

**The WMD non-proliferation clause in EU trade agreements:  
A valuable contribution to the international nuclear non-  
proliferation regime?**

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A co-variational analysis of how the WMD non-proliferation clause affects the  
WMD non-proliferation behaviour of the EU's trade partners.

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## Summary

The European Union (EU) is increasingly characterised as a *global* actor with considerable influence internationally. The EU derives much of its power from its internal market. The EU has been using this trade power to exert influence in other areas by including non-trade issues (NTIs) in its trade agreements with third countries. One such NTI is the weapons of mass destruction (WMD) non-proliferation clause. Now that the EU has acquired an influential position globally, the EU's efforts to counter the proliferation of WMD may have a considerable positive impact on international security. Therefore, this study researched how the WMD non-proliferation clause included in EU trade agreements with third countries affects the WMD non-proliferation behaviour of those countries.

The clause consists of three obligations: 1) Comply to existing WMD non-proliferation obligations, 2) Take steps to join more WMD non-proliferation obligations, 3) Develop an effective system of national export controls on dual-use items. In this study, WMD non-proliferation behaviour was conceptualised as the actions that countries have undertaken to fulfil these obligations.

This study researched how the WMD non-proliferation clause affected countries' WMD non-proliferation behaviour. Based on theories of conditionality it was hypothesised that if any effect of the clause would be visible, it would be visible *after* the trade agreement had entered into force. Based on theories of policy transfer it was hypothesised that countries with a trade agreement including the WMD non-proliferation clause would perform better on the three aspects that make up WMD non-proliferation behaviour than similar countries that did not have such a trade agreement.

A co-variational analysis was carried out to test the hypotheses. The units of analysis were two countries that signed an EU trade agreement including the WMD non-proliferation clause prior to 2016, Albania and Indonesia. These two countries were each matched with a 'control' case that matched them on the relevant identified control variables.

The results found confirming evidence for all but one hypothesis. Countries with the WMD non-proliferation clause did not perform better on the aspect of WMD non-proliferation behaviour that concerns taking steps to join more WMD non-proliferation obligations. However, these countries did perform better on the WMD non-proliferation behaviour aspects of complying with existing WMD non-proliferation obligations and developing an effective export control system than similar countries without said clause. However, only thin evidence was found for the latter hypotheses. More firm evidence was found for the hypothesis that improvements in WMD non-proliferation behaviour would be noted mostly *after* the agreement including the WMD non-proliferation clause was in place.

The results demonstrate that the EU can use its trade power to exert influence in other areas. However, this influence was limited in the area of WMD non-proliferation. While the WMD non-proliferation clause did slightly strengthen the international non-proliferation regime, policy makers must consider whether there may be better ways than via trade to stimulate WMD non-proliferation.

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## **List of Abbreviations**

CPPNM	Convention on the Physical Protection of Nuclear Material
CTBT	Comprehensive Nuclear-Test-Ban Treaty
EU	European Union
FACP	Framework Agreement on Comprehensive Partnership and Cooperation
GDP	Gross Domestic Product
GICNT	Global Initiative to Combat Nuclear Terrorism
IAEA	International Atomic Energy Agency
ICSANT	International Convention for the Suppression of Acts of Nuclear Terrorism
IPPAS	International Physical Protection Service
IRRS	Integrated Regulatory Review Service
NAM	Non-Aligned Movement
NNWS	Non-Nuclear Weapon State
NPT	Nuclear Non-Proliferation Treaty
NTI	Non-Trade Issue
NWFZ	Nuclear Weapon Free Zone
PTA	Preferential Trade Agreement
SAA	Stabilization and Association Agreement
TPNW	Treaty on the Prohibition of Nuclear Weapons
UN	United Nations
US	United States
WMD	Weapons of Mass Destruction

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# Chapter 1: Introduction

## 1.1 Background

In the past two decades the European Union (EU) has become a *global actor* with considerable weight on the world stage. Before the 2000s, the European Communities were a relatively small player in world politics and mainly focused on their former colonies and their common position in international trade. Nowadays, the EU has become a force in world politics, influencing trade, development cooperation, regional integration, democracy, human rights, and increasingly also security policies (Hettne & Söderbaum, 2005; Olsen & McCornick, 2018).

However, the EU is not a global actor in a traditional sense. Critics of terming the EU a global actor argue that the EU does not have a common military or security policy (Olsen & McCornick, 2018). Military power especially is at the heart of most analyses of international influence. Nevertheless, there is growing evidence that the EU is playing a more assertive role internationally. The EU's influence does not stem from its military credentials but from its soft power which the EU has been increasingly good at employing to further its interests. Soft power exerts incentives and influence through economic and cultural power while hard power is associated with credible sanctions, coercive measures, and ability to use military force (Olsen & McCornick, 2018).

One way through which the EU employs its soft power to achieve change on the international stage is by forming bilateral trade agreements with third countries. In recent years these bilateral trade agreements increasingly contain non-trade related commitments besides the usual arrangements to lower trade barriers. The EU has been using its market access as a 'bargaining chip' (Meunier & Nicolaïdis, 2006). In return for market access the EU has been requesting changes that reach the domestic arena of its trade partners, concerning labour standards, human rights, and environmental policies among other things. The latter are commonly referred to as non-trade issues (NTIs) in trade agreements (Lechner, 2016). The EU has been able to include these NTIs because of the asymmetries between the EU and its trade partners in the size of the market that both respectively give the other access to. The EU can incorporate NTIs in the trade agreement as 'compensation' for this asymmetry (Meunier & Nicolaïdis, 2006). NTIs are usefully formalised in one or more clauses of the trade agreement. If trade partners do not follow up on their obligations that are set out in these clauses, the EU can ultimately suspend the entire agreement if the trade partner continues to defect. The EU applies 'conditionality' whereby access to its internal market hinges on how well its trade partners fulfil their commitments under the NTI clauses of the trade agreement (Ahnliid, 2013).

Consequently, via NTI clauses the EU has been trying to transform its economic power into political influence. The EU aims to use this political influence to promote its own values and interests (Ahnliid, 2013). If NTIs are effective in changing domestic policies of trade partners of the EU, the EU could have an enormous impact via its trade policies. Therefore, it is of significant interest to investigate the impact of these NTI clauses. Indeed, there have been many scholars that have

researched their effect. The most commonly investigated NTI clauses concern human rights, environment, and labour rights (Bastiaens & Postnikov, 2017; Hafner-Burton, 2005, 2009; Postnikov & Bastiaens, 2014).

