



The opening of the North–South divide: Cumulative causation, household income disparity and the regional bonus in Taiwan 1976–2005

Martin Andersson^{a,*}, Martin Klinthäll^{a,b,1}

^a Department of Economic History, Lund University, Box 7083, S-22007 Lund, Sweden

^b Department of Management and Engineering, Linköping University, SE-58183 Linköping, Sweden

ARTICLE INFO

Article history:

Received February 2010

Received in revised form September 2011

Accepted February 2012

Available online 15 February 2012

JEL classification:

N00

O14

O53

R11

R12

Keywords:

Regional income dynamics

Cumulative causation

Spatial inequality

Industrialisation

Taiwan

ABSTRACT

During the last decades regional income divergence seems to have reappeared in both developed and developing countries. In Taiwan – a renowned case of growth with equity – regional per capita income was converging until the early 1990s after which it began to diverge. With the help of modeled annual household survey data from 1976 to 2005 we indicate the magnitude of a regional bonus and discuss reasons behind the re-opening of the North–South income divide in Taiwan. Our analysis suggests that this process is a consequence of cumulative causation connected to the advent of the rise of ICT industry in conjunction with changes in Taiwan's political economy which provided relatively more advantageous economic opportunities for the industrial structure of the leading region.

© 2012 Elsevier B.V. All rights reserved.

1. Introduction

Over the last decades, regional income divergence is observed to be on the rise in both developed and developing countries (e.g. Fagerberg and Verspagen, 1996; Puga, 2002; Sánchez-Reaza and Rodríguez-Pose, 2002; Lall and Chakravorty, 2005). On the basis of industry-location data or national accounts, many of these studies suggest that liberalisation and increasing openness to trade and foreign investments has been spurring a tendency of higher spatial inequality in developing countries. As for the developed

countries, however, the reasons behind diverging regional per capita income remain inconclusive (see Puga, 2002; Kim, 2008).

The purpose of this study is to analyse the underlying forces of regional income dynamics in Taiwan, a renowned case of regional balance and “growth with equity”. Over the last couple of decades a trend of increased income disparity has been observed (see for instance Cornia et al., 2005). Inspired by theories of cumulative causation, we investigate the regional dimension of this income divergence. We analyse effects of agglomeration on long-term patterns of household income, dissecting the extent to which income disparity is due to inter-regional differences in household characteristics, such as regional concentrations of human capital, and the extent to which they adhere to regional effects not explained by such characteristics, but to a “regional bonus”. Using data from

* Corresponding author. Tel.: +46 46 222 44 85; fax: +46 46 222 73 39.

E-mail addresses: martin.andersson@ekh.lu.se (M. Andersson), martin.klinthall@ekh.lu.se, martin.klinthall@liu.se (M. Klinthäll).

¹ Tel.: +46 73 256 33 88; fax: +46 11 36 30 29.

a national survey including thirty annual cross-sections of household-level information for the period 1976–2005, we study effects of household characteristics and path dependencies in regional development. The survey data covers the period from the heydays of Taiwanese growth with equity, based on small and medium sized labour intensive enterprises catering the export markets under the guidance of development policies of KMT, to the ICT-dominated industrial structure of the post-authoritarian post-developmental state.

The paper is organised as follows: after a review of the major debates and findings of the last two decades regarding the ideas behind forces of convergence and divergence, we present the approach of cumulative causation. This is followed by a discussion of major structural and institutional changes in the Taiwanese economy during the studied period, after which we present data and model for analysis of the components of convergence and divergence regarding inter-regional household income. The paper ends with a summary of our findings and a short discussion of the implications of our findings for regional income dynamics in the industrialisation process.

