
Evaluating the long-term impacts of economic or policy shocks among necessity and opportunity entrepreneurs

Executive summary

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*Note: This document is a brief and non-technical executive summary of the academic working paper, where further details on the analysis and technical aspects are developed in depth.

Key findings

- We find strong evidence of an hysteresis effect in the opportunity and necessity workers group across Spain and its Autonomous Regions.
- The effect appears to be nonlinear and the speed of convergence of the phenomena back to their average levels varies across Regions and Economic Sectors.
- Some degree of predictability can be found in unemployment rates when they are used as threshold variables to describe different levels of persistence.

Recommendations

- Persistence analysis can be applied as an ex post validation test for the effectiveness of policy measures aimed at fostering self-employment.
- Aggregates such as unemployment rates and GDP growth can represent a good indicator to decide on the intensity of the policy measure conditional on the speed of adjustment of self-employment.

Principales resultados

- Tanto los trabajadores autónomos que emprenden por necesidad como aquellos que lo hacen por oportunidad, presentan un comportamiento de histéresis en los mercados de trabajo autónomos y nacional.
- El carácter no lineal y su velocidad de convergencia hacen que este fenómeno retorne a sus diferentes valores promedio a nivel regional y nacional.
- Encontramos evidencia que las tasas de desempleo podrían presentar un cierto nivel de predicción si son utilizadas en la determinación del umbral de variables que describan diferentes niveles de persistencia.

Recomendaciones

- El análisis de persistencia puede ser aplicado como test de validación ex post de la efectividad de las políticas públicas dedicadas a fomentar el autoempleo.
- La tasa de desempleo y el crecimiento del PIB pueden ser indicadores importantes que intervienen en la decisión sobre la intensidad de la política condicionada a la rapidez de ajuste del desempleo.

Self-employment in Spain

The dynamics of the self-employment rate during the business cycle keep being a source of controversy among scholars, summarized in the so-called push and pull hypotheses, as well as in the distinction between opportunity and necessity entrepreneurs, two different components of business creation with potentially opposite dynamics over the business cycle. Empirical estimates of the self-employment/unemployment relationship only aspired to capture a "net" effect of the recession-push and the prosperity-pull effects. However, recent literature has provided operational definitions of opportunity and necessity entrepreneurship using readily available nationally representative data. Recently, time series techniques have been employed to explore the macro-dynamics of opportunity and necessity self-employment during the business cycle. By exploring the macro-dynamics of self-employment, we checked whether entrepreneurship evolves as a trend stationary or as a non-stationary time-series process. If entrepreneurship is trend stationary, economic and policy shocks can be regarded as transitory from an aggregate perspective: the rate of entrepreneurship eventually reverts to its underlying, long-run rate. Our estimates prove that, aside from the short run influence of the business cycle, there is indeed some persistent effect on the levels of self-employment in Spain. So, if the rate of entrepreneurship is non-stationary, shocks to it will have permanent effects.

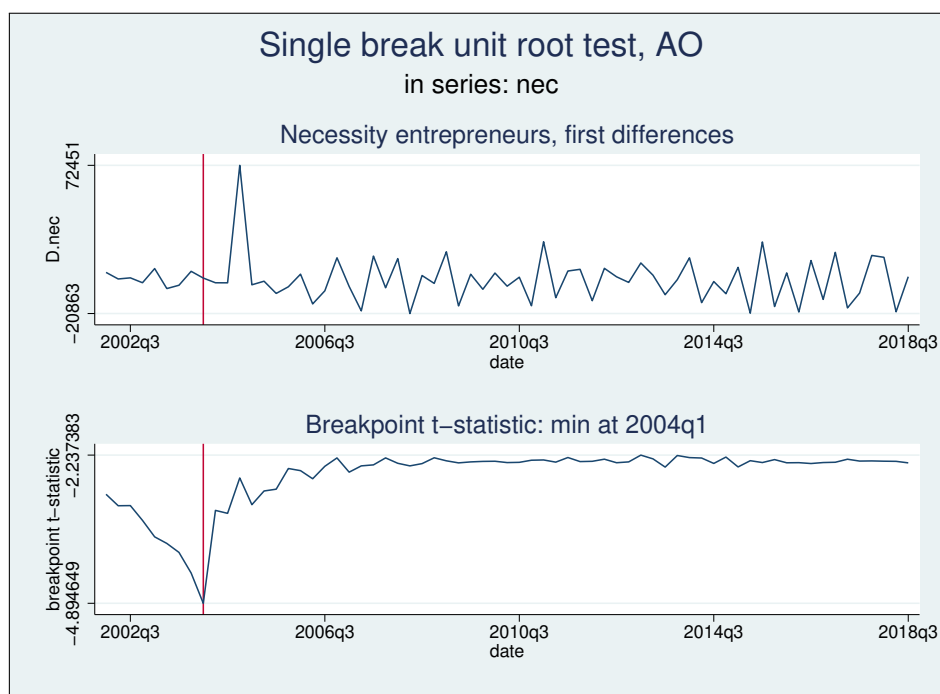


Figure 1: Unit Root Analysis, Spain, 1 break

Our analysis proves, with a comfortable degree of confidence, that the opportunity and necessity entrepreneurs in Spain tend to reach a given positive or negative peak after a shock, but in some Regions and Economic sectors reversion to the pre-crisis levels take more time than what we should expect based on cyclical analysis alone and in some cases the values never revert back to its past levels. You can see evidence of such hysteresis phenomenon in Figures 1 and 2.

