



# **Bear-Market Equity Strategies**

## **Choosing Defensive Businesses**

**By**  
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*In theory, we should all be out of stocks when the market falls. But as we recently saw, for the umpteenth time, major tops aren't so easy to identify while they're unfolding. And after the fact, many hesitate to completely jump ship because we know that bad times create the worst selling occasions and the best buying opportunities (as discussed further in my recent Positioning For Recovery blog). So defense needs to be part of any investor's strategic arsenal. Usually, this beings with a list of businesses that are thought to be least vulnerable. And in this regard, a little TLC can improve the list beyond what we can usually cull from folklore alone.*

## **We all have to eat**

Even during the worst recessions, we continue to eat. That's why food tends to be one of the most frequently-cited defensive businesses out there.

This isn't to say food companies (and their shares) are completely immune to the business cycle. We may trade down from premium brands to store brands or other brands that are on sale. And food consumed in restaurants may lose ground to food consumed at home, and even regarding meals at home, food we cook ourselves from basic less expensive ingredients may gain at the expense of costlier prepared foods. But instead of mourning the misfortunes of recession-plagued food processors or grocers, we should appreciate the many ways it could be worse. At least they aren't in the business of making homes, cars, or reinforced steel.

That is an example of what we look for when we put together a list of defensive businesses. The overarching mantra: it's bad, but not nearly as bad as it could be if we invested instead in . . . (fill in the blank).

## **The standard list**

Just about anyone who compiles a list of defensive businesses would put food grocers and food processors (but not restaurants) at or near the top. Other standard favorites include healthcare, personal care products, drug stores, and utilities.

That sounds logical. But Portfolio123 users are accustomed to more than that. We like to test our ideas, to find out if the conventional wisdom really delivers.

Table 1 is an advanced backtest of weekly 4-week portfolios with the first one starting 3/31/01 and the last on compiled on 9/13/01, each consisting of all stocks (with market capitalizations of at least \$250 million) in all the traditional defensive areas: consumer staples, health care, selected retailers (grocers, drug stores), utilities and waste management.

(For those unfamiliar with advanced backtesting, it doesn't use a model portfolio approach. Instead, I created hypothetical portfolios at the start of each week between 3/31/01 and 9/13/08. All were then "held" for only four weeks. In other words, portfolio 1 ran from day 1 through day 28; portfolio 2 ran from day 8 through day 35, portfolio 3 ran from day 15 through day 42, and so forth. The results reflect the average performance of the 390 four-week portfolios thusly created.

**Table 1**

	Average "excess" (vs. S&P 500) share price change when . . .	
	Market is Up	Market is Down
<b>All Stocks</b>	2.23%	-0.20%
<b>Standard Defensive Groups</b>	0.36%	0.69%
Computations are for stocks with market capitalizations of at least \$250 million		

O.K. Strictly speaking, it works.

We gave up quite a bit of upside performance. But we had to expect that since we are, after all, looking for a strategy suitable for recessions. At such times, we have more important things to think about than foregoing upside potential. And we did improve on the downside, that being our main goal.

But frankly, the results are not great. The impact is pretty conspicuous in the non-crucial area (forfeiting the upside), but less noteworthy in the important place (the extent of the downside protection we get).

So in fact, it seems like the defensive-stocks folklore, while not false, leaves room for improvement.

Before going further, there is an important thing about the backtest results that needs to be recognized. The last two months were dreadful, unspeakably so, for pretty-much everything. If I line up all the numbers, some differences are observable, but they aren't dramatic and have almost an appearance of randomness such that relying on the test results would be little more than an exercise in "data mining."

I believe this reflects, not a typical recessionary market but a widespread liquidation of equities as an asset class, with selling pressure for individual stocks having little to do with their characteristics and much to do with who the bigger sellers are and how badly and how quickly they need to cash out. If you expect this sort of liquidation to persist, I suggest not even attempting to define a recessionary equity strategy. Consider switching instead to [a market timing model](#). All subsequent discussion of recession-oriented equity strategies assumes we'll pass move this mass liquidation and, within a reasonable time frame, transition into a more "normal" bear market, where relative distinctions can be made among stocks based on definitions of merit (such definitions being what will be discussed henceforth).

### Housekeeping

Let's first review how a defensive-business list can be created in Portfolio123. There are some subtleties, here, since we're mixing and matching industries and sectors. We're still going to go to FUNCTIONS >> GROUPINGS, but this time, instead of choosing Industry or Sector, choose Universe. The standard syntax is Universe(). But when basing your universe on business classification, as opposed to a market-based list, add the "\$" prefix the name of the business; i.e., Universe(\$Energy) for the Energy sector or Universe(\$OILPRD) for the Oil & Gas Operations industry. And as we continue, we'll see that Portfolio123 saves us some work by creating special \$-groups comprised of industries and/or sectors that we'd often want to combine.

