



THE CLEAN YIELD

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Shifting into Neutral: Carbon Offsets

Last year, the *New Oxford American Dictionary* picked “carbon neutral” as its trend-reflecting “Word of the Year.” The choice was hardly surprising: the Intergovernmental Panel on Climate Change had just published an authoritative treatise sounding the alarm on climate change, and Al Gore had cinematically revealed his inconvenient truth. People and companies began asking in earnest how they could take part in heading off disaster. “Become carbon neutral” was Gore’s reflexive answer. But that’s easier said than done, and if done, it represents the mere beginning of a solution.

If the growing concentration of atmospheric CO₂ has Earth’s inhabitants on a train accelerating over a cliff, full carbon neutrality right now would mean coasting at present speed. More radical action to counter the greenhouse effect will be needed to shift the train into reverse and



NativeEnergy, a top-rated carbon-offset firm, is headquartered in Vt. but majority owned by an intertribal council based in S. Dakota. Above, Jonny Bearcub Stiffarm, Business Devel. Mgr., discusses the many synergies of reservation-based wind energy.

head back to safety. Actions such as capturing and storing CO₂ deep in the earth or reflecting some of the sun’s energy back into space are on the table but are years away.

In the meantime, becoming carbon neutral is a modest, but helpful, goal. And however neutrality is measured, nearly everyone agrees the first steps to achieving it begin with energy conservation and efficiency. But after we change those light-bulbs and drive our hybrid cars and otherwise do our personal best to limit contributions to atmospheric CO₂ and other greenhouse gases (GHGs), even the most conscientious of us will still be responsible for moving the train toward the cliff. That’s where carbon offsets kick in.

An Inconvenient Ruse?

At the point where it’s too difficult to further limit our own emissions, voilà, we can purchase emissions avoidance or reduction elsewhere, where it is cheaper and simpler to achieve. As examples, offsets might capture atmospheric CO₂ in the trees of a new forest reserve or replace fossil-fuel electrical generation with low-emitting energy sources such as wind turbines.

Measuring “avoidance” has proved tricky. For starters, it’s necessary to estimate how much CO₂ and equivalent GHGs (CO₂e) would be released if no action were taken (see sidebar). Then, there’s controversy over how much CO₂e is actually avoided. Do tropical rainforests actually give off methane, a potent GHG? How much CO₂e is involved in manufacturing and maintaining a wind turbine? Who’s doing the accounting and how?

Buying and selling CO₂e avoidance—so-called carbon credits—may prove even trickier. The Chicago Climate Exchange (CCX) was established several years ago and began its trading operations in 2003.

Adding Up Subtractions

The carbon-offset economy could be out of *Alice in Wonderland*. By design, it rewards *not producing something invisible*. It trades in real dollars, but participation is quite voluntary. Withal, the economy’s key features are far easier to conceptualize than compute. *Additionality*, for example, is intuitive. Carbon-reduction credits should go only to projects additional to business-as-usual and additional to merely meeting legal requirements. No rewards are due a power company for building a wind farm simply to comply with a state’s minimum requirements for renewable energy in its generation mix.

Forestation projects that plant carbon-storing trees have come under question regarding *permanence*. What if a fire or disease were to destroy the forest, perhaps even years after planting? The carbon would be re-released as CO₂, but the credits would have been sold long before.

If a planned project, say small-scale hydro, needs a few dollars of up-front capital from an offset vendor but is thereafter self-sufficient, should the vendor be entitled sell the full value of all the offset carbon indefinitely? And who’s checking up to ensure that unscrupulous vendors don’t sell the same carbon reductions twice?

These and many other accountability and accounting issues are being addressed—some by growing market competition itself—but carbon-offset standards remain very much in flux. In this topsy-turvy world where the cost to produce benefits bears little relation to the amount of benefit, count on pricing to be capricious for years to come. In the meantime, *caveat emptor*.

It has floundered until recently, but now, increasingly, companies like DuPont and Motorola, cities like Oakland, and universities and other entities register with the exchange, voluntarily set legally binding targets for energy reduction, and buy

continued on page 4

Banking on the Unpopular The most popular investment strategy, practiced assiduously for thousands of years, is to invest in what everyone else is investing in. It is an approach that always works in the short-term, rarely in the long-term. So why does it continue to flourish? Because making choices without company is a lonely task. One's ego is on the line, naked for everyone to see.

