (Millions)	OS. Prior to Tender (Millions)	Shares Tendered As A Percent of Outstanding
9/14/72	$16.38	$20 Cash	22%	1	8.9	31.9	27.9%
12/13/73	$10.88	14 Cash + 50 cents Broker Fee	28.7	4	1.6	23.2	6.9
5/31/74	10.75	20 p.a. 10% deb. OID 67.75% = 13.55	26	1	3.9	22.2	17.6
12/4/74	7.88	16 p.a. 10% deb. OID 68.875% = 11.02	40	1	1.9	18.3	10.4
4/30/75	12.25	18 Cash	47	1	3.6	18.4	19.6
2/6/76	32	40 Cash + 25 cents Broker Fee	25	1	2.5	13.6	18.4
5/20/80	95.13	160 p.a. 10% deb. OID 80.875% = 129.40	36	1	3.0	13.9	21.6
5/9/84	155.75	200 Cash	28	5	8.7	20.3	42.9

*Always had right to accept more. ** All shares tendered accepted

10-Year Treasury-Note Yields rose from 5.95% in 1971 to 10.24% in 1980 and then to almost 16% in 1981. Stocks were preferable to bonds during this period.

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A Case Study In Financial Brilliance, *Teledyne*, Inc., *Dr. Henry* E. *Singleton* by Mr. Leon G. *Cooperman*, Chairman and CEO of Omega Advisors, Inc. presented at the Value Investing Congress on November 28, 2007

Exhibit 10: Let's Take a Closer Look at the 5/1984 Tender

5/9/84 close

$155.75 x 20.3 mm shares = $3.16 billion Market Cap

Buyback = 8.7 mm shares x $200 = $1.74 B

New Shares Outstanding = 11.6 mm (42.9% reduction)

90 Days Later

Stock Price $300 x 11.6mm shares = $3.48 B Market Cap

So despite having $1.74 B less assets, the company's market cap rose by $320 mm! In that period, the overall market was largely unchanged.

I would also not that *Dr. Singleton* used cash in the offer and not debt. He avoided getting caught with high cost fixed rate paper at a time when interest rates were set to decline.

Exhibit 11: Quoted of *Dr. Henry Singleton* in the February 20, 1978 Issue of Forbes Magazine

“There are tremendous values in the stock market, but in buying stocks, not entire companies. Buying companies tends to raise the purchase price too high. Don’t be misled by the few shares trading at a low multiple of 6 or 7. If you try to acquire those companies the multiple is more like 12 or 14. And their management will say, “If you don’t pay it, someone else will.’ And they are right. Someone else does. So it is no acquisitions for us while they are overpriced. I won’t pay 15 times earnings. That would mean I would only be making a return of 6 or 7 percent. I can do that in T-bills. We don’t have to make any major acquisitions. We have other things we are busy doing.

As for the stocks we picked to invest in, the purpose is to make as good a return as we can. We don’t have any other intentions. We do not view them as future acquisitions. Buying and selling companies is not our bag. Those who don’t believe me are free to do so, but they will be as wrong in the future as they have been about other things concerning *Teledyne* in the past.”

Exhibit 18: Observed Types of Buybacks

Type 1: No opinion on valuation, but management’s attempt to merely offset option dilution to avoid shareholder flack over option creep.

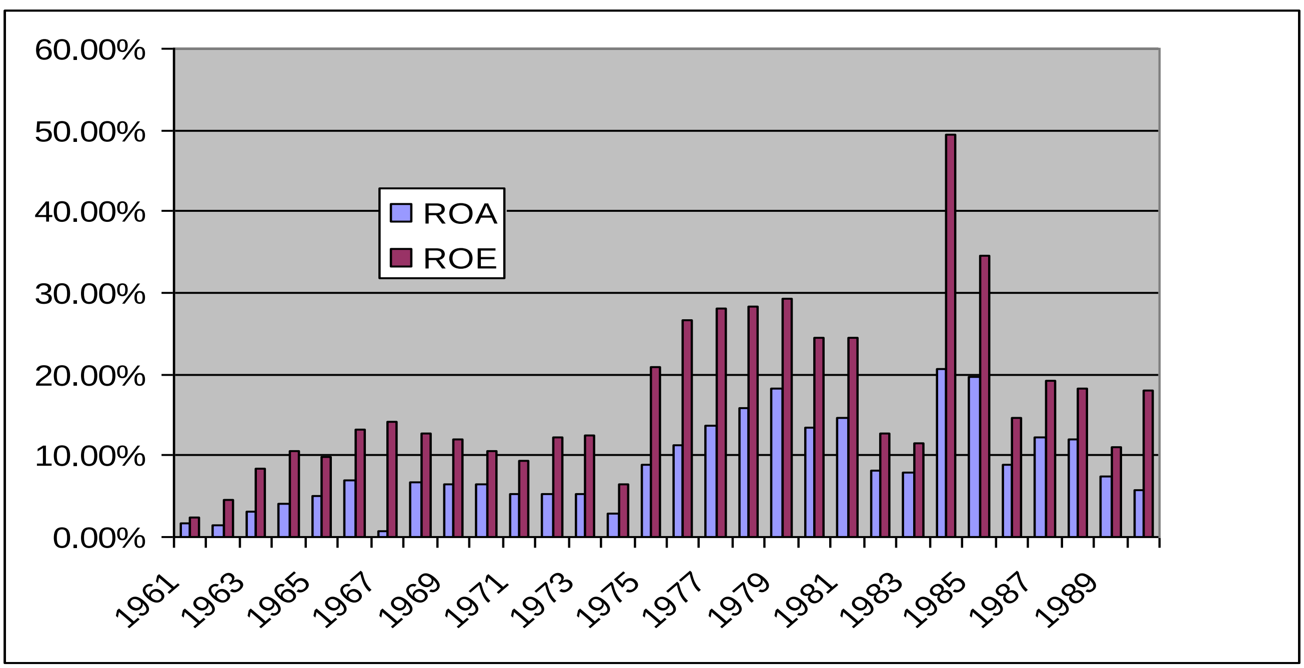
Type 2: Very nefarious conduct on the part of management where companies actively buy back stock to accommodate executives happy to exercise options and sell their stock back to the company at better prices than they would have otherwise received.

