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The relationship between perception on fairness of the distribution of income and the use of human resource practices by managers

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Abstract

Do people's beliefs on social matters affect human resource practices in firms? This paper examines this potential relationship by investigating whether people's perception on fairness of income distribution is correlated with the use of human resource practices by managers to motivate their employees. For this purpose, survey data from the European Company Survey (ECS) and the European Social Survey (ESS) is used. The ECS asks managers how often they make use of the following motivational tools to motivate their workforce: offering monetary rewards and providing opportunities for training and development. The ESS asks how much the respondents agree or disagree with the following statements: 'A society is fair when income and wealth are equally distributed among all people' and 'A society is fair when hard-working people earn more'. This data is used to investigate the relationship between people's average beliefs in a sector-country subgroup on fairness of the distribution of income and the use of motivation tools by managers in the same subgroup. The results show that monetary rewards are used more frequently by managers in subgroups in which relatively many people believe it is fair if hard-working people earn more. The results of this study help managers to better adjust their management practices to their employees, which could lead to higher productivity for the firm and better well-being of the employee.

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1. Introduction

Managers use different tools to try to motivate their employees. Motivation can be intrinsic or extrinsic. Intrinsic motivation comes from within a person and does not arise from an apparent reward for performance. Contrary, extrinsically motivated behaviour is behaviour which people attribute to an external stimulus (Cameron & Pierce, 2017). Rewards in the form of compensation or bonuses affect extrinsic motivation, while verbal appreciation affects intrinsic motivation (Tharenou, 2001). As all people are different, a motivation tool that works for one person, can have no effect or the opposite effect for another person. Furthermore, motivating a person extrinsically can reduce their intrinsic motivation (Huffman & Bognanno, 2018; Calder & Staw, 1975; Deci, 1972). Intrinsically motivated behaviour can result in creativity, flexibility, and spontaneity, whereas extrinsically motivated behavior can result in low self-esteem and anxiety due to the pressure and tension it puts on people (Cameron and Pierce, 1994). This shows how important it is for managers to know what motivates their employees, both for the interest of the company as for the interest of the employee.

For managers, it is hard to determine what motivates their workforce as every person is different. Badubi (2017) provides an overview of existing theories about what motivates people. Some theories mainly describe job characteristics, responsibility, pay, relationships at work and working conditions as determinants for motivation. Other theories focus more on differences between employees and describe employees' characteristics, personality, skills, values, aim for achievement, and opportunities for (personal) growth as factors that determine what motivates them.

In practice, Lazear (2000) found evidence of a sorting effect that human resource (HR) practices of a firm have on employees. The sorting effect explains how HR practices affect the type of employees in a company in two ways. First, the company chooses practices which retains the type of employee who performs best in this organizational culture. Second, it attracts new workers who self-select into this company based on the culture, because they believe they will perform well. According to the Percept Theory, Vrooms's Expectancy Theory, and the Porter-Lawler Model, all employees have different values, abilities and traits, which leads them to appreciate other types of motivators. This raises the question of whether people with different beliefs on social topics assemble and self-select themselves into certain companies or sectors that have cultures that are more in line with their values and beliefs.

In this thesis, I study how employees' beliefs about fairness relate to the use of human resource practices in firms. There is literature on the influence of people's views regarding fairness and their preferences and choices in other settings (Huber et al., 2019; Lynch & Gollust, 2010), which suggests

that such a relationship might also exist within organisations. Also, income equality is an important social matter in which people's perception differ and the use of extrinsic motivators can influence income distribution. For example, performance pay often leads to more income inequality (Ben-Ner, Ren and Paulson, 2011). The provision of training and development to motivate can also increase income inequality as it often leads to a higher salary while it is mostly offered to higher educated people that are already expected to earn more in the future (Berger & Fisher, 2013). These findings show that human resource practices can affect the distribution of income. As people differ in their preferences regarding income distribution, people may also respond differently to those human resource practices. In turn, firms may offer different practices depending on their employees' views on fairness and attract new employees of whose beliefs align with the companies' practices.

To find out if people's beliefs on social matters is indeed an important determinant for the choice of human resource practices, this thesis will research the potential relationship between perceptions on fairness and the use of motivation tools by managers. The main question in this thesis is:

How does people's perception on fairness relate to the human resource practices used by managers to motivate their employees?

This research question is investigated by doing quantitative research. All data necessary for the research is collected through desk research, which is then analysed using ordinary least squares (OLS) models including sector fixed effects and country fixed effects. The main two data sources are the European Company Survey (ECS) and the European Social Survey (ESS).

The ESS provides the data on people's perception on fairness of income distribution. The ESS conducts a survey in different European countries that measures the attitudes, beliefs, and behaviour patterns of diverse populations. Respondents are asked what their perceptions are regarding a fair distribution of income. Namely, they ask how much the respondents agree or disagree with the following statements: 'A society is fair when income and wealth are equally distributed among all people' and 'A society is fair when hard-working people earn more'. I refer to the perception on a fair society when income is equally distributed as *Outcome-Based Fairness*, because it asks people about their perception on a fair income distribution regardless of the input people give. I refer to the perception on a fair society when hard-working people earn more as *Input-Dependent Equality*, as it asks people's perception on a fair income distribution dependent on the effort (input) people give. The correlation

between the answers on those questions is low[1], which can be explained by the different turn these questions take on fairness of income distribution.

The ECS provides the data on the use of motivation tools by managers. The ECS asks managers how often they provide interesting and stimulating work or communicate a strong mission and vision to provide meaning to the work to motivate their workforce. These tools can be considered as attempts to intrinsically motivate employees. The survey also asks managers about their use of monetary rewards and provision of opportunities for training and development to motivate their workforce, which are considered as attempts to extrinsically motivate employees.

The results of this paper are socially relevant, because having motivated workers can improve the quality of work and the amount of work done. This could lead to a higher revenue for the company, as well as higher employee well-being. By finding out whether employees' view on social issues is a determinant in what motivates them, it could help managers to better adjust their motivation tools to their workforce.

Furthermore, the results are scientifically relevant as it is a first step in filling the gap in research into the relationship between the use of motivation tools and people's view on social matters. Furthermore, Bloom and Van Reenen (2010) did a large survey research program to systematically measure management practices and found large differences and found large differences in management practices between firms, countries, and sectors. Those differences can partially be explained by imperfectly competitive markets, family ownership of firms, regulations restricting management practices, and informational barriers that allow bad management to persist. However, Bloom and Van Reenen (2010) cannot explain the differences completely. By doing research into the relationship between workers' beliefs on social matters and the use of HR practices, this research might contribute to the explanation of differences in management practices across sectors and countries. This also contributes to the scientific relevance of this research.

The results from the research in this paper do seem to confirm the existence of a positive relationship between people's perceptions about fairness of hard-working people earning more and the use of monetary rewards by managers. No other statistically significant relationship has been found between people's beliefs and the use of motivation tools by managers.

[1] The correlation between the average answers in sector-country subgroups on those questions is 0.0193. See Section 3. Data for more information.

The outline of this thesis is as follows. I will first give a review of existing literature on this topic. Section 3 describes the data sources and the final dataset which is used to do the research. Section 4 outlines the hypotheses that are tested to answer the main question. Section 5 describes the method used for the research. Then the results of the research are shown. Section 7 gives a conclusion. The final section gives a discussion of the research done in this paper.

2. Theoretic framework

This section firstly describes different theories about what motivates the workforce. This explains why certain motivational tools are used by managers. Section 2.2 then explains that in practice, there is an interaction between organizational culture and the type of employees that work in a firm. Namely, the choice of motivational tools by managers lead to a sorting effect of employees. In this section, it becomes clear that differences between employees regarding for example their values are of large influence on this interaction. Section 2.3 explains how people differ in their beliefs about fairness of income distribution by using the theory of a just world. This builds up to the question of whether people with certain beliefs on fairness then select themselves into companies that use certain motivation tools. The final section describes that this might be plausible, due to the influence of motivational tools on income distribution.

2.1. Theories about what motivates the workforce

In all establishments, whether private or state owned, motivation plays a key role in driving employees towards achieving their goals and therefore reaching organizational goals (Badubi, 2017). A distinction can be made between intrinsic and extrinsic motivation. Cameron and Pierce (1994) define intrinsically motivated behaviour as behaviour for which there is no apparent reward except the activity itself. This behaviour is a result of people experiencing interest and enjoyment, feeling competent and self-determining, and seeing the cause of their behaviour as internal. They define extrinsically motivated behaviour as behaviour which people attribute to an external stimulus. When this stimulus is removed, future motivation and performance decrease. Badubi (2017) provides an overview of existing theories into the motivation of employees. It is possible to divide these into theories that focus primarily on explaining people's motivation by them being motivated intrinsically, and theories that focus on both intrinsic and extrinsic motivation as an explanation.

2.1.1. Theories that focus on intrinsic motivation

The following theories, outlined by Badubi (2017), can explain the use of intrinsic motivation tools, such as providing interesting and stimulating work, or communicating a strong mission and vision to provide meaning to the work.

The first theory is Maslow's Hierarchy of Needs. According to this theory, the most important needs of people after getting physiological needs, safety and security needs, and social needs, are getting esteem needs and getting self-actualization needs. Esteem needs are, for example, receiving acknowledgement from others. The need for self-actualization is the desire for accomplishment. Those latter two needs of humans can explain peoples' motivation in their work.

The next theory outlined by Badubi (2017) is McClelland's Need Achievement Theory, that describes how some people are driven to success through seeking personal achievement rather than rewards themselves. Personal achievement is a form of intrinsic motivation, so this theory explains intrinsic motivated behaviour.

2.1.2. Theories that focus on both intrinsic and extrinsic motivation

Examples of motivation tools that aim for increasing extrinsic motivation of employees, are monetary rewards and opportunities for training and development. Namely, these are stimuli that are mediated outside of the person (Deci, 1972). Haryone, Supardi, and Udin (2020) did a quantitative study into the effects of training on work motivation and found a significant positive effect (although causality is not tested). With monetary rewards, a distinction can be made between contingent and noncontingent rewards (Deci, 1972). Contingent rewards are rewards given to a person contingent on their behaviour. Noncontingent rewards are given independent of the behaviour of the person. Literature is divided on the effect of monetary rewards on motivation, especially because it can go at the expense of intrinsic motivation (Huffman & Bognanno, 2018; Calder & Staw, 1975; Deci, 1972). The theories below, outlined by Badubi (2017), describe that people are motivated by both intrinsic motivators as extrinsic motivators and might therefore be able to explain the use of monetary rewards and provision of opportunities for training and development by managers to motivate their workforce.

The first theory is the Herzberg's Two-Factor Theory, which states that there are five features of jobs that make people satisfied about their job: achievement, recognition, the job itself, responsibility, and advancement. Also, Herzberg identified institutional politics, the management approach, supervision, pay, relationships at work and working conditions as factors that may demotivate employees.

Organizations apply this theory by creating opportunities for personal growth, enrichment, and recognition among their employees.

The Equity Theory states that employees will weigh their input into a job against the output they receive from it. This means that the greater the rewards, the greater the job satisfaction. Certain aspects of the job itself also shape how an employee perceives it, namely: the variety of skills involved in a task, the identity and significance of the task, autonomy, and feedback. According to this theory, these aspects have impact on the psychological state of an employee and influence their motivation and job satisfaction. Employees compare their input-outcome ratio with that of other employees and if they perceive it to be fair, employees will experience satisfaction.

The Percept Theory says that an individual's values determine their job satisfaction. According to this theory, employees in organizations hold different value systems, and therefore their satisfaction levels will also differ. With this theory, the difference between expectations of employees and what is received can bring dissatisfaction depending on how important the job is to the individual.

Furthermore, Vroom's expectancy theory says that behaviour results from choices among available alternatives. The goal of employees is to derive satisfaction and minimize dissatisfaction. Individual factors such as personality and skills determine performance.

Finally, the Porter-Lawler Model extents Vroom's theory and explains the conditions by which motivation to work takes place. A component of the model is expectancy, which means the perceived probability of employees that their effort leads to rewards. Another component is instrumentality, which is the combination of abilities, traits, and role perceptions of the employee. The final component, valence, is the preference for anticipated outcomes and is represented by the value of reward. Successful performance then results in intrinsic and extrinsic rewards, which leads to motivation of the employee.

The latter three theories outlined by Badubi (2017) have in common that they see the workforce as individuals who all have different values, abilities and traits, which leads to them valuing different outcomes, which makes it hard for managers to determine how they can best motivate their workforce.

2.1.3. The interaction between intrinsic and extrinsic motivation

A lot of companies try to increase extrinsic motivation by providing rewards. In theory, intrinsic and extrinsic motivation should be able to go hand-in-hand and even enforce each other (Amabile, 1993). However, multiple studies have shown that offering rewards to increase extrinsic motivation can go at the expense of intrinsic motivation (Huffman & Bognanno, 2018; Calder & Staw, 1975; Deci, 1972). Namely, according to Deci (1972), contingent rewards reduce the intrinsic motivation. Contrary, noncontingent rewards do not seem to have this negative effect on intrinsic motivation. When motivating employees extrinsically causes a larger decrease in intrinsic motivation than increase in extrinsic motivation, extrinsic motivators even work counterproductive.

According to Huffman and Bognanno (2018), the reason why the use of extrinsic motivators can go at the expense of intrinsic motivation of employees might be that employees derive information from the offering of extrinsic motivators. Namely, people think that it reveals information about other factors like the enjoyment of the task, the social value of the task, or the relevance of social norms that call for hard work. The updated beliefs that employees have about these factors after being offered an extrinsic reward then affect the benefit they derive from effort. Huffman and Bognanno also do an experiment into the effect of monetary incentives on performance and motivation of workers. They find different treatment effects for different sources of non-monetary motives, captured by personality traits and social preferences. This suggests that not every person gets motivated the same way.

Cameron and Pierce (1994) state that intrinsically motivated behaviour is said to result in creativity, flexibility, and spontaneity, whereas extrinsically motivated actions can result in low self-esteem and anxiety due to the pressure and tension it puts on people. This shows the importance of motivating the workforce the right way.

2.2. Use of motivational tools and sorting of employees

People differ in personality traits and social preferences. As Huffman and Bognanno (2018) concluded from their research, this leads to different effects of extrinsic motivation tools on intrinsic motivation of employees. It also explains why not all theories outlined by Badubi (2017) may be applicable to everyone. To perform best, an organization should try to motivate all these different people.

When we explore the literature about what might happen in practice, we see that there is a certain interaction between the organization and the employees. Schneider (1982) did research into

interactional psychology in organizations. Interactional psychology suggests how naturally occurring interactions between persons and settings operate to shape behaviour. In addition, interactionists think that people actively choose settings. From Schneider's review, the following ideas can be derived. Firstly, people self-select into (and out of) situations, which results into relatively homogeneous settings. Furthermore, there is coherence in human behaviour, which means that people act differently in different situation. This difference in behaviour of people in similar situations stems from them having their own perceptions and experiences. Schneider's final idea is that settings are characterized by the people in them.

The three interactions can also be applied in an organizational setting. This would imply that managers choose the optimal motivators given characteristics of the sector and the workforce. This leads to the sorting effect. Furthermore, employees choose a sector to work in based on the culture of the firm (which also includes the motivation tools used in the firm). Ultimately, the group of people that choose for a certain sector or organization influence the use of motivation tools, because managers again adapt their organization to the values of the employees. On top of this, Chatman (1989) arguments that organizational culture influences values of employees through the socialization process.

2.2.1. Managers choose optimal motivators given characteristics of sector and workforce

Organizational values are affected by national, occupational and industry influences (Parkes, Bochner & Schneider, 2001). Namely, organizations adapt to their environment, which is imported through their employees. Organizations accommodate to the values of their employees so that they can function effectively. This leads to a certain company culture and the choice of certain motivational tools that make the company perform best (Parkes, Bochner & Schneider, 2001).

2.2.2. The sorting effect

A reason for a company to change culture could be because it increases productivity and profit. Lazear (2000) did research into the effect on productivity of a company when it switches from paying hourly wages to paying piece rate at a large auto glass company. He found a large gain in productivity. Lazear's theory for this gain in productivity is that the switch to piece rate pay has a sorting effect. This means that a different group of workers may be present after the switch. Namely, after a switch to piece rate, the turnover rate of high productivity workers reduces relative to that of low productivity workers, because high productivity workers were the least happy with the former hourly wage structure. Furthermore, the theory implies that the average ability of workers hired after the switch to piece rate

should be higher than the average ability of those hired before the switch. This can be explained by high-productivity employees self-selecting themselves into jobs that have performance pay.

This research by Lazear (2000) in which the sorting effect was found clearly shows the interaction of companies choosing certain human resource practices that make their current employees perform best, and at the same time attract new employees that also perform well in such an organizational culture.

2.2.3. Employees choose sector and company based on the culture

Lievens et al. (2001) did further research into the effect of culture on new applications of potential employees. He states that organizational attractiveness results from the fact that both the individual and the organization are making decisions about one another. Namely, recruitment and selection processes enable organizations to attract and select individuals who fit best to their needs and expectations. On the other side, individuals select among different organizations based on their previous experiences, interests, needs, preferences, and personality. This is called the person-organization fit theory (Lievens et al., 2001). This term describes the congruence between individual preferences or needs and organizational systems and structures, and between individual personality and organizational climate (Parkes, Bochner & Schneider, 2001).

Bretz, Ash, and Dreher (1989) used this approach to look into whether homogeneity exists among those attracted to the organization. His results suggest that those with a high need for achievement are likely to be attracted to environments that encourage and reward competitive, individual effort and performance. Furthermore, Bretz and Judge (1994) found that the fit between characteristics of human resource systems in organizations and individual characteristics are an important determinant of job acceptance.

2.2.4. Socialization

As mentioned, interactional psychology suggests how naturally occurring interactions between persons and settings operate to shape behaviour (Schneider, 1982). Chatman (1989) combines the interactional psychology and the person-organization fit theory to explain how culture in an organization also influences values of an employee. He states that organizational socializing employees enhances person-organization fit. Organizational socialization is the process through which an individual comes to understand the values, abilities, expected behaviours, and social knowledge that are essential for assuming an organizational role and for participating as an organizational member

(Chatman, 1989). He states that socialization processes teach employees the norms and values of the organization. Socialization processes include activities such as social events, formal training, and mentor programs.

2.3. Organizational culture and beliefs of employees

As described in the previous section, there is much literature on how organizational culture relate and interact with individual preferences, needs, and characteristics of employees. However, there is a gap in literature on how people's beliefs about social matters are related to the culture in which they work. There are multiple reasons that suggest that such a relationship could exist. Firstly, there is literature on the influence of what people believe is fair and what their preferences or choices are in other settings. Secondly, motivation tools used by managers can influence income distribution. Income distribution is an important social matter in which people's perception on fairness differ (Ben-Ner, Ren and Paulson, 2011). Therefore, it is likely that there exists a sorting effect of companies choosing certain motivation tools and therefore attracting and retaining employees with a certain belief. This section explains more about these reasons that suggest that people's beliefs on fairness of income distributions are related to the culture of the company they work for.

2.3.1. Influence of fairness perceptions on preferences of people in other settings

Although no research has been done into the relationship between people's perception on fairness and the use of motivation tools, there is research into the influence of people's beliefs about fairness and their choices or preferences in other settings. For example, Huber, et al. (2019) did research into the support for governmental policy instruments. They found that, as expected, the fairer people find these policies, the more they support them. Also, Lynch and Gollust (2010) did research into the influence of people's perception on fairness on their preferences in the health care sector. They found that perceptions on unfairness of inequalities in health care about quality and access strongly influence respondents' preferences for government provision of health insurance. These examples make it likely that also in corporate establishments, people self-select themselves into companies with policies that are in accordance with their beliefs on fairness.