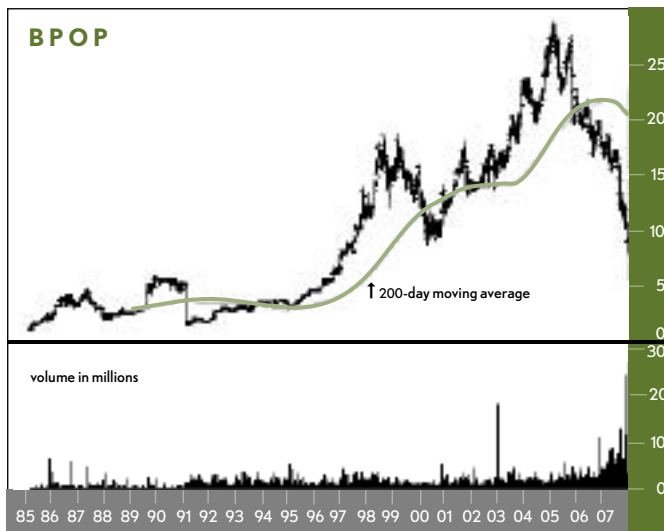
Doing what others are doing cloaks an investor in a mantle of security. Seemingly, one can't be wrong if smarter folks than oneself are doing the same thing. And if all are wrong, it is a collective failure, painful perhaps, but diluted; not nearly as devastating as standing alone, shamed by what feels like singular stupidity: "How could I...?"

We are fully aware that this little sermon may seem a little defensive, and admittedly it is. We are not unlike other investors; we like company. But since we are long-term buy-and-hold investors, we grit our teeth and force ourselves to occasionally stand alone and try to be true to our contrarian nature.

All this verbiage works up to the long-term bet: we like the banking sector and are tiptoeing into a few bank stocks. We were light in this sector for many years, not because we were prescient about the sub-prime debacle that has torched nearly every bank stock, but because we didn't like being overly beholden to interest rates, and we hated the social consequences of the consolidation that was going on in the industry. When we did buy a bank stock, it was always a small or regional bank (e.g., Republic National, Chittenden) or a bank that had an exceptional social return (e.g., Wainwright Bank), if not always a stellar financial return.

Many of the bank stocks are currently selling at valuations that haven't been seen in decades. Ironically, the sub-prime fallout, at least temporarily, has also put a stop to the voracious appetite that banks have had for each other during the last 10 years. Banco Popular (BPOP), one of our stock centerpieces in this

continued on page 3



POPULAR, INC. (BPOP)

Revenues: \$1.81 Billion

EPS: 2008E \$0.80

2007E \$0.85

2006A \$1.24

Web site: www.popular.com

Projected Annual Growth Rate: 7%

Dividend: 6.8%

52-Week High-Low: 19.05 – 8.41

Risk: Medium

Popular's Mechanics

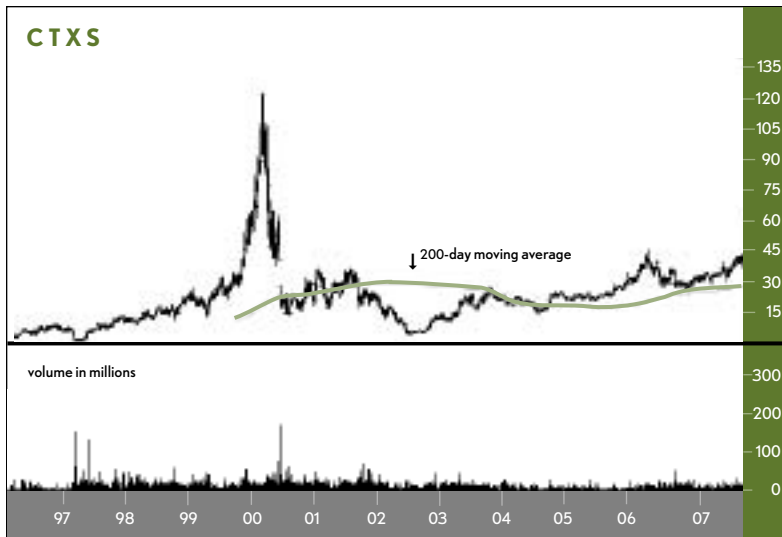
Popular, Inc. is the parent company of Banco Popular, the largest bank in Puerto Rico, with branches in the U.S., Caribbean, and Central America.

Banco Popular has had a very trying year. Its earnings were, and continue to be, clobbered by its sub-prime origination mortgage lending on the U.S. mainland, a business the company wisely but belatedly exited this past spring. In addition, Puerto Rico's complicated economic environment, now in a recession, has dampened the banking picture. Furthermore, the island's government is underfunded, and it shut down during a period in 2006. These factors all combined to send the stock's price down 40% during the last few months. Part of the tumble, of course, was also due to the collapse of the entire financial service sector.

Where there is a cloud, however, there is also financial opportunity (see accompanying article). Popular, a Tier 1 bank, is well positioned for a rebound in the second half of 2008. It intends to foster long-term growth by increasing its product offerings in Puerto Rico and breaking into more U.S. markets. The Hispanic population in the U.S. is growing, and the bank expects brand recognition will bring many new customers to its new U.S. branches. The bank's recent reorganization of its U.S. operations and focus on cost cutting should also help soften the damage.

