## Persistent effects of autonomous demand expansions

## **Extended Abstract**

The prevailing wisdom is that aggregate demand 'shocks' determine short-run cyclical fluctuations around a supply-determined equilibrium growth rate and an associated equilibrium unemployment rate (or NAIRU). This traditional view has been called into question by various streams of literature in the last decades. Specifically, a recently revived literature on hysteresis finds significant persistence in the effects of recessions and negative aggregate demand shocks (Blanchard et al 2015; Martin et al 2015).

Our research aims to assess such tendency to *return* to a supply-determined potential output, independent of aggregate demand, after episodes of demand *expansion*. The relationship between our research and the hysteresis literature is two -sided. In line with this literature, we assess the persistence of aggregate demand effects on key macroeconomic outcomes. However, in contrast with most of that literature, our main purpose is to test whether 'persistence' is detected also in instances of demand *expansions*. We ask whether this should be considered an 'anomaly' associated with special circumstances - as the mainstream literature assumes - or whether it is, in fact, a pervasive phenomenon which holds most of the time.

We study 126 episodes of demand expansion in 34 countries between 1960 and 2015. We look at the sum of primary public expenditure and exports, a variable we call 'autonomous demand'. We define an expansion as an increase in the growth rate of autonomous demand by more than one s.d. above the country mean. We then employ local projections (Jordà 2005) to analyze the impact of these expansions on key macroeconomic outcomes in the subsequent decade.

A challenge is that autonomous demand expansions are likely to be partly endogenous. Indeed, we find that country-years associated with expansions are different from the others. However, we show that observable initial differences between 'treated' and 'non-treated' observations are eliminated by controlling for a full set of country and year fixed-effects, which we thus include in all our empirical specifications.

We find a highly significant persistent level effect on GDP: a one-off expansion in our autonomous demand variable by (an average of) 5% is associated 10 years later to a GDP level

higher by around 2.5%, with no sign of mean-reversion. We also document strong persistent effects on capital stock and participation rate. Effects on productivity, unemployment, and long-term unemployment are instead strong but transitory. We do not find that expansions, on average, cause accelerating inflation, but only a higher price level.