

The effect of International Trade Agreements on labour standards in developing countries



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ABSTRACT – Current literature show that the effect of globalization on labour standards could be ambiguous. On the one hand, globalization could accommodate a ‘race to the bottom’ regarding labour standards, but on the other hand globalization could also enhance cooperation and increase moral awareness of the importance of labour standards. However, the effect of international trade deals, as a facilitator of globalization, on labour standards is underexposed, while this could be of interest for developing countries. Looking at the theory regarding this effect would suggest that there could be a positive relationship, but empirical literature about this topic is lacking surprisingly. Therefore, this research discusses that trade deals could have a positive effect on labour standards via four main ways, namely via development, empowerment, institution building and legal improvement. To measure labour standards, a Labour Standards Index has been constructed, based on the five core articles of the ILO. The results of the cross-section OLI regression analysis show that there is a positive significant relationship between trade deals and labour standards, but that these finding must be interpreted carefully. Also, several robustness checks have been performed.

Key words: race to the bottom, labour standards, international trade deals, globalization, developing countries, labour standards index.

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1. INTRODUCTION

Since globalization is at an all-time high, the discussion about labour standards is on the rise. In the news, a lot of reports about poor labour standards and working conditions in factories from Western MNE's are being covered (Ronzoni, 2015). MNE's originating from developed countries have the opportunity to move towards developing countries with a relatively low level of labour standards, to impose poor labour standards in their facilities to keep the costs of labour low, of which Nike is a well-known example (Kennedy et al., 2017). If the developing country then tries to impose policies that aim at increasing the level of labour standards in the country, this might give the MNE's an incentive to move towards another developing country, where the level of labour standards remains relatively low. In other words, the developing countries have an incentive to keep labour standards low, in order to maintain or create a competitive advantage relative to other developing countries, because keeping labour standards low could lead to low production costs (i.e. low costs of labour), which could lead to lower prices. Consequently, the issue as described above could potentially lead to a 'race to the bottom' regarding labour standards, as discussed by several authors (Lee, 1997; Kabeer, 2004; Singh & Zammit, 2004; Mosley & Uno, 2007; Davies & Vadlamannati, 2013). In this case, for competitive reasons, several developing countries have an incentive to lower their level of labour standards, which could lead to a competition between the countries regarding labour standards. If nothing will be done to prevent this, the countries could end up in a 'race to the bottom', where labour standards become at an all-time low.

On the other hand, globalization could also have positive effects on labour standards, because globalization could enhance cooperation between countries to prevent lower labour standards in both countries (Palley, 2004), as well as globalization could increase the moral awareness of labour standards, because developing countries are more integrated in the global market and therefore facing higher standards of norms and values regarding labour standards (Neumayer & de Soysa, 2005). Moreover, higher income growth could also lead a higher demand for goods that are produced under good circumstances (Dehejia & Samy, 2004).

One of the facilitators of globalization is engaging in international trade deals, which by itself also have several effects on labour standards. The direct link between international trade agreements and labour standards is via the inclusion of labour rights and standards in bilateral and multilateral trade agreements (Yu & Zia-ud-Din, 2018). These are included in the so called 'social clauses.' Although the inclusion of labour standards has been removed from the Doha negotiation agenda (which is the latest round of the WTO trade negotiations), still a debate is

going on about whether it is important to include labour standards in international trade deals or not (Granger & Siroen, 2006). For instance, it has been shown that Regional Trade Agreements could have a positive effect on labour standards if labour provisions (social clauses) are included in these deals, and the effect could be even higher for developing countries (Siroën & Andrade, 2016). Orbie & Roozendaal (2011) stress that there are four main ways in which trade deals could have a positive effect on labour standards, namely via development, empowerment, institutional building and legal improvements.

So, globalization could have either positive or negative effects on the level of labour standards in a country. On the one hand, developing countries could create a competitive advantage in their country, by keeping labour standards and therefore the costs of labour low, to attract Western MNE's who will try to take advantage of the low labour standards and the low labour costs (Kennedy et al., 2017). This could result in an increased competition between developing countries for creating or maintaining a certain level of competitive advantage, which could lead to a 'race to the bottom' regarding labour standards (Kabeer, 2004; Singh & Zammit, 2004; Mosley & Uno, 2007; Davies & Vadlamannati, 2013). On the other hand, globalization could improve the level of labour standards because it facilitates more cooperation between countries, increases the norms & values to the point where labour standards could be seen as public goods and increases demand for goods that are produced under good circumstances.

However, trade deals, as a facilitator of globalization, seem to have merely positive effects on labour standards, but literature that research this specific relationship is lacking. The literature as discussed so far only describes the effects of globalization on labour standards or the theory behind the possible effects of trade deals on labour standards. There are, however, very few empirical studies that researched this effect and thus there is a gap in the literature which must be filled. Therefore, I find it interesting to research whether there is an effect between engaging in international trade agreements and the level of labour standards. As described in the beginning of this section, MNE's could make use of the relatively low level of labour standards, especially in the developing world. This means that developing countries have an incentive to keep labour standards low, which ultimately could lead to a 'race to the bottom' regarding labour standards. Therefore, I will focus in this research on developing countries, to find whether engaging in more international trade deals could improve labour standards in those countries. Finding a relation between trade deals and labour standards in developing countries could potentially change people's view on the incorporation of labour standards in international trade deals. If trade deals are positively related to labour standards, it could lead to a higher

demand for the incorporation of labour standards in international negotiations. When the relationship is found to be the reverse, it could lead to a situation where labour standards will not be included in international trade deals, and that the responsibility of labour standards could shift towards the MNE's themselves. Therefore, the research question of this master's thesis will be: *What is the effect of international trade agreements on labour standards in developing countries?*

To provide an answer to this question, first the theoretical framework must be established that covers either literature about the effect of globalization on labour standards and the effect of international trade deals on labour standards. Also, a definition of what labour standards and developing countries are will be discussed. Based on this theoretical framework, a hypothesis will be formulated. To test whether this hypothesis holds, a (until thus far non-existing) Labour Standards Index that is based on the definition of 'labour standards' will be constructed as a measurement for labour standards. Via several OLS regression models, I will try to find whether there is a relationship between international trade deals and labour standards. The outcomes of the models suggest that there could be a positive relation. In each of the models, different control variables have been added, to see how the results must be interpreted. Moreover, several robustness checks have been performed, to see whether the results could be explained by different types of methodologies. The outcomes of these checks suggest that using a different type of measurement or methodology does not improve the outcomes of the models.

The structure of this master's thesis will look as follows. The following section will consist of a literature review that should cover all relevant theories and literature. After this has been done, the methodology and data used in this research will be motivated. This will be followed by a section in which the result of the empirical research will be discussed, ending with a conclusion and discussion about the findings of this research.

2. LITERATURE REVIEW

In this section, the theoretical framework will be discussed by reviewing the relevant literature regarding the topic of this master's thesis. First, an elaboration on what exactly is being meant with 'labour standards' will be provided, to eliminate any confusion that readers might have about its definition. This will be followed with an explanation about why increased globalization could end up in a 'race to the bottom.' I will highlight what the mechanisms and the consequences could be if developing countries face a higher level of globalization, which

could lead to a 'race to the bottom' regarding labour standards. Moreover, also the positive relations that globalization might have on the level of labour standards will be discussed. This will then be followed by discussing what possible effects international trade agreements, as a facilitator of globalization, could have on labour standards, which will be the core of this research. Finally, this section will end with discussing which other factors might be of importance when discussing the relation between international trade agreements and labour standards.

2.1 Labour standards

As specified by the International Labour Organization (ILO), labour standards consist of five core articles, namely the freedom of association, the right to collective bargaining, no forced labour, no child labour and no discrimination (Palley, 2004). This implies that the five articles combined reflect the level of labour standards in a country.

- The first article is 'the freedom of association', which implies that workers are able to freely join or form a labour organization, like a labour union, without any dictation of the government (Palley, 2004). This means that workers should not only be completely free to form organizations that can help them during for instance wage negotiations, but they should also be free from any interference from the government or other authorities when joining or forming an organization.
- Secondly, 'the right to collective bargaining' protects these union from interference that comes from outside their own environment (Palley, 2004). This implies that the government must establish legal mechanisms to prevent interferences from occurring. This labour standard is relatively much intertwined with the first one, because collectively bargaining labour conditions (minimum wage, maximum hour of work per week etc.) implies that workers must organize in associations to efficiently and successfully fulfil their demands. Moreover, if workers are organizing themselves into associations to collectively negotiate labour conditions, there are demanding their freedom of collective bargaining also. Therefore, these two core labour standards are relatively much intertwined.
- The third one, 'the elimination of all forms of forced labour', seems relatively straightforward. It implies that no worker may work under any form of pressure, whether this is via violence or payment reductions (Palley, 2004). Exceptions only can

be made for the military and national emergencies, in which situations can occur where forced labour cannot be avoided.

- Fourthly, ‘the effective abolition of child labour’, reflects a policy in which the government must ensure by law that no children are being employed or working, no matter what the context is (Palley, 2004). In order for allowing children to develop their physical and mental state, a minimum age of being employed is stated at 15 years. The minimum age for working in dangerous environments is determined to be 18 years. This means that the abolition of child labour reflects a minimum age of being employed. Therefore, working children between 10 and 14 years are considered to be part of child labour.
- Finally, the fifth labour standard is ‘the elimination of discrimination in respect of being employed and occupation’ and entails that all workers must have the same rights and are able to pursue the same goals and dreams as any other worker (Palley, 2004). This implies that men and women are being equally paid for the same job and that no one must encounter any form of discrimination on the basis of race, colour, gender, personal beliefs or social origin.

As discussed, these five core labour standards are defined by the ILO. Overall, the definition of ‘labour standards’ according to these five core articles is widely accepted and used within the relevant literature. There is thus not currently a debate about how to define what labour standards are. However, how these labour standards are interpreted, implemented and enforced by the countries who commit themselves to these standards could be different. To give an example, in several developing countries children officially do not go to school or are officially not working. This makes it somewhat harder to measure the exact number of child labour (Bazillier, 2004). Therefore, it could be seen as if the number of child labour is relatively low, but this is only the case because a certain number of working children has not been recorded. To then implement policies that should lower the child labour rates could also be difficult since it is not exactly clear what the numbers are and where geographically the most urgent problems are. This illustrates that labour standards across countries do not necessarily have the same content or context. For instance, freedom of association in one country does not have to be the same as freedom of association in another country. The way in which the labour standards are valued is also dependent on the country-specific contexts. Therefore, two countries both can have freedom of association, but the level in which freedom of association is present in a country could be different between the countries. The level of labour standards could for

instance be influenced by the GDP per capita level and the level of the rule of law (Posso, 2017). A higher level of GDP per capita could indicate a higher level of economic development, which could have a positive effect of the level of labour standards in developing countries. Therefore, if the GDP per capita level in a country is relatively high, social concerns regarding for instance child labour will get more attention, leading to higher demand for better labour standards. Reversely, a country that has a relative high level of labour standards is more likely to have also a high level of GDP per capita, rather than having a relatively low level a GDP per capita. Because labour standards will only be seen as a public good (rather than a luxury good) when the level of economic development is at a relatively high level (Lee, 1997), a high GDP per capita level relates with a relatively high level of labour standards. This makes that having a high level of GDP per capita could have a positive effect on the level of labour standards, despite the amount of trade deals or level of globalization.

