

## Homework 1

1. Categorize each of the following transactions into one of four components of GDP: (household) consumption, investment, government consumption, and net export.
  - a) Huawei sells a laptop to the army.
  - b) Huawei sells a laptop to Taobao.
  - c) Huawei sells a laptop to a Shanghai resident.
  - d) Huawei sells a laptop to the government of UK.
  - e) Huawei produces a laptop but fails to sell it this year (hopefully sell it next year).
2. A farmer grows a ton of wheat and sell it to a miller for 500 RMB. The miller uses the wheat (the only input) to produce flour and sells the flour to a baker for 1000 RMB. The baker uses the flour to make bread. Consumers buy these bread for 3000 RMB.
  - a) What is the value-added in each stage of the production of bread?
  - b) If the farmer, miller, baker, and the consumers constitute an economy, what is the GDP for this economy?

(The following two problems require some computer work. Just report tables and graphs. Do not report raw data.)

3. Find the Chinese GDP data and construct a table that lists the shares of consumption, investment, government consumption, and net export in 1980, 1990, 2000, 2010, and 2018. (Note: the website for the National Bureau of Statistics: <http://www.stats.gov.cn/>)
4. Find the Chinese annual CPI data from 1978 to 2018.
  - a) Calculate and plot annual inflation rates.
  - b) Construct and plot a CPI series with base year at 1977 (let the CPI in 1977 be 100). How does the general price level in 2018 compare with that in 1977?