

## Screening for Global Opportunities

*Scouring the world for value plays is not an easy job, but the Quant Foreign Value Fund has found a way to narrow down a universe of 24,000 companies down to 400 in just two days. The remaining 28 days of the month are for scrutinizing financial statements and for traveling around the world for a first-hand experience with the companies on the short list. An emphasis on cash flow enables comparisons and helps to control the risk.*

**Q: What is the investment philosophy of your fund?**

**A:** The objective is to deliver above-average returns with lower than market risk. The first part is relatively easy if you use high-risk stocks. But the important thing is to generate above average returns with lower than market risk.

The whole philosophy is based on two pillars, cash flow and discount rate. Basically, we're looking for streams of stable free cash flows, which, after being discounted at our required rate of return, are less than or equal to the market value.

We believe in cash flow for many reasons. First, when you look at P&L statements of companies in 50 countries, the numbers are very different because of the different accounting standards like depreciation, tax laws, etc. The cash flow statements give us an apples-to-apples comparison when we compare a Spanish utility with a Japanese utility. Second, any asset can be looked upon as a discounted stream of free cash flow so that helps to compare investments across asset classes. And third, the P&L can be manipulated by management, whereas it

is more difficult to manipulate the cash flow statement. Overall, we believe that cash is a fact, while profit is an opinion.

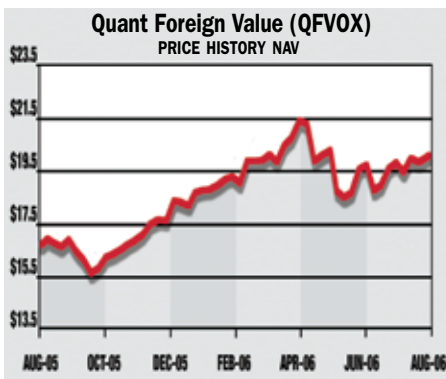
Then we need a discount rate to discount those cash flow streams to the net present value. We call the discount rate 'The Polaris Global Cost of Equity,' and it has three main parts. The first part is the long-term real rate of return on equities, which is about 6% over 50 years in real terms. In other words that's return domestic or global investors have earned in an index fund. But since the objective is to beat the market, we add a 2% active management premium because the top performing active managers over a long period of time beat the index by about 2%. So the discount rate becomes 8% as long as we're investing in one country. The risk profile changes as soon as we step into a second country.

Different countries have different fiscal policies, monetary policies, exchange rate risks, corporate governance risks, etc. Instead of hiring several PhDs to measure those risks, we take a risk premium from government bond markets as a proxy



**BERNARD R. HORN, JR.** President of Polaris Capital Management, Inc., is a Boston-based money manager who specializes in the management of international equity portfolios. Mr. Horn brings nearly 20 years of international investment experience to the Fund.

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for the country risk. That's very useful because the fixed income to market is very efficient in pricing country specific risk.

After discounting the free cash flow with a different discount rate for each of the 50 countries, we arrive at a net present value for the firm. We compare the net present value to the current market value of the company. If the current market value is less than or equal to the NPV, it's a good buy. If not, it goes to our watch list. This is more of an absolute return strategy.

**Q: Do you include dividends as part of your absolute return strategy?**

**A:** We're looking at what returns we would get if we invest in that company. When we say free cash flow, we mean free cash flow to shareholders, so dividends would have to be paid out of this free cash flow. In other words, the free cash flow is before dividends, not after dividends.

When we go to the company level, we try to understand how management would use the free cash flow, how it allocates capital, so we need to know why the company prefers to pay dividends and not do share buy-backs or repay debt or invest in new projects. We are fine as long as the company is allocating capital to a positive net present value activity with a required rate of return equal

to or higher than the Polaris Global cost of equity for that company. But we wouldn't preclude a company just because it's not paying dividends.

**Q: Would you describe your investment process?**

**A:** We have a database of about 24,000 companies in 50 countries. We screen this database using many parameters such as free cash flow yield equal to or greater than our global cost of equity.

We also try to avoid value traps by comparing the five-year growth in cash flow to the growth in sales. At the end of the day, not too many management teams are efficient enough to squeeze their sales enough to grow cash flows for the shareholders at a rate faster than sales growth. Another parameter is debt/assets because we don't want risky companies with high levels of debt. We also avoid companies with one-time cash flows that are not repeatable in future.

At the end of the day, we come down to about 400 companies. Because of information technology, it takes only about a couple of days a month to get to 400 companies from 24,000. The remaining 28 days we go around the world, meet managements, walk the shop floor, and understand the business model of the company, its cash-generating process, how the management looks at risk, and how it allocates capital. We have very exhaustive in-house financial models and that's one of the things that separate us from the Street. These financial models enable us to have meaningful discussions with management because the numbers in our models always help us to keep us grounded to reality. We also spend time in talking to customers/suppliers/competitors before making an investment.

