Cap-and-*Trade* Secrets

Will Cap and Trade "Practically Guarantee Disastrous Climate Change" ?

—James E. Hansen, NASA climate scientist

An eBook by
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Cap and Trade Explained
Including the New Debate

February 9, 2008 (get the latest)

What's Going On?

The Climate Is at Risk, and the Reasons are Secret.

Environmental Defense Fund **vs. James Hansen**

EDF has championed cap-and-trade for 20 years. And this year they hope to score with the biggest cap-and-trade bill ever. They say it's the only way to save the earth from passing a climate tipping point.

James Hansen, Al Gore's science advisor, and the strongest voice for climate stability ever since his speech to Congress in 1988, says EDF's approach

"will practically guarantee disastrous climate change."

EDF says: Lock in the cap for 40 years and we'll be safe. End of story. Hansen says cap-and-trade leads to increased taxes "with no apparent benefit," to millionaire traders, and then to a public backlash.

But the most surprising clash between EDF and Hansen is on science. Hansen is the leading scientist on climate tipping points, which EFD says dictate the use of a cap. Meanwhile Hansen rails against caps and favors a tax.

Hansen points out that the demand for caps blew apart the Kyoto negotiations when most of world's countries rejected caps, and says this will happen again. The Chinese have agreed with him for 15 years. They should know.

But Obama and Congress are set on a cap. Will it be weak and full of giveaways as Hansen predicts? Is this debate splitting hairs, or is the outcome crucial?

Secrets

As you will see, cap and trade works in mysterious ways. It's not as tame and simple as it first appears. For two years, I've researched both EDF's cap-and-trade and Hansen's carbon tax approach.

Here I explain these mysteries as simply as I can in hopes that people will pass them on until they are not secret anymore.

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Who's Capped and What's Traded?

No one's capped. Trade money for permits.

The Cap

"Cap and Trade" is a system of limiting pollution. In this case, carbon dioxide—often just called "carbon." If you burn a ton of coal, a gallon of gas, or a cubic foot of natural gas, scientists can tell us how much "carbon" will go into the atmosphere.

Right now the U.S. emits about 6 billion tons of carbon per year. So the cap may be set to 5.9 billion tons the first year. If so, the government would issue permits (euphemistically called allowances) for 5.9 billion tons of carbon.

The cap has two parts. First, there's a rule about who must have a permit for carbon. Second, there's a limit on the number of permits issued.

The simplest rule is to limit carbon on the way into the economy, because it comes in from relatively few places: coal mines, oil refineries, and gas wells. If we limit what comes in, that limits what goes out into the atmosphere.

The Trade

When the government issues permits, it can sell them in an auction. If it gives them away, to coal mines, airlines, or whoever, the permits end up selling for the same price in the market as when they're auctioned. Their price is determined by the limit on their supply.

Since airlines do not need them (only refiners, etc. do), they would sell theirs to, say, coal mines. That's the "trade" part of cap and trade. And if a coal mine is given more than it needs, or buys more than it needs, it can sell the extra to an oil refinery—more trading.

No One's Capped

Now you know the system, but I want you to note one thing about how it works. No one feels the cap directly. If a coal mine needs 60 million permits, 100 times more will be available. So individual refineries and coal mines are ***not*** capped. There's just one cap—on the whole country. The coal mine only feels the costs of permits.

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Before I Give away any Secrets ...

Al Gore prefers a refunded carbon tax.

Some who favor a cap are saying that everyone who doesn't agree that a cap is better than a carbon tax is secretly against fixing the climate. So I just thought I'd mention who some of those rotten no-goodnicks are.

The most straightforward policy would be an across-the-board carbon tax. • [A pollution tax] commands the assent of virtually every card-carrying economist.

—Paul Krugman

"Cap and trade" generates special interests, lobbyists, and trading schemes, yielding nonproductive millionaires, all at public expense. The public is fed up with such business.

—James E. Hansen

I certainly believe that the simplest and easiest way to solve this problem would be a $C0_2$ tax that is 100 percent refundable.

—Al Gore

Al Gore's science advisor, NASA climate scientist, James Hansen, favors a carbon tax with a 100% refund to individuals on an equal-per-person basis. I call this an "untax" in my book *Carbonomics*, and explain in some detail why it works and who it benefits.

Al Gore considers cap and trade to be a decent alternative. Hansen thinks that, while it's politically stronger now, it won't be for long.

So as you learn the secrets, remember: I'm not revealing these to hurt climate policy, but to make sure we make a wise choice and pick a policy that won't get tossed out when people later learn its secrets.

There's no use calling names, EDF, Hansen, Gore, Krugman, and the rest are all sincere.

1. They'll Charge You for what's Free

That's why many coal plants love caps.

