Course Description

The course aims to provide some of the background necessary to understand and conduct research at the frontier of monetary-fiscal policy interactions and fiscal sustainability. Although much research studies monetary policy in isolation from fiscal policy, and vice versa, doing so implicitly imposes strong maintained assumptions on policy behavior that may not hold in practice. When those assumptions do not hold, the resulting equilibria can look very different. We study a variety of dynamic stochastic general equilibrium models to develop the economic reasoning behind this logic. Models will range from simple “toy” models whose solutions can be derived analytically to more complex models that must be solved numerically.

Even the briefest of reflection on recent economic developments around the world makes it clear why, more than ever, it is essential to study monetary and fiscal policies jointly. So-called “unconventional” monetary policy operations that many central banks undertook are, in fact, fiscal policy in the sense that the assets the central banks acquired are ultimately backed by the government’s taxing authority. In addition, many governments implemented substantial fiscal stimulus plans in response to the worldwide recession. Those plans, coupled with aging populations in many advanced economies, portend substantial fiscal stress in the future. And on the heels of the financial crisis came sovereign debt crises in Europe.

Fiscal stress can undermine the ability of central banks—even inflation targeting central banks who are firmly committed to achieving their targets—to control inflation and to anchor inflation expectations. One well-understood mechanism is Sargent and Wallace’s “Unpleasant Arithmetic”: if net-of-interest surpluses do not adjust to back the value of debt, then money creation must do the adjusting. Many economists regard this outcome as relevant only to hyperinflations in countries that do not have the institutions in place to prevent the central bank from caving into fiscal pressures. According to this reasoning, an independent central bank with a mandate of price stability ensures the Sargent-Wallace outcome will not occur.

But Unpleasant Arithmetic is only one mechanism by which fiscal stress can produce inflation. Most government debt is denominated in nominal terms, in the country’s domestic currency. And debt is priced like equities: it derives its value from the expected discounted streams of surpluses and seigniorage. Like equities, the price of debt can adjust to absorb expected fluctuations in those expected streams. News about lower future surpluses reduces debt’s value can fall either because the current price level jumps, reducing the real value of outstanding debt, or because the price of bonds declines (or some combination of the two). Lower bond prices,
in turn, raise expected inflation, spreading out the inflation consequences and propagating the effects of news over time.

Whereas Sargent and Wallace’s mechanism leads to high and growing inflation, the second mechanism—sometimes called the “fiscal theory”—need not generate high or even especially volatile inflation. The fiscal theory mechanism does, however, imply that inflation is no longer under the control of the central bank.

Under what conditions might the fiscal theory mechanism become operative? What kind of fiscal behavior is necessary for the central bank to successfully target inflation? Are there observable implications that distinguish between these two ways that fiscal policy can be inflationary? How do policy interactions change when fiscal instruments distort behavior? If monetary and fiscal policies undergo periodic shifts in the rules they obey, how do equilibria change? How do monetary and fiscal policies interact in open economies or in a monetary union?

Developments in the peripheral countries of the Euro Area—and beyond—have heightened interest in understanding fiscal sustainability. We will discuss some approaches the literature has taken to modeling sustainability. Special emphasis will be placed on the concept of the “fiscal limit,” the point at which for economic or political reasons a country can no longer raise tax revenues to finance its debt obligations. What determines a country’s fiscal limit? What economic or policy factors can alter the nature of that limit?

Readings


References


