

Strategic trade policy

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Strategic trade policy

- How can governments use policy to help national firms compete against foreign firms?

Strategic trade policy

- Example:
 - Apple and Samsung both sell smartphones
 - They both want to enter the Chinese market

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- Profits' scenarios

		Apple	
		Enter	Don't enter
Samsung	Enter	20, 20	50, 0
	Don't enter	0, 50	0, 0

Strategic trade policy

- Profits' scenarios

Apple

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		Enter	Don't enter
Samsung	Enter	20, 20	50, 0
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Nash equilibrium

Strategic trade policy

- Profits' scenarios

		Apple	
		Enter	Don't enter
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A box labeled "Nash equilibrium" with an arrow pointing to the (20, 20) cell. A red starburst highlights the (0, 50) cell.

The US and Korean governments gain when their national firm makes higher profits → **US gov wants Apple to make profits of 50**

Strategic trade policy

- Profits' scenarios

		Apple	
		Enter	Don't enter
Samsung	Enter	20, 20	50, 0
	Don't enter	0, 50	0, 0

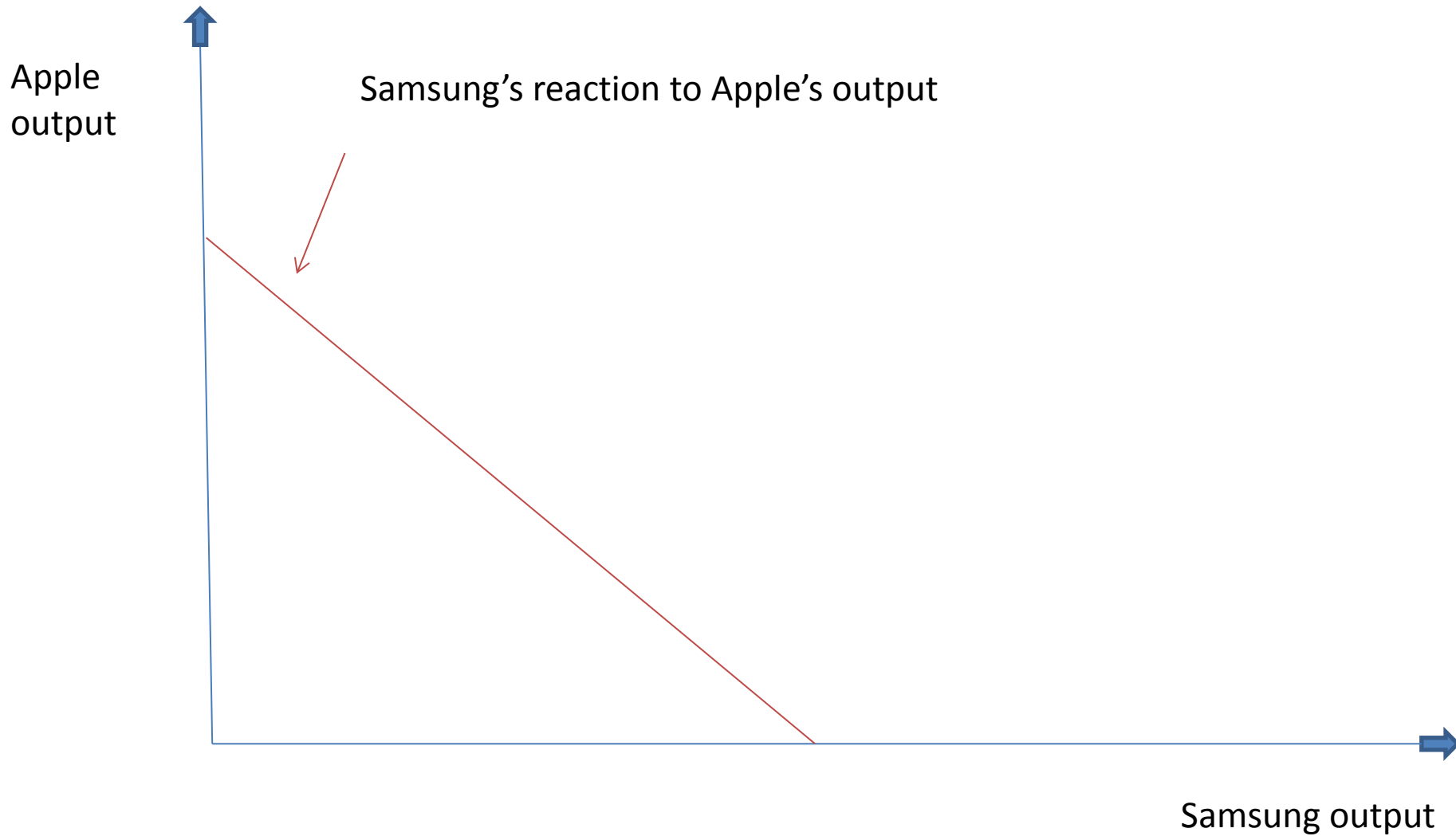
A blue box labeled "Nash equilibrium" has an arrow pointing to the (20, 20) payoff cell. A red starburst graphic is overlaid on the (0, 50) payoff cell.

