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The question I have been asked to address is whether business can contribute to reducing global carbon emissions.

The answer is yes. *Unequivocally* yes.

Why such confidence?

We've done this type of thing before.

We see a strong analogy between reducing carbon emissions and two great public policy successes of the 20th century – cleaning up the waterways and improving air quality in many regions of the world. We did so, importantly, while maintaining high economic growth and employment levels.

And, what was the catalyst?

By and large, we succeeded because governmental action mandated that the societal costs of pollution be allocated to the economic costs of its producers.

Take our waterways, as an example. Starting in the 1970s, governments decreed to the private sector: “*you pollute; you pay.*” At that point, market forces came into play – investors demanded results and technologists invented the means.

In fact, as an advocate for free market solutions, let me underscore that market solutions do not mean the absence of a governmental role. To the contrary, the irreplaceable catalyst must be government – in creating thoughtful, efficient, and, yes, compulsory rules.

Now, a few words on a mechanism that can make this work.

Tradable emission caps – at meaningfully reduced pollution levels – mean that a carbon emitter must pay to acquire permits – or, alternatively, reduce its emissions. In substance, a moral issue is turned into a more business-like economic decision.

If, as an illustration, a company buys emissions permits, then they become a cost of production – just like fuel or labor. And, like other production costs, the emitter has incentives to reduce emission costs – say, by investing in technology.

However, if the company reduces its emissions below its production needs, its permits become assets. It can sell them to companies that need incremental permits.

And, perhaps equally importantly, third party investors – like my company – have an incentive to provide capital to reduce a polluter's emissions – for which the investor receives a stake in permits that can be sold.

Let's look at an example of the how this mechanism can reduce carbon emissions.

Recently, my company invested in a firm that repairs leaking pipelines in Russia. That is, reduce carbon emissions by containing leaks once regarded as normal.

Why did we invest in that company?

Under a governmentally mandated cap-and-trade system, the Russian firm gets credits for the carbon emissions it contains in those pipelines. It can then sell these credits in the world carbon markets.

Would there have been a viable business model to repair these pipelines without tradable carbon credits?

Possibly not.

Would Merrill Lynch's capital have been available, absent tradable carbon credits?

Clearly not.

Does technological ingenuity – needed to solve our carbon challenge – follow the flow of capital?

Fairly predictably. We refer to this as a “principle of financial physics.”

And, by putting up Merrill Lynch's own money, we are evidence that market forces work. Parenthetically, we think this is a business in which we can do both well and good.

Note the importance of incentives for creating new technology in mitigating industrial pollution. Carbon emissions – like other forms of industrial pollution – are, in substance, a technology issue. Technology creates pollution and technology – fostered by capital investment – can solve it.

This promise of technologic solutions makes carbon emissions a mitigatable challenge – if we create effective market incentives for those that emit carbon to invest in technology to avoid it.

Which is why Merrill Lynch so strongly endorses market-based mechanisms – such as cap-and-trade. Notably, the EU has been the global leader in implementing market-based solutions for carbon – though less known is that the US operates a successful cap-and-trade scheme for sulfur dioxide. At the risk of seeming parochial, there is nothing un-American about cap-and-trade.

Cap-and-trade, however, is not the only possible incentive for investing in environmental technologies. Where government creates scarcities in existing markets, capital can be attracted by the potential for outsized returns.

That's the logic behind mandates that a portion of electricity be generated by renewable sources – for example, California's requirement of 20% by 2010.

And, that's why Merrill invested in a California geothermal company that drills for heated water reservoirs... which, in turn, can produce steam for generating electricity. No

carbon emissions at all... and the condensed water is even injected back into the reservoir.

But, I don't want to leave the impression that Green Tech is exclusively a US story. It's emphatically not. My company, for example, has invested its own money in everything from a Taiwanese solar panel manufacturer to an Indian wind turbine company to a Chinese manufacturer of monocrystalline solar modules. In fact, Asia, in particular, is as prominent a center for Green Tech creativity as exists.

Merrill, of course, is not the only mover into this sector. After all, another principal of financial physics is: The most sophisticated among us anticipate – rather than react to – significant developments. In fact, the flow of capital into renewable energy technologies is already underway. We can document it.

For example, last year we launched the Merrill Lynch Renewable Energy Index in response to investor interest – this investor interest, itself, being a notable development. Backtesting five years showed that in US\$ terms the renewable energy index relatively outperformed the more traditional world energy index by almost 50% – and these were some very, very good years for traditional energy companies.

Further, we offer a number of other green indices through which investors can put their capital to work towards a low carbon planet. To cite some of these indices: the ML Carbon Leaders Index (low carbon footprint companies), two ML Biofuel Indices, and the ML Energy Efficiency Index (companies that could benefit from the pursuit of energy efficiency).

And, earlier stage companies have also attracted investor interest. Last year, for example, according to the National Venture Capital Association, the Clean Technology sector (comprising alternative energy, pollution and recycling, power supplies, and conservation) enjoyed \$2.2 billion invested in 201 venture deals. These investments represent a whopping one-year 46 percent growth in dollars and an even greater 57 percent growth in deal volume. Notably, last year, two of the five biggest venture capital deals were Clean Tech investments.

Let me repeat, that means over three hundred companies financed in two years, representing many different approaches to environmental technology. And, 2008 and future years likely will bring many more.

Remember, each such investment, in turn, is vetted by market participants who were sufficiently convinced of its potential to put their own assets at risk. The very diversity of these technologies, itself, is a compelling argument for market based solutions.

In contrast, a governmentally controlled mechanism would be incredibly challenged to promote such a broad array of potential green solutions.

To my thinking, market based solutions are to be favored – not because market participants are necessarily more insightful than government employees. In fact, many, if not most, venture investments may lose money for their investors. But, the very number, quality and diversity of technological solutions that the markets can incubate increase the odds that at least some will be successful.

So, here's the tag line: Thoughtful government action can create market incentives for business that, in turn, attract capital to finance green technologies... all of which, can help make our planet cleaner, safer and healthier.

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