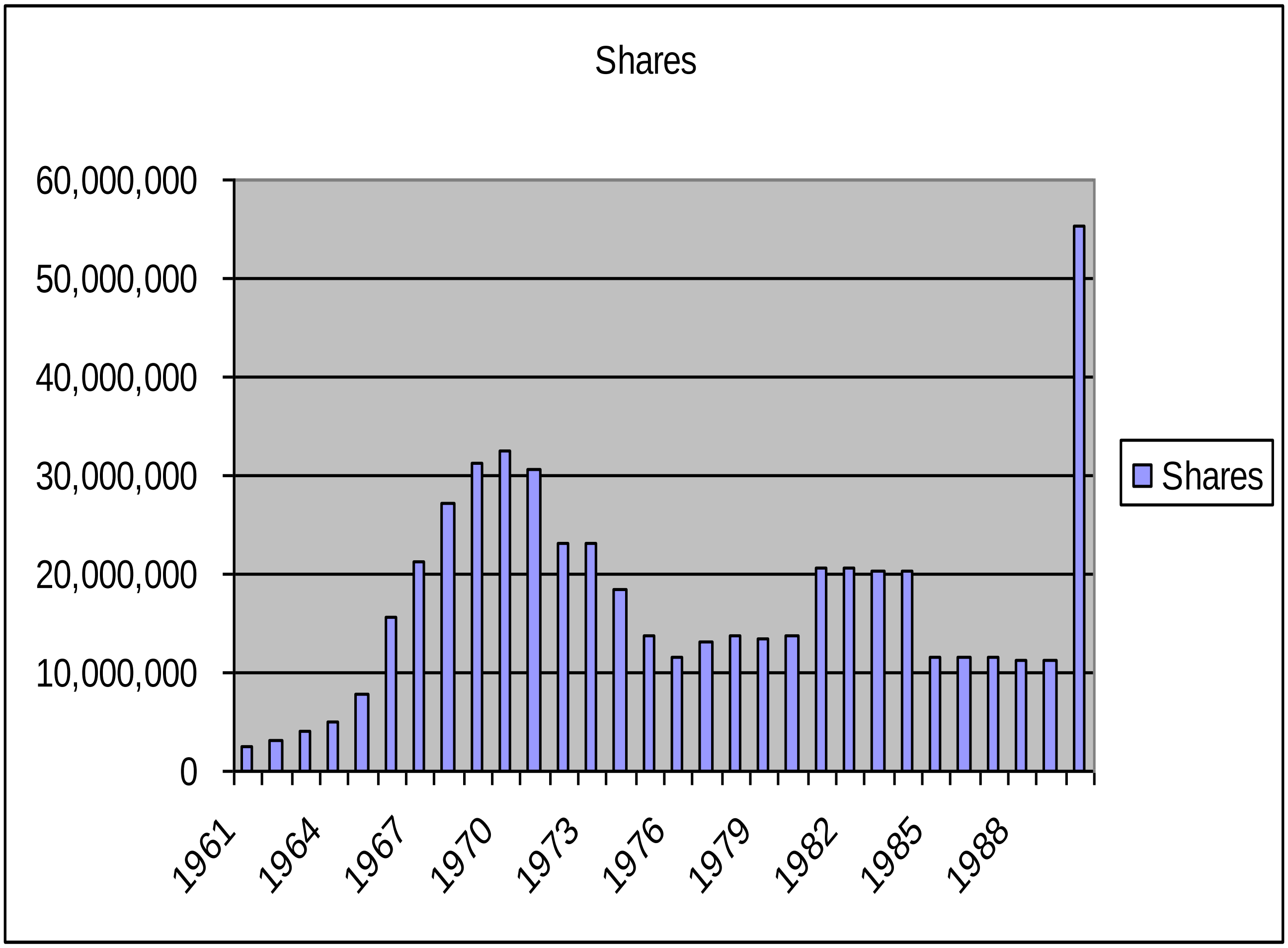
Type 3: Management has no opinion on valuation, but is simply returning money to shareholders via repurchase as opposed to a dividend. The reasoning goes as follows: dividends are forever whereas if corporate circumstances change, they can always suspend the buyback program. When I hear that I remind managements that with the average stock yielding 2%, for every share a corporation buys back, they are buying back 50 years of dividends in one shot. In our view, if a reasonable dividend turns out to be a mistake, the corporate purchase program would turn out to be a disaster.

Type 4: The last type of repurchase program is the one that we like and the one that *Warren Buffett* obviously identified with when he made his comments in the early 1980’s. That type of program is where managements have correctly identified a mispricing of their equity and by retiring shares they are going to leverage returns to the long-term equity holder. Regrettably, all too few managements have shown an astuteness in identifying such valuation.

Exh. A: Financial Summary of *Teledyne* (Consolidated in $ Mil. TYD)	**1961**	**1962**	**1963**	**1964**	**1965**	**1966**
Sales	$4.50	$10.40	$31.90	$38.20	$86.50	$256.80
Net Income	0.06	0.16	0.73	1.44	3.4	12
Net Income (loss) Per Share	$0.01	$0.05	$0.16	$0.28	$0.42	$0.77
Assets	3.7	10.8	23.9	35	66.5	170.4
Shareholders' Equity	$2.50	$3.50	$8.60	$13.70	$34.80	$90.20
Outstanding Shares	2,385,826	3,188,569	4,024,294	4,912,647	7,908,056	15,718,062
ROA	*1.62%*	*1.48%*	*3.05%*	*4.11%*	*5.11%*	*7.04%*
ROE	*2.40%*	*4.57%*	*8.49%*	*10.51%*	*9.77%*	*13.30%*
Stock price close, * - split						$85.60
in $ Mil.	**1967**	**1968**	**1969**	**1970**	**1971**	**1972**
Sales	$451.10	$806.70	1,294.80	1,216.40	1,101.90	1,216.00
Net Income	21.7	40.7	60.1	62	57.4	59.3
Net Income (loss) Per Share	$1.05	$1.51	$1.89	$1.91	$1.48	$1.58
Assets	3337.7	604.2	944.2	971.1	1,064.70	1,127.80
Shareholders' Equity	$153.10	$317.40	$504.90	$589.50	$606.10	$483.90
Outstanding Shares	21,293,445	27,180,634	31,227,967	32,496,026	30,616,374	22,972,514
ROA	*0.65%*	*6.74%*	*6.37%*	*6.38%*	*5.39%*	*5.26%*
ROE	*14.17%*	*12.82%*	*11.90%*	*10.52%*	*9.47%*	*12.25%*
Stock price close, * - split	$139.25*	107.00	39.00	24.75	23.75	19.75
in $ Mil.	**1973**	**1974**	**1975**	**1976**	**1977**	**1978**
Sales	1,455.50	1,700	1,715	1,937.60	2,209.70	2,441.60
Net Income	66	31.5	101.7	136.8	194.8	248.5
Net Income (loss) Per Share	$2.45	$1.31	$6.09	$8.90	$7.28	$19.13
Assets	1,227.40	1,108.90	1,136.50	1,225.60	1,430.50	1,566.70
Shareholders' Equity	$532.80	$477.70	$489.30	$513.60	$693.20	$875.40
Outstanding Shares	23,209,895	18,401,006	13,611,930	11,418,004	13,031,271	13,896,139
ROA	*5.38%*	*2.84%*	*8.95%*	*11.16%*	*13.62%*	*15.86%*
ROE	*12.39%*	*6.59%*	*20.78%*	*26.64%*	*28.10%*	*28.39%*

