Your name here:_____

Jan 18th Quiz 2 (Parsons, Fall 2021-2)

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1) Is the example below an example of a Prisoners' Dilemma? **Yes or No. And explain** why in your answer in detail. 下の例は、「囚人のジレンマ」の例ですか。 また、その理由を答えの中で詳しく説明してください。

US, Japan	Free Trade	Protection
Free Trade	+$15, +$15	+$5, -$1
Protection	-$1, +$5	+$8, +$8

The US doesn't have a dominant strategy. When assuming that Japan chooses Free Trade, the US will choose Free Trade(+15>-1), and when assuming that Japan chooses Protection, the US will choose Protection (+5<+8).
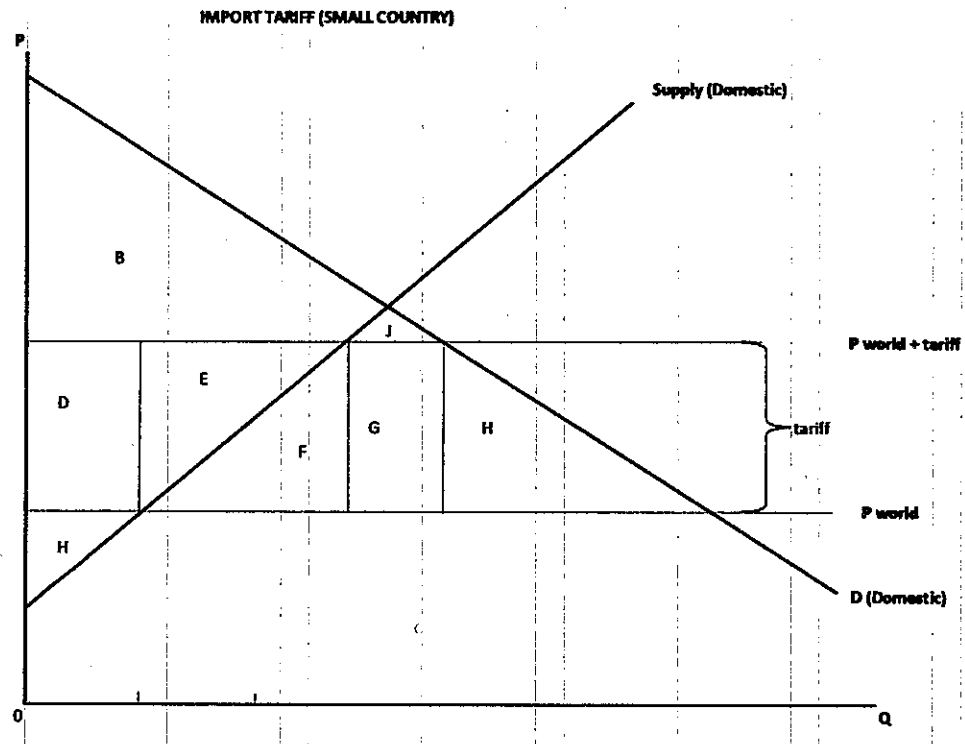
Japan doesn't have a dominant strategy as well. When assuming that the US chooses Free Trade, Japan will choose Free Trade(+15>-1), and when assuming that the US chooses Protection, Japan will choose Protection(+5<+8).

Therefore, the Nash equilibrium is (Free Trade, Free Trade) and (Protection, Protection). Social optimum is (Free Trade, Free Trade), so it's not Prisoner's Dilemma.

2) In the figure below
   a. Which area(s) explain/describe the GAINS (increase in producers' surplus, つまり、生産者の余剰の増加) to the Producers from the tariff?_____D+E_____
   b. Which area(s) explain/describe the LOSS (decrease in consumers' surplus, つまり、消費者の余剰の減少) to the Consumers from the tariff?_____D+E+F+G+H_____

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c. What area(s) explain/describe the Deadweight (Net Loss 社会的損) loss from the tariff?_____F+H_____

IMPORT TARIFF (SMALL COUNTRY)

Supply (Domestic)

B

P world + tariff

D

E

tariff

J

F

G

H

P world

H

D (Domestic)

0

Q

3) Briefly explain what the **Law of One Price** is. 一物一価の法則とは何か、簡単に説明してくだ さい。_

· The Law of One Price states that identical product sold in different countries' price must be the same when expressed in terms of the same currency, in a condition that the market is a competitive market, and free from transportation cost and trade barriers.