Not only the level of GDP per capita could have a positive effect, also the institutional environment and the level and quality of the enforcement of the laws regarding labour standards to adapt higher labour standards could positively affect labour standards (Posso, 2017). Countries that have certain laws about labour standards that are trying to impose a high level of labour standards, but do not have the institutional quality to enforce them, probably still would end up with a low level of labour standards in their countries. However, if this country would have a relatively high institutional quality, the laws could actually be enforced, where the goal of the laws would reach its cores. It is thus not only important to have certain labour standards laws, but also to have the strengths and abilities to implement and enforce these laws, to have a relatively high level of labours standards. This means that also the rule of law, measured by the 'rule of law index', could be an important factor to be influential on the level of labour standards. A higher level of the 'rule of law index' would indicate how the citizens evaluate the functioning of their legal system (Barro, 2000). Or in other words, how the society has faith in the regulations and enforcements of the labour standard laws. This means that it measures how people view the quality of the institutional environment, whether labour laws are effectively implemented and enforced by the authorities or not.

2.2 Globalization & labour standards

2.2.1 Race to the bottom

One of the issues related to labour standards is the poor labour standards and working conditions in developing countries, relative to the labour standards and working conditions that are common in the Western World, for workers who are employed by MNE's originating from developed countries (Ronzoni, 2015). Although the labour standards that are imposed by the MNE's originating from developed countries could be in line with the core labour standards definitions of the ILO, it could still be considered as low or even as poor if it is compared to the labour standards that are imposed by the same MNE's in their home countries. Moreover, developing countries have an incentive to keep labour standards low, because this could establish a competitive advantage. Because the MNE's try to establish low production costs (to create a competitive advantage), this could be realised by keeping labour standards low, since this could keep the costs of the production factor labour low. This implies that low labour standards could reflect low costs of labour and therefore low production costs. So, developing countries that have a relative low level of labour standards, could have a relatively good competitive position, which could realise a competitive advantage. The US firm Nike is a well-known example of an MNE that takes advantage of such a policy. This means that they move to the developing country where production costs are the lowest (because labour standards are relatively low), to establish a competitive advantage (Kennedy et al., 2017). The power of developing countries to establish better labour standards in this context is relatively low, because MNE's will move towards where the costs of labour are the lowest. This means that if a country does not fulfil the wishes of the MNE's, that those multinationals might move towards another developing country, where the original country loses firms that employ a lot of people, as well as the other welfare and economic effects of having MNE's operating in your country. However, this could potentially lead to a 'race to the bottom' regarding labour standards (Lee, 1997; Kabeer, 2004; Singh & Zammit, 2004; Mosley & Uno, 2007; Davies & Vadlamannati, 2013). This means that an increase in globalization, which means that markets from two or more countries are more open to and/or are more integrated with each other, would accommodate a growth in competition between developing countries, where lowering labour standards would provide countries more competitive advantages, which could be necessary to overcome the competitive pressures from other developing countries. If all the countries involved will do so, it could end up in a 'race to the bottom' where possible high levels of

labour standards are being substituted for competitive advantages, which implies that labour standards in developing countries could become at an all-time low.

To illustrate this, suppose that there are two developing countries (Country A and Country B) that are both producing and exporting a certain good 'g'. For country A, the price of g is p_a , which is a function of production costs (pc) and other possible costs (oc) (like transaction costs and transportation costs), so $p_a = pc_a + oc_a$. For country B, the price of g is p_b , where $p_b = pc_b + oc_b$. We assume that in the original situation $p_a = p_b$, so both countries produce and export an equal share of g. In this example, the production costs pc is, among other costs, determined by the costs of labour. If in Country A, the government imposes a law that implies a higher level of labour standards (by for instance banning forced labour), the costs of labour would increase (since the costs of having forced labour is lower than having no forced labour) and therefore pc would also increase. This leads to a situation where $p_a > p_b$. In this case, the demand for g produced in Country A will drop, where it will increase in Country B. This means that increasing the level of labour standards decreases the competitive position of Country A. There is also no incentive for Country B to increase their level of labour standards in this situation, because this implies a loss of their competitive position. On the other hand, if Country A decides to lower the level of labour standards (by lifting a ban on forced labour for instance), pc_a will drop. This will lead to a situation where $p_a < p_b$, meaning that the competitive position of Country A has improved, where the competitive position of Country B has weakened. In this case, Country B has actually an incentive to also lower their labour standards, to prevent a drop of their competitive position. Then, Country A can decide to further lower the level of labour standards in their country, to maintain their new relatively good competitive position. Country B could then decide to also further lower the level of labour standards, leading to the 'race to the bottom', where both countries could end up with an extremely low level of labour standards, but where the relative competitive position of the countries did not change at all if $p_a = p_b$ again. This means that in this example, nothing has changed since the original situation, except a lower level of labour standards in both countries.

Moreover, more competition could also lead to more poverty in country that cannot keep up the race to the bottom and therefore suffers from the growth in competition. In order to survive, the people living in such countries are willing to accept a lower level of labour standards (Manning, 1998). This means that they are for instance willing to give up their right to free association or that people will send their children to work. Although this could be seen as voluntarily lower labour standards by the people, this is still problematic because this would mean that those

people are trapped in a situation in which they are forced to accept a lower level of labour standards, but their country has lost a huge part of their competitive advantage. In this case, a 'race to the bottom' does not only imply very low labour standards, but also relatively high poverty levels, which makes that the 'race to the bottom' even applies in a broader context. If this is the case, it seems very hard for developing countries to get out of this situation, since the instrument of trying to increase competitive advantage by decreasing labour standards cannot be used anymore. Therefore, the 'race to the bottom' is very threatening and policy makers should do anything they can to prevent this from occurring.

Furthermore, when developed countries will try to stop this 'race to the bottom', it could be seen as is a form of disguised protectionism (Krueger, 1996). In this case, the argument that developing countries would make, is that developed countries only want to increase the labour standards levels in developing countries, to decrease the competitive advantage of developing countries. They would argue that if the level of labours standards would improve in developing countries, the relative position of developed countries (measured in competitive advantage) will improve. Therefore, developing countries could be very sceptical about the motives of developed countries when they try to increase the level of labour standards in developing countries, as their argument would be that they only have normative reasons for improving labour standards for the poor. So, where increased globalization could lead to a 'race to the bottom' regarding labour standards, developing countries could be sceptical about the motives from developed countries to interfere in the 'race to the bottom' in order to increase labour standards in developing countries. This makes it even more difficult for policy makers to prevent a 'race to the bottom' from occurring, even when realising that this phenomenon could be very dangerous for the country and its citizens.

2.2.2 Can globalization stimulate labour standards?

On the other hand, globalization could also have positive effects on labour standards, because globalization enhances cooperation between countries to prevent lower labour standards in both countries (Palley, 2004). Developing countries have an incentive to lower labour standards. As described above, lower labour standards could lead to lower production costs for firms, leading to lower prices. This could improve the competitive position of such a developing country. In a situation where two countries would compete against each other regarding lowering labour standards to create a competitive advantage, this could lead to a potential prisoner's dilemma.

Because both countries have an incentive to lower labour standards, without cooperation this is exactly what would happen. This means that it would end up in the described ‘race to the bottom.’ However, both countries would be better off if they would cooperate and agree on a certain level of labour standards. This means that the two countries have to set up some sort of rules and enforcement systems in which they rely, to make the cooperation viable. If one of the two countries, however, tries to defy or ignore the agreed cooperation, the other country does not have an incentive to comply to cooperation, which will also lead to a ‘race to the bottom.’ Therefore, it is important that the two countries cooperate in such a way that none of the countries have an incentive or could be incentivized to not stick to the cooperation. In this case, globalization functions as a facilitator to enhance cooperation between countries, because the countries are more open to each other. This makes it more likely that they will work together to tackle the issue of low labour standards. Because both countries have a moral incentive to maintain a certain level of labour standards, with cooperation the competitive incentive will become irrelevant, which accommodates an agreement on a certain level of labour standards. This would imply that increased globalization, would lead to better or more cooperation, which could lead to higher labour standards. In the real world, the cooperation between two countries would possibly be via an international trade deal. They could then agree on a certain level of labour standards, and for instance enforce this by committing this agreement to an international institution of institutions. This would cause that not complying to the agreement would become very costly and that both countries have an incentive to increase their level of labour standards, instead of lowering it to create a competitive advantage, which could ultimately lead to a ‘race to the bottom.’

Moreover, coordination between two countries is also stimulated when a central planner tries to maximize the welfare of the world (Kok et al., 2004). If a central planner aims at maximizing the world’s welfare, it is possible that one country would gain from this, while another country might suffer from this. It would only be the case if the gain of the one country outnumbers the loss of the other country. In this case, the total welfare of the world would see a net gain, despite that this is not optimal from an individual country’s point of view. However, this problem could be solved if income transfers are possible between the two countries. In this case, the country that gains from maximizing the world’s welfare could compensate the loss that the other country faces. This should be facilitated by a cooperation between the two countries. The outcome of this situation is that with cooperation between two countries, the world’s welfare would be maximized, as well as that both countries could face a net gain in their individual welfare (or at

least one country would not face a loss in their individual welfare). So, also in this case, globalization could stimulate an improvement of labour standards (which could be part of the increased welfare of the world), because it facilitates coordination between two or more countries. Just like the previous example of the prisoner's dilemma, coordination between countries is hardly possible without a certain level of globalization.

