

Capital Visions

THE HEISENBERG UNCERTAINTY PRINCIPLE

Have you ever gotten a speeding ticket? Do you want a way to challenge it in court? Our suggestion is to study the Heisenberg “Uncertainty Principle,” developed by Werner Karl Heisenberg. Dr. Heisenberg was born December 5, 1901, in Würzburg, Germany. His life was at times heroic yet at others, controversial. He was a celebrated German physicist and one of the founders of quantum mechanics. But Heisenberg was also the head of Nazi Germany’s nuclear energy program. The nature of this project, and his work in this capacity, has been heavily debated. Some harassed him at the time, calling him a “White Jew” for teaching the theories of Albert Einstein. He earned a Ph.D. from the University of Munich, following which, in 1924, he began work on quantum mechanics with Niels Bohr at the University of Copenhagen. It was this collaboration that, in 1932, led to work for which Heisenberg was awarded the Nobel Prize.

The Heisenberg Uncertainty Principle is about measuring the building blocks of matter – its tiniest particles. It is best described for laymen by Todd Stedl, Ph.D. of the University of Washington. Dr. Stedl points out that people are familiar with measuring things in the world around them. Someone pulls out a tape measure and determines the length of a table. Or a state trooper aims his radar gun at you and thinks he knows what direction your car is traveling, as well as how fast. People get the information they want and typically don’t worry about whether the measurement itself has changed what they were measuring. After all, what would be the sense in determining that a table is five feet long if the very act of measuring changed its length?

At the atomic scale of quantum mechanics, however, measurement becomes a very delicate process. Let’s say you want to find out where an electron is and where it is going. How would you do it? Get a super high-powered magnifier and look for it? But the very act of *looking* depends upon light, which is made of photons. These photons could have enough energy themselves that once they hit the electron, they would change its course!

Think of it as a billiards game. Imagine the cue ball is rolling across the table and you wish to determine its path. You do this by attempting to bounce the eight ball off of it. But by making the measurement in this manner, you have altered the course of the cue ball, rendering the exercise useless. In the process of trying to figure out where the ball has come from or is going, the measurement itself has influenced its path; such an unintended consequence is unacceptable.

Dr. Heisenberg was the first to realize the Uncertainty Principle. It represented a radical concept for his time because it completely flew in the face of classical physics. After all, the very foundation of science is the ability to measure things accurately, and now quantum mechanics was saying that it’s impossible to get those

measurements exact! But the Heisenberg Uncertainty Principle is a fact of nature, and it would be impossible to build a measuring device that could get around it. (We thank and credit Wikipedia, the free encyclopedia, for some of the biographical background discussed.)

Dr. Heisenberg died February 1, 1976, in Munich, Germany and even today, his Copenhagen interpretation is the world’s most widely accepted specific understanding of quantum mechanics. So the next time you get that speeding ticket, show up in court and tell the judge that the trooper couldn’t possibly have known how fast you were going because the act of measuring your speed may, indeed, have *increased* it. (Then pay your fine and go home!)

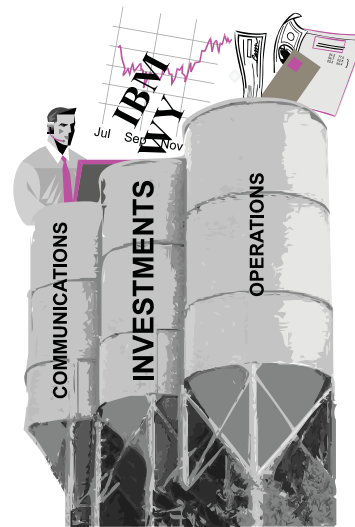
What does all this teach us about investments? We believe that just as trying to measure the direction of an electron in and of itself *changes* the path of that particle, so too can the measurement of investment results have an influence on its performance.

An Investment Silo

Have you ever tried to read a book or write a letter or cook from a recipe with someone watching over your shoulder? It can be quite distracting. So much so that it may alter the end product. So, too, with long-term investing. The Heisenberg Uncertainty Principle has taught us to minimize the distractions of investing by not allowing the measuring tools to collide with what is being measured.