Stock price close, * - split	$14.40	10.25	22.10	69.50	62.00	96.90
in $ Mil.	**1979**	**1980**	**1981**	**1982**	**1983**	**1984**
Sales	2,705.60	2,926.40	3,237.60	2,863.80	2,979	3,494.30
Net Income	372	343.8	421.9	269.6	304.6	574.3
Net Income (loss) Per Share	$14.71	$15.24	$20.43	$13.05	$14.87	$37.69
Assets	2,027.20	2,552.30	2,905.50	3,290.70	3,852.20	2,790.70
Shareholders' Equity	1,275.40	1,401.30	1,723.20	2,111.10	2,641.20	1,159.30
Outstanding Shares	13,462,551	13,777,636	20,657,531	20,657,531	20,370,531	20,370,561
ROA	*18.35%*	*13.47%*	*14.52%*	*8.19%*	*7.91%*	*20.58%*
ROE	*29.17%*	*24.53%*	*24.48%*	*12.77%*	*11.53%*	*49.54%*
Stock price close, * - split	$113.75	216.00	157.75*	129.40	167.30	246.00
in $ Mil.	**1985**	**1986**	**1987**	**1988**	**1989**	**1990**
Sales	3,256.20	3,241.40	3,216.80	3,534.60	3,531.20	3,445.80
Net Income	546.4	238.3	377.2	391.8	258.9	94.8
Net Income (loss) Per Share	$46.66	$4.07	$6.45	$6.81	$4.66	$1.71
Assets	2,766	2,719	3,091.70	3,268.20	3,463.50	1,666.10
Shareholders' Equity	1,577.40	1,636.60	1,976	2,138.40	2,326.90	523.50
Outstanding Shares	11,709,478	11,709,478	11,667,978	11,320,289	11,189,969	55,412,845
ROA	19.75%	8.76%	12.20%	11.99%	7.48%	5.69%
ROE	34.64%	14.56%	19.09%	18.32%	11.13%	18.11%
Stock price close, * - split	$330.40	301.50	304.00	332.00	343.25	





Splits and dividends of *Teledyne*, Inc. and Spin-off *(Source:* Distant Force *by Dr. George A. Roberts)*		
Year	**Date**	**Activity**
1967	7/18/67	X2 Split
	10/27/67	3.5% Div
1968	4/5/68	3.0% Div
1969	1/20/69	3.0% Div
	3/24/69	X2 Split
1970	2/20/70	3.0% Div
1971	2/19/71	3.0% Div
1972	3/3/72	3.0% Div
1974	4/26/74	3.0% Div
1975	5/26/75	3.0% Div
1976	5/27/76	3.0% Div
1977	5/18/77	3.0% Div
1978	6/2/78	10.0% Div
1979	4/6/79	8.5% Div

1980	4/15/80	5/4 Split
1981	3/25/81	3/2 Split
1990	3/2/90	5/1 Split

EDITORIAL COMMENTS

Editor: If you were astute like *Mr. Leon Cooperman* to invest alongside a great capital allocator like *Dr. Henry Singleton*, you would have reaped not only the benefits of shares repurchased below intrinsic value but also the improvement in operations. *Teledyne*'s return on assets for twelve years from 1975 to 1986 averaged 13.4%--an attractive return on total company resources.

An Analysis of *Teledyne*'s Operations

A concern as an analyst would be how the subsidiaries of *Teledyne*, which competed in competitive markets, were able to achieve and sustain such high returns. Would those returns be subject to regression to the mean and, thus, not be sustainable? Trying to avoid hindsight bias, one could make a case for buying *Teledyne* during its tender offers because of the confidence shown by management in the future success of their companies and the low price (typically 7-8 times earnings) offered. However, how would an investor hold on through out because most of the businesses operated in competitive, technologically changing industries. Why would the businesses generate high ROA and ROE for long five or more years? What, in other words, would be their sustainable competitive advantage?

Excerpts from Distant Force by *Dr. George A. Roberts*. (Highly recommended to learn more about *Singleton* and *Teleydne*. Below are quoted segments taken directly from the book.

The Education of *Dr. Henry Singleton*

During his years at *Litton*, *Henry* was exposed to *Tex Thornton's* philosophy of thrift and conservatism, which were part of his own philosophy as well.

Henry was more than a salesman, mathematician, engineer, inventor and tournament-class chess player. He was a student and an observer of the history of manufacturing. He studied the progress and growth of corporations from the days of *Henry Ford* to *General Motors* and how successful corporation grew by acquisitions. He studied the behavior of *Jimmy Ling* and others who were beginning to grow in this manner. He studied the *Littons, the TRWs, the LTVs , the City Investings, the Gulf & Westerns*, and today's largest of all conglomerated, *General Electric*.

Henry told me *(George Roberts)* how he had, in the 40s and early 50s, spent days in the offices of brokerage houses in New York and elsewhere, watching the ticker, thinking on how to get capital rolling efficiently, how shares were valued and traded, how companies with a steady growth rate are rewarded with an ever increasing price/earnings multiple.

Dr. Singleton's early faith that semiconductors would become the dominant factor in future electronics systems, even while this was still being debated by others in the industry, was a brilliant strategic choice. *Henry* also hired the right people who were highly technical skilled operators to develop areas which had a long term future such as integrated circuits.

***Dr. George Roberts* writes that *Dr. Singleton* had three ideas in creating and growing *Teledyne*.**

1. He recognized the importance of digital semiconductor electronics when this technology was in its infancy and by selective acquisitions created a strong base in this growing field on which to diversify his company.
2. The second was to acquire and organize a selection of financial companies within his company to provide the strong financial base which also allowed the rest of the financial world to recognize *Teledyne* as an important entity and potential client.
3. The third was his innovative use of stock buybacks to further strengthen the corporation and enhance shareholder value.