Furthermore, countries that face an increased level of globalization could also face a higher level of economic development (Prasad et al., 2005; McMillan & Rodrik, 2011). This trend may cause that labour standards can be seen as a public good (Lee, 1997). Due to globalization, developing countries are more integrated in the global market and therefore facing higher standards of norms and values regarding labour standards (Neumayer & de Soysa, 2005). This could cause an increase in awareness about the relative bad level of labour standards in a certain developing country, as well as a higher level of economic development could moderate the discussion about this topic within the society. This implies that increased globalization could have a positive effect on the moral side of how the people view the issue of labour standards. As a result of this, labour standards in those developing countries can be seen as a public good (rather than a luxury good), which might cause an increase in (basic) labour standards in developing countries. Furthermore, a higher level of economic development, facilitated by globalization, could also lead a higher demand for goods that are produced under good circumstances (Dehejia & Samy, 2004). If a certain good is produced in a country that increased their labour standards, it is possible that the price of this good will be higher than products coming from competitive countries. However, it is possible that consumers would value products more that are produced in countries where labour standards are improved. In general, this could offset potential losses in terms of trade effects. To explain this, if a country would improve their labour standards, this could lead to higher production costs and thus to higher prices. These higher prices could lead to a lower competitive advantage for developing countries. This could lead to negative terms of trade effects for those countries. However, if consumers from for instance developed countries would value these goods relatively high, it could offset the loss of terms of trade effects for developing countries.

2.3 International trade agreements & labour standards

The effect of globalization on labour standards is determined by a lot of factors and could either be positive or negative, depending on which factors are most influential. One of the facilitators of globalization is engaging in international trade agreements, which by itself also has several

effects on labour standards. International trade agreements could either have a direct effect on labour standards, via the inclusion of rules, laws and commitments in the so-called ‘social clauses’ or more indirect via an increase in the moral awareness and social effects of engaging in more international trade agreements. The direct link between international trade agreements and labour standards is via the inclusion of labour rights and standards in bilateral and multilateral trade agreements (Yu & Zia-ud-Din, 2018). These are included in the so called ‘social clauses.’ These clauses contain specific policy commitments that should lead to social improvement. In the case of labour standards, this would imply that a developing country could sign an international trade deal that includes a ‘social clause’, in which for instance a ban on employment for children aged under fifteen years has been inserted. This is thus a direct commitment to improve the level of labour standards in the country. Although the inclusion of labour standards has been removed from the Doha negotiation agenda, still a debate is going on about whether it is important to include labour standards in international trade deals or not (Granger & Siroen, 2006). For instance, it has been shown that Regional Trade Agreements could have a positive effect on labour standards if labour provisions (social clauses) are included in these deals, and the effect could be even higher for developing countries (Siroën & Andrade, 2016).

Moreover, international trade deals could also have an indirect (positive) effect on the level of labour standards in a developing country. In this case, engaging in a trade deal has not a direct effect via for instance policy commitment, but the effect of the trade deal will probably have an effect on a specific intermediary (one of the four ways that are listed below), which on their turn could have an effect on labour standards. Orbie & van Roozendaal (2017) discuss in their research that there are four main ways in which trade agreements can positively affect labour standards, in an indirect way. These four ways, which are *i) development, ii) empowerment, iii) institution building and iv) legal improvement*, act as intermediates to ultimately have an impact on improving the level of labour standards. A more detailed description of these four ways will be provided next, which will later be embedded in a broader context of the relevant literature.

- Development: through for instance a Preferential Trade Agreement (PTA), children who would be working otherwise, could now be encouraged to go to school, because engaging in a PTA could increase economic development. This could lead to a lower level of child labour and a higher level of skilled labour. The main point here is that engaging in more trade deals could lead to more economic development, which then

could positively have an effect on labour standards. Therefore, this argument is most used amongst economists (since the reasoning is purely economic).

- Empowerment: in this case, an PTA leads to an increase in collaboration of organizations that strengthens the position of civil society. This implies that through a trade deal, the position of the society will be improved, which could enhance the level of labour standards. This intermediary has a more social character, because it describes that engaging in more trade deals could lead to a more powerful society, that stands up for their rights (like a certain level of labour standards).
- Institution building: institutions are built as a direct consequence of an PTA. In this case, a legal requirement of the implementation of new institutions has been included in the trade agreement. These institutions could for instance be settlement bodies or advisory committees, which could help improving labour standards. This makes that this argument is solely based on an institutional view.
- Legal improvements: this is a change in laws and regulations, that enhances the level of labour conditions. Although these laws can be seen as a simple piece of paper, together with the institution building and/or civil empowerment, changes in laws and regulations could also in practice lead to a higher level of labour standards. The level of enforcement is therefore also important in this case. Changing or improving a law that aims at improving labour standards in a country is paired with a relatively good quality of the enforcement of these laws. If good enforcement is lacking, the new made laws are quite inefficient and ineffective.

These four intermediaries mostly do not act independently from each other. This means that these mechanisms could be intertwined, and quite likely are. For instance, a high level of institution building can have a positive effect on the development of the people, because it could provide the necessary conditions for the people to develop their skills and competencies. Also, legal improvements have more effect if the empowerment of the society is relatively large. This makes that these four mechanisms might also be dependent (partially) on each other. However, it is also possible that a low level of one or more of these mechanisms could lead to lower labour conditions. This means that if the mechanisms do not function or perhaps are absent, that engaging in more international trade deals does not lead to a higher level of labour standards, since the mechanisms through which this should be accomplished are not functioning. In the remainder of this section, the four intermediaries will be discussed according to how each is

embedded in the relevant literature. In other words, the four intermediaries will further be explained on the basis of literature and theories that fit within each intermediary.

2.3.1 Development

Because engaging in a trade deals could enhance trade between one or more countries, GDP in those countries could increase, because MNE's could have access to a larger market. This implies that trade deals have a positive effect on GDP in a country, where GDP could be a measurement for the economic development of a country. Along with the increase in GDP goes the increase of labour standards, since Posso (2017) found that there is a positive relationship between GDP and the level of labour standards in a country. From this, it is fair to say that trade deals have a positive effect on labour standards, via the positive effect on economic development. One of the links between increasing economic development and better labour standards, is the improvement of education. For some developing countries, labour standards are low because the labour markets in those countries are not efficient. They therefore have to rely on cheap labour (to create a competitive advantage) or for instance on child labour to compensate for the lack in efficiency. If, however, economic development rises, labour markets could also be more efficient through better education. This makes workers more efficient, as well as more skilled people will be educated. Moreover, it is possible that imposing a certain level of labour standards (for instance to eliminate child labour and forced labour) could then lead to even more efficient labour markets (Granger & Siroen, 2006). If a firm relies on cheap labour as part of their competitive advantage, it could employ relatively a lot of children and forced labour to keep production costs low. In this case, the focus is thus on the exploitation of their workers to maintain a certain level of competitive advantage. However, if the government of the country in which the firm operates decides to impose a ban on child labour and/or forced labour, this could have impacts on the competitive position of the firm. It can in this case no longer rely on the exploitation of its workers, as a part of their competitive advantage. Therefore, the firm has an incentive to become more efficient in the allocation of their resources (like labour), to maintain the level of competitive advantage they desire. This means that imposing a ban on child labour or forced labour (which implies a higher level of labour standards) in a developing country leads to a situation in which firms have to produce more efficiently. They could accomplish this by the more efficient allocation of labour, which could lead to more efficient labour markets. Therefore, it is fair to say that increasing the level of labour standards in a country could lead to more efficient labour markets in that country. When

this is the case, increasing the level of labour standards does not have to result in a decrease in competitive advantage. Because the increase in efficiency can offset the increase in production costs, as a result of higher costs of labour, the net effect of imposing a higher level of labour standards for the competitive advantage can be zero. This implies that increasing the level of labour standards does not have to decrease the competitive advantage by definition and that developing countries can even end up with a situation in which their competitive advantage stays at its original level, but where the level of labour standards in their country has increased, as well as the efficiency of the labour markets in the country. The net welfare effects for the country are therefore positive in this case.

2.3.2 Empowerment

Where the argument of economic development as an intermediary to increase the level of labour standards is merely economic of nature, also non-economic reasons can be found to promote labour standards in international trade agreements (Orbie, 2011). One of these is the normative aspect of including labour standards in such trade deals. Especially the European Union is trying to promote the inclusion of labour standards in developing countries for normative reasons, which implies that the European Union is willing to implement certain deals that are only beneficial for the counter party, often a developing country. In line with this argument is the argument that people living in developed countries could experience a psychological externality from the fact that labour standards in developing countries are relatively low (Kok et al., 2004). The psychological externality originates from that consumers dislike products that are made under bad circumstances and/or dislike the situation as a whole, regardless of the products itself. This could give those people an incentive to improve the situation in the developing countries where labour standards are quite low, based on altruistic preferences. Imposing such ‘social clauses’, as it is often referred to, could potentially then also lead to a shift in norms and values of people living in developing world, since their country is committed to more policies that are integrated in the developed world. This means that developing countries are implementing policies that are originating from the Western World, that is based on Western norms and values. If developing countries are then implementing these policies, the norms and values of the West could be transmitted towards the developing countries. As a result of this, the societies in the developing countries could also face a change in their own norms and values regarding labour standards. This implies that the policies are functioning as transmitters to shift Western norms and values from the West to the developing world. A relatively high level of labour

standards is part of these Western norms and values. To ensure that developing countries stick to the new labour standards or will even go beyond that, the European Union created a special arrangement in which developing countries are incentivized to implement certain policies that guarantee a certain level of labour standards (Doumbia-Henry & Gravel, 2006). This also implies that countries that ensure respect for a certain level of labour standards are given additional trade preferences. It is therefore fair to say that the European Union is putting effort in promoting the upscale of labour standards in the developing world. Furthermore, it has been shown that including labour standards does not necessarily lead to a worse competitive advantage for developing countries (Elliott & Freeman, 2003). This could result in that developing countries could be willing to accept the inclusion of the 'social clauses', because it does not harm their relative competitive position.

2.3.3 Institution building

Engaging in more trade agreements implies committing to a certain set of policies that are internationally committed, which makes changing the policies costly. They are thereby improving the quality and reliability of their formal institutions. This could then attract MNE's originating from developed countries because the environment for Western MNE's will improve and transaction costs of enforcement could decline (Büthe & Milner, 2008). In this case, developing countries are showing to MNE's originating from developed countries that they are willing to implement policies that could guarantee a certain high(er) level of labour standards, as demanded by the MNE's. This makes the institutional environment in which the MNE's have to operate more stable, which could attract more MNE's from developed countries. The developing countries be able to make their institutional environment more stable by committing their policies to international institutions. This implies that in the case that a country does not comply to their policies or policy promises, international institutions (instead of their own institutions) are able to punish the countries via fines or trade restrictions, which makes the enforcement more reliable. It would therefore be quite costly for developing countries to not comply to their promised policies. This could then function as a signal to the MNE's originating from developed countries that developing countries do have an incentive to comply to the policies. The risks for the MNE's to invest in such countries would therefore decline, which makes it more attractive for the MNE's to locate in countries that have committed their policies to international institutions. So, one could argue that international trade deals positively affect labour standards, because developing countries have an incentive to impose a certain

level of labour standards, since not complying to these policies would be very costly. Moreover, attracting MNE's from developed countries could not only have a positive effect on the economy, but these MNE's also bring certain norms and values with them, as well as certain Corporate Social Responsibility (CSR) policies. These CSR policies could have a positive effect on labour standards in developing countries, because of the higher norms and values regarding these standards they bring along with them to the developing countries (Jackson et al, 2018). This implies that firms that do business in a developing country, will upgrade the labour standards in the area that they are located, to use this as an example of their CSR. So, where international trade deals could have a positive effect on attracting MNE's from developed countries by guaranteeing a certain level of labour standards via international institutions, the MNE's themselves could at their turn have a positive effect on labour standards in the areas in which they are located. This suggests that engaging in more international trade deals could actually end up in a 'race to the top' regarding labour standards, because trade deals could start a reinforcing process where labour standards attracts MNE's from developed countries and those countries carry a certain level of norms and values with them, which then positively affects labour standards in the developing country.