4) Briefly explain what the **difference** between the **Law of One Price** and **Purchasing Power Parity** (PPP) is with respect to exchange rate theory. 為替レート理論に関して、一物一価の法則と 購買力平価（PPP）の違いは何か、簡単に説明してください。_

The law of one price applies to individual commodity, while PPP applies to the general price level, which is a basket of goods. Therefore, even if the law of one price isn't true for every commodity, exchange rates should be close to the relation predicted by PPP. In other words, according to PPP, even if the law of one price fails to hold, the economic forces will eventually equalize the purchasing power of the currency in all countries.

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5) Suppose the price of a Big Mac is $4 in the US and 375 yen in Japan. Currently, the yen is about 115 yen = $1. According to PPP theory, is the yen currently **undervalued or overvalued?** 購買力平価説によると、現在、円は過小評価されているのでしょうか、それとも過大評価されているのでしょうか。 Show your calculations for full credit. **By how much (%) is the yen under or overvalued?** 円はどのくらい（%）過小評価または過大評価されていますか？

If PPP is true,

E(yen/$)=375/4 より、 It should be $1=93.75yen

Now, the real exchange rate is $1=115yen,

So 115/93.7=1.2666... より、 Yen is undervalued by about 22.67%.

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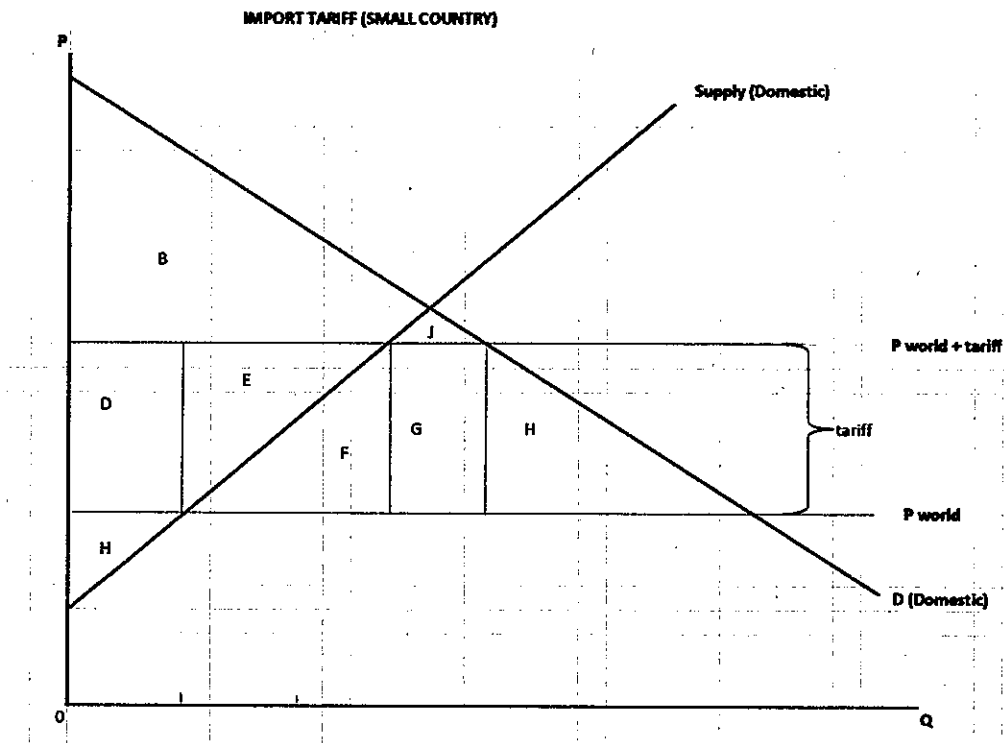
1) Is the example below an example of a Prisoners' Dilemma? **Yes or No. And explain** why in your answer in detail. 下の例は、「囚人のジレンマ」の例ですか。また、その理由を答えの中で詳しく説明してください。