➔ US government subsidizes Apple

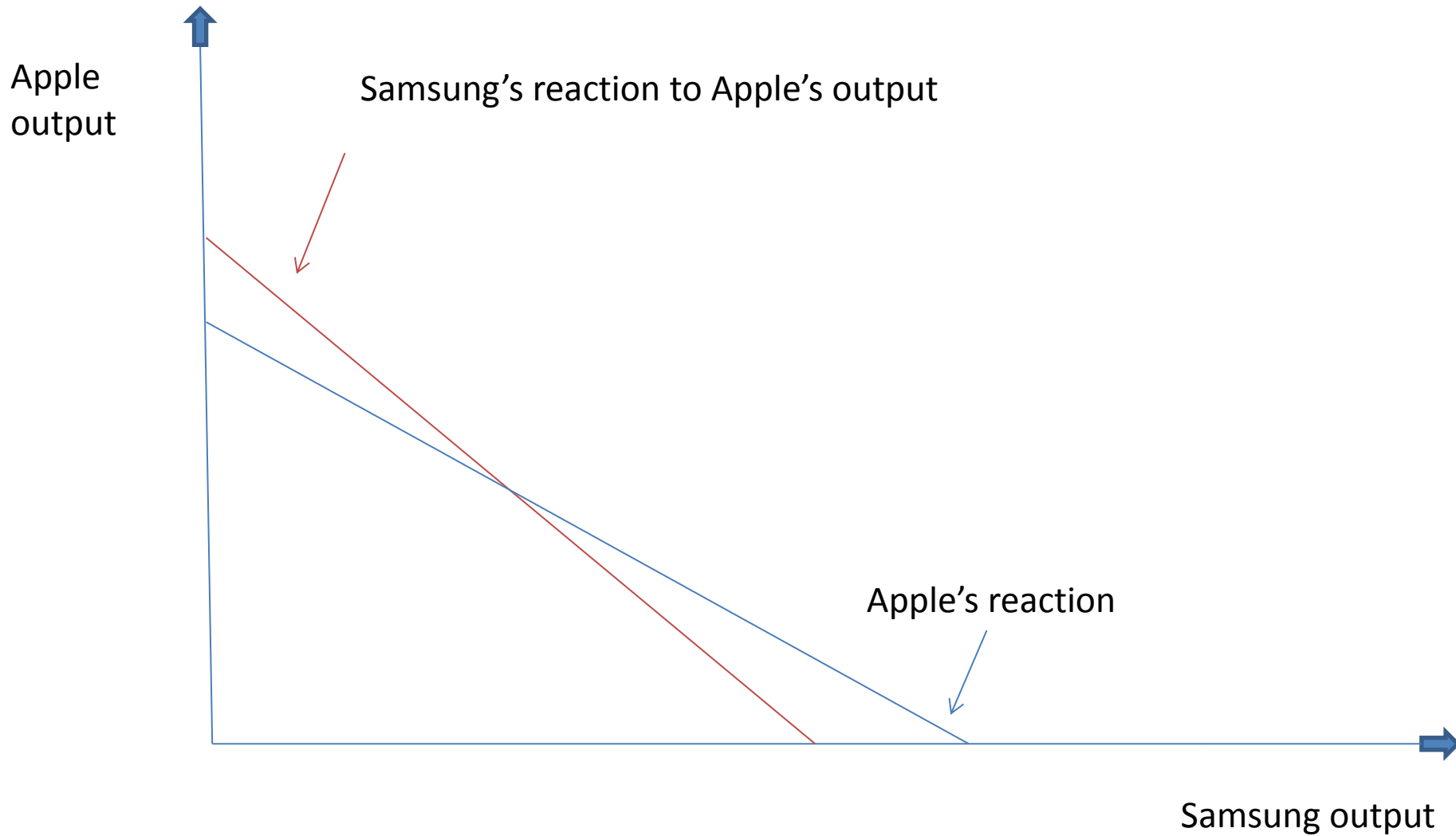
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- To ensure that a US export subsidy reduces the output of Samsung, Apple and Samsung must be **strategic substitutes**
- → If Apple produces more, Samsung has an incentive to produce less--otherwise, production on average will increase, leading to lower prices and lower profits
- We can thus graph **reaction functions**

