

Principles of Economics
Distorting and Undistorting
Competitive Markets

Externalities: Introduction

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Competitive Markets in Equilibrium

Make the Right Decisions...

- For five reasons:
 - They figure out how much is to be produced and sold—enough to power all win-win transactions, and no more...
 - They figure out who should produce—all those with an opportunity cost less than the market equilibrium price...
 - They figure out who should *not* produce—all those with an opportunity cost more than the market equilibrium price...
 - They figure out who should consume—all those with a willingness-to-pay higher than the market equilibrium price...
 - They figure out who should not consume—all those with a willingness-to-pay lower than the market equilibrium price

The Competitive Market Is Perfect, Except for...

- Six kinds of meddling market mishaps—failures—in competitive markets: Shaggy, Scooby... no, that's not it. It's:
 - ...the wrong distribution of purchasing power and wealth—**maldistributions**
 - ...people who misapprehend what their interests really are—**miscalculations**
 - ...commodities where people do not know what they are really buying or selling—**information asymmetries**
 - ...commodities where use is divorced from ownership—**non-excludibility**
 - ...commodities where one person's use does not preclude another's—**non-rivalry**
 - ...commodities where the costs and benefits are not *internal* to the parties to the transaction—**externalities**
- Plus: market power—things that make markets not competitive



Six Classes of Market Failure in Competitive Markets

- Six cases:
 - Maldistribution
 - Miscalculation
 - Information
 - Non-excludibility
 - Non-rivalry
 - Externality
- In all six of these cases, the competitive market in equilibrium is not the societal planning, calculation, and allocation mechanism we are looking for: it will fail

Six Classes of Market Failure II

- We have already talked about: maldistribution failures
- We won't talk about: miscalculation failures
- We are leaving for future classes: information failures, non-excludibility failures, and non-rivalry failures
 - Market power—sustainable market power, that is—
is linked...
- Today's topic: externality failures

Ladies, Gentlemen, and Large Intelligent Semi-Talking Dogs Who Did Not Go to U. Mass, to Your i>Clickers!

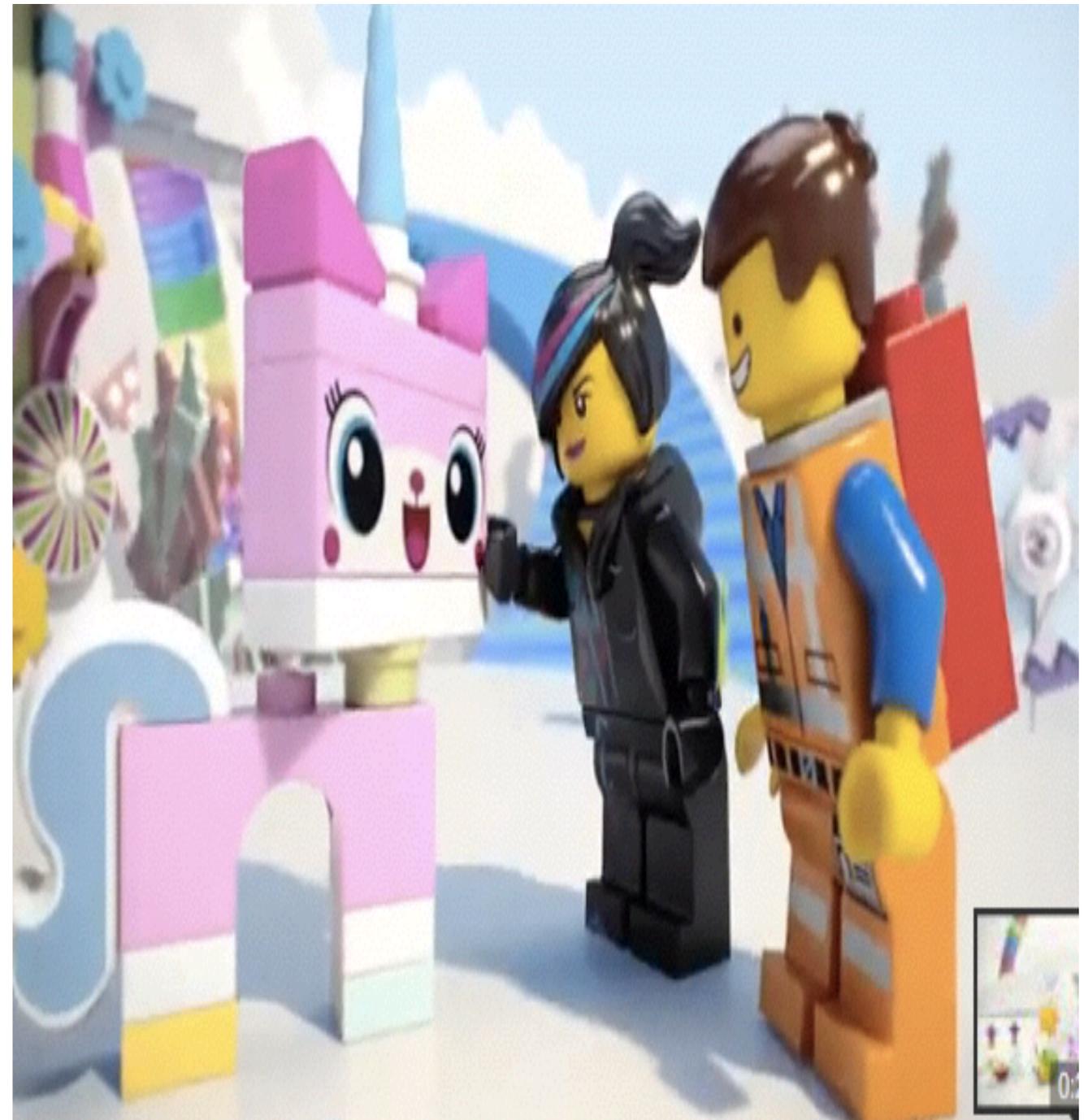
- To refresh your minds, a maldistribution failure arises when:
 - A. The marginal utility of wealth is different for some than for others
 - B. The distribution of wealth is awry and so at the margin people's ability to buy things does not correspond to our ideas of who needs and deserves things.
 - C. Some have gotten rich and others poor through luck—or through crime, or through unfair inheritance, or through fair inheritance of the fruits of past crimes.
 - D. All of the above
 - E. None of the above (except D)