The Early Acquisitions

It is interesting to consider what was happening in that decade of the 60's. During and after the end of WWII there were all sorts of emerging new technologies, new ideas, new markets and new opportunities that hadn't existed before the war. There were many opportunities for small new companies to go into business during the war to provide the diverse products needed for the war effort, and many did so very successfully.

By the 1960s, many of these companies had matured into established profitable companies, and many of their owners were ready to relinquish control and do other things with their lives. Or they had reached the point where the needed more capital to continue to develop and were looking for ways to do that. Then along came a company such as *Teledyne*, with its high P/E ratio that was growing rapidly and was interested in acquiring them. It was an opportunity for these family owned companies to be acquired by *Teledyne*.

***Teledyne* had very clear standards that we followed in acquisitions:**

Early in the 1960s, *Singleton* had diversified his company from a largely aerospace, electronics and systems company into the geophysical and oceanographic fields which led to a strong presence in the petroleum industry, and then into many other industrial and commercial fields related to metals and machinery. Acquisitions involved metals companies, machine tool companies, semiconductors, integrated circuits, oil-field services.

Ending Our Program of Acquisitions

By 1969, *Henry* and *George Roberts* decided the prices for other companies we might be interested in were getting too high. This was partly due to increasing competition for these companies by conglomerates such at *TRW* and others who were growing the way we were. Also, after more than a decade of acquisitions by conglomerates, including ourselves, many of the better companies had already been acquired from those available, and there were fewer companies that were really attractive to us.

Those companies we might want to acquire were also aware of the acquisition process that was going on and began asking more than we thought was reasonable. Contributing to our decision was the fact that a business recession was occurring at that time, growth in earning per share was declining and the stock market was depressed. And, since we had already acquired some 150 companies, *Henry* and I decided it was time to organize and consolidate what we already had. So we stopped our acquisition of manufacturing companies entirely, and because of this we no longer had need for those people, the finders, whose main activity had been finding and negotiating the buyout of suitable new companies.

Diversification into Insurance and Finance—*Henry Singleton*'s Second Great Purpose

Dr. Singleton learned from studying *General Motors Corporation* that for a corporation to grow and to have a strong financial base, it needed to have, as part of itself, an interest in substantial financially oriented institutions. As a result of his interest in this idea, *Henry* had decided that when *Teledyne* had reached a certain size, he would seek out financial organizations we could acquire. *Teledyne* bought during 1968 52% of the stock of *Unicoa Corporation*.

Investing In Rather Than Acquiring

So, by 1970, as we began our second decade, we had stopped our direct acquisition of companies. We decided there was no point in paying inflated prices for complete ownership of companies when we could buy a substantial interest in them through our insurance companies when the market prices were favorable. Of course, we wanted profitable companies that were well managed in businesses that we thought had a good future. Each of our insurance companies had the usual investment committees to mange how their portfolios were invested, but in keeping with a system of running financial matters from the corporate office, *Henry* headed an investment panel that made all the final decisions on these matters.

In the February 20, 1978 issue of Forbes magazine, *Henry* was quoted about his philosophy in regard to investing:

"There are tremendous values in the stock market, but in buying *stocks*, not entire companies. Buying companies tends to raise the purchase price too high. Don't be misled by the few shares trading at a low multiple of 6 or 7. If you acquire those companies the multiple is more like 12 or 14. And their management will say, "If you don't' pay it, someone else will." And they are right. Someone else does. So it is no acquisitions for us while they are overpriced. I won't pay 15 times earnings. That would mean I would only be making a return of 6 or 7 percent. I can do that in T-bills. We don't have to make any major acquisitions. We have other things we are busy doing.

As for the stocks we picked to invest in, the purpose is to make as good a return as we can. We don't have any other intentions. We do not view them as future acquisitions. Buying and selling companies is not our bag. Those who don't believe me are free to so, but they will be as wrong in the future as they have been about other things concerning *Teledyne* in the past." --*Dr. Henry Singleton.*

So, once we had the financial resources of these insurance companies, we would look at other companies, see what their histories had been over the previous 10 years, and, if we thought they were going to have continued growth and success, we would invest a portion of our insurance company assets in their stock.

Continued Internal Growth

Some outside analysts *(like the editor of this case study!)* wondered whether we could keep up the kind of growth and success we have been having without the income from continuing acquisitions. But they really hadn't seen anything yet. In spite of the adverse economic conditions of the 1970s, as well as a malpractice insurance problem, and without the contribution of additional income from new acquisitions, *Teledyne* achieved continuous and rapid growth in sales and income throughout that difficult decade of the 70s. From 1971 to 1981 our compound annual growth rate in sales was 11.4%, and in net income it was 22.1 percent. Some of this, in the first year of that decade, was due to the results of our new financial sector companies. In the 1970 annual report *Henry* wrote:

"An important contributing factor…to net income in that year…was the improvement in the results of the *Teledyne United Corporation*, our insurance and finance subsidiary.

Investing in Ourselves—The Stock Buyback Period

In the early '60s, *Henry* had used *Teledyne* stock to make a limited number of equity acquisitions in relatively small companies. He was limited in the size of the companies he could acquire by his company's relatively low stock price at that time. But, by one year, largely because of the company's success in winning the *IHAS inertial helicopter guidance system* contract against big competitors such as *IBM* and *Texas Instruments*. That gave us the ability to use *Teledyne's* stock to acquire more and bigger companies until there were 130 in all by the end of the decade.

These events were followed by the bear market of the early '70s, and *Teledyne* stock prices fell, along with all the rest, from about $40 to less than $8. ***Henry* saw opportunity where most other company heads saw none.** *Teledyne* stock, that had gone from a P/E ratio of about 30 to 70 in the 60s, suddenly went to a P/E ratio of about 9 or 10 or 11 to one, which was about the same or less than that of companies we had been buying.

One morning in May of 1972, *Henry* walked into my office at about 8:30 and said, "*George*, we are going to make a bid for our stock at $20 a share." *Henry* made all investment and stock decisions on his own. He did this every single time. They were all done when out stock was at a low P/E ratio. He believed that out stock was grossly undervalued and it was the first of a series of eight stock buyback offers.

In the July 9, 1979 issue of Forbes magazine, *Henry* was quoted as saying, "In October, 1972, we tendered for one million shares and 8.9 million came in. We took them all at $20 and figured it was a fluke, and that we couldn't do it again. But instead of going up, our stock went down. So we kept tendering, first at $14 and then doing two bonds for stock swaps. Every time one tender was over the stock would go down and we would tender again, and we would get a new deluge. Then two more tenders at $18 and $40.

