

Chapter 3

Fast Monetary Competition and Slow Wage Competition

This chapter deals with competition between the European central bank, the American central bank, the German labour union, and the French labour union. We assume that the central banks and the labour unions decide sequentially. First the central banks decide, then the labour unions decide. In steps 1, 2 and 3 the central banks decide. Then in steps 4 and 5 the labour unions decide. We assume that the central banks and the labour unions follow a cold-turkey strategy. And we assume that the policy spillovers are anticipated.

In the numerical example, an increase in European money supply of 100 causes an increase in German output of 150, an increase in French output of equally 150, and a decline in American output of 100. An increase in American money supply of 100 causes an increase in American output of 300, a decline in German output of 50, and a decline in French output of equally 50. An increase in German nominal wages of 100 causes a decline in German output of 120, a decline in French output of 30, and an increase in American output of 50. Correspondingly, an increase in French nominal wages of 100 causes a decline in French output of 120, a decline in German output of 30, and an increase in American output of 50. Further let full-employment output in Germany be 1000, let full-employment output in France be equally 1000, and let full-employment output in America be 2000.

Let initial output in Germany be 940, let initial output in France be 970, and let initial output in America be 1910. In each of the countries there is unemployment. Now steps 1, 2 and 3 refer to monetary competition between Europe and America. Then steps 4 and 5 refer to wage competition between Germany and France. Finally step 6 refers to the output lag.

Step 1 refers to monetary policy in Europe and America. The output gap in Europe is 90. The monetary policy multiplier in Europe is 3. So European money

supply is raised by 30. The output gap in America is 90. The monetary policy multiplier in America is 3. So American money supply is raised by 30.

In step 2, the European central bank anticipates the effect of the increase in American money supply. And the American central bank anticipates the effect of the increase in European money supply. The European central bank expects that, due to the increase in American money supply of 30, German output will only rise to 970, and French output will only rise to 1000. The American central bank expects that, due to the increase in European money supply of 30, American output will only rise to 1970. The expected output gap in Europe is 30. The monetary policy multiplier in Europe is 3. So European money supply is raised by 10. The expected output gap in America is 30. The monetary policy multiplier in America is 3. So American money supply is raised by 10.

We now come to step 3. The European central bank expects that, due to the increase in American money supply of 10, German output will only rise to 980, and French output will only rise to 1010. The American central bank expects that, due to the increase in European money supply of 10, American output will only rise to 1990. The expected output gap in Europe is 10. The monetary policy multiplier in Europe is 3. So European money supply is raised by 3.3. The expected output gap in America is 10. The monetary policy multiplier in America is 3. So American money supply is raised by 3.3.

Step 4 refers to wage policy in Germany and France. The German labour union anticipates the effect of the accumulated increase in European money supply and American money supply. And the same applies to the French labour union. The accumulated increase in European money supply is 43.3, and the accumulated increase in American money supply is equally 43.3. So the expected increase in European output is 86.7, and the expected increase in American output is equally 86.7. That is to say, the expected increase in German output is 43.3, and the expected increase in French output is equally 43.3. In other words, the German labour union expects that German output will only rise to 983.3. And the French labour union expects that French output will only rise to 1013.3. The expected output gap in Germany is 16.7. The wage policy multiplier in Germany is -1.2 . So German nominal wages are lowered by 13.9. The expected inflationary gap in France is 13.3. The wage policy multiplier in France is -1.2 . So French nominal wages are raised by 11.1.