Ladies, Gentlemen, and Large Intelligent Semi-Talking Dogs Who Did Not Go to U. Mass, to Your i>Clickers!: Answer

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 - **D. All of the above**
 - E. None of the above (except D)

Today We Do Externalities

- In the context of our Lego Movie example market:
 - Lego brick manufacturers sell...
 - Master builders buy...
 - But Lego brick factories emit toxic plasticized smoke that pollutes Cloud-Cuckoo Land...



Today We Do Externalities

II

- Lego brick manufacturers sell...
- Master builders buy...
- But Lego brick factories emit toxic plasticized smoke that pollutes Cloud-Cuckoo Land



Today We Do Externalities

III

- Lego brick manufacturers sell...
- Master builders buy...
- But Lego brick factories emit toxic plasticized smoke that pollutes Cloud-Cuckoo Land
- And Unikitty is *very* unhappy



Ladies, Gentlemen, and Products of Genetic Engineering Gone Awry, to Your i>Clickers?

- Should We Expect the Right Decisions to Be Made by a Market with an Externality?
 - A. Yes, a competitive market in equilibrium produces Pareto-optimal results
 - B. No. When the market makes the right decisions, it does so because it takes account of and properly weighs the consequences. With externalities present, it does not do so.
 - C. Yes, a competitive market in equilibrium maximizes the social welfare function
 - D. No—but the costs of using government to try to fix it will generate government failure problems worse than the errors of the marketplace.
 - E. Yes, because this externality does not involve a good or service sold on the market it has no effect on market optimality



Ladies, Gentlemen, and Products of Genetic Engineering Gone Awry, to Your i>Clickers?: Answer