2.3.2. Income distribution and the theory of a just world

Benabou and Tirole (2006) report that some people believe in a just world. This belief means that people are responsible for their own fate and that their personal effort determines the long-term outcomes. However, there is recurrent evidence that life may not be that fair. The difference in tax rates that you see between countries is often an indication of the perception of the societies view on

this topic. Namely, if a society believes that individual effort determines income, and that all have a right to enjoy the fruits of their effort, it will choose low redistribution and low taxes (Alesina & Angeletos, 2002). According to this theory, in equilibrium, effort will be high since the costs of a deficient motivation to effort are very high. Also, the role of luck will be limited, in which case market outcomes will be relatively fair and social beliefs will be self-fulfilled. Conversely, in countries where the majority thinks that long-term outcomes depend on luck and external factors like birth, connections, and/or corruption, tax rates are often higher. This leads to the choice for a generous safety net, which might have the effect that people start lacking motivation to exert effort. In those latter type of countries, society carries out redistribution (Benabou & Tirole, 2006).

To get insight in people's view on the theory of a just world, the European Social Survey (ESS) asks people about their view on the fairness of different income distributions. The ESS asks whether respondents agree with the following statements: 'A society is fair when income and wealth are equally distributed among all people' and 'A society is fair when hard-working people earn more'. The way income should be distributed is an important social issue in which people's perceptions differ.

People's perception on how fair a country is when income is equally distributed across people tells something about the extent to which people believe in a just world. Namely, income equality means that income should be equally distributed independent of what people do to earn money. It focusses primarily on the output of the income distribution, independent of the input. In theory, people who do not believe in a just world, think that all that happens in life is due to luck. They believe that people are not responsible for their own fate and that effort does not pay off (Benabou & Tirole, 2006). It is likely, that those people find income equality relatively fairer than people that do believe in a just world. To this perception will be referred to as *Outcome-Based Equality*.

However, the question on fairness of hard-working people earning more gives insight into people's perception on another aspect of a just world. People might believe that income inequality can be fair, but only when income is dependent on effort (Alesina & Angeletos, 2002). In this case, the measure tells something different from the previous measure, because the income distribution is now dependent on the input that people give. People who believe in a just world believe that you can determine your own outcome. This means that everyone has the choice to work hard and therefore earn more. It is likely that those who believe in a just world find it relatively fair when hard-working people earn more. To this perception on fairness will be referred to as *Input-Dependent Equality*.

2.3.3. Differences in belief in a just world between European countries

Benabou and Tirole (2006) report that international surveys reveal striking differences between the views held in different countries concerning the causes of wealth and poverty, the extent to which individuals are responsible for their own fate, and the long-run rewards to personal effort. The widely held belief in the American dream is the most striking example of this phenomenon. Contrary, the view in Europe on this topic is characterized by more pessimism and a more extensive welfare state. This difference does not only occur between the United States and Europe. There are also large differences between people's perceptions of a just world within Europe, with corresponding differences in social spending and tax rates. For example, Alesina and Angeletos (2002) showed that in Finland in 2001, about 45% of the people believed that luck determines income, and they had about 11% of GDP on social spending. In contrast, in Denmark, more than 60% of the people believed that luck determines income and they had around 15% of GDP on social spending.

2.3.4. Differences between sectors

The differences in beliefs in a just world between countries might explain the differences in tax rates. However, within countries, people's beliefs are also not all the same. Namely, as for example the previously mentioned 60% of the people in Denmark believe that luck determines income, still means that around 40% of the people think that income is not determined by luck. According to the Percept Theory, Vrooms's expectancy theory, the Porter-Lawler Model, employees all have different values, abilities and traits, which leads them to appreciate other types of motivators. This raises the question of whether people with different beliefs within countries assemble and self-select themselves into certain companies or sectors that have cultures that are more in line with their beliefs. Or alternatively, does the sorting effect also hold when we look at the use of motivation tools by managers, and beliefs of employees about social matters like income distribution?

2.4. Motivational tools and income distribution

For the potential relationship between beliefs of employees on income distribution and the use of motivational tools by managers to exist, the use of motivational tools by managers should be of influence on income distribution. According to literature, the use of monetary rewards and the provision of training and development can influence income distribution.

2.4.1. Influence of monetary rewards on income distribution and the influence of taxes

The use of extrinsic motivational tools can influence income distribution as it can lead to income inequality (Ben-Ner et al., 2011). As explained in Section 2.3.2., tax systems are a way for countries to

redistribute income. Taxes are in most countries progressive, which means that the tax rate increases as the taxable amount increases. The tax rate on a monetary bonus is therefore often high, especially relative to the other income. As explained, monetary bonusses can lead to more income inequality, which forms the expectation that people who do not believe in a just world are less likely to self-select themselves into sectors in which they make a lot of use of monetary bonusses. However, the tax rate on monetary bonuses determines how much the monetary bonus contributes to income inequality. The higher the tax rate on a bonus, the less influence a monetary bonus has on income inequality. Therefore, it is expected that the tax levied on monetary rewards has a negative influence on the potential relationship between the use of monetary rewards to motivate and people's perception on fairness of *Outcome-Based Equality* and *Input-Dependent Equality*.

2.4.2. Influence of training and development on income distribution and the influence of quality of education

There is a positive relationship between trainings and education, which means that trainings are more often offered to higher educated people (Altonji, 1991). Higher educated people are usually expected to earn more in the future (Berger & Fisher, 2013). Furthermore, participating in trainings often increase future earnings. The fact that trainings are usually offered to higher educated people that are already expected to earn more, can lead to an increase in income equality. In countries where the quality of education is higher, there are more highly educated people. Therefore, people in those countries start from a relatively more equal position.

3. Data

3.1. Data sources

In my analysis, I use data from various sources. Through desk research, data on the use of motivational tools by managers is collected from the European Company Survey (ECS). Data on the perception on fairness of income distribution is collected from the European Social Survey (ESS). The data for the first moderating variable, income taxes, is collected from government websites and the Organization for Economic Co-operation and Development (OECD). The data for the second moderating variable, quality of education, is collected from the OECD and the World Bank.

3.1.1. The European Company Survey

The data on the use of different motivators by managers is collected from the fourth wave of the European Company Survey (ECS), which is conducted in 2019 by Eurofound and Cedefop. The survey covers establishments from the 27 European Union (EU) Member States and the United Kingdom. Sampling of establishments followed a multistage random sampling approach stratified by establishment or company size, and the broad sector of activity (ECS 2019 – Sampling and weighting, www.eurofound.europe.eu).[2] The ECS aims to give an overview of workplace practices in European establishments regarding work organization, human resource management, skills use, skills strategies, digitalisation, direct employee participation and social dialogue. Over 20,000 establishments are contacted via telephone to identify a management respondent and an employee representative respondent. Respondents are then asked to fill out the survey questionnaire online. For the research in this thesis, the survey among managers is used.

The survey asks managers the following: 'How often are the following practices used to motivate and retain employees at this establishment?'. Next, managers had to answer separately for the following motivation tools how often they use them: offering monetary awards, providing interesting and stimulating work, communicating a strong mission and vision which provides meaning to their work, or providing opportunities for training and development. These questions are answered on a Likert scale from 1 to 4, which goes from 'Never' to 'Very often'. They also ask the question 'Overall, how motivated do you think employees in this establishment are?', which managers can answer on a Likert scale from 1 to 4, which goes from 'Not at all motivated' to 'Very motivated'.

3.1.2. The European Social Survey

The data on the perception on fairness of income equality in sectors in different countries is collected from the ninth wave of the European Social Survey (ESS), conducted in 2018. The ESS is a cross-national survey that measures the attitudes, beliefs, and behaviour patterns of diverse populations. The target population of the ESS are all persons aged 15 and over (no upper age limit) resident within private households in each country, regardless of their nationality, citizenship or language. The sample is to be selected by strict random probability methods at all stages. The ESS is conducted in all EU Member States, except for Greece, Luxembourg, and Malta. Furthermore, it is conducted in Albania,

[2] Source: ECS 2019 - Sampling and weighting. (2019). Eurofound. Geraadpleegd op 25 mei 2022, van https://www.eurofound.europa.eu/surveys/2019/european-company-survey-2019/methodology/sampling-weighting

Montenegro, Norway, Serbia, Switzerland, and the United Kingdom. The ESS 2018 has interviewed almost 50,000 respondents face-to-face.

The ESS 2018 asks about people's perception of fairness of a society when there is inequality in how much people earn. They ask how much the respondents agree or disagree on a Likert scale from 1 to 5 with the following statements: 'A society is fair when income and wealth are equally distributed among all people' and 'A society is fair when hard-working people earn more'. For every sector in every country, I determine the average scores on these questions. This creates two variables about the respondents' perception on fairness of income equality for every country-sector subgroup. I refer to the variable on fairness of income equality as *Outcome-Based Fairness.* I refer to the variable on fairness of hard-working people earning more as *Input-Dependent Equality.*

3.1.3. Data on tax levels

Tax levels might influence the relationship between the use of monetary rewards and perception on fairness of income distribution. However, as tax levels on income are progressive in most countries, it is difficult to say with certainty at what tax rate the monetary reward will be levied. Therefore, to investigate the potential impact of tax levels, I use two measures. Firstly, I use the level of average tax level in a country as a share of the Gross Domestic Product (GDP) in 2020. The data for this measure is collected from The Organization for Economic Co-operation and Development (OECD) database. The second measure is the highest marginal tax bracket in different countries in 2022, as monetary rewards are often taxed against that rate. This data is collected from government websites. The latter measure is used as a robustness check.

3.1.4. Data on quality of education

To see if the quality of education in a country impacts the relationship between perception on fairness of income distribution and the use of providing training and development to motivate, I use the share of people with tertiary education in the countries as a proxy for the quality of education. This indicator looks at adult education level as defined by the highest level of education completed by the 25–64-year-old population. This data is collected from the OECD database. This database includes annual data that cover outputs of the economic and social outcomes of education, among more. A second proxy for the quality of education that I use is the money spent on education as a share of GDP in countries in 2018. The money spent on education includes total government expenditure for all levels of education, including recognized private institutions. By looking at the money spent on education relative to the GDP, the value of the money spent in a certain country is also considered. This data is

collected from the World Bank Data Portal, which provides access to global economic and development statistics.

3.2. Complete dataset

The dataset available from the ECS consists of 21,870 observations. From this dataset, the variables on the use of motivation tools, the perceived motivation, and the control variables are extracted. All observations from countries and sectors which are not in the ESS are dropped. That leaves 20,982 observations. From the remaining observations over 15 sectors[3] and 25 European countries, there are 375 country-sector subgroups created. Sectors are categorized according to Nomenclature of Economic Activities (NACE) codes in level 1, which is the most general categorization of sectors.

The dataset from the ESS consists of 49,520 observations. From this dataset, the variables on perception on fairness of income equality and perception of fairness of hard-working people earning more are extracted. Sectors in the ESS are categorized according to NACE codes in level 2, which are sublevels in NACE level 1. First, all sectors are divided into NACE level 1 sectors based on their NACE level 2 code, so that the sectors correspond to the sectors from the ECS. Then, all observations from countries and sectors which are not included in the ECS are dropped from the data. Also, all observations in undefined sectors are dropped. Then, all observations with missing values are dropped. The remaining 27,019 observations are divided over the country-sector subgroup they are in. From all observations within a sector country subgroup, I create an average score of how much the people in that subgroup on average agree with the following statements: 'A society is fair when income and wealth are equally distributed among all people' and 'A society is fair when hard-working people earn more'. This creates two new variables: *Outcome-Based Equality* and *Input-Dependent Equality.* These are added to the data from the ECS based on the country-sector subgroup.

To this dataset, the data on income tax levels and quality of education in a country is added based on the country. The data on income taxes as a share of GDP and the tertiary education share is missing for Bulgaria, Croatia, Cyprus, and Romania. Adding this data to the data from the ECS completes the final dataset, which is used for the research in this thesis. In total, there are 20,982 observations, divided over 15 sectors in 25 European countries.

[3] The 15 sectors are: mining and quarrying; manufacturing, electricity, gas, steam, and air conditioning supply, water supply: sewerage, waste management and remediation activities; construction; wholesale and retail trade: repair of motor vehicles and motorcycles; transportation and storage; accommodation and food service activities; information and communication; financial and insurance activities; real estate activities; professional, scientific, and technical activities; administrative and support service activities; arts, entertainment, and recreation; other service activities

3.3. Variable description

Below, you find a brief description of the variables for the research in this thesis, divided by their source. Firstly, the following variables are collected from the ECS.

MonetaryRewards: This categorical variable is the first dependent variables. Respondents were asked to tell how often they make use of monetary rewards to motivate their employees. They had to answer this on a Likert scale from 1 to 4, with 1 being 'Never' and 4 being 'Very often'.

ProvidingOpportunitiesForTrainingDevelopment: This categorical variable is the second dependent variable. Respondents were asked to tell how often they provide opportunities for training and development to motivate their employees. They had to answer this on a Likert scale from 1 to 4, with 1 being 'Never' and 4 being 'Very often'.

EstablishmentSize: This control variable gives the number of employees in the establishment. Managers were asked an estimate of the exact number of employees in their establishment. This is categorized into three groups: establishments with 10 to 49 employees, with 50 to 249 employees, and with 250 or more employees. This categorical variable is included as a control as Agell (2004) found that incentives differ a lot between large and small firms.

EmployeesFlow: This categorical variable gives the estimate of the manager's perception on the growth of the number of employees in the establishment since the beginning of 2016. This variable is categorized into the 5 groups where the managers were allowed to choose from: increased more than 10%, increased less than 10%, stayed about the same, decreased less than 10%, and decreased more than 10%. This variable is included as a control variable as Gilley et al. (2015) found that establishment growth and motivating employees are related.

GenderOfManager: This categorical variable is a binary variable which tells the gender of the manager who is the respondent. This variable is added to control for characteristics of the manager.

PositionOfManager: This variable is a categorical variable which tells the position of the manager who is the respondent. This variable is added to control for characteristics of the manager.

OpenEndedContracts: This categorical variable gives an estimate of the share of employees that have a permanent/open ended contract. The managers had to choose a range. This variable is added to control for characteristics of the workforce.

PartTimers: This categorical variable gives an estimate of the share of employees that have a part-time contract. The managers had to choose a range. This variable is added to control for characteristics of the workforce.

Sector: This categorical variable is added to control for sector fixed effects. There will be controlled for sector fixed effects to remove omitted variable bias by measuring changes within sectors.

Country: This categorical variable is added to control for country fixed effects. There will be controlled for country fixed effects for the same reason we control for sector fixed effects.

PerceivedMotivation: This categorical variable is added to the dataset to find descriptive patterns. Managers were asked how motivated they think employees in their establishment are on a scale of 1 to 4, with 1 being 'Not at all motivated' and 4 being 'Very motivated'.

CommunicatingAStrongMissionVision: This categorical variable is added to the dataset to find descriptive patterns. Respondents were asked to tell how often they try to motivate their employees by communicating a strong mission and vision. They had to answer this on a Likert scale from 1 to 4, with 1 being 'Never' and 4 being 'Very often'.

ProvidingInterestingStimulatingWork: This categorical variable is added to the dataset to find descriptive patterns. Respondents were asked to tell how often they provide interesting and stimulating work to motivate their employees. The managers had to answer this on a Likert scale from 1 to 4, with 1 being 'Never' and 4 being 'Very often'.

Then, the following variables are collected from the ESS.

OutcomeBasedEquality: This continuous variable is an independent variable, which gives a score of how much people agree with the following statement on average in a certain country-sector subgroup: 'A society is fair when income and wealth are equally distributed among all people'. Respondents had to answer this on a Likert scale of 1 to 4, with 1 being 'Strongly disagree' and 4 being 'Strongly agree'.

Based on all opinions in a country-sector subgroup, the average is calculated for every country-sector subgroup, which creates a continuous variable.

InputDependentEquality: This continuous variable is an independent variable, which gives a score of how much people agree with the following statement on average in a certain country-sector subgroup: 'A society is fair when hard-working people earn more'.

Finally, the following variables are from remaining sources (OECD and World Bank).

HighestMargTaxBracket: This is a moderating variable, which gives the highest marginal income tax bracket of every country. This is a continuous variable between 0 and 1.

IncomeTaxAsAShareOfGDP: This continuous variable is a moderating variable, which gives the total income tax in a country as a share of GDP. The values are between 0 and 1.

ShareOfPeopleWithTertiaryEducation: This continuous variable is a moderating variable, which gives the share of people with tertiary education in a country.

ShareOfGDPSpentOnEducation: This continuous variable is a moderating variable, which gives the share of GDP of a country that is spent on education.

Table 1 gives the descriptive statistics of the categorical variables used for the research in this thesis. Furthermore, Table 2 provides summary statistics for all numerical variables in this research. What is notable from Table 1 is that monetary rewards are less often used than the other motivation tools. Figure A1 (Appendix A) shows that there is no clear difference in the use of the motivation tools between male managers and female managers.

Table 1: Descriptive and summary statistics of categorical variables

Explanatory variable	Answers	Number of observations	%
Dependent variables			
Monetary rewards	Never	2117	10.16
	Not very often	9651	46.31
	Fairly often	7394	35.48
	Very often	1676	8.04
Total		20838	100.00
Providing opportunities for training and development	Never	602	2.89
	Not very often	6687	32.06
	Fairly often	9673	46.38
	Very often	3894	18.67
Total		20856	100.00
Control variables for characteristics of the company			
Establishment size	10 to 49	13088	62.38
	50 to 249	5987	28.54
	Over 250	1906	9.08
Total		20981	100.00
Employees flow	Decreased by more than 10%	1267	6.05
	Decreased by up to 10%	1476	7.05
	Stayed about the same	9830	46.97
	Increased by up to 10%	4026	19.24
	Increased by more than 10%	4329	20.69
Total		20981	100.0
Control variables for characteristics of the manager			
Gender of manager	Male	8745	42.12
	Female	11806	56.86
	Other	213	1.03
Total		20764	100.00
Position of manager	General manager	2669	12.82

	Owner manager	3574	17.17
	Human resource manager	5829	28.00
	Training manager	98	0.47
	Finance/accounting manager	2995	14.39
	Other	5651	27.15
Total		20816	100.00
Control variables for characteristics of the workforce			
Open ended contracts	None	641	3.08
	Less than 20%	761	3.66
	20% to 39%	606	2.91
	40% to 59%	808	3.88
	60% to 79%	1982	9.53
	80 to 99%	7198	34.61
	All	8802	42.32
Total		20798	100.00
Part timers	None	5659	27.45
	Less than 20%	10005	48.53
	20% to 39%	2282	11.07
	40% to 59%	950	4.61
	60% to 79%	717	3.48
	80 to 99%	641	3.11
	All	360	1.75
Other variables			
Communicating a strong mission and vision	Never	948	4.56
	Not very often	6415	30.85
	Fairly often	9605	46.20
	Very often	3824	18.39
Total		20792	100.00
Providing interesting and stimulating work	Never	703	3.38
	Not very often	6351	30.55
	Fairly often	10522	50.62

	Very often	3212	15.45
Total		20788	100.00
Perceived motivation	Not at all motivated	228	1.09
	Not very motivated	3458	16.59
	Fairly motivated	13739	65.93
	Very motivated	3414	16.38
Total		20839	100.00

Notes: See Table A1 (Appendix A) for descriptive and summary statistics of the sector and country fixed effects

Table 2: Summary statistics of numerical variables

Variable	Obs	Mean	Std. Dev.	Min	Max
Outcome-Based Equality	20981	3.647	.554	2	5
Input-Dependent Equality	20981	4.466	.227	2.333	5
Highest marginal tax bracket	20981	.376	.141	.1	.57
Income tax as a share of GDP	18456	.120	.052	0.063	.299
Share of people with tertiary education	18456	0.380	0.071	0.265	0.537
Share of GDP spent on education	20981	0.050	0.011	0.033	0.078

Notes: The countries in which the minimum highest marginal income tax bracket of 10% is found, is in Bulgaria and Romania.

