Arrow Capital Management Inc.

ACT II LONG/SHORT FUND

Commentary - December 2011

Experience. Intelligent Investing.

Act II Long/Short Fund had a disappointing year, in fact our first full year decline in our nearly 10-year history. In December, we were down 1.9% and for the year 7.8% while the S&P 500 rose 1.4%^ for the month, and was flat for the year, but up 2.1%^ including dividends. The NASDAQ fell 0.6%^ for the month and 1.8%^ for the year.

In looking back, we had a strong performance through mid-July, when macroeconomic worries began to outweigh fundamental stock picking. The European situation got worse concurrently with the U.S. debt ceiling crisis. The latter event sharply lowered confidence and renewed fears of a double dip recession in this country. In response to these two overhangs, we lowered our exposures, from a July high of over 150% gross and 54% net to just under 100% gross and 20% net by the end of September. While these moves helped us outperform substantially during the market's most severe drop over the summer, it wasn't enough to completely avoid a decline over that period. Then, an unprecedented 20% rally in 17 trading days in October caught us off guard. Given the market's enthusiasm for what seemed at the time to be a long awaited roadmap to fix the European sovereign and bank debt crises, we raised our exposure too late, and, in retrospect, at the wrong time. Subsequent disappointment that the European gestures were insufficient caused a substantial pullback in the market in November and through the first half of December.

The market gyrations resulting in large rallies and fallbacks in quick succession based on rumors or events about what was happening in Europe led to extremely high correlations between stocks and the market. As a result, the only thing that mattered was picking each market move, with little reward from picking individual stocks. The roller coaster movements made finding the right exposure levels quite difficult and complicated. Adding to our difficulty was a greater than usual number of individual stocks that had severe negative reactions to earnings or events, dragging down our performance even at times when the market had brief rebound rallies. Only some of this was fundamental. Much reflected a "de-risking" that clobbered smaller cap or high beta names, even when results and prospects had not changed. In addition, IBM's takeover of DemandTec, one of our shorts, at a 45% premium was the largest factor in our December underperformance.

While Act II did quite well in the dramatic bear market of 2008, with a 4% advance, the direction of the economy and markets was almost straight down rather than the schizophrenic movements in 2011. The situation back then was based on easier to analyze fundamentals in the industries we invest in. It was also more United States centric. Our biggest lesson out of all that has happened in the last couple of months is that an attempt to call the market turns, which depend entirely on events outside of our control and on which we have no edge, is counterproductive. We should have stayed pat at a reasonable, but conservative, exposure level.

On the positive side we had strong results in a number of our sectors and individual stocks, and in our short book, other than DemandTec. On the long side, our investments in the media and entertainment sectors were positive contributors, led by Liberty Media, Comcast, Cinemark, DirecTV, CBS and Viacom, as well as Internet services company, Live Person. Liberty and Comcast remain among our top 10 current positions. Our second largest winner, Telecity Group, the U.K.-based data center operator continued, along with Liberty Media, to be one of the two best performers in the fund's history. We paired our long position in Apple, which is our second largest holding, with shorts in the smart phone industry share losers, namely RIMM and Nokia. We also had short winners in a handful of other tech stocks, especially Smith Micro Software and Logitech, as well as in publishing, telecom, and in some consumer cyclical stocks. In technology, we actually made more money on the shorts than the longs.

The fundamental problem stocks, which we have mostly commented on in previous letters, were NII Holdings, ReachLocal, Omnivision and Shutterfly. In addition, European exposed companies; cyclical stocks, and small caps were slammed by fears over the macro economic outlook, despite generally continued underlying corporate strength in many cases. Examples of the latter were names such as Manpower, Stroer Out of Home (a German billboard company), Gameloft (French

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^ Indices are denoted in US dollars.

based mobile gaming company in which we have made substantial profits over the years), and Jiayan.com (a Chinese online dating site).