The first six buybacks were all in the period from 1972 to 1976.

Year	**Shares Amount**
October 1972	8.9 M Shares @ $20
January 1974	1.6 M Shares @ $14
May-June 1974	4.0 M Shares @ $20 of TDY 10% Bonds
December 1974	1.9 M Shares @ $16 of TDY 10% Bonds
April 1975	3.6 M Shares @ $18 of TDY 10% Bonds
February 1976	2.5 M Shares @ $40
April 1976	Tendered for $6 PDF Convertible Debentures
May 1980	3.0 M Shares @ $160 of TDY 10% Bonds
May 1984	8.7 M Shares of $200

The market reacted adversely to this at first, not understandings what *Henry* was accomplishing. But as the number of shares went down and the company's operating income continued to grow, the earning per share increased rapidly and dramatically. In 1970 net income per share was $1.64 and in 1975 it was $6.09 per share. In 1976, $10.79; and in 1977, $16.23 per share.

With the first six stock buybacks, a total of some 22 million *Teledyne* were repurchased, reducing the number of outstanding common shares to less than 12 million. A seventh stock buyback offer was made in 1980 and the final one in 1984, at the extraordinary high price of $200 per share. This was about $30 above the current market price and eight million shares were bought back. By September of that year the stock had climbed to $302 per share and was the highest priced stock on the "NYSE.

The total value of these buybacks was over $2.5 billion, and more than 85 percent of common shares were retired. Shares outstanding had dropped from 88,827,372 in 1971 to 22, 564,756 in 1980. *Henry* also purchased another five percent of *Teledyne* shares on the open market at various times, bringing the buy-back total in the years 1972-1984 to over 90 percent of the company's shares.

It is interesting to follow the story of the stock price before and after each of these transactions. In 1972, *Teledyne* opened at $22.87, reached $28 on March 9, dropped below $20 on July 10, and was $17 on October 16 when the offer was made. On November 3, 8.9 million shares were accepted and the stock reached a high of $23.12 on November 24. It closed the year 1972 at $19.75, but during 1973 dropped to $12 on May 22, and closed the year at $14.35. The offer of $14 cash in January 1974 netted only 1.6 million shares and the stock dropped to 10.75 on May 30. *Henry* then offered to buy stock at $20 worth of a new *Teledyne Subordinated Debenture* paying 10 percent interest, and 4 million were bought. Subsequently, the December 1974 and April 1975 offers of $16 and $18 worth of *Teledyne* bonds yielded 5.5 million shares.

Interest rates were extremely high (20 percent not being uncommon) in 1974. Thus the 10 percent bonds being offered would trade themselves for only about $786. After the offer closed, the stock continued to drift down and reached a low of $7.87 on December 2, closing the year at $10.25.

Sixteen dollars of those bonds only fetched 1.9 million shares, but by April 1975 a price of $18 for the bonds yielded 3.6 million shares or double the number at $16. The stock closed in 1975 at $22.75.

The February 1976 offer of $40 cash was made, giving 2.5 million more shares to the company, and the stock reached $40 on February 27, $50 on March 9 and $60 on May 12. The stock closed in 1976, having reached a high of $71.75 on Dec. 15.

In 1977 the stock traded in the $50s and $60s, with a low of $50.25 and a close of $62. It closed 1978 at $96.87 after a high of $118 on June 13. It closed 1979 at $133.75 after a high of $153.5 on September 20. In the early part of 1980, the stock reached $175.75 on September 11 after a low of $92.75 on April 21.

Henry then retired most of the $6 convertible preferred stock offered in acquisitions between 1966 and 1968 before getting 11.7 million more shares in 1980 and 1984 by using $160 of *Teledyne* 10 percent bonds on one in 1980 and $200 of hard earned cash for each share in May of 1984.

That is the 12 year story of his activity after telling me one morning to buy some stock for the company.

Mr. Singleton was able to finance the majority of these buybacks with cash derived from operations. When debt was incurred it was quickly paid off from operational income. The fact that no dividends were being paid during this period certainly helped make this possible. *Henry*'s conviction was that the cash was better employed in growing *Teledyne's* business, which would ultimately be more profitable to the shareholder than cash. By 1970, however we did begin to give our shareholders **stock dividends.** The advantage of stock vs. cash to the stockholder, of course, was that they could avoid immediate taxation on the dividend and pay only capital gains tax when they decided to sell some stock. The dividend situation, was never a factor in the popularity of *Teledyne's* stock through the years.

Teledyne began to pay stock dividends to the holders of common stock in 1967. We paid a 3 percent stock dividend, in keeping with *Henry's* idea that this offered shareholders a tax advantage and more flexibility in handling their assets than a cash dividend would. Stock dividends of 3 percent were paid in each year up to 1977. In 1978, the stock dividend was increased to 10 percent, and in 1979 and 8.5% dividend was paid.

Henry's timing and strategy could not have been better. During the 1968-1974 period he considered bonds as high risk and stocks as low risk, contrary to popular opinion, and he instructed his insurance companies to follow that advice in their investments. Shareholders who had stayed with the company from the first buyback in 1972 achieved a gain of some 3,000 percent by this time. In the nine years from 1969 to 1978, our operating results were exceptional as well. Annual sales had increased 89 percent and net income increased 315 percent.

Henry Singleton has a unmatched record in his era of value creation. An investor who invested in *Teledyne* stock in 1966 was rewarded with an annual return of 17.9% over 25 years, or a return of 53 times his invested capital. That compares to 6.7 times for the S&P 500, 9.0 times for General Electric, and 7.1 times for other comparable conglomerates.

Financial Controls

Teledyne ran a lean corporate staff confined to the planning and reporting and auditing of the individual company results. There was always a one-on-one relationship between corporate and the managers of each operating unit. *Teledyne's* President, *Dr. George Roberts* wanted his subsidiary companies to operate with considerable autonomy. *Henry Singleton* said in an early interview with *Forbes* magazine, "We depend on them *(his operating managers)*. We have to trust them. We succeed or fail according to what they do." This was in accord with *Singleton's* strong conviction that **people were the most important factor in a business**, and that they had to be given a chance to do their job.

We developed a measure that we called *Teledyne Return* which was the average of your cash return and your profit. We'd say, "You reported a profit of a million dollars, but you only had half a million dollars of cash, so you only made $750 thousand dollars. So tell us about the rest of the profit when you get it,"

Dr. Singleton spent most of his time planning the company's strategy for future moves and directing our investment portfolios. He was interested in the big picture.

