

Task Force on Alcohol Pricing and Addiction Services

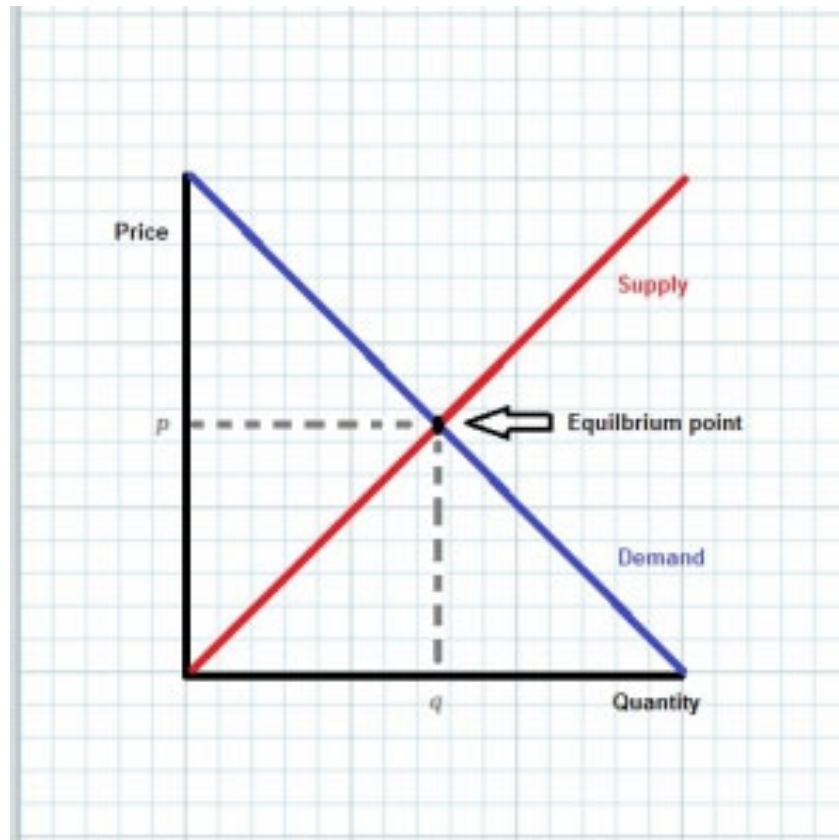
Taxation Options and Revenue Impacts

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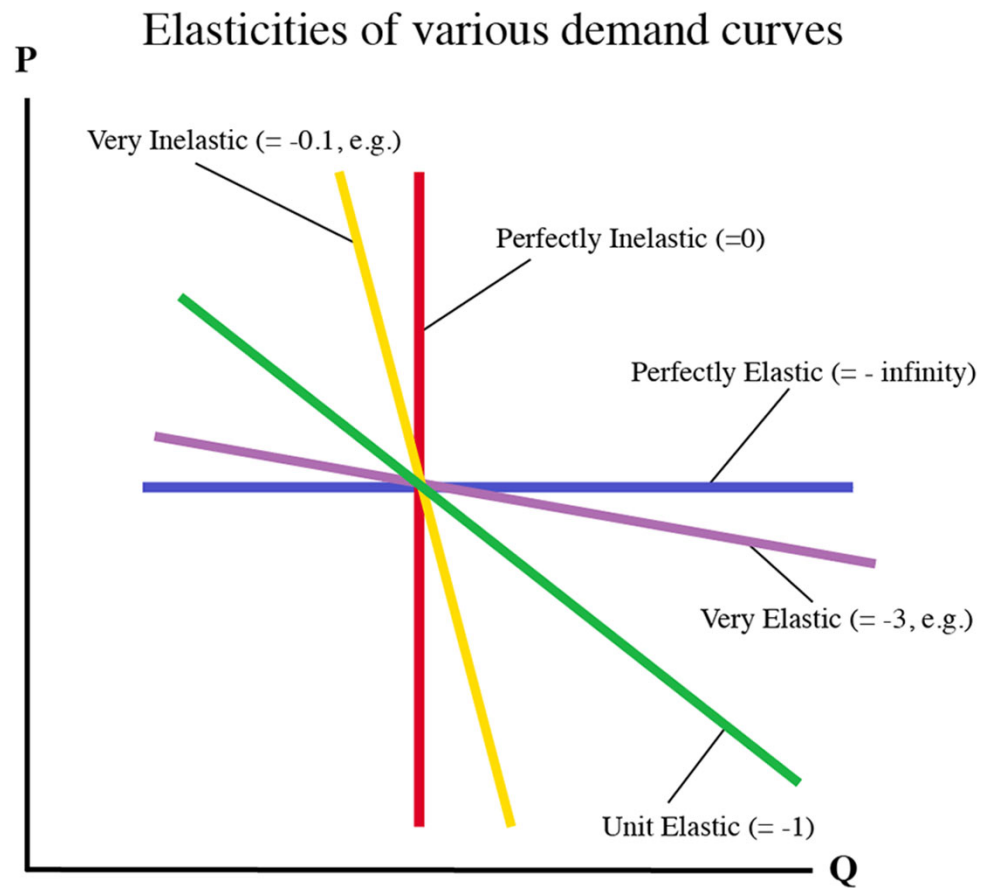
Legislative Revenue Office