A screening rule requiring companies to be in the standard collection of defensive businesses referred to above looks like this:

Universe(\$UTILIT) or Universe(\$CONSSTAPLES) or Universe(\$HEALTH) or Universe(\$WASTEM)

Now, let's give a bit more consideration to each of our so-called defensive business areas and see if we can improve on that screening rule.

### A closer look at Consumer Staples

Notice that the label \$CONSSTAPLES doesn't correspond with any standard industry or sector. If you look in the Full Description of the Universe item, you'll find \$CONSSTAPLES among the special universes created by Portfolio123 by mixing and matching sectors and industries. Specifically, this one includes:

- All industries within the Consumer Non-Cyclical Sector
  - Beverages (Alcoholic)
  - Beverages (Nonalcoholic)
  - Crops
  - Fish/Livestock
  - Food Processing
  - Office Supplies
  - Personal & Household Prods.
  - Tobacco
- The Retail (Drug) Industry
- The Retail (Grocer) Industry

Anyone can look at any list and find something to quibble about, but frankly, on the whole, this looks pretty good to me. We're dealing with small-ticket purchases of everyday items. I don't believe it would be constructive to dig further into the relative cyclicity of buying a can of Bud versus Samuel Adams beer. Generally, all of these groups seem proper for recession-oriented investing strategies.

Table 2, which tests a defensive sub-universe consisting only of stocks from the Consumer Staples group as defined here confirms that.

**Table 2**

	Average "excess" (vs. S&P 500) share price change when . . .	
	Market is Up	Market is Down
<b>All Stocks</b>	2.23%	-0.20%
<b>All Consumer Staples Stocks</b>	-0.06%	1.79%
Computations are for stocks with market capitalizations of at least \$250 million		

We trimmed a bit more from the area we're not focusing on, the upside, but gained noticeably on the downside. So let's leave this as is and go on.

### A closer look at Healthcare

The case for healthcare as a defensive business is twofold. First, just as we want to eat even during recessions, we likewise want to heal when we get sick. Second, healthcare has strong secular growth prospects based on new technologies and discoveries, and an aging population that will result in healthcare becoming an increasingly larger percent of overall consumption.

The industries that comprise the Healthcare sector are as follows:

- Biotechnology & Drugs
- Healthcare Facilities
- Major Drugs
- Medical Equipment & Supplies

The general two-prong case for healthcare still seems valid. But looking more closely at the industry list, I have issues.

I'll start with Major Drugs, known more colloquially as "Big Pharma." Traditionally (the 1991 recession and earlier downturns), this was as good as it got when one considered defensive businesses. In fact, it was terrific during good times as well. These companies were much-admired, widely-recommended, strong-performing profit machines with some of the biggest names being fixtures on just about every advisor's buy-list.

That was then. Fast-forwarding to the present, we see companies plagued by expiring patents, declining revenues (sick people still buy drugs, but when patents expire, they pay a heck of a lot less), and new-drug pipelines that seem pedestrian at best.

I don't want to indict big pharma as a whole. Some companies are doing better than others. But clearly, I'm no longer willing to follow tradition and treat the full group as a sound defensive business. What I will do is fine tune. Table 3 shows the result of a backtest comparing big pharma as a whole to big pharma firms for which the consensus estimate rose in the past four weeks and for which trailing 12 month revenue growth is above the industry average.

Universe(\$MAJRRX) becomes . . .  
 (Universe(\$MAJRRX) and CurFYEPSMean > CurFYEst4WkAgo and Sales%ChgTTM > Sales %ChgTTMInd)

**Table 3**

	Average "excess" (vs. S&P 500) share price change when . . .	
	Market is Up	Market is Down
<b>All Stocks</b>	2.23%	-0.20%
<b>All Major Drug Stocks</b>	-0.70%	1.30%
<b>Filtered Major Drug Group</b>	-1.31%	2.16%
Computations are for stocks with market capitalizations of at least \$250 million		

Big pharma as a whole still worked during the testing period, contrary to my assumption, but not nearly as well as Consumer Staples. Both groups offer comparable down-market performance, but Consumer

Staples is noticeably better on the upside; an issue that, as noted, is not critical, but it can still be a useful tie-breaker.

The filtered portion of big pharma is interesting.