Interestingly, there seems to be little research available on the impact of the weapons of mass destruction (WMD) non-proliferation clause in EU trade agreements, even though nuclear weapons still pose a major global threat. WMD non-proliferation is fundamentally different from the other issues addressed in the EU's conditionality clauses. WMD non-proliferation relates to security concerns of the EU while the other clauses relate to norms or standards the EU upholds. In other terms, the WMD non-proliferation clause touches upon "high politics" issues that affect the survival of the state, while the other clauses are more "low politics" issues that concern social affairs (Keohane & Nye, 2000, p.20). The terrorist attacks in the United States (US) on the 11<sup>th</sup> of September 2001 and the invasion of Iraq in 2003 pushed the EU to identify the proliferation of WMD as a key threat facing Europe. The European Security Strategy adopted by the European Council in 2003 stated that in the long-term, the proliferation of WMD was '*potentially the greatest threat to our security*' (European Council, 2003, p.3). This led to the 2003 European Council decision to include the WMD non-proliferation clause in its negotiating mandates with the aim to promote non-proliferation through its external relations.

The WMD non-proliferation clause consists of multiple segments. A part of the clause is considered to be 'essential elements' which means it has special legal significance. If an 'essential element' is violated, it could lead, as a last resort, to the suspension of the trade agreement in question (Ahnliid, 2013). The 'essential elements' part of the clause stipulates that both parties to the agreement must cooperate and contribute to '*countering the proliferation of weapons of mass destruction*' (Council of the European Union, 2003, p.4). They must do so by fully complying with and implementing nationally their existing obligations under international WMD disarmament and non-proliferation treaties. The second part of the clause is not a standard 'essential elements' but this can be considered on a case-to-case basis. This gives the EU some flexibility in trade negotiations. This part of the clause prescribes additional obligations: acceding/ratifying/signing of the relevant international instruments and '*the establishment of an effective system of national export controls*' (Council of the European Union, 2003, p.4).

## **1.2 Research objective**

The objective of this thesis is to investigate whether, and if so how, the WMD non-proliferation clause has had any effect on the WMD non-proliferation behaviour of EU's trade partners. Now that the EU is considered to be a *global actor*, the EU may be a significant new and powerful player in the international nuclear non-proliferation regime. The latter term includes all international agreements, treaties, norms, and understandings concerning the non-proliferation of

nuclear weapons (Krasner, 1982; Simpson, 2004). The EU's approach to promoting WMD non-proliferation could strengthen the international nuclear non-proliferation regime and thereby have a significant positive impact on global security as it could reduce the chances on a nuclear disaster. Therefore, the WMD non-proliferation clause could be very valuable. Thus, it is important to investigate whether the EU's approach of promoting non-proliferation via WMD non-proliferation clauses has had any impact.

### **1.3 Research question**

Considering the research objective, this thesis will attempt to answer the following research question:

*How does the WMD non-proliferation clause in EU trade agreements affect the WMD non-proliferation behaviour of EU's trade partners?*

In the following sections, more context is given by defining the dependent variable and discussing the relevance of the research.

### **1.4 Defining WMD non-proliferation behaviour**

The independent variable in the research question is the WMD non-proliferation clause whereas *WMD non-proliferation behaviour* is the dependent variable. Since *WMD non-proliferation behaviour* is perhaps still a rather vague term, it is important to explain how this thesis defines it.

This thesis defines WMD non-proliferation behaviour by what the WMD non-proliferation clause stipulates countries should do to promote the non-proliferation of WMD. The clause consists of three obligations. Actions to fulfil these obligations are considered to be WMD non-proliferation behaviour. Each obligation is elaborated on in the following subsections.

#### **1.4.1 Existing obligations and compliance**

The first element of the WMD non-proliferation clause requires full compliance with countries' existing international non-proliferation obligations prior to the entry into force of the clause. Thus, compliance with these obligations is one of the forms of *WMD non-proliferation behaviour*. This thesis will particularly focus on countries' compliance with four specific international treaties that each tackle a different aspect of the nuclear non-proliferation regime.

The first treaty is the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) (NPT, 1968). The NPT distinguishes in obligations for Nuclear Weapon States and Non-Nuclear Weapon States (NNWS). Within the scope of thesis only NNWS obligations need to be described. The NPT requires NNWS to not receive, manufacture, or acquire WMD. NNWS must also accept the International

Atomic Energy Agency (IAEA) safeguards – termed ‘comprehensive’ safeguards’ - on all nuclear materials on their territories or under their control (Rockwood, 2013).

The second treaty, the Convention on the Physical Protection of Nuclear Material (CPPNM), establishes physical protection measures that signatory states must apply to nuclear material in international transport, and punishments that states must apply to criminal offenses related to nuclear material (CPPNM, 1979). States comply with the CPPNM when they have a national legal framework that accommodates these measures. In 2005, an Amendment to the CPPNM was adopted (CPPNM/A). The CPPNM/A (2005) strengthens the provisions to make it legally binding for states to protect nuclear material in peaceful domestic use, transport, and storage.

The third treaty is the International Convention for the Suppression of Acts of Nuclear Terrorism (ICSANT) (ICSANT, 2005). The treaty declares acts of nuclear terrorism as illegal and aims to prevent, investigate, and punish those acts by promoting police and judicial cooperation. States must adopt the necessary legislative and technical measures to protect nuclear material and to prevent that third parties, such as terrorists, get unauthorised access to such material. They are also obligated to cooperate internationally in preventing or prosecuting acts of nuclear terrorism.

The fourth treaty, the Comprehensive Nuclear-Test-Ban Treaty (CTBT), prohibits states from carrying out any nuclear explosion in the world (CTBT, 1996). States must neither encourage nor participate in carrying out any nuclear explosion. States comply when they adhere to these rules and make efforts to stimulate other countries to accede to the CTBT.

#### **1.4.2 Steps taken to join more WMD non-proliferation obligations**

The second element of the WMD non-proliferation clause requires states “*to take steps to sign, ratify, or accede to, as appropriate, and fully implement all other relevant international instruments*” (Council of the European Union, 2003, p.4). Actions to do so are considered as WMD non-proliferation behaviour. Another relevant treaty other than the ones just described is the Treaty on the Prohibition of Nuclear Weapons (TPNW) which was only recently adopted in 2017 (TPNW, 2017). *Regional* instruments are also relevant. Such instruments typically translate into regional Nuclear Weapon Free Zones (NWFZ). A NWFZ is a specified region in which the countries of that region have committed themselves not to manufacture, acquire, test, or possess any nuclear weapons.

#### **1.4.3 An effective system of national export controls**

Lastly, the third element of the WMD non-proliferation clause stipulates that a system should be established of “*national export controls, controlling the export as well as transit [of] WMD related goods, including a WMD end-use control on dual use technologies and containing effective sanctions for breaches of export controls*” (Council of the European Union, 2003, p.4). Thus, acts to establish

such a system and to make it *effective* make up the last part of what this thesis defines as WMD non-proliferation behaviour.

## **1.5 Relevance**

The relevance of a research has two dimensions, social and theoretical or scientific relevance (Lehnert, Miller & Wonka, 2007).