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Economics Understands Supply and Demand



Elasticity Of Demand:
response of demand when Price changes

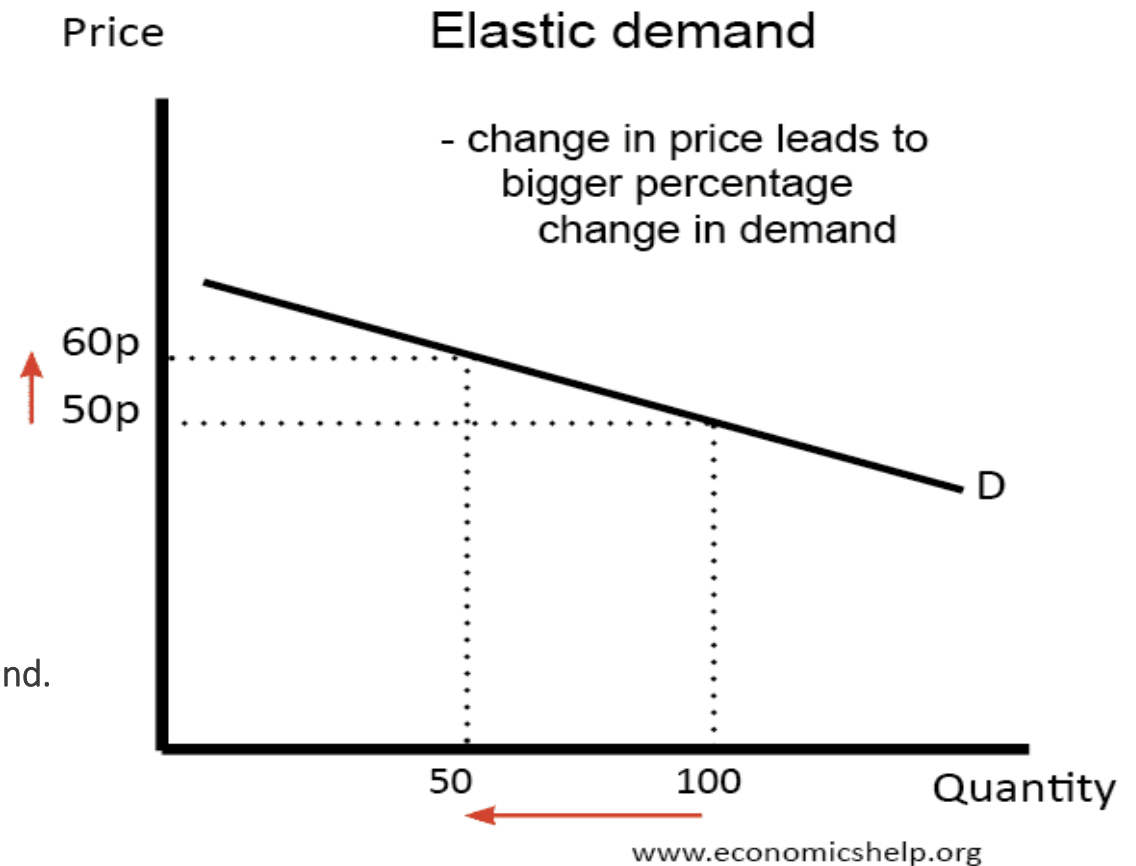


Elastic Demand (PED is larger than 1)

Price Elastic Demand

