

One Peso a Litre

A tax that worked, a problem that did not go away, and what that combination should teach us.

6 min read

Before you read

- **excise tax** — a tax levied on a specific good rather than on income or sales generally
- **externality** — a cost or benefit falling on people outside the transaction
- **regressive** — taking a larger share of income from the poor than from the rich
- **price elasticity** — how sharply demand responds to a change in price
- **substitution** — replacing a taxed good with an untaxed one
- **counterfactual** — what would have happened in the absence of the policy



A neighbourhood shop in Mexico City, soft drinks stacked beside bottled water, a handwritten price card

¹ In January 2014 Mexico introduced an excise tax of one peso per litre on sugar-sweetened drinks. The country had, by then, one of the highest rates of obesity and type 2 diabetes in the world, and one of the highest rates of soft drink consumption anywhere. The measure was contested loudly and passed narrowly, and it has since become the most studied piece of nutrition policy of the last fifteen years.

² The headline result is not in serious dispute. Purchases of taxed drinks fell by roughly six per cent across the first year, with the decline steepening over the course of it, and the fall was substantially larger in lower-income households than in wealthier ones. Purchases of untaxed drinks, bottled water chiefly, rose. The effect persisted into the second year rather than rebounding, which is the pattern a short-lived novelty

effect would have produced.

³ On the terms the policy set itself, then, it worked. Demand responded to price, as the economics predicted it would, and responded most among the households consuming most. That is a stronger result than most public health interventions can show, and it is why some sixty jurisdictions have since adopted some version of the measure.

⁴ And yet obesity in Mexico did not fall. Nor did diabetes incidence. A decade on, both are higher than they were in 2013.

⁵ This is where the argument about the tax actually lives, and where it is most often conducted badly. Opponents treat the second fact as refuting the first: the tax did not reduce obesity, therefore the tax failed. Supporters treat the first as disposing of the second: consumption fell, therefore the critics are arguing in bad faith. Both responses avoid the interesting problem.

⁶ Consider the arithmetic. A six per cent fall in soft drink purchases removes something on the order of twenty kilocalories a day from an average diet. Against a daily intake above two thousand, and against the energy surplus that produces obesity at a population level, that is a real but small quantity. It was never plausible that it alone would reverse a trend driven by changes in food processing, physical activity, urban design, working hours and the relative price of everything else. The tax was asked to carry a weight that no single instrument of its size could carry.

⁷ Which raises the question of who did the asking. In the campaign that preceded the law, the tax was presented, by some of its own advocates, as a measure against obesity rather than as a measure against soft drink consumption. That framing won the vote and then set the test the policy would be judged by — a test it was always going to fail. Policies are frequently oversold at the point of adoption and then measured, years later, against the overselling.

⁸ Two further objections deserve more than they usually get. The first is that the tax is regressive: a flat levy per litre takes a larger share of a poor household's income than a rich one's. The standard reply is that the health benefit is also concentrated among the poor, since they both consume more and suffer more. That reply is sound as far as it goes, but it is an argument about net effects over decades offered to someone experiencing a cost this month, and it is not improved by being repeated more loudly. Earmarking the revenue — Mexico directed part of it to drinking water infrastructure in schools — addresses the objection far more directly than any argument does.

⁹ The second is substitution. If consumers move from taxed drinks to untaxed sweetened products, the health gain is cancelled while the cost remains. In Mexico the substitution appears to have run largely towards water, which is the outcome the designers hoped for. But that is a fact about this tax in this country, not a general property of sugar taxes, and it depends on what the untaxed alternatives are and how cheaply they are available. A jurisdiction copying the policy without checking its own substitution pattern is copying the form and not the mechanism.

¹⁰ The defensible conclusion is narrower than either camp wants. The Mexican tax is good evidence that price moves consumption, including among the people whose consumption matters most, and weak evidence about anything further downstream. That makes it a reasonable component of a strategy and an

unreasonable substitute for one. The failure worth examining is not the tax. It is the habit of adopting a single measure, declaring the problem addressed, and returning to it a decade later to discover that nothing else was done.

Part A Reading closely

Circle the letter next to the best answer.

