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# How well does the aggregate demand–aggregate supply framework explain unemployment fluctuations? A France–United States comparison

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**Abstract**

This paper reviews the ability of the traditional aggregate demand–aggregate supply framework to explain the unemployment fluctuations of the last three decades. A structural VAR model for the growth rates of labor productivity, inflation and unemployment is estimated on American and French data. By using long-run identifying restrictions, unemployment fluctuations are associated with conventional aggregate demand and aggregate supply shocks and with a supplementary residual innovation. One key finding is that the residual shock is far more significant in France than in the United States. The traditional macroeconomic synthesis proves then to be well suited for the American labor market while it leaves unexplained a large part of the French unemployment drift. This result questions the conventional prior that the heterogeneity in unemployment experiences lies in the magnitude of aggregate shocks or in their propagation mechanisms and calls for alternative explanations. © 2002 Elsevier Science B.V. All rights reserved.

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## 1. Introduction

Explaining the upward trend in the French unemployment rate while the American unemployment rate has remained partially trendless over the last three decades is an ongoing challenge for macroeconomic theory. In particular this development has cast doubt about the ability of the traditional aggregate demand–aggregate supply (AD–AS) framework to be a common benchmark for explaining unemployment fluctuations.

According to this macroeconomic synthesis of conventional classical and Keynesian arguments, unemployment fluctuations are mainly driven by aggregate demand and aggregate supply shocks in combination with some inertia in the adjustment process. While demand perturbations may have real effects in the context of nominal rigidities such as Taylor (1979) fixed-length wage contracts, supply shocks are likely to affect the unemployment rate as long as real wages do not adjust to clear the labor market. Actually such an interpretation seems well suited for explaining the initial rise in American and French unemployment rates during the 1970s and the early 1980s. Both countries suffered a protracted period of rising unemployment (from 2 to 8%) while they were successively hit by large adverse supply and demand shocks such as a total factor productivity slowdown and a stringent tightening of the monetary policy. However, such aggregate perturbations are expected to have only short-run effects on unemployment. Once nominal wages and real wages adjust to the new inflation rate or to the lower underlying level of labor productivity, the effects of aggregate shocks should vanish. This is precisely what occurred in the United States where the unemployment rate started decreasing by mid-1985. So why has the French unemployment rate kept increasing since then?

This puzzle has fostered two classes of theories. The first one keeps the AD–AS framework as a benchmark reference. But one holds that the effects of aggregate shocks are longer in France because of more sluggish adjustments in the labor market. This argument refers to the hysteresis theory of Blanchard and Summers (1986) who claim that aggregate shocks are more persistent in European countries than in the United States because of insiders–outsiders effects. Moreover, France may have been affected by supplementary aggregate shocks from which the United States have been preserved such as the sharp increase in interest rates in the late 1980s (Fitoussi and Phelps, 1988).

An alternative class of explanations leaves the reference to aggregate perturbations and focuses on more specific labor market shocks. In particular, a recent macrodynamic framework based on job-search models (Pissarides, 1990) and wage setting–price setting models (WS–PS) gives micro-foundations to unemployment fluctuations. Job-search models relate unemployment to imperfections in the employment setting process due to transaction costs and potential mismatch. This theory seems well fitted to account for the contribution of unskilled workers to the persistence of a high structural unemployment in Europe. Rather, WS–PS models focus on microeconomic imperfections in the wage setting process. Wages are set as a mark-up over the reservation wage and depend on key parameters such as the