3.4. Descriptive patterns of data

There is a possibility of self-selection of people into companies that use certain motivation tools. Therefore, it is not possible to prove that there is a causal relationship between the use of certain motivation tools and perceived motivation. However, there are distinctive patterns when observing the data descriptively.

Table 3 shows how the use of the motivation tools correlates with the perception of how motivated the managers perceive their employees. What is noticeable is that in general for every motivational tool, managers that never use them, more often perceive their employees to be not motivated at all. Another striking finding is that managers that never use monetary rewards to motivate their employees, more often perceive their employees to be very motivated than managers that do sometimes or fairly often use monetary rewards. Also, all motivational tools except monetary rewards seem to predict more motivation.

Table 3: Descriptive patterns of the frequency of the use of certain motivation tools and perceived motivation by managers

		Perceived motivation				
Motivational tool		**Not at all**	**Not very**	**Fairly**	**Very**	**Total**
Monetary rewards to motivate	Never	4%	20%	56%	20%	100%
	Not very often	1%	20%	64%	15%	100%
	Fairly often	0%	13%	72%	15%	100%
	Very often	1%	10%	64%	25%	100%
Observations						20709
Communicating a strong	Never	4%	43%	45%	8%	100%
mission and vision to motivate	Not very often	1%	27%	64%	8%	100%
	Fairly often	0%	12%	72%	16%	100%
	Very often	0%	6%	60%	34%	100%
Observations						20528
Providing interesting and	Never	6%	48%	39%	7%	100%
stimulating work to motivate	Not very often	0%	31%	63%	6%	100%
	Fairly often	0%	10%	73%	17%	100%
	Very often	1%	4%	56%	39%	100%
Observations						20524
Providing opportunities for	Never	7%	40%	45%	8%	100%
training and development to	Not very often	0%	27%	63%	10%	100%
motivate	Fairly often	0%	13%	70%	17%	100%
	Very often	1%	6%	65%	28%	100%
Observations						20588

Table 4 gives the Pearsons r correlations between the use of different motivational tools and perceived motivation by managers. Communicating a strong mission and vision, providing interesting and stimulating work and providing opportunities for training and development are much more correlated with perceived motivation by managers than the use of monetary rewards. The table also shows that those three motivation tools are also more correlated with each other than with the use of monetary rewards. Especially the correlation between the use of the intrinsic motivators (communicating a strong mission and vision and providing interesting and stimulating work) is high, namely 0.5032.

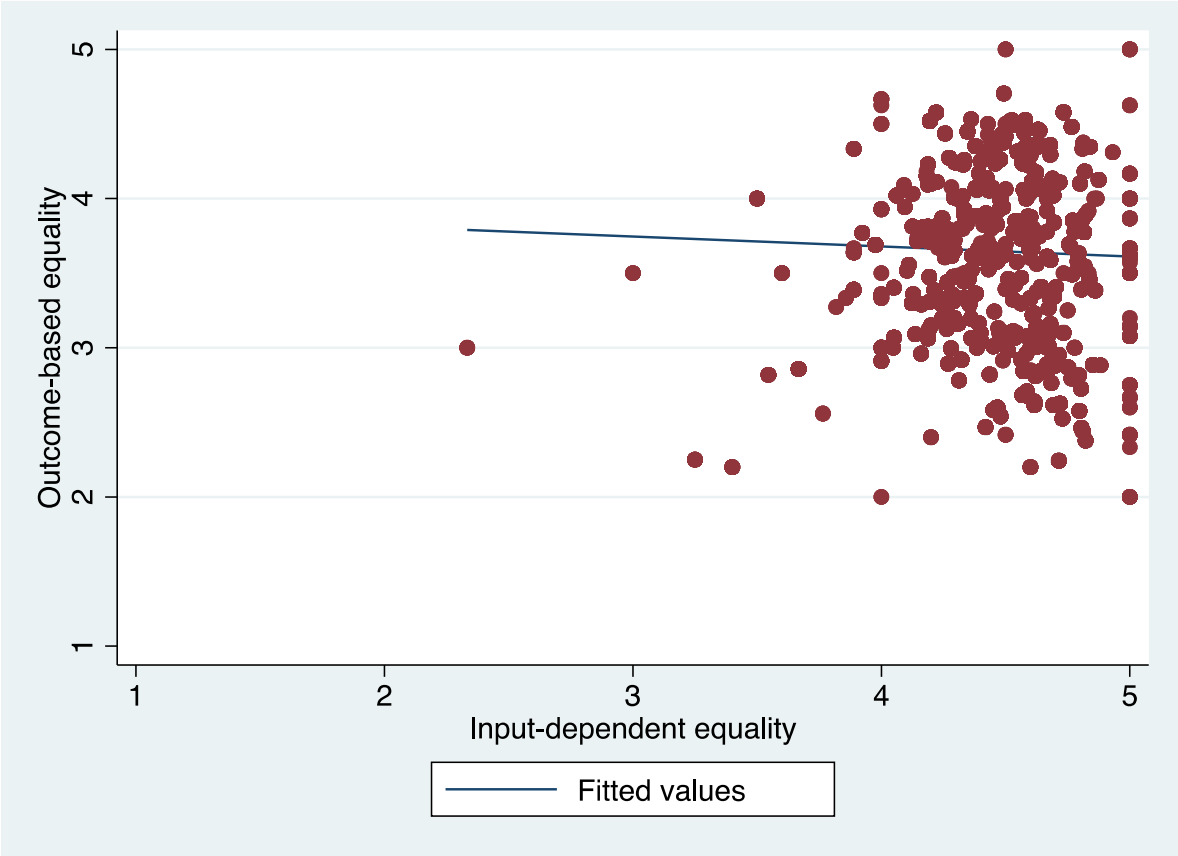
Table 4: Correlation between the use of motivation tools and perceived motivation by managers

	Monetary rewards	Training and development	Mission and vision	Interesting work	Perceived motivation
Monetary rewards	1.000				
Training and development	0.2085	1.000			
Mission and vision	0.1802	0.4317	1.000		
Interesting work	0.1903	0.4455	0.5032	1.000	
Perceived motivation	0.0918	0.2730	0.3233	0.3961	1.000

Notes: Table shows the Pearson R correlation between perceived motivation by managers and the use of the following motivation tools by managers: the use of monetary rewards, communicating a strong mission of vision, providing interesting and stimulating work, and providing opportunities for training and development.

Figure 1 shows a scatterplot of the perception on fairness of income equality and fairness of hard-working people earning more. This scatterplot clearly shows that perception on fairness of income equality is very much divided over the Likert scale between 2 and 5, while perception on fairness of hard-working people earning more is much denser between 4 and 5. Also, the line of fitted values shows that the correlation between both perceptions is low. In fact, the correlation between the average perceptions in sector-country subgroups is only 0.0193. The low correlation might be explained by the difference in measures of income distribution. Fairness of income equality measures people's perception in a sector-country subgroup on only the outcome of the distribution. Fairness of hard-working people earning more measures people's perception on outcome of the distribution dependent on people's input.

Figure 1: Scatterplot of perception on fairness of outcome-based and Input-Dependent Equality



4. Hypotheses

4.1. Hypotheses

4.1.1. Hypotheses on income distribution and the use of monetary rewards

Companies differ in their use of monetary rewards to motivate their employees. Monetary rewards can lead to income inequality (Ben-Ner et al., 2011). This could cause that people who find income inequality relatively unfair, are less likely to self-select themselves into sectors where monetary incentives are used. This leads to hypothesis 1:

Hypothesis 1: *"There is a negative relationship between the perception on fairness of outcome-based equality and the use of monetary rewards by managers to motivate their employees".*

Tax systems are a way for countries to redistribute income. Taxes are in most countries progressive, which means that the tax rate increases as the taxable amount increases. The tax rate on a monetary bonus is therefore often high, especially relative to the other income. The tax rate on monetary bonuses determines how much the monetary bonus contributes to income inequality. Tax rates differ per country and therefore, monetary rewards are taxed differently in different countries. The higher the tax rate on a monetary reward, the less influence it has on income inequality. Therefore, tax rates are expected to have a negatively moderating influence on the relationship, which leads to the following two hypothesis:

Hypothesis 2: "*The level of income tax has a negatively moderating effect on the relationship between the perception on outcome-based equality and the use monetary rewards."*

Also, Lazear (1986) argues that strong monetary incentives induce highly productive workers to apply at a firm, while less productive workers prefer a high base salary and weak incentives. This suggest that monetary incentives are mostly used for hard-working people. Therefore, it is likely that people who believe that hard-working people should earn more, will be more likely to start working at a company that uses a lot of monetary incentives. This leads to the second hypothesis:

Hypothesis 3: *"There is a positive relationship between the perception on fairness of input-dependent equality and the use of monetary rewards by managers to motivate their employees".*

Again, the tax rate on a monetary reward is dependent on the tax rate levied on the monetary bonus. As argued before, hard-working people tend to receive bonusses more often (Lazear, 1986). So, when monetary rewards are highly taxed, they lead to a less high income for hard-working people. This makes it likely that hard-working people will be to a lesser extent be more likely self-select into companies that use a lot of monetary incentives. Therefore, the following hypothesis is expected to hold:

Hypothesis 4: "*The level of income tax has a negatively moderating effect on the relationship between the perception on input-dependent equality and the use monetary rewards."*

4.1.2. Hypotheses on the provision of training and development

Companies differ in their provision of opportunities for training and development to motivate employees. Altonji (1991) did research into worker characteristics and on-the-job training. He found a

strong positive relationship between education and trainings, which means that trainings are more often provided to higher educated people. Trainings are often offered in exchange for a lower wage at first (Hashimoto, 1982). However, it increases earnings of those workers in the future (Blundell, Dearden, Meghir & Sianesi 1999). As those trainings increase future earnings and are usually offered to highly educated people that are already expected to earn more in the future (Berger & Fisher, 2013), offering trainings might increase income inequality. For this reason, the expectation is that people who do not believe in a just world and perceive income equality as relatively fair, self-select themselves into companies where managers less often provide opportunities for training and development to motivate the workforce. This leads to the third hypothesis:

Hypothesis 5: *"There is a negative relationship between the perception on fairness of outcome-based equality and the provision of opportunities for training and development by managers to motivate their employees."*

In countries in which the quality of education is higher, people start from a relatively more equal situation. Therefore, it is expected that training and development has less impact on inequality when the quality of education is good, because more people will receive training and development. This leads to hypothesis 6:

Hypothesis 6: "*The quality of education has a negatively moderating effect on the relationship between the perception on outcome-based equality and the provision of opportunities for training and development."*

In countries in which people believe in a just world, taxes are often lower (Alesina & Angeletos, 2002). That is because people believe that their own effort leads to a better outcome. Theory also states that high taxes lead to laziness (Benabou & Tirole, 2006). These are reasons to suspect that people who believe in a just world are often harder workers than people who do not believe in a just world. Investing in yourself as an employee by taking up training and development opportunities is a form of giving effort and thus working hard. For this reason, it is likely that hard-working people are more likely to self-select into companies that offer opportunities for training and development. This leads to the following hypothesis:

Hypothesis 7: *"There is a positive relationship between the perception on fairness of input-dependent equality and the provision of opportunities for training and development by managers to motivate their employees."*

Altonji (1991) found a positive relationship between highly educated people and the provision of trainings, which means that highly educated people participate more often in trainings. So, when the quality of education is good and there are more highly educated workers, there is expected to be a stronger relationship between people's perception on hard-working people earning more and the provision of opportunities for training and development:

Hypothesis 8: "*The quality of education has a positively moderating effect on the relationship between the perception on input-dependent equality and the provision of opportunities for training and development.*"

4.2. Conceptual models

The hypothesis on the relationship between perception on fairness of income equality (Outcome-Based Equality) and the use of motivation tools by managers are shown in Figure 2. Figure 3 shows the conceptual model of the hypothesis on the relationship between perception on fairness of hard-working people earning (Input-Dependent Equality) more and the use of motivation tools by managers.

Figure 2: Conceptual model on fairness of income equality as the independent variable

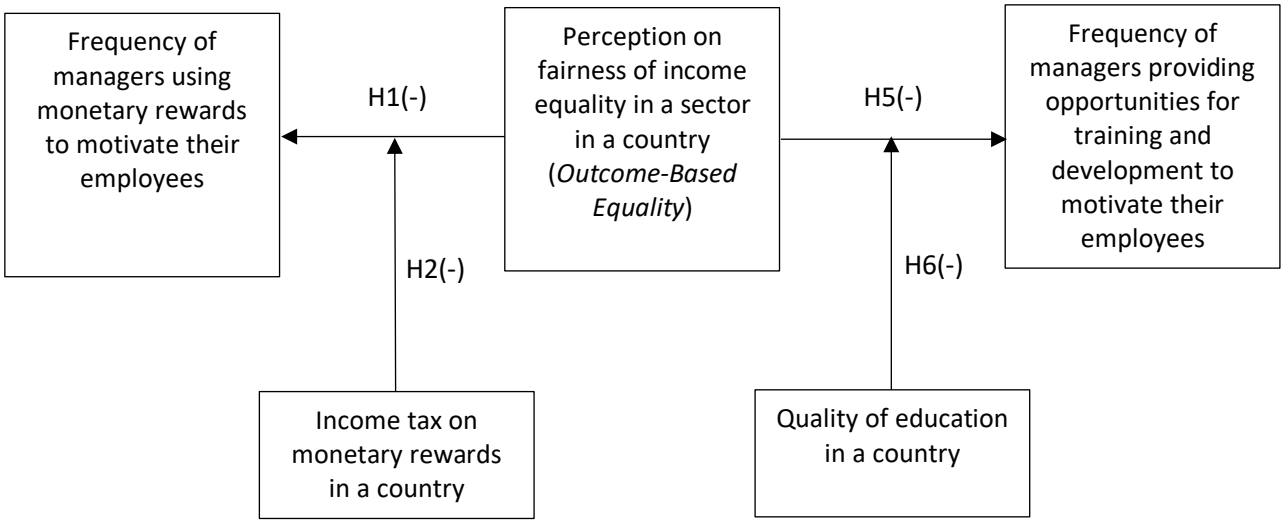
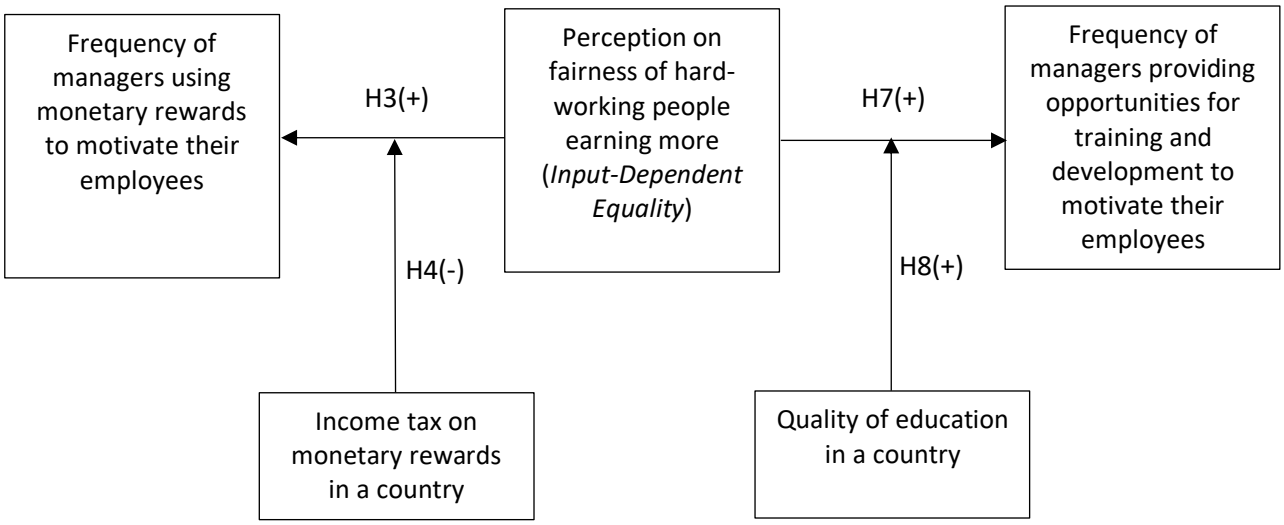


Figure 3: Conceptual model on fairness of hard-working people earning more as the independent variable



5. Methodology

To analyse the data, all data is imported into the statistical program Stata. The data is then analysed using OLS models including sector fixed effects and country fixed effects.

5.1. Model for testing relationship between use of monetary incentives and fairness perception

To see if people's perception of income equality and people's perception on hard-working people earning more is related to how often monetary incentives are used as a motivator by managers (hypotheses 1 and 3), I do the following ordinary least squares (OLS) regressions:

$$Y_{isc} = \beta_0 + \beta_1 x_{sc} + \beta_2 u_{isc} + \nu_s + \tau_c + \varepsilon_{isc}$$

And to see if the income tax on monetary rewards negatively moderates the relationship between the perception on income distribution and the use of monetary rewards (hypothesis 2 and 4), I do the following OLS regressions:

$$Y_{isc} = \beta_0 + \beta_1 x_{sc} + \beta_2 * x_{sc} * z_c + \beta_3 u_{isc} + \nu_s + \tau_c + \varepsilon_{isc}$$[4]

[4] The models that do not include the country fixed effects will include an independent variable for the proxies for tax levied on monetary rewards.

Where:

Y_{isc} is the score on the use of monetary incentives of manager i in sector s in country c.

x_{sc} is the score on *outcome-based equality* in sector s in country c, or the score on *Input-Dependent Equality* more in sector s in country c.

z_c is the highest marginal tax bracket in country c, or the level of average tax rate as a share of the GDP in country c.

u_{isc} are control variables for the general characteristics of the company, the workforce of the company, and of the managers at company i in sector s in country c.

ν_s are sector fixed effects.

τ_c are country fixed effects.

The control variables for general characteristics of the company, workforce and managers are added to the model, because they enhance the internal validity of a study by limiting the influence of confounding and other extraneous variables. Furthermore, fixed effects are added to remove omitted variable bias by measuring changes within sectors and within countries. To determine the effect of the fixed effects, the model builds up by adding them one by one. Finally, I make use of robust standard errors.

5.2. Model for testing relationship between use of training and development and fairness perception

Furthermore, to test if people's perception on income equality and on hard-working people earning more is related to the provision of opportunities for training and development (hypotheses 5 and 7), I run the following OLS regressions:

$$Y_{isc} = \beta_0 + \beta_1 x_{sc} + \beta_2 u_{isc} + \nu_s + \tau_c + \varepsilon_{isc}$$

To test if the quality of education in a country has a moderating effect on the relationship between the perception on income distribution and the provision of opportunities for training and development and motivation by managers (hypothesis 6 and 8), I run the following OLS regression:

$$Y_{isc} = \beta_0 + \beta_1 x_{sc} + \beta_3 * x_{sc} * \alpha_c + \beta_4 u_{isc} + \nu_s + \tau_c + \varepsilon_{isc}$$[5]

[5] The models that do not include the country fixed effects will include an independent variable for the proxies for quality of education.

Where:

Y_{isc} is the score on the provision of training and development incentives by manager i in sector s in country c.

x_{sc} is the score on *outcome-based equality* in sector s in country c, or the score on *Input-Dependent Equality* more in sector s in country c.

α_c is the of money spent on education as a share of GDP in country c, or the share of higher educated people in country c.

u_{isc} are control variables for the general characteristics of the company, the workforce of the company, and of the managers at company i in sector s in country c.

v_s are sector fixed effects.

τ_c are country fixed effects.