This quarter we wish to share with you the organizational structure of MetWest Capital, as it is this structure that minimizes the deleterious effects of the Uncertainty Principle.

Three Silos



Note the illustration of three “silos” that represent distinct and separate functional groups within the firm. On the left is our Communications silo. Here reside all the people responsible for selling, servicing and interacting with our clients. These professionals form a conduit between our analytical team (which we’ll describe in a moment) and the outside world. On the right is our Operations silo. While investments are the “product” of our firm, and communicators relay information about that product

to others, operations acts as the “grease” that keeps it all humming. Within operations, statements are reconciled with custodians monthly, trades are settled daily, reports are prepared quarterly, etc. Next is the Investment silo as shown in the center.

All decisions at MetWest Capital are made in a centralized manner. So, for each investment strategy (*Intrinsic* Value Equity, International Core Value, Balanced and Small Cap Value), we employ a strategist (sometimes two working as a team). The strategists are surrounded by a dedicated group of investment analysts, and there is some overlap of functions. All investment decisions are made by this team within the Investment silo and then implemented uniformly across all portfolios under our advisement. An important differentiating factor in this structure is that investment team members are not involved in performance measurement.

But how, then, does the team know how it is doing? The answer is: it is precisely this that we are attempting to avoid – at least over short time periods. We believe strongly in the Heisenberg Principle and know that if the investment team faces constant distraction by those seeking to measure short-term performance, then the long-term results will most assuredly be hurt. How easy it would be to sell every stock that is down in price so as to never have to answer questions about underperformers. But some of today’s temporary “dogs” will be the “stars” of the future. **J.C. Penney, Apple, Cytex** and many others declined after our initial investment, and yet all have added meaningfully to our long-term results. We believe we must buffer our investment team from non-investment-related outside influences.

We are certainly aware of stock price movements. Our structure is to act within a “silo,” NOT a “vacuum.” But we have noticed that outside pressure to buy or sell certain securities at specific times (often for non-investment reasons) tends to crescendo at times when the correct move would be to do the exact opposite. So the “silo” approach employs a knowledgeable communications team to act as that buffer.

Thus, with an eye toward creating lasting long-term value, we operate within the “silo” structure as depicted. Let’s now turn our focus to the financial markets and what Heisenberg may have taught us about them.

VALUE EQUITIES STRATEGY

The Heisenberg Uncertainty Principle appears to be at work in the corporate world as well. Measuring corporate manager performance (too frequently) is fraught with peril. Some of the high-profile investigations making recent headlines are filled with examples of corporate officers trying to “manage” short-term earnings or stock price movements. We believe that (while certainly not a valid excuse), in some cases, the act of too-frequent measurement of *their* performance contributed to the motivation for illegal and/or unethical behavior.

We will not here propose solutions for corporate America. We merely suggest that (a) investors understand that it may not be in their long-term interests to put corporate management under too powerful a microscope, and (b) companies may wish to consider some “silos” of their own. Also, it is not yet clear to us that some of the proposed solutions to corporate abuse (namely increased regulation) are going to be more beneficial than the high costs they impose.

As for the U.S. equity market, stocks traded inversely with oil prices for much of last quarter, yet still managed to gain +1.37% (as measured by the S&P 500 Index including income). For the first six months of 2005, equities were largely unchanged. By sector, returns thus far this year have generally paralleled those of 2004. The Energy sector is far ahead of all others, followed by Utilities (including natural gas) and Consumer Staples (including healthcare). Lagging sectors include Technology, Telecom and Financial Services.

Our view of the future for the financial markets is similar to that offered by *The Bank Credit Analyst* that says:

“A world of low and relatively stable inflation means that financial returns will also be low. Indeed, Treasuries could be a very boring asset with 10-year yields fluctuating in a 3½% to 4½% range. Meanwhile, stocks would get no further benefit from falling interest rates while earnings rise by around 5% a year, in line with nominal GDP growth. In this world, a ... portfolio may produce average returns of only 5% a year over the next decade.”

