The Fine Line Between Regulatory Independence And Protection Of Investor Rights

VIEW OF PARETO EFFICIENCY

PRESENTED TO
Energy Community

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Agenda

Stability vs Adaptability

Pareto Efficiency
- Concept
- Application to Policy Decisions

Conclusions

Stability vs Adaptability

Can be attractive for state to give long-term commitments:
- Energy infrastructure often long lived
- Capital intensive/Large up-front investments
- Benefit: Stability for investors
  - Lower risk = lower return = lower end-user prices

Regulatory intervention should be:
- Independent
- In the best interest of system
- Benefit: Adaptability to changing conditions

Q: Can competing interests be reconciled?

Pareto Efficiency

Pareto was an engineer and economist who studied efficient resource allocation

Efficiency means gain to "winners" exceed losses to "losers"

- Any efficient change must have scope to compensate
  - "Winners" compensate "losers"

"Pareto Improvement" is a change in which:

- At least one party is better off
- No party is worse off

Example: Efficient Breach

A signed contract for delivery of widgets to **B**

- Contract worth 100 to **A**, 20 to **B**

C urgently requires widgets

- willing to pay 130 to **A**;

- **A** cannot satisfy both parties.

What should **A** do?

Example: Inefficient Breach

What if C can only offer 105 to A?

	#1: Original Contract	#2: A Breaks Contract		#3: A Breaks Contract, pays compensation to B	
	Value	Value	Change	Value	Change
A	100	105	+5	85	-15
B	20	0	-20	20	0
Total:	**120**	**105**	**-15**	**105**	**-15**

Breach **not** beneficial to society overall

A incentivised to change only when compensation not paid
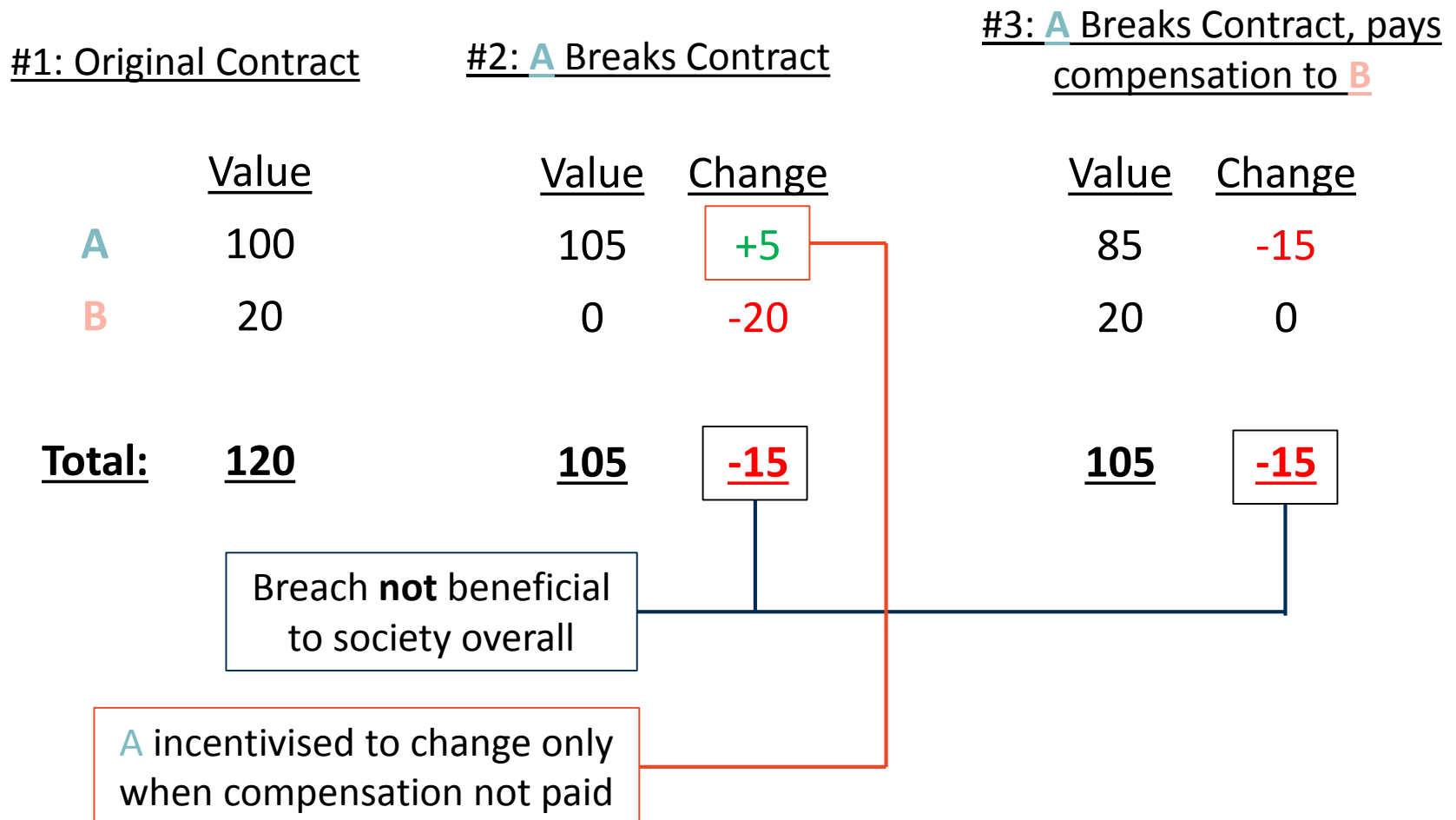
Pareto Efficiency in Policy