6. Results

6.1. Outcome-based equality and the use of monetary rewards to motivate

6.1.1. The relationship

Table 5 shows the results of regressing the average perception on fairness of income equality of all respondents in a sector-country subgroup on the use of monetary rewards. Column 1 shows the simple relation between the perception on *Outcome-Based Equality* and the use of monetary rewards. When the score on *Outcome-Based Equality* increases with one (on a scale from 1 to 5), the use of monetary rewards increases with 0.0888 (on a scale from 1 to 4). This increase in monetary rewards due to *Outcome-Based Equality* is 11.4% of the standard deviation of the use of monetary rewards (standard deviation of *Monetary rewards*: 0.7789). This result is statistically significant at a significance level of 1%.

The model in Column 2 controls for establishment fixed effects, manager fixed effects and workforce fixed effects. In this model, all coefficients on the control variables are statistically significant, except for the control variable for being a training manager. The effects of the control variables found are explainable.[6] The model in Column 3 also controls for sector fixed effects. This model shows that when

[6] The only striking result is the switch in the sign on the coefficient on *Female manager* from positive when country fixed effects are not included (Columns 2 & 3) to negative in models that do include country fixed effects (Columns 4 & 5). The positive effect might be explained by other differences between countries, but when looking within countries, female managers do less often make use of monetary rewards.

the score on *Outcome-Based Equality* in a sector-country subgroup increases with one (on a scale from 1 to 5), the use of monetary rewards increases with 0.0719 (on a scale from 1 to 4). This result is statistically significant. The positive effect of *Outcome-Based Equality* in Columns 1 to 3 is in contradiction with hypothesis 1.

The coefficients on *Outcome-Based Equality* are negative (but statistically insignificant) in the models in Columns 4 and 5. These models respectively control for country fixed effects and country and sector fixed effects, and thus both control for unobserved heterogeneity between countries. The reason why the coefficient becomes negative and insignificant could be because the difference in the use of monetary rewards by managers is not explained by the differences in people's perception on fairness of income equality, but by other differences between the countries. Namely, Table B1 (Appendix B) shows that a model in which country fixed effects are regressed on *Outcome-Based Equality* has an R-squared of 0.81. This means that most variation in *Outcome-Based Equality* is between countries and little variation is left within countries. Therefore, it might be that when including country fixed effects and therefore only looking at variation within countries (Table 5), the coefficient on *Outcome-Based Equality* becomes negative and insignificant.

Table 5: The effect of perception on fairness of income equality on the use of monetary rewards

	The use of monetary rewards				
VARIABLES	(1)	(2)	(3)	(4)	(5)
OutcomeBasedEquality	0.0888***	0.0723***	0.0719***	-0.0368	-0.0130
	(0.00945)	(0.00963)	(0.0101)	(0.0240)	(0.0302)
EstablishmentSize		0.103***	0.100***	0.0861***	0.0868***
		(0.00929)	(0.00947)	(0.00916)	(0.00932)
EmployeesFlow		0.0620***	0.0611***	0.0714***	0.0705***
		(0.00500)	(0.00501)	(0.00492)	(0.00493)
OpenEndedContracts		0.0142***	0.0112***	0.0141***	0.0116***
		(0.00375)	(0.00378)	(0.00377)	(0.00379)
PartTimers		-0.0672***	-0.0606***	-0.0460***	-0.0413***
		(0.00422)	(0.00439)	(0.00423)	(0.00437)
Male manager		0	0	0	0
		(Omitted)	(Omitted)	(Omitted)	(Omitted)
Female manager		0.0408***	0.0433***	-0.0216*	-0.0209*
		(0.0117)	(0.0117)	(0.0117)	(0.0117)
Other manager (gender)		0.158***	0.159***	0.0664	0.0663
		(0.0530)	(0.0533)	(0.0525)	(0.0527)
General manager		0	0	0	0
		(Omitted)	(Omitted)	(Omitted)	(Omitted)
Owner manager		0.0957***	0.0813***	0.0547***	0.0387*
		(0.0204)	(0.0205)	(0.0200)	(0.0200)
Human resource manager		-0.0618***	-0.0671***	-0.0382*	-0.0432**
		(0.0199)	(0.0199)	(0.0198)	(0.0197)
Training manager		-0.0654	-0.0683	-0.0431	-0.0458
		(0.0805)	(0.0804)	(0.0786)	(0.0783)
Finance/accounting manager		-0.0643***	-0.0754***	-0.0722***	-0.0823***
		(0.0216)	(0.0216)	(0.0215)	(0.0215)
Other manager (position)		-0.142***	-0.144***	-0.142***	-0.145***
		(0.0193)	(0.0193)	(0.0191)	(0.0190)
Constant	2.090***	1.879***	1.967***	2.109***	2.031***
	(0.0349)	(0.0530)	(0.0876)	(0.102)	(0.136)
Sector fixed effects	No	No	Yes	No	Yes
Country fixed effects	No	No	No	Yes	Yes
Observations	20,838	20,091	20,091	20,091	20,091
R-squared	0.004	0.039	0.046	0.094	0.101

Notes: The dependent variable is the frequency of use of monetary rewards by managers on a Likert scale from 1 to 4, with 1 being 'Never' and 4 being 'Very often'. The independent variable *Outcome-Based Equality* is the average perception of people in a sector-country subgroup of how much they agree with the statement 'A society is fair when income and wealth are equally distributed among all people' on a Likert scale from 1 to 5. The regressions make use of robust standard errors. Statistical significance levels: *p<0.1, **p<0.05, ***p<0.01.

6.1.2. The moderating effect of income tax levied on monetary rewards

The results of measuring the effect of income tax on monetary rewards on the relationship between perception on fairness of income equality and the use of monetary rewards is shown in Table 6. What is noticeable is that the interaction between the *Outcome-Based Equality* and *Income Tax As A Share Of GDP* is negative and significant in all models. This means that the tax that is levied on the monetary reward does seem to influence the relationship between perception on fairness of income equality and the use of monetary rewards. This is in line with hypothesis 2. So, the effect of *Outcome-Based Equality* in countries that would have no income tax, would be positive and significant in all models.

However, when the variable *Tax As A Share Of GDP* increases with 1, the change in the effect of *Outcome-Based Equality* is large and negative.

Table 6: The moderating effect of income tax as a share of GDP on the effect of *Outcome-Based Equality* on the use of monetary rewards

	The use of monetary rewards				
VARIABLES	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**
OutcomeBasedEquality	0.135***	0.104***	0.102***	0.209***	0.148**
	(0.0285)	(0.0290)	(0.0294)	(0.0700)	(0.0715)
IncomeTaxAsAShareOfGDP	0.833	0.380	0.335	-	-
	(0.640)	(0.646)	(0.646)		
OutcomeBasedEquality*IncomeTaxAsAShareOfGDP	-0.913***	-0.744***	-0.728***	-2.284***	-1.474**
	(0.210)	(0.213)	(0.213)	(0.598)	(0.618)
EstablishmentSize		0.103***	0.0997***	0.0896***	0.0898***
		(0.00973)	(0.00990)	(0.00971)	(0.00987)
EmployeesFlow		0.0600***	0.0595***	0.0661***	0.0657***
		(0.00529)	(0.00532)	(0.00526)	(0.00527)
OpenEndedContracts		0.0116***	0.00811**	0.0151***	0.0123***
		(0.00393)	(0.00395)	(0.00397)	(0.00399)
PartTimers		-0.0582***	-0.0513***	-0.0502***	-0.0441***
		(0.00441)	(0.00462)	(0.00444)	(0.00462)
Male manager		0	0	0	0
		(Omitted)	(Omitted)	(Omitted)	(Omitted)
Female manager		-0.0113	-0.00846	-0.0253**	-0.0240*
		(0.0124)	(0.0124)	(0.0123)	(0.0123)
Other manager (gender)		0.0763	0.0752	0.0520	0.0491
		(0.0588)	(0.0592)	(0.0592)	(0.0595)
General manager		0	0	0	0
		(Omitted)	(Omitted)	(Omitted)	(Omitted)
Owner manager		0.0655***	0.0514**	0.0605***	0.0446**
		(0.0211)	(0.0213)	(0.0210)	(0.0211)
Human resource manager		-0.0492**	-0.0546***	-0.0274	-0.0331
		(0.0206)	(0.0205)	(0.0207)	(0.0206)
Training manager		-0.0187	-0.0240	-0.0149	-0.0181
		(0.0855)	(0.0853)	(0.0828)	(0.0825)
Finance/accounting manager		-0.0535**	-0.0651***	-0.0485**	-0.0591***
		(0.0227)	(0.0228)	(0.0228)	(0.0228)
Other manager (position)		-0.144***	-0.145***	-0.131***	-0.135***
		(0.0200)	(0.0200)	(0.0200)	(0.0199)
Constant	2.178***	2.039***	2.123***	2.188***	2.126***
	(0.0940)	(0.104)	(0.131)	(0.108)	(0.152)
Sector fixed effects	No	No	Yes	No	Yes
Country fixed effects	No	No	No	Yes	Yes
Observations	18,347	17,747	17,747	17,747	17,747
R-squared	0.019	0.051	0.058	0.085	0.092

Notes: Table shows regression results of the moderating effect of income tax as a share of GDP (as a proxy for tax raised on monetary rewards) on the relationship between people's perception on fairness of income equality and the use of monetary rewards. Information on income tax as a share of GDP was not available for Bulgaria, Croatia, Cyprus and Romania, which results into missing values. The regressions make use of robust standard errors. Statistical significance levels: *p<0.1, **p<0.05, ***p<0.01.

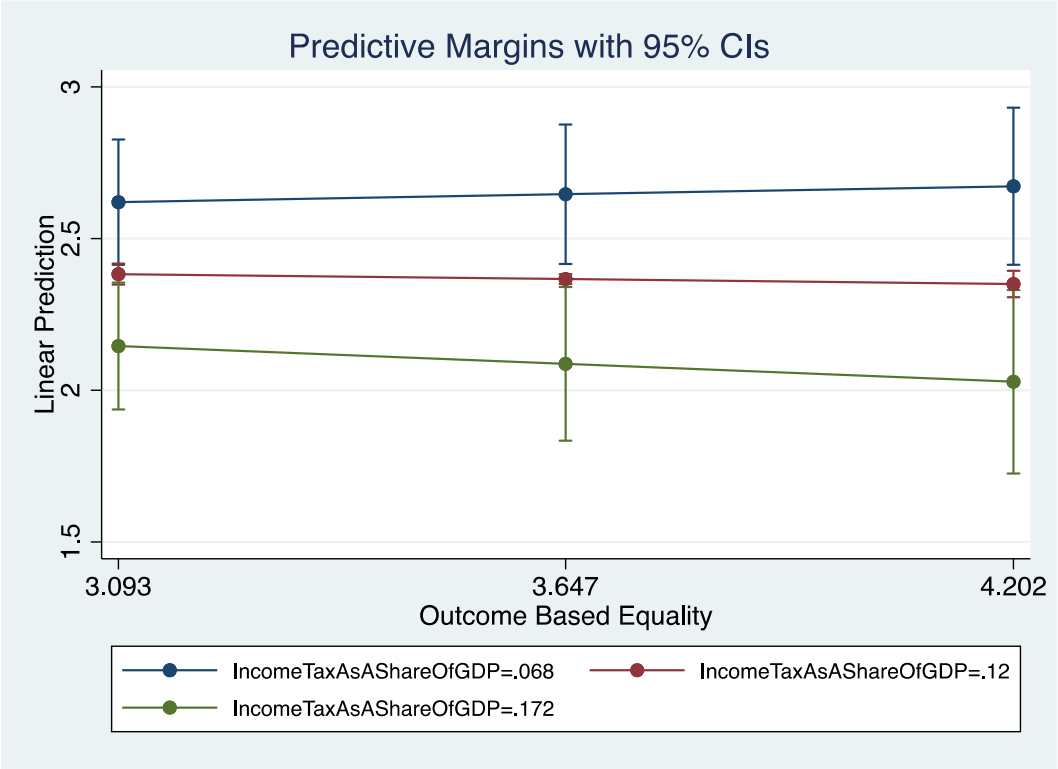
Table C1 gives the results of a robustness check. In those models, the highest marginal tax bracket in a country is the proxy for the tax on monetary rewards in that country. The models in this table also show a positive effect of *Outcome-Based Equality* on the use of monetary rewards, which is negatively moderated by the highest marginal tax bracket in countries. However, in the models of the robustness check, only the interaction effect in Column 4 is significant at a significance level of 10%. Therefore, the robustness of the results to changes in the proxy for tax levied on monetary rewards is questionable.

The graph in Figure 4 shows the interaction effect between *Outcome-Based Equality* and *Income Tax As A Share Of GDP* on the use of monetary rewards. The model that is used in the figure is the model in Column 5 of Table 9. Country and fixed effects are included because the effect of fairness of income equality on the use of monetary rewards when excluding country and sector fixed effects seems to contain a large share of heterogeneity within countries and sectors. The figure shows visually for the mean of income tax, one standard deviation below the mean of income tax, and one standard deviation above the mean of income tax, the relationship between the perception on fairness of income equality and the use of monetary rewards. The remaining variables in the model are population averaged, which means that they are set at the average estimate over the estimation sample.

The graph shows that if *Income Tax As A Share Of GDP* is relatively low, the relationship between *Outcome-Based Equality* and the use of monetary rewards is positive. When *Income Tax As A Share Of GDP* increases to the mean in Europe, the relationship becomes slightly negative. Ultimately, at one standard deviation above the mean of *Tax As A Share Of GDP*, there is an even more negative relationship. Therefore, tax levied on monetary rewards does indeed seem to have a negatively moderating effect, which is in accordance with hypothesis 2. Also, when the tax is high enough, the relationship between *Outcome-Based Equality* and the use of monetary rewards becomes negative, which is in accordance with hypothesis 1.

Figure C1 shows graphically the moderating effect of *Highest Marginal Tax Bracket* in a country as a proxy for the tax rate on monetary rewards (robustness check). Although the moderating effect of tax on a monetary reward in this graph is a bit smaller, it is also negative.

Figure 4: Graph of the moderating effect of income tax as a share of GDP on the effect of *Outcome-Based Equality* on the use of monetary rewards



Notes: Graph shows the moderating effect of income tax as a share of GDP (as a proxy for tax raised on monetary rewards) on the relationship between people's perception on fairness of income equality and the use of monetary rewards. The graph shows the relationship on the interval of one standard deviation below the mean of *Outcome-Based Equality* until one standard deviation above the mean. Information on income tax as a share of GDP was not available for Bulgaria, Croatia, Cyprus and Romania.

6.2. Input-dependent equality and the use of monetary rewards to motivate

6.2.1. The relationship

Table 7 shows the relationship between people's perception on fairness of hard-working people earning more in a sector-country subgroup on the use of monetary rewards. Columns 1, 2 and 3 show that when we do not control for country fixed effects, there seems to be a negative relation between the *Input-Dependent Equality* variable and the use of monetary rewards.

When controlling for characteristics of the establishment, manager, and workforce (Column 2), there is a negative effect of -0.274. This means that when the average score of people's perception on this social matter increases with 1 (on a scale from 1 to 5), the frequency of use of monetary rewards decreases with 0.274 (on a scale from 1 to 4). Again, all coefficients on the control variables are explainable.

Column 3 shows that when including sector fixed effects, this effect decreases to -0.312. When including sector fixed effects, the model only looks at differences in the use of monetary rewards within sectors. So, the effect of people's perception on fairness of hard-working people earning more on the use of monetary rewards seems to be even more significant within sectors. This might be due to other differences between sectors that differ in the opposite direction than perception on fairness of hard-working people earning more does. Those factors partially mitigate the effect of *Input-Dependent Equality*. The results in Columns 1 to 3 are in contradiction with hypothesis 3.

However, when including country fixed effects, the results become smaller and positive. The model in Column 5 includes both country and sector fixed effects, and therefore looks at the effect of *Input-Dependent Equality* on the use of monetary rewards within sectors and within countries. In this model, there is a positive effect of *Input-Dependent Equality* of 0.0737 on the use of monetary rewards in sector-country subgroups. This result is in line with what is expected in hypothesis 3. All the beforementioned results are statistically significant at a significance level of 5%.

An explanation of the change in sign of the coefficient on *Input-Dependent Equality* when including country fixed effects could be that there are other differences between countries than perception on fairness of hard-working people which lead to a negative correlation. By including country fixed effects, these other differences are excluded. This gives the effect of *Input-Dependent Equality* within countries. Table B2 shows that a model in which country fixed effects are regressed on *Input-Dependent Equality* has an R-squared of 0.536. This means that there is quite a lot of variation between countries. But also, there is a lot of variation in *Input-Dependent Equality* that could be explained by different heterogeneity. When including country fixed effects in the model in Table 6 and therefore only looking at the effect of *Input-Dependent Equality* on the use of monetary rewards within countries, the effect becomes positive.

Table 7: The effect of perception on fairness of hard-working people earning more on the use of monetary rewards[7]

	The use of monetary rewards				
VARIABLES	(1)	(2)	(3)	(4)	(5)
InputDependentEquality	-0.296***	-0.274***	-0.312***	0.0972***	0.0737**
	(0.0239)	(0.0239)	(0.0243)	(0.0330)	(0.0342)
EstablishmentSize		0.104***	0.100***	0.0854***	0.0868***
		(0.00927)	(0.00943)	(0.00915)	(0.00932)
EmployeesFlow		0.0628***	0.0626***	0.0714***	0.0704***
		(0.00498)	(0.00499)	(0.00492)	(0.00493)
OpenEndedContracts		0.0151***	0.0124***	0.0143***	0.0116***
		(0.00375)	(0.00378)	(0.00377)	(0.00379)
PartTimers		-0.0683***	-0.0599***	-0.0455***	-0.0412***
		(0.00418)	(0.00435)	(0.00423)	(0.00437)
Male manager		0	0	0	0
		(Omitted)	(Omitted)	(Omitted)	(Omitted)
Female manager		0.0320***	0.0338***	-0.0209*	-0.0206*
		(0.0117)	(0.0117)	(0.0117)	(0.0117)
Other manager (gender)		0.137**	0.137**	0.0718	0.0693
		(0.0531)	(0.0533)	(0.0525)	(0.0527)
General manager		0	0	0	0
		(Omitted)	(Omitted)	(Omitted)	(Omitted)
Owner manager		0.0926***	0.0741***	0.0540***	0.0386*
		(0.0203)	(0.0204)	(0.0200)	(0.0200)
Human resource manager		-0.0596***	-0.0645***	-0.0378*	-0.0432**
		(0.0199)	(0.0199)	(0.0198)	(0.0197)
Training manager		-0.0333	-0.0321	-0.0401	-0.0455
		(0.0801)	(0.0797)	(0.0787)	(0.0784)
Finance/accounting manager		-0.0500**	-0.0625***	-0.0725***	-0.0823***
		(0.0214)	(0.0214)	(0.0215)	(0.0215)
Other manager (position)		-0.143***	-0.144***	-0.142***	-0.145***
		(0.0193)	(0.0192)	(0.0191)	(0.0190)
Constant	3.737***	3.360***	3.630***	1.505***	1.625***
	(0.107)	(0.112)	(0.135)	(0.164)	(0.184)
Sector fixed effects	No	No	Yes	No	Yes
Country fixed effects	No	No	No	Yes	Yes
Observations	20,838	20,091	20,091	20,091	20,091
R-squared	0.007	0.043	0.051	0.094	0.101

Notes: The independent variable *Income Dependent Equality* is the average perception of people in a sector-country subgroup of how much they agree with the statement 'A society is fair when hard-working people earn more' on a Likert scale from 1 to 5. The regressions make use of robust standard errors. Statistical significance levels: *p<0.1, **p<0.05, ***p<0.01.

6.2.2. The moderating effect of income tax levied on monetary rewards

Table 8 gives the effect of the income tax levied on the monetary rewards on the relationship between perception on fairness of hard-working people earning more on the use of monetary rewards. Columns 1 to 3 all show a significant (at a 1% significance level) negative effect of *Input-Dependent Equality*, which is positively moderated by the variable *Income Tax As A Share Of GDP.* This is against hypothesis

[7] Table C3 also shows the relationship between of perception on income distribution in general and the use of monetary rewards (so including both the variables *Outcome-Based Equality* and *Input-Dependent Equality* in the models on the use of monetary rewards). Due to the low correlation between those variables, the results in Table 5 and 7.

