Research in Economics 70 (2016) 346–359

Contents lists available at ScienceDirect

Research in Economics

journal homepage: www.elsevier.com/locate/rie

No blessing, no curse? On the benefits of being a resource-rich southern region of Italy

Roberto Iacono [a,b,*]

[a] Norwegian University of Science and Technology, Department of Economics, Dragvoll, N-7491 Trondheim, Norway
[b] Sør-Trøndelag University College (HiST), Postboks 2320, 7004 Trondheim, Norway

ARTICLE INFO

Article history:
Received 2 December 2014
Accepted 31 March 2015
Available online 16 April 2015

Keywords:
Natural resources
Oil royalties
Regional development
Synthetic Control Method
Basilicata

ABSTRACT

The aim of this research is to examine the aggregate economic effects of large-scale oil extraction in Basilicata, a southern region of Italy. This paper is the first empirical attempt to test for a regional resource curse by constructing a comparison unit using synthetic control techniques. The comparison unit captures how Basilicata's economic activities would have evolved in the absence of the oil extraction industry. The negligible differences between economic parameters in Basilicata and in its comparison unit suggest that a large amount of oil extraction has had no detectable effect on Basilicata's economy. A set of tentative political economy explanations of the result of missing effects is also provided, based on control rights structure, the royalty tax rate and organized crime.

1. Introduction

"Call your men back, let them return from wherever they migrated to, and tell them that finally there will be jobs for them, here."[1] These optimistic words were pronounced by a euphoric Enrico Mattei, an Italian public administrator and industrialist who developed the Italian fossil fuels company Ente Nazionale Idrocarburi (ENI) into a multinational company, when the first oil drilling activities were starting during the 1960s in the southern Italian region of Basilicata[2]. At that time, the regional economy of Basilicata relied on traditional activities such as agriculture and low-skilled, labor-intensive manufacturing industries[3]. In some sense, Mattei's enthusiasm was justified. The size of the endowment and its economic value are significant. Today, the main oil fields of Val D'Agri and Tempa Rossa are estimated to be the largest onshore fields in continental Europe (ENI, 2012), with extraction of approximately 90,000 barrels of oil per day (around 50 barrels per year per regional inhabitant). It is natural that policy-makers and the local population regarded the exploitation of the newly found oil reserves as an opportunity for economic development that should not be missed.

The main objective of this research is to investigate whether the exploitation of those oil fields, which has expanded at an unprecedented rate since the end of the 1990s, has on aggregate boosted economic development in Basilicata as

* Correspondence address: Sør-Trøndelag University College (HiST), Postboks 2320, 7004 Trondheim, Norway. Tel.: +47 73412602.
E-mail addresses: roberto.iacono@hist.no, roberto.iacono@svt.ntnu.no

[1] This is a direct translation, by the author, of Enrico Mattei's last speech in the small town of Gagliano Castelferrato on 27.10.1962, as reported in the local newspaper SUD.

[2] A socio-economic and political inquiry into the Basilicata region during the post-war period is provided in Banfield (1958).

[3] Basilicata, together with other southern regions of Italy, is labeled by the EU as an "Objective 1" region and receives substantial support for economic development and investment in infrastructure. In addition, the EU has a policy of promoting the use of indigenous natural resources. In 2000, the European Investment Bank approved a loan of 200 million Euros to ENI for the development of two large on-shore fields in the region of Basilicata.

http://dx.doi.org/10.1016/j.rie.2015.03.003

compared to neighboring southern regions of Italy. Estimating the impact requires us to answer the counterfactual question: how would the economic indicators of Basilicata have evolved in the absence of oil discovery and extraction? This is interesting partly because none of the existing studies answer this question, and partly because the economic impacts of such resources are often hard to predict beforehand.

Most of the economics literature of natural resources, summarized by van der Ploeg (2011), conveys that for a country with suitable institutions (property rights, rule of law, tax collection), the benefits of a natural resource gift should be positive and substantial. Nevertheless, this literature has also documented a number of cases in which exploitation of natural resources is associated with adverse economic effects for general economic welfare. The adverse effects can work through the so-called Dutch Disease, institutional corruption, or conflicts, among other channels. As a consequence, it is hard to predict the economic effect of large-scale oil extraction in Basilicata based on theory or experience from other countries. Thus, the goal of this paper is to examine whether the exploitation of the resource has had a detectable effect on broad and aggregate economic indicators, focusing on Basilicata.[4]

The most relevant literature is the growing research base that deals with the sub-national economic impacts of resource abundance, which has been surveyed by Aragon et al. (2014) and Cust and Poelhekke (2015). The studies by Caselli and Michaels (2013), Papyrakis and Gerlagh (2007), Papyrakis and Raveh (2014), James and Aadland (2011), Kan et al. (2014), Borge et al. (2013), Percoco (2012), and Rocchi et al. (2015) focus on the economic effects of natural resources on different sub-national entities (i.e., federal states, regions, provinces, municipalities).

