



Labour income effects of the recent “mining boom” in northern Sweden



Sofia Tano ^{a,*}, Örjan Pettersson ^b, Olof Stjernström ^b

^a Umeå School of Business and Economics, Umeå University, Sweden

^b Geography and Economic History, Umeå University, Sweden

ARTICLE INFO

Article history:

Received 30 October 2015

Received in revised form

23 March 2016

Accepted 24 March 2016

Keywords:

Mining

Income effects

Propensity score matching estimator (PSM)

Sweden

ABSTRACT

During the early 21st century, the world market prices for minerals increased dramatically. As a consequence of this development, large investments were made in mining all around the world. Increased exploration activities, the opening of new mines and large investment schemes in already operating mines and related physical infrastructure also gave rise to a “mining boom” in the remote and sparsely populated areas of northern Sweden. New jobs were generated in the mining sector, but the question of whether the “mining boom” also has stimulated economic development in a broader sense in these areas has been more open. The present article investigated whether labour incomes have increased not only in sectors clearly connected to mining, but also in other parts of the local and regional economy. This was done by following the income changes of residents in the mining areas of northern Sweden over the time period 2004–2010 and by using a propensity score matching estimator method (PSM). The results show rapid income growth for employees in the mining industry and construction sectors, but also some growth in several other sectors, indicating spread effects to the rest of the local and regional economies. The impact, however, is much stronger in the largest mining towns than in communities where mining is of less significance.

© 2016 Elsevier Ltd. All rights reserved.

1. Introduction

World market prices for minerals and metals have always fluctuated. For instance Rossen (2015) shows that, over the past 100 years, price levels have gone up and down during both long- and short-term periods, as well as for specific commodities. According to her, it is possible to identify at least four super-cycles, and during the early 21st century the mining sector has experienced an expansive period. Nevertheless, in the most recent years, the world market prices for many minerals and metals have fallen substantially (SGU, 2015). Fluctuations in the mineral sector have no doubt strongly impacted on the development of mining communities, and the academic literature presents many examples of local and regional consequences of such boom-and-bust cycles (Dale, 2002; Hayter, 2000; Johansen, 1998; Jussila and Järviluoma, 1998; Nygren and Karlsson, 1992; Tsutsumi, 2008). A great deal of attention has been paid to the “mining boom” that began shortly after the millennium shift as well as to the consequences of this development in mining communities all around the world (Bridge, 2004; Fleming and Measham, 2015; Lawrie et al., 2011; Haley et al., 2011; Humphreys, 2010; Knobbloek and Pettersson, 2010; Markey, 2010; Rolfe et al., 2007; Tonts et al., 2012).

Northern Sweden is part of the Fennoscandinavian shield, a region rich in minerals (Haley et al., 2011; Nordregio, 2009; Weihed et al., 2008). The earliest mining operations date back to the 17th century with mining operations in for instance Nasafjäll and Svappavaara (Geijerstam af and Nisser, 2011; Jansson Myhr, 2015). The major and present mining operations in the iron-ore fields in Norrbotten took off around 1890 when the phosphorus and transportation problem were solved by new process technology which made it possible to refine the phosphorus rich iron ore from the region and by opening of the railroad 1888 (Keskitalo et al., 2013; Jansson Myhr, 2015). Thus, northern Sweden has a long tradition of mining. During several decades (especially the 1970s–1990s), however, the number of jobs in this sector decreased substantially due to rationalizations and increasing global competition. This fuelled a pessimistic view of the region’s mining sector and its future contribution to growth, especially regarding the mining towns themselves (Liljenäs, 1992). In the early 1990s, Swedish mining was deregulated and opened up to include international actors, not least as a strategy to attract international expertise and foreign investments that might strengthen the Swedish mining sector. This, combined with the increasing demand for minerals and metals, stimulated considerable exploration activities in northern Sweden, and during the early 21st century, many mining projects were launched (Knobbloek and Pettersson, 2010; Nordregio 2009). Substantial resources were invested in exploration, as well as in increased production capacity

* Corresponding author.

E-mail address: sofia.tano@umu.se (S. Tano).