2.3.4 Legal improvements

The effects of engaging in international trade deals on the level of labour standards as discussed so far, merely focusses on how the content and the outcomes of the deals could have an effect on labour standards. However, engaging in an international trade deal on itself could also have a positive effect on labour standards. If two or more countries are agreeing on a new trade deal, they are basically trading market accesses. One of the rules imposed by the WTO is that after the trade deal has been made, changes in domestic policies are forbidden to systematically erode market access commitments (Brown, 2001). This means that developing countries cannot lower their level of labour standards to create a competitive advantage (as is viewed by developed countries), since this will lead to a distortion in the agreed upon share of traded market access of the counterparty. It would only be possible to lower labour standards in this case, if it would compensate for the gain in competitive advantage. This would mean that they have to find a policy and implements this in such a way that the net gain of competitive advantage by implementing lower labour standards in combination with another policy in zero. The main point of the argument here is that after a developing country has committed to a trade deal, it is very hard for them to create a competitive advantage by decreasing the level of labour standards

in their country, since this would be against one of the commitments that they agreed upon by signing the trade deal. Because of the well-functioning enforcement system of the WTO, it is unlikely that developing countries would disobey the rules. It would be very costly to do so. This means that the legal basis for the protection of labour standards has improved, because it has become harder for developing countries to lower their labour standards after they are engaged in an international trade deal. Therefore, the rules imposed by the WTO could possibly prevent lowering labour standards from occurring, or even lead to an increase in the level of labour standards, since lowering is not an option here. Please note that the rules of the WTO are not always very precise. This means that it is hard to determine when market access commitments are systematically eroded. So, although the enforcement system of the WTO functions pretty well, there is still some room for developing countries to find a way in which they can ‘cheat’ on their commitments.

2.4 Conclusion and hypothesis

From the existing literature, I can conclude that the effect on globalization on labour standards could go either positive or negative. On the one hand, globalization could accommodate competition between countries regarding the levels of labour standards, to create a competitive advantage for a country. On the other hand, globalization could also enhance cooperation and stimulate economic growth, which implies that globalization has a positive effect on labour standards. When looking at literature about one of the facilitators of globalization, namely international trade deals, I found that trade deals mostly have a positive effect on labour standards. As discussed by Orbie & van Roozendaal (2017), there are four main ways in which trade deals could have a positive effect on labour standards. These four main ways are *i) development, ii) empowerment, iii) institution building and iv) legal improvement*. Based on these findings in the literature review, I expect that international trade deals have a positive relation with the level of labour standards in developing countries. Therefore, the following hypotheses has been formulated:

H1: international trade deals have a positive effect on the level of labour standards for developing countries.



Figure 1, conceptual scheme of the relationship between International Trade Deals and Labour standards

3. METHODOLOGY & DATA

3.1 Methodology

To test whether the hypothesis *H1* (as illustrated in Figure 1) holds and whether there is a relationship between the number of trade deals and the level of labour standards in developing countries, an OLS regression will be performed. The regression equation will look as follows (a more detailed definition and measurement of the variables used will be discussed later in this section):

$$LSI_i = \beta_0 + \beta_1 TD_i + \beta_2 G_i + \beta_3 RIC_i + \beta_4 GDPC_i + \beta_5 RLI_i + \varepsilon_i, \quad (1)$$

where LSI_i is the Labour Standards Index in country i (dependent variable), which is a measurement for the level of Labour Standards per country, as will further be explained below, TD_i is the amount of Trade Deals in country i (independent variable), G_i is the level of Globalization in country i (control variable), RIC_i is the number of ratifications of ILO conventions in country i (control variable), $GDPC_i$ is the level of GDP per Capita in country i (control variable), RLI_i is the Rule of Law Index in country i (control variable) and ε_i is the error term in country i .

The data used in this regression will consist of cross-sectional data, because the number of trade deals over time do not change that much, if it changes at all. Looking at the development in the number of trade deals from the last ten years per country, most developing countries did not engage a new trade deal, and the ones who did only engaged in one or in exceptionally two new trade deals. This has also been illustrated in the graph below. Although Graph 1 shows some increase, it would not be enough to capture in an OLS regression model that measures the effect over time via panel data. Moreover, there are only a select number of countries that have been involved in an increase in their number of trade deals, which implies that a lot of countries must be eliminated from the dataset, because the value of the number of trade deals does not change over time and can therefore not be measured over time. This makes that using panel data, which measures the effect of engaging in more trade deals on the level of labour standards over time, is not suitable for use in this study. Data for the year 2016 (and in some cases data from 2012 until 2015) will be used in this study, because that is the most recent year for which ILO data is available.



Graph 1, graphical representation of total number of trade deals from 2007 until 2016 (WTO, 2019a)

Before moving to the discussion of the measurement for the variables used in this research, a definition must be established to determine what exactly is meant with a ‘developing country.’ To define what a developing country is, the Human Development Index (HDI) will be used. This measure is developed by the United Nation’s Development program (UNDP) and the index measures the average achievement of three dimensions of human development, namely a long and healthy life, knowledge and a decent standard of living (UNDP, 2019a). The UNDP distinguishes four categories of HDI rank. These are ‘very high’, ‘high’, ‘medium’ and ‘low.’ To determine which countries will be assumed to be developing countries, ‘low’ and ‘medium’ HDI ranks (all HDI ranks below 0.7) will be used, (Dumuid et al, 2018). According this definition, there are 81 developing countries in 2016 (a list of the countries is provided in Appendix 1). Because of lacking data (and in the case of Lesotho an outlier), 19 countries have been removed from this list. These countries are South Sudan, Lesotho, Madagascar, Nigeria, Equatorial Guinea, Djibouti, Eswatini (Kingdom of), Angola, Eritrea, Solomon Islands, Comoros, Timor-Leste, Palestine, State of, Cabo Verde, Kiribati, Micronesia (Federated States of), Bhutan, Vanuatu. In the following part of this section, the different variables that have been used in this research and their corresponding methodology and data sources will be discussed. This will be followed by an analysis of the dataset that includes all data that have been used in this research.

3.1.1 Labour standards

The first main variable of interest, the level of labour standards, is the dependent variable in the regression equation. As specified by the International Labour Organization (ILO), labour standards consist of five core articles, namely the freedom of association (workers are able to freely join or form a labour organization), the right to collective bargaining (protects these unions from interference that comes from outside their own environment), no forced labour (no worker may work under any form of pressure), no child labour (below 15 years old) and no discrimination (all workers must have the same rights and are able to pursue the same goals and dreams as any other worker) (Palley, 2004). For the variable ‘labour standards’ a ‘Labour Standards Index’ (LSI) must be calculated. This index is based on the five indicators of the five core labour standards (the freedom of association, the right to collective bargaining, no forced labour, no child labour and no discrimination). The LSI will then be calculated as a weighted mean of these indicators, with the weighting criteria being based on the study of Bazillier (2004). This research also used five indicators to determine an index for labour standards but included the indicator ‘the ratification of ILO conventions’ and instead of ‘the right to collective bargaining.’ This means that the weighted criteria used by Bazillier (2004) must be updated to make it applicable for my research.

Bazillier (2004) used the following weighting criteria:

Indicator	Child labour	Freedom of association	Discrimination	Forced labour	Ratification ILO
Weighted criteria	25.6	25.5	10.5	20.1	18.4

Table 1, original weighted criteria of the five indicators for labour standards (Bazillier, 2004)

The new criteria are calculated as follows. The indicator ‘Ratification ILO’ has been replaced by the indicator ‘Collective bargaining.’ This implies that also the value of 18.4 of ‘Ratification ILO’ must be replaced with the corresponding value of ‘Collective bargaining’, which is 25.5 (the same value as the value of ‘Freedom of association’). Adding up these criteria will give a total value of 107.2. To make the total value of all weighted criteria 100 again, all the individual values of the five indicators must be divided by 1.072. The new recalculated criteria will be as follows:

Indicator	Child labour (CL)	Freedom of association (FA)	Discrimination (DI)	Forced labour (FL)	Collective bargaining (CB)
Weighted criteria	23.9	23.8	9.8	18.7	23.8

Table 2, weighted criteria of the five indicators for labour standards

Because the number of ‘ratifications of ILO conventions’ is not applicable to measure labour standards in my research, this will not be included in the dependent variable. However, because it could still have an effect on the actual labour standards in a country, the variable ‘ratifications of ILO convention’ will be added in the model as a control variable.

To calculate the LSI, the value of the indicator will be multiplied by the factor corresponding to the weighted criteria, where value 0 always represents the worst possible labour standards and 1 represent the value for the situation in which the labour standards are at the most optimal level (highest possible). The LSI will thus be calculated in the following manner:

$$LSI = (0.239*CL) + (0.238*FA) + (0.098*DI) + (0.187*FL) + (0.238*CB) \tag{2}$$

Now that the measurement for the variable ‘labour standards’, namely the LSI, has been established, I will discuss how the data of the five different indicators of the LSI is retrieved. Because data for measurement of the indicator ‘no discrimination’ is lacking and since it is very difficult to construct meaningful measures of discrimination at a country-level, a proxy for this indicator will be used (Kucera, 2002). The definition that is constructed by the ILO for discrimination is very broad, which makes it quite difficult to construct a meaningful measure for ‘no discrimination.’ The proxy will consist of data that measures the level of gender discrimination or in other words gender inequality and it will be retrieved from the UNDP. A Gender Inequality Index (GII) will be used, which measured gender inequality in three aspects, namely reproductive health, empowerment and economic status (UNDP, 2019c). A higher number of the GII implies more disparities between males and females. Because a higher level of LSI must indicate better labour standards, the corresponding value of GII will be subtracted from 100. This makes that a higher value of ‘discrimination’ corresponds with a higher level of labour standards, as measured by the LSI. Data for the other four indicators (FA, CB, CL and FL) can be retrieved from the ILO (FA and CB), the Quality of Government Institute (FA and CB), the World Bank (CL) and the Global Slavery Index (FL). ‘Child labour’ is measured by the percentage of children in employment relative to all employment, where children are aged

between 7-14 years old. Since again a higher value for LSI must indicate a higher level of labour standards, the value for 'child labour' will be subtracted from 100. The data for this variable will be retrieved from the World Bank (2019a). 'Freedom of association' will be measured by the amount of union members who are employed relative to the total number of employees. Data for this variable has been retrieved from the ILO (2019a), as well as from the Quality of Government Institute (2019). 'Collective bargaining' will be measured by the number of employees whose salary is determined by at least one collective agreement, relative to the total number of employees. Data for this variable will be retrieved from the ILO (2019a). Finally, 'forced labour' is measured by the estimated percentage of people living in modern slavery, which is measured by the Global Slavery Index (2019). For the same reasons as discussed at variables 'discrimination' and 'child labour', also the value of 'forced labour' must be subtracted from 100. The mean of the LSI values for all countries is 0.488, with a standard deviation of 0.0409. A list of all LSI scores per country can be found in Appendix 2.

