

Worksheet 2

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March 1, 2015

1. Let D be the statement “The dollar is strong”, Y the statement “The Yuan is strong” and T the statement “New US-China trade agreement signed”. Express in logical notation:

(a) New trade agreement will lead to strong currencies in both countries

$$[T \Rightarrow (D \wedge Y)]$$

(b) Strong Dollar means a weak Yuan

$$[D \Rightarrow \neg Y]$$

(c) Trade agreement fails on news of weak Dollar

$$[\neg D \Rightarrow \neg T]$$

(d) If new the trade agreement is signed, Dollar and Yuan can't both be strong

$$[T \Rightarrow \neg(D \wedge Y)]$$

(e) Dollar weak but Yuan strong after trade agreement

$$[T \Rightarrow \neg D \wedge Y]$$

(f) If trade agreement signed, a rise in the Yuan will result in a fall in the Dollar

$$[T \Rightarrow (Y \Rightarrow \neg D)]$$

(g) New trade agreement means Dollar and Yuan will rise and fall together

$$[T \Rightarrow ((D \wedge Y) \vee (\neg D \wedge \neg Y))]$$

(h) New trade agreement will be good for only one side

$$[T \Rightarrow ((D \wedge \neg Y) \vee (\neg D \wedge Y))]$$