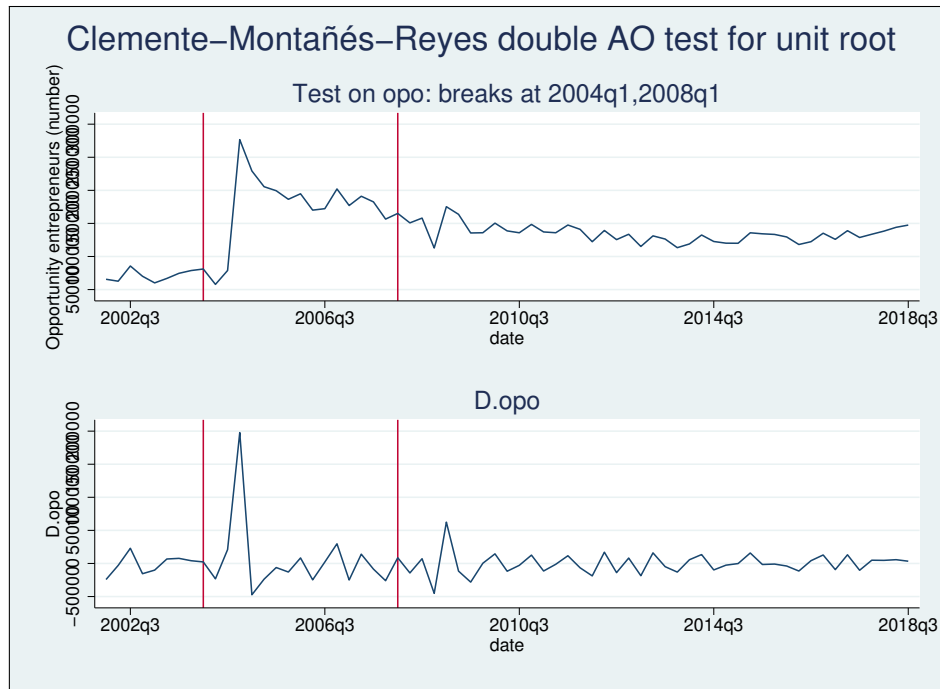


Figure 2: Unit Root Analysis, Spain, 2 breaks

Asymmetries in self-employment

Our analysis focused on unit root and stationarity testing of self-employment levels to test for their persistence after a shock. However, since the heterogeneous composition of the economies of the autonomous communities in Spain and other relevant difference call for it, we tested for the linearity of the persistence and found out that necessity and opportunity entrepreneurs levels converge back to their pre-crisis levels at different speeds according to different thresholds. Thus, out of a possible set of test variables (industrial production levels, changes in unemployment, GDP growth rate), we found that unemployment rates appear to describe very well the behavior of self-employment across the board. exciting threshold autoregression well the different behavior of necessity and opportunity entrepreneurs across Regions and Sectors. At the national level, we find out that necessity entrepreneurs converge back to their natural number much faster than opportunity entrepreneurs when the shock happened in times of natural (average) unemployment, while in general they have much slower adjustment speed during dire times of low unemployment, and as such their number does not swing back to the long run average as fast. This is visible in Table 1.

Table 1: Self-employment in Spain: speed of adjustment after a shock

	Low Unemployment	Natural Unemployment	High Unemployment
Opportunity	-0,550*	-0,319	-0,768*
Necessity	-0,147*	-1,206*	-0,882*

Regional and Sectoral Heretogeneity and current developments in Andalucia

As the hysteresis phenomenon is confirmed at the national level, in Table 2 we offer an overview of it for Andalucia and a selected handful of other Spanish regions, focusing on the opportunity entrepreneurs' equilibrium in the low skilled service sectors (tourism, roughly). As we can see, rate of convergence tend to be quite comparable across all regions in the sector, and only focusing on periods of low unemployment we manage to uncover sensible differences across outliers. As a matter of fact, when unemployment is low and the state of the economy is faring better, self-employed workers who became such out of opportunity in Catalunya (-0,26) stay so for much longer than the same comparable people in Andalucia (-0,79). Such gap, when high skill sectors are compared, becomes even more evident (-1,13 in Andalucia against -0,25 in Cataluya) This calls, at least in terms of comparable results, for different ways to devise and manage policies across regions.

Table 2: Opportunity workers In Spain, speed of adjustment after a shock, low skill services

	Low Unemployment	Natural Unemployment	High Unemployment
Andalucia	-0,797*	-0,726*	-1,120*
Balearic. I.	-0,812*	-0,501	-1,224*
Cantabria	-0,835*	-0,481*	-0,915*
Catalonia	-0,0262*	-1,331*	-0,983*
Valencia	-0,448	-0,945*	-0,769*
Murcia	-0,622*	-0,975*	-1,349*
SPAIN	-0,582*	-0,367	-1,135*

Conclusions

We can conclude that a more decentralized approach in handling employment policies would be needed in Spain. Such possibility would allow for the much needed fine tuning that each region in the country would deserve, allowing Regional governments to foster and promote self-employment in any region and given any economic sector according to the ex-post and ex-ante intensity of the reversion of self-employment to its mean.