**Student’s answer**

Denmark had a fiscal surplus of 4.06% of the total (proporation of) GDP in 2021, which decreased to 3.44% in 2022. This would reveal that Denmark engaged with an expansionary fiscal policy between 2021 and 2022. Meanwhile, Italy had a fiscal deficit of -8.85% in 2021, which shifted to -7.80% in 2022. Differing from Denmark, Italy had a contractionary fiscal policy between 2021 and 2022, decreasing their fiscal deficit as a percentage of their GDP.

Between 2021 and 2022 Denmark engaged with a expansionary fiscal policy which was in response to the COVID-19 pandemic, helping to stimulate economic growth, however, in 2022 due to soaring inflation the Danish Ministry of Finance has reversed their policy and begun with a contractionary (tightened) fiscal policy. As such, they have implemented policies as part of a ‘Reform Programme’, that has increased taxation (including higher carbon taxes) (Ministry of Finance, 2022) and tightening the labour market (IMF, 2022).

Italy, on the other hand, maintained a relatively expansionary fiscal policy during the early stages of 2022, despite their fiscal deficit reducing in 2022. Due to fiscal policies such as reduced taxation on personal income and regional taxes, increased spending on soaring energy prices, and government expenditure on social policies (such as offering support to displaced Ukrainians settling in Italy) (European Commission, 7, 2022). These policies are to be shifted towards the middle of 2022, into 2023 and onwards, where the Italian Minister of Economy and Finance has begun to initiate plans to engage significantly more contractionary (tigher) fiscal policies (Minister of Economy and Finance, 2022). This included policies such as increased taxation and tightening the labour market (Minister of Economy and Finance, 2022).

Denmark’s monetary policy for 2022 has been tighter (contractionary), with the central bank increasing the benchmark policy interest rates four times; similary the central bank formed a new reference rate for short-term interest rates “Denmark Short-Term Rate (DESTR)” in order to assist with tracking inflation (Danmarks Nationalbank, 9, 2022). Denmark has a fixed exchange rate system that is pegged to the Euro, which is done to help prevent economic fluctuations and maintain financial stability, but also restricts the scope and effectiveness of monetary policy (Danmarks Nationalbank, 2022).

Italy’s monetary policy for 2022 was inline with the European Central Bank’s (ECB) as a member of the Eurozone, which was a tight (contractionary) monetary policy throughout the year. The policy began with a reduction and eventually discontinuation of the Asset Purchase Programme (APP), the ECB also raised it’s key interest rates by 2.5 percentage points by December 2022 (European Central Bank, 2022).

The initial equilubirum point for Denmark is at point A, which is in line with the target exchange rate which is denoted by et. As Denmark engaged with contractionary fiscal policies (reducing government spending and increasing net taxes), the IS\* curve shifts from point A to point B. However, as this is not within the target exchange rate, the Danish central bank buys domestic currency which appreciates the currency back to its original exchange rate. This shifts the LM\* curve left, resulting in the new short-run equilibrium point C. Point C has lower output as seen by Y2.

Italy’s economy here starts at point A, but the contractionary fiscal policy shifts the IS\* curve leftwards to the IS\* 2 curve. This is matched by the contractionary monetary policy which shifts the LM\* curve leftwards, which culminates in point B. This new short-run equilibrium has lower output (Y2) and a higher exchange rate. This is due to monetary policy being more impactful for a floating exchange rate system than a fixed rate system.

Both Denmark and Italy engaged largely with contractionary monetary/fiscal policies for 2022. This resulted in reduced output for both States, however, as Denmark has a fixed exchange rate, the central bank was forced to maintain the target rate. Meanwhile, for Italy, the policies meant that the exchange rate was higher than it was previously.