



Unions, collective relations laws and R&D investment in emerging and developing countries[☆]



Benjamin Balsmeier

ETH Zurich, KOF Swiss Economic Institute, Leonhardstrasse 21, 8092, Zurich, Switzerland

ARTICLE INFO

Article history:

Received 19 January 2015

Received in revised form

21 November 2016

Accepted 22 November 2016

Available online 2 December 2016

JEL-Classification:

G38

J51

L25

O16

Keywords:

Emerging countries

Developing countries

R&D

Unions

ABSTRACT

Many scholars argue that workforce unionization leads to a reduction in R&D investment because unions appropriate a share of the returns to successful inventive efforts. On the other hand, it is widely acknowledged that unions may encourage investment in R&D because of increased cooperation between workers and management. Our empirical analysis on cross-country firm-level data from 23 emerging and developing countries reveals a negative association between workforce unionization and firms' R&D investment. This association is particularly pronounced when unions are protected by strong collective relations laws, supporting the notion that strong unions 'tax' the returns to successful inventions. Our findings have implications for policy makers who seek to improve emerging countries' chances of catching up to the technological frontier, and for firm leaders concerned about the appropriation of returns to their R&D investments.

© 2016 Published by Elsevier B.V.

1. Introduction

For several decades, scholars, politicians and practitioners have debated how unions affect firm performance (e.g. Freeman, 2010; Freeman and Medoff, 1984; Hirsch, 2008; Hirsch and Connolly, 1987; Lee and Mas, 2012). So far, the discussion has centered on findings from the US and Europe, recognizing remarkable differences across countries. Over the last 60 years, workforce unionization has declined sharply in the US from approximately 30% in the mid-1950s to approximately 7% in 2010 (Hirsch, 2012). A similar picture has emerged in Europe but the decline in unionization levels from 38% in 1970 to 27% in 2000 was not as pronounced as in the US (Visser, 2006).¹ Information on union densities and union conduct in less-developed countries are notably

[☆] The author gratefully acknowledges financial support from the Flemish Science Foundation. He is also especially grateful to Dirk Czarnitzki and two anonymous reviewers for their advice.

E-mail address: balsmeier@kof.ethz.ch

¹ Across all OECD countries, the average union density has remained rather stable over the last decade, being 20% in 2000 and 17.5% in 2010 (own calculations based on ILO data, see www.ilo.org). Union density is calculated as the number of union members who are employees divided by the total number of employees per country.

scant. Freeman (2010) calculated an average union density in developing countries of 17.9% in 1996, based on data published by the International Labour Organization (ILO). Taking more recent statistics provided by the ILO from 2002 to 2009 reveals a corresponding union density of 18.5%, suggesting that unionization levels are rather stable in developing countries.²

Several empirical studies from various countries around the world, including a number of emerging countries, report a pattern of positive wage premiums between 5% and 20% for employees working in unionized firms (see e.g. Brazil: Menezes-Filho et al., 2005; China: Ge, 2014; Ghana: Blunch and Verner, 2004; Korea: Lee and Na, 2004; Mexico: Fairris, 2003, 2006; South Africa: Kingdon and Knight, 2006; Uruguay: Cassoni et al., 2005; U.S.: Hirsch and Macpherson, 2011; Felix and Hines, 2009). Such wage premiums can be economically harmful, if they reflect appropriations of the returns to successful investments.³

² The ILO data show that union densities still vary largely across European countries as well as across less developed countries (www.ilo.org).

³ Higher wages might well be desirable for an economy. For an extensive discussion on how wages and the distribution of wages affect economic outcomes, see the papers cited above, Eatwell (1984), and Robinson (1966).

Research and development (R&D) investments are especially vulnerable in this regard, because they are largely irreversible and returns are normally sustained well after the investment is actually made. Moreover, successful R&D investments often generate large revenue streams over a relatively long period. If firms anticipate that a proportion of those revenue streams are likely to be appropriated by unions, they may well be inclined to reduce their R&D investments at the outset (Hirsch, 1992; Van Reenen, 1996; Link and Siegel, 2002; Lommerud et al., 2006).

Unions may act as a stimulus to R&D investment, however, if cooperation between management and labor improves and investment horizons become less short term oriented with increased employee participation in corporate decision making (Fang and Ge, 2012; Chintrakarn and Chen, 2011; Freeman, 2005; Kuhn, 1985; Freeman and Medoff, 1984; Brown and Medoff, 1978; in the context of developing countries: Aidt and Tzannatos, 2002). Unions may also help to develop learning agendas that increase the returns to R&D investments (Hoque and Bacon, 2011; Rainbird and Stuart, 2011).