We have tightened the portfolio by reducing the number of names to core positions in which we have great confidence. Our five largest positions at year-end were Comcast, Apple, Signet, Century Link, and Qualcomm. We believe Apple and Qualcomm are the best bets on the rapid growth of smart phones and wireless data, and both are at attractive valuations. Comcast is largely a subscription business selling at the low end of its multiple range with increasing returns of capital to investors. Century has an 8% yield, one of the highest in the S&P 500. Signet is the largest jewelry chain in the U.S., and is benefitting from troubles at its nearest competitor, Zales, and consolidation in the industry. As one can see, this list is generally composed of less cyclical companies with good visibility and attractive valuations. We have reduced our exposure to European, small cap and high beta stocks for now. Overall exposure at year-end was 84% on the gross side, and 41% net.

As to our outlook, the U.S. is showing strength and appears to have passed the stage of worry over a "double dip." Profits have held up nicely, and balance sheets are, if anything overcapitalized, the exact opposite of the situation in 2008. With 2012 S&P 500 estimates still around $105 per share, the market closed the year at a 12 multiple compared to its 15 times historic average despite low interest rates. While the key is still Europe, and the resolution may be piecemeal, rather than the one shot ECB equivalent of the Fed's quantitative easing in this country investors were hoping for, it appears that the "nuclear meltdown" risk has subsided to a low probability, although at least a mild recession on the Continent is likely. Under this scenario, the stock market should be able to advance in 2012, with the timing relating to the clarity of the picture in Europe primarily, and the continued gradual recovery in the United States. The recent decoupling of U.S. and emerging market stocks from European shares is encouraging.

In summary, we expect a better year in 2012 both for the market and for Act II. We believe the portfolio is well balanced with core holdings in which we have fundamental conviction and a conservative balance between our gross and net exposures. Our compounded annualized rate of return, net of fees, since our beginning in March 2012, is still 8.4%, which is far better than the miniscule 0.9% for the S&P 500. We hope to continue and hopefully broaden that advantage in the years ahead.

SPOTLIGHT ON: THE WIRELESS CHESS BOARD

In a surprise almost as great as last March's AT&T bid for T-Mobile, Verizon announced a deal to buy Spectrum Co., the joint venture of Comcast, Time Warner Cable and Bright House, which holds 20 MHz of very attractive unused wireless frequencies in the 700 MHz band. Cox Cable, which has similar spectrum, has joined the deal, as well. The collapse of the AT&T/T-Mobile deal for regulatory reasons, which was launched in no small part by the former company's need for spectrum, throws the competitive battle and the hunt for spectrum further into a tizzy. Adding to the confusion are the diminishing prospects for LightSquared because of its inability to get around GPS interference issues, and the renewed life in Clearwire from an increased Sprint funding commitment and concurrent financing. Then there is the mystery of what Dish Network does with its now more valuable idle spectrum. It claims it does not intend to merely sell it, but to seek a partnership. To whom and for what use is unclear.

While the Government blocked the AT&T/T-Mobile merger in order not to reduce competition, the bottom line in all this may be the opposite. T-Mobile is left not only without AT&T as a partner, but in a situation whereby it can no longer look to what had been its logical second or third choices. A merger with Sprint, which is what was expected before the AT&T bid, would seem to be ruled out by the Justice Department's opposition to reducing the top four competitors to three. That would have left Spectrum Co. as the next best option. Meanwhile, Verizon's competitive position has gotten stronger. While the Justice Department has also announced it will investigate the Verizon/cable deal, we believe the Government's spectrum priorities will trump fears of a negative impact on competition, and that the Department's concern might be more over the cross licensing agreements between the cable operators and Verizon than the spectrum sale.

The Verizon cable deal will at least get some of the spectrum that is lying fallow into use. That has been a major objective of the FCC since it issued its Broadband Plan in 2010, claiming the need to find 500 MHz of new spectrum by 2015 to meet the needs of wireless broadband, in view of the continued 50% compound rate of growth in demand. This demand is being fueled by the rapid increase in smart phone wireless video usage and the faster speeds required by 4G. Smart phones consume more than 25 times the bandwidth as feature phones, and tablets and laptops even more. Without freeing up more spectrum, the industry may hit a wall in that out year, requiring carriers to slow down transmissions and favoring the haves from the have-nots. We have already seen the end of unlimited data plans by AT&T and Verizon as this chokehold approaches. AT&T recently stated that it expects the amount of mobile data traffic on its network in the first five to seven weeks of 2015 to equal that of all of 2010.

