The global financial crisis has been a vivid reminder of how asymmetric economic behaviour is. Recessions in an economy do not have the same pattern as expansions. Expansions are less sharp and last longer. In part they reflect preferences. Macroeconomic policy seeks to encourage and prolong expansions but seeks to make recessions as shallow and short as possible. We thus see asymmetry in both economic behaviour and in economic policy. While the asymmetry in the macroeconomy is very obvious the same asymmetry can be found in microeconomic and sectoral behaviour as well. A well-known example comes from consumption. When incomes rise, all but the poor spend much of the increase but save the rest. The proportions vary according to whether they expect this increase to be one off or enduring. However, if incomes fall by the same amount people resist seeing their consumption fall, particularly if the shock is expected to be temporary. In the longer term consumption will fall as the ability to dissave or borrow is inhibited but the pattern of behaviour is clearly asymmetric. More trivially there are many actions that are not reversible because of experience.

However much of economic analysis largely ignores the existence of this asymmetry and hence most models are symmetric in character. Such asymmetries are of limited importance when discussing marginal changes but are much more important when the shifts are large, as recently, or where they very obviously represent a regime change. The failure to anticipate the consequences of the events that led to the present crisis have generated a burst of enthusiasm in investigating this phenomenon. We have been working in this area for many years and have taken this opportunity to put together a range of these ideas in a single volume.
In this book we look at various aspects of asymmetry in the European economy and explore the consequences for policy. Our reason for picking Europe is two-fold. First, trivially, because this is the region on which we have done most work but, second, because it offers an extra feature that makes the policy consequences more interesting. In any event macroeconomic policy applied to a country as a whole averages out over the needs of the households, firms and regions within it. But in the European Union (EU) and in the euro area in particular, a single monetary policy is run for a large and relatively disparate set of countries. Averaging across countries would not matter very much if the disparities were relatively small. But if they are large and the asymmetries are important then this can have important consequences for policy. Take a simple Phillips curve for example. When there are strong demand pressures, say with a clearly positive output gap, changes in demand will have a considerable effect on inflation. The same changes in demand, when the output gap is the same size but negative, may have almost no impact on inflation. Simple arithmetic averaging could, therefore, give a misleading implication for the single policy. The positive and the negative do not simply cancel out. In the EU cross-border fiscal transfers to help offset the unequal impact of shocks and other policies are trivial. In individual countries they are extensive, hence asymmetry has greater consequences for the EU than elsewhere, particularly in the euro area where changes in the nominal exchange rate among the members is not possible.

In the chapters that follow we begin by setting out what we understand by asymmetry and then how it might be measured before exploring it in detail in a number of areas relating to inflation, unemployment, growth, fiscal and monetary policy. We build up the analysis into a small model of the economy that we can use for analysing the policy problems. We do not pretend to offer a complete treatment and one area that is ripe for further examination is the behaviour of firms, particularly entry and exit. New firms face a steep learning curve and their productivity improves rapidly as a result. However, that improvement needs to be rapid and many new firms fail quite early in their lives as they are unable to reach the profitable cost structures of their more established competitors before the financing runs out. Declining firms on the other hand tend to decline rather slowly and can continue in business for a considerable length of time. Unlike new firms which have had to make all their physical and productive investment, whether in their staff or processes, up front and have to bear the costs of this before the sales income starts, mature firms have long written off this initial investment and can let their equipment