2. Conceptual framework: neo-classical convergence, endogenous growth divergence and cumulative causation in regional growth dynamics

According to neo-classical economic theory, both inter-regional and international convergence of income is expected. In the standard neo-classical growth model for closed economies, international convergence of income will take place through diminishing returns to individual factors of production. In an oft-cited study of US regional income, Williamson (1965) argued within a neo-classical approach that after an initial tendency towards regional divergence, convergence naturally follows. Under international market integration, due to Heckscher–Ohlin-type factor price equalisation, convergence is also the theoretically likely long-term outcome. The lack of convergence in the real world, however, made some of the pioneering scholars of the long-term growth process to propose reasons for the absence of convergence; such as the national differences in the “peculiarities of backwardness” or the relative lack of “social capabilities” (Gerschenkron, 1962; Abramovitz, 1986). The search for empirical support for convergence was, however, only in its infancy and with the advent of more available and comparable data (e.g. Summers and Heston, 1991; Maddison, 1982, 1995), the possibilities to scrutinise the extent of neo-classical convergence in the international economy increased. Some support for convergence was then found albeit only among groups of nations (Baumol, 1986; Chatterji, 1992). Taking the world as a whole, however, the global economy over the long run was clearly characterised by divergence—Big Time (Pritchett, 1997, see also DeLong, 1988). Influential studies by Mankiw et al. (1992) and Barro and Sala-i-Martin (1992), however, found support for neo-classical conditional convergence using augmented Solow-models. In this literature and the empirical studies that followed, efforts were made to make distinctions between different meanings of convergence—so-called σ - and β -convergence. The

former meant that the variation of GDP per capita across a group of countries/regions diminishes over time, while the latter denoted that the growth rate for an initially poorer country/region is higher compared to an initially wealthier one (see Barro et al., 1991). Thus, σ -convergence necessarily implies β -convergence whereas beta β -convergence does not necessarily imply σ -convergence. It was the β -convergence that received most attention. The augmented Solow-models then showed that structural conditions and differences in, e.g. human capital characteristics produced different steady-state growth rates. By holding constant the steady-state of individual countries, Barro and Sala-i-Martin (1992) found support for both cross-country and regional conditional β -convergence. Everybody was, however, not convinced by the convergence evidence, suggesting biases in the statistical models resulting in misleading conclusions (Quah, 1993, 1996; Temple, 1999). Some also pointed out that overlooking the role of technology – typical of “capital fixated” Solow-models – undermines a thorough understanding of the process of convergence (Bernard and Jones, 1996). A clearer break with the assumptions of diminishing marginal returns to capital in the neo-classical models was characterised by the advent of endogenous growth theory, by introducing increasing returns via, e.g. knowledge spillover effects (Romer, 1986). The insights from this theoretical development helped boost the new economic geography approach and showed theoretical reasons of regional divergence due to agglomeration, increasing returns and spillovers in general equilibrium models (see e.g. Krugman, 1991; Fujita et al., 2001).

The new economic geography is, however, reminiscent of the ideas of cumulative causation and the discussion of dynamics of regional income growth of Gunnar Myrdal and Albert O Hirschman. This line of thought, allowing for both converging and diverging forces in the development process was prominent in development economics of the 1950s and 1960s. Spatial inequality was seen as a natural consequence of a country's dynamic development, for instance captured in the notion of “nothing succeeds like success” (see Perroux, 1955; Myrdal, 1957; Hirschman, 1958). What advocates of cumulative causation tried to disentangle was the reasons behind differences in inter-regional dynamics and income. Since theories of cumulative causation embrace processes of both regional convergence and divergence and, furthermore, include institutional and “non-economic” aspects, the assumption of an economy in (or towards) equilibrium became significantly relaxed in analyses of social development (see Myrdal, 1957).

However, the theory of cumulative causation did not originate with Myrdal or Hirschman. Marshall's external economies coming from the “atmosphere” of industrial districts is one of its original underpinnings (Marshall, 1890; both Myrdal and Hirschman explicitly acknowledged Marshall's ideas). This basic suggestion later reappeared among early proponents of cumulative causation.² One expositor

² The idea of cumulative causation has also been central in influential contributions in institutional theory (Veblen, 1898), monetary theory (Wicksell, 1898) and macro economic theory (Kaldor, 1966).

Download English Version:

<https://daneshyari.com/en/article/986991>

Download Persian Version:

<https://daneshyari.com/article/986991>

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