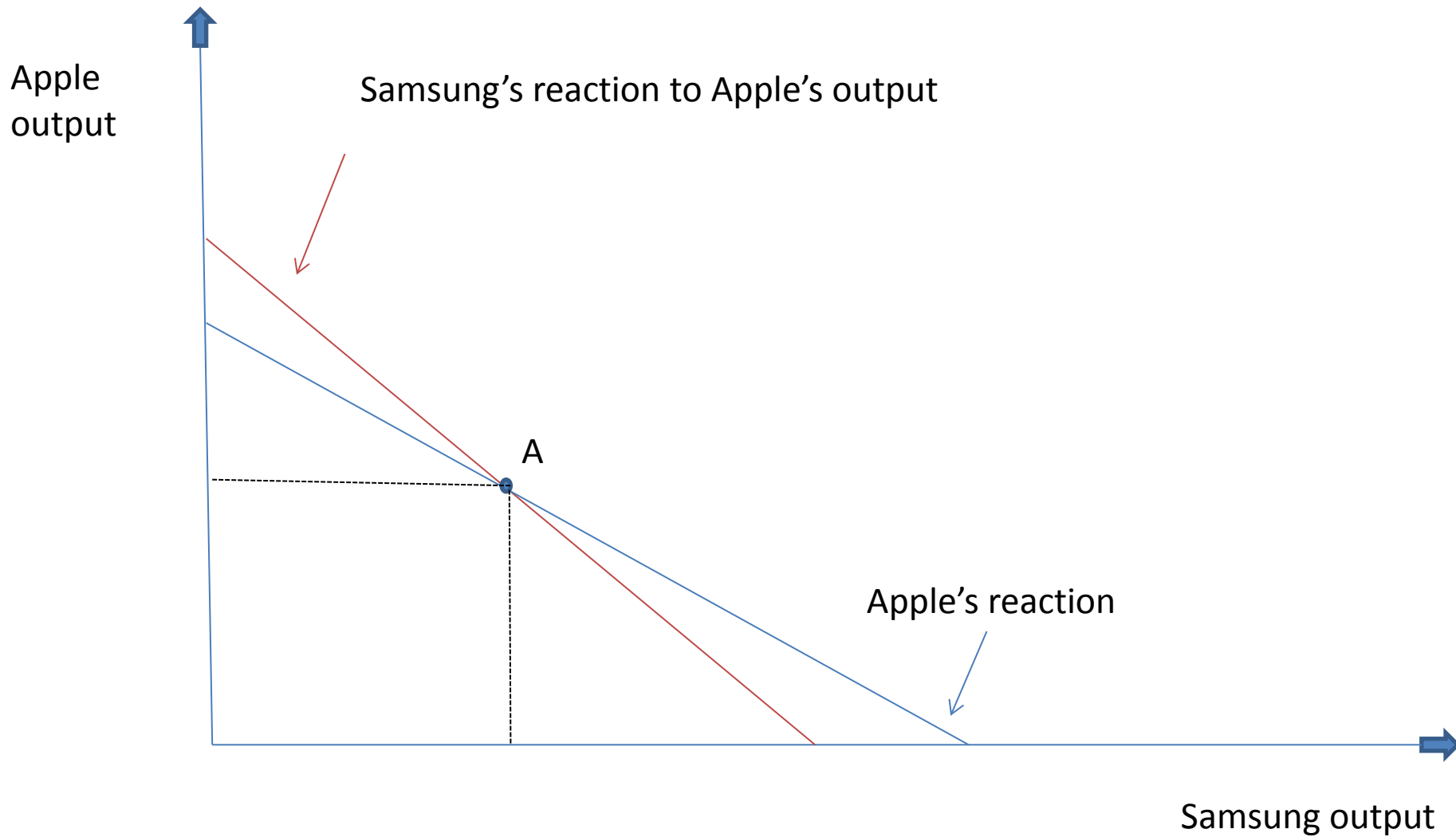
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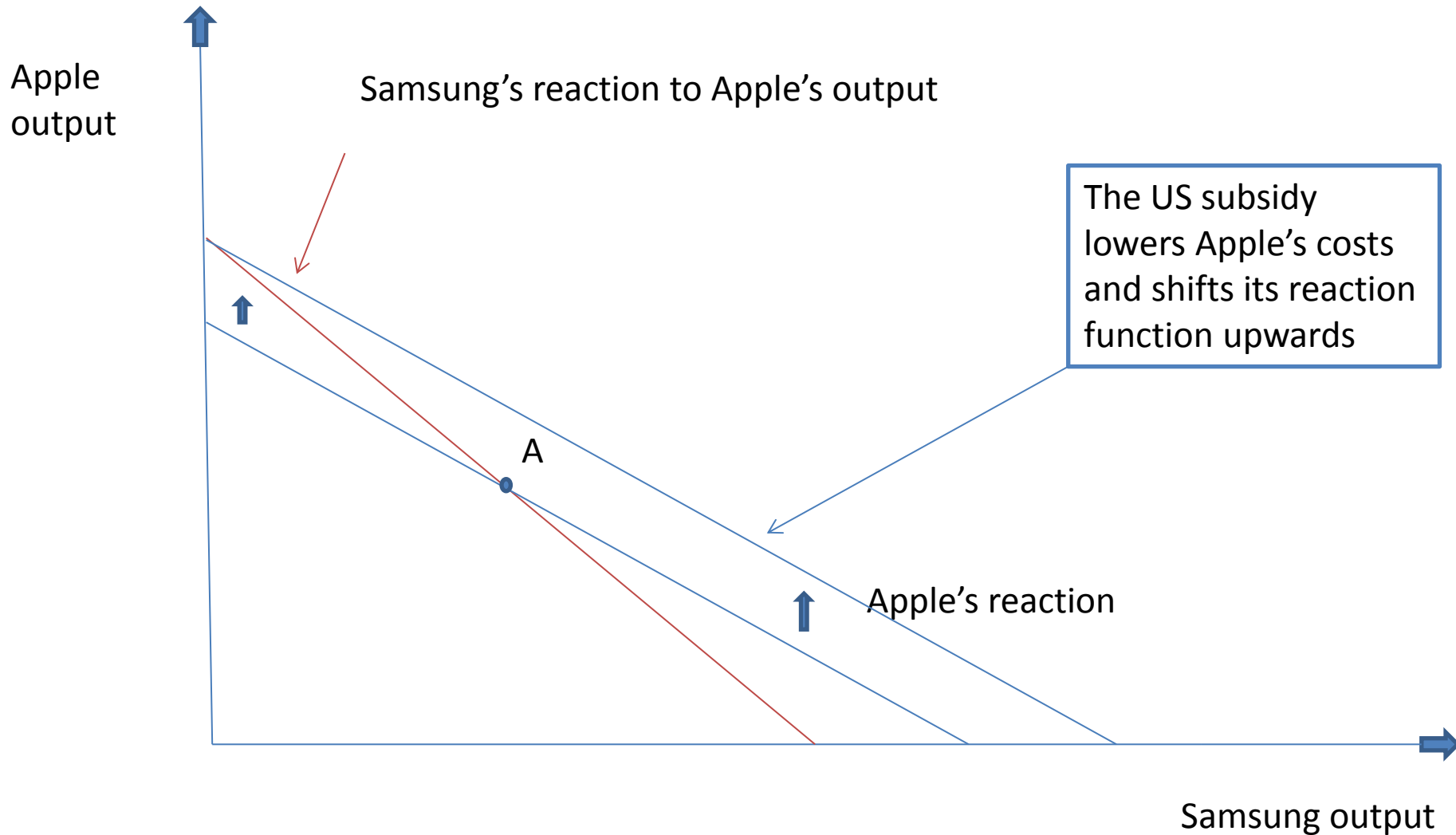