We differ only by thinking that corporate profits may continue to grow faster than overall GDP as companies continue to benefit from the productivity-enhancing investments still being made. That said, equity returns in the mid-single digits seem a reasonable expectation. This is why we, at MetWest Capital, continue to focus on identifying unique individual investments that have the potential to return more than the average in the coming years.

To this end, recent additions to our *Intrinsic* Value portfolios include:

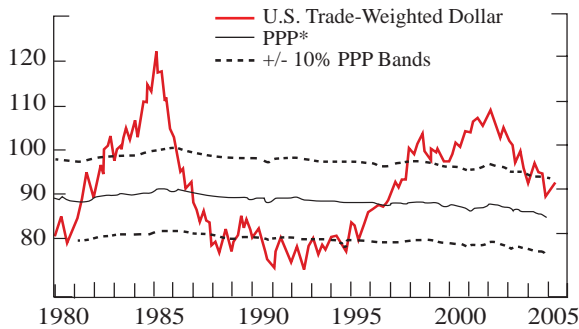
Portfolio Activity

- **Deere & Co.** is the world’s largest manufacturer of agricultural equipment. Its familiar green and yellow tractors, combines and tillers help to automate farms in more than 160 countries around the world. It also has a growing presence in construction, forestry and consumer applications. After more than a decade of adding shareholder value and generating returns far in excess of its cost of capital, Deere fell on hard times from 1999-2002 during an agricultural recession. As we believe we are entering a long-term global uptrend in farm economies, farmers around the world will have the need and wherewithal to upgrade to newer, larger and (for Deere) more profitable equipment.
 - **Warner Music Group** is an example of a spin-off discussed in last quarter’s *Capital Visions*. It is rare for us to participate in an initial public offering, but as part of Time Warner, WMG has a history dating back fifty years. Its music publishing business owns more than one million song copyrights, including that to “Happy Birthday to You” by Mildred and Patty Hill. So each time you sing that song, please mail 99¢ to Warner’s CEO Edgar Bronfman, Jr. With music piracy slowly giving way to paid downloads and online music stores, WMG’s sales and profits are once again rising. Its cash-generative business model will allow the company to pay a 2½% dividend in addition to allowing for the growth that we expect.
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INTERNATIONAL STRATEGY

Most international equity markets also brushed off higher energy prices last quarter. The MSCI Europe, Australasian, Far East Index (EAFE) measuring most developed markets lost -0.9% in U.S. dollars but rose more than 4% in local currencies. For the year thus far, EAFE is down about -1% in dollars but up +8% in local currencies. We believe that while the snap-back in the value of the dollar may persist for a while, ultimately the dollar will again turn lower.

Purchasing Power Parity



*Purchasing Power Parity
Source: J.P. Morgan and the International Bank Credit Analyst

The chart above depicts the U.S. trade-weighted dollar versus Purchasing Power Parity since 1980. G7 countries are used – U.S., Canada, Japan, U.K., France, Germany and Italy. The red line represents the value of the dollar relative to the other six national currencies. Note the significant peak in 1985 followed by a long decline to 1995, a rise peaking in 2001 and steady decline since. The PPP line (with 10% bands on either side) represents that exchange rate at which the purchasing power in the U.S. would equal that of our trading partners. This means that, for example, if a loaf of bread costs £0.60 in London and \$1.00 in the U.S., then PPP would be 1.667 \$/£ ($1 \div 0.60$). If the exchange rate were 1.800, then the dollar would be deemed *undervalued*. A basket of many goods and services is used in the actual calculation.