Teledyne's management would always carefully review major capital budgets from each of the operating companies. *George Roberts* also said that *Teledyne* developed reporting systems so management was able to maintain closed financial control of our operations and our capital management. Though we were criticized for this in some business publications (See Business Week Article from earlier in this case study on page 4), we were conservative in our expenditures for capital equipment and facilities, as well as for research and development. We concentrated on turning the businesses we owned into efficient cash generators. Our steady increase in sales and net income for the 70's decade, in spite of adverse economic conditions, was achieved through the internal growth of our companies. This reporting system was supplemented by a very close control of cash.

Contrary to what you might assume about the close financial control this system embodied, *Teledyne* company presidents were given considerable freedom in running their companies, as long as they continued to perform. They actually were freed from dealing with bankers (aside from their local accounts), or with the stock exchange, or the SEC, or tax returns, and could *concentrate* on the efficient management of production and marketing activities.

We were about to establish an incentive system for honoring those companies that performed exceptionally well. Also, *Singleton* made sure he had highly qualified managers. *Teledyne* had a higher percentage of managers with high level technical degrees than most firms.

First Spin-Off

1984 was the year *Teledyne* made its first spin-off of one of its major units, *US Ecology*. The company did radiation measurement for environmental purposes around nuclear power plants, and also collected and disposed of radioactive waste fro hospitals and laboratories that used these materials. Management became concerned with the eventual environmental liabilities.

In keeping with *Henry*'s philosophy that the shareholders should be given the opportunity to decide whether to not they wanted to be in this kind of a business, we decided to spin these operations off to them under the new name *American Ecology*. Thus shareholders could opt to sell their interest in that business without selling their *Teledyne* shares, if they wished. One share of *American Ecology* was distributed for every 7 seven shares of *Teledyne* common stock.

Summary

Dr. Henry Singleton was an astute capital allocator when it came to buying back stock, issuing stock, spinning off companies, and operating in the shareholder's best interests. He was a true steward of his shareholder's capital. As an operator and strategic thinker he was outstanding as well. He made sure his operating companies had the right managers who were <u>incentivized properly</u>, and he forced upon them <u>strict capital allocation</u>. Free cash flow was important for his operating subsidiaries to send to the home office. That said, an outside investor might have difficulty projecting that *Teledyne*'s operating businesses competing in highly competitive markets with limited barriers to entry would maintain high return on assets (above 12%) for more than five years. The editor believes that the success of *Teledyne*'s operating subsidiaries had a lot to do with the leadership and skills of an exceptional man, *Dr. Henry Singleton*. Perhaps an intelligent investor could have recognized the opportunity to participate in *Teledyne*'s tender offers because of the low valuations during those times and the signaling of confidence by *Dr. Singleton*. Whether that investor would hold on for many years is another question. What do you think?

Excerpts from Distant Force

Next, we will read what *Dr. George A. Roberts* had to say about *Teledyne's* businesses in his book, <u>Distant Force</u>.

Arthur Rock who was on *Teledyne*'s Board of Directors for the nearly 30 year tenure of *Dr. Singleton* as CEO of *Teledyne*. "He as not only one of the brainiest guys I have ever come across" says *Rock*, "but his <u>doggedness</u> in pursuing things was just incredible."

Singleton and his partner, *Kozmetsky* initially focused *Teledyne* on emerging technologies such as semiconductors. The 1960s were a time when the stock market was excited about acquisition-fueled conglomerates, so *Teledyne* soon began using its richly valued stock to make some 130 acquisitions, starting in electronics, but eventually branching out into geophysics, specialty metals, insurance and consumer products.

Once he selected companies and mangers to invest in, he basically left them alone," says *Arthur Rock*. "The centralized operation was very small, doing nothing but accounting, taxes and legal. It was similar to *Berkshire Hathaway* today, although *Teledyne* was started earlier."

As prices for acquisitions rose, *Singleton* ended his acquisition binge in 1970. The recession came and the stock market fell with conglomerated falling especially out of favor. *(For a story of the excesses of conglomerates, read <u>The Funny Money Game</u> by Andrew Tobias).* Compounding matters, some of *Teledynes'* insurance and consumer products divisions ran into operating trouble. All these factors combined to cause *Teledyne's* stock to fall more than 80% from its peak in 1967 to its trough in 1974.

Singleton then focused on improving operations and he was not hesitant to get involved in details. Says *Richard Vie*, current CEO of *Unitrin*, the insurance subsidiary spun out of *Teledyne* in 1990: "If you wanted to spend more than $5,000 on something new, you had to submit what was called a Capital Project Request and it had to be signed all the way up to *Henry*," he says. "People grumbled about that, but it was a tremendous device to force people to justify their spending and keep them from doing stupid things. There were never any emotional decisions made." (Editor: *Dr. Teledyne* forced efficient capital allocation on his operating managers. He required them to carefully analyze and justify expenditures. *Dr. Singleton* also emphasized generating excess cash and he redeployed that cash effectively. Obviously, *Warren Buffett* studied *Dr. Singleton* closely and used similar methods to develop *Berkshire Hathaway*.)

Singleton was exacting about numbers and put an emphasis on the speed and accuracy of *Teledyne's* financial reporting, pushing the company to report year-end numbers as early as eight days after the end of the year.

In his relationships with managers, *Singleton* expected complete forthrightness, as well as self-sufficiency. "Minimizing or hiding problems was a firing offense," says Vie. "At the same time, the quickest way to get thrown out of his office was to suggest you needed a consultant for something."

The focus on operational and financial detail paid off as *Teledyne's* net income without the benefit of any acquisitions, rose from 1970 to 1981 at a compound rate of approximately 19%. **In addition, its ROE ranged from 25% to 30%, nearly two times the levels then prevalent in American industry.**

Buying back stock

Singleton acted aggressively to take advantage of *Teledyne's* cheap stock during recessions for the benefit of long term shareholders. Using the company's strong cash flows, he began one of the most intensive and value creating share repurchase programs in corporate history. From 1972 to 1984, in a total of eight separate tender offers, *Teledyne* repurchased nearly 90% of its stock, always offering shareholders a premium of between 22% and 47% above the prevailing market price, yet still paying prices that proved to be low.

