Investment Perspective

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FINDING THE ENERGY TO SUCCEED

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Happy bull anniversary

In early March, the bull market marked its second anniversary. Stocks have largely rebounded from their generational lows of 2009 — but not without some big gyrations along the way. Last spring, the rebound was briefly yet violently interrupted by fears of an economic reversal. This year we have also experienced some volatility, although the catalysts are different.

The pullback in 2010 stemmed from concerns about anemic job growth and the European debt crisis. Those fears have largely been allayed, or at least supplanted by others. Today, the speed bump primarily relates to the unrest in North Africa and the Middle East and the concurrent surge in oil prices.

A spark ignites revolution

In hindsight, it is often remarkable how a seemingly minor and isolated event can serve as a tipping point for transformative change. The self-immolation of a Tunisian fruit vendor, humiliated by the corruption and interference of the State, unleashed a tidal wave of protests in the region. First the citizens of Tunisia rose up in frustration against their entrenched leader, then those of Egypt, followed by the people of Libya.

These revolutions were motivated by a combination of economic and political grievances. High unemployment, poor living conditions and the absence of basic freedoms formed an environment that finally came to be viewed as unacceptable. In the eyes of a predominately young — and wired — citizenry, those authoritarian kleptocrats, Ben Ali, Mubarak, and now Gaddafi, needed to go.

Whether these North African nations can transition to something approaching democracies remains to be seen. Regardless, with their own citizens emboldened, many of the other authoritarian regimes in the neighborhood are now on notice. The threat of instability in this petroleum-rich region has caused crude oil and gasoline prices to surge and prompted the stock market to pull back a bit. Unchecked, a rise in oil prices would undoubtedly hamper consumer spending and squeeze corporate profit margins, potentially leading to recession.

Oil held hostage

The media are primarily focusing on events in Libya, especially with the U.S. military involvement. Before their civil war, the Libyans produced 1.6 million barrels of oil per day (bpd), or just under 2 percent of total global output. The majority of that oil had been exported to other consuming nations. With the strife, much of Libya's capacity has gone off line, leaving a gap that other OPEC members say they are covering.

From geopolitical and economic standpoints, Libya should not ultimately be the page one story. The real story involves the Arabian Peninsula, specifically Saudi Arabia. The Saudis, through their state-owned oil company Saudi Aramco, are the second largest oil producer (behind Russia) at a rate of 8.5 to 9 million bpd. Critically, they are the top *exporter* of crude and also viewed as the world's swing producer, since they purportedly have significant excess capacity and "proved" reserves.

The Saudis also have an extremely repressive regime. In fact, by the reckoning of the Economist Intelligence Unit's *Democracy Index,* the kingdom ranks 160th out of 167 nations, behind such poster children as Iran, Syria, and Libya. Thankfully, they remain ahead of North Korea, the state that continues to rank dead last. During the *Arab Spring,* Saudi Arabia has experienced protests but not overt rebellion. Nevertheless, there is considerable unrest at its borders, and that is deeply unsettling for both the Saudi regime and those of us who must import oil.

Saudi's unruly neighbors

The small island nation of Bahrain lies in the Persian Gulf, off the eastern coast of Saudi Arabia. The two kingdoms are linked by a 16-mile causeway. Bahrain's majority Shi'a Muslim population has been protesting against the minority Sunni-dominated regime, demanding greater political freedom and equality — and more recently, an end to the reign of the ruling family. The Saudis fear that the Bahraini rebellion could incite their own Shi'a population, which is concentrated in that eastern region. And where, by the way, most of Saudi Arabia's oil and gas facilities are located. The House of Saud was so concerned about the potential contagion that they sent military forces into Bahrain.

Meanwhile, immediately to the south, Yemeni citizens have taken to the streets to protest dismal economic conditions and rampant corruption. Yemen is one of the poorest nations in the Arab world, with massive unemployment and a very young population. It has also been a haven for Islamic jihadists. Their president is now in discussions to draft a new constitution and hold elections at the end of the year.

Therefore, the Arabian Peninsula, source of much of the world's oil, remains at risk of being destabilized, particularly when one overlays Iran's historical goal to become the dominant power in the Gulf region. Iran has traditionally been held in check by outside powers. The U.S. exit from Iraq will potentially open up a power vacuum in the area. The risk of Saudi instability may well be small, but its mere existence will continue to provide upward pressure on oil prices.

The high price of low supply

Yet with all of the unrest sweeping through North Africa and the Middle East, it is easy to lose sight of the fact that oil prices were already elevated. The Brent oil futures contract had pushed through $100 a barrel even before Egyptians were out in Cairo's Tahrir Square calling for Mubarak's head. In fact, oil prices have been surprisingly resilient against a backdrop of modest economic growth in the developed world and slowing growth in developing regions.

So what else could be going on? Could it be a signal that the backdrop is more precarious than many presume? Our longstanding concern over the availability of oil has been as much geologic as geopolitical. In past letters, we have raised the possibility of *Peak Oil,* the notion that petroleum production may be approaching some upper threshold. At a minimum, the era of *Cheap Oil* must certainly be over. Prices seem to be reflecting this environment.

