Apart from economic regulation, social regulation can cause substantial regulatory uncertainty. We discuss this phenomenon and its consequences referring to the minimum wage case in the German postal industry.

Across Europe almost 1.6 million people are directly employed in the postal sector with an average age above 40 years and mainly low to medium qualification levels. It is a challenging industry: coping with large decreases in mail volume and tailoring networks to match demand and improve profitability as well as increased competition leads to the urgent necessity of modernizing business models and optimizing its workforce.

The trend towards postal network modernization involves automatization and delivery optimization, which, in turn, leads to decreasing employment and other social consequences such as task simplification and making the workforce flexible through part-time and external workers (SDCPS 2010).

New social standards and social regulation aim to address issues such as ‘unfair competition’ at the expense of the postal workers and to level the playing field between the starting positions of former monopolists and entrants into the industry (Bailly and Meidinger 2010). Thereby, the special importance to preserve socially acceptable conditions for the industry stems from the fact that the by far largest share of the operating expenses in the postal sector is still labor costs. This importance is increased by the expectation of falling volumes and revenues in the industry (SDCPS 2010).

Consequently, social regulation in the postal industry is not only more in focus than in other sectors, but due to the properties of the industry the impact can also be expected to be greater. Accordingly, it is of even higher importance for the postal sector that any industry-specific social regulation is as carefully designed and applied as economic regulations.

As we argue, the implementation process of the sector specific minimum wage in Germany was flawed. This not only led to higher costs for the industry, but also created substantial avoidable regulatory uncertainty.

Economic and social regulation
Broadly speaking, regulation can be divided into the two classes of economic and social regulation. On the one hand, economic regulation addresses missing markets and the failure of existing markets originating from externalities and public goods, information problems, with potentially multiple equilibria, and the related coordination problems, and market power (although market power (and natural monopolies) are not a market failure themselves, but often lead to market failure because of resulting price distortions and, therefore, inefficient allocations where not all gains from market exchange activities can be realized). On the other hand, social regulation mainly addresses ‘bads’ (where in contrast to ‘goods’ the willingness to pay is negative, or, respectively, there exists a willingness to pay to get rid of them, for example products which might cause harm) and ‘socially undesirable outcomes’ of markets.

Therefore, the different regulatory categories differ in their intention. Economic regulation aims to improve market efficiency, either static efficiency to reduce costs (given an existing set of demand conditions, products and the market structure) or dynamic efficiency to facilitate the responsiveness to changes of preferences and demand through process and product innovation, and to support economy and industry reconfigurations towards more appropriate market structures. Social regulation aims to eliminate unwanted market outcomes and strategies to directly benefit people.

Obviously, it is not always possible to clearly distinguish between these two types of regulation. For instance, minimum wages, as an element of the labor market’s legal framework, involve aspects of both economic and social regulation. On the one hand, it can be seen either as a form of economic regulation countervailing the market power of employers vis-à-vis employees in the lower wage range or as a form of a minimum efficiency requirement.

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for firms since firms must be sufficiently efficient to be able to pay the higher wages. On the other hand, it can also be considered as an exclusionary device against intentional low-wage strategies, where the firms compete by undercutting competitors’ labor costs at the expense of the employees (cf. Heitzeberg and Wey 2010, also Haucap, Pauly and Wey 2001).

**Regulatory risk and uncertainty**

Risk and uncertainty differ concerning the point whether the alternatives and according probabilities are known or not. Similarly, regulatory uncertainty describes the situation where the market participants do not know how the regulator will act, whereas legal uncertainty arises from the question, whether a certain regulation is legally valid or not. Although the effects are not entirely identical, for simplicity we refer to the situation where the market participants face uncertainty about the legal framework as ‘regulatory uncertainty’. Both regulatory risk and uncertainty are mainly debated in the context of economic regulation and its impact on investments (and therefore on prices and quality, and the industry structure), but identical issues arise with social regulation.

The literature about the effects of actual and potential regulation on investments describes both the stimulating and restraining effects of regulation.

Some regulatory measures tend to increase firms’ investments. By having to fulfill certain minimum standards, such as product safety, firms have a direct incentive to invest. But regulators can also indirectly induce private investments by, for instance, pricing environmental externalities. Besides, potential regulation – uncertain or expected – can act as a trigger for investment. Under high regulatory uncertainty, firms tend to invest proactively in new technologies because of its high flexibility and high option value and to postpone irreversible projects (Schwark 2009a). Furthermore, triggered investment can also be explained by a resource-based view of the firm: in order to realize a competitive advantage in the case of actual regulation, firms aspire to develop its resources, for example, utilizing a proactive environmental strategy (Schwark 2009b).

However, aside from the question whether the triggered investments are efficient from a social point of view, a large part of the literature argues that the effect of regulation on investments is negative. Rammerstorfer (2009) shows the negative effects on investment in her Capital Asset Pricing Model, where regulated investors generally try to avoid investments in risky projects which leads to underinvestment. Other sources of underinvestment and the related welfare loss are inefficient regulatory activities and/or regulatory opportunism (Knieps and Weiß 2008).