1. What does the passage give as evidence that the fall in purchases was not merely a short-lived novelty effect?
 - A Wealthier households reduced purchases more than poorer ones
 - B The effect persisted into the second year instead of rebounding
 - C The tax was raised again after twelve months
 - D Bottled water sales fell alongside soft drink sales
2. In paragraph 6, the calculation of roughly twenty kilocalories a day is offered in order to
 - A prove that the tax had no measurable effect on consumption
 - B show that the tax should have been set considerably higher
 - C demonstrate that the published consumption figures are unreliable
 - D show why a real reduction in purchases could still leave obesity unchanged
3. According to paragraph 7, the campaign framing of the tax was damaging because it
 - A set the standard by which the policy would later be judged a failure
 - B persuaded wealthier households that the tax did not apply to them
 - C delayed the law by several years
 - D prevented the revenue from being earmarked
4. What does the writer say addresses the regressiveness objection more directly than argument does?
 - A Exempting low-income households from the tax
 - B Publishing the long-term health evidence more widely
 - C Earmarking the revenue, as Mexico did for school water infrastructure
 - D Lowering the rate to half a peso per litre

Part B Analysis

Answer in two or three sentences each. Refer to the passage by paragraph number where it helps your answer.

5. Explain why the writer says that both the opponents' and the supporters' responses in paragraph 5 'avoid the interesting problem'.
6. The writer concedes that the standard reply to the regressiveness objection is 'sound as far as it goes'. Explain the limitation being identified, and why the writer thinks repetition does not fix it.
7. Paragraph 9 distinguishes between copying 'the form' and copying 'the mechanism'. Explain the distinction using the example of substitution.
8. Analyse the structure of the passage: a success is established, then undercut, then partially restored. What does this ordering achieve that a balanced survey would not?

9. The final paragraph relocates the failure from the policy to a habit. Explain what is gained and what is risked by ending on that reframing.

Part C Think deeper

There is no single right answer here. Take a position and support it with reasoning and, where relevant, evidence from the passage.

10. Is overselling a policy at the point of adoption ever justified if it is the only way to get the policy passed? Argue a position.

11. The passage treats a measure that changes behaviour but not outcomes as partially successful. Construct the case that this is too generous a standard.

12. Design the rest of the strategy the writer says is missing. Name two further measures and explain how each interacts with the tax.

13. Who should bear the cost of a health externality — the consumer, the producer, or the general taxpayer? Defend your answer against the strongest objection to it.

14. If you were advising a government considering this policy, what evidence would you insist on seeing about your own country first, and why that evidence rather than Mexico's?

Answer key

For parents and teachers

Part A

1. **B** — the effect persisted into year two (para 2) | 2. **D** — a real reduction can still be too small to move obesity (para 6)
3. **A** — it set the test the policy would fail (para 7) | 4. **C** — earmarking the revenue (para 8)

Part B

5. Both sides use one fact to dismiss the other instead of explaining how both can be true at once. The interesting question is why a genuine fall in consumption produced no change in obesity, which requires examining the size of the effect against the scale of the problem. Credit answers that identify the avoided question, not just the two positions.
6. The reply concerns aggregate health benefits realised over decades, while the burden is a cash cost felt immediately by households with least margin. The two are not commensurable, so restating the long-run benefit does not answer the short-run complaint. Strong answers notice that the writer treats the objection as a legitimate one requiring a remedy rather than a rebuttal.
7. The form is the instrument — a per-litre levy on sweetened drinks. The mechanism is the chain by which it works, which depends on consumers moving to a genuinely better alternative. Mexico's consumers moved to water; elsewhere they might move to another sweetened product, leaving the cost and losing the benefit. Accept any answer that locates the dependency on local conditions.
8. Establishing the success first means the later criticism cannot be read as hostility to the policy, and the partial restoration prevents the criticism from being taken as a verdict against it. The ordering performs the even-handedness the writer accuses both camps of lacking. Credit answers addressing sequence and its rhetorical effect, not merely summarising content.
9. It converts a narrow verdict on one tax into a transferable lesson about policy-making, which gives the piece reach beyond its case study. The risk is that it lets the specific evidence do less work than it appears to, and that a reader may accept the general claim without having been given comparable evidence for it.

Part C

These answers vary. Mark the reasoning, not the position taken.

10. Strong answers weigh the value of the policy actually enacted against the longer-term damage to trust and to the evaluation of future policy. Look for recognition that the cost of overselling falls on measures yet to be proposed.
11. The case against is that intermediate measures are chosen because they are achievable rather than because they matter, and that accepting them as success permits indefinite postponement of outcomes. A strong answer engages with the writer's reasoning rather than restating the opposite.
12. Expect concrete measures — marketing restrictions, reformulation requirements, front-of-pack labelling, subsidies on fresh food, school provision — and, crucially, an account of interaction with the tax rather than a list.
13. Any of the three can be defended. The requirement is that the student state the strongest objection to their own answer and respond to it, which is the skill being assessed here.
14. Strong answers name substitution patterns, baseline consumption, price elasticity and the availability and cost of safe drinking water, and explain why transferring Mexico's results without these is unsound. Prompt with: what was true of Mexico that might not be true of you?

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