

## ACT II LONG/SHORT FUND

Commentary - January 2012

Experience. Intelligent Investing.

Act II had a 1.2% net gain in January in a strong month that saw markets quiet down and steadily rise. While the S&P 500's 4.4%<sup>^</sup> gain was larger, we were pretty much in line with our 40% net exposure, and would have been ahead of that pace, except for one big miss—Interdigital—which cost us 50 basis points. IDCC is a patent company which had put itself up for sale, but terminated the process in favor of individual patent sales when it did not get a sufficient bid for the whole company. We had strong gains in our two top holdings, Comcast and Apple, and in Microsoft, one of our newer major positions. To some extent, gains in Apple, Microsoft and Qualcomm (another of our better performers in January) helped the NASDAQ to a particularly robust 8.0% gain as they account for more than one-quarter of the index's weight. Other double-digit gainers among our longs included Liberty Global, Sirius/XM, and EchoStar.

Both the rise in the market and decline in volatility reflect a cooling down of the European debt crisis more than anything else. Efforts to shore up banks by low cost loans from the European Central bank, and other measures by the various lending institutions, seemed to satisfy investors that the worst case risk of contagion from the problem countries was no longer likely. While the situation in Greece in particular remains shaky, bond auctions in Italy and Spain have soothed nerves there, and the market seems to have concluded that the continuing threats are more walled off to places like Greece and Portugal than to the entire Eurozone.

A European recession is also increasingly already baked into numbers, and the better outlook in the United States and especially emerging markets, China in particular, are giving investors comfort that there will be net global growth, even if slower than hoped for. In this country, results got better, slowed down, and now seem to be steadily improving, although at only a modest pace. Recent employment and manufacturing data in particular look encouraging.

It appears from the companies that have already reported calendar year results that S&P earnings came in at about \$97 per share last year. Estimates for this year have stuck at around \$105 per share. While the increase is less than originally expected, since last year's numbers were better than forecast, an 8% gain is still respectable.

Given the \$105 figure, the S&P closed January at 12.5 times forecasts compared to an historical average of over 15 times. The Fed's projection of minimal interest rates through 2014 puts the multiple discount into an even more favorable light. Not only should this mean lower discount rates on earnings projections, but it should increase the demand for alternative returns to the minimal interest rates on bonds from equities. The pushback here is the macro global risk factor, but that seems to be declining somewhat.

We note the frequency with which analysts are using 2013 in their target prices. While that may be premature this early in the year (or a sign that the market is stretched), it does generally give further weight to the more bullish case. The "risk on" trade seems to be coming back slowly versus the "risk off" characterizing the last quarter of 2011.

As we noted in our year end review, we had lowered our gross exposure as a means of being cautious during the extreme volatility of late 2011, while keeping our net exposure around 40%. We had also focused on larger cap companies, those with good returns of capital, and non-cyclicals, in deference to the market's wild swings. We have slowly moved up both gross and net exposure recently, figuring the downside risk is less than it had been, notwithstanding the market's recent moves.

### SPOTLIGHT ON: MEDIA AND TELECOM—THE MAJOR THEMES OF 2012

**CABLE TELEVISION:** The cable television group continues to be a story of moderating, but positive, top line growth as slowing video revenues are more than offset by increased high speed data share and accelerating commercial business. EBITDA is being levered down to the free cash flow line by margin expansion and lower capital intensity. Shares have outperformed over the last two years as the companies have accelerated returns of capital via share repurchases and dividends. Payouts have increased to well over 100% of available funds as companies fall below targeted leverage ratios, and because of the accelerating free cash flow.

<sup>1</sup> Unless otherwise stipulated returns are net of all fees, in Canadian dollars, reflect class "A" units and assume reinvestment of all distributions. This document is not to be construed as a public offering of securities in any jurisdiction in Canada. The offering of units of the Fund is made pursuant to the Offering Memorandum only to those investors in all jurisdictions of Canada who meet certain eligibility of minimum purchase requirements. Important information about Arrow Funds, including statement of each fund's fundamental investment objective, is contained in their respective offering memorandum, a copy of which may be obtained from Arrow Capital Management Inc. Please read the applicable offering memorandum carefully before investing. The information and materials in this document are for informational purposes only. They are not intended as investment, financial or other advice. The information included in this document is not an offer to sell. While the information and material in this document are believed to be accurate at the time they are prepared, Arrow Capital Management Inc. (and its affiliates, subsidiaries or sub-advisors) cannot give any assurance that they are accurate, complete or current at all times. Past returns are not necessarily indicative of future performance. Actual results will vary. This document is confidential and is intended solely for the information of the person to which it has been delivered.