Definition: Demand is price elastic if change in price leads to bigger % change in demand; therefore, the PED would be greater than 1.

In this case, price can be used to curb demand.
20% change in price generates 50% decrease in demand.

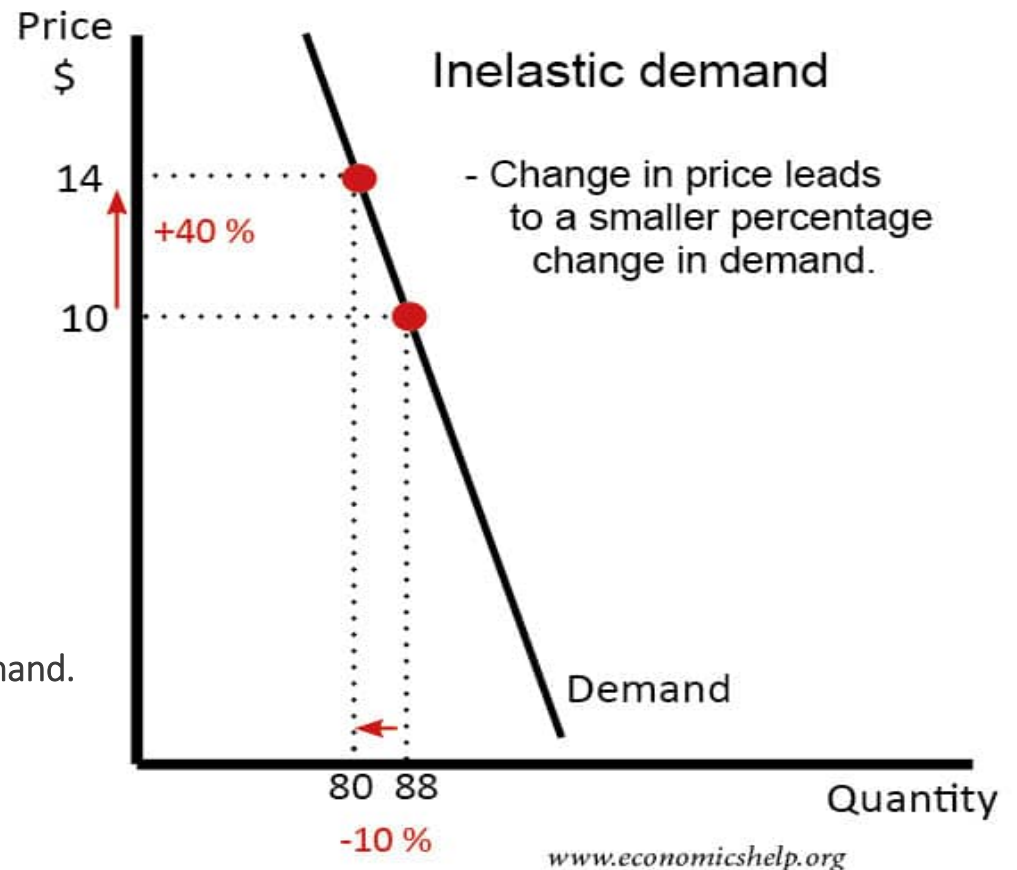


Inelastic Demand (PED is less than 1)