As further evidence of *Singleton's* market savvy, in three of the tender offers *Teledyne* issued bonds rather than used cash to repurchase stock—in each case, *Cooperman* notes, "top picking the bond market.:

The massive share repurchases magnified the benefit of the strong absolute earnings growth and the stock went from its 1974 low of around $5 to a high in 1987 of over $400.

Given the benefits of aggressive share repurchases, we asked venture capitalist *Rock* why more companies haven't followed *Teledyne's* lead. "The ego of the CEO is typically focused on building a business," he says, "which isn't particularly consistent with using cash to buy back stock."

In shareholders' interest

In contrast to many CEOs, *Singleton* wanted to get rich with his shareholders, not off of them. He never took a stock option of a salary above $1 million, never sold any of his shares when the company was engaged in tendering or repurchasing its stock, and refused to consider a management buyout of the company. Listen to *Lee Cooperman* describe his effort to interest *Singleton* in a management buyout or "MBO":

Mr. Cooperman called *Dr. Singleton* about having *Goldman Sachs* take *Teledyne* private. *Dr. Singleton* replied, "I would have no interest in what you are proposing." *Mr. Cooperman* comments, "What a contrast to what other CEOs have done, screwing shareholders for their personal gain! So many LBOs are a giant case of insider trading by management against their shareholders. Look at what *John Kluge* did in taking *Metromedia* private years ago, or what *Aramark* did in going private last year. *Singleton* wouldn't do it. He didn't have any interest in squeezing out investors. He understood the benefits of going private, but was philosophically opposed to it.

Cautionary tale

For all his successes, *Singleton*'s tenure did not end on a high note. In the early 1990s, *Teledyne* became the subject of numerous lawsuits related to its government work, including accusations of falsifying missile test results, lying to cover up commissions on sales of military goods to Taiwan and bribing both Saudi Arabian and Egyptian officials to procure contracts. *Teledyne* pled guilty to many of the accusations and paid nearly $30 million to settle charges.

Charlie Munger, who knew *Singleton*, offered this perspective on the problems encountered by *Teledyne* in the early 1990s: "*Henry* was admirable and super brilliant and a faithful steward for his shareholders, but his extreme incentive systems for executives at subsidiaries eventually contributed to some 'cheat the government' scandals. I am sure *Henry* did not plan for such an outcome, and he fixed it when it came along."

"With *Henry*, his motivation was always a singular focus on shareholder value," says *Arthur Rock*.

Forbes, Inc. Friday, Oct. 06, 1967

Teledyne's Takeoff

Teledyne, Inc. of Los Angeles has grown into a $400 million-a-year technological complex in only seven years by thinking big and moving fast. Founder-Chairman *Dr. Henry* E. *Singleton*, 50, who keeps a blackboard in his office for rapid-fire chalk talks on the intricacies of his company, obviously believes that those with whom *Teledyne* deals should move fast too. Earlier this month, *Teledyne* offered $40 a share for 7,500,000 outstanding shares of *United Insurance Co. of America* (assets: $303 million). *United* stock was then selling at $27. Last week, apparently because directors of the Chicago-based life, health and accident company were taking too long to make up their minds, *Singleton* changed the terms. With United up to $34, *Teledyne* made a tender offer directly to the stockholders to buy 2,500,000 shares at $35 a share.

United's board called the offer inadequate and urged stockholders to turn it down. If they do not, *Teledyne*, which has made all 40 of its previous acquisitions in electronics-related businesses, will have the toehold it wants in the consumer-service field.

Teledyne's chairman insists that his company's growth—sales have increased an average 124% a year —has been "strictly along conservative lines," But such things are relative. *Singleton* spent his boyhood moonily reading about such captains of industry as *J. P. Morgan* and *John D. Rockefeller*. After three years at the *U.S. Naval Academy*, he transferred to *M.I.T.*, where he eventually earned a doctorate in electrical engineering. In 1950, he got a job working on rocket-fire control at *Hughes Aircraft*—which *Singleton* now calls "Howard Hughes College" in recognition of the success achieved by many of its ex-employees.

Two other noteworthy *Hughes* alumni, *Charles ("Tex") Thornton* and *Roy Ash*, left in 1953 to found *Litton Industries*, a pioneering conglomerate that has turned out some prominent graduates of its own.* *Singleton* joined them, started *Litton*'s inertial-guidance systems, and within six years built the company's electronics-equipment division from scratch into an $80 million-a-year operation. Says *Singleton* today: "When I went to *Litton*, I needed money and experience. I got both there." By 1960, he also had an itch to start his own business. He teamed up with *Litton* Colleague *George Kozmetsky* (now dean of the *University of Texas Business School*) to found *Teledyne*.

Tiny TV. *Singleton*'s philosophy at *Teledyne* has been anything but conservative. "A steel company might think that it is competing with other steel companies," he says, **"but we are competing with all other companies."** *Teledyne* started with semiconductors and integrated circuits, swiftly expanded through both internal growth and acquisitions into the most sophisticated electronics equipment and systems. Its 25,000 employees are at work on projects ranging from memas (tiny combinations of integrated circuits that promise TV sets containing only picture tube, control knobs and a mema) to a computerized control and navigation system that would allow automatic operation of helicopters. Active in geophysics and oceanography, the company has also become a leader in high-quality industrial metals.

This year *Singleton* has reached out to acquire such firms as Pennsylvania-based *American Safety Table Co.* (industrial sewing equipment), New York's *Wah Chang Corp.* (rare metals) and Denver's *Aqua Tec Corp.* (oral-hygiene appliances). That kind of diversification means that *Teledyne* has thereby reduced its reliance on Government contracts, which now account for only 45% of its business v. 82% in 1964. With profits increasing by an average 190% annually (to probably $20 million in 1967) *Singleton*'s *Teledyne* holdings have grown from his original stake of $225,000 to about $32 million.

*Including Western Union Chairman Russell McFall, who has put the telegraph utility on an ambitious diversification course, both Chairman Fred Sullivan and President Franc Ricciardi of the fast-growing conglomerate, Walter Kidde & Co., and *George* Scharffenberger, freewheeling president, of New York-based City Investing Co.

REVIEW

- *Warren Buffett* considers *Singleton* one of the best allocators of capital in American Business.
- *Singleton* was a PhD (scientist) as opposed to an MBA/business student.
- *Singleton* was a pioneer in terms of stock repurchases and spin-offs.
- Stock generated a 23% compound annual growth rate over *Singleton*'s tenure from 1961-96.

