

Discussion 04

Instructor: Yushang Wei
Introduction to Macroeconomics

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Reading list: Chapter 5, Chapter 8, Chapter 21, Chapter 22

1. Price Control
2. International Trade
3. GDP

Question 1

Please read the Figure 1 and Figure 2 (last page) and answer Question 1

Source: “The North Korean Economy: Interpreting North Korea’s Puzzling Price Stability” (Benjamin Katzeff Silberstein, 38 North, 11 August 2020)

In January of 2020, due to COVID-19, the border between North Korea and China was closed to trade in certain goods, including rice. As a result, North Korean imports of rice from China fell to essentially zero. In response to the resulting increase in price, the North Korean government implemented price controls (specifically price ceilings) to help stop the rise in the price of rice, an essential food item, in some cities.

Part (a)

Assume that the world consists of North Korea and China, and that they have perfectly free trade in rice. Illustrate both countries using supply and demand international trade diagrams.

Part (b)

Now illustrate what happens to North Korea if all trade in rice with China stops. What happens to the price in North Korea? What happens to the consumer surplus, producer surplus, and total surplus in North Korea as a result?

Part (c)

Still assuming that North Korea has no trade in rice, illustrate what happens if the North Korean government implements a binding price ceiling in the domestic rice market. What happens to the quantity of transactions? The price? The consumer surplus, producer surplus, total surplus, and deadweight loss?

Question 2

The Pakistani government has released the following information about its macroeconomy:

1. GDP in 2017 (millions of 2017 rupees): 29,977,559
2. GDP in 2018 (millions of 2018 rupees): 32,383,021
3. GDP in 2017 (millions of 2006 rupees): 11,696,934
4. GDP in 2018 (millions of 2006 rupees): 12,344,266

	Consumption	Government Spending	Investment	Exports	Imports
2019 GDP (millions of 2019 Pakistani rupees)	31,461,033	4,456,749	5,927,770	3,842,425	7,715,666
2019 GDP (millions of 2006 Pakistani rupees)	10,908,006	1,523,005	2,031,116	1,447,078	2,646,339

Part (a)

What is the definition of a recession?

Part (b)

Does Pakistan's slowing GDP growth over the past few years (excluding 2020) mean that it is in a recession?

Part (c)

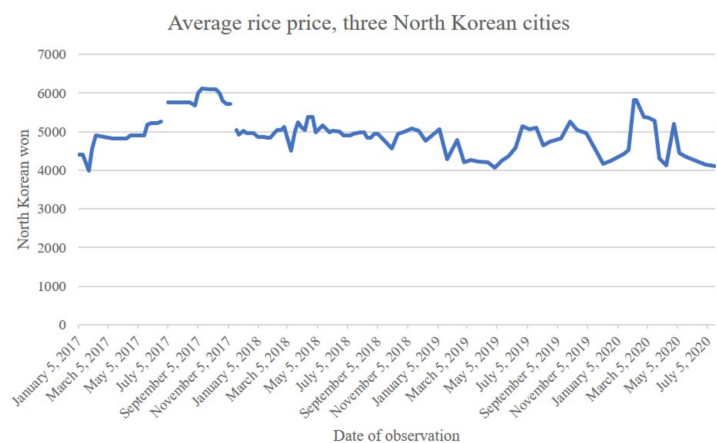
Calculate Pakistan's nominal and real GDP in 2019.

Part (d)

Calculate Pakistan's nominal and real GDP growth rates between 2017 and 2018.

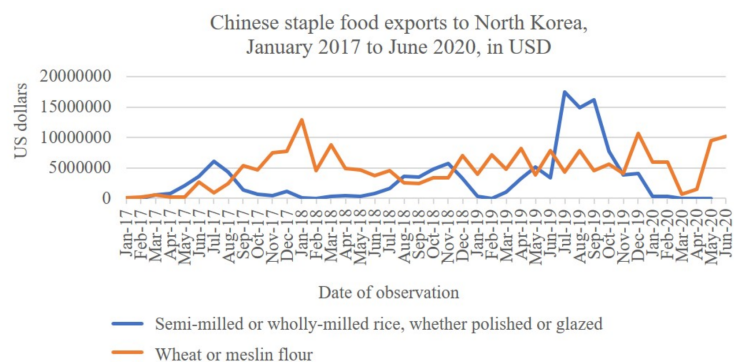
Part (e)

Why do the nominal and real GDP growth rates differ? How do you explain the differences in their growth rates?



Graph 1. Average rice prices in three North Korean cities (Pyongyang, Sinuiju, Hyesan). Data source: Daily NK. Graph by Benjamin Katzeff Silberstein.

Figure 1: Average rice price



Graph 4. North Korea's staple food imports from China, January 2017 to June 2020, in USD terms. Data compiled by Stephan Haggard and Liuya Zhang. Source: China Custom Statistics & EPS Database

Figure 2: Chinese staple food exports