2020 Asia and Pacific Mathematical Contest in Modeling

Problem B

Analysis of the Economic Impact of the US Presidential Candidates on the United States and China

The US presidential election is held every four years. 2020 is the year of US presidential election, with Republican candidate Donald Trump and Democratic counterpart Joe Biden running for president. The candidates of both parties have different political stands and administrative programs in finance and trade, economic and financial governance, and some other different key development areas (such as COVID-19 fighting measures, infrastructure, taxation, environmental protection, medical insurance, employment, trade, immigration, education, etc.). The election of different candidates will shape different strategic patterns of global economic and financial development, and have a greater impact on the U.S. economy and the global economy (including China's economy). How will different policies affect America's economy and China's economy? How should China respond? Your team is asked to collect the candidate's policy propositions, policy guidelines and relevant data in different fields, and answer the following questions:

1. Establish a mathematical model and use relevant data to quantitatively analyze the possible impact of different candidates elected on the U.S. economy. (You can choose one or several fields to answer this question separately or give a comprehensive answer)

2. Establish a mathematical model and use relevant data to quantitatively analyze the possible impact of different candidates elected on China's economy. (You can choose one or several fields to answer this question separately or give a comprehensive answer)

3. Suppose you were members of China's Think Tank for Economic Development, combined with the mathematical models of questions 1 and 2, what suggestions would you make to China's economic countermeasures and policies in related areas in both cases (which party wins)? Please illustrate your points specifically.