4, which expected that the relationship would be negatively moderated by the tax levied on monetary rewards. When including country fixed effects in the model (Columns 4 and 5), the coefficient on *Input-Dependent Equality* and the interaction effect becomes insignificant. This might be explained by the lack of variance in *Income Tax As A Share Of GDP* and *Input-Dependent Equality* when excluding heterogeneity between countries. The robustness check in Table C2 shows similar results.

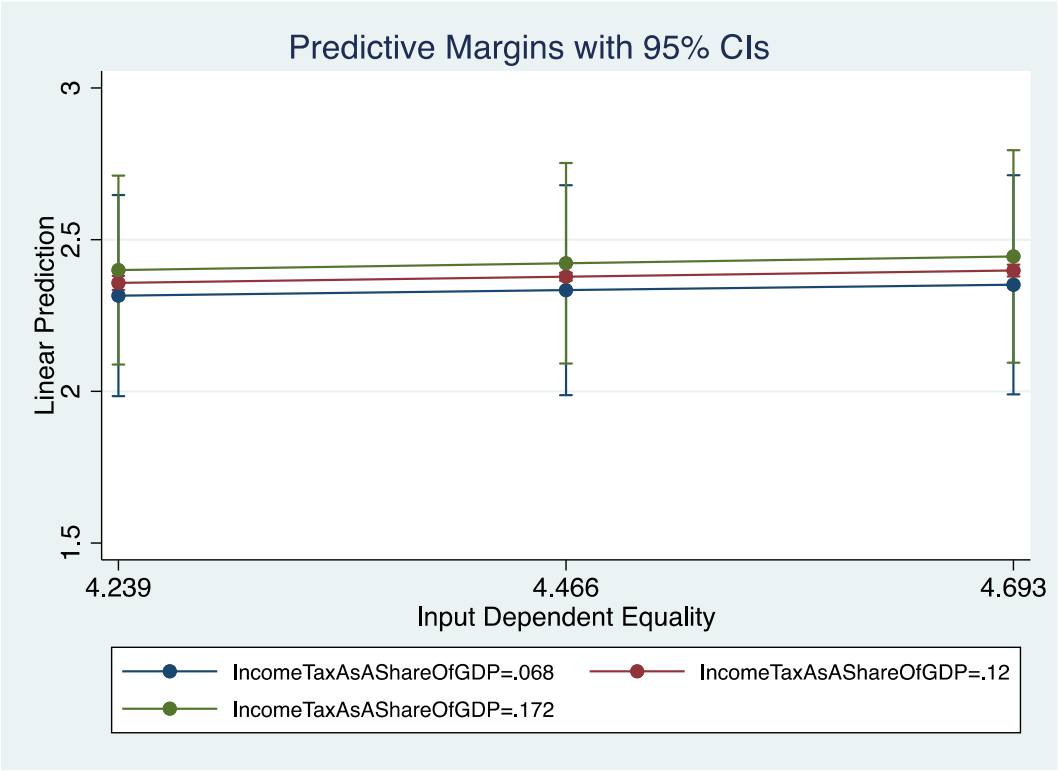
Table 8: The moderating effect of income tax as a share of GDP on the effect of *Input-Dependent Equality*

	The use of monetary rewards				
VARIABLES	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**
InputDependentEquality	-0.486***	-0.483***	-0.499***	0.0267	0.0662
	(0.0613)	(0.0615)	(0.0621)	(0.0836)	(0.0849)
IncomeTaxAsAShareOfGDP	-20.37***	-19.82***	-18.64***	-	-
	(2.417)	(2.433)	(2.483)		
InputDependentEquality*IncomeTaxAsAShareOfGDP	4.007***	3.909***	3.666***	0.818	0.191
	(0.524)	(0.527)	(0.537)	(0.663)	(0.688)
EstablishmentSize		0.103***	0.100***	0.0893***	0.0900***
		(0.00972)	(0.00988)	(0.00971)	(0.00988)
EmployeesFlow		0.0600***	0.0598***	0.0663***	0.0656***
		(0.00529)	(0.00530)	(0.00526)	(0.00527)
OpenEndedContracts		0.0116***	0.00872**	0.0154***	0.0123***
		(0.00392)	(0.00395)	(0.00396)	(0.00399)
PartTimers		-0.0592***	-0.0516***	-0.0497***	-0.0441***
		(0.00437)	(0.00457)	(0.00444)	(0.00462)
Male manager		0	0	0	0
		(Omitted)	(Omitted)	(Omitted)	(Omitted)
Female manager		-0.0124	-0.00931	-0.0243**	-0.0237*
		(0.0124)	(0.0123)	(0.0123)	(0.0123)
Other manager (gender)		0.0656	0.0642	0.0547	0.0513
		(0.0594)	(0.0598)	(0.0591)	(0.0595)
General manager		0	0	0	0
		(Omitted)	(Omitted)	(Omitted)	(Omitted)
Owner manager		0.0589***	0.0439**	0.0588***	0.0444**
		(0.0211)	(0.0212)	(0.0210)	(0.0211)
Human resource manager		-0.0542***	-0.0595***	-0.0273	-0.0333
		(0.0205)	(0.0205)	(0.0207)	(0.0206)
Training manager		-0.0215	-0.0240	-0.0125	-0.0182
		(0.0848)	(0.0844)	(0.0829)	(0.0826)
Finance/accounting manager		-0.0563**	-0.0685***	-0.0489**	-0.0592***
		(0.0226)	(0.0226)	(0.0228)	(0.0228)
Other manager (position)		-0.150***	-0.151***	-0.132***	-0.135***
		(0.0200)	(0.0199)	(0.0199)	(0.0199)
Constant	4.833***	4.580***	4.739***	1.398***	1.614***
	(0.279)	(0.283)	(0.298)	(0.172)	(0.193)
Sector fixed effects	No	No	Yes	No	Yes
Country fixed effects	No	No	No	Yes	Yes
Observations	18,347	17,747	17,747	17,747	17,747
R-squared	0.021	0.053	0.061	0.085	0.092

Notes: Table shows regression results of the moderating effect of income tax as a share of GDP (as a proxy for tax raised on monetary rewards) on the relationship between people's perception on fairness of hard-working people earning more and the use of monetary rewards. Information on income tax as a share of GDP was not available for Bulgaria, Croatia, Cyprus and Romania, which results into missing values. The regressions make use of robust standard errors. Statistical significance levels: *p<0.1, **p<0.05, ***p<0.01.

Figure 5 shows graphically the effect of the income tax levied on the monetary rewards on the relationship between perception on fairness of hard-working people earning more and the use of monetary rewards.[8] No real interaction effect is shown. Namely, at all three levels of *Income Tax As A Share Of GDP*, the relationship between *Input-Dependent Equality* and the use of monetary rewards is almost the same. The robustness check in Figure C2 shows similar results. These results are not in line with the expectation in hypothesis 4.

Figure 5: Graph of the moderating effect of income tax as a share of GDP on the effect of *Input-Dependent Equality* on the use of monetary rewards



Notes: Graph shows the moderating effect of income tax as a share of GDP (as a proxy for tax raised on monetary rewards) on the relationship between people's perception on fairness of hard-working people earning more and the use of monetary rewards. The graph shows the relationship on the interval of one standard deviation below the mean of *Input-Dependent Equality* until one standard deviation above the mean. Information on income tax as a share of GDP was not available for Bulgaria, Croatia, Cyprus and Romania.

[8] Figure 5 uses the model in Column 5 of Table 8 to consider other heterogeneity between countries and sectors.

6.3. Outcome-based equality and opportunities for training and development

6.3.1. The relationship

Table 9 gives the effect of people's perception on fairness of income equality on the frequency of provision of opportunities for training and development by managers to motivate their workforce. Columns 1, 2[9] and 4 show a negative significant coefficient on *Outcome-Based Equality,* which is in line with hypothesis 5. This suggest that the more people believe in fairness of income equality, the less there is made use of providing opportunities for training and development. The model in Column 4 includes country fixed effects. In this model, the coefficient on *Outcome-Based Equality* is -0.247 (which is 32,3% of the standard deviation), which is a lot more negative than in the models in Columns 1 and 2. This may again be explained by the influence of other large differences between countries on the coefficients in Columns 1 and 2, which have the opposite effect on the provision of opportunities for training and development.

However, when sector fixed effects are included in the model (Columns 3 and 5), the effect becomes positive. This is in contradiction with hypothesis 5. An explanation could be that other differences between sectors cause the effect of *Outcome-Based Equality* to be negative, but when these differences are excluded, the effect is positive. However, in the model that includes both country and sector fixed effects (Column 5), the coefficient on *Outcome-Based Equality* is insignificant. This is probably due to little variation in *Outcome-Based Equality* within countries and within sectors.

[9] The results found on the control variables in Table 7 are explainable. However, again there is a switch in the sign on the coefficient of *Female manager* when country fixed effects are included in the model. The same argumentation as for the relation of *Female manager* on the use of monetary rewards could apply.

Table 9: The effect of perception on fairness of income equality on the provision of opportunities for training and development

	The provision of opportunities for training and development				
VARIABLES	(1)	(2)	(3)	(4)	(5)
OutcomeBasedEquality	-0.0368***	-0.0297***	0.0358***	-0.247***	0.0132
	(0.00924)	(0.00939)	(0.00983)	(0.0234)	(0.0295)
EstablishmentSize		0.134***	0.159***	0.141***	0.158***
		(0.00902)	(0.00913)	(0.00902)	(0.00915)
EmployeesFlow		0.0648***	0.0604***	0.0581***	0.0562***
		(0.00493)	(0.00488)	(0.00487)	(0.00485)
OpenEndedContracts		0.00557	0.00395	0.0124***	0.0116***
		(0.00366)	(0.00364)	(0.00368)	(0.00367)
PartTimers		-0.000787	-0.00667	-0.00968**	-0.0169***
		(0.00418)	(0.00431)	(0.00429)	(0.00441)
Male manager		0	0	0	0
		(Omitted)	(Omitted)	(Omitted)	(Omitted)
Female manager		-0.000301	-0.00128	0.0455***	0.0414***
		(0.0115)	(0.0114)	(0.0116)	(0.0116)
Other manager (gender)		-0.0122	-0.0271	0.0272	0.0205
		(0.0551)	(0.0548)	(0.0530)	(0.0534)
General manager		0	0	0	0
		(Omitted)	(Omitted)	(Omitted)	(Omitted)
Owner manager		-0.145***	-0.122***	-0.0873***	-0.0678***
		(0.0194)	(0.0191)	(0.0193)	(0.0191)
Human resource manager		-0.0142	-0.0167	-0.0160	-0.0115
		(0.0192)	(0.0189)	(0.0192)	(0.0190)
Training manager		0.131*	0.0738	0.0843	0.0645
		(0.0770)	(0.0768)	(0.0757)	(0.0765)
Finance/accounting manager		-0.205***	-0.198***	-0.175***	-0.162***
		(0.0208)	(0.0207)	(0.0208)	(0.0207)
Other manager (position)		-0.160***	-0.165***	-0.127***	-0.128***
		(0.0186)	(0.0183)	(0.0185)	(0.0183)
Constant	2.943***	2.566***	2.056***	3.382***	2.148***
	(0.0341)	(0.0511)	(0.0947)	(0.0997)	(0.140)
Sector fixed effects	No	No	Yes	No	Yes
Country fixed effects	No	No	No	Yes	Yes
Observations	20,856	20,100	20,100	20,100	20,100
R-squared	0.001	0.042	0.068	0.079	0.098

Notes: The dependent variable is the frequency of providing opportunities for training and development by managers on a Likert scale from 1 to 4, with 1 being 'Never' and 4 being 'Very often'. The regressions make use of robust standard errors. Statistical significance levels: *p<0.1, **p<0.05, ***p<0.01.

6.3.2. The moderating effect of quality of education

Table 10 shows the effect of the quality of education in a country on the relationship between *Outcome-Based Equality* and the provision of opportunities for training and development by managers. The coefficients on the variable *Outcome-Based Equality* in Columns 1 to 3 are positive and significant at a 5% significance level. The positive relationship between quality of education and the provision of training and development opportunities by managers is negatively moderated by the variable *Share Of People With Tertiary Education* (as a proxy for the quality of education). This is not in line with hypothesis 6, which expected a positively moderating effect. Column 4 and 5, which both include country fixed effects, the interaction effect is positive but insignificant.

The robustness check in Table C4 mostly shows a negative effect of *Outcome-Based Equality* on the provision, which is positively moderated by the variable *Share Of GDP Spent On Education.* This is in line with the predictions in hypothesis 6. However, the difference in results between both models makes the robustness of the results to changes in the proxy for quality of education questionable.

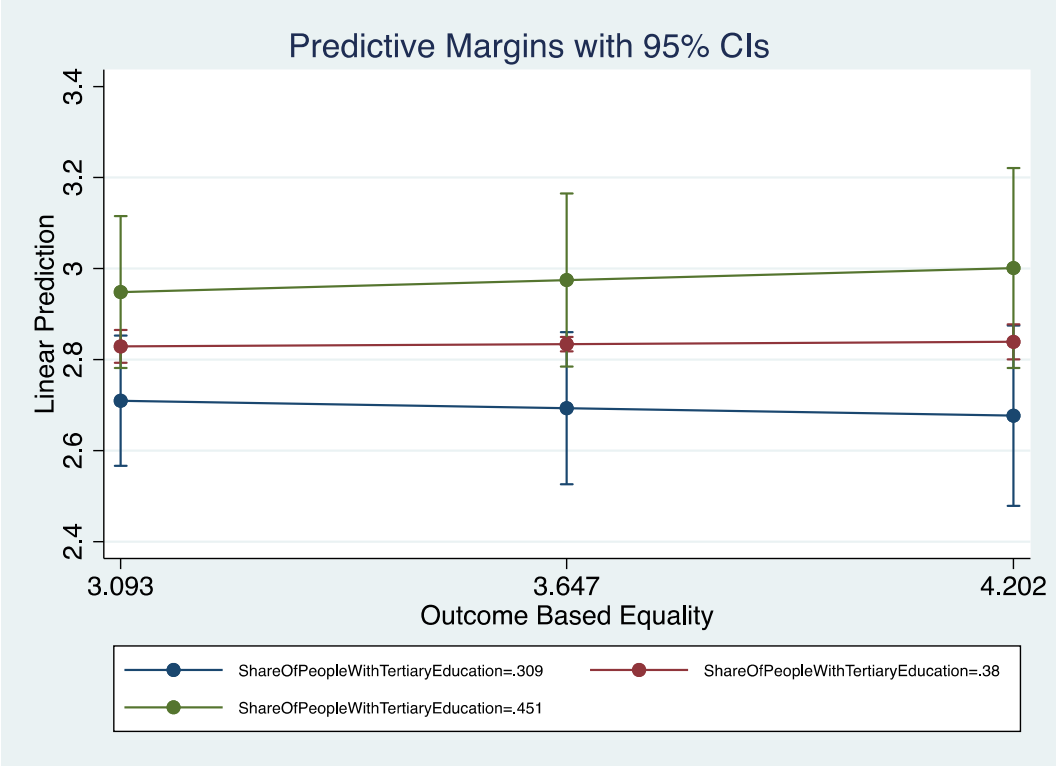
Table 10: The moderating effect of the share of people with tertiary education on the effect of *Outcome-Based Equality* on the provision of training and development

	The provision of opportunities for training and development				
VARIABLES	(1)	(2)	(3)	(4)	(5)
OutcomeBasedEquality	0.498***	0.531***	0.598***	-0.276**	-0.198
	(0.0619)	(0.0629)	(0.0621)	(0.138)	(0.139)
ShareOfPeopleWithTertiaryEducation	5.782***	5.972***	6.021***	-	-
	(0.592)	(0.599)	(0.590)		
OutcomeBasedEquality* ShareOfPeopleWithTertiaryEducation	-1.215***	-1.298***	-1.290***	0.0790	0.544
	(0.156)	(0.159)	(0.157)	(0.353)	(0.353)
EstablishmentSize		0.147***	0.170***	0.147***	0.164***
		(0.00946)	(0.00957)	(0.00951)	(0.00965)
EmployeesFlow		0.0547***	0.0511***	0.0514***	0.0499***
		(0.00522)	(0.00517)	(0.00520)	(0.00518)
OpenEndedContracts		0.00923**	0.00675*	0.0129***	0.0120***
		(0.00381)	(0.00380)	(0.00388)	(0.00389)
PartTimers		-0.00614	-0.0129***	-0.00895**	-0.0174***
		(0.00439)	(0.00454)	(0.00450)	(0.00466)
Male manager		0	0	0	0
		(Omitted)	(Omitted)	(Omitted)	(Omitted)
Female manager		0.0282**	0.0272**	0.0520***	0.0468***
		(0.0120)	(0.0119)	(0.0122)	(0.0121)
Other manager (gender)		0.0338	0.0227	0.0435	0.0368
		(0.0590)	(0.0575)	(0.0569)	(0.0568)
General manager		0	0	0	0
		(Omitted)	(Omitted)	(Omitted)	(Omitted)
Owner manager		-0.121***	-0.0936***	-0.0943***	-0.0720***
		(0.0202)	(0.0200)	(0.0201)	(0.0200)
Human resource manager		-0.0137	-0.0152	-0.0192	-0.0129
		(0.0199)	(0.0197)	(0.0200)	(0.0198)
Training manager		0.118	0.0611	0.0698	0.0468
		(0.0801)	(0.0779)	(0.0779)	(0.0776)
Finance/accounting manager		-0.175***	-0.168***	-0.177***	-0.163***
		(0.0220)	(0.0218)	(0.0219)	(0.0218)
Other manager (position)		-0.137***	-0.139***	-0.124***	-0.123***
		(0.0193)	(0.0191)	(0.0193)	(0.0191)
Constant	0.479**	0.0217	-0.500*	3.394***	2.240***
	(0.239)	(0.247)	(0.257)	(0.118)	(0.160)
Sector fixed effects	No	No	Yes	No	Yes
Country fixed effects	No	No	No	Yes	Yes
Observations	18,365	17,756	17,756	17,756	17,756
R-squared	0.016	0.054	0.082	0.076	0.096

Notes: Table shows regression results of the moderating effect of the share of people with tertiary education (as a proxy for the quality of education) on the relationship between people's perception on fairness of income equality and the provision of opportunities for training and development. Information on the share of people with tertiary education was not available for Bulgaria, Croatia, Cyprus and Romania, which results into missing values. The regressions make use of robust standard errors. Statistical significance levels: *p<0.1, **p<0.05, ***p<0.01.

The graph in Figure 6 shows visually the effect that quality of education has on the relationship between the perception on fairness of income equality and the use by managers of providing opportunities for training and development to motivate employees.[10] The graph shows that when the share of people with tertiary education in a country is relatively low, the relationship is slightly negative. When the share of tertiary educated people is average relative to other countries, the relationship is slightly positive. Finally, when the share of tertiary educated people is relatively high, the relationship is even more positive. This suggests that quality of education seems to have a positively moderating effect. Figure C4 shows the results when using the share of GDP that is spent on education in a country as a proxy for the quality of education. This graph shows an even stronger positively moderating effect of quality of education on the relationship between *Outcome-Based Equality* and the use of training and development. This is in line with hypothesis 6.

Figure 6: Graph of the moderating effect of the share of people with tertiary education on the effect of *Outcome-Based Equality* on the provision of training and development



Notes: Graph shows the moderating effect of the share of people with tertiary education (as a proxy for the quality of education) on the relationship between people's perception on fairness of income equality and the provision of opportunities for training and development. The graph shows the relationship on the interval of one standard deviation below the mean of *Outcome-Based Equality* until one standard deviation above the mean. Information on the share of people with tertiary education was not available for Bulgaria, Croatia, Cyprus and Romania.