US, Japan	Free Trade	Protection
Free Trade	+$10, +$10	+$5, -$1
Protection	-$1, +$5	+$7, +$7

これは囚人のジレンマの例ではありません。US が Free Trade のときは、日本も Free Trade、US が Protection のときは日本も Protection が支配戦略であり、逆も同じで、日本が Free Trade のときは、US も Free Trade、日本が Protection のときは US も Protection が支配戦略であるため、二つのナッシュ均衡が存在する。両者が Free Trade を選択するのが社会的最適であり、これはナッシュ均衡であるから、囚人のジレンマの例ではない。ok

2) In the figure below CORRECT
   a. Which area(s) explain/describe the GAINS (increase in producers' surplus, つまり、生産者の余剰の増加) to the Producers from the tariff? <u>D, E</u>
   b. Which area(s) explain/describe the LOSS (decrease in consumers' surplus, つまり、消費者の余剰の減少) to the Consumers from the tariff? <u>D, E, F, G, H</u>
   c. What area(s) explain/describe the Deadweight (Net Loss 社会的損) loss from the tariff? <u>F, H</u>

1

IMPORT TARIFF (SMALL COUNTRY)

3) Briefly explain what the **Law of One Price** is. 一物一価の法則とは何か、簡単に説明してください。
完全競争の下では、同じ品質の商品は、同じ時点かつ同じ市場においては、同一の価格をもつという経済法則。ok

4) Briefly explain what the **difference** between the **Law of One Price** and **Purchasing Power Parity (PPP)** is with respect to exchange rate theory. 為替レート理論に関して、一物一価の法則と購買力平価（PPP）の違いは何か、簡単に説明してください。
一物一価の法則は個々の財に適用されるもので、PPP は一般的な物価水準、つまり財バスケットに入る全ての財の価格を総合したものに適用される。
あらゆる財において一物一価の法則が成り立つ場合、PPP も自動的に成り立つが、逆は必ずしも成り立つとは限らない。一物一価の法則が厳密に成り立たなくても、価格と為替レートは PPP で十分に予測可能である。 ok

5) Suppose the price of a Big Mac is $4 in the US and 350 yen in Japan. Currently, the yen is about 115 yen = $1. According to PPP theory, is the yen currently **undervalued or overvalued?** 購買力平価説によると、現在、円は過小評価されているのでしょうか、それとも過大評価され

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ているのでしょうか。 Show your calculations for full credit. **By how much (%) is the yen under or overvalued? 円はどのくらい（%）過小評価または過大評価されていますか？ Not correct. According to PPP, the yen should be 87.5 yen = $1 (because 350/4), so the yen is 115, or 115-87.5/87.5 =– 31% undervalued. -10 pts.**

Big
Mac $4 = ¥350 ⎤

exchange $1 = ¥115 ⎤   ⎤→ undervalued
rate $4 = ¥460 ←⎦ ⎦   350/460 ≐ 76%

4) On Trade Deficits. In the expression below: （貿易赤字について）

(X-M) = (S-I) + (T-G)

4a) What does `X` stand for? 「X」は何を表しているか？
4b) What does `M` stand for? 「M」は何を表しているか？
4c) What does `S` stand for? 「S」は何を表しているか？
4d) What does `G` stand for? 「G」は何を表しているか？

5) In the following Balance of Payment identity (equation) CA+KA+OR=0

5a) Was US's **CA > 0 or <0** in the 1990s and 2000s? pick one.
5b) Was Japan's **CA > 0 or < 0** in the 1990s and 2000s? pick one.
5c) Does China have **CA > 0 or CA < 0** now? Pick one.
5d) Is US's **KA (also now called FA) > 0 or <0**? Pick one.
5e) Is Japan's **KA > 0 or < 0**? Pick one.