<sup>^</sup> Indices are denoted in US dollars.

## ACT II LONG/SHORT FUND

From an operational standpoint, the cable industry continues to lose video subscribers for both competitive and economic reasons, and because pay television penetration has reached 90%, including cable, satellite and telco video offerings. The impact of the economy is seen through subscriber losses at the bottom tiers of service. Growth has also been stymied by the lack of household formations. Program cost increases remain at high single digits, factoring in cable network license fee renewals and retransmission payments to broadcasters. Nevertheless, video revenues have inched up modestly because of price increases, and increased take-up of advanced products like HD, DVR, whole home supplemental charges, and increasing video-on-demand usage.

Cable operators are trying to address these headwinds through offering lower priced tiers that don't contain expensive channels, particularly sports, and through authentication or "TV Everywhere" deals. In the latter case, subscribers can increasingly get cable programming on PCs, tablets and mobile devices as long as they are authenticated cable (or satellite/telcom video) customers. Authentication should reduce disconnects, and also addresses concerns about "over the top" competitors. So far, there is very little evidence of "cord cutting," with video defections largely due to economic and competitive factors.

Improved user interfaces, such as TiVO's Premier Elite set-top box or Apple TV, as Internet connected televisions are addressing one of the biggest complaints by subscribers, providing improved search and recommendation functions, while opening up more viewing experiences to both cable provided and outside content. So far, the latter is proving complementary rather than competitive. While the fear persists of new competitors in the pay television arena as the Internet connected television opens up the possibilities for new entrants, the inability or more likely high cost to obtain rights from those wanting to protect the current ecosystem make it difficult for any "virtual MSO" to gain a foothold, even if it is willing to take low margins or sacrifice profitability in order to sell something else, like Apple does with music, or Amazon does with Prime. And the cable operators would make it up through their control of broadband on which they could impose usage based pricing on high bandwidth consuming video content.

On the data front, things are brighter. Penetrations still have room to grow, and cable's 70% plus share of the market with its superior DOCSIS 3.0 technology is increasing at the expense of DSL offerings by the telephone companies. While AT&T's U Verse and Verizon's FIOS are competitive, their build-outs are nearing completion. Meanwhile, data is also driving the fastest growing element of cable revenues—commercial business. Here growth rates as high as 50% are being reported by Comcast, the largest player, and the industry is only now moving up the ladder from very small to medium sized businesses. The money available to these markets is in the billions.

In conjunction with the SMB (small & medium) business, cable operators are extending plant to cell towers, and providing superior backhaul pipes to wireless operators at cheaper prices than the telco competitors who are using older technology.

In the voice business, cable is also taking share, although growth is meeting the headwinds of wireless substitution. MSOs are often using telephone service as a come on to bundled video/data/voice triple play packages.

The final piece of the story is capital returns. With rising free cash flow and declining leverage, as well as Wall Street's demands for payback, cable companies have substantially increased returns of capital. Mostly this has been through share repurchases, but dividends have been initiated for the first time in many cases. As many operators have fallen below leverage targets, which can be justifiably sustained at higher levels than in other industries because of the stable nature of their subscription income, payouts have often been as high as or more than 100% of available free cash flow via borrowings to supplement internal sources, as noted. Thus, free cash flow per share growth has often been 20% or more.

Increasingly we think that bottom line-free cash flow per share growth-should become the basis of valuation. If so, average free cash flow yields of 10% or so are very attractive. Backing this up are EBITDA multiples at the low end of historic ranges, generally in the six times 2012 area, which is only slightly higher than the slow growing major telephone companies.

Among the companies, we find Comcast the most attractive. It is pulling away from the pack in terms of its performance among the group in terms of subscriber metrics. It is cheaper than the group, despite the fact that the NBC joint venture would ordinarily sell at a premium multiple to cable stocks, and the company lags the rest of the group in return of capital, which we expect to accelerate. A more speculative stock is Charter, whose penetrations are well behind the industry because of its prior bankruptcy. With a new CEO, Tom Rutledge, who led Cablevision to the highest penetrations in the industry, the potentials are the greatest in the industry. Charter's higher leverage in this case is one of the plus factors as capital expenditure ratios and interest expense are on the cusp of declines.