Cooperman focused on *Singleton*'s astute use of capital with regard to share repurchases and tied that into the second part of his presentation which focused on the value of share buybacks:

- *Cooperman* classifies share buybacks into four categories:
    - Type I: Combats the impact of option dilution
    - Type II: Assists executives that are exercising options
    - Type III: Company has no opinion on value but the buyback is done to return capital to shareholders
    - Type IV: Company believes the stock is undervalued and repurchases share
- Key questions during a buyback include:

- Is the company buying shares at a discount to private value or merger market value?
- What's the impact on cash flow per share and EPS?
- Does it adversely impact the company's risk profile (highly leveraged buybacks)?

What other great investors have said about *Teledyne*:

Seth Klarman

Value investors are always on the look out for catalysts. While buying assets at a discount from underlying value is the defining characteristic of value investing, the partial or total realization of underlying value through a catalyst is an important means of generating profits. Furthermore, the presence of a catalyst serves to reduce risk. If the gap between price and underlying value is likely to be closed quickly, the probability of losing money due to market fluctuations or adverse business developments is reduced. In the absence of a catalyst, however, underlying value could erode; conversely, the gap between price and value could widen with the vagaries of the market. Owning securities with catalysts for value realization is therefore an important way for investors to reduce the risk within their portfolios, augmenting the margin of safety achieved by investing at a discount from underlying value.

Catalysts that bring about total value realization are, of course, optimal. Nevertheless, catalysts for partial value realization serve two important purposes. First, they do help to realize underlying value, sometimes by placing it directly into the hands of shareholders such as through a recapitalization or spin-off and other times by reducing the discount between price and underlying value, such as through a share buyback. Second, a company that takes action resulting in the partial realization of underlying value for shareholders serves notice that management is shareholder oriented and may pursue additional value-realization strategies in the future. Over the years, for example, investors in ***Teledyne*** have repeatedly benefited from timely share repurchases and spin-offs. (Source: Margin of Safety by *Seth Klarman*, page 53.)

George Soros

Mr. George Soros discusses his experience investing in the conglomerate boom of the 1960s. He mentions *Teledyne*.

The Conglomerate Boom of the 1960s (The Crash of 2008 and What it Means. The New Paradigm For Financial Markets by *George* Soros, Pages-60-70.

One of my early successes as a hedge fund manager was in exploiting the conglomerate boom that unfolded in the late 1960s. It started when the managements of some high-technology companies specializing in defense recognized that the prevailing growth rate their companies enjoyed could not be sustained in the aftermath of the Vietnam War. Companies such as *Textron*, *LTV*, and *Teledyne* started to use their relatively high priced stock to acquire more mundane companies, and , as their per-share earnings growth accelerated, their price-earnings multiples, instead of contracting, expanded. They were the path breakers. The success of these companies attracted imitators; later on, even the must humdrum company could attain a higher multiple simply by going on an acquisition spree. Eventually, a company could achieve a higher multiple just by promising to put it to good use by making acquisitions.

Managements develop special accounting techniques that enhanced the beneficial impact of acquisitions. They also introduced changes in the acquired companies: They streamlined operations, disposed of assets, and generally focused on the bottom line, but these changes were less significant than the impact on per-share earnings of the acquisitions themselves.

Investors responded like pigs at the trough. At first, the record of each company was judged on its own merit, but gradually conglomerates became recognized as a group. A new breed of investors emerged: The early hedge fund managers, or gunslingers. They developed direct lines of communication with the managements of conglomerates, and conglomerates placed so-called letter stock directly with fund managers. The placement was at a discount to the market price, but the stock could not be resold for a specified period. Gradually, conglomerates learned to manage their stock prices as well as their earnings.

The misconception on which the conglomerate boom rested was the belief that companies should be <u>valued</u> according to the growth of their reported per share earnings no mater <u>how</u> the growth was achieved. The misconception was exploited by managers who used their overvalued stock to buy companies on advantageous terms, thereby inflating the value of their stock even further. Analytically, the misconception could not have arisen if investor had understood reflexivity and realized that equity leveraging, that is, selling stock at inflated valuations, can generate earnings growth.

Multiples expanded, and eventually reality could not sustain expectations. More and more people became aware of the misconception on which the boom rested even as they continued to play the game. To maintain the momentum of earnings growth, acquisitions had to be larger and larger, and eventually conglomerates ran into the limits of size. The turning point came when *Saul Steinberg* of the *Reliance Group* sought to acquire *Chemical Bank*: it was fought and defeated by the white shoe establishment of the time.

When stock prices started to fall, the decline fed on itself. As the overvaluation diminished, it became impractical to make new acquisitions. The internal problems that had been swept under the carpet during the period of rapid external growth began to surface. Earnings reports revealed unpleasant surprised. Investors became disillusioned, and conglomerate managements went through their own crises: After the heady days of success, few were willing to buckle down to the drudgery of day to day management. As the president of one corporation told me: "I have no audience to play to." The situation was aggravated by a recession and many of the high-flying conglomerated literally disintegrated. Investors were prepared to believe the worst, and for some companies the worst occurred. For others, reality turned out to be better than expectations, and eventually the situation stabilized. The surviving companies, often under new management, slowly worked themselves out from under the debris.

…Using the conglomerate boom as my model, I devised a typical boom-bust sequence. The drama unfolds in eight stages. It starts with a prevailing bias and a prevailing trend. In the case of the conglomerate boom, the prevailing bias was a preference for rapid earnings growth per share without much attention to how it was brought about; the prevailing trend was the ability of companies to generate high earnings growth per share by using their stock to acquire other companies selling at a lower multiple of earnings. In the initial stage (1) the trend is not yet recognized. Then comes the period of acceleration (2), when the trend is recognized and reinforced y the prevailing bias. That is when the process approaches far-from-equilibrium territory. A period of testing (3) many intervene when prices suffer a setback. If the bias and trend survive the testing, both emerge stronger than ever, and far from equilibrium conditions, in which the normal rules no longer apply, become firmly established. (4) If the bias and trend fail to survive the testing, no bubble ensues. Eventually there comes a moment of truth (5), when reality can no longer sustain the exaggerated expectations, followed by a twilight period (6), when people continue to play the dame although they no longer believe in it. Eventually a crossover or tipping point (7) is reached, when the trend turns down and the bias is revered, which leads to a catastrophic downward acceleration (8), commonly known as the crash.

The boom-bust model I devised has a peculiarly asymmetric shape. It tends to start slowly, accelerate gradually and then fall steeper than it has risen. Stock price fall before earnings per share turn down. The 1973-74, 1980 and 1982 recessions dealt death blows to the incoherent conglomerates created during the 1960s.

END