### **1.5.1 Social relevance**

Social relevance indicates why the public should care about what is researched (Lehnert et al., 2007). The reason why people should care about the WMD non-proliferation clause is because it could have a serious positive impact on their own and their nation's *security*. If the WMD non-proliferation clause is found to (not) have an effect on countries' WMD non-proliferation behaviour, then that would be important information for policymakers. EU policymakers could use this knowledge to adjust the WMD non-proliferation clause to make it more effective if it is found that the clause has little impact. Or, in the case it is found the clause does have a significant impact, EU policymakers could try and implement the WMD non-proliferation clauses in even more instances, thereby increasing the *security* of all of humanity since nuclear weapons can set off the most deadly conflicts. Moreover, the findings could encourage or discourage other states from implementing similar WMD non-proliferation clauses in their bilateral trade relations. Thus, this thesis will provide policymakers with important knowledge of the possible effects of such clauses in trade agreements.

### **1.5.2 Scientific relevance**

The scientific relevance of a research is determined by the extent to which it helps the scientific community to get a better understanding of a phenomena that is studied theoretically or empirically (Lehnert et al., 2007). This thesis is scientifically relevant because it will provide a better understanding of the effects of NTIs included in trade agreements, specifically the effect of the WMD non-proliferation clause. Multiple scholars have stated that literature on the effects of NTIs in EU trade agreements, remains underdeveloped theoretically and empirically (Koch, 2015; Marx, Lein, & Brando, 2016; Poletti & De Bièvre, 2013). Research on the WMD non-proliferation clause has been especially limited. Grip (2009, 2015) and Cottey (2014) are the only authors that have investigated the effectiveness of the EU's WMD non-proliferation clause, but only to a limited extent. Additionally, most of the research available on NTI clauses used quantitative methods (Bastiaens & Postnikov, 2017; Hafner-Burton, 2005; Kamata, 2016; Postnikov & Bastiaens, 2014). Of the qualitative research available most papers only investigated the effectiveness of a clause in one particular country context (Grüni, 2017; Marx et al., 2016; Orbie, Van den Putte, & Martens, 2017). Thus, there is still a need for a variety of ways of researching this particular issue. This thesis will be a first attempt to start

closing these gaps in literature by investigating the effect of the WMD non-proliferation clause in multiple countries with a qualitative research.

## **1.6 Reader's guide**

This thesis has seven chapters. The first chapter provides an overview of the topic, presents the research question, and discusses its relevance. Chapter 2 provides a literature review in which the main findings of previous scholars are summarised. The third chapter elaborates on the theoretical foundations that substantiate the relationship between the independent and dependent variable in this research. Chapter 4 describes the research design employed to answer the research question. In chapter 5 the results are presented. In chapter 6 the theoretical implications of the findings are discussed. In the last chapter, chapter 7, a conclusion is provided which answers the research question and explains the policy implications of that answer. Additionally, limitations of the research are identified and suggestions for future research are provided.

## Chapter 2: Literature review

This chapter summarises the previous research done on the EU's use of trade power to exert influence in other areas. The chapter is subdivided along the main themes that were found. By creating this overview, the thesis at hand can better situate itself within existing literature and demarcate what must be investigated to add to this foundation.

### 2.1 The EU as a trade power

A first important work was written by Meunier and Nicolaïdis (2006). These authors described how the EU is not only a power *in* trade, but also a power *through* trade.

As Meunier and Nicolaïdis (2006) explained, power *in* trade refers to simply trading market access to the EU market for increased exports of EU-products, capital, and services.

Power *through* trade entails a higher goal, namely, to export laws and standards of the EU, and ultimately also norms and ideas the EU holds (Meunier & Nicolaïdis, 2006). The EU applies *conditionality* in bilateral trade relationships to exercise its power *through* trade by making access to its internal market contingent on how well trade partners perform on the NTIs included in their agreement (Meunier & Nicolaïdis, 2006). Since the EU is thereby able to affect other countries' policies and positions in certain fields, Meunier and Nicolaïdis (2006) argued that the EU is a trade power.

However, Meunier and Nicolaïdis (2006) stated that, while they recognise the EU as a trade power, the EU is conflicted as such. The EU is conflicted internally because member states disagree on how the EU should exert its power through trade. Additionally, the EU is also conflicted between its own guiding principles in its trade policy. For example, while the EU is a major advocate of multilateralism, the EU has concluded hundreds of free trade agreements since 2001. There is a heated debate on such trade agreements constitute building blocks or stumbling blocks for the multilateral trade agenda (Meunier & Nicolaïdis, 2006). The EU has always claimed they are building blocks but EU's commitment to both is difficult to reconcile. Nonetheless, one of the reasons why the EU has turned to regional and bilateral trade agreements is because of the failure of multilateral trade negotiations at the World Trade Organization to include NTIs such as labour- and environmental standards (Milewicz, Hollway, Peacock & Snidal, 2016).

A last relevant tension that resides in the EU as a trade power is the tension between the EU as a 'soft' or 'normative' power and the carrots-and-sticks method the EU applies to enforce norms on trade partners. The EU as a 'soft' or 'normative' power implies that the EU aims to share its norms via consensus and cooperation with other countries. However, by using its internal market as a carrot, and conditionality as a stick, trade partners are rather forced to adopt such norms. Such an approach does not mirror the EU as a 'soft' or 'normative' power (Meunier & Nicolaïdis, 2006).

## 2.2 Why do states accept NTI provisions

Other scholars have provided explanations for why states would accept NTIs in trade agreements. Some scholars found that the costs of changing policies determine whether a state will accept an NTI in a trade agreement. Other scholars have argued that it depends on the power dynamics between states negotiating a trade agreement.

Milewicz et al. (2016) found evidence for the first explanation. Out of three theoretical explanations, they found that the costs-explanation was most important in explaining the proliferation of NTIs in trade agreements in recent years. The cost-explanation argues that states accept or deny an NTI based on the costs it brings about. If an NTI in a trade agreement generates more costs for a state than that it benefits from the trade liberalisation following the trade agreement, it will not accept the NTI. The costs of accepting an NTI depend on how costly the changes are in the existing policies on the matter the NTI addresses. Plus, the time and effort of negotiating the content of the NTI clauses also brings about costs. Milewicz et al. (2016) explained that once states have accepted an NTI in one trade agreement, they are more accepting of similar NTIs in subsequent trade agreements. The costs of accepting are heavily reduced by then since they have already invested in policy changes after their first commitment. Spilker and Böhmelt (2012) came to a similar finding. In their investigation into why states accept human rights standards in trade agreements they found that states only accept these standards if they have a general inclination to abide by human rights. This finding supports the costs-explanation of Milewicz et al. (2016) since it means that it costs those states relatively little to accept human rights clauses because they already behave in correspondence with them anyway.