**SATELLITE:** The satellite sector continues to gain subscribers, though it's largely a function of DirecTV taking away customers from DISH Network as well as from cable. Satellite operators do not have the data/voice offerings of cable companies, but that has not prevented them from showing better performances in video, where many customers already have data/voice products from others, as a result of their industry leading efforts in new products, such as DirecTV's Sunday NFL package, Internet connected TV hookups, etc. DISH is also trying to start up broadband offerings, at first in rural markets, and possibly with new spectrum to its whole universe. With the

## ACT II LONG/SHORT FUND

fastest growing pay television business through its Latin American operations, and the most aggressive return of capital in the pay television business, DirecTV is a more attractive investment, in our opinion.

**MEDIA:** On the media side, the biggest surprise is how advertising is holding up despite economic uncertainties. This reflects a number of factors. The cutbacks in 2009 were the most severe since the Depression, and there is still a lot of catching up to do to solidify brands and introduce new products. Also, corporate profits are rising. Importantly, the auto industry is a disproportionate factor in the domestic broadcast business, and industry advertising has recovered sharply since the lows of the “great recession,” in line with unit sales, which, while showing good gains, remain well below peak levels.

The fact that 2012 is an election and Olympics year is also a plus for television broadcasters in particular. Because of the strong “upfront” commitments for the September 2011-2012 season, a good deal of the national business is baked in. While commitments have cancellation options, few are being taken thus far. Overall, U.S. advertising is likely to rise 4-5% this year, with a point or more included for the elections/Olympics factors compared to 3% or so growth in 2011, which was penalized by off year political comparisons. The most direct play on these trends is CBS, which is also benefitting from the strongest ratings performance among the networks and gaining substantial advances in retransmission fees from cable, satellite, and telco video operators.

The impact of elections and Olympics is greatest on the local television station side, and these are also the companies most dependent on auto advertising among all broadcasters. Radio would be next in auto advertising intensity. Retransmission fees to television stations are still rising at all levels, although network affiliated local stations will begin to have to give back about half their take to their networks by next year. With the every other year political phenomenon, group owner stocks tend to be valued on two-year average results. There has been increased activity on the M&A front, confirming values. One play we like on this is E.W. Scripps which, having bought the McGraw Hill television stations, now derives 80% of its profits from television, but still sells like a newspaper stock.

Globally, the outlook is also better than would have been expected given the U.S. economy, and the European debt crisis. The major advertising agencies have been raising their expectations for organic growth this year, with particular strength in emerging markets. Helping the agencies are the shifts to digital, the increasing fragmentation of media, and increased focus on targeting and measurability, for which agency work is more important and relied upon. The most levered to the global upturn is Interpublic, which continues to show a rebound in margins as well as one of the best organic growth rates. Overall organic growth for the major agencies could be 4% this year after a strong 2011 and despite Europe.

The shift in advertising from old to new media continues. The fastest growth among the major media continues to be in Internet advertising and within that the most rapidly growing subsectors are social and mobile. Social now represents about a quarter of display advertising and mobile about 10%. Such revenues were up 37% and 65%, respectively, in 2011 according to a recent Barclays report. Both search and display revenues were up about 20% last year, and should rise another 15% or so in 2012. Search commands about 60% of the dollars and display 40%. The major beneficiary is Google, which dominates search and has a rising display advertising business through YouTube. Google is also increasingly fragmenting search into various verticals that have historically been targeted by standalone companies. Within the display business, however, there is rising competition from Facebook, as well as Google, and this is particularly bad for both Yahoo! and AOL.

While these trends are positive for Google, there are some offsetting factors. Because costs per click are lower in mobile, Google reported a downward mix shift in the fourth quarter, which caused a significant drop in its stock price. The IPO of Facebook might deflect investor funds from Google, and there is the continuing controversy over the company’s acquisition of Motorola Mobility, and the use of its large cash hoard in general. Additionally, the blowout numbers reported by Apple’s iPhone indicate a loss of market share for Android handsets, which include Motorola’s.