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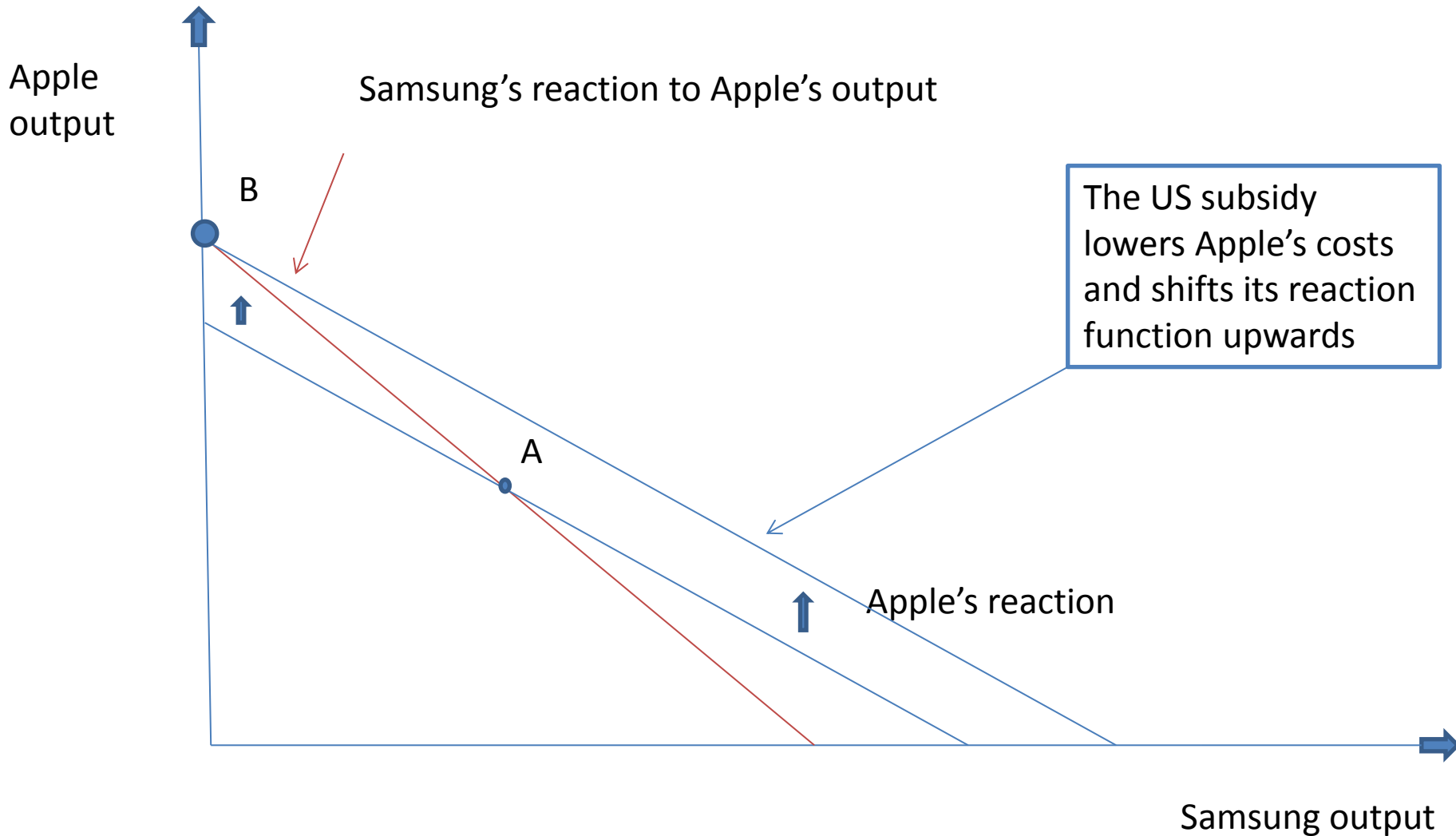
