Cap-and-trade fraud

Proponents misunderstand the dynamic marketplace

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Financial Post

Tuesday, October 02, 2007

In response to the global warming consensus, political momentum is building to cap greenhouse-gas emissions (GHGs), subdivide the cap into smaller parts (or emissions allowances similar to rationing coupons), and distribute the emissions allowances, either by auction or on a no-cost basis to businesses that emit greenhouse gases.

Businesses wishing to emit GHGs beyond their specific allowances would be able to purchase rights to do so from owners of surplus emission allowances. GHGs include carbon dioxide from combustion of fossil fuels and methane and nitrous oxide from agriculture and food-production activities.

These policies are commonly referred to as "cap-and-trade" regulations. The costs of reducing GHGs through cap-andtrade regulations are not trivial. If implemented, cap-and-trade policies would add significant costs to production and would likely have a severe negative impact on long-term U.S. growth, an amount we estimate at US$10,800 per family.

Proponents of cap-and-trade misunderstand the dynamic marketplace. Already implemented in the European Union through the Kyoto Protocol, advocated by numerous states, and the subject of several legislative proposals in the U.S. Congress, cap-and-trade is billed as a market-based approach for managing GHGs. Cap-and-trade establishes an aggregate constraint -- that is, "the cap" -- on GHGs. This constraint is typically benchmarked to the GHGs from a certain year -- the Kyoto Protocol, for instance, established a cap that is 7% below 1990 levels for the years 2008-12. Some capand-trade proponents advocate GHG cuts of up to 80% below 1990 levels by 2050.

The aggregate constraint is subdivided into emission allowances that are then sold or allocated to businesses that emit greenhouse gases. Businesses constrained by their available allowances face a choice: either comply with their GHG allocations by changing their production levels or production technologies; or purchase more GHG allowances from owners of surplus GHG allowances. The Economist has described the theoretical workings of cap-and-trade by stating, "The basic idea is that power plants and manufacturers will be allowed to emit a certain number of tons of carbon. If they exceed that amount, they must buy 'credits' from companies that pollute less than their allowance. One day the price of a ton of carbon may be as widely quoted as that of a barrel of oil."

Advocates claim cap-and-trade is superior to other alternatives for reducing GHGs, such as a so-called "carbon tax," because of its supposed flexibility and "market-based" approach to the problem. Proponents hypothesize that capand-trade represents an efficient division of labour -- that is, the government establishes emissions levels, while the market sorts out who has the right to produce them. Goods and services that are in greater demand will be able to pay a higher price for GHGs associated with their production. Consequently, producers of good and services in high demand will outbid other users for the right to emit greenhouse gases, while manufacturers of less-valued products will either have an incentive to sell these rights or will not be able to purchase these rights in the first place.

Either way, only the producers of goods and services that consumers value the most will end up with GHG allowances. In this manner, the market is allocating the scarce right to emit greenhouse gases based on their most valued use.

Cap-and-trade advocates are correct only in a static world where market supply and demand curves are known with certainty. Markets are dynamic, and people change their actions in response to the changing dynamics of the marketplace. Once market dynamics are incorporated, the efficacy of the cap-and-trade solution disappears.

Significant price volatility emerges in the market because the supply and demand curves are not known to policy-makers when initial cap-and-trade policies are established. Furthermore, the supply and demand curves will shift over time, and often in unpredictable ways. By definition of the cap-and-trade quantity constraint, the quantity of GHG allowances cannot change and may become substantially stricter in subsequent years.

Changes in supply and demand, then, can only be accommodated through changes in prices. This process may lead to extreme price volatility in the emissions-allowance market and the markets for good and services produced under emissions caps.

The European experience with capand-trade exemplifies these fundamental flaws. The value of the GHG allowances in Europe nose-dived in April, 2006, due to a mismatch between the allowances granted and actual market demand. While some observers try to explain these variations as a result of poor planning on the part of governments, such extreme price volatility is a natural consequence of policies that arbitrarily cap quantities. This price volatility is what should have been predicted prior to Europe's implementation of cap-and-trade. The European experience supports the contention that cap-and-trade is not the appropriate policy response for addressing the issues related to GHG emissions.