Even faster growth is being recorded in the smaller mobile ad market. Newly public Internet companies with different business models like Groupon, Pandora, and Linked In have had mixed results in the public markets, although each is growing rapidly. All are still at sky high multiples, however, and we would not buy any of them. Groupon faces the question of low barriers to entry while the business model of advertising support and royalty costs for Pandora have caused a sharp drop in shares since the IPO. Linked In seems the most solid, but also at a very rich price. If anything can retain such values, it is likely to be Facebook, whose IPO filing has already caused a jump in the other recent Internet offerings, especially Zynga, with which it has a symbiotic relationship.

Cable networks are also gaining share, and they are the major component of profits at most of the entertainment companies. Television is the one old media exception to the shift in shares, as the ability to reach mass audiences and new non-live viewing options are compensating for the continued decline in traditional audiences. The losing end continues to be publishing, with directories the worst hit, followed by newspapers and magazines. All these sectors experienced continued declines in 2011 revenues as they did in 2010 despite the economic recovery. Major companies, like Gannett, have compensated some with sharp cost reductions, while The New York Times and the magazine industry are beginning to register meaningful income from “pay walls” on tablets and smart phones. While digital is a rising source of income, the publishing industry

## ACT II LONG/SHORT FUND

is expected to show further, although moderating print declines in 2012. In between the haves and have nots are radio, which should continue to show modest gains, partly because of autos, as well as the outdoor advertising industry, which is recovering nicely, and is not a victim of media share shifts. It also helps that its commercials cannot be skipped.

**ENTERTAINMENT:** At the entertainment companies, the major change over the last year has been that the fear of competition from “over the top” competitors, like Netflix and Hulu, has turned around and those companies are now viewed as a new source of income. As just noted, all of the majors—Disney, Viacom, Time Warner and News Corporation—derive the majority of their profits from their cable networks. Like the broadcasters, they had a strong upfront advertising season. Although ratings overall are slipping as some as cable networks mature, their affiliate fees from cable systems represent just under half their income, and steady predictable high single digit increases continue. A number of major renewals are coming up, representing step-up opportunities, most recently for Disney’s ESPN which just did an unprecedented 10-year deal with Comcast, which included the company’s ABC and other cable operations, and for News Corporation’s Fox News and FX networks. While Viacom has suffered ratings declines at Nickelodeon, this is more than compensated for by strong affiliate revenues and international sales. More importantly, it is among the cheapest stocks with among the most aggressive return of capital programs.

International sales of television programs by the domestic companies are rising substantially, especially to emerging markets. This is a benefit to all the major producers, which includes the television networks, especially CBS, as well as the companies with film studios. Most importantly, the increased demand for library content continues to be a major plus for all content owners. The producers are trying to increase the sale of library material without disturbing the present ecosystem wherein they derive their largest sources of income from the pay television buyers, or in the broadcast syndication market. The “TV Everywhere,” or authentication system, is an attempt to limit churn at the traditional distributors, while exploiting the new buyers, such as Netflix, Amazon, Hulu, and, if rumor has it, Google, Verizon, or Apple, among others. For old series or programs with continuing story lines, income from new buyers is found money, while the usual episodic situation comedies and dramas continue to be reserved for the traditional syndication market.

While the standard DVD sell through market continues its long slide, an increase in Blu-ray and HD rentals and sell through, and new digital distribution outlets are offsetting, so that for the first time in a number of years, U.S. home entertainment revenues are likely to increase slightly for the entertainment companies. Studio profits are still less than the contribution of their cable network income for

the major players, however. An exception is Dreamworks Animation, which depends almost entirely on two or three theatrical releases a year, and their subsequent DVD sales. The stock has been a poor performer for these reasons.

Time Warner probably has the least exploited library, and it controls digital streaming rights not only for HBO and Warner Bros., but for Universal and Fox movies. The emerging “windowing” and rising competition is most negative for Netflix, which will lose its rights to Disney product shortly, when its contract with Liberty Media’s Starz which holds them expires. Netflix also faces increased competition from other bidders for library content, which has been driving up costs faster than subscriptions.