Let's take a step back for a minute. Petroleum is a finite resource. It formed millions of years ago when prehistoric algae and plankton mixed with mud, became buried under layers of sediment, and were subjected to intense heat and pressure. Crude oil is not being replenished while we sleep at night.

Diminishing returns

The world's giant oilfields, particularly those in the Middle East, were generally discovered more than forty years ago. If we are going to continue to rely on Saudi Arabia to be the swing producer, we had better be confident in their willingness and ability to do so. Ninety percent of their output comes from six fairly old fields. The massive Ghawar field accounts for half of the country's output and a sizable share of stated reserves. It has been in production for *sixty* years. Saudi Aramco has had to rely on extensive water injection to increase well pressure and coax the oil out of the ground. That's a sign of a tired field.

Since the early 1980s, worldwide discoveries have consistently fallen short of consumption from year to year. So depletion is the real issue in the oil patch. Consequently, the industry has to work harder just to stay in place. For instance, during 1995-2004, $2.4 trillion of capital spending coincided with a supply increase of 12 million bpd. In contrast, an equal amount of spending during 2005-2010 corresponded to supply *falling* 200,000 bpd.

The globe is littered with examples of regions with diminishing output: The U.S. produced ten million bpd of crude oil at the 1970 peak; today, we are at 5.5 million. The North Sea region managed 6 million bpd at its zenith in 1999; output now runs about 3.5 million bpd. Meanwhile, Mexico's supergiant Cantarell field has seen its output drop from 2 million bpd in 2003 to less than 500,000. So far, these losses have been offset by increased production from the Middle East, West Africa, and certain states of the former Soviet Union.

New sources for oil

But the geology and economics of producing oil are changing. Any large conventional finds will likely be offshore, in deep water. The promising Brazilian Tupi field could be the largest find in thirty years. But it is 150 miles off the coast and lies under more than a mile of water and three miles of sand, rock, and salt. It will require tremendous financial and technical resources to realize its potential.

Most of the intriguing sources of potential supply involve unconventional oil. The oil sands of western Canada make up an increasing share of U.S. crude imports. Commonly referred to as *tar* sands for the dense, viscous form of petroleum found mixed with sand and clay, this resource is extracted through strip mining or by heating the bitumen underground, allowing it to flow to the surface. Shale oil represents a second unconventional source that is beginning to move the needle. The Bakken formation (North Dakota, Montana) had been producing small amounts of oil since the 1950s, but after recent drilling improvements, output is now over 300,000 bpd. Ironically, the current challenge is to build the infrastructure to transport the crude out.

So there will be alternatives to imported crude from unstable and unfriendly areas, but they will be more costly to extract, transport, and refine. The processes may require more resources such as water and electricity. In many cases, they will also have sizable indirect costs — and here we are referring to the potential environmental impact. Any way one looks at it, the message is the end of cheap oil.

Widening U.S. gap

The U.S. economy was built on the back of the internal combustion engine. Due to its high energy content, easy transportability, and relative abundance, oil has been a critical source of energy since the 1950s. Therefore, it will take a significant amount of time to transition away. Natural gas, a plentiful domestic resource, is increasingly mentioned as a substitute.

Petroleum addresses almost 40% of our overall energy needs, the vast majority used for transportation. The United States remains a significant oil producer — actually, the third largest. The problem is that we are an even more significant *consumer.* Specifically, while we produce 9% of the world's oil, we burn about 22% of the total. Moreover, since U.S. production peaked in 1970, the widening gap must be met with imported oil.

The recent uprisings have served to underscore how precarious the United States' energy situation remains, particularly as it relates to oil. This is not merely a vital economic issue; it has national security implications as well: The U.S. Department of Defense uses 375,000 bpd; only thirty-some-odd nations consume more oil.

Facing a new normal

Commenting on the United States' approach to energy, James Schlesinger, the first Secretary of Energy, observed in 1977 that "we only have two modes — complacency and panic." Prices spike, we talk about "reducing our dependence on foreign oil"; prices fall, and our attention wanes. If we are in fact facing a "new normal" for oil prices, any retracement will be temporary. Every administration from Nixon onward has talked about establishing an "energy policy." Just as the U.S. needs a long-term, systematic plan to solve our fiscal situation, we need a comprehensive approach to address our energy needs. Regrettably, it is not as simple as drilling off the East Coast as many on the right (and in the oil and gas industry) advocate. It is also not as simple as mandating the use of biofuels as others on the left suggest.

The U.S. economy clearly has regained traction. But rising oil prices could act as a damper on growth and potentially contribute to inflation. It appears that the point of maximum stress has passed, notwithstanding the fighting in Libya. Stocks will have more inducement to move up if that indeed is the case. Nevertheless, we must eventually address our oil challenge.

— Christopher J. Singleton, CFA, Managing Director

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