[10] Figure 6 uses the model in Column 5 of Table 10 to consider other heterogeneity between countries and sectors

6.4. Input-dependent equality and the provision of training and development

6.4.1. The relationship

Table 11 shows the effect of perception on fairness of hard-working people earning more and the use of providing opportunities for training and development by managers is that sector-country subgroup. The coefficient on *Input-Dependent Equality* is positive in all models, but only significant in Column 1 (at a 5% significance level). In that model, when the average of people's perception on fairness of hard-working people earning more in a sector-country subgroup increases with 1, the provision of opportunities for training and development by managers increases with 0.0520. However, the existence of a relationship is questionable, and therefore hypothesis 7 cannot be confirmed.

Table 11: The effect of perception on fairness of hard-working people earning more on the provision of opportunities for training and development[11]

	The provision of opportunities for training and development				
VARIABLES	(1)	(2)	(3)	(4)	(5)
InputDependentEquality	0.0520**	0.0296	0.0254	0.00696	0.00849
	(0.0236)	(0.0235)	(0.0238)	(0.0336)	(0.0347)
EstablishmentSize		0.135***	0.157***	0.138***	0.158***
		(0.00902)	(0.00912)	(0.00904)	(0.00915)
EmployeesFlow		0.0646***	0.0608***	0.0593***	0.0562***
		(0.00493)	(0.00488)	(0.00488)	(0.00485)
OpenEndedContracts		0.00598	0.00315	0.0143***	0.0116***
		(0.00365)	(0.00365)	(0.00367)	(0.00367)
PartTimers		0.000592	-0.00903**	-0.0103**	-0.0168***
		(0.00415)	(0.00429)	(0.00430)	(0.00441)
Male manager		0	0	0	0
		(Omitted)	(Omitted)	(Omitted)	(Omitted)
Female manager		0.000898	-0.00114	0.0469***	0.0413***
		(0.0115)	(0.0114)	(0.0117)	(0.0116)
Other manager (gender)		-0.0101	-0.0250	0.0363	0.0204
		(0.0552)	(0.0549)	(0.0537)	(0.0534)
General manager		0	0	0	0
		(Omitted)	(Omitted)	(Omitted)	(Omitted)
Owner manager		-0.145***	-0.122***	-0.0872***	-0.0680***
		(0.0194)	(0.0192)	(0.0193)	(0.0191)
Human resource manager		-0.0154	-0.0146	-0.0101	-0.0117
		(0.0192)	(0.0189)	(0.0192)	(0.0190)
Training manager		0.120	0.0864	0.105	0.0639
		(0.0771)	(0.0767)	(0.0767)	(0.0765)
Finance/accounting manager		-0.211***	-0.192***	-0.173***	-0.162***
		(0.0207)	(0.0206)	(0.0208)	(0.0207)
Other manager (position)		-0.162***	-0.163***	-0.124***	-0.128***
		(0.0186)	(0.0183)	(0.0186)	(0.0183)
Constant	2.576***	2.322***	2.076***	2.414***	2.156***
	(0.106)	(0.110)	(0.138)	(0.167)	(0.191)
Sector fixed effects	No	No	Yes	No	Yes
Country fixed effects	No	No	No	Yes	Yes
Observations	20,856	20,100	20,100	20,100	20,100
R-squared	0.000	0.041	0.068	0.074	0.098

Notes: The regressions make use of robust standard errors. Statistical significance levels: *p<0.1, **p<0.05, ***p<0.01.

6.4.2. The moderating effect of quality of education

Table 12 shows the effect of the quality of education in a country on the relationship between people's perception on fairness of hard-working people earning more and the provision of opportunities for training and development by managers. The results in Columns 1 to 3 show a significant positive effect of *Input-Dependent Equality* on the provision opportunities for training and development by managers. In those models, the effect is negatively moderated by the variable *Share Of People With Tertiary*

[11] Table C6 also shows the relationship between of perception on income distribution in general and the provision of opportunities for training and development (so including both the variables *Outcome-Based Equality* and *Input-Dependent Equality* in the models). Due to the low correlation between those variables, the results in Table 9 and 11.

Education. These results are against hypothesis 8, since the hypothesis predicted that the positive relationship would be positively instead of negatively influenced by the quality of education. The results in Columns 4 and 5, which include country fixed effects, are positive but insignificant. The robustness check (Table C5) shows different results.

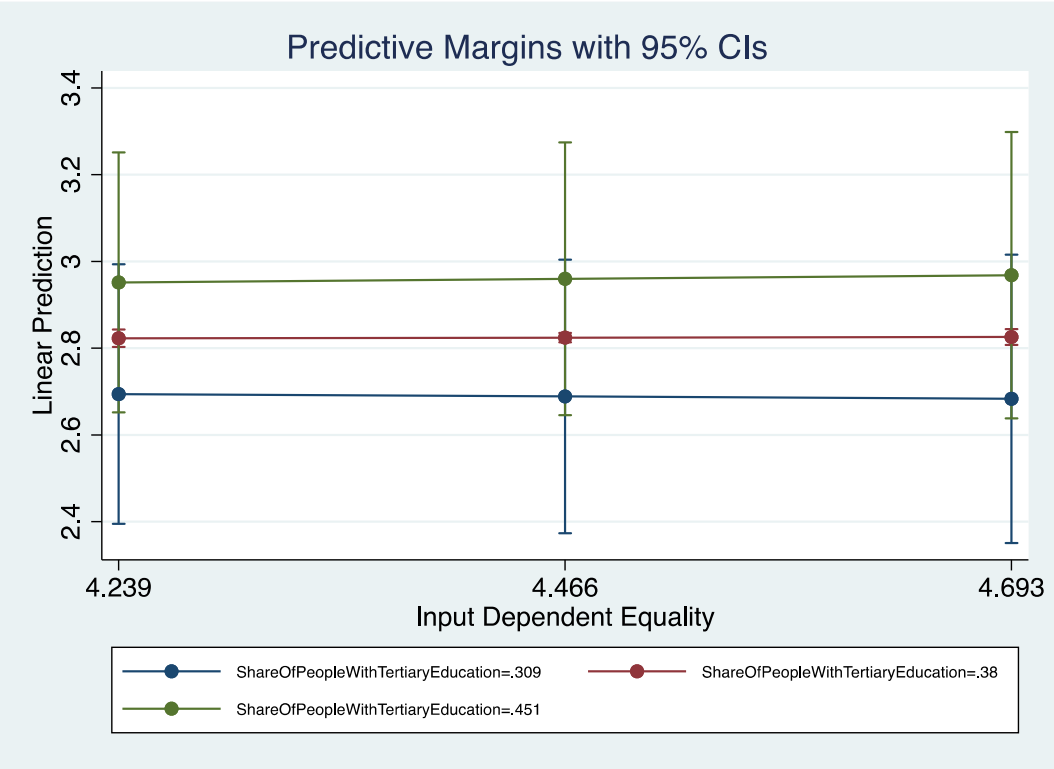
Table 12: The moderating effect of the share of people with tertiary education on the effect of *Input-Dependent Equality* on the provision of training and development

	The provision of opportunities for training and development				
VARIABLES	(1)	(2)	(3)	(4)	(5)
InputDependentEquality	0.764***	0.648***	0.704***	-0.152	-0.156
	(0.145)	(0.144)	(0.145)	(0.196)	(0.202)
ShareOfPeopleWithTertiaryEducati	9.918***	8.644***	9.146***	-	-
	(1.674)	(1.670)	(1.691)		
InputDependentEquality* ShareOfPeopleWithTertiaryEducati	-1.977***	-1.712***	-1.853***	0.383	0.428
	(0.378)	(0.377)	(0.381)	(0.496)	(0.513)
EstablishmentSize		0.142***	0.162***	0.144***	0.164***
		(0.00946)	(0.00958)	(0.00954)	(0.00965)
EmployeesFlow		0.0559***	0.0532***	0.0525***	0.0498***
		(0.00522)	(0.00518)	(0.00521)	(0.00518)
OpenEndedContracts		0.00768**	0.00429	0.0148***	0.0120***
		(0.00381)	(0.00382)	(0.00388)	(0.00389)
PartTimers		-0.00958**	-0.0186***	-0.00958**	-0.0173***
		(0.00440)	(0.00455)	(0.00451)	(0.00466)
Male manager		0	0	0	0
		(Omitted)	(Omitted)	(Omitted)	(Omitted)
Female manager		0.0199*	0.0166	0.0535***	0.0469***
		(0.0120)	(0.0119)	(0.0122)	(0.0121)
Other manager (gender)		0.0287	0.0177	0.0485	0.0373
		(0.0592)	(0.0579)	(0.0580)	(0.0568)
General manager		0	0	0	0
		(Omitted)	(Omitted)	(Omitted)	(Omitted)
Owner manager		-0.113***	-0.0912***	-0.0941***	-0.0727***
		(0.0202)	(0.0200)	(0.0202)	(0.0200)
Human resource manager		0.00128	0.00131	-0.0136	-0.0134
		(0.0198)	(0.0197)	(0.0200)	(0.0198)
Training manager		0.139*	0.104	0.0885	0.0463
		(0.0790)	(0.0773)	(0.0793)	(0.0776)
Finance/accounting manager		-0.157***	-0.144***	-0.176***	-0.164***
		(0.0219)	(0.0218)	(0.0220)	(0.0218)
Other manager (position)		-0.129***	-0.131***	-0.121***	-0.124***
		(0.0194)	(0.0191)	(0.0194)	(0.0191)
Constant	-0.995	-0.805	-1.243*	2.546***	2.239***
	(0.643)	(0.638)	(0.649)	(0.203)	(0.221)
Sector fixed effects	No	No	Yes	No	Yes
Country fixed effects	No	No	No	Yes	Yes
Observations	18,365	17,756	17,756	17,756	17,756
R-squared	0.014	0.051	0.076	0.070	0.096

Notes: Table shows regression results of the moderating effect of the share of people with tertiary education (as a proxy for the quality of education) on the relationship between people's perception on fairness of hard-working people earning more and the provision of opportunities for training and development. Information on the share of people with tertiary education was not available for Bulgaria, Croatia, Cyprus and Romania, which results into missing values. The regressions make use of robust standard errors. Statistical significance levels: *p<0.1, **p<0.05, ***p<0.01.

The graph in Figure 7 shows the moderating effect that the *Share of People With Tertiary Education* has on the relationship between people's perception on fairness of hard-working people earning more and the use of training and development to motivate. The figure shows no clear moderating effect of quality of education. Figure C4 shows the result when using the *Share Of GDP Spent On Education* as the proxy for quality of education (robustness check). Again, no real moderating effect is found. These results cannot hypothesis 8.

Figure 7: Graph of the moderating effect of the share of people with tertiary education on the effect of *Input-Dependent Equality* on the provision of training and development



Notes: Graph shows the moderating effect of the share of people with tertiary education (as a proxy for the quality of education) on the relationship between people's perception on fairness of hard-working people earning more and the provision of opportunities for training and development. The graph shows the relationship on the interval of one standard deviation below the mean of *Input-Dependent Equality* until one standard deviation above the mean. Information on the share of people with tertiary education was not available for Bulgaria, Croatia, Cyprus and Romania.

7. Conclusion

The research question this thesis aimed to answer is: *How does people's perception on fairness relate to human resource practices by managers to motivate their employees?*

The results of the study revealed the following. In contradiction with the expectation based on literature, there has not been found a statistically significant negative relationship between people's perception on fairness of income equality and the use of monetary rewards. So, people who find income equality relatively unfair, do not seem to self-select themselves into companies with managers that often use monetary rewards to motivate their employees. However, the relationship does seem to be negatively moderated by the tax rate levied on monetary rewards. This suggests that if monetary rewards are taxed highly in a country, the relationship between people's perception on fairness of income inequality and the use of monetary rewards becomes weaker. The explanation for the negative moderating effect could be that the tax rate determines the extent to which monetary rewards affect income equality. When taxes are high, a monetary reward leads to less income inequality.

Furthermore, there seems to be a positive relationship between the perception on fairness of hard-working people earning more and the use of monetary rewards by managers. These results suggests that people who find it relatively fair when hard-working people earn more, do seem to self-select themselves into companies that more often make use of monetary rewards to motivate. This is in accordance with the expectation based on the research by Lazear (1986). He argued that monetary rewards induce highly productive workers to apply at a firm, while less productive workers prefer a high base salary and weak incentives. However, tax levied on monetary rewards does not seem to have a moderating influence on this relationship.

The expected relationship between people's perception on fairness of income equality and on hard-working people earning more with the provision of opportunities for training and development by managers to motivate their employees is not found. These results suggest that there does not seem to be a self-selecting effect of people with certain beliefs on fairness of income distribution into companies based on their use of training and development to motivate.

Thus, this study found that people's perceptions about fairness of income distribution do seem to be related to the use of monetary rewards by managers. The relationship between people's beliefs about income distribution and the use of training and development is disproved by the results of this study.

8. Discussion

8.1. Validity

As already explained in the theoretic framework, the internal validity of research into the effect of perception on fairness on the use of motivation tools is questionable due to possible self-selection of people into sectors that act more according to their beliefs. For this reason, this research looks into correlation between those variables instead of a causal relationship.

Another problem with the internal validity is the setup of the study. Namely, the ECS asks multiple managers in the sector-country subgroups what motivational tools they use. A correlation is then sought between these answers and the average responses from the ESS in that sector-country subgroup on the beliefs on fairness. However, it cannot be said with certainty whether the average beliefs of respondents to the ESS in a subgroup match the beliefs of employees of the managers who answer the ECS.

Furthermore, ESS respondents may also be managers of firms. This entails that the results on perception of fairness of income distribution from the ESS are possibly determined to some extent by managers that influence human resource practices in the company they work for. This allows for the possibility that a correlation between the average beliefs of respondents in a sector country subgroup with the use of motivational tools is particularly caused by managers that choose a particular way of motivating employees according to their own beliefs.

The external validity of this research is strong, due to the large number of respondents of the ECS and the ESS, and the fact that the survey was conducted in 25 countries. However, for this research, average scores on people's perception on income distribution in sector-country subgroups were created based on the individual answers of respondents for the ESS. In some sector-country subgroups, the number of respondents was very low. This makes these numbers less reliable. The same applies for data from the ECS.

8.2. Implications

Up to this point, there is no literature on how motivation of people might be influenced by people's beliefs on social matters. The most important implication of this research is that it is the first step in filling this gap. Namely, this research shows a likely relationship between people's beliefs on how

income should be distributed in a sector-country subgroup and the use of monetary rewards by managers in that same subgroup. This might implicate a relationship between what motivates people and their beliefs on other subjects.

Another implication of this research is that managers have a new ground to base their choices for motivation tools on. Namely, the results make it more likely that people's beliefs on social matters could have an impact on what motivates them. This would implicate that human resource practices can be better adjusted to the workforce. However more research must be done into this field.

Furthermore, the result of this research can help improve productivity as a company as well as well-being of employees. As stated in Section 2, intrinsically motivated behaviour can result in creativity, flexibility, and spontaneity, whereas extrinsically motivated actions can result in low self-esteem and anxiety due to the pressure and tension it puts on people (Cameron & Pierce, 1994). This shows how important it is to motivate the workforce the right way. However, the results in this paper shows that some people even self-select themselves into companies that use extrinsic motivation tools based on their beliefs on fairness. Also, there are examples of settings in which performance pay increases a company's productivity (Lazear, 2000). This might implicate that extrinsic motivation could be positive for both the worker as the company. However, the company should attract the right people, who find income equality relatively unfair and find that hard-working people should earn more.

Finally, an implication of this research is that it helps fill the gap in explaining why there are so many differences in management practices across firms, industries, and countries. Bloom and Van Reenen (2010) explained this partially by imperfectly competitive markets, family ownership of firms, regulations restricting management practices, and informational barriers that allow bad management to persist. The research in this paper shows that differences in people's beliefs on social matters might also be an explanation for managerial differences.

8.3. Suggestions for future research

The limitations mentioned above give room for future research. Firstly, it would be interesting to do qualitative research. This could be interviewing employees to find out what their beliefs on social matters are and observing what motivation tools their managers use. This would resolve the problem with internal validity. Namely, this ensures finding out what the beliefs are of employees and knowing what kind of motivation tools the managers of those same people use for them. It also eliminates the possibility that managers' own perception on social matters affects the correlation. This way it would

also be possible to test other sorts of beliefs on social matters. It might be interesting to see if, for example, people's political preferences or their beliefs about environmental issues also correlate with what motivates them or how managers try to motivate them.

Another problem with the research in this paper is the lack of results in some country-sector subgroups for both the data from the ECS and the ESS. It would be interesting to re-do this research, but then excluding subgroups that do not consist of enough results.

An implication of this research is that companies seem to be able to increase productivity by introducing performance pay if they attract the right people, also regarding the beliefs on fairness of those people. However, this asks for more research into how companies can attract people with the 'right' beliefs.