On the movie theatre side, 2011 was a disappointing year, largely because of product, which as always is unpredictable. U.S. box office receipts declined about 4% with attendance off over 6%. However, we do not see this as being indicative of any change in industry dynamics. Among last year’s releases, results from 3D films was light versus expectations as studios rushed to get product out, and the quality of films was poor. We expect 2012 will have better product, and more 3D releases and 3D capable screens. Disney’s animated rereleases are showing a much higher than average 3D percentage of total box office and several 3D re-releases, notably “Titanic” are coming. Meanwhile international growth and 3D take rates abroad are much stronger than in the United States. The two most appealing aspects of the public theatre companies are their international operations, and their dividend payouts. Cinemark, the largest operator in Latin America with a near 5% yield, is our first choice here, while Regal has the highest dividend at nearly 7%. A more speculative alternative is RealD, which has the dominant share of 3D licensing income.

A less attractive sector is the videogame industry, which is being hurt by the shift to digital. Increased adoption by consumers of new business models, like free games subsidized by virtual goods and/or advertising, and new ecosystems, like tablets and interconnected televisions have made more sophisticated gaming available in online, multiplayer formats. This has hurt the traditional packaged goods publishers, like Activision and Electronic Arts, which are losing share to companies like Zynga. It is also creating headwinds for Gamestop, the largest retailer of videogames. We have been net short this group, although our one long has been Gameloft, the French company that is the largest independent producer of videogames for cell phones and tablets.

In common with the cable companies, the major company entertainment group is seeing accelerating return of capital through share repurchases and dividends. A recent Deutsche Bank report shows entertainment company share repurchases and dividends equaling 134% of their free cash flow last year compared to 68% in

## ACT II LONG/SHORT FUND

2010, with a forecast payout of 125% in 2012. This analysis includes Discovery, Scripps Networks and CBS, in addition to the four studio parent companies. We expect this will be the key variable in the group's ability to outperform again in 2012 as EBITDA valuations have come back closer to historic norms relative to the markets. While the rate of repurchases could slow some by those that were below and have caught up to their target leverage ratios, buybacks should nevertheless continue at high levels as companies lever their growth in annual free cash flow each year. Returns at Viacom may come close to doubling. Overall, free cash flow yields are still in double digits for the group which is materially better than the market's. Free cash flow per share growth is in double digits almost across the board, even where top line growth is modest.

**TELECOM:** Wireless—Mobile phone subscriptions crossed over the 100% penetration mark in 2011 to 110% of the population as customer counts rose 4.5%. This is still well below penetrations in some other countries where multiple SIM cards and/or phones carry the figures much higher. Figures include non phone devices, primarily tablets that have wireless subscriptions.

In wireless, the most important dynamic remains the growth in data consumption occasioned by smart phones and advanced networks. Smart phones now represent about half of the subscribers of the big four leading carriers and 40% industry wide. They accounted for over 70% of fourth quarter 2011 net adds for AT&T and Verizon. J.P. Morgan estimates smart phones will reach 64% of all postpaid subscribers by the end of this year, accounting for 76% of industry additions, and that iPhones will be one-third of the total. Of AT&T and Verizon's smart phone sales in the fourth quarter, 80% were iPhones, which accelerated with their availability on the Verizon and Sprint networks over the past year, and with the introduction of the new iPhone 4S.

The downside is that iPhones are heavily subsidized, to the tune of as much as \$450 per customer, leading to margin compression among those offering the product. Furthermore, while one would expect higher ARPUs from smart phones as a compensating factor because of higher data usage (AT&T says ARPUs on smartphones are double that from feature phones), this is being diluted somewhat by family plans, upgrades with the same subsidies, and non phone data devices among new customers. In the meantime, voice ARPUs are declining. Mobile video is still small, but the fastest area of data consumption growth. So on balance, the strong subscriber and top line results of the leading carriers are being throttled back on the bottom line by margin compression. To some extent, the carriers are trying to offset this with data price increases, but the net effect is still negative.

Within the industry, the two largest carriers are pulling away from the pack creating a bifurcation between the "haves" and "have nots." With its advanced rollout of LTE (Long Term Evolution) 4G systems, which are more spectrally efficient with higher data rates, Verizon has led

the charge in a competitive battle that is finding others scrambling to catch up. This race and the 50% pace of increased annual mobile data usage are behind the urgency to find more spectrum. As we wrote in last month's letter, Verizon is in the best position after the spectrum acquisition from a cable operator consortium. The company already covers 200 million population with its new LTE 4G network. Verizon sold 2.3 million LTE devices in the fourth quarter, which pushes up the competitive intensity. Since there are not yet LTE iPhones, Verizon's margin squeeze was less than AT&T's.