However, other authors have argued for a power dynamics explanation. Baker (2005) and Gillman (2009) argued that superpowers use preferential trade agreements to transfer NTIs to multiple other states on a take-it-or-leave-it basis. This is specifically the case when these ‘other states’ are smaller ‘less powerful’ states. Smaller states have little bargaining power to alter the design of the trade agreement in their favour. Baker (2005) and Gillman (2009) proposed that since these smaller states want access to the bigger market and investment flows of the ‘superpower’ they are willing to accept the NTI clauses a superpower imposes on them. Similarly, Miller (2003) argued that less-developed states more easily adopt suggestions of industrialised countries on what should be in the trade agreement because they want “to obtain benefits or avoid penalties” (p.885).

While both explanations have a different focus, they could be compatible. When a state with a powerful economy negotiates an agreement with a developing country, the costs-benefits calculation of the latter is very much influenced by all the benefits of preferential access to the large market of the former. The costs of a change in policies concerning an NTI would likely be largely outweighed by the benefits of the market-access the other party provides. Thus, both explanations for why states accept NTIs in trade agreements may be correlated.



## 2.3 Effectiveness of conditionality clauses in EU trade agreements

A third strand of scholarship concerns a debate on the effectiveness of conditionality in trade. Scholars have researched the effectiveness of human rights, labour, and environmental clauses.

Hafner-Burton (2005) investigated the effectiveness of human rights clauses in several types of agreements. Hafner-Burton (2005) first described the main mechanisms through which domestic policy of countries can be influenced: coercion and persuasion. While persuasion is “the active, often strategic inculcation of norms” coercion is “the threat or act by a sender government or governments to disrupt economic exchange with the target state, unless the target acquiesces to the articulated demand” (Drezner, 2003, p.643; Goodman & Jinks, 2004, p.635). With coercion, the costs of defection and the rewards of compliance are increased via material rewards and punishments (Hafner-Burton, 2005). Hafner-Burton (2005) argued that persuasion alone will not provide enough incentives to countries to comply with the human rights obligations.

Hafner-Burton (2005) found that countries’ human rights performance improved much more under preferential trade agreements (PTAs) including *hard* human rights clauses than under human rights agreements (HRAs) and PTAs including *soft* human rights clauses. Hafner-Burton (2005) explained these findings by stating that the latter are almost always based on persuasive enforcement measures. Consequently, they lack the necessary enforcement mechanisms to supply strong incentives and to outweigh defection. In contrast, PTAs with hard standards that provide economic incentives to comply can better enforce human rights obligations. Hafner-Burton (2005) argued that “material and political rewards are often a more effective (and compatible) incentive structure to support the initial stages of compliance” (p.624).

Postnikov and Bastiaens (2014) and Bastiaens and Postnikov (2017) evaluated the effectiveness of, respectively, labour standards and environmental provisions in trade agreements. Similar to Hafner-Burton (2005) they compared PTAs with soft clauses to PTAs with hard clauses by comparing EU PTAs with US PTAs. While the US relies on coercion via the use of sanctions to enforce their clauses, the EU takes a softer, no-sanctions approach. The EU relies on dialogue and consultative measures with civil society actors of its trading partners to enforce NTIs in trade agreements (Bastiaens and Postnikov, 2017; Postnikov & Bastiaens, 2014). Following Hafner-Burton’s (2005) findings one would expect that *hard* US PTAs would be effective in influencing trade partner’s domestic policies while *soft* EU PTAs would not be. However, both studies found that *both* types of PTAs were effective in changing countries’ domestic policies, albeit at different stages (Bastiaens & Postnikov, 2017; Postnikov & Bastiaens, 2014). The effectiveness of EU PTAs was found mostly *after* the agreement was in place. In contrast, the US PTAs’ impact was already visible *before* the agreement was in place. Countries who signed an US PTA were scared for US sanctions and therefore changed their policies prior to signing the agreement. The EU PTAs’ effects

were most visible in the years *after* the agreement was in place because only then dialogue and consultations with civil society and political actors were started. Only after such meetings civil society actors have the knowledge with which they can exert pressure on their governments to start changing certain policies. However, some improvement in labour standards was also registered *ex ante* by Postnikov and Bastiaens (2014). Their explanation was that countries negotiating a trade agreement with the EU wanted to appease EU governments and constituents. One last important thing to note is that neither study compared the strength of the effect of the EU's soft clauses to the US's hard clauses, so it is yet unclear whether one is more effective than the other.

## **2.4 The EU's WMD non-proliferation efforts**

The last and most important strand of literature includes research on the EU's WMD non-proliferation efforts via its trade policies. Two authors have already evaluated the WMD non-proliferation clause to some extent, and other authors have provided reasons for why the EU's WMD non-proliferation efforts have not been so successful.

### **2.4.1 The effectiveness of the WMD non-proliferation clause**

Lina Grip conducted two studies, in 2009 and 2015, on the effectiveness of the WMD non-proliferation clause in EU trade agreements. Grip (2009) found that the clause's record of implementation had been irregular up to that point. While the EU had committed itself to include the WMD non-proliferation clause in all its trade agreements it had not done so. Additionally, the countries with which the EU had been able to include the clause in their trade agreements were mostly poor states who bared little significance when viewed from a WMD non-proliferation perspective. Moreover, Grip (2009) concluded that the EU, in most instances, had only imposed conditionality on the first part of the WMD clause, which merely requests that trade partners fulfil their existing non-proliferation obligations. This provided the EU with little tools to push its trade partners to do more regarding non-proliferation than what is already expected of them. Considering these findings Grip (2009) concluded that the impact of the clause was likely to be less than what the expectations of it were when it was formulated in 2003.

In 2015, Grip (2015) evaluated the clause based on its record of adoption between 2003 and 2013. Grip (2015) found that the EU had been particularly unable to implement the WMD non-proliferation clause in its trade agreements with states of concern regarding WMD proliferation. Grip (2015) concluded that the EU's difficulties to implement the WMD non-proliferation clause in its agreements with these countries in particular stemmed from multiple shortcomings in the design of the clause.

Cottey (2014) also evaluated the WMD non-proliferation clause. Cottey (2014) proclaimed similarly to Grip (2009, 2015) that the clause has not had the desired effect. Although the EU has

managed to incorporate the clause in agreements with nearly a hundred states, the EU has failed to include them in agreements with specific countries crucial in the global WMD non-proliferation challenge. These are countries suspected or known to have nuclear weapons or having the aim to create them. Countries such as India, Israel, Pakistan, and Syria have strongly resisted the EU's demands to include a WMD non-proliferation clause in a bilateral agreement. Cottey (2014) thereby supports Grip's (2009, 2015) critique that the impact of the WMD clause is limited since it has only been included in agreements with states of limited concern. However, while Grip (2015) related the limited impact of the clause to flaws in its design, Cottey (2014) related its limited impact to the larger context by stating that many of the problems the EU faces regarding non-proliferation "*are intrinsic to the global politics of WMD rather than failures of EU strategy per se*" (Cottey, 2014, p.62). Cottey (2014) argued that the decisions that key states with nuclear weapons make are generally not easily influenceable by outside forces and that the WMD non-proliferation clause cannot have much impact in that respect regardless of its design.