Given these countervailing arguments, it is no surprise to find a negative as well as a positive association between workforce unionization and R&D investment in the empirical literature. While studies based on US firm data tend to report negative influences of workforce unionization on R&D expenditures, findings for the UK and continental Europe are mixed and, in China, unions seem to have a positive influence on firms' R&D investment (for an overview, see Doucouliagos and Laroche, 2013; for China: Metcalf and Li 2006, Fang and Ge, 2012). As the evidence varies across countries, it is often argued that these ambiguous results might be driven by differences in institutional environments and cultural norms.⁴ Hence, it is hardly possible to transpose existing results to an emerging and developing country setting. So far, we know little about how unions affect R&D investment outside the US and Europe, and what role the institutional environment plays in this regard. Given that R&D investment is one of the key factors determining the speed and success with which emerging and developing countries catch up to the technological frontier (Hall et al., 2010), this seems to be a significant gap in the literature. The present study seeks to fill the gap by means of an empirical analysis based on comparable cross-country firm-level data from 23 emerging and developing countries that were covered by the World Bank's Enterprise Survey.⁵ Different to many other empirical studies that observe unionization only at the industry level for one specific country, the World Bank data allows researchers to measure unionization at the firm level across countries where collective relations laws vary significantly. The latter feature is of particular interest since it allows us to derive new insights into how different institutional environments shape union conduct and R&D spending. In this paper, we focus on a specific set of institutions, namely collective relations laws, that arguably play an important role by determining the bargaining power available to unions. In addition to formal legal rules, cultural differences across countries may also play an important role, but they are not the primary focus of the current study.

⁴ Further conditions like large fractions of state-owned firms in China, where all employees are required to be members of trade unions, may also have a crucial influence on how unions affect R&D investment.

⁵ The specific set of countries included in the analysis is determined by the availability of data from the World Bank. A country qualified as an emerging country if it was included in the list of emerging countries by the International Monetary Fund (IMF) in its annual World Economic Outlook report (reference year 2005, for details see: <http://www.imf.org/external/pubs/ft/weo/2005/02/>)

2. Unions, labor laws and R&D investment

2.1. Why unionization may discourage R&D investment

Workforce unionization can influence firms' R&D investments through a number of channels. One of the most prominent arguments explaining how unions affect R&D investment is founded on the presumption that unions increase employees' wages mainly by appropriating a share of the firms' quasi-rents (Groul, 1984; Baldwin, 1983; Simons, 1944). R&D investments are particularly vulnerable to union rent seeking since they are largely firm-specific and, thus, to a large degree intangible (on average, approximately 90% of R&D investments). Furthermore, successful inventive efforts often create large and long-lasting revenue streams. If the employer refuses to share the returns on successful R&D investment, unionized employees may still be able to appropriate a share of the returns. In practice, this might mean that employees exert pressure on management by expending insufficient effort, working to rule, or undertaking strike action (Krueger and Mas, 2004).

Returns to other investments are harder to appropriate because a firm can credibly threaten to sell the corresponding assets if employees try to capture the rents. Firms may be able to license their innovations, which would reduce the innovation rents that employees could demand.⁶ However, this is of little use when the specific nature of an invention makes licensing unfeasible or when strategic factors make licensing more costly than sharing the returns with the workforce (Connolly et al., 1986). Knowing it may not be possible to reap the full benefit of their R&D investments, firms might be inclined to invest less in R&D in the first place. The problem displays something of the character of a 'prisoner's dilemma': whereas employees are unlikely to want their employers to invest less in R&D, they cannot credibly commit to forgoing a share of the rents if the investment is made. Whenever the successful commercialization of an invention generates stable profit streams, unionized employees have a strong incentive to deviate from any former agreement.

One way out of this dilemma might be for employers and employees to bargain simultaneously over R&D investment and wages (Groul, 1984). However, union bargaining over R&D investment is hardly ever observed. In theory, employers and employees could also bargain over the introduction of technologies that have an influence on working conditions or job security, but there is no evidence that this occurs with any frequency. In particular, the rather long investment horizons and the considerable uncertainty surrounding future returns to R&D investment would likely limit the ability of both parties to sign a credible agreement.⁷

Even if unions did not appropriate rents from successful R&D investments, their demand for higher wages may reduce firm profitability, which would, in turn, reduce the capital available for future investment in R&D (Bronars and Deere, 1991, 1993; Matsa, 2010; Klasa et al., 2009; Hirsch, 1991). R&D investment is particularly vulnerable to profit extraction because firms rely mainly on internal funding to finance their R&D expenditure (cf. Brown et al., 2009, 2012). Many external capital providers are reluctant to finance R&D expenditures, because investment in innovation is typically intangible and involves great uncertainty regarding future returns. Even if R&D efforts are successful, full returns are hard to appropriate given the potential for imitation by other firms and the diminution effect of knowledge spillovers. This stands in contrast to most other assets that can be used as collateral and create

⁶ In practice, this may work through a third firm that is legally separated from the unionized entity.

⁷ Nevertheless, if unions and employers have established a reputation for fulfilling informal agreements, it is conceivable they could agree on an implicit contract.

Download English Version:

<https://daneshyari.com/en/article/5103859>

Download Persian Version:

<https://daneshyari.com/article/5103859>

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