EE403 Law and Economics
Semester 1/2017
Homework 1

Submission Date: Friday 22 September 2017; 14:00 hr.

The Fountain Blue Hotel is located on Suan Son Beach, Rayong Province. Fountain Blue expands its business by building a new fourteen-storey addition on its premise. But the shadow of the new addition would fall over the swimming pool and sunbathing areas of a neighboring resort, **the Crystal Rock Resort Hotel**.

Assume two alternative legal rules:

> **Rule 1**: Fountain Blue has the rights to build its new addition.
> **Rule 2**: Crystal Rock has the rights to unobstructed sunshine on its premise.

Use **the Coase Theorem** to evaluate the effects of these legal rules in the two following cases in terms of efficient resource allocation, **assuming zero transaction costs**.

Case 1: Assume the following:

- The profit for Fountain Blue from the new building is THB 1,500,000 pa.
- The lost profit for Crystal Rock due to a sunless resort is THB 1,000,000 pa.

Answer: (zero transaction costs mean private bargaining is possible)

- **Rule 1:** Fountain Blue builds the new addition and earns THB 1,500,000 profits while Crystal Rock suffers a loss of THB 1,000,000. The surplus is THB 500,000 for Fountain Blue. No private bargaining.
- **Rule 2:** Fountain Blue builds the new addition and receives THB 1,500,000 profits, then offers no less than THB 1,000,000 and no more than THB 1,500,000 as compensation to Crystal Rock. If the surplus is split in half, Fountain Blue pays THB 1,250,000 to Crystal Rock and keeps THB 250,000.

Assuming zero transaction costs, the two rules are equally efficient in terms of resource allocation: Fountain Blue builds the new addition (which is more valuable than Crystal Rock's sunshine).

- Rule 1 is efficient because it assigns property rights of the resource (the new addition) to Fountain Blue who values it the most.
- Rule 2 is also equally efficient. Although it assigns property rights of sunshine to Crystal Rock, zero transaction costs allow free bargaining so that Fountain Blue can offer to buy the rights from Crystal Rock for its new addition.

The difference is the distribution of the surplus between the two parties.

Case 2: Assume the following:

- The profit for Fountain Blue from the new building is THB 1,000,000 pa.
- The lost profit for Crystal Rock due to a sunless resort is THB 1,100,000 pa.

Answer: (zero transaction costs mean private bargaining is possible)

- **Rule 1:** Crystal Rock offers to pay no less than THB 1,000,000 and no more than THB 1,100,000 to Fountain Blue if the latter agrees NOT to build the new addition. The likely solution is Crystal Rock to pay THB 1,050,000 to Fountain Blue and keeps THB 50,000.
- **Rule 2:** Fountain Blue will not build the new addition while Crystal Rock continues to enjoy sunshine and keeps the THB 1,100,000 profits.

Assuming zero transaction cost, the two rules are equally efficient: Fountain Blue's new addition will NOT be built because it is less valuable than Crystal Rock's sunshine.

- Rule 2 is efficient because it assigns property rights of the resource (sunshine) to Crystal Rock who values it the most.
- Rule 1 is also equally efficient. Although it assigns property rights (new addition) to Fountain Blue, zero transaction costs allow free bargaining so that Crystal Rock can offer to buy the rights from Fountain Blue for its sunshine.