



The State of the Debate

By Richard B. Hoey, Chief Economist of Mellon Financial Corporation

Fourth Quarter 2000

The Return of Capital Discipline

There is a major debate between the bulls and the bears on the U.S. economy and the U.S. markets. This report is designed to clarify the difference between the optimists and the pessimists in this debate and determine which is likely to be correct.

The bears argue that the U.S. has been engaged in one of the great speculative bubbles of all time, while the bulls argue that fundamentals are better than investors had previously discounted and that the large rise in the stock market in recent years was fully justified by such improved fundamentals as sustained productivity growth and moderate core inflation. We believe the future outlook for the U.S. economy is dependent on the efficiency of

capital allocation during the recent capital-spending boom and in the coming years. Our tentative conclusion is that (1) most capital has been allocated appropriately although realized returns may fall short of exuberant expectations in many cases, (2) there have been some significant pockets of undisciplined investment, and (3) a return to discipline in the allocation of capital is well under way.

The Return of Capital Discipline

The United States has experienced a technology-driven investment boom in recent years, despite a very low savings rate. This boom has been sustainable due in large part to the willingness of foreigners to purchase U.S. stocks and bonds on the expectation that returns from that capital-spending boom would be favorable. Was U.S. capital spending allocated properly to investments that will generate an adequate future cash flow? If the money was well spent, the resulting cash flows will validate the foreign investments. If there prove to be too many failures, the resulting cash flows will be too small to validate the foreign investments.

History is replete with examples of undisciplined or unsuccessful capital-spending booms where expected cash flows were never realized. Examples include the real estate boom in the oil patch states in the 1980s, the recent construction of global satellite mobile phone systems and the building boom in Asia a half-decade ago. A more recent example was the dot-com boom. A natural part of capitalism is a cycle of excess optimism and subsequent pessimism in building capacity in different industries. Some capacity booms are fully justified by a rapid growth in demand and generate

favorable returns, while others never generate positive cash flow and end with widespread bankruptcies. There are some capacity booms which have a mixed outcome, bringing prosperity to those companies which correctly identify sound opportunities, while penalizing those less disciplined in allocating their capital. That's likely to be the case this time.

Investment mistakes occur in all economic systems. Economies with an active free-market economy are often quicker to bring an abrupt halt to ongoing investment mistakes. This is especially true where daily mark-to-market evaluation prevails. In the U.S., open-ended mutual funds and brokerage firms generally value assets at their free-market values on a daily basis. This daily mark-to-market financial culture often forces a more rapid recognition of mistakes than does a non-market valuation approach. The savings and loan crisis in the U.S. and the Japanese financial crisis were both prolonged by a failure to recognize losses immediately, a failure tolerated by book value accounting. Daily mark-to-market valuation practices foster rapid changes in behavior once investment mistakes are recognized. This helps explain why such U.S. financial stresses as the

Issue 2

 Mellon

Long Term Capital Management problem in 1998 often prove to be short-lived. The quick recognition of losses and the resulting shifts in the allocation of capital are key reasons why free-market economies have the best record of long-term economic growth.

The question of the degree to which the U.S. capital-spending boom has been soundly based is probably the single most critical issue for the future of the U.S. economy. Has capital been allocated towards sound projects and away from unsound projects? Has financing for

unsound projects dried up quickly enough to limit the damage from investment mistakes? Is capital discipline improving or deteriorating? These are the key questions. Our view is that there have been recent episodes of undisciplined spending, but that they are now fading as market pressures force an improved allocation of capital. Most major capital-spending initiatives were based on the superior price performance of new equipment and systems relative to the existing legacy equipment and systems.