Note from the graph that, as of today, the dollar is about 10% overvalued. Were China included in this picture, as many suggest it should be, the dollar would be further overvalued. As inflation is running higher in the U.S. than in our trading partners as a group, the PPP line is trending down, indicating the need for further dollar weakness over time. One of the reasons the dollar has strengthened of late is that interest rates are higher here than abroad. Since the Federal Reserve (FED) began raising rates one year ago, not only have international interest rates not followed the U.S. higher, but in some cases, they have actually declined. This is due to regionally weak economies coupled with no clear resolve to do anything about it. One recent example is France's and The Netherlands' rejection of a centrally coordinated European governing body.

But as the above chart shows, the dollar always trends toward its PPP equilibrium rate. True, it doesn't seem to remain there for long (usually overshooting it one way or the other), but history suggests that the recent dollar strength is temporary. A lower dollar means that foreign stocks, denominated in yen, euro or sterling, will appreciate, all else being equal.

To take advantage of attractive international opportunities, recent new investments have included:

- **The Altana Group**, based in Germany, comprises two operations. Altana Pharma is a drug development company focused on gastrointestinal, respiratory and cardiovascular diseases. Its largest product is for acid reflux disease (serious and recurring heartburn) and is marketed by Wyeth in the U.S. under the name Protonix. Altana Chemie is a specialty chemicals company providing additive materials used for coatings (including paints), sealants, electrical insulation and other (primarily) industrial products. Very small amounts of Altana's chemicals can dramatically enhance the characteristics of its customers' final products, allowing for good pricing flexibility. Like many of its European peers, Altana plans to eventually split its two businesses into separate companies. This will be a significant *catalyst* for adding shareholder value that we believe is not reflected in the current stock price.
- **Embraer**, based in Brazil, is the world's fourth-largest commercial aircraft manufacturer. Its forte is in building regional airplanes with about 50 seats. Recently, the company was certified to build two new families of planes (the ERJ 170 and 190 series) that can hold up to 110 passengers. JetBlue has 100 such planes on order with first deliveries scheduled for later this summer. With both R&D and production costs much lower than its competitors, Embraer is expected to continue to grow its market share and gradually enter new markets (both geographically and by product) over time. Selling at 7.0x '06 EV/EBITDA with a solid balance sheet and 3½% dividend yield, we find ERJ a compelling investment.

FIXED INCOME STRATEGY

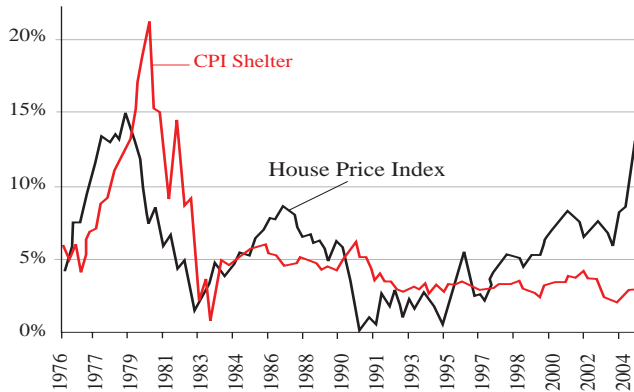
As expected, the FED raised interest rates by one-quarter of one percent in each of its two meetings this past quarter. The 3.25% Fed Funds rate has now been raised four times, or one full percent, thus far this year. It stands far above the 1.00% level of a year ago when the FED started raising rates but still well below the 6.50% level when it last began lowering rates in early 2001.

FED Chairman Alan Greenspan has been speaking of a bond market "conundrum." On the day the FED began raising short-term interest rates (June 30, 2004), U.S. 10-year Treasuries yielded 4.60%. While the yield curve typically "flattens" during rate hike periods, it usually does so by long rates *rising*, but less so than short rates. This time, thus far, long rates have actually *declined*, with 10-year yields ending this past quarter at 3.92%. We believe the Heisenberg Uncertainty Principle may be at work in the U.S. fixed income markets. That is, the scrutiny placed on the FED's moves, coupled with its new transparency policies, has resulted in unintended consequences.