AT&T is next in LTE with 70 million LTE covered pops, and in spectrum, despite giving up a chunk as part of the breakup fee on its failed attempt to buy Deutsche Telekom's T Mobile. Both AT&T and Verizon plan to finish their 4G coverage by 2013. While an increasing proportion of mobile phone data is being used over WiFi (about 70% of tablet usage) which offloads some of the capacity demands, this is not enough to offset the need for more spectrum on the networks. AT&T recently commented that while LTE provides 30% to 40% more spectral efficiency, the combination of LTE and WiFi buys some time, but only equals one year's increase in capacity demand. The conclusion: the industry still desperately needs more spectrum.

Sprint is more constrained, having to reconfigure its network and rely on arrangements with Clearwire to meet its needs. The Government opposition leading to the breakup of the proposed AT&T merger has caused T Mobile to be in a more vulnerable position with respect to spectrum, despite the chunk it got from AT&T, and it has no current 4G rollout strategy. The company has been hemorrhaging customers for the last few years and will need to look for a new strategy. This could involve M&A, infrastructure sharing, wholesale arrangements, and tower sales, and a more aggressive marketing push at the low end from an operational perspective.

The smaller operators, Leap and Metro PCS, are in even more immediate need for spectrum and are in T Mobile's line of sight competitively. In addition, AT&T and Verizon are making a concerted push lately in the prepaid space, in which these two smaller companies are dominant.

The companies that have excess spectrum are DISH and Clearwire. As noted in our previous report, DISH's plans are not clear, and there are regulatory hurdles to giving it full access to the spectrum—a waiver to allow terrestrial only use of a band allocated to combined satellite/terrestrial use, and the ability to sell spectrum, if it chooses, to AT&T and Verizon, which was limited in approving competitor LightSquared's purchase of similar bands. LightSquared's prospects are dire because of seemingly insoluble GPS interference issues. As a result, Clearwire would be the most likely beneficiary of those seeking wholesale agreements to obtain access to spectrum, although its 2.5 GHz spectrum is mostly attractive for fill-in rather than broad coverage.

## ACT II LONG/SHORT FUND

From a stock standpoint, while the two large RBOCs seem best positioned to benefit from the acceleration of smart phone sales, and the shift to LTE, they are facing margin pressures from subsidies and not getting the expected lift in ARPU as we noted. Thus, their success is not fully translating to the bottom line. Shares are also selling at premiums to the market when they usually sell at 15% discounts. This is because of high dividend yields in income seeking market. Sprint, the third large public wireless company, is too muddled and intertwined with Clearwire to buy, in our opinion.

With its recent financing Clearwire itself may actually be the most interesting stock among the carriers for the reasons noted above. Until there is more clarity in their spectrum and competitive positions, we are hesitant to invest in Metro PCS or Leap at the moment, although they could figure in industry M&A to the benefit of shareholders.

For these reasons, we continue to believe investing in the carriers is not the best way to play the growth elements in wireless, namely data and smartphones. As we have detailed in past reports, our favorites are Apple, the tower operators, and Qualcomm, which benefits almost regardless of the carrier market shares.

**TOWERS:** We continue to see the tower group as the other way to play the rapid rise in wireless data usage. The competitive escalation to roll out 3G LTE networks adds to our enthusiasm, as does the failure of the AT&T/T Mobile merger proposal. While the LightSquared outlook is poor, most estimates for the tower companies have not included much for those prospects, nor have they put in any upside for new wholesale partners for DISH or Clearwire, beyond Sprint. With T Mobile's renewed need for spectrum adding to demand, and Clearwire's recent financing, we believe the tower industry outlook has gotten even better.

The conversion of American Tower to REIT status has set it apart from the group, indicating favorable potentials for the others when they eventually get to the same place, namely absorption of their NOLs. Because of the predictability of the tower business under long term business with escalators, rising demand for capacity, and 90% incremental flow through of additional business on existing structures, the tower business is one of the most attractive we know of. The group sells on free cash flow, and while at a premium to the market because of predictability and growth, it is actually selling somewhat below historical averages currently. Our favorite here continues to be Crown Castle, the cheapest in the group.