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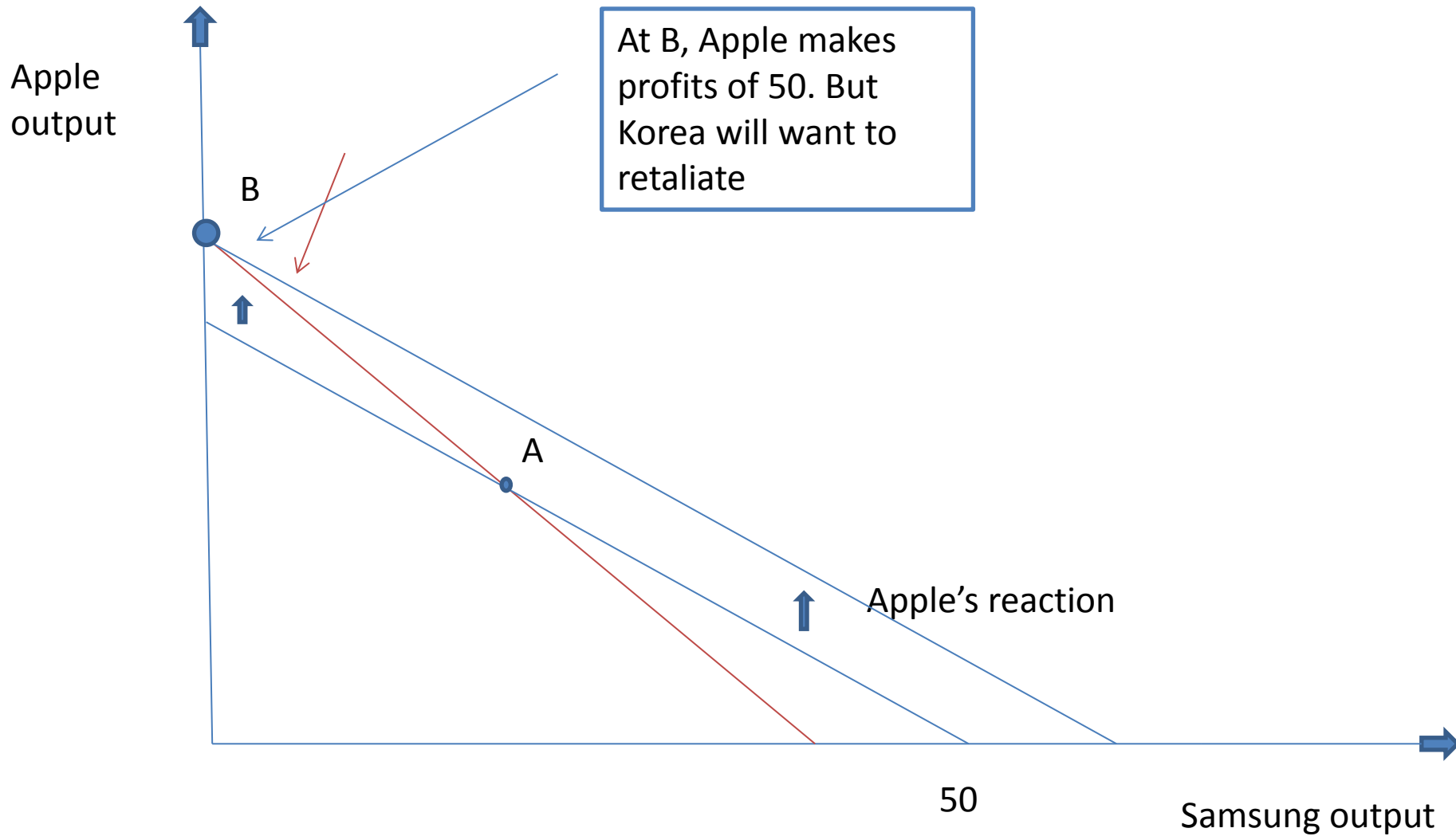
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