3.1.2 International Trade Deals

The second main variable of interest is 'trade deals', which is the independent variable. To determine what trade deals are, the amount of 'international trade agreements' per country, will be used. This has been measured by adding up the number of Regional Trade Agreements (RTA's) that are in force per country, until the end of the year 2016. The RTA's includes either bilateral and plurilateral trade deals of both goods and services and is defined by the WTO as 'reciprocal preferential trade agreements between two or more partners' (WTO, 2019c). However, most trade deals consist of plurilateral trade deals. Data about the number of Trade Agreements can be retrieved from the World Trade Organization (WTO, 2019a). Via this website, I counted the RTA's that are currently in force per country, and subtracted the number of trade deals that has been agreed upon after the year 2016 (via an overview of all RTA's per year including the countries involved that has been drafted by the WTO). The minimum number of trade deals in the sample of 62 developing countries is 0, where the maximum number is 18 trade deals. The mean trade deals per country is 4.667, with a standard deviation of 3.663. A list of the number of RTA's per country can be found in Appendix 3.

3.1.3 Control variables

The other four variables used in the regression analysis consist of control variables. These variables are ‘globalization’, ‘GDP per Capita’, ‘Rule of Law’ and ‘ILO Ratifications.’ As discussed in the previous section, globalization could also influence the level of labour standards in developing countries. This effect could be either positive or negative. Therefore, globalization will be included as a control variable. For the variable ‘globalization’, the ‘KOF Globalization Index’ will be used. This is a measure that includes economic, social and political dimensions of globalization (Gygli et al., 2019). It does, however, not include the number of trade deals per country, which makes it a good measurement for ‘globalization’ in this research. The mean of this variable is 0.472 and the standard deviation is 0.0849.

Furthermore, the level of labour standards could also be influenced by the GDP per capita level and the level of the rule of law, as discussed in the beginning of the second chapter (Posso, 2017). Data for GDP per capital will be retrieved from the World Bank and is measured in US dollars (2019b). Because the values of the variable ‘GDP per Capita’ differentiated too much from the other variables (with a standard deviation of 22,418.04 for ‘GDP per Capita’, where the maximum of the standard deviation of the other variables is 3.67), and taking the logarithm of the values did not take away the problem, ‘GDP per Capita’ has been ranged from 0 until 1, just like the variables ‘LSI’ (and its five indicators), ‘globalization’ and ‘rule of law.’ This has been done by dividing all values of GDP per Capita by the largest value, which is 46,007.85 US Dollar. Now, the mean of the variable is 0.182 and the standard deviation is 0.487. This implies that the values of ‘GDP per Capita’ could be interpreted as a percentage of the biggest value, which is 46,007.85 US Dollar. Data for the Rule of Law Index originates from the World Justice Program (2019), which is the leading source for rule of law index data. This index also ranges from 0 to 1, with a mean value of 0.456 and a standard deviation of 0.0494.

Finally, data for the ratification of the ILO conventions, which will also be used as a control variable in the regression, will be retrieved from the ILO (2019b). This data will consist of summing the numbers of all ratifications until the year 2016. Although there are some problems with this variable (which will become clearer later), I decided to retain this variable in the models, because I find the theoretical value of this variable too high to exclude it from the models. Where agreeing upon certain laws that aim at increasing the level of labour standards in a country could be on the basis of improving labour standards, whether it actually gets ratified by the state is the second step. The ratification implies the commitment of the state to actually execute the law(s) that the country has agreed upon. It could therefore be seen as a bridge

between signing a trade deal and actually improving the level of labour standards. For this reason, I decided to remain the variable ‘ILO Ratifications’ in the regression models.

By the construction of the LSI and the recalculation of the ‘GDP per Capita’, four of the six variables range from 0 to 1, where ‘trade deals’ ranges from 0 to 18 and ‘ILO ratifications’ ranges from 0 to 8. This makes the differences between the values of the six variables acceptable. In Table 3, a descriptive of the variables has been provided. A list of the values for all control variables can be found in Appendix 4.

	Unit of measurement	N	Mean	Standard deviation	Min. value	Max. value
LSI	Percentage	62	0.488	0.409	0.401	0.590
Trade Deals	Number	62	4.667	0.663	0	18
Globalization	Percentage	62	0.472	0.0849	0.304	0.661
ILO Ratifications	Number	62	7.571	1.043	3	8
GDP per Capita	Percentage	62	0.182	0.487	0.00653	1
Rule of Law Index	Percentage	62	0.456	0.0494	0.330	0.590

Table 3. the descriptive summary of the variables¹

3.2 Data

Since data for the variables to measure labour standards is lacking, the same technique that has been used to combine the Quality of Government Institute data (2019) will be used in this research. This database used primary data from the year 2015. However, if data for that year is lacking, they used data from another year with a timespan of +/- 3 years. This means that the data in that database could cover data from 2012 until 2016. To obtain the data for the database that will be used to measure the effect of trade deals on labour standards in this research, the same technique has been used. For the variables ‘freedom of association’ and ‘collective bargaining’, in the first instance data from the ILO (2019a) for the year 2016 has been used. However, if from this database, data was lacking from a particular country but not from the Quality of Government Institute (2019), data from that database will be used. Furthermore, if data is still lacking for this particular country, data from the ILO (2019a) for the years 2012

¹ Data sources: LSI (ILO, 2019a; World Bank, 2019a; UNDP, 2019c; Global Slavery Index, 2019; Quality of Government Institute, 2019), Trade Deals (WTO, 2019a), Globalization (Gygli et al., 2019), ILO Ratifications (ILO, 2019b) GDP per Capita (World Bank, 2019a) and Rule of Law Index (World Justice Program, 2019).

until 2015 will be used as a proxy for data from the year 2016 to obtain a more comprehensive database. In each case, data from the latest year as possible has been used to make it most up to date. In some cases, also for the other variables, data from the period 2012 until 2015 has been used as a proxy for data from the year 2016. This implies that, although the primary data is from the year 2016, in some cases data from the year 2012 until 2015 has been used, where the goal is to use the data from the latest year as possible. Only a small number of observations will contain data from the year 2012. Therefore, taking the year 2016 as the main source of the data is the most appropriate, as all observations will be closest to this year.

After completing the database that will be used in this research, still some missing's occur in it. For some countries like Cabo Verde, Eswatini and Vanuatu, there is simply no data available for any of the variables used. This is most likely the case because these countries are too small or too isolated to be willing to share data about their citizens and other economic data at all. Therefore, these countries will be eliminated from the database. For the rest of the 62 countries, there is data available for at least two of the five labour standards variables. Data for those countries will be added by taking the average of the data that is available for the other countries. For instance, if a country would miss data about the variable 'freedom of association', the average of this variable from the countries that do have data about this will be added as a proxy for the value of this variable for the particular country. Finally, after an inspection of all the variables and their corresponding values that are used in the regression analysis, one country has been removed from the dataset. The value of the country Lesotho for the variable 'GDP per Capita' turned out to be an outlier (the value of Lesotho for the variable 'GDP per Capita' was 164,993.2 US Dollar, while the mean of that variable was 10,875.81 US Dollar), which implies that it would influence the outcome of the regression analysis. Therefore, the country Lesotho has been removed from the dataset. This leaves sixty-two countries with usable data in the dataset, which means that the regression in chapter four will consist of sixty-two observations.

To see whether variables have high or low correlations with each other, a correlation matrix has been derived, as illustrated in Table 3. Overall, no really high correlations can be found between variables that could be problematic for the regression analysis. This has also been shown by the VIF-test that is performed to see whether multicollinearity (which implies a linear relation between two of the explanatory variables) is of importance to possibly bias the results. With a mean VIF value of 1.77 the conclusion can be made that multicollinearity does not influence the results. 'Trade deals', being a facilitator of globalization, has the highest correlation of all with the variable 'globalization'. The variable 'trade deals' also correlates relatively high with

‘LSI’, which can be explained by the relationship that thus far is assumed between the two variables to be present. The only outstanding correlation is the significant negative correlation between ‘ILO Ratifications’ and ‘Trade Deals’. A reason for this could be that India, Lao People's Democratic Republic and some other countries have relatively a lot of trade deals and relatively very few ILO Ratifications. Because a lot of other countries have a value of 8 ILO Ratifications, this could be a reason for the negative correlation. Furthermore, no outstanding correlations are present and are therefore needed to be discussed, where most of all the three control variables ‘GDP per capita’, ‘rule of law’ and ‘ILO ratifications’ correlate relatively low with all the variables.

	Trade deals	LSI	GDP per Capita	Rule of law	ILO Ratifications	Globalization
Trade deals	1.0000					
LSI	0.4102*	1.0000				
GDP per Capita	-0.0194	-0.1161	1.0000			
Rule of law	0.0586	0.0422	0.0152	1.0000		
ILO Ratifications	-0.3580*	-0.0733	0.1687	0.0069	1.0000	
Globalization	0.4977*	0.4198*	-0.0049	0.2703*	0.3134*	1.0000

Table 4, correlation matrix of all the variables, where a * indicates that the correlation is significant at a 5% significance level.

Furthermore, also a Breusch-Pagan/Cook-Weisberg test has been performed, to see whether heteroscedasticity, which would imply that the errors terms of (some of) the explanatory variables are correlated, could possibly bias the results. With a chi² value of 1.12, the conclusion can be made that also heteroscedasticity does not play a role in the estimation of the models and can therefore not bias the results.