**WIRES:** Wireline penetration continues to decline on a secular basis, as wireless only households, which are now over 30% of the total, continue to grow. However, that decline is narrowing some. With the growth in other services, like DSL and Enterprise business, and in the case of Verizon's FIOS and AT&T's U verse, video, the traditional core business is diminishing as a percentage of revenues and profits.

The brightest item for the wireline business is the prospect for a rebound in Enterprise spending as the economy recovers. Capital has not been deployed to upgrade telecom and IT systems at a rate that would have been expected historically after an economic downturn because of concerns after the severity of the decline. We expect acceleration in telecom and IT spending although much of it may shift to operating expenses instead of capital expenditures as corporations make use of lower cost "cloud" platforms and applications. A revival of Enterprise business would be particularly important for the wireline carriers without a wireless business, such as Century Link and Time Warner Telecom. With a recent pickup in small business formation, companies focused on that segment, like C Beyond and Rackspace, may also benefit.

**Equipment:** In the wireless handset market, Apple and Samsung continue to be the dominant players, accounting for the largest share of the growth in smart phones and tablet hardware. As a result of their increased size and scale, they are able to exert more influence on their respective supply chains, distancing themselves from their competition. Apple and Android (which includes Google as well as Samsung) will emerge as the leading mobile operating systems for years to come. This increasingly pits Apple against Google which is some of what's behind the patent fights that we discussed in our September 2011 letter. Currently Android, which includes a number of players, has a 50% share among those that make handsets, while Apple has 20%. However, Apple's share is rising. Microsoft is introducing its newest mobile operating system, Windows for mobile, which Nokia will switch to, but its share currently is relatively low. Nokia, formerly the world's leading handset supplier has tumbled badly with the rise of smart phones, as has RIMM. Both are stocks we have been on the other side of over the last year.

The rise of Android may not necessarily translate into success for Google. The company is slowly losing control of Android as more handset and tablet makers attempt to differentiate and build custom user interfaces on top of it. Google's decision to buy Motorola to protect the Android ecosystem, as they claim, may actually do far more to undermine it. Android OEMs such as Samsung are increasingly growing concerned about Google's plans to use Motorola to launch their own Google Phone and Google Tablet. Thus, some are turning to Microsoft and custom operating systems to hedge themselves against Google. Android commoditization of these handset manufacturers is an increasing risk, which will weigh on margins as phones get cheaper.

The fastest growth in the handset market will be LTE phones as the major carriers roll out new 4G networks. LG and Samsung have suggested the market will be 35-40 million handsets this year and that could be conservative if Apple launches an LTE iPhone 5 in the second half. Today's LTE phones are bulky and drain battery power

# ACT II LONG/SHORT FUND

quickly, but integrated chips are coming from Qualcomm that will address this problem. No other baseband supplier will have a modem that will compare to Qualcomm's for at least another year. Qualcomm is the best play overall in the handset market because it has both chip set sales and royalty income, with patents used by all the manufacturers.

In the tablet market, Apple continues to dominate with a 70% share, and has exceeded forecasts despite the launch of Amazon's Kindle Fire, a hybrid tablet/e-reader, which at half the price of the iPad was considered its first real competitor. Amazon plans to launch additional tablets in 2012 with larger form factors, while Apple is expected to introduce a higher resolution iPad 3 next month. Barnes & Noble is the other major player in the e-reader market with its Nook products. While it has maintained an impressive share vis à vis Amazon, its retail business has suffered from the shift to digital.

In general, legacy consumer electronics products in the PC, mobile and home entertainment markets will continue their secular decline as more consumers buy integrated devices with functionality built in. Tablets and smart phones will become ubiquitous and replace PCs, GPS devices, gaming consoles, cameras, set-top boxes and television sets. The beneficiaries here include Apple, Google, and Microsoft, while companies like Sony, Garmin and Nintendo are at risk.

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

## CONCLUSION

Our focus, as described herein, is reflected in our top picks, Apple, Comcast, Qualcomm, Liberty Media, Viacom, Time Warner, Interpublic, and Crown Castle to name a few within our top 15 holdings. We are always trying to exploit these major themes, on both the long and short sides if possible. Note that our favorites tend to be larger caps, with less cyclicity for the most part as well. Hopefully, a more normal market will come at some point, wherein we can drill down into some of the more interesting smaller cap, cyclical, and even European stocks again.

Regards,  
Dennis H. Leibowitz