Allocating Capital Has Been The Key to Economic Growth

Over the last two decades, the U.S. economy has outperformed both Europe and Japan. Some of the credit for this goes to favorable monetary policy, fiscal policy and regulatory policy. However, we believe that a crucial element has been the efficient allocation of capital. Some observers argue that favorable demographics are largely responsible for the favorable performance of the U.S. stock market over the last decade. However, a decade ago, both the U.S. and Japan had an aging population which was becoming increasingly concerned about the need to save for retirement. But U.S. stocks provided a good return over the past decade while Japanese stocks provided a poor return. There are many factors in a full explanation of these differing market outcomes, but we believe that a crucial difference was that corporate capital was allocated in an efficient manner in the U.S. and in an inefficient manner in Japan.

Over the last several decades, the ability and willingness of European and Japanese companies to allocate capital efficiently have been constrained by a variety of government regulations and decisions as well as by cultural expectations and financial structures. It has proved difficult for them to reallocate capital away from businesses with low returns to businesses promising high returns.

In the U.S., by contrast, the reallocation of capital within the corporate sector has been rapid. Excess capital has been released from

low return or slow-growing businesses and redirected to new industries and new businesses. This helps explain why American corporations are world leaders in many new industries, including computer hardware, software, the Internet and biotechnology.

Business decision-making in the U.S. has often tended to give a greater priority to shareholder value than has been the case in many other countries. Two developments strengthened this pattern. First, the takeover wave in the 1980s greatly intensified the focus on releasing excess capital and on optimizing the allocation of capital. Companies with excess equity capital were vulnerable to takeover. Companies became less vulnerable to takeover as they began to allocate capital to maximize shareholder value. The result was to motivate a more intense focus on shareholder value throughout American industry. Second, the growth of the stock option culture in American business also contributed to pressure to allocate capital to maximize shareholder value.

Capital has been allocated differently in different areas of the world. In the U.S., companies with excess capital would often release it back to the shareholders via stock buybacks. In Europe, there was a greater tendency to hoard capital against some future rainy day. In Japan, there was a tendency to invest excess capital in businesses that offered the prospect of achieving market share goals but not high returns.

There now are early signs of better capital allocation in Japan and especially in Europe.

In the U.S., as excess capital was released from companies unable to use it efficiently, channels of risk capital were created to reallocate the capital to new businesses and new industries. Venture capital firms provided seed capital for new businesses, with additional funds for

expansion raised from initial public offerings and follow-on secondary offerings. For many years, venture capital firms often nurtured new businesses for an extended period of time before they went public. This pattern broke down in the recent IPO boom.

The Risk Cycle

There is a cycle in the availability and price of expansion capital to risky companies. When risk capital is cheap, markets are flooded with new entrants who often overexpand capacity. The usual outcome is that realized returns on investment prove to be disappointing.

The U.S. has just passed through a temporary period of cheap risk capital for risky companies, especially those linked to the Internet. The positive surprise from a high productivity disinflationary boom in a period of rapid innovation created a sense of optimism which in some cases proved excessive. The result has been a series of disappointments in the realized returns on capital invested by these companies.

We have moved into a new phase of the risk cycle. Cheap capital has become less available to risky companies. Fortunately, a large portion of the investment spending which has occurred in the broad technology sector has been soundly based. The Internet protocol (IP) network is much more productive than the old switched network. In the physical network, the optical network is much more productive than copper wiring. Value has been created by the installation of this highly productive new equipment.

Wasted spending has been notable in advertising and brand building for companies which lacked any plausible business model. The mobile satellite industry found that a cheaper alternative was available from cell phone companies before their systems were completed. The cutoff of expansion capital to such companies is consistent with a well-functioning free-market system.

A different source of disappointment has been the rapid decline in profits from legacy businesses, those businesses which have large investments in old technology which is no longer fully competitive with the newest technology. Value creation by technological innovation naturally entails value destruction among such legacy franchises. More rapid innovation brings with it more rapid obsolescence of old legacy plant and equipment. This reflects economic efficiency rather than economic inefficiency.

The financing of the recent technology boom has not been a model of efficiency. But the period of cheap capital and misallocation of investment has been relatively brief. What continues is the rapid pace of innovation within the U.S. economy.

