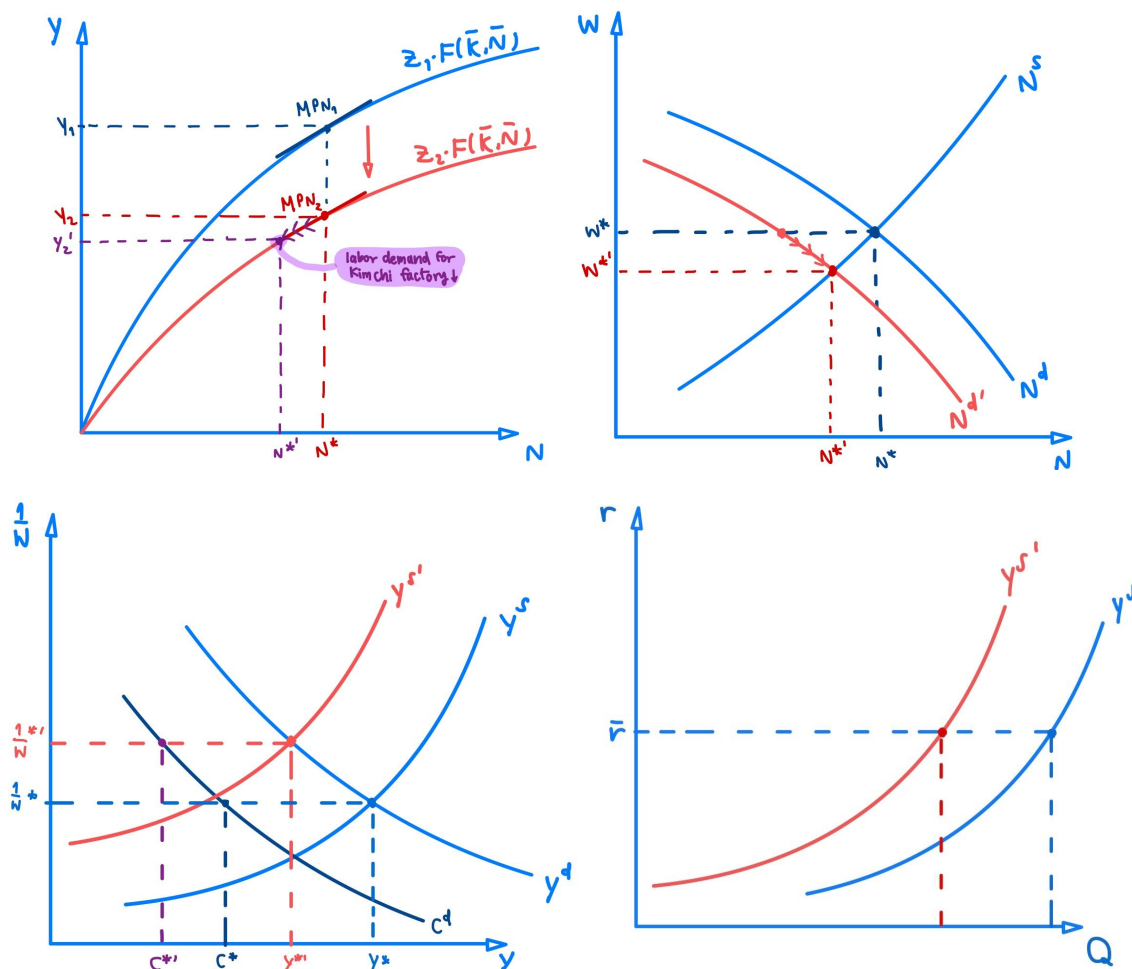


Typhoon hit South Korea causing flood (Negative Total Factor Productivity shock, SR)

In this year, South Korea had the longest rainy season in their history together with 3 Giant Typhoons causing floods in August and September. Typhoons and floods damaged many agricultural sections which in this case we focus on the Kimchi industry. The lettuce, the basic material used in making Kimchi, is also damaged. The price of Lettuce and other fresh vegetables, substitutions, became more expensive. But at the same time there's no vegetable for making Kimchi, we assume that the factory demands less labor.

However this happens in Short-run, when the flood and everything is gone they can start agriculture, making Kimchi and selling as usual.





As we can see, lacking vegetable supply causes productivity(z) to decrease from z_1 to z_2 , results in a shift in the production function, Y decreases (Y_1 to Y_2). MPN decrease (MPN1 to MPN2) Therefore, less labor is needed since there's less to produce in Kimchi industries, Y in production function decreases (Y_2 to Y_2') and N_d shifts to the left (N_d to N_d') in Labor demand-supply curve. Labor gets lower income since there is less demand for labor together with output supply shock causing Y_s to shift (Y_s to Y_s'). People can consume less, from $Y_d = C_d + G$: given G constant, results in a decrease in C_d (C^* to $C^{*'}).$ A decrease in Y_s (Y_s to Y_s')-lower quantity (Q), given r , demand for current consumption decreases (C_d^* to $C_d^{*'}).$