4. RESULTS

The OLI regressions, as illustrated in Table 5 below, start with a model that only includes the two main variables of interest, namely ‘labour standards’ (measured via the LSI) as dependent and ‘trade deals’ as the independent variable. This will be followed by the inclusion of more control variables in each model, where ‘labour standards’ is always the dependent variable.

	LSI (A) R ² = 0.167	LSI (B) R ² = 0.230	LSI (C) R ² = 0.238	LSI (D) R ² = 0.239	LSI (E) R ² = 0.244	LSI (F) R ² = 0.236
Trade deals	0.00459*** (3.48)	0.00299** (2.03)	0.00206 (1.09)	0.00223 (1.17)	0.00202 (1.03)	0.00289* (1.94)
Globalization		0.138** (2.18)	0.177** (2.21)	0.170** (2.12)	0.186** (2.15)	0.148** (2.22)
ILO Ratifications			-0.00481 (-0.79)	-0.00375 (-0.60)	-0.00443 (-0.70)	
GDP per Capita				-0.0173 (-0.83)	-0.0167 (-0.80)	-0.0198 (-0.97)
Rule of Law					-0.0581 (-0.57)	-0.0447 (-0.45)

Table 5, regression models A until F²

From the models presented in Table 5, the following results can be found. First of all, when looking at the relation of interest of this research, the effect of trade deals on labour standards, in half of the models a significant positive relation can be found between the two variables. First, the regression without control variables shows one of these significant results (Model A). Also, when controlling for globalization (Model B), this relation is still significant. However, this result becomes insignificant when including ILO ratifications into the model, where the variable globalization always remains significant. When also controlling for GDP per capita and the Rule of Law index, the effect of trade deals on labour standards (LSI) remains at an insignificant level. However, this changes when the number of ILO ratification is excluded from the model, as can be seen in Model F. Although GDP per capita and the Rule of Law index still remain insignificant, the parameter of trade deals becomes significant again. This could probably be explained by the relatively high and negative correlation between ‘trade deals’ and ‘ILO ratifications’ that has a value of -0.355. Except from the variable ‘globalization’, all other control variables show an insignificant result. This implies that it is quite hard to interpret the results from the models where these control variables are included. The negative coefficient of ‘rule of law’ and the small coefficient of ‘GDP per Capita’ are quite remarkable, but without

² For all models n = 62 and prob > F is always lower than 0.05. LSI (Labour Standards Index) is always the dependent variable. For each model, the R2 has been mentioned and for each variable the t-value has been inserted in parentheses below the value of the parameter, where number of asterisks after the value of the parameter illustrates the significance of the variable (*=90%, **=95% and ***=99%). Where a variable does not have an asterisk after the value of the parameter, it means that the variable has no significant effect on the dependent variable.

any of these variables being significant in any of the models, it seems unnecessary to try to find an explanation for these results. Finally, no high values for the R^2 in the models can be found, and therefore this could indicate that the models are reliable.

The conclusions that can be made from the results presented in Table 5, are that both globalization as the number of trade deals show a positive result, as expected. Moreover, because the value of trade deals is significant in half of the models, a conclusion can be made that there is a positive relation between international trade deals and labour standards, but that this conclusion must be interpreted very carefully. This means that the hypothesis *H1* has been accepted. Another conclusion that can be drawn is that since all the control variables (except globalization) show an insignificant effect on labour standards, the amount of trade deals a country is involved in, could have more impact on the level of labour standards than any of the three insignificant control variables.

After the models A until F had been determined, several robustness checks were executed to see whether a different approach and/or methodology could play an important role when interpreting the results. The results of the robustness checks can be found in Appendix 5. Firstly, I checked whether the results would differ when distinguishing countries that do have a trade deal with the European Union with countries that do not have a trade deal with the European Union. The reasoning behind this is that developing countries that engage in a trade deal with the EU, also engage in policies that require a relatively high level of labour standards, as could be demanded by developed countries. Because of reasons already discussed in Section two, the EU could be a good example of a party that demands a certain level of high labour standards when engaging a deal with a developing country. In the regression model, I incorporated a dummy variable that reflects whether a country is engaged in one or more trade deals with the EU or not. This would imply that when a country is indeed engaged in a trade deal with the EU, it would have a higher LSI than countries that do not engage in such a trade deal. The result of this model is that there is no significant effect between being engaged in a trade deal with the EU and having a higher LSI. Only globalization shows a significant positive effect in this regression model. Secondly, I checked whether it could be of importance in looking at the different effect of bilateral and plurilateral trade deals on labour standards. One could argue that when a developing country merely has bilateral trade deals with other developing countries, the effect of trade deals on labour standards would be less than with plurilateral trade deals. The change of engaging with only developing countries could be less with plurilateral trade deals relative to bilateral trade deals. However, when checking whether the trade deals of the

developing countries were bilateral or plurilateral, I found that almost all trade deals consist of plurilateral trade deals. Only 23 out of the 62 countries have bilateral trade deal, as can be seen in Appendix 5, and the countries that do have a bilateral trade deal mostly have only one bilateral trade deal. This implies that looking at differences between these two types of trade deals in an OLS regression would be useless. It also implies that for developing countries, it is not relevant to look at the effects of different types of trade deals at this time, since most of them are plurilateral. Thirdly, I checked the possibility whether trade deals could have a larger effect on some of the five indicators that construct the LSI than on others. I did this by establishing a different OLS regression model for every of the five indicators of the LSI. The results of these models were that there are no reliable outcomes visible, because in the cases where ‘Trade Deals’ has a significant effect on one of the indicators, ‘globalization’ does not have a significant effect, while this was the case in the models that included the LSI (as shown in Table 5). Only in the first models in Appendix 5, both ‘Trade Deals’ and ‘globalization’ do have significant effects on the indicator ‘collective bargaining’, but the parameter of ‘Trade Deals’ is negative, which according to the theory seems strange. Therefore, I question the reliability of the outcomes of this robustness checks. This implies that it would be wise to look at labour standards as a whole of the five indicators (which is the LSI), rather than highlighting the importance of trade deals for one or some of the five indicators. A reason for this result could be, however, the lack in data of some of the indicators.

5. CONCLUSION & DISCUSSION

With globalization at an all-time high, the issue of low labour standards in developing countries, as a possible result from increased globalization, has been discussed quite often. On the one hand, developing countries have an incentive to keep labour standards low, in order to create a competitive advantage. This could ultimately result in a ‘race to the bottom’ regarding labour standards in the countries involved. On the other hand, globalization enhances cooperation between countries to maintain a certain level of labour standards. Moreover, the awareness of labour standards for societies from developing countries has increased due to the relatively high level of overall globalization. Furthermore, one of the facilitators of globalization, namely international trade deals, on itself also could have some positive effects on the level of labour standards in developing countries. Orbie & van Roozendaal (2017) discuss in their research the four main ways in which trade deals could have a positive effect on labour standards. These four ways are through *i) development, ii) empowerment, iii) institution building and iv) legal*

improvement. In this thesis, the relation between trade deals and labour standards has been researched, with the hypothesis being *H1: international trade deals have a positive effect on the level of labour standards for developing countries*. With a sample of 62 developing countries, based on HDI ranking, OLS regression have been performed to determine whether the hypothesis *H1* holds. To measure ‘labour standards’, a Labour Standards Index (LSI) has been calculated. This LSI is based on the five core articles of the ILO that define what ‘labour standards’ are, namely the freedom of association, the right to collective bargaining, no forced labour, no child labour and no discrimination (Palley, 2004). Based on Bazillier (2004), a weighted average of the values of these five articles determine the LSI per country, to measure the level of labour standards per country. To control for several effects, four control variables have been added into the model. The control variables are globalization, GDP per Capita, Rule of Law Index and ILO Ratifications. The findings of the models are that in three of the six models, trade deals have a positive effect on labour standards, where in all cases globalization has also a positive effect on labour standards. There seems thus a relation between trade deals, as a facilitator of globalization, and labour standards.

The limitations of this research should include the lack in data, for which proxies have been used to cover these. In the best scenario, data for all developing countries for one year in time would be available. This was unfortunately not the case, because data about labour standards is not in abundance. Although I have found solutions for this issue, I still believe more data could have improved this research. Another limitation of this research is the lack of measurements for discrimination at the working space. In this research, I used gender inequality as a proxy for this, but this can however not contain all aspect of working space discrimination. For future research, I would suggest using a more complete database for the regression analysis, especially for the first two ILO articles the freedom of association and the right to collective bargaining. In this study, data for these variables was somewhat lacking, which could have negative effects for the outcome of the models. Moreover, I would suggest that a dataset becomes available that includes data for all years, to prevent that proxies have to be included based on values of previous years, so that the database exists of data for all countries for every year. Another suggestion would be to review again the weighted averages that are used to calculate the LSI. Although the recalculation of these weighted averages which has been done in this research is plausible, the original weighted averages are determined in the year 2004, which is the year in which the research of Bazillier has been published. There are thus several suggestions that have been made regarding the improvement of the measurement of labour standards. Another

discussion point refers to the outcomes of the models as presented in Table 5. Because only in three out of six models 'trade deals' has had a significant effect on labour standards, it is quite hard to interpret these findings. Personally, I think that significant outcomes suggest that there is a relationship between trade deals and labour standards, but that this result has to be interpreted carefully. On the one hand, trade deals did not show a significant effect in all models, which could suggest that the effect is lacking or only present in certain circumstances. This makes it thus somewhat questionable whether there is actually an effect of trade deals on labour standards. On the other hand, in all cases where trade deals showed an insignificant effect on labour standards, the control variables (except globalization which showed only significant effects) did not have a significant effect on labour standards. These insignificant results do have an influence of the outcomes of the models, which questions the insignificance of trade deals on labour standards. This means that there could be a discussion about the actual effect of international trade deals on the level of labour standards in developing countries. Also, more research is needed on the effect of international trade deals on labour standards, since this is somewhat lacking.