Under Europe's cap, coal-fired power plants must have carbon permits, and Europe gives them nearly all the permits they need—for free. So you might think coal plants would raise the price of electricity very little.

If so, you don't know markets.

Here's what happens. Say a unit of electricity costs $40, and it takes a ton of carbon to make it. Now say carbon permits cost $30 a ton, about like in Europe. So, if they had to buy the permits, it would cost them an extra $30 to make a unit of electricity. Then they would raise the price to $70.

With free permits, they reason like this: If I don't make a unit of electricity, I can sell the unused permit for $30. So not-selling permits still costs me $30 of lost revenue every time I make a unit of electricity.

No matter how many permits we give them, they still charge us $70 per unit of electricity. All economists and top-level environmentalists know this. And now Europeans know it, because the extra billions in profits have made the headlines.

Back in the 1980's, sulfur from coal plants was causing acid rain. But the coal plants kept blocking every attempt to curb their sulfur. Finally the environmentalists (EDF, NRDC, etc.) suggested cap and trade and giving coal plants all the permits for free.

Back then, coal plants were regulated, so they could not profit from the free permits. And as EDF says, it was "wildly successful."

But now, with many plants deregulated, those plants pass on the "cost" of their free permits. And profit from this cap and trade.

In January 2009, EDF and NRDC proposed a new cap-and-trade bill for carbon. Over the last two years it's been worked out in back rooms with industry. Guess what? More free permits. And sure enough, industry's on board.

No one notices a few $100 million passed through from free sulfur permits. But free carbon permits could be worth $100 billion a year. Pass on those "costs," and sooner or later, that will make headlines.

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2. A Cap is a Regressive Tax

Yes, it's just a tax, with a higher tax rate for the poor.

Why a Cap Is a Tax

If the carbon permits are auctioned, and the price is say $30 a ton, that's the same to industry as if they have to pay a tax of $30 a ton.

So cap-and-trade with auctioned permits costing $30 a ton is just the same as a carbon tax charging $30 a ton. Exactly the same.

Now before reading secret #1 you might have thought that giving out permits for free made all the difference. But now we see that those valuable permits just make whoever gets them richer. But they change nothing else. Industry still pretends it has paid for permits.

So cap and trade = carbon tax !!!

Except that:

1. Giveaways are more obvious with a tax.
2. The tax rate of a cap fluctuates erratically to enforce the government's cap.

Why this Tax Is Regressive

A cap-and-trade tax gets passed on from industry to business to consumers, exactly like a carbon tax. It's really just a combined, gas tax, electricity tax, heating-oil tax, and natural gas tax.

But all of these, just like a gas tax, hit the poor hardest as a percentage of their income. It's like having an income tax where the rich pay 5%, and the poor pay 10%. No one thinks that's fair.

Collect a Regressive Tax to Pay Polluters?

Now when coal plants get free permits, and make billions extra in profit. Where do those billions come from? Not from the government—they just printed the permits.

All the billions that coal mines or coal-fired power plants will make off cap-and-trade giveaways will come from the regressive cap-and-trade taxes passed through to consumers, but collected at the highest tax rate from the poor.

3. Cap & Trade Can't Start Gradually

Speculators will drive the price high on day one.

Bank some Permits for the Future

All cap and trade bills allow "banking" of permits. They need this feature to dampen wild fluctuations in the price of permits.

Banking means a company can buy permits and keep them for years until the cap is tight, and then use them. That way they avoid having to buy some very expensive permits in later years.

But here's what happens on day one. The cap is not at all tight, so the price should be very low. Say it was. A shrewd businessman would say. I know the cap will be a lot tighter in 5 years, and so I think the permit price will be six times higher. Great, I'll buy a lot now and use them later or sell them at six times the price.

But when he and many other's try to buy a lot of permits on day one, that causes a shortage of permits. And that drives the price up right away.

MIT: Speculation Starts Big on Day One

MIT researchers worked out what would happen for a cap-and-trade bill that is almost as strict as Waxman's original bill (an 80% reduction by 2050).* Because of speculators bidding up the price on day one, they predicted an initial permit price of $50 per ton of carbon. They estimated this would cost a family of four about $4,000 a year.

So why not just get rid of the speculators?

Not possible. Every businessman that needs permits would be a fool not to think about whether it's cheaper to buy them now or later. But no one knows the future price, so they are all forced to speculate on what that will be. Everyone in the market is either a fool or a speculator.

* Waxman is charged with writing the new climate bill for the House of Representatives.

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4. A Cap Doesn't Give Certainty

If will take 40 years before a cap gives us certainty.

The same MIT study checks each year to see if actual emissions match the cap.

