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**BUT  
WILL  
THE  
PLANET  
NOTICE?**

*HOW  
SMART  
ECONOMICS  
CAN SAVE  
THE WORLD*

**GERNOT  
WAGNER**

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# 1

## CUE THE ECONOMISTS

### ECONOMICS 101

Ask around what caused the financial crisis, and the answer, absent expletives, will be some version of “wrong incentives.” The road signs guiding market forces pointed in the wrong direction. Wall Street wasn’t doing what was in everyone’s best interests. What’s good for Goldman Sachs turned out not to be all that good for America.

Shift your focus on what ails the planet, and the answer will be very much the same. “Wrong incentives” are as important here as they were in the financial crisis. Replace “Goldman” with “Exxon,” and you have everyone’s favorite environmental villain. They ravage the planet for their own gains, without regard for anyone else around them. Greedy bastards.

There is something to this idea, as knee-jerk as it might be. By now, “privatizing profits and socializing losses” has its own *Wikipedia* page. On Wall Street, that translates into “too big to fail.” If my bets pay off,

I will get the fat year-end bonus. If they don't, I will be on a one-way (business-class) flight back from the craps table in Vegas, and everyone else—you, government, society—is left with cleaning up the mess. Heads I win, tails you lose; or, the dirty underside of capitalism for the masses, and the gentle safety net of socialism for the corporate echelons.

The environment is in the same situation, caused by the same misguided incentives. Exxon, BP, and the like rake in record profits while enjoying dubious tax loopholes and special subsidies.<sup>1</sup> When an oil platform in the Gulf explodes and entire fishing grounds go belly-up, everyone faces the consequences. And that says nothing about global warming, where literally everyone—all seven billion of us—is affected, the poor and disenfranchised most of all.

The risk calculus that capitalism was supposed to force risk takers to make, it turned out, was a hoax. It became instead a one-way street where those who controlled the wealth stood to make the gains, and those who carried the liability side of the planet's balance sheet were expected to clean up after them.

Waiting in the hope that corporate executives will be shamed or enlightened into giving up loopholes, forgoing subsidies, and turning corporations into charities is a fool's game. Greed—capitalism—is not the problem, and vilifying any company that turns a profit is ludicrous. That's its appointed purpose, and, like it or not, it's the single most effective organizing principle of modern society. I am not saying capitalists are doing God's work; they just work to feed their families and bank accounts, like the rest of us.

You and I are rich and can enjoy the pleasures of reading and writing books because of it. If you read this in any kind of electronic form, or aren't afraid of losing loved ones to typhoid, cholera, or the plague, or have ever sat in a car, train, or plane, you will certainly appreciate the fact that capitalism didn't stop its ascendancy around the time Gutenberg printed his first Bibles. We don't want to stop market forces, even if we could. We want to work with—not against—them.

The solution is clear: *put the right incentives in place*. Or, if you care for more sophisticated academic parlance: *internalize the externalities*.

Measure how much damage each and every action does, put a dollar value on it, and set the appropriate price. Don't like trillions of dollars being sent around the globe every day at the stroke of a button? Introduce financial transaction taxes.<sup>2</sup> Don't like treating the atmosphere like a free sewer? Put a price on carbon.

That's a wrap, people. Two problems solved at once. Future financial crises averted; environmental crises gone. I'll save myself the trouble of writing the rest of the book, and you can get back to worrying about whatever occupied you before the recession and an increasingly unstable planet crowded those worries out. We even save a few trees or iPad charges in the process. Win-win-win.

If only it were that simple.

### POLITICAL ECONOMICS 101

In 1990, Congress, in its finite wisdom, capped total economic damage payments for any one offshore oil spill at \$75 million.<sup>3</sup> This despite the fact that no one in either chamber apparently knew what it meant to link these kinds of limits to ever-rising prices—a.k.a. inflation—or that \$75 million wasn't all that much even then. Worse, perhaps they all did and still voted for the final bill 99–0 in the Senate and 360–0 in the House. Talk about a slam dunk. When it comes to contradicting Economics 101, bipartisanship, apparently, is all the rage.