**Q: How do you construct your portfolio with those fifty companies?**

**A:** We form an equally weighted portfolio because we believe in those fifty companies equally. If we thought that one company was the best, we should have invested all the 100% in this company, but that wouldn't be wise for diversification purposes. The bottom line is that we know we have made a mistake but we don't know in which company. We try to ensure that we are in fifteen geographies and fifteen industries at any one point in time and that's the only restriction. The rest is a bottom-up driven process.

We rank the companies from the most attractively valued to the least, and if any of the new names we look at beats any company in our portfolio, we'll make a switch. Typically, a stock represents 2% of the portfolio and we'll let a winner run until it is about 4% before we trim it or sell it off entirely.

The portfolio turnover is around 30%, so we hold our stocks for about three to five years. That helps us to stay focused on the long term and not spend too much time if a company misses its earnings forecasts by a penny or two without the fundamentals of the business changing.

**Q: What's your approach to risk control?**

**A:** We can't do anything about the share price; it's not in our control. But we can control the kind of companies we buy so we try to buy cash flows with as low volatility as possible and hope that the market sees that one day. We can also control the price we pay to make sure we earn our required rate of return.

Probably the biggest risk control we have is the high discount rate we

use.. We also believe that equity investing is about assumptions and reality. By keeping our assumptions to the minimum, we have taken a lot of the risk away. The assumptions we make are conservative, so the chances are high that reality will be better than our expectations

For example, we normally use top-line growth of 2% in real terms and almost all of the companies in our portfolio grew by more than 2% over the last 5 years. We love growth; we just don't want to pay for it.

I believe that's the best way to address risk is looking at stable free cash flows and making conservative or pessimistic assumptions.

**Q: Do you use specific weights for the fifteen geographies and sectors you invest in?**

**A:** No, it is a bottom-up process, so we try to ensure that we are well diversified across industries and countries. For example, in emerging markets we've been as low as 0% and as high as 22%.

The exposure depends on where the screens take us as we try to take subjectivity out of the process.

**Q: Could you give us a couple of examples that illustrate how an idea becomes a holding?**

**A:** Japan is a unique example. It is one of the places where field trips definitely help; it requires a lot of ground work before you invest because of the language issue and because you have to understand what's happening there.


Japanese companies were in our screens for months so we did preliminary research on a number of the companies. The companies were from different sectors, includ-

ing steel, shipping, a brewery, dairy, and railroad transportation. So I went to Japan and met with about fifteen companies in about a week and we ended up buying six of them.

Two are shipping companies, that benefit from increased global trade and the remaining four were domestically oriented.

We bought a brewery, a dairy, and a telecom company. We also bought Central Japan Railway, which not only carries passengers but owns and manages the real estate at its busy train stations. People have to travel to work and in Japan the rail system is the main way people commute.. After the field trips I definitely felt that the domestic economy is looking up, people are spending more money and unemployment is improving.

**Q: How do you build the confidence that a historical free cash flow yield will also be maintained in the coming quarters?**

**A:** The first thing is our pessimistic assumption of modest top-line growth that rarely exceeds GDP growth in any country. The second thing is spending most of our time on basic fundamental analysis – building exhaustive financial models, site visits, management meetings, talking to competitors/suppliers/customers, all done to understand the sustainability of the business model. We do more than 250 company meetings every year and that's a lot of information and a huge amount of intellectual capital that goes into our database on a daily basis. Combined with our past investment experience, it gives us the confidence that their cash flows are for real and are more than likely to be sustained. 

## Quant Foreign Value

Symbol	<b>QFVOX</b>
Website	<a href="http://www.quantfunds.com">www.quantfunds.com</a>
Address	Quantitative Investment Advisors Inc 55 Old Bedford Road Lincoln, MA 01773
Tel. No.	800-326-2151
Inception	5/15/1998

### PORTFOLIO

Total Net Assets*	\$490
Avg Mkt Cap (\$ Weighted)*	\$14,000
Average Price/Earnings Ratio	17.94x
Average Price/Book Ratio	2.48x
Turnover Ratio	10%

### INVESTMENT INFORMATION

New Investment	Open
Min Initial Investment	\$2,500
Min Subsequent Investment	N/A
Min Initial IRA Investment	\$1,000

### RISK (AGAINST MSCI EAFE - SINCE INCEPTION)

Alpha	0.10
Beta	1.05
R-Squared	0.79
Ann Std Deviation	11.99
Sharpe Ratio	1.78

### RETURNS VS. MSCI EAFE INDEX

	QFVOX	Index
1 Year (Cum.)	23.46%	24.28%
3 Year (Ann.)	24.97%	23.50%
5 Year (Ann.)	19.45%	11.82%

### RETURNS VS. MSCI WORLD GDP WT P INDEX

	QFVOX	Index
1 Year (Cum.)	23.46%	16.38%
3 Year (Ann.)	24.97%	17.04%
5 Year (Ann.)	19.45%	7.52%

### FEES AND EXPENSES

Max Sales Charge - Front	N/A
Max Sales Charge - Deferred	N/A
Max Redemption Fee	N/A
Total Expense Ratio	1.7%

### PORTFOLIO MANAGER

Bernard R. Horn, Jr	5/15/1998
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\*millions

Data through: 8/31/06

Source: Company Documents; Lipper

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