#### **2.4.2 Why is the EU's WMD non-proliferation efforts unsuccessful?**

Grip (2015) and Cottey (2014) already provided some reasons for why the EU's WMD non-proliferation clause has been unsuccessful. However, there are two other explanations for why the EU's non-proliferation efforts via trade have been unsuccessful.

Firstly, scholars have mentioned that EU member states are divided over how far the EU should press other states to accept the WMD non-proliferation clause and how the specifics of the clause should be formulated (Kienzle, 2013). EU member states have different relations to some of the EU's trade partners which affects their stance in the trade negotiations. Moreover, *in general* EU member states have different stances on the matter of WMD non-proliferation. Kienzle (2013) explained that while Great Britain and France have historical interests in the area as they both own nuclear weapons, Ireland and Sweden have traditionally been firm advocates of nuclear disarmament. However, despite these differences all EU states have become members of virtually all the relevant institutions and agreements regarding WMD non-proliferation (Kienzle, 2013). Important to note is that consensus among the member-states is essential since agreements that include political clauses require a consensus vote in the Council (Grip, 2009).

Secondly, Van Ham (2011) provided another reason for why the EU is unsuccessful in using its economic and political weight to pressure states to accept the WMD non-proliferation clause. Van Ham (2011) simply stated that there is a new balance of economic and political power in the world to which the EU is still adjusting. In this new order the EU has less influence and its normative agenda is found not trustworthy or simply ignored. Van Ham's (2011) statements fit with earlier arguments made by McGuire and Lindeque (2010) who argued that market access has become less important for new powers on the international stage. Rising powers have become less interested in market access

since their own emerging markets have become more affluent and they increasingly participate in inward foreign direct investment. Thus, with the decreasing interest in market access, EU's power in trade negotiations decreases, making adoption of the WMD non-proliferation clause less likely.

## **2.5 Gap in literature**

This chapter provided the scientific foundation on which this thesis builds. Previous scholars investigated how the EU uses its internal market to exert power in other areas. Moreover, explanations were provided as to why states would even accept NTIs in trade agreements. However, even if NTIs are included in trade agreements, there is a debate on the effect of NTIs and their enforcement measures.

Against this academic backdrop, the last strand of scholarship, which is most important to this thesis, summarised the research on the EU's WMD non-proliferation efforts. Grip (2009, 2015) and Cottey (2014) concluded that the impact of the EU's WMD non-proliferation clause has been limited because it had not been included in trade agreements with countries of particular WMD proliferation concern. However, while the EU may not have managed to include the WMD non-proliferation clause in its trade agreements with such states, this does not mean that the WMD non-proliferation clause can be labelled as completely ineffective already. Neither Grip (2009, 2015) and Cottey (2014) have investigated the effect of the WMD non-proliferation clause in EU trade agreements with third countries in which it *is* included. States of limited WMD proliferation concern can still be stimulated via this clause to take on more WMD non-proliferation obligations and thereby strengthen the international nuclear non-proliferation regime. Thus, this thesis addresses an important gap in literature that must be filled. Moreover, this thesis will add to the debate on the effectiveness of NTIs in trade agreements by evaluating the effect of the WMD non-proliferation clause in the EU's trade agreements.

## Chapter 3: Theoretical framework

This thesis aims to answer the following question: *How does the WMD non-proliferation clause in EU trade agreements affect the WMD non-proliferation behaviour of EU's trade partners?* A theoretical framework is provided to formulate hypotheses for what the answer could be. Two theories are described that provide substantiated predictions about how countries' behaviour can be affected by the WMD non-proliferation clause. Other theories identify influencing factors that may mediate the relationship between the independent and dependent variable.

### 3.1 Political conditionality

The most important concept to understand for this thesis is *political conditionality*. Conditionality is an instrument used in a relationship between two actors whereby one actor aims to change the behaviour of the other by formulating certain conditions for their relationship to exist (Koch, 2015). The actor does so by attempting to manipulate the cost-benefit calculation of the other by using positive and/or negative material incentives. Conditionality is thus an *incentive* instrument. Conditionality is *political* when the changes one actor aims to bring about in the other actor concern internal governmental affairs (Koch, 2015).

Political conditionality varies along two dimensions. Firstly, political conditionality can be imposed *ex ante* – before the agreement is in place – or *ex post* – after the agreement is in place. It can be said that with *ex ante* conditionality, the policy changes of the other actor are seen as *preconditions* to the relationship whereas with *ex post* conditionality the requested changes are seen as *objectives* (Koch, 2015).

A second dimension along which political conditionality varies is whether it is *positive* or *negative* conditionality. Positive political conditionality means that the fulfilment of the requirements is tied to the receipt of *benefits*. Contrarily, negative conditionality ties the reduction, suspension, or termination of benefits to non-compliant behaviour of the other actor under the conditions of their relationship (Koch, 2015).

Along these dimensions, conditionality applied to the WMD non-proliferation clause can be defined as *ex post* – negative political conditionality. The 'essential elements' part of the clause namely stipulates that if the EU's trade partner does not comply with its pre-existing WMD non-proliferation obligations, the EU can dissolve the agreement. Since this entails the suspension of benefits it can be classified as *negative* conditionality. Moreover, the conditionality can be classified as *ex-post* because the clause stipulates that "*the parties agree to establish a regular political dialogue that will accompany and consolidate these elements*" (Council of the European Union, 2003, p.4). Thus, the EU applies dialogue as a soft enforcement measure to induce trade partners to comply with the WMD non-proliferation clause *after* the agreement is in place. Only if after the agreement is in

place the trade partner does not comply with the obligations and the political dialogue is not making any progress the EU will sanction the country in question by suspending their agreement.

Following these insights, the following hypothesis can be formulated:

H1: *EU trade agreements with the WMD non-proliferation clause will be most effective ex post in influencing the WMD non-proliferation behaviour of the country that is party to the agreement.*

### **3.2 Policy transfer & lesson learning**

The view that the previously described concept, *political conditionality*, can be useful in influencing another state's policy behaviour relies on the theory of *policy transfer*. Policy transfer refers to 'a process in which knowledge about policies, administrative arrangements, institutions etc. in one time and/or place is used in the development of policies, administrative arrangements, institutions in another time and/or place' (Dolowitz & Marsh, 1996, p.344). Policy transfer can be coercive or voluntary. When policy transfer is coercive, it involves one government to push and even force another government to adopt a certain policy (Dolowitz & Marsch, 1996). The conditionality of the WMD non-proliferation clause can be termed coercive policy transfer. Namely, the EU's non-proliferation behaviour standards are *imposed* on EU trade partners. Countries are 'coerced' to change their non-proliferation policies because if they do not, the EU dissolves the preferential trade agreement that they agreed upon, thereby imposing economic costs.