Price Inelastic Demand

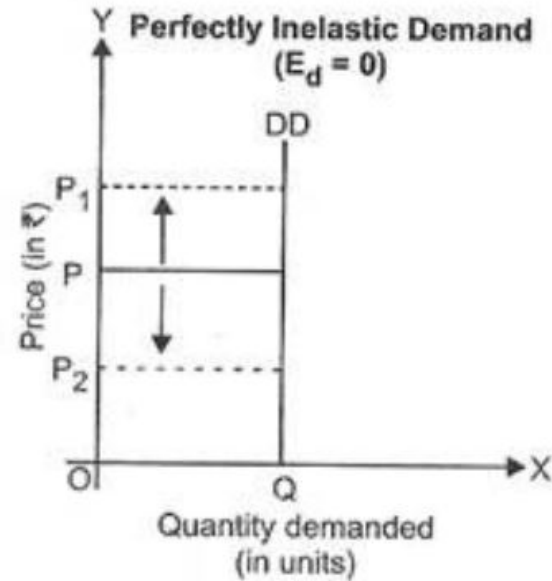
These are goods where a change in price leads to a smaller % change in demand; therefore $PED < 1$ e.g. -0.25

In this case, price is not as effective to curb demand. 40% change in price generates only 10% decrease in demand.



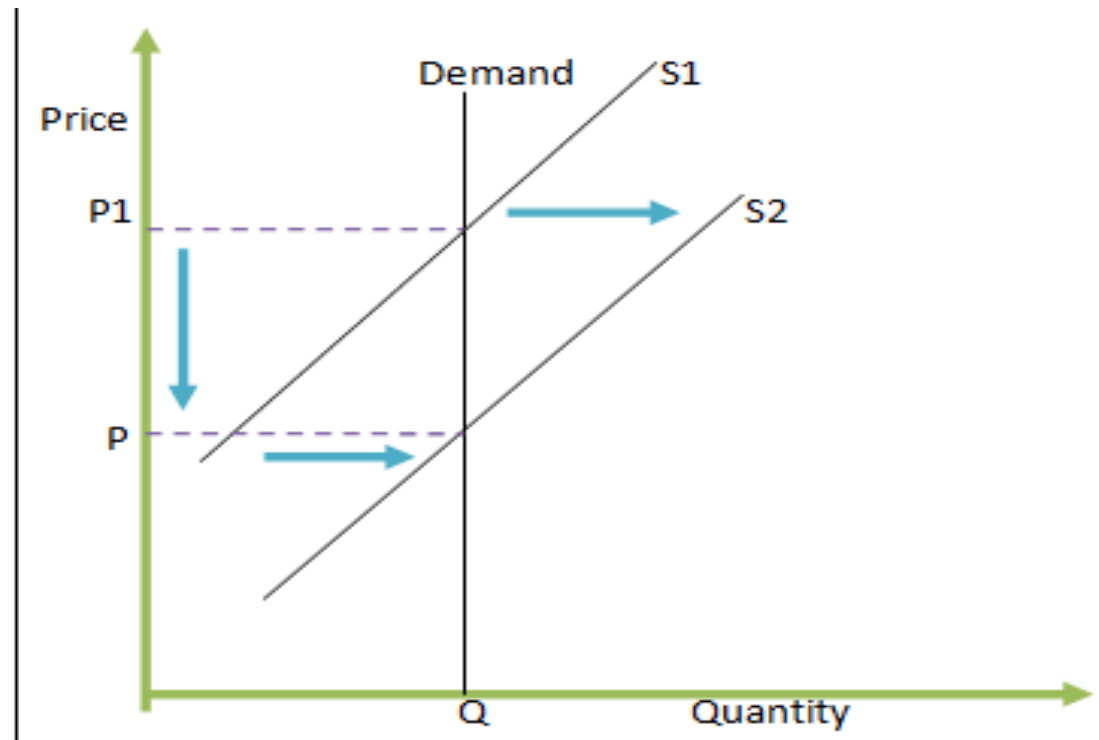
Perfectly inelastic Demand (No choice but to buy) PED = 0. same quantity regardless of price)

Some products assumed to have “0” elasticity.
Addiction could be close to this picture.