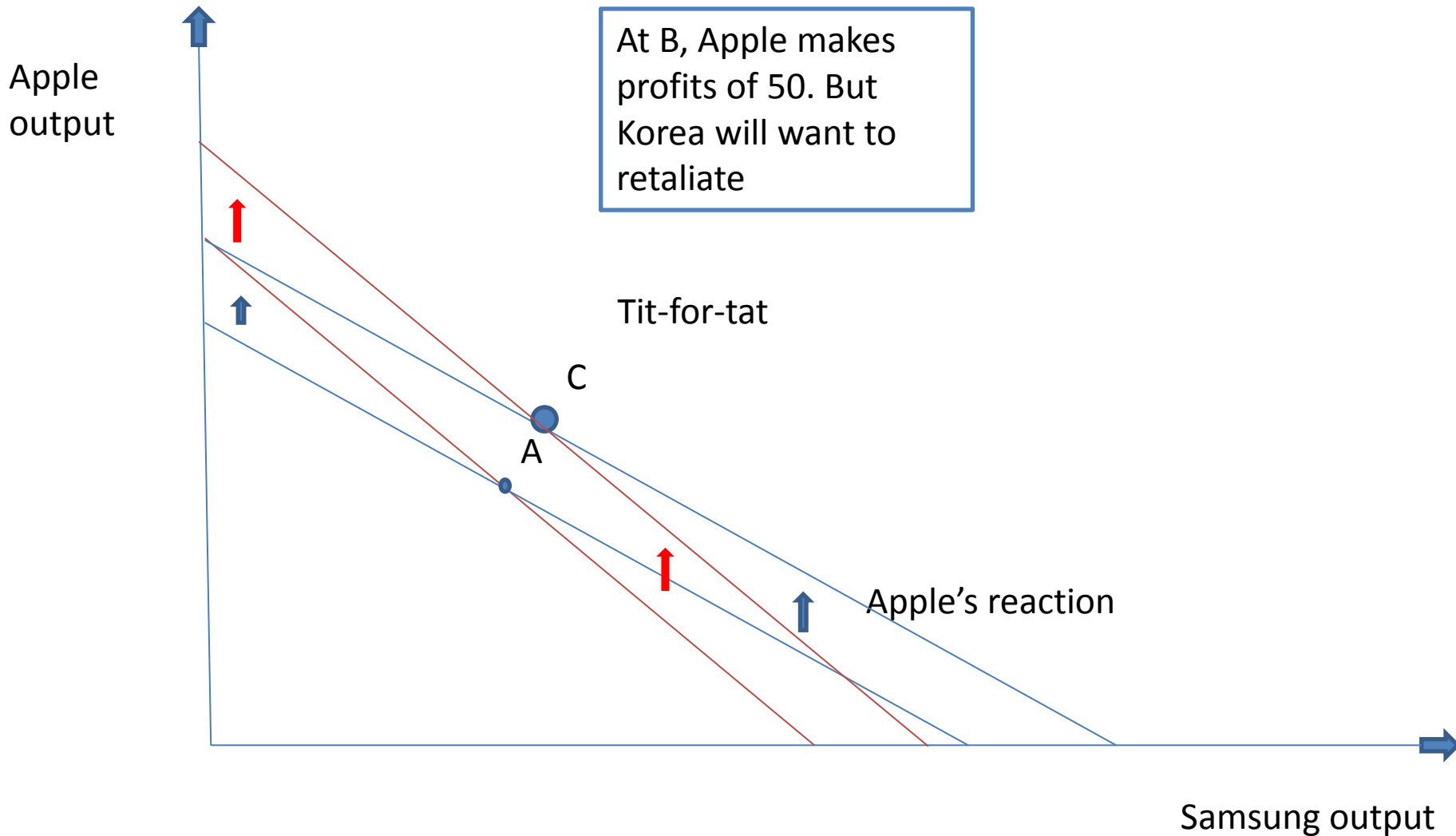
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Strategic trade policy