Same principles apply to Regulatory intervention

- Regulators will find it attractive to "breach contract" if it represents gain to system as a whole
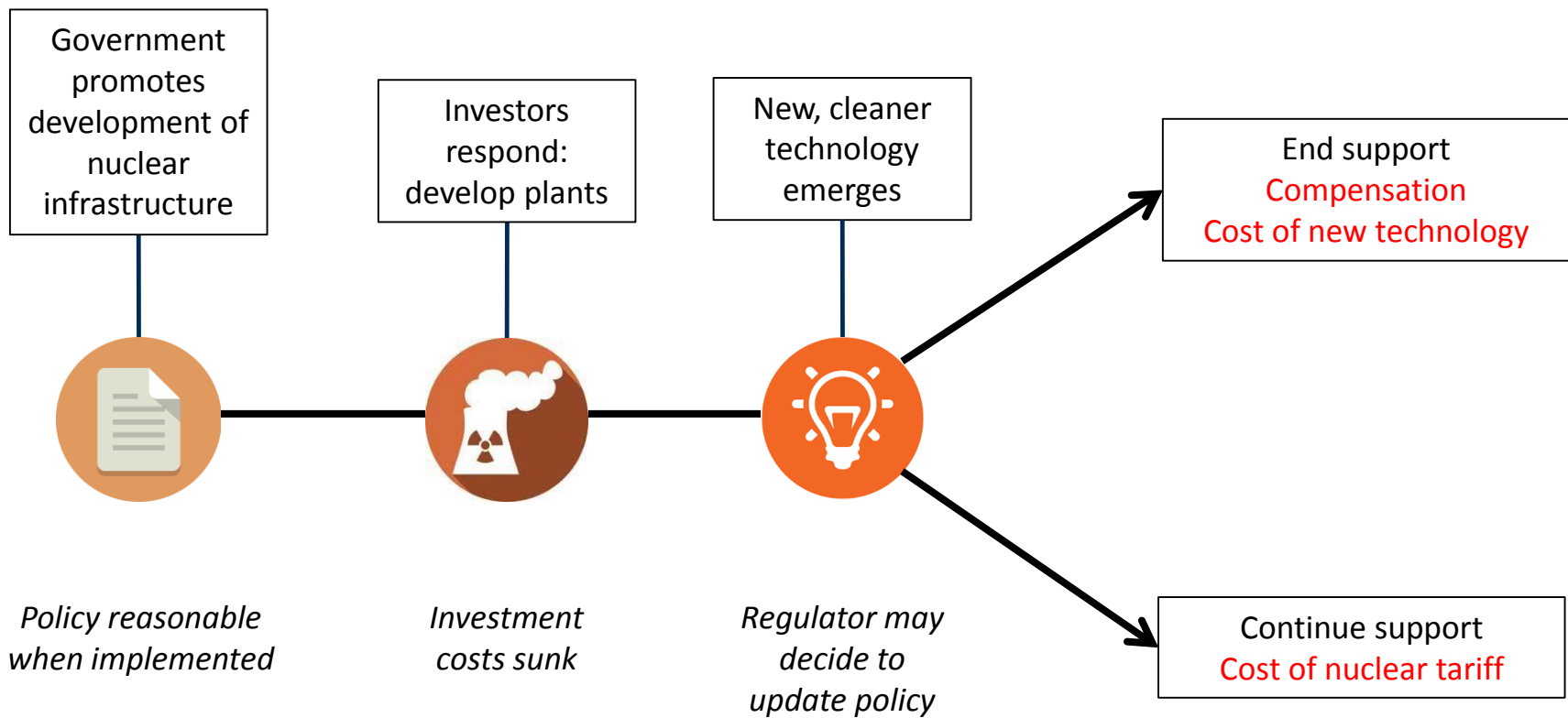
Payment of compensation does not make any <u>efficient</u> policy change unattractive