6) Suppose a country has OR = 0. If they have a CA surplus, they **must** （絶対） also have (recalling equation CA + KA + OR = 0)_____? Pick the **single, best** answer: ある国に OR＝0 があると仮定する。CA 剰余がある場合、（絶対）必要なものはどれか。（方程式 CA＋KA＋OR＝0 を思い出してください）最良の答えを 1 つ選択せよ。
      a) a Trade Deficit
      b) a KA Deficit
      c) a Government Deficit
      d) Savings (S) greater than Investment (I)
      e) a high GDP per capita

7) From my "trade war" notes/PPT. What TWO things did the US do to avoid future trade wars such as the one started by Smoot-Hawley in the 1930s?

8) Considering the following Balance of Payment identity (equation) CA+KA+OR=0
      If a country (the country is NOT the US) is running a CA deficit and also has a KA deficit, does their Central Bank have to **BUY**, or **SELL** its US dollar reserves? **One word answer.** 以下の国際収支（方程式）CA＋KA＋OR＝0 の場合、ある国（米国ではない）に経常収支赤字があり、KA 赤字もある場合、中央銀行は米ドル準備金を購入または売却する必要があるか？購入か売却か、どちらか 一言で答えよ。

9) Considering the equation (X-M) = (S-I) + (T-G). Japan currently has a CA surplus and a small Trade Surplus. If nothing else changes, as Japan's population continues to age and the number of retired persons increase and the number of working people as a share decline, what do you think will happen to Japan's Trade Balance? Will it INCREASE or DECREASE? Explain and defend your answer within the framework of the above equation and one or more variables in the equation. 式 (X-M) = (S-I) + (T-G) を考えます。 現在、日本には経常収支黒字と小さな貿易黒字があります。 何も変わらなければ、日本の人口は高齢化を続け、定年退職者の数は増加し、労働者の数（割合）は減少していきます。 日本の貿易収支はどうなると思いますか。 増加しますか、それとも減少しますか？ 上記の方程式の枠組みの中で1つ以上の変数をあてはめてあなたの答えを説明しなさい。

10)
Big Mac Index question
Suppose the price of a Big Mac is $4 in the US and 425 yen in Japan. Currently, the yen is about 115 yen = $1. According to PPP theory, is the yen currently **undervalued or overvalued?** 購買力平価説によると、現在、円は過小評価されているのでしょうか、それとも過大評価されているのでしょうか。 **Show your calculations for full credit. By how much (%) is the yen under or overvalued?** 円はどのくらい （%） 過小評価または過大評価されていますか？

11) Difference Between Greenfield and Brownfield FDI.

Suppose Amazon.com (a US company) buys/acquires Rakuten, a Japanese company. Would this be an example of Greenfield or Brownfield FDI? Briefly explain.

MPK figure question

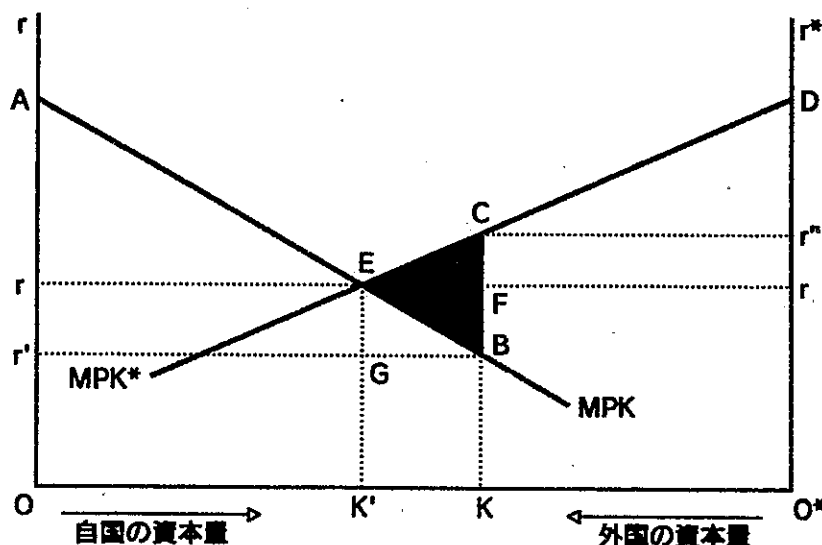*(Refer to the "MPK" figure below for problems 6, 7 and 8)*