- Tit-for-tat game between governments

		US	
		No subsidy	Subsidy
Korea	No subsidy	20, 20	0, 50
	Subsidy	50, 0	10, 10

Strategic trade policy

- Tit-for-tat game between governments

US

		US	
		No subsidy	Subsidy
Korea	No subsidy	20, 20	0, 50
	Subsidy	50, 0	10, 10

↓
Non-cooperative Nash equilibrium

The table shows the following payoffs (Korea, US):

- (No subsidy, No subsidy): 20, 20
- (No subsidy, Subsidy): 0, 50
- (Subsidy, No subsidy): 50, 0
- (Subsidy, Subsidy): 10, 10

The (10, 10) outcome is circled and labeled as the Non-cooperative Nash equilibrium.

Strategic trade policy

- Governments can use subsidies, grants, import tariffs, cheap loans, etc... to gain market share
- **BUT:**
 - A world with no cooperation between governments results in:
 - Wasted subsidies
 - Lower profits
- International cooperation solves the problem

Strategic trade policy

- Interactive application:
 - Divide the class in two and assign a firm, Apple or Samsung, to each student
 - Match students to play Apple vs. Samsung games
 - Each student can choose to subsidize or not
 - It wants to maximise profits
 - 2 min of cooperation talks allowed
 - Votes with phones or laptop
 - Results of the “20” games are shown instantly on screen
 - Did students behave rationally, i.e. subsidized?
 - Or did they cooperate and trust each other?