Supplier decides the price based on production costs and profits.

Perfectly inelastic Demand is where government intervention and control become essential.



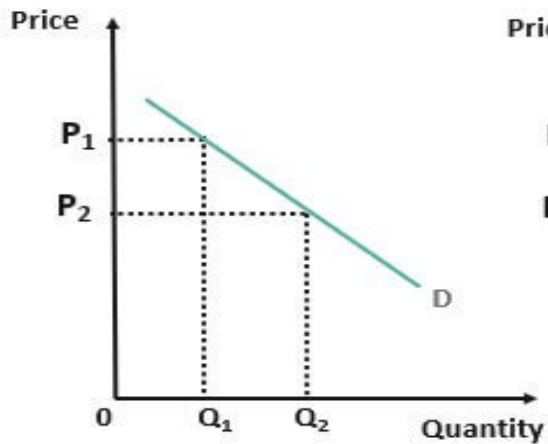
Knowing the product Elasticity can be powerful.

Using Knowledge of Elasticity

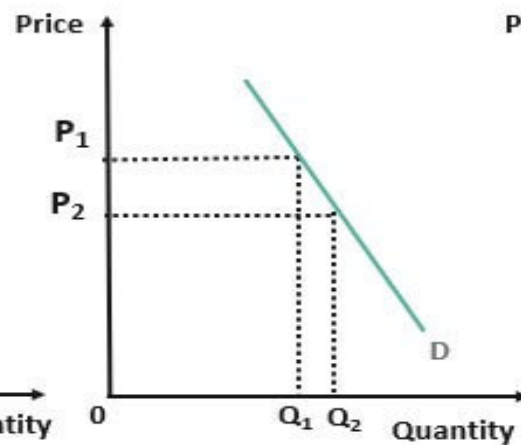
1. If demand is **inelastic** then increasing the price can lead to an increase in revenue. This is why OPEC try to increase the price of oil.
2. If demand is **elastic**, firms would be unlikely to increase revenue as this could lead to a fall in revenue. Instead, they could try advertising to increase brand loyalty and make demand more inelastic
3. **Price Discrimination**. Some people pay higher prices for tickets for trains because their demand is more inelastic.

Change in Demand in Response to Price Change

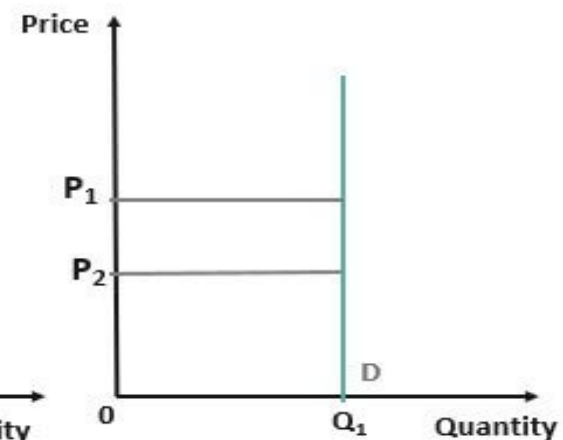
Elastic vs. Inelastic vs. Perfectly Inelastic Demand