A recent Congressional Budget Office analysis echoes these precise concerns: "When costs and benefits are uncertain, as they are in the case of climate change, a system that raises the price of emissions -- for example, a tax or a permit system with a set permit price -- can have significant advantages over one that establishes an emissions quota. Tightening restrictions on emissions is likely to raise the incremental cost of mitigation much more quickly than it lowers the incremental benefit. As a result, the cost of guessing wrong and imposing an overly restrictive quota could be relatively high. In contrast, the

cost of guessing wrong about the appropriate tax level -- and perhaps failing to reduce emissions enough in any given year -- will probably be relatively low."

The results are the exact opposite of what cap-and-trade proponents argue. Cap-and-trade regulations create overly restrictive policies that increase price uncertainty in the marketplace. The market loses efficiency because of cap-and-trade regulations.

Global warming policies geared toward economizing our use of fossil fuels impose tremendous economic costs, especially when the positive externalities of economic growth and poverty reduction are not given appropriate consideration. Economic growth and pollution are intertwined in complex ways. As countries become wealthier, heavy industries develop, creating industrial wastes that increase pollution. However, there is ample evidence from recent history that greater economic growth, at least past a certain threshold, actually reduces the pollution a society creates. The United States, for example, has been consistently using less energy per dollar of economic output in times of both rising and falling oil prices. (See graph.)

Rigid requirements to force nations and companies to focus exclusively on reducing negative externalities, while politically popular, may cause more harm than necessary. Carbon-based energy -- i.e., coal, natural gas and oil -- supplies the vast majority of global energy needs. Restricting energy options by significantly capping the amount of GHGs the United States emits will raise the country's energy costs. Artificial reductions in the supply of energy -- akin to a "supply shock" -- impose significant economic costs on the U.S. economy. According to the U.S. Energy Information Agency, implementing cap-and-trade regulations with a tax offset via a personal income tax rebate would reduce economic growth by 4.2%. Implementing the cap-and-trade proposal with a payroll tax rebate would reduce economic growth by 1.9%.

We must heed lessons from previous supply shocks. Fossil fuels, the energy sources that produce the most GHGs, currently account for 86% of total energy consumption. Alternative low GHG sources currently account for only 6.1% of total energy consumption. Importantly, renewable fuels are not in a position to replace the lost energy output from fossil fuels.

Due to these constraints, limiting GHGs emissions in the short term can only be achieved by limiting the supply of energy produced. Disrupting the country's energy supplies, whether by domestic regulation or foreign oil embargo, is an energy supply shock.

It is not necessary to forecast impacts on the U.S. economy from a significant energy supply shock. Starting with the 1973 OPEC oil crisis, the U.S. economy has endured several supply-induced energy crises over the last 40 years. These real-world examples clearly illustrate the adverse economic impacts in the short run from supply-induced energy shocks.

The first three oil price spikes resulted from an "energy shock" or supply disruption. The current price spike, in contrast, has resulted from increased demand. Taken together, the previous energy supply shocks all tell the same story: an energy-supply interdiction causes the U.S. economy to slow, unemployment to rise, and the value of the stock market to fall.

Because current technological constraints limit the viability of alternative energy sources, a GHG cap will have the effect of lowering the amount of fossil fuel-derived energy that can be used, while it is unclear how the lost energy output will be replaced.

Currently, the supply of oil has never been greater. World daily crude production averaged over 73 million barrels in early 2006, averaged 63 million in 1996, and averaged about 56 million back in 1986. Moreover, known reserves are also in abundant supply. The cause of the current price spike is a global economic boom of unbelievable breadth and depth. Even with huge augmented supplies of oil pouring on the world economy, demand growth has led to a price spike. Without this spike in the price of oil, the world economy would be in precarious shape. The rise in the price of oil is doing just what it is supposed to do: allocate a scarce commodity among alternative users. Today's rise in the price of oil is a direct consequence of the efficient positive functioning of global markets, whereas earlier spikes in the price of oil were a consequence of hostile anti-growth interventions in the oil market. Consequently, it is the first three price spikes that are of interest with respect to the economic effects of a supply-side energy shock.

The bottom line: Due to the reduction in economic growth, by 2020 every man, woman, and child would be about $2,700 poorer than the baseline scenario -- or about $10,800 for a family of four.

--- - Arthur Laffer and Wayne Winegarden are authors of The Adverse Economic Impacts from Cap & Trade Regulations on CO2, a recent study sponsored by the Free Enterprise Education Institute.

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