It trails more in up markets, but gets a nice upward bump in downside performance. It leaves me wondering if different filters might generate further improvement, but for now, for this particular study, I'll accept the filtered major drug group as a reasonable approach to defensive investing. (Recall that we're not being faced with stocks that fall in up markets; we're talking about a group that went up but to a lesser degree than the S&P 500. This contributes to my willingness to accept negative upside relative performance in a recession-oriented strategy.)

Biotech is a different matter. This includes some giants but on the whole is a much more R&D-intensive area with a lot of companies that hold much promise but can leave executives and shareholders lying awake at night wondering where the cash will come from since revenues can, at times, be modest or worse. For investing during recessions, I'm fine with a biotech that's solid in terms of cash generation and a share price that has at least some plausible relationship to financial performance (as opposed to those that may depend on funding from financially-strapped private equity or big pharma firms). But I fear the more speculative firms.

I'll test a Biotech universe filtered to include companies with positive free cash flow in the trailing 12 month period and the both of latest two fiscal years, and a price-to-free cash flow ratio that is below the industry average).

Universe(\$BIOTRX) becomes . . .  
 (Universe(\$BIOTRX) and FCFPSTTM>0 and FCFPSA>0 and FCFPSPY >0 and Pr2FrCashFITTM< Pr2FrCashFITTMInd)

The test results are in Table 4.

**Table 4**

	Average "excess" (vs. S&P 500) share price change when . . .	
	Market is Up	Market is Down
<b>All Stocks</b>	2.23%	-0.20%
<b>All Biotech Stocks</b>	1.25%	-1.09%
<b>Filtered Biotech Group</b>	0.47%	1.35%
Computations are for stocks with market capitalizations of at least \$250 million		

Unquestionably, Biotech as a whole is not a suitable area in which to invest during recession. The last thing we want are stocks that habitually underperform on the downside.

A case can be made for the filtered sub-group. Downside protection is better than it was for conventional-wisdom defensive stocks as a whole. Interestingly and purely as a bonus, we wind up with some excess return on the upside as well. Again, I might be able to drive further improvement with additional filtering. But for now, I'll accept the sub-group.

As to the other healthcare industries, Healthcare facilities (mostly hospitals) and Medical Equipment & Supplies, the traditional investment cases (we need it even in bad times and secular growth due to an aging population) seem most on target.

But as I recall from recent years, it's still easy to lose big money in these areas, even from shares of good companies. The problem is political. Often, revenue prospects for these companies depends directly on indirectly on how generous the government wants to be in the reimbursement practices it pursues in connection with areas like Medicare. Stocks move on relevant facts, and on rumors of what may come. If you hadn't already been nailed in the past, you'd be amazed at how big a hit you can take in shares of a highly profitable company with the greatest new technology in the world if a rumor surfaces that reimbursement rates for the procedure will be cut thereby making the treatment less profitable causing hospitals to defer purchases of the new equipment (and, of course, prompting analysts to cut estimates and downgrade the shares).

Not all companies in these areas are equally impacted. Some facilities are more dependent than others on the politics of reimbursement. Ditto different kinds of equipment. And some companies emphasize supplies (small-ticket consumables like bandages) rather than equipment. The good news is that many of the more troublesome trends have been in place now for a while, making historical data reasonably useful in helping us filter. For facilities and equipment-makers, I'm going to restrict considerations to shares whose betas are below their respective industry averages. In other words, I'm assuming the riskier business will already stand out through higher stock betas.

(Universe(\$HHTHFAC) or (Universe(\$HTHEQP) becomes . . .  
 (Universe(\$HHTHFAC) and Beta< BetaInd) or (Universe(\$HTHEQP) and Beta< BetaInd)

Tables 5 and 6 show the back-test results.

**Table 5**

	Average "excess" (vs. S&P 500) share price change when . . .	
	Market is Up	Market is Down
<b>All Stocks</b>	2.23%	-0.20%
<b>All Healthcare Facilities Stocks</b>	-0.10%	1.85%
<b>Filtered Healthcare Facilities Group</b>	-0.98%	2.31%
Computations are for stocks with market capitalizations of at least \$250 million		

**Table 6**

	Average "excess" (vs. S&P 500) share price change when . . .	
	Market is Up	Market is Down
<b>All Stocks</b>	2.23%	-0.20%
<b>All Medical Equip. &amp; Supplies Stocks</b>	0.65%	1.17%

<b>Filtered Medical Equip. &amp; Supplies Group</b>	0.08%	1.97%
Computations are for stocks with market capitalizations of at least \$250 million		

My first observation is that the unfiltered groups seems more viable than I had initially anticipated. That's one of the reasons back-testing is so great: It puts painful anecdotal experience into a more objective perspective.