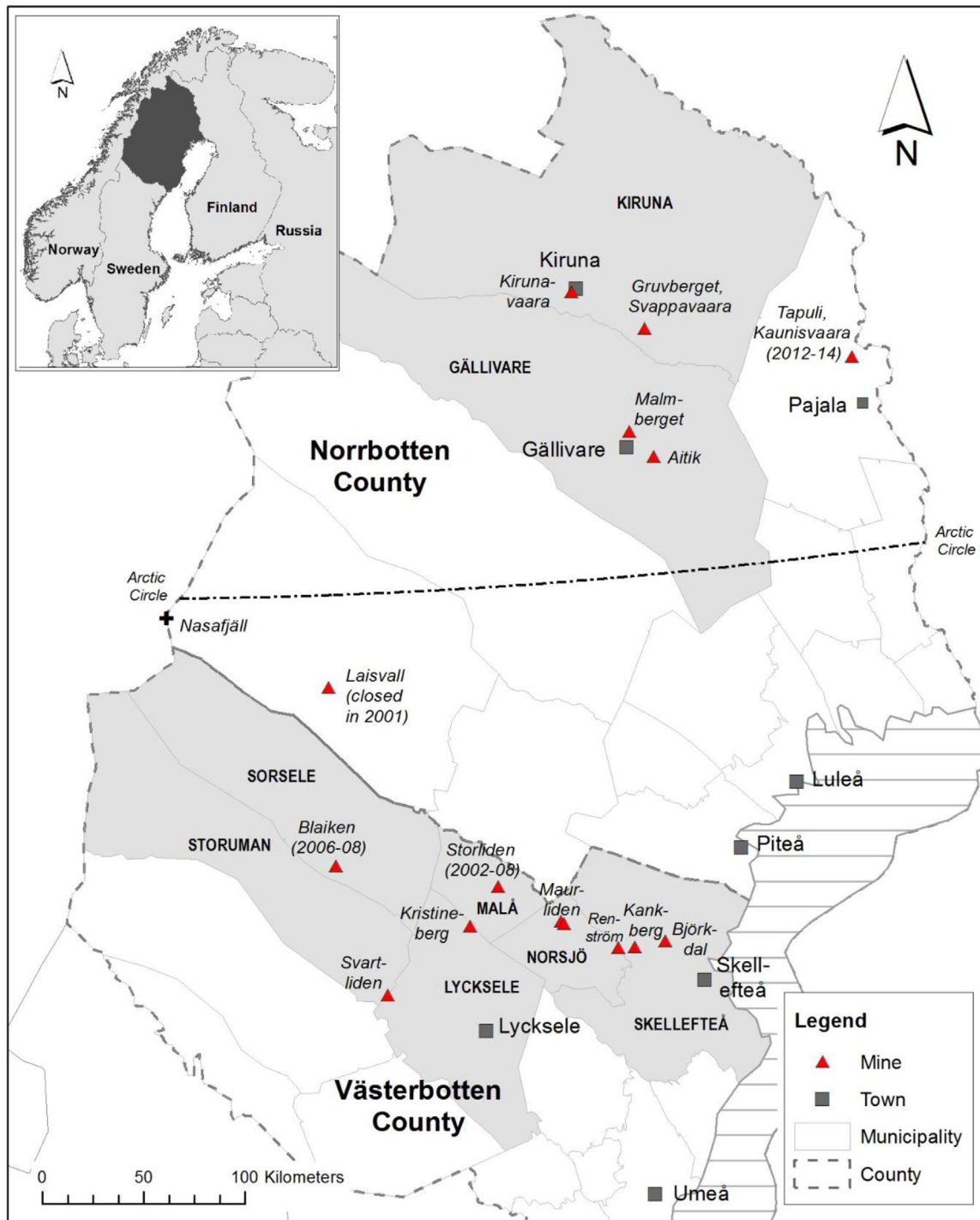


Fig. 1. Metal mines and projects in northern Sweden, 2014.

in already operating mines, re-starting old mines and in some cases even starting up entirely new mines. According to the Geological Survey of Sweden (SGU, 2014), prospecting for minerals in Sweden increased dramatically after 2003 until 2008. Prospecting dropped during 2008 and 2009, due to the global financial crisis, but quickly recovered in 2010. Exploration activities peaked in 2008 and 2011, with more than 750 million SEK (approx. 90 million USD) invested each year. The main targets were the two northernmost counties of Norrbotten and Västerbotten, which stand for about 70 per cent of all prospecting expenditures.

The present paper aims to analyse the labour income effects of the “mining boom” on the residents in mining areas. The core

population of interest is the resident population in the mining areas, i.e. the municipalities in which mines have been in operation during the study period 2004–2010. The study area consists of eight municipalities in northern Sweden; Gällivare and Kiruna in the county of Norrbotten, and Lycksele, Malå, Norsjö, Skellefteå, Sorsele and Storuman in the county of Västerbotten (see map in Fig. 1).

The global mining boom began during the first years after the new millennium (Humphreys, 2009, 2010; Radetzki et al., 2008). It is, however, somewhat complicated to pinpoint the timing of a so-called “mining boom”, not least due to the complex fluctuations in price levels for different minerals and metals (Rossen, 2015). By

Download English Version:

<https://daneshyari.com/en/article/7387642>

Download Persian Version:

<https://daneshyari.com/article/7387642>

[Daneshyari.com](https://daneshyari.com)