So far, almost no unused spectrum has been pried loose except the satellite/terrestrial bands allocated to DISH (assuming regulatory clearance) and LightSquared, and now the cable controlled frequencies. The biggest idle chunk belongs to broadcasters, and the FCC is trying to get Congress to authorize incentive auctions for up to 120 MHz of television station spectrum by willing sellers. Bills giving the Commission such authority have been introduced, but tied up in debates over other issues that have nothing to do with spectrum. Even a success here would probably not lead to actual auctions before 2015, the target date. Meanwhile, the other holders of usable spectrum are public safety networks, which now look even more entrenched, and the Department of Defense, which is resisting giving anything up.

Verizon, AT&T, and Sprint are all in the process of launching or converting their services to higher speed 4G networks from 3G, using a technology called LTE, for Long Term Evolution. Because LTE allows faster broadband speeds and is two to three times more spectrally efficient for the carriers, ultimately all of them will have to offer it to be competitive. Verizon is furthest along, giving it a current advantage. The company has stated that 300 million pops will be LTE capable by 2013, and that 200 million already are. For AT&T, the LTE capable figure is 70 million now, and it will reach 170 million by the end of next year, and 250 million a year later. Sprint will start rolling out LTE in mid 2012 and hopes to cover 250 million pops by the end of 2013, using Clearwire's spectrum for much of it after it launches an LTE network. Clearwire, which has the most spectrum, or 150 MHz throughout the U.S., is Sprint's vehicle for much of its 4G plans, but it will need additional financing to complete its geographic coverage. The smaller operators, like MetroPCS and Leap, will need to find spectrum, as will T-Mobile now, over and above what that company will be getting from AT&T as part of the breakup fee. There are also independent carriers like U.S. Cellular, Ntelos, and wholesale operators, the most important being American Movil's Tracfone, which resells off both the AT&T and Verizon networks.

Not all spectrum is alike. The lower bands, like 700 and 800 MHz are the most attractive in terms of their coverage and propagation characteristics. At the other end, Clearwire's, at 2.5 gigahertz is seen as a supplement to other frequencies in densely populated areas, but not all agree it is attractive for standalone general market coverage because of its limited propagation characteristics. The spectrum that is most attractive for LTE are the bands that are not being utilized or are underutilized, meaning existing customers don't have to be moved. These include the 700 and AWS (1.7 to 2.1 GHz) areas which are the ones most in demand.

Another important differentiator is depth of market coverage. Carriers might have what appears to be sufficient total spectrum, but not in the right places. Leap just did a trade with AT&T in which it acquired 10 MHz in Chicago where it was severely constrained. In exchange it gave up much more spectrum in smaller cities in which it doesn't operate. While Clearwire has the most raw tonnage in terms of spectrum owned or leased, its network build-out covers less than half the country. These differences are reflected in what the various spectrum bands are worth. The Verizon/cable company deal for raw 700 MHz spectrum was priced at $0.70 per megahertz per pop. DISH is buying S Band spectrum at $0.24 per pop, but satellite requirements and other regulatory questions are factors in its lower price. Shares of Clearwire, with more debatable spectrum, is trading in the stock market at the equivalent of $0.12 cents per megahertz/pop.

How much each carrier needs, where they need it, where they will get it, and how much it will cost are the current questions. There is also the matter of financing in the case of the newer players such as LightSquared and Clearwire. Verizon, with 108 MHz of spectrum, is the only one fully covered with the needed capacity to provide a 20 MHz (10 x 10) LTE service across the whole United States in the most uniform and desirable frequencies, at 700 MHz and in the AWS spectrum. AT&T is next best situated, with about 95 MHz, net of what it will have to give up to T-Mobile, but it has mixed frequencies, and doesn't have enough to cover all its needs in certain of the largest markets even though the company has almost the same totals as Verizon. This includes the recently purchased 6 MHz spectrum from Qualcomm. AT&T does have a couple of years in which to acquire what's needed, but the clock is ticking in formulating its plan.