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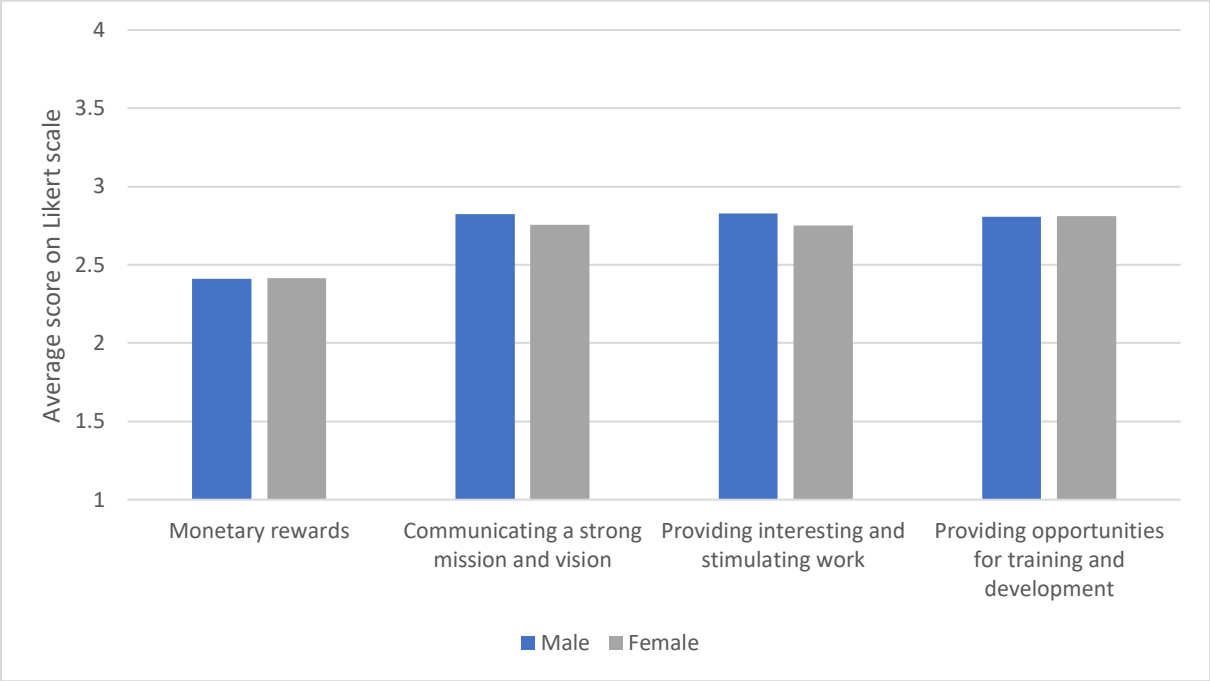
Appendix A

Table A1: Descriptive and summary statistics of sector and country fixed effects

Explanatory variable	Answers	Number of observations	%
Sector	Mining and quarrying	86	0.41
	Manufacturing	5242	24.98
	Electricity, gas, steam, and air conditioning supply	186	0.89
	Water supply; Sewerage, waste management and remediation activities	342	1.63
	Construction	2193	10.45
	Wholesale and retail trade; repair of motor vehicles and motorcycles	4097	19.53
	Transportation and storage	1263	6.02
	Accommodation and food service activities	1258	6.00
	Information and communication	806	3.84
	Financial and insurance activities	400	1.91
	Real estate activities	291	1.39
	Professional, scientific, and technical activities	1318	6.28
	Administrative and support service activities	657	3.13
	Arts, entertainment, and recreation	665	3.17
	Other service activities	2177	10.38
Total		20981	100.00
Country	Austria	1010	4.81
	Belgium	1011	4.82
	Bulgaria	1024	4.88
	Croatia	555	2.65
	Cyprus	122	0.58
	Czechia	904	4.31
	Denmark	1011	4.82
	Estonia	501	2.39

	Finland	1032	4.92
	France	1360	6.48
	Germany	711	3.39
	Hungary	1087	5.18
	Ireland	300	1.43
	Italy	1498	7.14
	Latvia	514	2.45
	Lithuania	510	2.43
	The Netherlands	1030	4.91
	Poland	842	4.01
	Portugal	973	4.64
	Romania	815	3.88
	Slovakia	361	1.72
	Slovenia	556	2.65
	Spain	1477	7.04
	Sweden	1080	5.15
	United Kingdom	697	3.32
Total		20981	100.00

Figure A1: Average frequency of use of motivation tools by managers



Appendix B

Table B1: The effect of sector and country on the perception on fairness of income equality

	Outcome-Based Equality		
VARIABLES	(1)	(2)	(3)
2.Sector	0.130		0.134***
	(0.0808)		(0.0520)
3.Sector	-0.180**		-0.0207
	(0.0895)		(0.0600)
4.Sector	0.111		0.144**
	(0.0856)		(0.0561)
5.Sector	0.00510		0.118**
	(0.0813)		(0.0520)
6.Sector	0.0446		0.0942*
	(0.0809)		(0.0520)
7.Sector	0.0861		0.193***
	(0.0817)		(0.0521)
8.Sector	0.176**		0.209***
	(0.0818)		(0.0521)
9.Sector	-0.374***		-0.273***
	(0.0829)		(0.0525)
10.Sector	-0.523***		-0.298***
	(0.0847)		(0.0526)
11.Sector	-0.359***		-0.0814
	(0.0886)		(0.0611)
12.Sector	-0.429***		-0.260***
	(0.0816)		(0.0522)
13.Sector	0.0371		0.193***
	(0.0831)		(0.0524)
14.Sector	-0.225***		0.0395
	(0.0832)		(0.0531)
15.Sector	0.0918		0.158***
	(0.0812)		(0.0522)
2.Country		0.188***	0.164***
		(0.0106)	(0.00853)
3.Country		-0.0609***	-0.0924***
		(0.00910)	(0.00615)
4.Country		0.478***	0.475***
		(0.00954)	(0.00913)
5.Country		0.458***	0.471***
		(0.0180)	(0.00990)
6.Country		-0.343***	-0.349***
		(0.00995)	(0.00658)
7.Country		-1.073***	-1.054***
		(0.00786)	(0.00626)
8.Country		-0.827***	-0.835***
		(0.0133)	(0.00856)
9.Country		-0.556***	-0.541***
		(0.0101)	(0.00658)
10.Country		0.451***	0.434***
		(0.00891)	(0.00676)
11.Country		-0.338***	-0.340***
		(0.0111)	(0.00839)
12.Country		-0.0389***	-0.0540***
		(0.00931)	(0.00677)
13.Country		0.224***	0.220***
		(0.0156)	(0.0101)
14.Country		0.681***	0.659***
		(0.00772)	(0.00534)
15.Country		-0.282***	-0.303***

		(0.0113)	(0.0121)
16.Country		-0.706***	-0.734***
		(0.0124)	(0.00996)
17.Country		-0.845***	-0.849***
		(0.00912)	(0.00629)
18.Country		-0.127***	-0.134***
		(0.0111)	(0.00933)
19.Country		0.703***	0.663***
		(0.00897)	(0.00706)
20.Country		-0.0761***	-0.101***
		(0.0109)	(0.00958)
21.Country		0.179***	0.166***
		(0.0202)	(0.0181)
22.Country		0.459***	0.425***
		(0.0115)	(0.00866)
23.Country		0.161***	0.176***
		(0.00979)	(0.00645)
24.Country		-0.757***	-0.732***
		(0.00866)	(0.00591)
25.Country		-0.291***	-0.269***
		(0.0120)	(0.00959)
Constant	3.643***	3.735***	3.662***
	(0.0805)	(0.00665)	(0.0519)
Observations	20,981	20,981	20,981
R-squared	0.110	0.839	0.900

Notes: Table shows results of regressing sector and country fixed effects on perception on fairness of income equality. The regressions make use of robust standard errors. Statistical significance levels: *p<0.1, **p<0.05, ***p<0.01.

Table B2: The effect of sector and country on the perception on fairness of hard-working people earning more

	Input-Dependent Equality		
VARIABLES	(1)	(2)	(3)
2.Sector	-0.0865*		-0.109*
	(0.0512)		(0.0608)
3.Sector	0.104*		0.0758
	(0.0551)		(0.0627)
4.Sector	-0.107*		-0.110*
	(0.0565)		(0.0649)
5.Sector	-0.0737		-0.0970
	(0.0513)		(0.0608)
6.Sector	-0.0622		-0.109*
	(0.0512)		(0.0608)
7.Sector	-0.0788		-0.108*
	(0.0514)		(0.0609)
8.Sector	-0.0536		-0.0995
	(0.0515)		(0.0609)
9.Sector	-0.0954*		-0.125**
	(0.0520)		(0.0612)
10.Sector	-0.0393		-0.130**
	(0.0529)		(0.0614)
11.Sector	0.0419		0.00388
	(0.0567)		(0.0642)
12.Sector	-0.0388		-0.0707
	(0.0514)		(0.0609)
13.Sector	-0.115**		-0.178***
	(0.0515)		(0.0610)
14.Sector	-0.139***		-0.154**
	(0.0519)		(0.0612)
15.Sector	-0.185***		-0.212***
	(0.0515)		(0.0610)
2.Country		-0.264***	-0.248***
		(0.00416)	(0.00430)
3.Country		-0.271***	-0.265***
		(0.00453)	(0.00444)
4.Country		-0.347***	-0.350***
		(0.00960)	(0.00886)
5.Country		-0.222***	-0.226***
		(0.0135)	(0.0132)
6.Country		-0.486***	-0.483***
		(0.00588)	(0.00630)
7.Country		-0.101***	-0.0970***
		(0.00537)	(0.00459)
8.Country		-0.0760***	-0.0797***
		(0.00659)	(0.00614)
9.Country		-0.437***	-0.444***
		(0.00650)	(0.00567)
10.Country		-0.170***	-0.170***
		(0.00360)	(0.00357)
11.Country		-0.0966***	-0.0966***
		(0.00419)	(0.00420)
12.Country		-0.514***	-0.508***
		(0.00609)	(0.00574)
13.Country		-0.382***	-0.380***
		(0.0103)	(0.00999)
14.Country		-0.197***	-0.193***
		(0.00427)	(0.00463)
15.Country		-0.198***	-0.202***
		(0.00800)	(0.00714)

16.Country		-0.500***	-0.498***
		(0.0105)	(0.0104)
17.Country		-0.323***	-0.318***
		(0.00982)	(0.00867)
18.Country		-0.297***	-0.301***
		(0.00498)	(0.00528)
19.Country		-0.486***	-0.488***
		(0.00524)	(0.00523)
20.Country		-0.670***	-0.672***
		(0.00485)	(0.00462)
21.Country		-0.580***	-0.575***
		(0.0148)	(0.0156)
22.Country		-0.113***	-0.113***
		(0.00585)	(0.00635)
23.Country		-0.396***	-0.385***
		(0.00506)	(0.00487)
24.Country		-0.243***	-0.238***
		(0.00448)	(0.00473)
25.Country		-0.445***	-0.440***
		(0.00682)	(0.00591)
Constant	4.550***	4.773***	4.887***
	(0.0511)	(0.00291)	(0.0608)
Observations	20,981	20,981	20,981
R-squared	0.041	0.536	0.573

Notes: Table shows results of regressing sector and country fixed effects on perception on fairness of hard-working people earning more. The regressions make use of robust standard errors. Statistical significance levels: *p<0.1, **p<0.05, ***p<0.01.

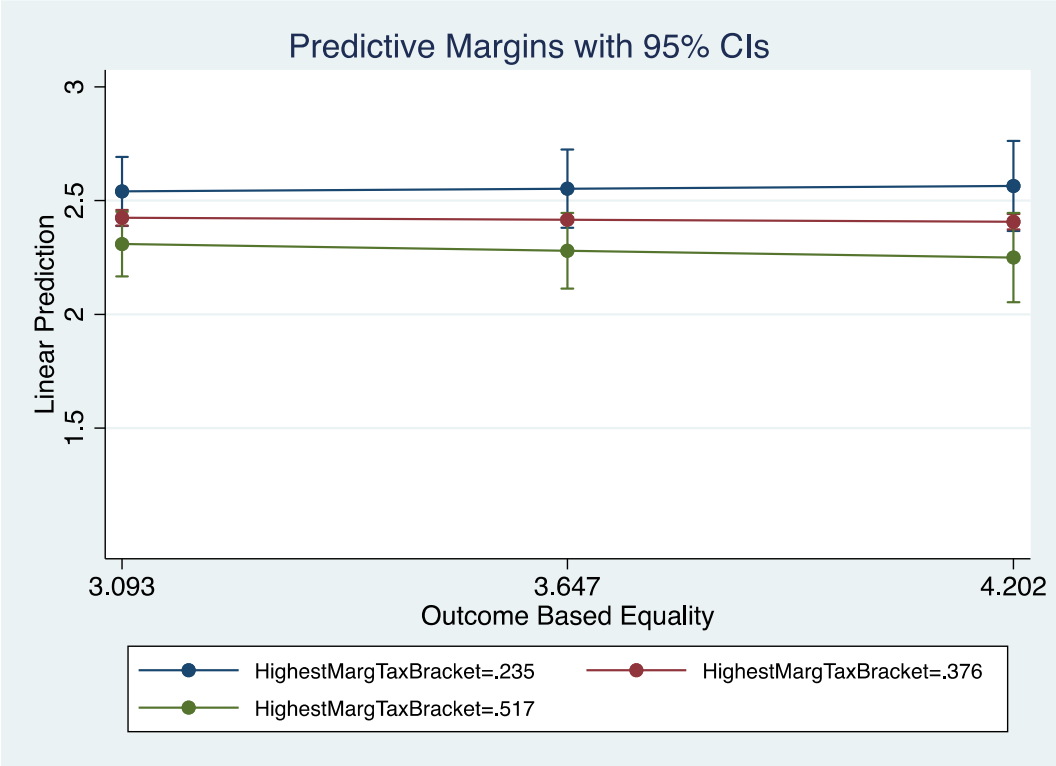
Appendix C

Table C1: The moderating effect of the highest marginal tax bracket on the effect of *Outcome-Based Equality* on the use of monetary rewards

	The use of monetary rewards				
VARIABLES	(1)	(2)	(3)	(4)	(5)
OutcomeBasedEquality	0.159***	0.128***	0.125***	0.0781	0.0839
	(0.0390)	(0.0392)	(0.0396)	(0.0646)	(0.0666)
HighestMargTaxBracket	-0.269	-0.399	-0.501	-	-
	(0.333)	(0.334)	(0.336)		
OutcomeBasedEquality*HighestMargTaxBracket	-0.144	-0.1000	-0.0812	-0.306*	-0.265
	(0.0916)	(0.0919)	(0.0923)	(0.164)	(0.167)
EstablishmentSize		0.103***	0.102***	0.0857***	0.0865***
		(0.00921)	(0.00938)	(0.00916)	(0.00932)
EmployeesFlow		0.0662***	0.0651***	0.0715***	0.0705***
		(0.00497)	(0.00498)	(0.00492)	(0.00493)
OpenEndedContracts		0.0110***	0.00741**	0.0140***	0.0116***
		(0.00373)	(0.00376)	(0.00377)	(0.00379)
PartTimers		-0.0563***	-0.0490***	-0.0459***	-0.0412***
		(0.00421)	(0.00436)	(0.00423)	(0.00437)
Male manager		0	0	0	0
		(Omitted)	(Omitted)	(Omitted)	(Omitted)
Female manager		0.00519	0.00661	-0.0217*	-0.0210*
		(0.0118)	(0.0117)	(0.0117)	(0.0117)
Other manager (gender)		0.103**	0.103*	0.0677	0.0674
		(0.0523)	(0.0526)	(0.0524)	(0.0527)
General manager		0	0	0	0
		(Omitted)	(Omitted)	(Omitted)	(Omitted)
Owner manager		0.0515**	0.0339*	0.0548***	0.0385*
		(0.0202)	(0.0203)	(0.0200)	(0.0200)
Human resource manager		-0.0680***	-0.0747***	-0.0385*	-0.0434**
		(0.0198)	(0.0197)	(0.0198)	(0.0197)
Training manager		-0.0569	-0.0645	-0.0438	-0.0464
		(0.0803)	(0.0799)	(0.0785)	(0.0782)
Finance/accounting manager		-0.0951***	-0.109***	-0.0723***	-0.0825***
		(0.0215)	(0.0215)	(0.0215)	(0.0215)
Other manager (position)		-0.170***	-0.173***	-0.142***	-0.145***
		(0.0192)	(0.0192)	(0.0191)	(0.0190)
Constant	2.134***	1.984***	2.092***	2.308***	2.221***
	(0.141)	(0.147)	(0.160)	(0.152)	(0.185)
Sector fixed effects	No	No	Yes	No	Yes
Country fixed effects	No	No	No	Yes	Yes
Observations	20,838	20,091	20,091	20,091	20,091
R-squared	0.025	0.057	0.065	0.094	0.101

Notes: Table shows regression results of the moderating effect of the highest marginal tax bracket in a country (as a proxy for tax raised on monetary rewards) on the relationship between people's perception on fairness of income equality and the use of monetary rewards The regressions make use of robust standard errors. Statistical significance levels: *p<0.1, **p<0.05, ***p<0.01.

Figure C1: Graph of the moderating effect of the highest marginal tax bracket on the effect of *Outcome-Based Equality* on the use of monetary rewards



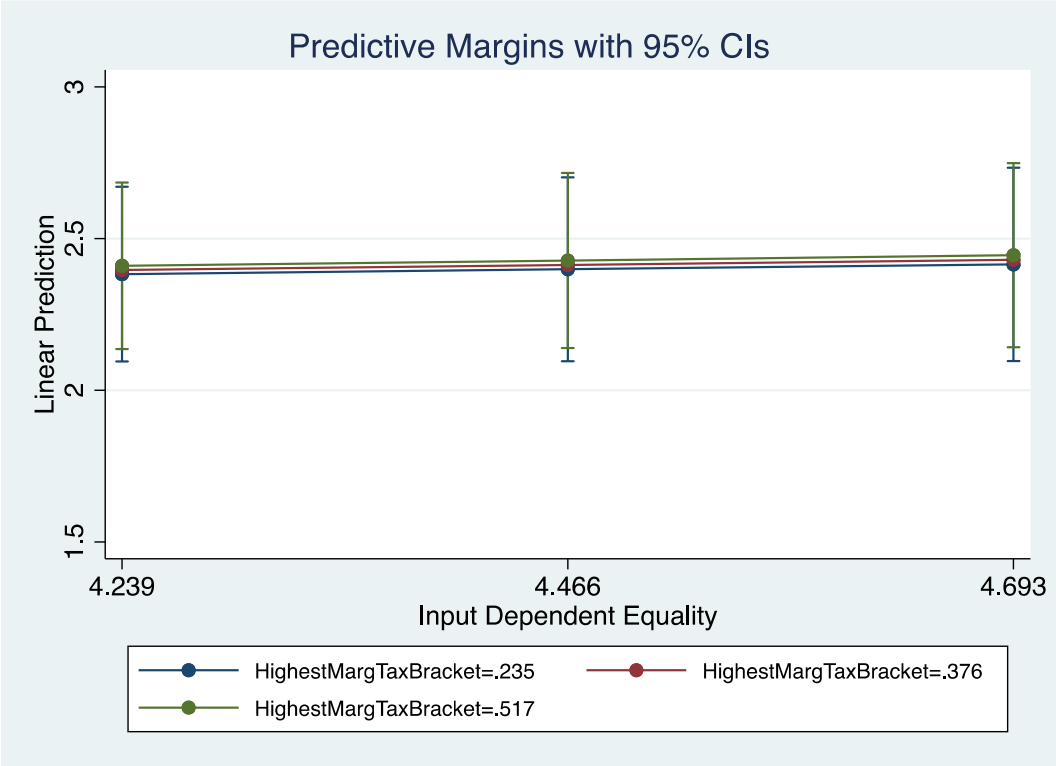
Notes: Graph shows the moderating effect of the highest marginal tax bracket in a country (as a proxy for tax raised on monetary rewards) on the relationship between people's perception on fairness of income equality and the use of monetary rewards. The graph shows the relationship on the interval of one standard deviation below the mean of *Outcome-Based Equality* until one standard deviation above the mean.

Table C2: The moderating effect of the highest marginal tax bracket on the effect of *Input-Dependent Equality* on the use of monetary rewards

	The use of monetary rewards				
VARIABLES	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**
InputDependentEquality	-0.396***	-0.344***	-0.327***	0.0484	0.0650
	(0.0631)	(0.0631)	(0.0628)	(0.0928)	(0.0937)
HighestMargTaxBracket	-3.328***	-2.791***	-2.222***	-	-
	(0.693)	(0.697)	(0.694)		
InputDependentEquality*HighestMargTaxBracket	0.599***	0.484***	0.351**	0.128	0.0231
	(0.157)	(0.158)	(0.158)	(0.228)	(0.231)
EstablishmentSize		0.103***	0.0996***	0.0854***	0.0868***
		(0.00921)	(0.00937)	(0.00915)	(0.00932)
EmployeesFlow		0.0663***	0.0659***	0.0714***	0.0704***
		(0.00497)	(0.00497)	(0.00492)	(0.00493)
OpenEndedContracts		0.0101***	0.00742**	0.0142***	0.0116***
		(0.00376)	(0.00378)	(0.00377)	(0.00379)
PartTimers		-0.0608***	-0.0528***	-0.0455***	-0.0412***
		(0.00417)	(0.00433)	(0.00423)	(0.00437)
Male manager		0	0	0	0
		(Omitted)	(Omitted)	(Omitted)	(Omitted)
Female manager		0.00438	0.00556	-0.0208*	-0.0206*
		(0.0118)	(0.0118)	(0.0117)	(0.0117)
Other manager (gender)		0.0952*	0.0952*	0.0712	0.0692
		(0.0527)	(0.0529)	(0.0525)	(0.0528)
General manager		0	0	0	0
		(Omitted)	(Omitted)	(Omitted)	(Omitted)
Owner manager		0.0555***	0.0359*	0.0539***	0.0386*
		(0.0202)	(0.0203)	(0.0200)	(0.0200)
Human resource manager		-0.0649***	-0.0703***	-0.0379*	-0.0432**
		(0.0198)	(0.0197)	(0.0198)	(0.0197)
Training manager		-0.0260	-0.0277	-0.0400	-0.0455
		(0.0799)	(0.0795)	(0.0787)	(0.0784)
Finance/accounting manager		-0.0747***	-0.0885***	-0.0726***	-0.0823***
		(0.0213)	(0.0213)	(0.0215)	(0.0215)
Other manager (position)		-0.165***	-0.167***	-0.142***	-0.145***
		(0.0192)	(0.0191)	(0.0191)	(0.0190)
Constant	4.421***	3.941***	3.961***	1.403***	1.607***
	(0.276)	(0.280)	(0.289)	(0.246)	(0.261)
Sector fixed effects	No	No	Yes	No	Yes
Country fixed effects	No	No	No	Yes	Yes
Observations	20,838	20,091	20,091	20,091	20,091
R-squared	0.023	0.055	0.064	0.094	0.101

Notes: Table shows regression results of the moderating effect of the highest marginal tax bracket in a country (as a proxy for tax raised on monetary rewards) on the relationship between people's perception on fairness of hard-working people earning more and the use of monetary rewards. Information on income tax as a share of GDP was not available for Bulgaria, Croatia, Cyprus and Romania, which results into missing values. The regressions make use of robust standard errors. Statistical significance levels: *p<0.1, **p<0.05, ***p<0.01.