It's not hard to concoct conspiracy theories on how Big Oil controls the political machine. Yes, politicians do what voters want them to do. If not, they get voted out of office. That would be Democracy 101. But vested interests clearly have a stake in the status quo, and it doesn't get much bigger than Big Oil, which comprises some of the most profitable companies in history.

Surprise, political "leaders" aren't always driven by deeply held

convictions. Reaching the masses requires having a megaphone, and megaphones cost money. Lots of it. By now, U.S. national and even some state-level elections run in the hundreds of millions of dollars. Little wonder politicians say what big donors want them to say. Money speaks and votes. Politics 101.

During the 2008–10 congressional fight to enact a comprehensive climate law, Big Oil, King Coal, and climate deniers of all stripes spent around \$500 million against sensible climate action, outspending environmental campaigners, renewable-energy interests, and the like to the tune of ten to one. Never mind that there is some reason to believe that even the United States may have a “climate majority.”<sup>4</sup> Careful polling unearths three-quarters of Americans who say that the climate is changing and that humans are the cause of it. Over 85 percent say they want limits on how much air pollution businesses are allowed to emit. Still, recent poll results show clear trends toward increased polarization and politicization of century-old scientific facts. When Al Gore says global warming is happening, you no longer care what basic physics and chemistry say. You care about whether or not you would vote for Gore for other reasons. One key factor in all of this is money. Those who have it can sway the malleable masses. Those who don’t can’t. By the time the Senate all but killed climate legislation in the summer of 2010, dirty money had prevailed.

Amazingly, that’s not always the case. The same Congress that voted 99–0 and 360–0 to cap damages for offshore oil spills also voted 89–10 and 401–25 to cap sulfur dioxide pollutants that cause acid rain. That’s small potatoes compared with capping carbon dioxide emissions, but it has shown how unusual coalitions between environmental activists and business interests can form to pass a strong market-based law. More recently, in 2010, venture capitalists and others with stakes in a greener future outspent and out-campaigned opponents of a comprehensive climate bill in California to the tune of three to one. Thirty million dollars for keeping a climate bill on the books; \$10 million to suspend it.<sup>5</sup> In the end proponents of the bill prevailed. It’s not the first

time that Sacramento showed Washington the way on environmental issues. Perhaps there's some hope after all.

There are other ways to change minds. How about a global campaign to right the wrongs? Let's put "Internalize Externalities" on bumper stickers. Stage teach-ins at the local parish. Organize the Million Internalizers March on Washington. I can see Madonna lining up for the London concert and Nepalese Sherpas spelling out those two all-important words on the dwindling snows of the Himalayas, in biodegradable paint. Activism 101.

That's clearly a crucial component: raise awareness, start a movement. Convince everyone around you to eat locally grown food—slowly—and quickly plant a million trees in the Sahel. Concerts help, too. Madonna even wrote a new song for Live Earth in 2007. And we have seen Sherpas in action as well. A group of them joined thousands of others in holding up "350" signs all over the world as part of a campaign to limit greenhouse gas concentrations to 350 parts per million in the atmosphere, what's required to stabilize the climate and stop sea levels from rising too far. (We are now at above 390 and counting.)

Activism is important—I'm in one of those "350" pictures—and lots of crucial things are happening on the ground: from American teens being miles ahead of their parents in their awareness of how they are changing the planet, to a new generation of Indian youth leaders realizing that environment and development ought to go hand in hand. There's hope, lots of it. Sadly, we don't have another decade or two until those young leaders come of age. And even once they do, and this is the crucial point, the solution will be very much the same as what we have on deck.

That answer is clear: get comfortable with the idea that we ought to be using markets and market forces, and use the very people—you, me, all of us—whose greed and everyday behavior got us into the mess in the first place to get us out of it. It's time to substitute the right incentives for the wrong ones and set a new default path for the planet.

Sadly, we have known about this fundamental problem of misguided incentives at least since Madonna was dancing circles around her fellow third graders—and the problem didn't just appear in obscure academic writings. Robert F. Kennedy lamented on March 18, 1968, in the first major speech of his presidential campaign, that gross domestic product “measures everything . . . except that which makes life worthwhile.”<sup>6</sup>

Consider the Christmas tree.