Caselli and Michaels (2013) closely study a case from Latin America. Their focus is the effect of natural resource revenues on public services at the smallest administrative entity in Brazil – the municipality. They examine whether the royalties from oil revenues have affected the spending decisions of local authorities, the provision of public services, and benefits in terms of income and welfare for the local community. Their results suggest that, despite reporting large changes in expenditures on urban infrastructure, education and health services, no corresponding change resulted in the economic and social outcomes that the spending was meant to improve.

Similarly, Papyrakis and Gerlagh (2007), Papyrakis and Raveh (2014) and James and Aadland (2011) examine specific cases from North America. Papyrakis and Gerlagh (2007) tested the resource curse hypothesis by focusing on the U.S. and showing that the curse is also present at the state level in a federal system. They claim that resource-rich states perform comparatively worse in terms of economic growth compared to resource-poor states. Papyrakis and Raveh (2014) focus on Canadian provinces in order to investigate the existence of a regional Dutch Disease. They find that some of the standard Dutch Disease mechanisms are indeed present at the cross-provincial level. James and Aadland (2011) examine outcomes in U.S. counties and test whether the resource curse is present at the county level. They claim that natural resource earnings have had a statistically significant negative effect on economic growth for counties.

Kan et al. (2014) push the literature one step further by studying a case from Asia. They focus on a cross-province sample within China, using two different measures of resource abundance. Unlike the cases from North and Latin America, Kan et al. (2014)'s results suggest that resource abundance might have a positive effect on economic growth, depending on institutional quality. Surprisingly, the positive effects appeared to be stronger for provinces with poorer institutional quality.

Borge et al. (2013) advance the literature by adding a case from Europe. They focus on Norwegian municipalities' endowment of hydroelectric power potential and find supporting evidence for the claim that higher natural resource revenues retard efficiency in the provision of public goods, although no more than revenues derived from other sources.

To the best of my knowledge, the research that is closest to this work is that of Percoco (2012), who also focuses on the economic effects of oil on Basilicata's economy. His empirical work provides within-region estimates of the per capita number of new enterprises that were created in the municipalities in which oil fields were physically established (the treatment group) as compared to the rest of the region's municipalities (the untreated group). His results suggest that enterprise creation was slightly higher than the average in the areas of oil extraction activity. Although enterprise creation might have increased, it is not clear whether the new enterprises have shifted from other areas of Basilicata or are entirely new; the latter case would mean additional returns for the overall economy. Complementary to Percoco (2012), this paper asks whether the extra enterprise creation in the oil-extracting areas has had any payoff at the aggregate level for Basilicata.[5]

This paper advances the literature in two ways. First, it offers new sub-national evidence from Italy about the resource curse and expands the coverage of the literature from Brazil, USA, Canada, China and Norway. Second, it represents the first empirical attempt to test for a regional resource curse using a quantitative comparative case study. In other words, this paper addresses the problem associated with the appropriate choice of comparison unit that plagues many of the existing

[4] For a methodological discussion clarifying the meaning and explaining the utility of the comparative case study method, see Gerring (2004).

[5] Using an input–output approach (a Social Accounting Matrix or SAM), Rocchi et al. (2015) examine the socioeconomic impacts of royalty revenues on the development of different economic sectors in Basilicata. To this end, they build a multi-sectoral model of the regional economy and explore the impact of resource revenue shocks during a given period of time. They suggest that royalty revenues had a negligible overall economic impact whenever channeled through the regional government. Unlike Rocchi et al. (2015), who make ex ante assumptions about functional forms, the current paper approaches the problem econometrically, i.e., it examines whether the observed data demonstrate a strong and positive effect of natural resources on the economy of the Basilicata region. I believe that this approach is better suited to estimate the dynamic multiplicative effects on Basilicata's economic performance over time.