Figure C2: Graph of the moderating effect of the highest marginal tax bracket on the effect of *Input-Dependent Equality* on the use of monetary rewards



Notes: Graph shows the moderating effect of the highest marginal tax bracket in a country (as a proxy for tax raised on monetary rewards) on the relationship between people's perception on fairness of hard-working people earning more and the use of monetary rewards. The graph shows the relationship on the interval of one standard deviation below the mean of *Input-Dependent Equality* until one standard deviation above the mean.

Table C3: Regression results of *Outcome-Based Equality* and *Input-Dependent Equality* on the use of monetary rewards

	The use of monetary rewards				
VARIABLES	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**
OutcomeBasedEquality	0.0854***	0.0704***	0.0726***	-0.0380	-0.0190
	(0.00945)	(0.00962)	(0.0101)	(0.0240)	(0.0303)
InputDependentEquality	-0.290***	-0.271***	-0.313***	0.0982***	0.0758**
	(0.0238)	(0.0238)	(0.0242)	(0.0330)	(0.0343)
EstablishmentSize		0.105***	0.103***	0.0859***	0.0867***
		(0.00926)	(0.00943)	(0.00916)	(0.00932)
EmployeesFlow		0.0624***	0.0617***	0.0712***	0.0703***
		(0.00498)	(0.00499)	(0.00492)	(0.00493)
OpenEndedContracts		0.0167***	0.0136***	0.0140***	0.0116***
		(0.00376)	(0.00378)	(0.00377)	(0.00379)
PartTimers		-0.0642***	-0.0559***	-0.0454***	-0.0412***
		(0.00422)	(0.00438)	(0.00423)	(0.00437)
Male manager		0	0	0	0
		(Omitted)	(Omitted)	(Omitted)	(Omitted)
Female manager		0.0328***	0.0348***	-0.0211*	-0.0207*
		(0.0117)	(0.0117)	(0.0117)	(0.0117)
Other manager (gender)		0.136***	0.136**	0.0705	0.0688
		(0.0528)	(0.0531)	(0.0525)	(0.0528)
General manager		0	0	0	0
		(Omitted)	(Omitted)	(Omitted)	(Omitted)
Owner manager		0.0914***	0.0746***	0.0540***	0.0384*
		(0.0203)	(0.0203)	(0.0200)	(0.0200)
Human resource manager		-0.0627***	-0.0684***	-0.0387*	-0.0434**
		(0.0199)	(0.0199)	(0.0198)	(0.0197)
Training manager		-0.0568	-0.0584	-0.0432	-0.0464
		(0.0801)	(0.0797)	(0.0786)	(0.0784)
Finance/accounting manager		-0.0633***	-0.0754***	-0.0727***	-0.0824***
		(0.0215)	(0.0215)	(0.0215)	(0.0215)
Other manager (position)		-0.147***	-0.149***	-0.142***	-0.145***
		(0.0193)	(0.0192)	(0.0191)	(0.0190)
Constant	3.398***	3.075***	3.362***	1.645***	1.685***
	(0.114)	(0.119)	(0.141)	(0.186)	(0.207)
Sector fixed effects	No	No	Yes	No	Yes
Country fixed effects	No	No	No	Yes	Yes
Observations	20,838	20,091	20,091	20,091	20,091
R-squared	0.011	0.045	0.054	0.095	0.101

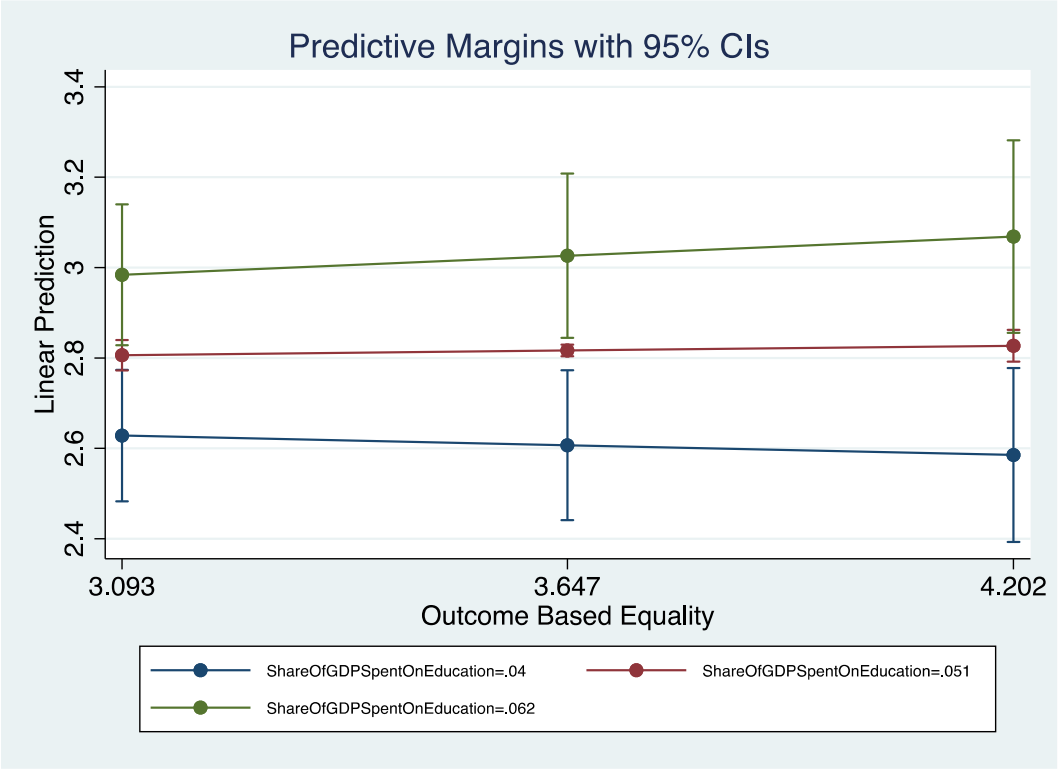
Notes: Table shows results of regressing *Outcome-Based Equality* and *Input-Dependent Equality* on the use of monetary rewards. The regressions make use of robust standard errors. Statistical significance levels: *p<0.1, **p<0.05, ***p<0.01.

Table C4: The moderating effect of the share of GDP spent on education on the effect of *Outcome-Based Equality* on the provision of training and development

	The provision of opportunities for training and development				
VARIABLES	(1)	(2)	(3)	(4)	(5)
OutcomeBasedEquality	-0.135***	-0.0934**	0.0185	-0.576***	-0.248**
	(0.0413)	(0.0416)	(0.0416)	(0.111)	(0.113)
ShareOfGDPSpentOnEducation	-1.929	0.159	2.863	-	-
	(2.629)	(2.647)	(2.611)		
OutcomeFairEduShareGDP* ShareOfGDPSpentOnEducation	2.081***	1.362*	0.459	6.594***	5.227**
	(0.763)	(0.769)	(0.762)	(2.179)	(2.181)
EstablishmentSize		0.132***	0.156***	0.141***	0.158***
		(0.00900)	(0.00913)	(0.00903)	(0.00915)
EmployeesFlow		0.0656***	0.0610***	0.0581***	0.0562***
		(0.00492)	(0.00487)	(0.00487)	(0.00485)
OpenEndedContracts		0.00495	0.00342	0.0124***	0.0115***
		(0.00363)	(0.00363)	(0.00368)	(0.00367)
PartTimers		-0.00332	-0.00837*	-0.00955**	-0.0167***
		(0.00417)	(0.00431)	(0.00428)	(0.00441)
Male manager		0	0	0	0
		(Omitted)	(Omitted)	(Omitted)	(Omitted)
Female manager		0.00714	0.00635	0.0451***	0.0412***
		(0.0115)	(0.0114)	(0.0116)	(0.0116)
Other manager (gender)		-0.00625	-0.0201	0.0254	0.0195
		(0.0551)	(0.0547)	(0.0530)	(0.0534)
General manager		0	0	0	0
		(Omitted)	(Omitted)	(Omitted)	(Omitted)
Owner manager		-0.129***	-0.107***	-0.0864***	-0.0670***
		(0.0194)	(0.0191)	(0.0192)	(0.0191)
Human resource manager		0.00125	-0.00349	-0.0152	-0.0110
		(0.0191)	(0.0189)	(0.0192)	(0.0190)
Training manager		0.154**	0.0938	0.0829	0.0638
		(0.0773)	(0.0770)	(0.0755)	(0.0763)
Finance/accounting manager		-0.183***	-0.179***	-0.174***	-0.161***
		(0.0209)	(0.0207)	(0.0208)	(0.0207)
Other manager (position)		-0.146***	-0.154***	-0.128***	-0.128***
		(0.0185)	(0.0183)	(0.0185)	(0.0183)
Constant	3.017***	2.531***	1.900***	3.324***	2.096***
	(0.144)	(0.151)	(0.168)	(0.101)	(0.142)
Sector fixed effects	No	No	Yes	No	Yes
Country fixed effects	No	No	No	Yes	Yes
Observations	20,856	20,100	20,100	20,100	20,100
R-squared	0.007	0.046	0.072	0.080	0.098

Notes: Table shows regression results of the moderating effect of the share of GDP spent on education (as a proxy for the quality of education) on the relationship between people's perception on fairness of income equality and the provision of opportunities for training and development. The regressions make use of robust standard errors. Statistical significance levels: *p<0.1, **p<0.05, ***p<0.01.

Figure C3: Graph of the moderating effect of the GDP spent on education on the effect of *Outcome-Based Equality* on the provision of training and development



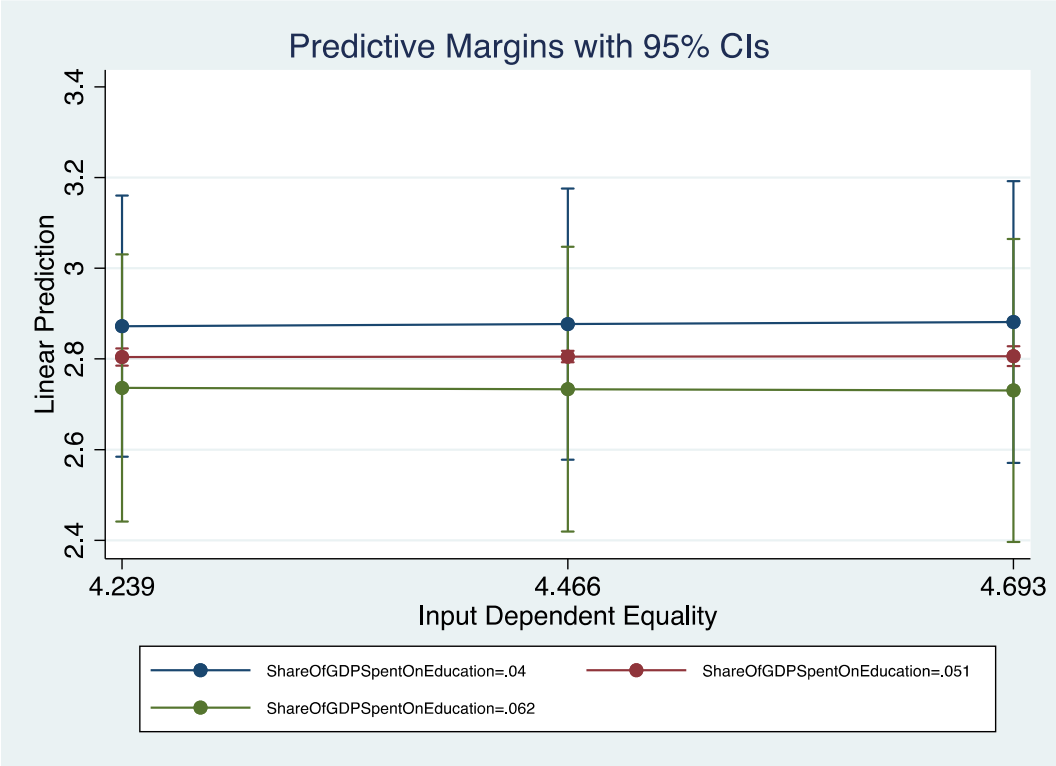
Notes: Graph shows the moderating effect of the share of GDP spent on education (as a proxy for the quality of education) on the relationship between people's perception on fairness of income equality and the provision of opportunities for training and development. The graph shows the relationship on the interval of one standard deviation below the mean of *Outcome-Based Equality* until one standard deviation above the mean.

Table C5: The moderating effect of the share of GDP spent on education on the effect of *Input-Dependent Equality* on the provision of training and development

	The provision of opportunities for training and development				
VARIABLES	(1)	(2)	(3)	(4)	(5)
InputDependentEquality	-0.0417	0.0463	0.382***	-0.420***	0.0786
	(0.116)	(0.116)	(0.117)	(0.153)	(0.155)
ShareOfGDPSpentOnEducation	-1.065	8.208	38.39***	-	-
	(10.33)	(10.38)	(10.44)		
InputDependentEquality* ShareOfGDPSpentOnEducation	1.391	-0.740	-7.541***	8.843***	-1.460
	(2.278)	(2.290)	(2.301)	(3.094)	(3.168)
EstablishmentSize		0.133***	0.155***	0.137***	0.158***
		(0.00900)	(0.00910)	(0.00905)	(0.00915)
EmployeesFlow		0.0652***	0.0617***	0.0591***	0.0562***
		(0.00492)	(0.00487)	(0.00489)	(0.00485)
OpenEndedContracts		0.00563	0.00327	0.0141***	0.0116***
		(0.00363)	(0.00363)	(0.00367)	(0.00367)
PartTimers		-0.00189	-0.0102**	-0.0103**	-0.0168***
		(0.00416)	(0.00429)	(0.00430)	(0.00441)
Male manager		0	0	0	0
		(Omitted)	(Omitted)	(Omitted)	(Omitted)
Female manager		0.00849	0.00470	0.0465***	0.0414***
		(0.0115)	(0.0114)	(0.0117)	(0.0116)
Other manager (gender)		-0.00349	-0.0176	0.0359	0.0204
		(0.0552)	(0.0548)	(0.0537)	(0.0534)
General manager		0	0	0	0
		(Omitted)	(Omitted)	(Omitted)	(Omitted)
Owner manager		-0.129***	-0.107***	-0.0884***	-0.0678***
		(0.0194)	(0.0191)	(0.0193)	(0.0191)
Human resource manager		-0.000276	0.000730	-0.0111	-0.0115
		(0.0191)	(0.0189)	(0.0192)	(0.0190)
Training manager		0.144*	0.110	0.102	0.0642
		(0.0773)	(0.0772)	(0.0765)	(0.0765)
Finance/accounting manager		-0.189***	-0.172***	-0.174***	-0.162***
		(0.0208)	(0.0206)	(0.0208)	(0.0207)
Other manager (position)		-0.149***	-0.150***	-0.124***	-0.128***
		(0.0185)	(0.0183)	(0.0186)	(0.0183)
Constant	2.734***	1.989***	0.254	2.252***	2.185***
	(0.524)	(0.530)	(0.537)	(0.177)	(0.202)
Sector fixed effects	No	No	Yes	No	Yes
Country fixed effects	No	No	No	Yes	Yes
Observations	20,856	20,100	20,100	20,100	20,100
R-squared	0.006	0.046	0.072	0.075	0.098

Notes: Table shows regression results of the moderating effect of the share of GDP spent on education (as a proxy for the quality of education) on the relationship between people's perception on fairness of hard-working people earning more and the provision of opportunities for training and development. The regressions make use of robust standard errors. Statistical significance levels: *p<0.1, **p<0.05, ***p<0.01.

Figure C4: Graph of the moderating effect of GDP spent on education on the effect of *Input-Dependent Equality* on the provision of training and development



Notes: Graph shows the moderating effect of the share of GDP spent on education education (as a proxy for the quality of education) on the relationship between people's perception on fairness of hard-working people earning more and the provision of opportunities for training and development. *T*he graph shows the relationship on the interval of one standard deviation below the mean of *Input-Dependent Equality* until one standard deviation above the mean.

Table C6: Regression results of *Outcome-Based Equality* and Input-Dependent Equality on the provision of training and development

	The provision of opportunities for training and development				
VARIABLES	(1)	(2)	(3)	(4)	(5)
OutcomeBasedEquality	-0.0362***	-0.0295***	0.0357***	-0.247***	0.0126
	(0.00924)	(0.00939)	(0.00983)	(0.0234)	(0.0297)
InputDependentEquality	0.0495**	0.0285	0.0249	0.0139	0.00706
	(0.0236)	(0.0235)	(0.0238)	(0.0335)	(0.0349)
EstablishmentSize		0.134***	0.159***	0.141***	0.158***
		(0.00902)	(0.00913)	(0.00902)	(0.00915)
EmployeesFlow		0.0648***	0.0603***	0.0581***	0.0562***
		(0.00493)	(0.00488)	(0.00487)	(0.00485)
OpenEndedContracts		0.00531	0.00375	0.0124***	0.0116***
		(0.00366)	(0.00365)	(0.00368)	(0.00367)
PartTimers		-0.00111	-0.00705	-0.00960**	-0.0168***
		(0.00418)	(0.00432)	(0.00429)	(0.00441)
Male manager			0	0	0
			(Omitted)	(Omitted)	(Omitted)
Female manager		0.000550	-0.000597	0.0455***	0.0414***
		(0.0115)	(0.0114)	(0.0116)	(0.0116)
Other manager (gender)		-0.00982	-0.0252	0.0278	0.0208
		(0.0552)	(0.0549)	(0.0531)	(0.0535)
General manager			0	0	0
			(Omitted)	(Omitted)	(Omitted)
Owner manager		-0.145***	-0.122***	-0.0874***	-0.0678***
		(0.0194)	(0.0191)	(0.0193)	(0.0191)
Human resource manager		-0.0141	-0.0166	-0.0160	-0.0115
		(0.0192)	(0.0189)	(0.0192)	(0.0190)
Training manager		0.130*	0.0730	0.0843	0.0644
		(0.0771)	(0.0768)	(0.0757)	(0.0765)
Finance/accounting manager		-0.205***	-0.198***	-0.175***	-0.162***
		(0.0208)	(0.0207)	(0.0208)	(0.0207)
Other manager (position)		-0.160***	-0.165***	-0.127***	-0.128***
		(0.0186)	(0.0183)	(0.0185)	(0.0183)
Constant	2.719***	2.441***	1.945***	3.316***	2.116***
	(0.112)	(0.116)	(0.142)	(0.187)	(0.211)
Sector fixed effects	No	No	Yes	No	Yes
Country fixed effects	No	No	No	Yes	Yes
Observations	20,856	20,100	20,100	20,100	20,100
R-squared	0.001	0.042	0.068	0.079	0.098

Notes: Table shows results of regressing *Outcome-Based Equality* and *Input-Dependent Equality* on the provision of opportunities for training and development by managers. The regressions make use of robust standard errors. Statistical significance levels: *p<0.1, **p<0.05, ***p<0.01.