However, interestingly, the EU simultaneously tries inducing a voluntary movement towards its preferred WMD non-proliferation policies via a regular political dialogue that is agreed upon in the trade agreement. When countries *voluntarily* adopt certain policies, this is termed voluntary policy transfer or lesson drawing (Dolowitz & Marsch, 1996). Via political dialogue, political actors of these countries learn from the EU how and why the EU prefers WMD non-proliferation policies a certain way. These political actors are then free to take this knowledge and to adjust their countries' policies accordingly which they would do so voluntarily then. Thus, the WMD non-proliferation clause is a mixed policy transfer instrument.

The coercive policy transfer element of the WMD non-proliferation clause is its 'essential elements' part, which is always applied to the first obligation under the clause, namely that countries must comply with their pre-existing WMD non-proliferation obligations. The clause thereby affects the cost-benefit analysis of states on this behavioural aspect. Namely, the 'essential elements' classification stipulates that if countries party to the agreement do not fulfil this obligation under the clause, the EU has the right to dissolve the entire agreement. Thus, after agreeing to the WMD non-proliferation clause, it becomes more costly for countries not to comply with their pre-existing WMD non-proliferation obligations. Said states will likely change their WMD non-proliferation policies in a

direction that limits the chance of economic losses tied to the trade agreement. Consequently, the following hypothesis can be formulated:

*H2: Countries that have concluded an EU trade agreement with a WMD non-proliferation clause will comply better with their existing international non-proliferation obligations than similar countries<sup>1</sup> that have not concluded such an EU trade agreement.*

The voluntary policy transfer aspect of the clause is the political dialogue element. Political dialogue is likely to stimulate countries in the direction of drawing lessons from the EU regarding WMD non-proliferation efforts, as policy makers are educated on the matter by EU officials. As these policy makers gain more knowledge about the importance of WMD non-proliferation they will be more likely to *voluntary* apply the lessons learned from the EU to their country's policies. Armed with new knowledge and stimulated by the EU via these political dialogue sessions, countries that have an EU trade agreement including the WMD non-proliferation clause will perform better and faster on the other two obligations under the WMD non-proliferation clause. The other two obligations are signing more international non-proliferation obligations and developing an effective export control system. These two obligations do not fall under the 'essential elements' but are stimulated via the political dialogue sessions. Therefore, the following hypotheses can be drawn:

*H3: Countries that have concluded an EU trade agreement with a WMD non-proliferation clause will sign more international non-proliferation agreements and treaties than similar countries that have not concluded such an EU trade agreement.*

*H4: Countries that have concluded an EU trade agreement with a WMD non-proliferation clause will establish and develop a more effective export control system on dual-use goods and technologies than similar countries that have not concluded such an EU trade agreement.*

### **3.3 Influencing factors**

In this section, several theories are highlighted that provide educated clues for which factors influence the relationship between independent variable X – EU trade agreement with WMD non-proliferation clause - and dependent variable Y – WMD non-proliferation behaviour of a state. These factors must be controlled for in the research design of this thesis. Thereby, any observed difference in Y can be attributed to X without any possible interference of such factors.

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<sup>1</sup> In H2, H3 and H4 '*similar countries*' refers to those countries that are similar to a country that has signed an EU trade agreement with the WMD non-proliferation clause on several relevant influencing factors that will be elaborated on later in this chapter and in chapter 4: Research design.

### **3.3.1 Regime type**

The first factor that may mediate the effect of the WMD non-proliferation clause is a country's regime type. Two aspects of the theory of democratic legalism explain why type of regime is important to consider.

Firstly, democratic legalism scholars argue that a country's regime type is crucial to understand the role of law in the interstate relations (Dixon, 1993, Doyle 1986, Slaughter, 1995). Their core argument is that democratic regimes are more likely to comply with international legal obligations (Simmons, 1998). Since democracies contain norms of limited government, respect for judicial processes and feature constitutional constraints, they will trust and respect international variants of these norms in interstate relations as well (Dixon, 1993; Doyle 1986). Therefore, democracies may be more likely than other regime types to comply with their obligations under international treaties and agreements. Thus, democracies may be quicker to comply with obligations under the WMD non-proliferation clause.

Secondly, democratic legalism theorises that civil society groups are generally stronger in democracies than in other regime types. Scholars argue that democracies provide societal actors with more opportunities to voice their concerns and opinions. Democracies are normally more transparent than other regime types, making it easier for citizens to monitor their government's (lack of) actions regarding international obligations (Jacobson & Weiss, 1997). Additionally, political players in liberal democracies may be extra constrained by international legal obligations due to domestic groups that use these obligations to exert influence over their government's behaviour (Schachter, 1991: Young, 1979). The EU's enforcement method of NTIs in its trade agreements relies on dialogue with civil society actors and officials of its partner country. Following democratic legalism, it can be theorised that the EU's approach will find more fertile soil in democratic countries than in other types of regimes. Since democracies tend to have strong civil societies already, the political dialogue is likely to have more impact earlier on.

Considering these theoretical aspects of democratic legalism, regime type could affect the causal relationship between the WMD non-proliferation clause and countries' non-proliferation behaviour.

### **3.3.2 Economic development of states**

The state of the economy of a country may also mediate the effect the WMD non-proliferation clause if accepted in a trade agreement. According to the theory of rational functionalism, countries will comply with the obligations set out by an international agreement because the latter significantly enhances the reputational consequences of noncompliant behaviour. International agreements namely provide mechanisms that serve to increase transparency of states' behaviour (Keohane, 1984; Mitchell, 1994). Indeed, the EU's conditionality clauses (if accepted into



the trade agreement by the EU's trade partners) stipulate that countries partner to the trade agreement must engage in political dialogue. Since their behaviour is monitored via these mechanisms, states may anticipate they will pay a higher cost in the long run for breaking the agreement in an effort to achieve some immediate gain. Some scholars of rational functionalism have argued that these reputational costs are especially relevant for developing countries. Such countries have an interest to develop a reputation as 'rule of law' countries (Shihata, 1965). Therefore, developing countries are more likely than more established and developed states to follow the obligations set out in agreements that they signed. Thus, the economic development of a country must be controlled for as it can affect the likeliness that countries will comply with their obligations under WMD non-proliferation clause and under non-proliferation treaties and agreements they have signed.

### **3.3.3 Economic dependence**

Another influencing factor may be countries' dependency on trade with the EU following the theory of *economic statecraft*. Economic statecraft theorises that a country can use economic policy instruments to influence another state on some dimensions of their behaviour (Baldwin, 1985). A typical example of economic statecraft is imposing sanctions, which can be negative, imposing costs, or positive, providing rewards. The 'essential elements' classification that the WMD non-proliferation clause legalises the dissolution of the entire trade agreement if obligations under the clause are not followed. This is a negative sanction mechanism in terms of economic statecraft (Baldwin, 1985).