Elastic demand



Inelastic demand



Perfectly inelastic demand



“Sin” Taxes: are taxes on products with social consequences

- Smoking
- Drinking
- Gambling
- Recreational drugs

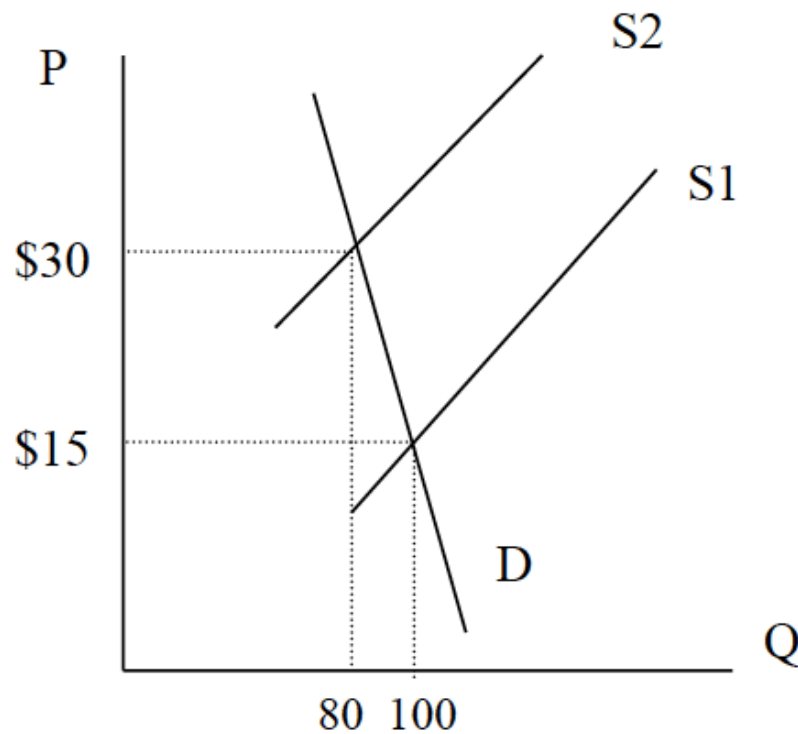
Most of these have Inelastic Demand. Some more than others.

Increasing prices are not likely to curb use significantly as many studies show. EcoNorthwest study.

Regulations become a more effective policy tools.

- some researchers would site smoking reduction in response to higher taxes.
- The more effective factors were regulations like the clean indoor act, no smoking around buildings, public health awareness campaigns, and teen prevention programs.

Inelastic Demand can produce more Revenue at lower quantity. Supplier is more in control



Revenue was
 $\$15 * 100 = \$1,500$

Revenue is now
 $\$30 * 80 = \$2,400$

$PED = -20\% / 100\%$
 $= -0.2$

Alcohol Taxes: when the demand is inelastic

- Beer Elasticity 0.3 - 0.4
- Wine Elasticity 0.6 - 0.65
- Distilled spirits 0.65-0.79
- Other variations and substitutes 0.77

Inelastic Demand means the consumer bears more of the tax burden

However, Increasing prices are not likely to curb use significantly

Regulations become a more effective policy tools to reduce drinking.

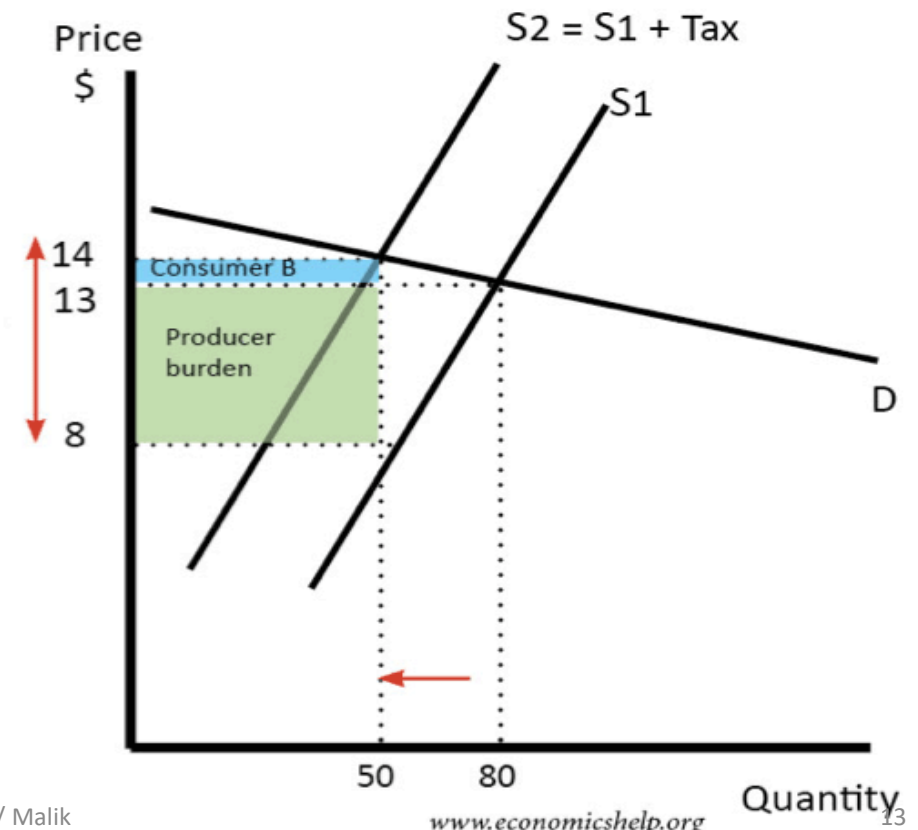
- Reduce drinking hours
- Restrict licenses
- Reduce retail outlets
- Limit selections of products offered