BIBLIOGRAPHY

- Anuradha, R. V., & Dutta, N. S. (2012). Trade and Labour under the WTO and FTAs. Delhi, Centre for WTO Studies.
- Barro, R. J. (2000). Rule of law, democracy, and economic performance. 2000 index of economic freedom, 31-51.
- Bazillier, R. (2004). Core labour standards and economic growth. Cahiers de la Maison des Sciences Economiques bla04088, Université Panthéon-Sorbonne (Paris 1).
- Brown, D. K. (2001). Labor standards: where do they belong on the international trade agenda? *Journal of Economic perspectives*, 15(3), 89-112.
- Büthe, T., & Milner, H. V. (2008). The politics of foreign direct investment into developing countries: increasing FDI through international trade agreements? *American journal of political science*, 52(4), 741-762.
- Davies, R. B., & Vadlamannati, K. C. (2013). A race to the bottom in labor standards? An empirical investigation. *Journal of Development Economics*, 103, 1-14.
- Dehejia, V. H., & Samy, Y. (2004). Trade and labour standards: theory and new empirical evidence. *The Journal of International Trade & Economic Development*, 13(2), 179-198.
- Doumbia-Henry, C., & Gravel, E. (2006). Free trade agreements and labour rights: Recent developments. *International Labour Review*, 145(3), 185-206.
- Elliott, K. A., & Freeman, R. B. (2003). Can labor standards improve under globalization? Peterson Institute Press: All Books. 200 pp., ISBN: 9780881323320.
- Granger, C., & Siroen, J. M. (2006). Core labour standards in trade agreements: From multilateralism to bilateralism. *Journal of World Trade*, 40(5), 813-836.
- Jackson, G., Doellgast, V., & Baccaro, L. (2018). Corporate social responsibility and labour standards: Bridging business management and employment relations perspectives. *British Journal of Industrial Relations*, 56(1), 3-13.
- Kabeer, N. (2004). Globalization, labor standards, and women's rights: dilemmas of collective (in) action in an interdependent world. *Feminist Economics*, 10(1), 3-35.

- Kennedy, E. T., Welch, C. E., & Monshipouri, M. (2017). Multinational corporations and the ethics of global responsibility: Problems and possibilities. In *Human Rights and Corporations* (pp. 123-147). Routledge.
- Kok, M., Nahuis, R., & de Vaal, A. (2004). On labour standards and free trade. *The Journal of International Trade & Economic Development*, 13(2), 137-158.
- Krueger, A. B. (1996). Observations on international labor standards and trade (No. w5632). Cambridge, National Bureau of Economic Research.
- Kucera, D. (2002). Core labour standards and foreign direct investment. *International Labour Review*, 141(1-2), 31-69.
- Lee, E. (1997). Globalization and labour standards: A review of issues. *Int'l Lab. Rev.*, 136, 173.
- Manning, C. (1998). Does globalisation undermine labour standards? Lessons from East Asia. *Australian Journal of International Affairs*, 52(2), 133-147.
- McMillan, M. S., & Rodrik, D. (2011). Globalization, structural change and productivity growth (No. w17143). Cambridge, National Bureau of Economic Research.
- Mosley, L., & Uno, S. (2007). Racing to the bottom or climbing to the top? Economic globalization and collective labor rights. *Comparative Political Studies*, 40(8), 923-948.
- Neumayer, E., & De Soysa, I. (2006). Globalization and the right to free association and collective bargaining: An empirical analysis. *World development*, 34(1), 31-49.
- Orbie, J. (2011). Promoting labour standards through trade: normative power or regulatory state Europe? In *Normative Power Europe* (pp. 161-184). London, Palgrave Macmillan.
- Orbie, J., & Van Roozendaal, G. (2017). Labour Standards and Trade: In Search of Impact and Alternative Instruments. *Politics and Governance*, 5(4), 1-5.
- Palley, T. I. (2004). The economic case for international labour standards. *Cambridge Journal of Economics*, 28(1), 21-36.
- Posso, A. (2017). Preferential Trade Agreements with labour provisions and labour market outcomes: Evidence from Asia and the Pacific. *Asia-Pacific Development Journal*, 24(2), 89-111.

Prasad, E., Rogoff, K., Wei, S. J., & Kose, M. A. (2005). Effects of financial globalization on developing countries: some empirical evidence. In *India's and China's recent experience with reform and growth* (pp. 201-228). London, Palgrave Macmillan.

Ronzoni, M. (2016). Global labour injustice: A critical overview. *Global justice and international labour rights*, 26-52.

Singh, A., & Zammit, A. (2000). *The global labour standards controversy: Critical issues for developing countries*. University of Cambridge.

Singh, A., & Zammit, A. (2004). Labour standards and the 'Race to the Bottom': Rethinking globalization and workers' rights from developmental and solidaristic perspectives. *Oxford review of economic policy*, 20(1), 85-104.

Siroën, J. M., & Andrade, D. (2016). *Regional Trade Agreements and the Spread of International Labours Standards*. Working paper (n. 16). University of Paris.

Yu, S., & Zia-ud-Din, M. (2018). International Trade Agreements and Their Relation to Core Labor Standards. *J. Pol. & L.*, 11, 33.

DATA SOURCES

Dumuid, D., Maher, C., Lewis, L. K., Stanford, T. E., Fernández, J. A. M., Ratcliffe, J., Katzmarzyk, P. T., Barreira, T. V., Chaput, J., Fogelholm, M., Maia, J., Sarmiento, M., Tremblay, M. S., Tudor-Locke, C., Olds, T. & Hu, G. (2018). Human development index, children's health-related quality of life and movement behaviors: A compositional data analysis. *Quality of Life Research*, 1-10.

Global Slavery Index (2019). Retrieved at 29-03-2019, from <https://www.globalslaveryindex.org/resources/downloads/>

Gygli, S., Haelg, F., Potrafke, N. & Sturm, J. (2019): The KOF Globalisation Index – Revisited, *Review of International Organizations*, <https://doi.org/10.1007/s11558-019-09344-2>.

ILO (2019a). Retrieved at 23-05-2019, from https://www.ilo.org/ilostat/faces/wcnav_defaultSelection;ILOSTATCOOKIE=lQbkkpRa7j5AIMfpeh5KPdpZYXqrZXV0hLnIq9c0cajgMLubAh8b!-

[1292775148?_afLoop=1142501147423450&_afWindowMode=0&_afWindowId=null#!%40%40%3F_afWindowId%3Dnull%26_afLoop%3D1142501147423450%26_afWindowMode%3D0%26_adf.ctrl-state%3D11heud59wc_4](https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:10011:::NO:10011:P10011_DISPLAY_BY,P10011_CONVENTION_TYPE_CODE:1,F)

ILO (2019b). Retrieved at 03-04-2019, from

https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:10011:::NO:10011:P10011_DISPLAY_BY,P10011_CONVENTION_TYPE_CODE:1,F

UNDP (2019a). Retrieved at 22-03-2019, from <http://hdr.undp.org/en/indicators/137506>

UNDP (2019b). Retrieved at 22-03-2019, from <http://hdr.undp.org/en/composite/HDI>

UNDP (2019c). Retrieved at 29-03-2019, from <http://hdr.undp.org/en/composite/GII>

World Bank (2019a). Retrieved at 23-05-2019, from

<https://data.worldbank.org/indicator/sl.tlf.0714.zs>

World Bank (2019b). Retrieved at 24-05-2019, from

<https://data.worldbank.org/indicator/NY.GDP.PCAP.CD>

World Justice Program (2019). Retrieved at 22-03-2019, from

https://worldjusticeproject.org/sites/default/files/documents/RoLI_Final-Digital_0.pdf

WTO (2019a). Retrieved at 22-03-2019, from

<http://rtais.wto.org/UI/PublicMaintainRTAHome.aspx>

WTO (2019b). Retrieved at 22-03-2019, from <http://ptadb.wto.org/SearchByCountry.aspx>

WTO (2019c). Retrieved at 22-03-2019, from

https://www.wto.org/english/tratop_e/region_e/region_e.htm

APPENDIX 1

List of developing countries and their corresponding HDI scores (in 2016) (UNDP, 2019b).

Country	HDI
Gabon	0,698
Moldova (Republic of)	0,697
Philippines	0,696
South Africa	0,696
Egypt	0,694
Libya	0,693
Indonesia	0,691
Bolivia (Plurinational State of)	0,689
Palestine, State of	0,689
Viet Nam	0,689
El Salvador	0,679
Iraq	0,672
Kyrgyzstan	0,669
Morocco	0,662
Nicaragua	0,657
Cabo Verde	0,652
Guyana	0,652
Guatemala	0,649
Tajikistan	0,647
Namibia	0,645
India	0,636
Timor-Leste	0,631
Micronesia (Federated States of)	0,627
Honduras	0,614
Congo	0,612
Kiribati	0,61
Bhutan	0,609
Vanuatu	0,6
Lao People's Democratic Republic	0,598
Bangladesh	0,597
Equatorial Guinea	0,592
Ghana	0,588
Eswatini (Kingdom of)	0,586
Zambia	0,586
Kenya	0,585
Sao Tome and Principe	0,584
Angola	0,577
Cambodia	0,576
Myanmar	0,574
Nepal	0,569

Country	HDI
Pakistan	0,56
Cameroon	0,553
Papua New Guinea	0,543
Solomon Islands	0,543
Syrian Arab Republic	0,536
Tanzania (United Republic of)	0,533
Zimbabwe	0,532
Nigeria	0,53
Rwanda	0,52
Madagascar	0,517
Mauritania	0,516
Benin	0,512
Uganda	0,508
Comoros	0,502
Togo	0,5
Senegal	0,499
Sudan	0,499
Haiti	0,496
Afghanistan	0,494
Côte d'Ivoire	0,486
Djibouti	0,474
Malawi	0,474
Yemen	0,462
Ethiopia	0,457
Gambia	0,457
Guinea-Bissau	0,453
Congo (Democratic Republic of the)	0,452
Guinea	0,449
Eritrea	0,436
Mozambique	0,435
Liberia	0,432
Mali	0,421
Burkina Faso	0,42
Burundi	0,418
Sierra Leone	0,413
Chad	0,405
South Sudan	0,394
Central African Republic	0,362
Niger	0,351

APPENDIX 2

The scores of the Labour Standards Index per country (ILO, 2019a; World Bank, 2019a; UNDP, 2019c; Global Slavery Index, 2019; Quality of Government Institute, 2019).

Country	LSI-score	Country	LSI-score
Afghanistan	0.474042	Liberia	0.47555
Bangladesh	0.544539	Libya	0.521964
Benin	0.493261	Malawi	0.401179
Bolivia (Plurinational State of)	0.585422	Mali	0.472986
Burkina Faso	0.479078	Mauritania	0.477704
Burundi	0.493484	Moldova (Republic of)	0.589577
Cambodia	0.532521	Morocco	0.492306
Cameroon	0.459486	Mozambique	0.485767
Central African Republic	0.471984	Myanmar	0.455901
Chad	0.408004	Namibia	0.494033
Congo	0.47758	Nepal	0.492158
Congo (Democratic Republic of the)	0.446649	Nicaragua	0.423459
Côte d'Ivoire	0.457888	Niger	0.429992
Egypt	0.557444	Pakistan	0.485508
El Salvador	0.523412	Papua New Guinea	0.481758
Ethiopia	0.472777	Philippines	0.43453
Gabon	0.501046	Rwanda	0.558952
Gambia	0.491636	Sao Tome and Principe	0.488111
Ghana	0.484965	Senegal	0.536712
Guatemala	0.510122	Sierra Leone	0.405626
Guinea	0.467588	South Africa	0.552322
Guinea-Bissau	0.405921	Sudan	0.481172
Guyana	0.490088	Syrian Arab Republic	0.485214
Haiti	0.445881	Tajikistan	0.508576
Honduras	0.540755	Tanzania (United Republic of)	0.491549
India	0.542965	Togo	0.471632
Indonesia	0.470848	Uganda	0.472421
Iraq	0.489232	Viet Nam	0.555359
Kenya	0.48558	Yemen	0.457088
Kyrgyzstan	0.474112	Zambia	0.509419
Lao People's Democratic Republic	0.495007	Zimbabwe	0.487016

APPENDIX 3

Number of RTA's per country in 2016 (WTO, 2019a).

