Clearly in many instances we have too much regulation. In other cases regulation is required to solve a problem. What is the difference?
ECONOMIC EXTERNALITIES

Economic Externalities were first pointed out by the French Economist Albert Pigou who called them “Incidental Uncharged Services and Disservices”
Assume Company A manufacturers a chemical which it sells to company B.
In the process Company A emits a pollutant into the river which harms a downstream person.

As there is no market for pollution the market cannot “Handle it”
An externality is a cost or benefit that results from an activity or transaction that affects an otherwise uninvolved party who did not choose to incur that cost or benefit and for which cost or benefit no market exists.
Externalities must then be “handled” by:

Regulation
Making a Market
Tax (A Pigouvian Tax)
Regulations to handle externalities are generally of the “Thou shalt not” Variety. Examples are regulations limiting the temperature of water returned from cooling towers, $PM_{10}$ etc.
MAKING A MARKET

To regulate Sulfur Dioxide the Federal Government has created a market for SOX, the “Cap-and-Trade” Market. A Cap is set for SOX in terms of lbs/mwh. If a company exceeds this amount they must buy credits, If they are lower than the cap they can sell credits. This allows companies who can reduce credits cheaply to do so and sell them lowering the overall cost.
A tax on an externality (or a payment for a positive externality) is called a Pigouvian Tax.
The next advance in the economics of Externalities was pointed out by Joseph Schumpeter in “Capitalism, Socialism and Democracy”; benefits and costs are not always distributed to the same people and this will influence decision making.

“Can capitalism survive? No, I do not think it can.”
Schumpeter pointed out that as benefits and costs were not equally distributed politics would have a hard time handling externalities.

One of his examples was a plant closing brought on by advances in a product.

The employees, shareowners would flood politicians with petitions to keep the plant open.
On the other side the benefits of the new product were spread widely across the population and no one had enough of a benefit to write their representative. Or costs of competing products would fall and customers would go to the new product but the per customer benefit would be small.
PRIVATE GOODS
Food, clothing, houses, cars

CLUB GOODS
Movies, camps, satellite or cable TV

COMMON GOODS
Fish stocks, timber, minerals

PUBLIC GOODS
Air, national defense

EXCLUDABLE

RIVAL

NON-RIVAL

NON EXCLUDABLE
Cost - 7 cents per KWH
Benefit - 21 cents per kwh Benefit
But this is a public good.
Its benefit is shared by 7 billion people.
Per person benefit 21 cents/7E9 people.
Or, approximately 3/1,000,000,000 of a cent per person benefit.
You are caught squarely in the middle of this effect.

Climate Change believers believe that the lifetime benefit to us, our grandchildren and all future generations of closing a coal plant is some very large number, say $7 billion thus a benefit of $1 per person. Thus every AZ Coop Customer will receive a benefit of $1.

But you will bear all of the costs of replacing a newly refurbished $300 million dollar plant.
The free rider effect prevents people from acting because people believe (correctly):

- My contribution is negligible
- If I fix it, it will cost me money and won’t solve the problem,
- If others do not fix their problem I will have wasted my money,
- and, if others do act and solve the problem I will share in the benefits.
To make the political decision much harder many of the people who will bear the consequences of Climate Change and Ocean Acidification haven’t even been born yet.
Further many of those most at risk are not even citizens of the polluting countries (and thus not voters).
Externalities – show why Governments must act to solve societal problems involving public goods.

In the past we have acted;

- Acid Rain
- Environmental Protection Act
- Child Labor
- Minimum Wage
- Union Bargaining
- Working Conditions (e.g. MSHA)
- Child Labor

Ronald Coase
Targeting Regulations

Child Labor

Recognized during Post 24's Court of Honor for various awards were the following boys: left to right, Steve Adams, Charles Bayless, Jr., Walter Sampson, Norman Harwickman and Sonny Flanagan.
TRAGEDY OF THE COMMONS

WRONG WAY
The “Tragedy of the Commons” was first pointed out on the Boston Commons. Every citizen had a right to graze sheep on the Commons. Soon, due to the number of sheep, grass started disappearing on the Commons.
The sheep then began to be underweight.

The market signal to a sheepherder who was making less money per sheep was to get more sheep.

This of course made the situation worse and soon there was no grass (and no sheep).
The Tragedy of the Commons has played itself on countless other transactions.