Via such a sanction mechanism a country can tap into what Hirschman (1945) calls the 'influence effect'. The 'influence' effect occurs when foreign trade leads to relationships of dependence and influence between states. Hirschman (1945) argued that every sovereign nation has some sort of influence since it has control over its own exports and imports. By stopping its trade, a country forces the countries it traded with to find other markets and if that is impossible, they are forced to make economic adjustments. While such interruptions of trade do not occur often, it is the awareness of their possibility that is sufficient "*to test the influence of the stronger country and to shape the policy of the weaker*" (Hirschman, 1945, p.16). The amount of influence a country will have over a trade partner depends on how much their trade relationship is worth to said country (Hirschman, 1945). This in turn depends on how much is gained from the trade relationship and how much the trade partner is dependent on the latter.

Economic statecraft would theorise that when a country does not assign much worth to its trade relationship with the EU, it will be less motivated to commit to the WMD non-proliferation clause. The threat of the EU dissolving the entire trade agreement if said country does not adhere to the WMD non-proliferation clause would not have much of an impact then. Thus, the dependency of states on the EU for trade must be considered as an influencing factor.

### 3.4 Overview of theoretical framework

This chapter provided several theories from which hypotheses and influencing factors were derived. From the theories on conditionality and policy learning, four hypotheses were derived. An overview of the hypotheses per theory is provided in Table 1.

Besides hypotheses, there were also multiple influencing factors identified. These influencing factors will be considered in the research design that is discussed in the next chapter. The influencing factors that were identified were: Regime type, economic development of states, and economic dependence on trade with the EU.

Table 1 *Overview of hypotheses per theory*

<b>Theory</b>	<b>Hypothesis</b>
<b>Political conditionality</b>	H1: <i>EU trade agreements with the WMD non-proliferation clause will be most effective ex post in influencing the non-proliferation behaviour of their trade partners.</i>
<b>Policy transfer and lesson learning</b>	H2: <i>Countries that have concluded an EU trade agreement with a WMD non-proliferation clause will comply better with their existing international non-proliferation obligations than similar countries that have not concluded such an EU trade agreement.</i>
	H3: <i>Countries that have concluded an EU trade agreement with a WMD non-proliferation clause will sign more international non-proliferation agreements and treaties than similar countries that have not concluded such an EU trade agreement.</i>
	H4: <i>Countries that have concluded an EU trade agreement with a WMD non-proliferation clause will establish and develop a more effective export control system on dual-use goods and technologies than similar countries that have not concluded such an EU trade agreement.</i>

## Chapter 4: Research design

In this chapter a detailed account is given of the research design employed to answer the research question.

### 4.1 Qualitative method: Co-Variational approach

To test the hypotheses and answer the research question, a qualitative research called the Co-Variational (COV) approach was employed. It is called a COV analysis because its methodological approach provides empirical evidence of the presence of *covariation* between an independent variable X and a dependent variable Y to infer causality (Blatter & Haverland, 2012). Blatter and Haverland (2012) argued that *‘the COV approach has strong affinities to a distinctive research goal, namely to determine whether a certain factor has an effect, that is, whether it ‘makes a difference’*’ (p.33). This description fits the goal of this thesis since it aims to discover whether and how the EU’s WMD non-proliferation clause has any effect on WMD non-proliferation behaviour of states. Additionally, the COV approach is a small-N study, meaning it investigates a small number of cases (Blatter & Haverland, 2012). Therefore, the COV approach was deemed more appropriate than other, quantitative research designs. Namely, quantitative research prioritises breadth and generalisability over depth. Since the research question asks *how* the WMD non-proliferation clause has affected WMD non-proliferation behaviour of countries, depth is necessary to provide an extensive enough answer. A qualitative research provides for such depth, as it investigates a small number of cases in much more detail (Schwend & Schimmelfennig, 2007).

#### 4.1.1 Modes of comparison

The COV approach has several modes of comparison. The choice depends on the independent variable and if it varies along a spatial and/or temporal dimension. A spatial-temporal comparison is best as it most closely resembles an experimental design (Blatter & Haverland, 2012). Since the WMD non-proliferation clause varies along both dimensions, that comparison was chosen. The clause varies spatially because it varies across cases at the same time, namely, some countries will have an EU trade agreement including the clause while other countries will not at one point in time. The clause varies temporally as states first do not have an EU trade agreement containing a WMD non-proliferation clause while at a later time, they do.

#### 4.1.2 Case-selection

To infer causality between independent variable X and dependent variable Y credibly in a COV analysis, several guidelines must be followed in the selection of cases. The term ‘cases’ refers to the units of analysis that will be assessed for the effect of X on Y, which are countries in this instance.

Firstly, in small-n studies, cases should not be selected at random. To assess the impact of the factor of interest, cases must vary on this independent variable (Blatter & Haverland, 2012). Thus, cases must differ on having an EU trade agreement including the WMD non-proliferation clause. There should be a country that does have such an agreement, while there should be a counterfactual ‘control’ case which does not have such an agreement.

Secondly, the selected cases must be similar on the relevant control variables. If there is considerable variance in those control variables between the cases, one cannot attribute the observed differences in dependent Y to independent variable X (Blatter & Haverland, 2012).

Lastly, cases should not be picked on their scores of dependent variable Y. Otherwise the research would be exposed to the threat of a selection bias. Y must vary freely to identify whether there is a causal effect (Blatter & Haverland, 2012).

## **4.2 Operationalisation**

The variables on which this thesis builds had to be operationalised so they could be measured. This operationalisation is explained in this section.

### **4.2.1 Independent variable**

The independent variable is an EU trade agreement including the WMD non-proliferation clause. This is operationalised by registering if a country has such a trade agreement and when it went into force.

### **4.2.2 Dependent variable**

The dependent variable is WMD non-proliferation behaviour. As described in the introduction, WMD non-proliferation behaviour consists of three elements. See Table 2 (p.23) for the components of WMD non-proliferation behaviour, their indicators, and their operationalisation. In the following paragraphs, the operationalisation is further explained.

#### ***Compliance with existing obligations***

The first element of WMD non-proliferation behaviour refers to compliance with the existing non-proliferation obligations countries had prior to the WMD non-proliferation clause. The relevant obligations are stipulated by the treaties described earlier. Per treaty, one or more operationalisations measure compliance.