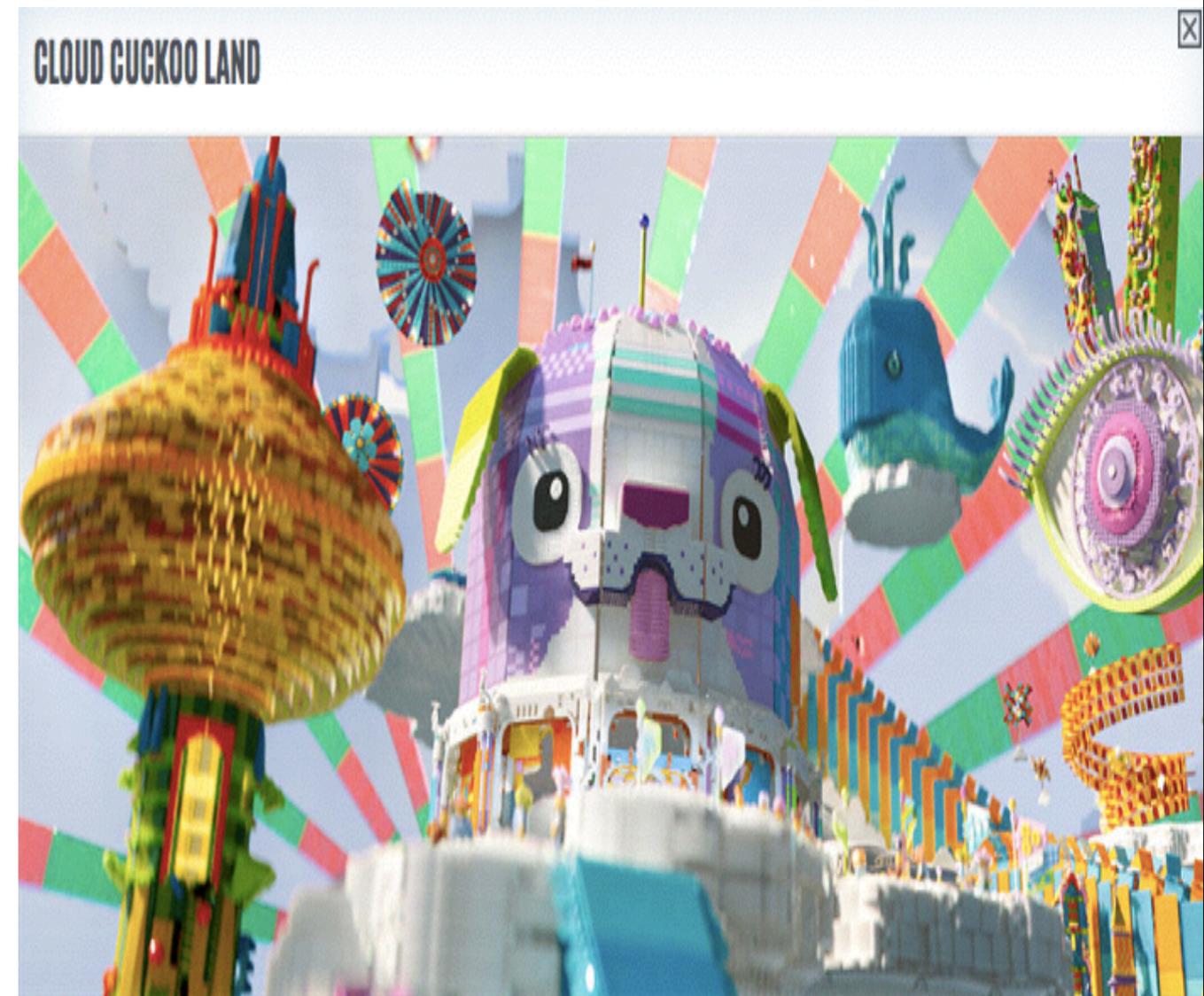
- Should We Expect the Right Decisions to Be Made by a Market with an Externality?
 - A. Yes, a competitive market in equilibrium produces Pareto-optimal results
 - **B. No. When the market makes the right decisions, it does so because it takes account of and properly weighs the consequences. With externalities present, it does not do so.**
 - C. Yes, a competitive market in equilibrium maximizes the social welfare function
 - D. No—but the costs of using government to try to fix it will generate government failure problems worse than the errors of the marketplace.
 - E. Yes, because this externality does not involve a good or service sold on the market it has no effect on market optimality
- **I say B. C is rarely true, B is sometimes true—but not with externalities—and E is simply wrong. D is, I think, ideology: whether government failures from attempting to correct externalities are cures worse than the diseases is an empirical question that varies from case to case: not a theoretical *a priori* conclusion.**

No, We Should Not Expect the Right Decisions to Be Made by a Market with an Externality

- Individual brick producers sell only if the market price is greater than their opportunity cost...
- Individual master builders buy only if the market price is less than her willingness-to-pay...
- All possible win-win deals between master builders and brick producers are made, and no not win-win deals *between those two groups* are made...
- But Unikitty doesn't get a say—and her lungs are coated with plastic smoke...
 - This cannot work out well when the market gives some important stakeholders no voice in the decision at all...