Nevertheless we see that the subjective impression did contain some validity. Even though the benefit of this type of filtering appears to be less than I initially anticipated, there is enough improvement here to warrant using the filtered sub-groups.

### **A closer look at Utilities and Waste Management**

I lump waste management in with utilities (electric, natural gas and water) since all provide similar behind-the-scenes, day-to-day necessities. Speaking of necessity, these are the most cyclical of the less cyclical groups. We always need electricity, for example, but in times of recession, when business activity cranks down, we need less of it. But all things considered, the variable portion of the business is small enough relative to the portion that is needed every day to justify the conventional wisdom that regards these as defensive businesses.

That said, I recognize that the modern less-regulated utility business is more complex than the traditional model with companies varying widely in terms of how they power their plants, whether they re-sell power, or even the extent to which they dabble in non-regulated areas. So I'll try filtering the utility group by limiting consideration to stocks with below-average betas.

Universe(\$UTILIT) or Universe(\$WASTEM) becomes . . .  
(Universe(\$UTILIT) and Beta

Tables 7 and 8 show the back-test results.

**Table 7**

	<b>Average "excess" (vs. S&amp;P 500) share price change when . . .</b>	
	<b>Market is Up</b>	<b>Market is Down</b>
<b>All Stocks</b>	2.23%	-0.20%
<b>All Utility Stocks</b>	-.09%	1.07%
<b>Filtered Utility Group</b>	-0.63%	1.96%
Computations are for stocks with market capitalizations of at least \$250 million		

**Table 8**

	Average "excess" (vs. S&P 500) share price change when . . .	
	Market is Up	Market is Down
<b>All Stocks</b>	2.23%	-0.20%
<b>All Waste Management Stocks</b>	0.43%	1.36%
Computations are for stocks with market capitalizations of at least \$250 million		

As anticipated, Waste Management is OK as is. The Utility group, modestly acceptable in whole improved with filtering.

**A new, filtered, collection of defensive businesses**

The original defensive business screening rule looked like this:

Universe(\$UTILIT) or Universe(\$CONSSTAPLES) or Universe(\$HEALTH) or Universe(\$WASTEM)

Now, with all the filtering, it looks like this:

(Universe(\$UTILIT) and Beta CurFYEst4WkAgo and Sales%ChgTTM> Sales%ChgTTMInd) or (Universe(\$BIOTRX) and FCFPSTTM>0 and FCFPSA>0 and FCFPSPY >0 and Pr2FrCashFITTM< Pr2FrCashFITTMInd) or (Universe(\$HTHFAC) and Beta< BetaInd) or (Universe(\$HTHEQP) and Beta< BetaInd) or Universe(\$WASTEM)

That's an eye-full. If you'd like to use this list as is, [help yourself](#). Otherwise, if you want to add your own variations, I suggest building rules for one business at a time, copying them all into Word or a text editor and working there to combine with "or" statements, and then pasting your new mega-rule back into the screener.

Is it worthwhile to bother with all this?

Table 9 shows the back-test results comparing all stocks, all defensive stocks, and my new filter-based, group of defensive stocks.

**Table 9**

	Average "excess" (vs. S&P 500) share price change when . . .	
	Market is Up	Market is Down
<b>All Stocks</b>	2.23%	-0.20%
<b>Traditional Defensive Stocks</b>	0.36%	0.69%
<b>New List of Defensive Stocks</b>	-0.13%	1.82%

Computations are for stocks with market capitalizations of at least \$250 million

Speaking for myself, it isn't even close. I'll take the new, filtered, defensive stock group (pending any additional improvement I might be able to garner by working more with the filters)./p>

The benefits relative to the entire stock universe are quite pronounced. We introduce a substantial level of improved relative performance at times when the market goes down. And if we misjudge the market and hold too long beyond the slump, we can still pretty much match the S&P 500 rising-market performance.

The advantages relative to the traditional defensive group are also noticeable. We get a noticeable performance enhancement in down markets and an acceptable level of underperformance in the lower-priority up markets.

Finally, we're hopefully not dependent entirely on past-is-prologue statistical testing. I tried to support the choices of businesses and filters with fundamental logic.

### **Unfinished business**

Even the filtered defensive stock list still leaves us with about 500 choices. So next time, I'll add fundamental rules to get us down to an investable level, 20 positions. If we add some additional performance potential as well, so much the better. But at the very least, we want to capture the performance characteristics of the filtered defensive list with a buyable number of stocks.

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