Country	RTA's	Country	RTA's
Afghanistan	2	Liberia	1
Bangladesh	7	Libya	4
Benin	3	Malawi	4
Bolivia (Plurinational State of)	4	Mali	2
Burkina Faso	2	Mauritania	0
Burundi	3	Moldova (Republic of)	8
Cambodia	6	Morocco	7
Cameroon	3	Mozambique	4
Central African Republic	1	Myanmar	7
Chad	1	Namibia	6
Congo	1	Nepal	4
Congo (Democratic Republic of the)	1	Nicaragua	10
Côte d'Ivoire	3	Niger	2
Egypt	8	Pakistan	10
El Salvador	11	Papua New Guinea	5
Ethiopia	2	Philippines	10
Gabon	1	Rwanda	3
Gambia	1	Sao Tome and Principe	0
Ghana	3	Senegal	2
Guatemala	10	Sierra Leone	1
Guinea	2	South Africa	7
Guinea-Bissau	1	Sudan	4
Guyana	3	Syrian Arab Republic	3
Haiti	1	Tajikistan	3
Honduras	12	Tanzania (United Republic of)	5
India	18	Togo	2
Indonesia	8	Uganda	4
Iraq	2	Viet Nam	12
Kenya	4	Yemen	1
Kyrgyzstan	9	Zambia	4
Lao People's Democratic Republic	9	Zimbabwe	6

APPENDIX 4

The values of the control variables for all countries.

Values of the variable GDP per Capita in 2016 (World Bank, 2019b).

Country	GDP per Capita score	Country	GDP per Capita score
Afghanistan	0.011945	Liberia	0.083841
Bangladesh	0.029534	Libya	0.045016
Benin	0.017139	Malawi	0.062717
Bolivia (Plurinational State of)	0.067756	Mali	0.008732
Burkina Faso	0.01269	Mauritania	0.183675
Burundi	0.58554	Moldova (Republic of)	0.152777
Cambodia	0.151151	Morocco	0.02395
Cameroon	0.008304	Mozambique	0.210434
Central African Republic	0.236325	Myanmar	0.006527
Chad	0.176432	Namibia	0.206817
Congo	0.066992	Nepal	0.098884
Congo (Democratic Republic of the)	0.027982	Nicaragua	0.046599
Côte d'Ivoire	0.202987	Niger	1
Egypt	0.48485	Pakistan	0.064139
El Salvador	0.132571	Papua New Guinea	0.270185
Ethiopia	0.396195	Philippines	0.236325
Gabon	0.042389	Rwanda	0.190075
Gambia	0.236325	Sao Tome and Principe	0.434319
Ghana	0.014104	Senegal	0.026759
Guatemala	0.772967	Sierra Leone	0.026759
Guinea	0.098488	South Africa	0.242879
Guinea-Bissau	0.864867	Sudan	0.165429
Guyana	0.950643	Syrian Arab Republic	0.138875
Haiti	0.051624	Tajikistan	0.180133
Honduras	0.015971	Tanzania (United Republic of)	0.043191
India	0.037596	Togo	0.03592
Indonesia	0.236325	Uganda	0.047551
Iraq	0.11344	Viet Nam	0.063336
Kenya	0.031788	Yemen	0.028711
Kyrgyzstan	0.594861	Zambia	0.114757
Lao People's Democratic Republic	0.16574	Zimbabwe	0.027452

Values for the Rule of Law Index per country in 2016 (Rule of Law Index, 2019).

Country	Rule of Law Index	Country	Rule of Law Index
Afghanistan	0.35	Liberia	0.35
Bangladesh	0.41	Libya	0.41
Benin	0.46	Malawi	0.46
Bolivia (Plurinational State of)	0.40	Mali	0.40
Burkina Faso	0.48	Mauritania	0.48
Burundi	0.46	Moldova (Republic of)	0.46
Cambodia	0.33	Morocco	0.33
Cameroon	0.37	Mozambique	0.37
Central African Republic	0.46	Myanmar	0.46
Chad	0.46	Namibia	0.46
Congo	0.46	Nepal	0.46
Congo (Democratic Republic of the)	0.46	Nicaragua	0.46
Côte d'Ivoire	0.46	Niger	0.46
Egypt	0.37	Pakistan	0.37
El Salvador	0.49	Papua New Guinea	0.49
Ethiopia	0.38	Philippines	0.38
Gabon	0.46	Rwanda	0.46
Gambia	0.46	Sao Tome and Principe	0.46
Ghana	0.58	Senegal	0.58
Guatemala	0.44	Sierra Leone	0.44
Guinea	0.46	South Africa	0.46
Guinea-Bissau	0.46	Sudan	0.46
Guyana	0.49	Syrian Arab Republic	0.49
Haiti	0.46	Tajikistan	0.46
Honduras	0.42	Tanzania (United Republic of)	0.42
India	0.51	Togo	0.51
Indonesia	0.52	Uganda	0.52
Iraq	0.46	Viet Nam	0.46
Kenya	0.43	Yemen	0.43
Kyrgyzstan	0.47	Zambia	0.47
Lao People's Democratic Republic	0.46	Zimbabwe	0.46

The number of ILO Ratifications per country in 2016 (ILO, 2019b).

Country	ILO Ratifications	Country	ILO Ratifications
Afghanistan	5	Liberia	6
Bangladesh	7	Libya	8
Benin	8	Malawi	8
Bolivia (Plurinational State of)	8	Mali	8
Burkina Faso	8	Mauritania	8
Burundi	8	Moldova (Republic of)	8
Cambodia	8	Morocco	7
Cameroon	8	Mozambique	8
Central African Republic	8	Myanmar	3
Chad	8	Namibia	8
Congo	8	Nepal	7
Congo (Democratic Republic of the)	8	Nicaragua	8
Côte d'Ivoire	8	Niger	8
Egypt	8	Pakistan	8
El Salvador	8	Papua New Guinea	8
Ethiopia	8	Philippines	8
Gabon	8	Rwanda	8
Gambia	8	Sao Tome and Principe	8
Ghana	8	Senegal	8
Guatemala	8	Sierra Leone	8
Guinea	8	South Africa	8
Guinea-Bissau	7	Sudan	7
Guyana	8	Syrian Arab Republic	8
Haiti	8	Tajikistan	8
Honduras	8	Tanzania (United Republic of)	8
India	4	Togo	8
Indonesia	8	Uganda	8
Iraq	7	Viet Nam	5
Kenya	7	Yemen	8
Kyrgyzstan	8	Zambia	8
Lao People's Democratic Republic	5	Zimbabwe	8

APPENDIX 5

The results of the robustness checks.³

The result of the OLS regression of the first robustness check.

	LSI, R ² = 0.263
Trade Deals	0.00264 (1.27)
Globalization	0.193** (2.22)
ILO Ratifications	-0.00389 (-0.61)
GDP per Capita	-0.0108 (-0.49)
Rule of Law Index	-0.0527 (-0.52)
Trade deal with EU	-0.0137 (-0.91)

The number of bilateral trade deals per country in 2016 (only countries that do have a bilateral trade deal with another country have been mentioned).

Country	Bilateral Trade Deals	Country	Bilateral Trade Deals
Afghanistan	1	Moldova (Republic of)	5
Cameroon	1	Morocco	4
Côte d'Ivoire	1	Nepal	1
Egypt	3	Nicaragua	1
El Salvador	3	Pakistan	4
Ghana	1	Papua New Guinea	1
Guatemala	1	Philippines	2
Honduras	2	South Africa	1
India	10	Syrian Arab Republic	2
Indonesia	1	Tajikistan	1
Kyrgyzstan	5	Viet Nam	4
Lao People's Democratic Republic	1		

³ For all models n = 62. For each model, the R2 has been mentioned and for each variable the t-value has been inserted in parentheses below the value of the parameter, where number of asterisks after the value of the parameter illustrates the significance of the variable (*=90%, **=95% and ***=99%). Where a variable does not have an asterisk after the value of the parameter, it means that the variable has no significant effect on the dependent variable.

The results of the OLS regressions of the third robustness check.⁴ Note that in all models, a positive effect on one of the indicators implies that the situation of the indicator has improved meaning that for instance a positive relation between ‘Trade Deals’ and ‘No Discrimination’ implies that a country with more trade deals faces less discrimination.

	Collective Bargaining, $R^2 = 0.263$
Trade Deals	-0.00544** (-2.08)
Globalization	0.199* (1.72)
ILO Ratifications	-0.0123 (-1.44)
GDP per Capita	0.00892 (0.32)
Rule of Law Index	-0.0167 (-0.12)

	No Discrimination, $R^2 = 0.316$
Trade Deals	0.0146** (2.78)
Globalization	0.190 (0.82)
ILO Ratifications	0.00255 (0.15)
GDP per Capita	0.0427 (0.76)
Rule of Law Index	0.176 (0.64)

	No Forced Labour, $R^2 = 0.108$
Trade Deals	0.00008 (0.42)
Globalization	0.00216 (0.28)
ILO Ratifications	0.00064 (1.12)
GDP per Capita	0.00054 (0.29)
Rule of Law Index	0.0148 (1.61)

⁴ For all models $n = 62$. For each model, the R^2 has been mentioned and for each variable the t-value has been inserted in parentheses below the value of the parameter, where number of asterisks after the value of the parameter illustrates the significance of the variable (*=90%, **=95% and ***=99%). Where a variable does not have an asterisk after the value of the parameter, it means that the variable has no significant effect on the dependent variable.

	Freedom of Association, $R^2 = 0.114$
Trade Deals	-0.00361 (-1.09)
Globalization	0.261* (1.78)
ILO Ratifications	0.00390 (0.36)
GDP per Capita	-0.00906 (-0.26)
Rule of Law Index	-0.0595 (-0.35)

	No child labour, $R^2 = 0.274$
Trade Deals	0.0114** (2.04)
Globalization	0.239 (0.97)
ILO Ratifications	-0.0117 (-0.65)
GDP per Capita	-0.00874 (-1.47)
Rule of Law Index	-0.249 (-0.86)