Sprint is spectrum constrained on its own, with about 54 MHz in the top 100 markets, and could not offer a 20 MHz service nationwide on LTE frequencies, but it has rights to Clearwire's network to supplement what it does have. As noted above, however, those frequencies aren't universally attractive. In an FCC filing, Sprint estimated that only about one-third of Clearwire spectrum is usable in its top 100 markets. AT&T and Verizon have both said that Clearwire spectrum is not suitable for their networks. Sprint through its Network Vision project is also refarming some of its existing bandwidth, ultimately eliminating the WiMax network dedicated to the Nextel push to talk business, and moving its 3G service there to solve some of its needs. Sprint's wholesale agreement with Clearwire would do the rest. At a recent conference, Sprint CEO Dan Hesse said that the agreement with Clearwire gives his company visibility on pricing and capacity through 2016.

MetroPCS and Leap have between 10 and 30 MHZ in most of their top markets currently. Neither has enough to widely support a 20MHz LTE deployment. MetroPCS has been rolling out LTE across most of its markets but with only 5 to 10 MHz of bandwidth. The company has the most immediate need for more spectrum, and has said that getting additional frequencies is its highest priority. MetroPCS had been rumored to have bid on some of the S Band frequencies that eventually went to DISH. It has also stated its interest in working with Clearwire. Leap also needs more spectrum, as it only has enough to roll out a 5 MHz by 5MHz service currently, although it is launching LTE service more slowly than MetroPCS, having opened its first system, in Tucson just recently. In addition to the swap with AT&T to expand coverage in Chicago, Leap had been negotiating with that company to acquire assets that would have had to be divested had the T-Mobile deal been cleared by the Government.

LightSquared has ample spectrum and more than a dozen prospective wholesale clients lined up, including Leap and Sprint, but it doesn't have either the regulatory clearance or financing yet. Most importantly, the issues of GPS interference may make LightSquared's spectrum unusable, forcing its potential tenants to go elsewhere. LightSquared would also still have to raise billions of dollars to complete its network even if it does get regulatory clearance. It has a network sharing arrangement with Sprint, which it claims will significantly reduce its financing needs. The failure of LightSquared would thus reduce potential income to Sprint. The agreement between the two parties, which was to have expired at December 31, pending LightSquared getting clearance and financing, was recently extended.

The biggest uncertainty, of course, is over what T-Mobile does now. It is the only national carrier without a complete 4G network plan, and the only one without the iPhone. Both issues were put on hold during the AT&T merger waiting period. The company will be receiving an estimated 11.5 MHz of AWS spectrum covering 135 million pops from the AT&T breakup fee, covering 12 of the top 20 markets, according to a J.P. Morgan report. This has an estimated $1 billion book value according to the agreement, but at the Spectrum Co. valuation, it would be worth more like $1.5 billion. Proforma for this, T-Mobile would have about 59 MHz of spectrum in the 1.9 GHz and AWS bands, according to that research report. T-Mobile has indicated that it has adequate LTE spectrum for 12 of the top 20 markets. Parent Deutsche Telekom has made it clear it wants to get out of its U.S. operations and a further 4G build out would require several billion dollars of capital expenditures and spectrum purchases. The company is likely to reconsider selling its tower portfolio, one of the largest independent groups around, and that could be worth more than $2 billion. T-Mobile's options include a network sharing arrangement with AT&T or Sprint/Clearwire, or some agreement with virtually any of the others except probably Verizon. In the meantime, T-Mobile poses some threat to the low end players, like Leap and MetroPCS, if it uses aggressive pricing as its response to its current competitive situation.

It would appear that the two companies in the best position to benefit from the current industry turmoil are Clearwire and DISH. But both have complications: Clearwire's spectrum is mainly valuable in dense city locations, as noted, and the company's network isn't fully built out to offer complete coverage of the country. Its current network uses WiMax technology, but its recent funding will allow it to layer on LTE in its existing footprint. Clearwire still needs additional funding for expanded coverage, which it has considered obtaining through selling excess spectrum. Clearwire does have use of the Sprint network where it is not built out, but Sprint may become capacity constrained itself, and it is in the midst of refarming existing frequencies in its Network Vision plan. On the other hand, if LightSquared falls apart, and its current client list needs an alternative, Clearwire could be the best one. As noted above, T-Mobile may also avail itself of Clearwire facilities now that the AT&T deal has fallen through.

