Chapter 13 #9

a. California is in a currency union (also known as a monetary union) with its major trading partners (the other American states). Moreover, this is a much more durable and serious union than e.g., EMU, since it’s a currency union that coincides with a political union (unlike e.g., EMU, which involves many countries which could, in principle, secede from the currency union).

b. Only fiscal policy will be effective. California is a small open economy, and the question assumes that it can print dollars. Since California's dollar is fixed one for one with a dollar from the rest of the United States, we use the IS-LM Model that applies to an open economy with fixed exchange rates and perfect capital mobility.

In this model, monetary policy is ineffective. If you aren't sure why monetary policy is ineffective in this case, consider the following example: if the California government decided to increase the money supply by printing dollars and buying bonds back from Californians, the LM curve would shift to the right. At this point, the California interest rate is lower than the interest rate in the rest of the US, causing a capital account deficit in California as capital flows out of California to the higher returns. This capital account deficit will be offset by an ORS surplus, meaning that Californian international reserves are falling. The fall in IR causes a fall in Californian high-powered money, which causes a fall in the money supply. Eventually, the LM curve will shift back to the original position, and monetary policy will have had no effect.
California should use fiscal policy, as seen in the graph below, to stimulate the economy.

c. The short-run effect is an increase in output, but no change in the interest rate. The reasoning goes as follows: Prohibiting the import of wine from Washington will cause imports to fall, so net exports rise and the IS curve shifts to the right. Now we are at a point in which there is a capital account surplus, since the Californian interest rate is higher than that in the rest of the US. This leads to an ORS deficit, which means international reserves are rising, which causes HPM to rise, which causes the money supply to rise, which causes the LM curve to shift to the right / down. Eventually, Californian output will increase and the Californian interest rate will return to the previous level.
The question asks you to consider the long run, but really means the ‘medium’ run using the business cycle model of aggregate demand and supply. In the ‘medium’ run, the restriction on imports of Washington wine will increase the demand in California for Californian wine. Thus, the Aggregate Demand curve will shift up/right. The Short Run Aggregate Supply Curve now gradually moves up until it crosses the intersection of the LRAS and the second AD Curve. Therefore, in the long-run the Californian price level increases as a result of the wine import restriction. There is also an effect on the real exchange rate between California and Washington (although the nominal exchange rate is still $1:$1). Since the Californian price level has gone up relative to that in Washington, the real exchange rate (which is equal to the nominal exchange rate times the Californian price level divided by the Washington price level) goes up. California loses competitiveness as a result, and will export less of all goods, not just wine. The restrictions on wine imports crowds out California net exports. (Think of it this way: You can exchange $1 from Washington for the same $1 in California, but it doesn't buy as much in California. The real exchange rate reflects the buying power of the currency.)

The diagram illustrates the shifts in Aggregate Demand (AD) and Short Run Aggregate Supply (SRAS) curves. The long-run aggregate supply (LRAS) is depicted as a horizontal line at the price level P2, indicating the economy's full employment level. The AD1 curve shifts up towards AD2, indicating an increase in aggregate demand. The SRAS1 curve shifts up towards SRAS2, indicating an increase in the short-run aggregate supply. The intersection of LRAS and AD2 determines the new long-run equilibrium price level P2.

d. We’ll be covering this more when we discuss ‘optimum currency areas’. But Canada, as a country, has its own monetary and fiscal policy; California doesn’t have its own currency, and is prohibited from debt-financed fiscal policy. Those are two VERY big differences.