Impact of Taxes is Dependent on Elasticity



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Privilege vs Point Of Sale

- **Privilege tax** is levied on the production or distribution cycle
 - It gets folded into the price and the markup process
 - Produces higher price
 - Efficient to collect from a limited number of distributors
 - Existing mechanism and collected by the regulating agency OLCC
 - Never adjusts to inflation without action
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- **Point of Sale** tax is levied on the final point of the cycle (time and place of Sale)
 - Less price escalation and less effect on demand
 - Collection from many retailers
 - New process that is likely to be collected by DOR
 - Can be % of price which accounts for inflation by definition
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- Might also consider a **per unit tax** similar to the bottle fee.
Can be Imposed on per unit (bottle, oz, ABV, etc)
 - Most inefficient collection.

Point Of Sale Tax (POST):

- With price inelasticity it can generate revenue without disturbing the market
 - It can go up to 6 or 8% without creating winners or losers
 - It can go gradually as 2% every 2 years(BN) for 6 or 8 years
 - Gradual increase can have even less disruption in the market
 - Each increase could be conditional on a set of criteria
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- Need to allow for collection costs of (2-3%) for the retailers
 - Administration costs of 2-3% for DOR
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- Dedicate the revenue to specific programs
 - Setup time for the programs
 - Monitor, audit and report on criteria before the next increase takes effect
 - State programs or County programs with coordination mechanism (similar to the HECC)

Estimates and impacts

Beer Market:

U.S. \$114 Billion, (44% of Total alcohol). Small independent (craft) 13%

Oregon Market is estimated at \$1.3-\$1.4 Billion. Craft is about 15%

Beer tax (privilege) at \$8.5 million implies 0.60% current tax rate.

Wine Market:

U.S. Wine Market about \$41 billion (16% of Total alcohol).

Oregon Market is estimated at \$519 million.

Wine tax at \$8.5 million implies 1.64% current tax rate.

POST	1%	2%	5%	6%	7%
Beer Tax	\$14.0	\$28.0	\$69.9	\$83.7	\$97.4
Wine Tax	\$5.0	\$10.0	\$24.9	\$29.8	\$34.7
Total Annual	\$19.0	\$38.0	\$94.8	\$113.5	\$132.1

Least Market Impact Scenario

- 2% increase every two years (\$38 million).
- Increase 3 or 4 times (6 or 8 years).
- Smaller impact on the market (producers and suppliers). Market can absorb the increase without much disruption.
- Collection costs (2-3% of revenue for retailers), and 2-3% Admin costs to DOR.
- Dedicate revenue to a particular programs or to counties.
- Set up an oversight mechanism (monitoring, auditing and reporting).
- Allow for setup costs and establishment of the programs from existing funds.
- Set up a review process by an overseeing agency.
- The agency certifies if the conditions are met to allow for increases to take place.
- Look into a tax exemption or tax breaks to incentivize small businesses.