When I put on my water-repellent Birkenstock hiking boots and trudge through the snow to a Christmas tree farm to get my Norway spruce for the most idyllic of family fests, I pay the farmer for his trouble of growing the tree with organic fertilizers, keeping it pest-free without pesticides, and packing it in a biodegradable mesh bag. Mainly, though, I pay for the tree itself, the wood. I don't pay for the roots' sophisticated water filtration services, nor for the needles' equally sophisticated system for cleansing the air. No one does.

These essential arboreal functions and the cleaner water and air they provide are worth a big fat zero in our corporate and societal balance sheets. Most trees only become valuable once dead. A standing tree may be valued for its future timber but little else. Put that tree forever beyond the saw of man, and its effective value in our official statistics falls to zero.

GDP is our main economic yardstick of how well we are doing as a society.<sup>7</sup> It determines the fortunes of entire peoples, not least those of the people in power at any given time. Two consecutive quarters of declining GDP, and the bean counters at the National Bureau of Economic Research, the official scorekeepers of such things for the United States, declare a recession. Have that announcement coincide with the election cycle, and the president can start packing. Ask Gerald Ford, Jimmy Carter, or George H. W. Bush. Or ask John McCain why he thinks he didn't make it into the White House in 2008.<sup>8</sup>

Long-term trends are even more important. When Hong Kong,

Singapore, South Korea, and Taiwan—the Asian Tigers—roared into the global consumerism super-league within a few decades, GDP was the scorecard that put them there. China is now following suit in the most far-reaching transition ever.

It would be comforting to say that more GDP is always a good thing, and to a point that's clearly the case. Living on a dollar a day is miserable no matter how you look at it.

But RFK had it exactly right. GDP reflects a lot of destructive and nonproductive activity, and all but ignores everything other than material wealth, money. The work of leaves and tree roots is just one such contribution left to the wayside. Indonesia's GDP growth figures throughout the 1970s and 1980s would have been cut in half had the official number crunchers bothered to consider that extracting a tree trunk or a barrel of oil from the ground today means it's no longer there for the taking tomorrow.<sup>9</sup> The same recalculation could be done the world over, for Madoff-style, fairy-tale accounting has been the norm for a long time. It's like running a business and reporting only your revenue, not the costs of raw materials. Now those costs are galloping forward, and it's time to audit the books honestly.

If the game is to maximize GDP as currently constructed, protecting the planet is not in the cards. Every ton of coal taken out of West Virginia mines adds over \$30 to GDP, but no one accounts for the fact that the ton is no longer in the ground. Imposing that simple act of honest bookkeeping would decrease the value to half, around \$15.<sup>10</sup> And that still doesn't account for the larger human and environmental costs: black-lung disease in miners, destruction of ecosystems from mountaintop removal, coal sludge runoffs polluting rivers near mines, or the impacts on public health and the world's climate of burning the coal.

Oil is just like coal: everything gets added, nothing subtracted. Every barrel of oil pumped out of the ground, whether it ends up in your gas tank or on our shorelines, increases GDP. The barrel that gets burned in your car adds to GDP because you pay for it at the pump. The barrel that washes up onshore adds to GDP because someone pays for the cleanup costs.

What's true for countries is also true for companies. They gladly add gains from selling oil to their corporate balance sheets. The ensuing pollution is someone else's problem. And you can't blame Exxon's management for making sure this is the case. They have to. It's not just the nature of the game; it's the law. Managers have fiduciary responsibilities to the company's shareholders to maximize profits. The current road signs, as it were, all point them in that one direction. And without that incentive, capitalism as we know it could not function. If managers don't manage in the interest of a company's owners, the model of corporations will fall apart. If depleting natural resources comes at zero charge and the planet doesn't count, exploiting it isn't just good business. It's the only business.