- If change represents net gain, benefits must be sufficient to compensate losers

Compensation only disincentivises <u>inefficient</u> policy choices

Pareto Efficiency in Policy
Example: Nuclear Power

Example: Nuclear Power

Economic view: Switch in technology efficient when present value (PV) of cost of new technology is less than PV of future operating costs of nuclear

$$\text{PV Cost}_{\text{New Tech}} \quad < \quad \text{PV Opex}_{\text{Nuclear}}$$

Regulatory view to switch when:

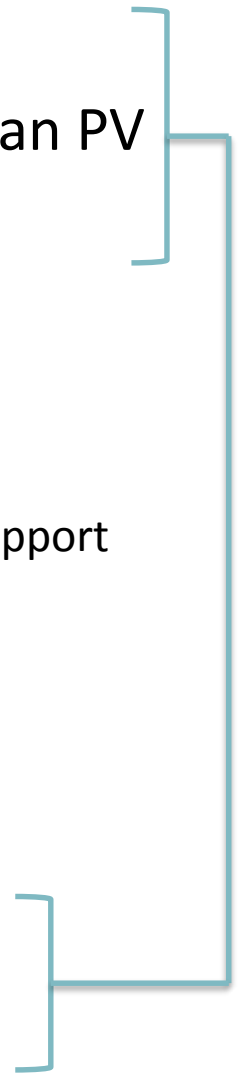$$\text{Cost of Ending Support} \quad < \quad \text{Cost of Continuing Support}$$

$$\text{Compensation} + \text{PV Cost}_{\text{New Tech}} \quad < \quad \text{PV Tariff}_{\text{Nuclear}}$$

$$\text{PV Cash Flows}_{\text{Nuclear}} + \text{PV Cost}_{\text{New Tech}} \quad < \quad \text{PV Tariff}_{\text{Nuclear}}$$

$$(\cancel{\text{PV Tariff}_{\text{Nuclear}}} - \text{PV Opex}_{\text{Nuclear}}) + \text{PV Cost}_{\text{New Tech}} \quad < \quad \cancel{\text{PV Tariff}_{\text{Nuclear}}}$$

$$\text{PV Cost}_{\text{New Tech}} \quad < \quad \text{PV Opex}_{\text{Nuclear}}$$

Compensation aligns incentives

Arbitration

Arbitration seeks to understand what commitments were made

- What was risk allocation at outset, e.g.:
  - Which party bears technology risk
  - Which party bears interest rate risk
- Often: were such commitments reasonable

Not necessary to measure efficiency of breach for damages *quantification*

- State bears gain/loss of policy change

Sovereign rights infringed only on mistaken finding of fact about nature of initial commitment

Conclusions

State sovereignty includes ability to make commitments

 – Ignoring prior commitments actually undermines sovereignty

Requirement for compensation does not necessarily mean Regulator acted inappropriately or in bad faith

 – Not a fine (tort), but recognition of earlier commitment

As long as compensation is *not* punitive, it will not make any future efficient policy choice unattractive

 – Only inefficient choices unattractive

Q: Can competing interests be reconciled?

 – A: Yes: and compensation (in some form) is key

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