The Valuation Fashion Cycle

In recent years, there has been a debate between the bears and some of the bulls about whether the appropriate method of stock valuation had shifted in the “new economy.”

There has been a valuation fashion cycle between traditional valuation approaches and new-age valuation metrics. Historically, the mainstream approach to stock valuation has been some form of discounted cash flow. Since dollars expected in the future are both less certain and worth less than dollars that can be spent today, expected future cash must be discounted by some interest rate. The rate chosen is usually the sum of a Treasury bond yield plus a risk premium to reflect the

uncertainty of future cash flows. That is the generally accepted approach to the valuation of equities. There are key questions. How high is the risk-free rate, such as Treasury yields? How uncertain are the cash flow estimates? What is the most likely progression of the future earnings, dividends and cash flow of a company? When choosing an interest rate to discount future cash flows, how much higher than Treasury yields should that rate be set? Are there some circumstances where reported numbers overstate or understate economic reality? These are the normal debates within the context of the mainstream model of stock valuation.

The Bull/Bear Debate on Valuation

There has been a great debate among market participants about valuation and valuation metrics. Some bears are fundamental pessimists, expecting a variety of economic ills to emerge, such as economic decline, credit crunch, profit declines, budget deficits, dollar collapse, etc. Others are valuation pessimists, focused more on high valuations than on deteriorating fundamentals. The most negative of the bears are those who are pessimistic about both fundamentals and valuation. The position of the pessimists has been that the overall stock market, and many of the highly valued stocks within it, are widely overvalued based on such historic measures as price/earnings multiples. They often tend to expect a reversion to the historic mean in such measures for the broad market averages, implying sharp downside risk in the stock market. The bears have already won their case with respect to the speculative dot-coms which had dubious business models. They have not yet won their case on the overall stock market.

Arrayed against the bears are two different kinds of optimists, the fundamental optimists and the new-age valuation optimists.

The fundamental optimists believe that the traditional model of stock valuation has not changed much and that the prevailing inputs to that model are quite favorable and likely to remain so. They point to the reduced cyclical nature of the U.S. economy in recent years, the persistence of low core inflation and the evidence of a structural upward shift in the long-term trend of productivity growth. We share their expectation of a combination of moderate inflation, moderate interest rates and favorable corporate profit growth in the coming years.

Most of the fundamental optimists have little disagreement with the pessimists about the standard model that stocks represent the discounted present value of a set of future cash flows. They just have a more positive view of the likely path of future economic growth, corporate profits, productivity and inflation.

New-age valuation optimists are less wedded to the classic model of stock valuation. They tend to believe that the U.S. and the world are facing a totally new economic reality, which makes traditional approaches to the analysis of business models obsolete. They

often have the tendency to believe that uncertainties in new industries are much more likely to be resolved positively than negatively. As a result, they often downplay the thesis that the valuation of uncertain future cash flows for new economy companies should reflect a large uncertainty discount. We believe that the new-age valuation optimists tend to ignore

two realities: (1) in new industries, there are often only a few big winners and many also-ran companies, and (2) there is a history of rotation of industry leadership from one company to another over time. We believe that valuations for individual stocks should reflect these two realities.

Creative Metrics: The Achilles Heel of the Bulls

Over the last several years, optimists on the new innovative technology economy found it increasingly difficult to justify some of the most extreme stock valuations in that sector, especially for early-stage IPOs where it is hard to estimate future cash flows. The result has been a series of creative valuation metrics, which in some cases approached the bizarre. Market capitalization per page-view on the Internet was used for a while, as was market capitalization per customer. Valuations based on market capitalization to revenues have been widely used, with little or no reference to estimates of future returns on capital employed in the business. In the absence of a thorough analysis of the expected rate of return on capital, such questionable metrics motivated unsound business behavior among some companies in the new industries. Capital was allocated to the rapid expansion of companies whose business models were implausible. For a period of time, new equity capital was underpriced, as capital was freely available for companies with no plausible plan for generating a positive return on capital employed.