For a bill claiming to reduce emissions to 20% of the starting level by 2050, actual emissions fell only to 50%. In other words, MIT says emissions will be 2.5 times higher than the cap in 2050.

How can that be? No one can cheat.

This is perhaps the deepest secret of them all. But MIT's prediction makes a lot of sense.

As we saw with secret #3, permit prices start high and the cap starts gradually. So, at first people save more carbon than the cap says to, and they save up permits. Later, when the cap is tight, they use the saved permits. In the last year they use more save-up permits than new ones. (This type of behavior actually happened with acid-rain permits. That's what banking's for.)

The total emissions over the whole 40 years will be just right, but in most years the emissions don't do what the cap says. That might be OK, but it's not the story the cap-and-traders tell us.

Is It More Complicated?

Robert Stavins of Harvard, the leading cap-and-trade expert, assumes with MIT that a cap controls the total emissions over 40 years. But when the law is written, it might say that emissions can be banked forever. That eliminates the high-emissions-in-2050 problem.

But it means the 40-year total cap becomes uncertain. And then there's Stavins' idea for borrowing—the opposite of banking … more complications and yet more secrets.

Is a Cap More Sure than a Tax?

Since caps miss every year, and taxes miss every year, what's the difference? If we pay attention and adjust the tax as needed, probably very little by 2050.

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5. Even the Cap's Total Is Uncertain

After 40 years, who knows where we'll be?

Pay another Country to Meet Our Cap

Secret #4 was that caps are wrong every year. But we still said the total over the whole 40 years would be right. But that ignores trade with other countries.

Permits will be expensive, so business will fight hard to get to buy cheaper "Certified Emission Reductions" (CERs) from developing countries. Or if these countries have their own caps, then business will want to buy permits from all over the world.

There's no doubt this will happen. It's the way cap and trade is supposed to work, and the way it works in other countries. This means the U.S. will certainly not meet its cap, but will instead pay someone in another country to stand in for us.

Less Bad Than they Would Have Been?

CERs from developing countries, and "offsets" from the United States, are extra permits given to those not under a cap who emit less than they would have emitted had we not offered to pay them.

After five or ten years, that gets a little bit confusing. What, exactly, would they have been doing? Maybe they're pretending they would have been bad so we'll keep paying them to be better. The UN has already documented this game many times over.

Counterfeits Are Cheaper than the Real Thing

If there are countries in the world with, shall we say, accounting difficulties, they will be the ones selling the cheapest permits. Of course, the cheapest permits will be snapped up first.

The UN will get better at monitoring, but the world will get better at playing games.

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The Cap and the Target Will Change

We can't see 40 years into the future.

Predicting's Hard to Do, Especially …

Has the government, or an environmentalist, or anyone, for that matter, predicted anything, besides the moon and planets, 40 years in advance?

I can't tell you how, but things will change. The cap-and-trade law will change—probably 10 or 20 times. Climate predictions will change. The predictions of what other countries will emit will change.

So, if all the foreign permits and offsets were perfect. There's no chance of a preset, 40-year cap staying the same for 40 years. And if it did stay the same, the target would move and it would be too bad that the cap didn't change.

Not a Secret

Notice that the headline on this page is not in ghost font. That's because this is no secret. Anyone can see this just by opening their eyes.

The Politicians Understand

The present political approach is to set carbon emission reduction goals for 2025 or 2050. The politicians do not expect the goals to be reached, and they define escape hatches that guarantee they will not be reached. They expect to be retired before the day of reckoning. The goals are mainly for bragging rights: "mine is bigger than yours!"

—James Hansen

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6. Caps Are to Raise Carbon's Price

No, the point is not to raise funds for spending.

Not for Spending

This one's no big secret either. The whole reason economists recommend caps and taxes is to raise the price of carbon. This is an Idea from 1920, and it's the cheapest way to make the largest cut in carbon.

I list it as a secret simply because it seem's that no one has yet told Congress. In January 2009, Speaker Nancy Pelosi spoke for most of her colleagues when she said:

You cap and you trade so you can pay for … investments in energy independence and renewables.

—Speaker Nancy Pelosi

Madam Speaker's plan to tax and spend is exactly what economists are trying to avoid when they recommend a carbon cap or tax. But why do economists think a high carbon price is so much better?

The Magic of Price

Carbon is used by millions of people in thousands of ways. Billions of changes are needed. If the government makes the changes, … Well, it just doesn't know all those details, so it listens to lobbyists, so … Well, you get it.

We know what's best and cheapest for ourselves, and will be more careful with our money. The same holds for business and inventors. But a ***high*** carbon price is the only way to get us all working on this.

How to Make a High Price Cheap

But a high carbon price means the government collects tons of money. We have a choice: (1) they spend all that money, or (2) they give it back—like Al Gore said (see page 4).

