

# Pigouvian taxes

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# Externalities

- Loud conversation in a train carriage that makes concentration impossible for fellow-passengers
- A farmer spraying weedkiller that destroys his neighbour's crop
- Motorists whose idling cars spew fumes into the air, polluting the atmosphere for everyone

- Market prices—of rail tickets, weedkiller or petrol—do not take these wider costs, or “externalities”, into account
- Still others are more properly known as “internalities”. These are the overlooked costs people inflict on their future selves, such as when they smoke, or scoff so many sugary snacks that their health suffers.

# Alfred Marshall and Arthur Pigou

- Alfred Marshall: The first to layout the idea of externality
- His student Pigou, uncomfortable with strangers, but intellectually brilliant
- Pigou succeeded Marshall to become head of the economics faculty when he was just 30 years old

# “The Economics of Welfare”

- Central theme: “self-interest will not ... tend to make the national dividend a maximum”
- Chimney smoke in London meant that there was only 12% as much sunlight as was astronomically possible
- Such pollution imposed huge “uncharged” costs on communities, in the form of dirty clothes and vegetables, and the need for expensive artificial light

# Ways of tackling externalities

- Some things should be regulated
- Other activities ought simply to be banned. No amount of “deceptive activity”—adulterating food, for example—could generate economic benefits
- But he saw the most obvious forms of intervention as “bounties and taxes”

## “Bounties and taxes”

- These measures would use prices to restore market perfection and avoid strangling people with red tape
- This is now known as Pigouvian tax
- Levies on drivers to counterbalance the externalities of congestion and pollution are common in the Western world
- Taxes to fix internalities, like those on tobacco, are pervasive, too

# Theoretical challenges

- But there are flaws in Pogou's idea: both theoretical and practical
- Coase considered externalities as a problem of ill-defined property rights
- If it were feasible to assign such rights properly, people could be left to bargain their way to a good solution without the need for a heavy-handed tax.

- Coase's example: a confectioner (甜品工廠), disturbing a quiet doctor working next door with his noisy machinery
- Just assigning property right would solve the problem, no tax needed

- In most cases, the sheer hassle of haggling (討價還價的麻煩) would render this unrealistic, a problem that Coase was the first to admit
- But his deeper point stands. Before charging in with a corrective tax, first think about which institutions and laws currently in place could fix things

- Besides these more theoretical qualms about Pigouvian taxes, policymakers encounter all manner of practical ones:  
How to set level of the tax?
- The span of estimates of the economic loss to humanity from carbon emissions is unhelpfully wide as a result, ranging from around \$30 to \$400 a tonne.

- Pigou handed economists a problem and a solution, elegant in theory but tricky in practice