Consider tuna fishing. As tuna are heavily fished catches go down and tuna prices go up. The market signal is then to get bigger boats etc. to take advantage of higher prices.
Soon people are using multimillion dollar boats and spotter planes to catch tuna and, left unchecked, tuna would soon disappear.
To a market for sheep, grass disappearing is an externality.
To a market for tuna, tuna disappearing is an externality.
And, markets cannot handle externalities.
Governments and fishermen worldwide realize that quotas are needed on annual catch limits to preserve fish populations.
Where externalities are involved, markets may not give the correct signals. Markets are by far the best thing we have for producing and distributing goods and services but they cannot work where there is no market.
Business complain that these costs make them uncompetitive.

But if the cost of cleaning up the pollution is far less than the harm done by the pollution then we should clean up the pollution.

But Free Rider Effect prevents business from acting.
In the 1970’s SOX from Midwest powerplants had caused “Acid Rain.” Many Northeast lakes were sterile, having a very low pH and forests were dying. The Federal Government then passed the Clean Air Act.
If you think markets cannot handle externalities.

Joe Manchin
U.S. Senator, WV
To “handle” the externality of Climate Change Joe would have to go into the Coal Mining Regions of Southern WV and say,

“Vote for me and I will put you out of the only job you have ever known with no payment to compensate you so that the rest of the world can thrive.”
In the early days of our Nation externalities were few and markets could regulate and optimize our economy
Today product development and production are spread over hundreds of countries making regulation almost impossible.
To Walmart, McDonalds, etc.

the fact that
automatic checkout
has put someone
out of a job is an
externality.

To the jobless
person it is far
from an externality.
Energy companies will go through years caught in the middle of environmental groups, investors, politicians, customers and regulators, unable to do anything about it.

Seabrook Nuclear Plant
The next advance in the economics of Externalities was pointed out by Joseph Schumpeter in “Capitalism, Socialism and Democracy”; benefits and costs are not always distributed to the same people and this will influence decision making.

“Can capitalism survive? No, I do not think it can.”
Business complain that these costs make them uncompetitive.

But if the cost of cleaning up the pollution is far less than the harm done by the pollution then we should clean up the pollution. But Free Rider Effect prevents business from acting.
Business is right: the costs do make them uncompetitive if they are competing with another company who does not have to bear the costs.
Assume that 30 years ago Kansas was not part of the United States
Assume a Kansas T-Shirt producer had no minimum wage and paid its workers $1 per hour, no retirement plans, no health benefits, no 401-k plans, no rules on working conditions, no pollution rules, child labor, etc., etc. etc.
Now assume that they entered into a Free Trade Agreement with the United States with no tariffs. U.S. businesses would be forced to move to Kansas or go out of business.
Now assume that they entered into a Free Trade Agreement with the United States with no tariffs. U.S. businesses would be forced to move to China or go out of business.
An efficient market for T-Shirts cannot give us retirement benefits, 401-K’s etc. Those, to a T-Shirt Market, are externalities and can only be provided by Government Regulations.

A T-Shirt Market can no more provide these services than an apple market can produce an optimum outcome for oranges.

Companies cannot afford to furnish externality benefits if their competitors are not required to also.
Did free trade bring us cheaper T-Shirts

YES

But in the price of the original higher priced T-Shirt was money to pay for pollution controls, the cost of not using child labor, the cost of pensions, employee and retiree health care, etc.

If U.S. manufacturers had to reduce their costs to compete they could no longer afford these items.
And, even if they understand externalities, how many U.S consumers will go to a different store to get a $3 T-shirt when they can go to a “Big Box” Store and get all their shopping done and a T-Shirt for $1.20?
In 1929 electricity made cotton mills in NH obsolete and production moved to Georgia etc. reducing the cost of goods. Consumers got better, cheaper etc. clothing. Was NH Better off? No. Over 20,000 people were laid off.
American workers can compete with and beat workers anywhere but not if these workers are in countries that do not recognize externality costs.
The “Gig Economy” gives us good examples of externalities. Uber and Lyft do not regard their drivers as employees, thus they do not pay overtime, furnish health insurance etc. They are (usually) cheaper and more convenient.
UBER AND LYFT

But to the transaction between a Uber Driver and a Customer, a Taxi Driver losing his or her health insurance, job etc. is an externality.

Is society better off?

Cheaper Taxi Rides

Vs.

Loss of Livelihood
Many companies have switched from defined benefit plans to 401-k plans. But people have a habit of taking money out of 401-K plans and have nothing left for retirement. Oops! That’s an externality.
Ray Dalio, founder of Bridgewater Associates.

“If we don’t agree, we’ll have some form of a revolution that would be to abandon capitalism, to go to the opposite extreme,” Dalio said. “If you have a population where there’s a large wealth gap and you have an economic downturn, it’s almost reliable there is conflict.”
EXTERNALITIES

GLOBALIZATION