Likewise, potential regulation can also negatively influence investment. Regulation can significantly impact business as one single policy can turn a market unprofitable. Consequently both, not only actual regulation but also regulatory uncertainty must be taken seriously. Uncertainty about regulatory opportunism, for example, ex-post access regulation, can have negative effects on investment as firms anticipate such risk and, therefore, invest less (Knieps and Weiß 2008). There is empirical evidence that risk-neutral firms decrease investments as uncertainty increases (Schwark 2009a). Firms facing regulatory uncertainty often prefer to a ‘wait-and-see’ strategy to immediate investments. Also in the transnational context, Schwark (2009a) points at empirical studies that observe reduced foreign investments during increased uncertainty.

The evidence is ambiguous. In their study on the effects of entry regulation on investment, Friederiszick, Grajek and Röller (2008) cannot identify a unidirectional relationship. Dependent on the firm’s position in the market, firms can experience different investment incentives through regulation, even the possibility of making no investment. This ambiguity of arguments and evidence can be exemplified by the intense debates over the introduction of minimum wages.

Independently of a regulation’s classification as economic or social, in order to allow all market participants to operate in the best environment possible, stable and predictable market conditions are a key prerequisite. To minimize uncertainty, regulation therefore should be as predictable as possible with no doubt about the validity and legal substance, as it was in the case of the minimum wages for the German postal market.

**The case of social regulation in the postal sector in Germany**

The January 2008 introduction of a minimum wage for the German postal service industry exemplifies a case of social regulation and related regulatory uncertainty. It has been a reaction to the full market opening, initiated by EU Directives on postal service markets since 1998. On January 1, 2008, Deutsche Post’s last remaining monopoly protection for letters up to 50 grams expired. Anticipating low wage strategies of the market entrants, labor unions and several political parties called for the introduction of a generally binding minimum wage for the industry. Without such a wage, it was argued, Deutsche Post would not be able to compete effectively. Additionally, entrant low wage strategies were proclaimed amoral, as the employees would have been additionally dependent on social security transfer payments.

Therefore, at the end of 2007, the German Federal Government declared a minimum wage in the postal ser-
vice sector of up to €9.80, which exceeded the average wages paid by competitors by 20 to 30 percent. The new minimum wage met serious criticism from the Federal Ministry of Economics and Technology, the Federal Network Agency, and the Monopoly Commission, while there was no involvement by the EU because labor market regulations are explicitly exempt from European regulation (Heitzler and Wey 2010). Deutsche Post competitors, most notably the PIN group and TNT, complained heavily about the proceedings and claimed that their counter-proposal of a minimum wage of up to €7.50 was not even considered by the government.

The introduction of the binding minimum wage in 2008 significantly impacted competing businesses. According to a statement of the German Federal Government, 153 postal service companies closed in 2008-2009 and about 19,000 jobs were cut between 2007 and 2009 (Heitzler and Wey 2010). The vast majority of the job losses (about 17,000) occurred during the first two years, between the beginning of 2007 through the end of 2008 (BNetzA 2009).

However, it is not clear how much these numbers are also influenced by the general economic downturn during that period. During the first quarter of 2008, the PIN group filed insolvency and subsequently split up. The other main competitor, TNT, ‘considered withdrawal from the German market’ due to the minimum wage but, after PIN’s market exit, decided to remain, although TNT kept on paying a lower wage. Nevertheless, TNT was required to build up significant financial reserves in case it, and other competitors, lost the related law suit claiming the constitutional right to negotiate wage agreements. The law suit, filed in January 2008 against the German Federal Government, was appealed through the court system until January 2010, when the Federal Administrative Court (‘Bundesverwaltungsgericht’) declared the minimum wage void only three months before April 2010, when the minimum wage rule would have otherwise expired. With the lengthy proceedings and the related legal uncertainty, this case is not only an example of social regulation inducing high costs for industry but also for (legal) regulatory uncertainty.

Conclusions
In addition to the difficult overall market conditions, the introduction of the minimum wage not only led to an increase of (labor) costs in the industry, but, due to the related lawsuits, regulatory uncertainty was substantially increased.

Shortly after the introduction of the minimum wage, the market structure changed significantly through the downsizing or market exit of firms and investment plans were set on hold. While the former could have been a consequence of cost increases, the economic downturn, or both, the latter is likely a consequence of ‘wait-and-see’-strategies due to the regulatory uncertainty. Although deterred market entry and investments are not observable, market developments after the annulment of the minimum wage supports this argument. Since then competitors agreed to new co-operations, built alliances, and intensified competition. Therefore, it is likely that the minimum wage played an essential role in frustrating market entry and investments while hampering overall market development.

The case of postal minimum wages in Germany not only shows how governments can easily facilitate or discourage private investment, but also the impact of regulatory uncertainty. Pending litigation increases such uncertainty. The uncertainty involved in pending proceedings is exemplified by the above-discussed minimum wage case on the German postal service market. The cost increases due to the minimum wage critically influenced the profitability and viability of firms. Overall, this case boldly underlines how governments should carefully use regulatory policy in order to minimize unintended side effects and economic damage. ★

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