In the meantime, Popular's 7% dividend, even if it faces some trimming, is hard to complain about.

Corporate Responsibility: In 1893, Popular's founders wrote an original charter to "foster the spirit of economy in all social classes, and especially in that of the poor, by means of savings." From its original charter, it's easy to see that being a responsible corporate citizen is in the bank's roots. Even though more than 100 years have passed, the bank continues to demonstrate that dedication to all "social classes." In 2003, the bank partnered with Acción a micro-enterprise nonprofit, to help make loans available to entrepreneurs who are underserved by traditional banks. So far, Popular has generated more than 1,400 referrals for Acción, and 150 clients have received a total of \$1 million in loans for their small businesses. The bank is also dedicated to volunteerism and offers 16 hours of pay for employees to volunteer each year. Popular's nationally recognized volunteer group, Dream Makers, holds annual service days during which it partners with organizations such as Habitat for Humanity. There are two women on the bank's board, and almost all members are Hispanic. The company provides health benefits for gay and lesbian domestic partners, a subsidized summer camp for the children of employees in Puerto Rico, and flexible working arrangements. ■



CITRIX SYSTEMS (CTXS)

Revenues: \$1.13 Billion

EPS: 2008E \$1.65
 2007E \$1.52
 2006A \$1.30

Web site: www.citrix.com

At Your Server

Technology companies are never simple to explain, and Citrix is particularly difficult because its products are buried deep within a computer's operations and are integral to how people use their computers in a seamless and transparent way. Citrix software programs allow employees to interface with servers, password protect individual work stations, work remotely with security, and manage many daily tasks. For example, when a doctor instantly looks up a patient's medical records from the exam room, she is usually logging into a Citrix program. Citrix is also a front-runner in "virtualization," a cutting-edge technology that allows a single server to simultaneously be used for multiple applications and functions, fostering efficiency and productivity gains.

By developing products and by judiciously making a number of critical acquisitions, the company has grown steadily since it was formed in 1989. Citrix customers include all of the *Fortune 100* businesses and 90% of the *Fortune 500*, as well as many international businesses. The company just completed a voluntary independent review of its stock-option dating, and although some options were unintentionally backdated, management is taking action, and Wall Street does not seem concerned. Currently, Citrix is well positioned with no debt, strong cash flow, and revenues over \$1 billion in 2006. With

Projected Annual Growth Rate: 15–20%

Dividend: 0%

52-Week High-Low: 43.90 – 26.10

Risk: High

such solid market share and a good sense of where the technology is heading, Citrix looks poised for continued growth.

Corporate Responsibility: Citrix's corporate responsibility includes philanthropy, community outreach, and beneficial technology. The company concentrates on three areas, both locally and globally: K-12 education, economic development, and technology advancement. At one project, Citrix is helping to bring Internet access and training to a community center in a remote region of Ghana. The Web access will help improve health care, education, and community development opportunities. Another consideration for socially responsible investors is whether a company's products are beneficial to society. With Citrix, the benefits are a no-brainer: its products allow people to easily and securely work outside of the office, allowing employees to access their workplace computer from 5 or 5,000 miles away. Using Citrix, a working parent might be better able to juggle family responsibilities because she can log in from home, or an HIV/AIDS researcher can travel the length and breadth of Africa without toting files and still have access to the home office halfway around the globe. ■

continued from page 2

issue, is presently selling at 65% of book value and pays a 7% dividend. It is priced as if it were going out of business—it is not. It also has a long and storied social history that will stand it in good stead while the industry struggles through these troubled times.



SOCIAL NOTES

✱ Though our lead article raps on CO₂, we're pleased that CY company **Modine** is a leading developer of CO₂-based automobile air-conditioning systems and is currently working with German carmakers on prototypes. As a refrigerant, CO₂ has thermal characteristics superior to the currently used compound, R134a, and crucially, as a greenhouse gas, it has only 1/1,300 of the global warming impact. Better thermodynamics means that cooling will be quicker and less fuel will be consumed for air-conditioning purposes. Furthermore, because CO₂ occurs naturally, it is easily recycled. The EU has banned R134a in new cars beginning in 2011, and CO₂ systems are the "air" apparent. Ironically, in the 1990s, R134a was itself the substitute for earlier refrigerants, which damaged the ozone layer.