There are plenty of case studies of companies that do well by doing good. But that's the point. These are case studies. Many others are hun-gering down in their respective industries and going about doing business as usual. BP might want to claim it's moving "beyond petro-leum," but a million rebranding campaigns can't hide the fact that its core business is oil. The economy as a whole isn't changing gears voluntarily.

Let's look back to the financial sector for a particularly poignant ex-ample. In the lead-up to the latest economic crisis, everyone up and down the financial-sector food chain had been facing the wrong incen-tives, and in many instances they still are. Whether you are the poor mortgage broker reduced to cold-calling renters in graduate student housing (one tried to convince my wife and me in 2005 that we could afford to get a \$400,000 interest-only mortgage: "You're still in school now, but you are graduating soon, right?" "Well, yes, but she will be a medical resident, barely making enough to pay back her student loans." "Oh, hmm, we can work something out"), whether you are a credit-rating agency hired by the issuer of an overly complicated finan-cial instrument to rubber-stamp that it is indeed secure, or whether you

are Chuck Prince, the CEO and chairman of what was once the world's largest bank, in the end you are responding to the incentives presented to you. There were plenty of crooks and even more who checked their moral compasses at the door, but most were only following orders.

This is not the Nuremberg defense: I know my actions were illegal, but I was just following orders. Actually, it's the opposite. The orders followed didn't lead to illegal actions. Just as fiduciary responsibility compels Exxon managers to extract ever more oil, it also requires everyone in the finance sector to keep on dancing. Shortly before collecting his own \$40 million golden parachute, Chuck Prince uttered his famous last words: "As long as the music is playing, you've got to get up and dance." Emphasis on "you've got to." And the fact that legislators had erased many of the existing checks and restrictions—those few road signs that had been pointing in different directions—only lit fire under Prince's and other bankers' feet.

Don't vilify Prince. He had it right. Bankers ought to be dancing to the music. That's what we are paying them for, and the task isn't to stop them or to turn off the music entirely. Regulators need to make sure that everyone faces the full consequences of his or her actions. The goal may be to slow down the dance a bit, but mainly it's to change the beat.

The same goes for environmental problems. No one wants entrepreneurs and businesses to stop dancing. Well, let me amend that. I'm sure there are some environmentalists who would rather have all business grind to a halt. That can't be the goal, though. Explain to a poor Indian living on a dollar a day—who watches his infants die because of preventable diseases and poor sanitation—that now that we are rich and he is not, the world must stop all development for the sake of preserving unspoiled nature. Beyond being immoral, it is utopian to imagine it possible.

We know that there are strong forces compelling us to dance. But we also know that we can't keep dancing the way we have been so far, not while the planet is burning. The big question is how to change the

dance beat. Why now? And how quickly can we do it? Time to seek counsel from a higher power.

### **ECONOMICS 102**

Sitting through one of Martin L. Weitzman's lectures is a transformative experience. Not because he is the clearest and most organized lecturer. He isn't, and he concedes as much. It's because every once in a while Weitzman takes command of the blackboard and doesn't stop writing for the next eighty minutes. A Wednesday in November 2005 was one of these days.

"Mathematically advanced." Those are the first two words on the class syllabus. You bet. "I think he just derived a new theory," said one puzzled student confiding his confusion to me. I know that spells trouble. As the teaching assistant, I had to take the math and translate it into (German-accented) English by the next day's review class.

Weitzman is fond of saying that the best way to learn is a couple of No. 2 pencils, a blank notebook, and a few hours alone on a hard, wooden chair: "Make your own mistakes. It's the only way you will learn." The reason most students diligently come to the review even if they sometimes skip the actual lectures isn't because they've taken him up on the suggestion. Most of the time they want translations, or better yet answers. That day they just wanted to understand what in the world had happened in class the day before.

Weitzman hadn't derived a new theory. Not quite. He had presented results from his latest research, the culmination of several months of painstaking work, into a problem that has vexed economists for generations: Why don't people invest more money in the stock market?

The answer, it turns out, has as much to do with stocks and the financial crisis that would haunt the world later that very decade as it does with the climate crisis facing our planet. The direct link between them: ten-foot women.



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