DISH would be an attractive partner for either AT&T or T-Mobile. DISH actually has the most paired spectrum, which is in the S band at 2.0 to 2.2 GHz, and it has another 6 MHz in the 700 MHz band. The S Band spectrum is in two contiguous chunks, which means the company could sell off one and keep the other for other uses, such as its professed interest in a wireless broadband bundle for its video subscribers. For AT&T, DISH's spectrum could be combined with recently acquired Qualcomm frequencies, which are unpaired (downlink only) to provide a 12 MHz block nationwide.

However, the S band rules still require a combined satellite and terrestrial service, and DISH would need an FCC waiver to offer a terrestrial only service. LightSquared got such a waiver when it bought SkyTerra Communications, but it was conditioned on limiting to 25% the amount of spectrum that could be sold to either AT&T or Verizon. An immediate flip of DISH's frequencies for a large gain could also run into FCC charges of "unjust enrichment" (a windfall profit), for which the Commission might demand the company give back some spectrum or proceeds from the sale as a condition of a waiver of the satellite requirements. DISH has not actually closed on the acquisition of the S Band properties yet, because they are being bought out of bankruptcy, and the company still needs Court approval for the transfer. DISH is paying $2.8 billion or $6.22 per share ($0.23 per MHz/pop) for the S band spectrum. At the Spectrum Co. valuation, it would be worth $8.6 billion, or $19 per share, although its spectrum is less attractive. DISH's other 6 MHz of spectrum in the more valuable 700 MHz band might be worth another $1.2 billion, or $2.67 per share, based on the Qualcomm/AT&T deal for similar assets. Unlike LightSquared, DISH's S Band frequencies do not have GPS interference issues.

With the regulatory and business plan uncertainties and because DISH management has been notoriously uncommunicative with Wall Street, it is harder to bet on the stock despite the obvious value of its spectrum position, especially after the jump on the AT&T/T Mobile breakup news. A new Chief Executive, Joseph Clayton, has opened up communications by meeting with some investors. In recent appearances, he has stated a willingness to pool DISH's wireless assets with T-Mobile's. However, the real decisions are still being made by controlling shareholder and Chairman Charlie Ergen.

From a stock standpoint, we do not have a meaningful position in any of the carriers. Both AT&T and Verizon offer attractive dividend yields, but they are not cheap by historic relative P/E measures, probably for that reason. MetroPCS and Leap offer good growth if they can get the spectrum they need, although they are at the most competitive end of the market. The long rumored merger of the two would still make sense, and provide coverage of all the major markets, but not solve their spectrum needs since they are largely in different cities. Sprint and Clearwire are more complicated situations given their interdependence and both spectrum and financing needs, although the outlook for the latter has improved with its new financing and agreements with Sprint. A collapse of LightSquared would be a boon to Clearwire and its shares. That would also be true for DISH, which is a riskier bet, but one with a potentially bigger payoff. The brass ring for DISH would be an AT&T acquisition of the whole company, although the satellite requirements and SkyTerra type limits would be obstacles. A merger or pooling of interests of DISH and T-Mobile spectrum would be the second best outcome.

With greater clarity or new developments, we see Clearwire and DISH as being the most interesting ones to look at for new investment, as beneficiaries of the AT&T/T-Mobile breakup and in Clearwire's case from its recent financing. We have recently established a small position in Clearwire. Meanwhile, our plays continue to be primarily in the tower sector, where growth in demand drives the need for more sites regardless of market shares, and in shares of Apple and Qualcomm, which are beneficiaries of the rapid growth of wireless data and smart phones, almost irrespective of who the carrier winners are. Resolution of the spectrum and consolidation issues is important to the tower operators. For one thing, increased tower capacity is necessary to continue to accommodate the growth we see in wireless data. Secondly, the more competitors, the better for the sector. Thus the AT&T/T-Mobile deal caused an initial negative reaction in tower stocks, while its break-up caused a rally, as it has in the shares of DISH and Sprint. A national public safety network, while not helping the spectrum utilization issue would be bullish for towers as well.

Thank you for your continued interest in the Fund. For further information, please contact your regional Arrow representative.

Regards,
Dennis H. Leibowitz