✱ Speaking of natural products, **Tennant Co.** recently unveiled its Ech₂o (pronounced "echo") cleaning line. Described by the company as a "category-changing" advance, it replaces cleaning agents and uses only electrically activated tap water to scrub floors and other hard surfaces. Sounding almost too good to be true, Tennant says electrically charged water is cheaper than detergents or other chemical agents, doesn't leave residue, doesn't foul wastewater, and uses 70% less water than traditional methods, while cleaning at least as effectively. After 45 seconds, the activated water turns back into ordinary water. The company didn't invent the technology, but it has patents pending on several applications. Its first Ech₂o floor scrubbers came out in October.

rights to emit carbon when necessary from others who have cut back by more than their targeted share. Meanwhile, countries that have agreed to reduce emissions under the Kyoto Protocol are using the CCX and European exchanges to buy carbon credits from projects in developing countries when they haven't been able to meet their targets on their own.

Each U.S. resident has a carbon footprint of about 10 tons of CO₂ or its equivalent in GHGs each year, counting just home energy use and personal transportation. That figure roughly doubles when it includes the CO₂e embedded in the products we consume and all other indirect emissions. The current price of a ton of carbon on the CCX is about \$24, meaning each of us could buy our way into carbon neutrality for around \$500 per year.

Allocations in Europe were initially so generous that pollution rights cost next to nothing. In the current second round, the authorities were stingier in giving out rights, but prices still have been highly volatile, and the market, which already features options and futures and other derivatives, can hardly be called stable.

Critics say that the purchase of offsets by wealthier, higher-emitting cultures is akin to medieval indulgences, the system in which well-off individuals bought forgiveness of sin from the Church establishment. Our take is less harsh. We believe that carbon projects in developing nations will boost those economies. For critics who say that carbon credits merely pay for the right to pollute, we can't disagree. (Given the choice, we'd far prefer that governments impose stiff carbon taxes and apply the revenues to massive public energy alternatives and research.) Meanwhile, the climate-change choo-choo is heading for that cliff, and back at the office, you'll find us checking our carbon footprint... ■

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Big Ideas for Small Bucks

The community investing (CI) industry has been avidly embracing Information Age technology in the last few years, and this trend is continuing most notably in CI's international microfinance arena. Two new Web sites, **Kiva.org** and **MicroPlace.com**, are channeling an entirely new source of capital to that market: investors who are starting in the \$25 to \$100 range. Topping that, the two sites are creating "social capital"—human-to-human contact around common interests—bridging continents and cultures.

Much of CI's early Information Age transformation was technical and transparent to borrowers, except that it dramatically increased the availability of cash. In one example, **Charles Schwab**, and later a few other broker-dealers, opened their Web-based trading platforms to community investment bonds offered by the **Calvert Foundation**. That opened floodgates to CI investment, because it enabled financial managers to buy community investments in the same convenient way they bought stocks and bonds.

Another manifestation of technology is CDARS, the Certificate of Deposit Account Registration Service. This program pools banks' federal deposit insurance—normally capped at \$100,000—so that large depositors can be insured up to \$30 million. This enabled, for instance, the large retirement fund, TIAA-CREF, to buy \$22 million of community development bank CDs earlier this year.

Even before all the attention that surrounded last year's Nobel Peace Prize award to microfinance pioneer Muhammad Yunus and his Bangladesh-based Grameen Bank, some of the world's largest banks, such as **Citigroup** and **Deutsche Bank**, and foundations, such as **Omidyar** and **Ford**, had begun pouring resources into microfinance for the world's poor. The assets of federally recognized Community Development Financial Institutions had jumped five-fold in the decade ending in 2005, to \$20 billion. (This year's asset total, to be released in March, is expected to continue that sharp growth curve.)



Back to microfinance's future

Until recently, there was no easy entrée for U.S. citizens of average means, much less below-average, to participate as lenders. In the main, large "efficient" lenders engaged in microlending, because making and servicing these very small loans to vast numbers of individuals—many with no financial background or business experience, no collateral, and often in unstable currencies—is inherently expensive.

Now comes **Kiva.org**. A two-year-old nonprofit, Kiva posts the name, photo, and business description of individuals across the developing world who are seeking microcredit. Visitors to the site see the profile and lend directly to borrowers at no interest in amounts as little as \$25. (In fact, at this writing, \$25 is also the *maximum* for lenders, because there are too many lenders for the amounts being sought!) In its short existence, nearly 150,000 Kiva investors have already lent out \$15 million to over 22,000 borrowers. Paid-up loans have had a 0.20% default rate.



This October, **eBay, Inc.**, and Calvert Foundation unveiled **MicroPlace.com**. A for-profit subsidiary of eBay, MicroPlace is similar to Kiva in that the site visitor can make an immediate investment. The lender can direct her capital to a microfinance institution operating within a region or a specific country. The minimum in this case is \$100. A typical loan would be for a term of two years with an interest rate of 2%. eBay's millions of users can link to MicroPlace.com right from the eBay home page.

International microcredit is not monolithic, and some practices have brought forth legitimate criticisms. However, this new use of Web technology to expand the microlending base and focus the growing flow of capital directly to the local, and even personal, level is, in our view, an enormously positive force... globalization at its best. ■