1. **Title**: Epidemics, Trade and Containment Policies

2. **Authors:**
   Kang Shi, Chinese University of Hong Kong, kangshi@cuhk.edu.hk.
   Junjie Tang, Chinese University of Hong Kong, junjie.tang@link.cuhk.edu.hk.
   Juanyi Xu, Hong Kong University of Science and Technology, jennyxu@ust.hk.

3. **Abstract**:

   The unprecedented spread of COVID-19 has severely disrupted the global economy. This project intends to incorporate the canonical epidemiology mechanism into a two-country dynamic Melitz model to investigate quantitatively how health shock affects the global economy and the interaction between containment policies and international trade. In this project, the virus is modeled as a negative shock on labor supply and can be spread through social meetings and business activities. To fight against the virus, several types of containment policies, such as self-isolation, country lockdown, and expansionary medical spending will be introduced by governments. We will estimate the two-country model using Chinese custom data and the data of COVID-19 and then evaluate the economic loss of these containment policies. Finally, we study the optimal containment policy and potential international policy coordination.

4. **Data description**:

   Chinese Custom Data and the data of COVID-19.

5. **JEL codes**:

   E6, F1, H0

6. **Key-words**:

   Epidemic, COVID-19, trade, current account, containment policies