In some cases, questionable accounting was used to leave a false impression of the underlying economic reality of a company. However, we believe that the biggest single flaw has been the use of oversimplified and offbeat valuation measures as an inadequate substitute for a full examination of the business model of each company.

What has been striking in the last several years has been the source of financing for early-stage companies. In the past, companies with no revenues, no cash flow and a partially developed

business plan tended to finance themselves with private capital, either from entrepreneurs or venture capitalists. These investors often invested a great deal of time in analyzing the business realities of these early-stage companies and often assisted them in graduating to more mature companies with a fully developed business model, substantial revenues and the prospect of the early emergence of positive cash flow and earnings. But in the last few years, many companies have been brought public at a very early stage in their development. A few successful companies became business leaders with strong revenue growth and strong earnings growth, but many have faltered. In many cases, the public shareholders investing directly in these early-stage companies did not clearly understand the realities of the business models of these companies. That helps to explain the many investment disappointments that have occurred among the recent crop of IPOs.

It is true that for early-stage companies, a venture capital-style evaluation may be appropriate. What is the size of the potential market? How strong is any technological lead? How high are the barriers to entry for potential competitors? What is the track record of management? How dependent is the company on future financing? A company may be at such an early stage of its existence that no confident projection of future cash flows can be developed. That does not preclude a professional evaluation of the probability of business success.

Reversion to the Mean: The Achilles Heel of the Bears

The bears also use some questionable shortcuts for valuation. An oversimplified model of valuation popular with stock market bears is a reversion to the mean on the expectation that stock prices must inevitably return to past valuation norms.

An early version of this approach was popular more than a half-century ago. The decision rule was “don’t buy stocks until stock yields exceed bond yields.” It worked for a while and then failed. Any investor who stayed out of stocks for the last half-century waiting for stock yields to rise above bond yields has missed a multi-decade bull market in stocks. A similar expectation that valuations would revert to a past norm has been applied to (1) price/earnings multiples, (2) multiples of book value, (3) multiples of sales and (4) dividend yields. The reason why such approaches have often failed is that they are an attempt to oversimplify a more complete calculation of appropriate valuation. These are misleading oversimplifications.

We do believe that markets and market valuations are cyclical, oscillating between periods of optimism and pessimism. But there is not a constant valuation measure to which the markets always return. Rather, the appropriate valuation on the stock market shifts over time, depending upon such traditional fundamentals as inflation, interest rates, productivity growth and corporate profit growth. In recent years, those fundamentals have been favorable and this has been reflected in stock market valuations.

We believe that the upward shift in overall stock valuations for the broad market averages in recent years validly reflects the favorable fundamentals of reduced economic volatility, favorable monetary policy, favorable fiscal policy, deregulation and rapid productivity growth. On this subject, we side with the fundamental optimists. If these fundamentals were to deteriorate in the future, valuations for the broad market averages should erode. However, there is no inevitable tendency for valuations to return to past averages if fundamental variables continue to deviate from past averages.

Conclusion

A key reason why the U.S. has emerged as the leader in such key new industries as computer hardware, software, biotechnology and the Internet is that risk capital has been much more available to finance new companies than was true in most other countries. Over the last two decades, the U.S. has had an efficient allocation of capital, redirecting funds from companies with few growth opportunities to new companies with an ambition to expand.

There was a brief period where the positive surprise from the upward shift in trend productivity growth due to the technology boom led to excessive optimism and a weakening of capital discipline. That period has come to an abrupt halt, due in part to market signals which arrived quickly in a mark-to-market financial culture. There has been a return to capital discipline in the U.S. economy. As a result, the U.S. is likely to continue to experience the economic benefits of an efficient allocation of capital.



Mellon

This article represents the general economic overviews of Mr. Richard Hoey, Chief Economist of Mellon Financial Corporation, and does not constitute investment advice, nor should it be considered predictive of any future market performance.