The ***only*** reason economists say we can afford a climate-change policy is that they assume the government will ***not*** spend all that money—that's expensive, not cheap. It's pretty simple, really.

7. Caps Are Not More Market-Based

"Market-Based" means price guides choices.

On the Front End: Price

Bill Chameides, dean of Duke University's Nicholas School of the Environment asks why "conservatives [at the Wall Street Journal] are talking up a carbon tax instead of a market-based system to address climate change."

He wouldn't be so puzzled if he knew what the Wall Street knows. A carbon tax is just as market-based as cap and trade, and often more so. As Krugman said (see page 4) "every card-carrying economist" approves of a pollution tax.

As we saw with secret #6, the whole point of a cap or a tax is to change the price of carbon. And there's your answer—price. Both cap and tax work by changing price. That means they start out equally market-based.*

But then what happens?

* No, "trade" is not the point. That equalizes the cap's marginal cost across companies, which the tax does automatically, and adjusts the tax-rate to enforce the government's cap. See secret #2.

What's on the Back End?

Both caps and taxes generate value—the government gets revenue or valuable permits. But does the government control what this value is spent on?

If the government spends the revenue on solar panels, that's not a market-based decision—even if you agree with it. If the government gives the money away, the spending will be market-based.

Secret #6 explained that either cap or tax should be mainly market based so that climate policy will work cheaply and will get the job done.

Market-Based, but is it progressive?

Here's where liberals and conservatives might part company. Who gets the value generated by the cap or tax? Hansen says: Give it back equally. That's progressive. Some say: Give it to industry. That's regressive.

8. Caps Kill Initiative

You buy a hybrid so the other guy can buy an SUV.

Suppose we did have a national cap.

No business will spend good money for permits and then not use them. So we know they will be used and the cap will be hit.

So what happens if you decide to help out, and buy the best hybrid car on the market?

We (the nation as a whole) will still hit the cap.

No carbon is saved.

The permits not used because you use less carbon just make it possible for someone else to own an SUV.

The SUV owners will all wave to you as they drive by. They're saying "Thanks for making permits cheaper so I could afford the gas for my SUV."

The rude ones may just laugh.

Conclusions & Summary

Tax-Rate Speculators

In back rooms where complex cap-and-trade bills hatch, caps are loved because they keep two secrets that supposedly work political magic.

1. Free permits are bribes.
2. Caps are taxes.

These secrets (might) get us to pay (regressive) taxes to bribe polluters to go along with climate policy.

In summary, permits always have a market price. That price is passed down through every good and service to consumers. Giving free permits doesn't change this, so giving permits is like giving money.

Cap-and-trade is just a tax, with the tax rate set by the permit market. Since permits can be banked, the price of permits today depends on their future value, which is a matter of speculation. Hence the tax rate of a cap is inevitably set by traders who must speculate in the permit market.

As Hansen says, some traders will make millions on their speculations—speculations that determine the taxes we pay. Hansen predicts that, sooner or later, this will cause a political backlash.

What's Really Certain

Myth: Caps give certainty. Reality: Banking removes yearly certainty. Gaming of offsets and foreign permits makes the 40-year total uncertain.

But worse, certainty of capping means uncertainty of cost. That frightens people—especially politicians. So first they weaken caps and then they create what Hansen calls escape hatches. And worse yet, the tax rate of a cap is the volatile permit price set by speculators. Voters pay this tax, and will remind us of what's really certain—***caps are just rules*** that they can change.

James Hansen's Bottom Line

If the United States accedes to the ineffectual 'goals' and 'caps' approach, in effect continuation of the Kyoto Protocol approach, it will practically guarantee disastrous climate change.

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Cap-and-*Trade* *Secrets*

1. **They'll Charge you for what's free.**
   Companies pass the market cost of permits on to us, even if they get them for free.
2. **A Cap is a regressive tax.**
   It's a tax on gas, electricity, etc., and the poor spend a greater percent on energy.
3. **Cap and trade can't start gradually.**
   Businessmen will "bank" permits from day one, driving up their price—the tax rate.
4. **A cap doesn't give certainty.**
   Permit banking makes each year's emissions unpredictable.
5. **Even the cap's total is uncertain.**
   Buying "cheap" international permits will make the total 40-year cap uncertain.
6. **Caps are to raise carbon's price.**
   Capping will only be cheap if it works mainly through carbon prices, not spending.
7. **Caps are not more market-based.**
   "Market-based" means price guides choices. "Trading" is not the point.
8. **Caps kill initiative.**
   With a cap, buying a hybrid just makes room for someone else to buy an SUV.

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Get More Information

This eBook is based on:

Carbonomics:
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