Due to such a clear telegraphing of intentions by the FED, bond investors long ago took positions to benefit from what should now be taking place. As is so often the case, when everyone makes a "bet" one way, the opposite often occurs. But this has much more to do with technical factors and funds flows than with true fundamentals. In the long run, interest rates move with inflation. While the consumer price index (CPI) has increased lately, it is still below 3% on a reported level and barely above 2% excluding the volatile food and energy components. This is one of the reasons for low long-term rates. But we believe that the CPI will move higher, at least for the next couple of years.

The following chart depicts an anomaly in the way the index is constructed that may be obscuring higher price levels.

House Price Index vs. CPI Shelter



Source: Bear Stearns and the Bureau of Labor Statistics (BLS)

The agency that calculates official inflation measures considers many varied components of CPI. These include food, education, clothing, healthcare, new and used vehicles, shelter and many others. Energy represents only 8%. By far the largest single component of CPI is shelter, representing 32.9% of the overall index. The biggest part of shelter is “owners’ equivalent rent” (OER). But with the U.S. home ownership rate at a record of nearly 70%, the biggest part of CPI is considering *only* those who rent their primary residence and not those who own.

The rationale for including only OER is that it is extremely difficult to accurately measure changes in the cost of owning a home because so many factors are at play (interest rates, down payment levels, real estate taxes, etc.) So it is assumed that *eventually* the costs of owning a home and renting one will even out. But the chart above shows there may be a time lag involved. Note the blue line representing the House Price Index. We know that it has been on a tear of late (some cities more so than others, but the direction is up nearly everywhere). The red line is CPI Shelter and has actually ticked *down* since home prices started skyrocketing. This is because as home prices have moved up, more people have decided to take the “plunge” or forever be locked out of owning their own home. Thus, more people are buying, fewer people are renting and apartment vacancy rates have increased. Higher vacancy means a soft rental market and modest, if any, price increases.

But this may be about to change. For, as occurred in the late 1970s, and again in the mid-’80s, when housing prices continue to escalate, eventually rental rates rise as well. This one factor alone, we believe,

can add 1% to CPI. Add to this our belief that higher energy prices will eventually work their way into CPI as well as continued upward pricing pressure on most services (especially healthcare), and we see inflation as likely to increase.

We are not predicting the runaway inflation of yesteryear. Far from it, as we believe the next peak on CPI could still remain below 4%. We are also mindful of some *deflationary* tendencies that could reemerge in the next economic downturn. But for now, we expect the Heisenberg Principle to fade as inflation ticks up, the yield curve remains relatively flat, and interest rates, both short- and long-term, move modestly higher.

Not all securities mentioned herein are necessarily owned in all MetWest Capital portfolios. Differences due to restrictions, tax considerations, cash flows and other factors may have impacted the decision to buy and/or sell certain securities at specific times. Inclusion does not imply that investments in these securities have been profitable. A list of all recommendations made in the prior one-year period is available upon request.

CONCLUSION

Ordinarily, *Capital Visions* is devoted to discussing an investment topic as a means to give our readers, clients and other interested parties a better understanding of our investment process. This quarter, we chose to highlight our organizational structure. The “silos” in which our teams operate serve to insulate the investment team from undue outside influence. We likened the nature of these forces to that of the Heisenberg Uncertainty Principle, whereby the *act* of measurement *changes* that being measured.

There are many biases and outside factors that have a tendency to focus investors on short-term or non-investment-related issues. We work diligently every day to mitigate those influences so that our team can focus on the important elements that add long-term value for shareholders. The Uncertainty Principle is but one example, and our “silo” structure is one way we deal with it. We have also pointed out the potential for negative consequences of Heisenberg’s Principle on corporate America – just read the daily headlines of announced jail terms for some examples.

In this quarter’s report we highlighted our expectations for modest equity returns in the coming years and believe that our individual company focus is uniquely positioned to deliver excess returns. We also pointed out the relatively high level of the U.S. dollar and low level of long-term interest rates. Both of these, we believe, are likely to be corrected in coming quarters. As always, we reexamine our theses constantly and will act upon changes as they occur.

We Wish You a Most Pleasant Summer!



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