So What Should the Government Do?: To Your i>Clickers

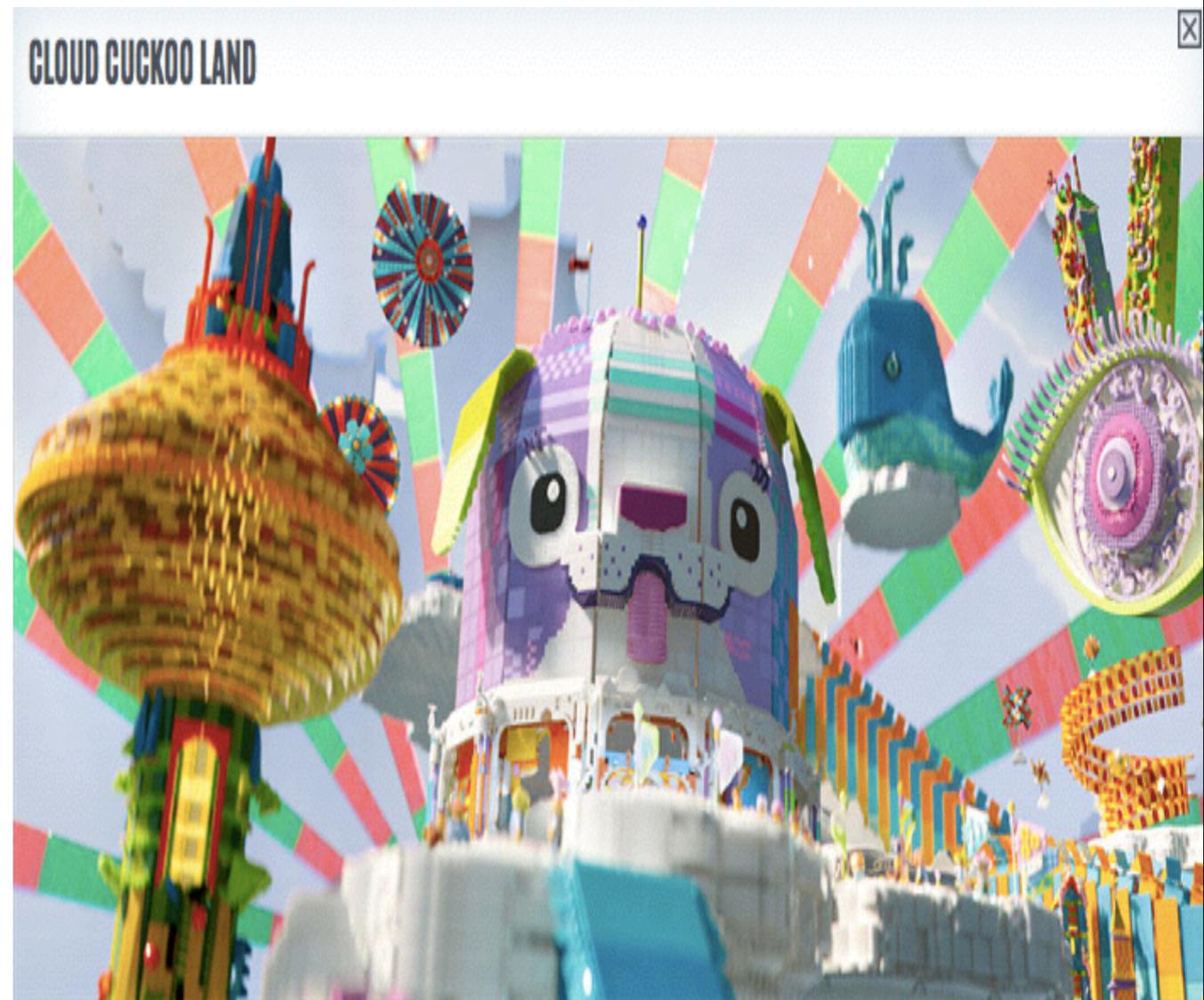
- A. Forbid brick producers to use any production process that pollutes Cloud-Cuckoo Land?
- B. Tell Unikitty to go and use the courts—to sue the individual brick producers under the doctrines of tort law for damages to repair the economic harm that air pollution does them?
- C. Tell Unikitty to buy a gas mask?
- D. Impose a quota on maximum allowable production in order to limit the damage from pollution?
- E. Impose a tax to force brick producers (and master builders!) to take account of the damage they inflict on Cloud-Cuckoo Land, and then use the revenue for pollution remediation (or some other benefit to CCL)?



A land up in the clouds where there are no rules, no limits, no bushy mustaches and no bedtimes. Reached by traveling up a rainbow and home to the sweet and plucky Princess Unikitty, Cuckoo Land is built from every kind of piece using every type of LEGO imagination. Unknown to most, it is also the secret meeting place of the Master Builders.

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- **E. Impose a tax to force brick producers (and master builders!) to take account of the damage they inflict on Cloud-Cuckoo Land, and then use the revenue for pollution remediation (or some other benefit to CCL?)**
- **I say that the answer is going to be E: A is wrong: to forbid brick production may mean that we are giving up something of immense social benefit in order to guard against what may be a small harm. B is wrong: tort law has not, historically, dealt well with externalities. C is also wrong: why should Unikitty be required to pay for dealing with a situation she did nothing to create? And D is a less-destructive but still flawed version of A. that leaves E...**



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Arthur Cecil Pigou Rulz!

- **Yes!:**
 - **E. Impose a tax to force brick producers (and master builders!) to take account of the damage they inflict on Cloud-Cuckoo Land, and then use the revenue for pollution remediation (or some other benefit to CCL**
- A.C. Pigou, *The Economics of Welfare*