図11-3　直接投資と経済厚生

12) As the capital flows from the Home Country 自国 to the Foreign Country, does "r" rise or fall in the Home country? 資本が自国から外国に流れるとき、「r」は自国で上昇しますか。それとも下降しますか？

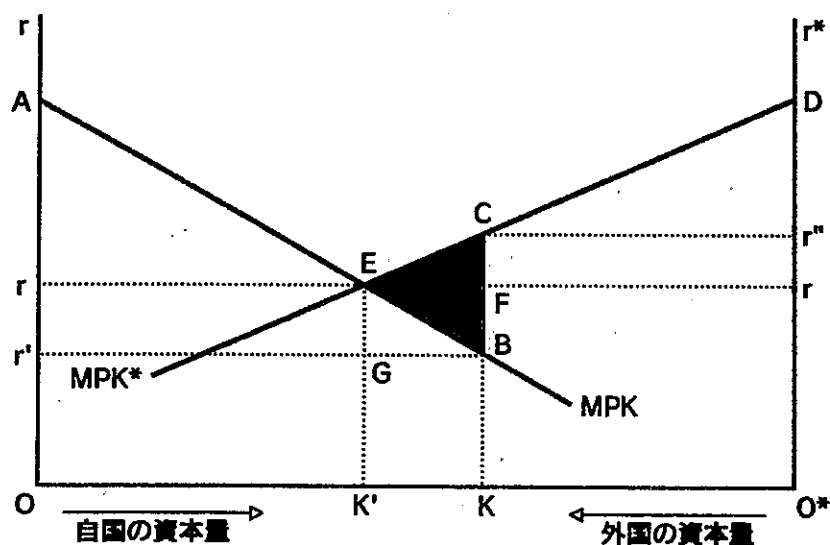13) What does the area (triangle) ECB represent?

(問6，7，8については以下の "MPK"の図を参照のこと。)

図 11-3　直接投資と経済厚生

14) Logrolling example ??? (3 persons max)

Table 1: Losses from Logrolling ?? (Vote-trading)
表1：ログローリングによる損失（票取引）

	Gains of losses to Individual/Region 個人／地域への利益または損失			
	A (Hokkaido) A（北海道）	B (Niigata) B（新潟）	C (Tokyo) C（東京）	Net ネット
Issue 1: Wakkanai Road 稚内道路	+20	-15	-15	-10
Issue 2: Sado Tunnel 佐渡トンネル	-15	+10	-15	-10
Issue 1&2	+5	-5	-30	-30

合計				

The Table above is NOT a good example of Logrolling which results in wasteful spending. How could you CHANGE one or more numbers in one of the cells to make it a good "logrolling" example, where two of the voters join forces to vote for both wasteful projects? In your answer, explain:

        a) Why it is NOT a good example of logrolling.

        b) How your new number (or numbers) make it become a good example of logrolling.

     15) Multiple Choice. When was GATT formed? (pick the single best answer)

a) 1933
b) 1941
c) 2001
d) 1947
e) 1955

    16) When was the WTO formed? (pick the single best answer)
a) 1903
b) 2003
c) 1995
d) 1947
e) 1955

Easy question about Costs of Protection (Japan, US, China, Korea, EU)

     17) J-Curve. Briefly explain the J-curve effect.

     18) Multiple choice. Pick the single, best answer. Approximately how long does the J-curve effect take?
a) A few days
b) 10-12 years
c) 1-2 years
d) 100-150 years

     19) Question on the future of Japan's current account.
Suppose, Japan allows a huge amount of foreign workers into Japan in a short amount of time (say, 30 million new workers, aged 25-40 years of age). Assume that they can all find good jobs and that all the current Japanese workers also keep their jobs (unemployment does not change). As Japan's working age population increases what would happen (ceteris paribus) to the Japanese CA? Use the identity , X-M = (S-I) (T-G) to explain your answer.