Compliance with the NPT is operationalised via three measurements. Firstly, the NPT requires signatory states to accept ‘comprehensive’ safeguards agreements with the IAEA. The country factsheets of the IAEA are used to check for that. Secondly, the NPT requires that NNWS do not manufacture nuclear weapons. IAEA safeguards statements indicate whether countries’ nuclear material is only used for peaceful activities and not for manufacturing weapons. The statements were

analysed on four aspects: 1) *The safeguard conclusion*. This indicates to what extent the IAEA could evaluate a country's nuclear material. 2) *The evaluation*. This indicates whether the evaluation of *all* nuclear material in a country has started and whether this material remains in peaceful activities. 3) *The integrated safeguards*. These safeguards indicate that the IAEA is assured of the absence of undeclared nuclear material and reduced the inspection activities at declared facilities. 4) *The Additional Protocol*. This shows that a country has given the IAEA complementary inspection authority to perform the audit of its nuclear material. Lastly, commitment to the NPT was operationalised by evaluating countries' participation in NPT Review Conferences that are organised every five years. Participation was measured by analysing the Conferences' documents and register whether a country 1) has participated, 2) has helped prepare the Conference 3) has sent representatives and how many 4) has submitted a statement during the plenary sessions and 5) has prepared and handed in any documents.

Next, is the CPPNM. States comply with the CPPNM when they have a national legal framework in place that accommodates CCPNM regulations for the physical protection of nuclear facilities, materials, and transport. The CPPNM's article 14 stipulates that states party to the treaty must inform the depositary about its laws and regulations that fulfil the obligations under the CPPNM, but these reports are not made public (Muti, 2018). Instead of these reports, press releases of nuclear security-focused reviews of the IAEA were used to operationalise compliance with the CPPNM.

The ICSANT requires its signatories to cooperate in preventing and prosecuting acts of nuclear terrorism and establish a legal basis for that. There is no data available that measures countries' compliance with these obligations. Instead, countries' commitment to the ICSANT was measured by checking whether they are partner to the Global Initiative to Combat Nuclear Terrorism (GICNT). The statement of principles that partners of the GICNT must sign includes the obligations under the ICSANT. Moreover, it shows that states are dedicated to their obligation under the ICSANT to cooperate internationally on matters of nuclear terrorism (GICNT, n.d.).

The CTBT has not entered into force yet. Consequently, the mechanisms described in the treaty to monitor compliance are not operational and could not be consulted (Comprehensive Nuclear-Test-Ban Treaty Organisation [CTBTO], n.d.-b). Instead, the commitment to the CTBT was operationalised by investigating countries' participation in Article XIV Conferences and CTBT Ministerial Meetings. Article XIV Conferences have been organised six times since 1999 with the goal to facilitate the Entry-Into-Force of the CTBT. States' participation in XIV Conferences was measured on three aspects: 1) Whether they participated 2) Whether they issued a statement during the plenary sessions and 3) Whether they undertook activities to facilitate the entry into force of the CTBT. CTBT Ministerial meetings have been organised since 2002 "*to sustain and generate further political momentum as well as public attention for the entry into force of the Treaty*" (CTBTO, n.d.-a,

para. 1). States' participation in these Conferences was measured by checking whether states signed the Joint Ministerial Statement that is issued after each meeting.

### ***Take on new WMD non-proliferation obligations***

To operationalise the second action WMD non-proliferation behaviour consists of, the signatures and ratifications of the relevant international and regional WMD non-proliferation treaties and agreements were registered. The United Nations Treaty Collection was consulted to register signatures and ratifications.

### ***Export control system***

The third part of the WMD non-proliferation clause stipulates that an effective export control system for dual-use goods and technologies must be developed. This requirement has been operationalised by registering the efforts of countries to establish such a system. Progress reports on countries aspiring to accede to the EU by the European Commission were consulted. These reports evaluated the effectiveness of these countries' export systems for dual-use goods. As is explained later, not all countries under analysis are reported on by the EU. For the other countries, national reports submitted under the UN 1540 Resolution were used. This resolution requests that countries must establish effective domestic controls to prevent illegal trafficking of goods related to nuclear weapons (United Nations Security Council, 2004). In the national reports, countries report on their actions to establish such domestic controls.

Table 2 *Description and operationalisation of the dependent variable Y - WMD non-proliferation behaviour*

<b>WMD non-proliferation behaviour component</b>	<b>Indicator</b>	<b>Operationalization</b>	<b>Source</b>
<b>Full compliance with existing WMD non-proliferation obligations</b>	Compliance with NPT	Signature of ‘comprehensive’ safeguards agreements with the IAEA	IAEA Country Factsheets
		Not manufacturing nuclear weapons	IAEA safeguards statements
		Participation in NPT review Conferences	Documents of NPT review Conferences
	Compliance with CPPNM	The results of nuclear security-focused peer reviews provided by the IAEA	Press releases of peer reviews on the IAEA website
	Compliance with ICSANT	Partnership to the GICNT	GICNT website
<b>To take steps to sign, ratify, or accede to, and fully implement all other relevant international instruments</b>	Compliance with CTBT	Participation in Article XIV Conferences	Documents of XIV Conferences
		Participation in CTBT Ministerial Meetings	Joint statements of CTBT Ministerial Meetings
<b>Establishment of an effective system of national export controls on dual-use goods and technologies</b>	Compliance with TPNW NWFZ	Register signatures and ratifications	The United Nations Treaty Collection
		The export control systems of dual-use items and technologies of the cases under analysis	European Commission progress reports National reports under UN 1540 resolution

### 4.2.3 Control variables

The COV analysis requires cases to be selected based on their similarities on the relevant control variables that may otherwise distort the causal relationship between X and Y. The influencing factors and previous research on NTIs in trade agreements identified the relevant control variables .

The first influencing factor was *regime type*. Postnikov and Bastiaens' (2017) study on the effect of environmental provisions in trade agreements, also controlled for countries' level of democratisation. This thesis used the same operationalisation: The Polity IV dataset. The dataset categorises the level of democratisation of countries using a scale ranging from -10 to +10. If a country scores between -10 and -6 it is considered an autocracy, from -5 to + 5 and anocracy, and between 6 and 10 a democracy (Marshall & Gurr, 2014).

The second influencing factor was *economic development*. Postnikov and Bastiaens (2017) also controlled for economic development because it may affect a country's environmental policy commitments. Indeed, the economic status of a country can affect its ability to implement policies (Grindle & Thomas, 1991). Another reason to control for economic development. This thesis used the same operationalisation as Postnikov and Bastiaens (2017), namely the World Bank's World Development Indicators data on countries' gross domestic product (GDP) per capita.

The third influencing factor was *economic dependence*. Postnikov and Bastiaens (2017) also accounted for a country's overall dependence on trade by controlling for the percentage trade of GDP. While this thesis copies this operationalisation, countries' dependence on trade with the EU was also controlled for by using the World Bank's World Integrated Trade Solution to calculate the percentage of trade with the EU of a country's total trade.

A last control variable is a trade agreement including a similar clause to the EU's WMD non-proliferation clause with another country. If a case would have such an agreement, the observed effect in WMD non-proliferation behaviour could not be attributed to the EU's WMD non-proliferation clause with any certainty. This will be checked for by investigating the legal documents of the other trade agreements the selected cases have signed. See Table 3 (next page) for a summary of all control variables and their operationalisation.



Table 3 *Description and operationalisation of the control variables*

<b>Control variable</b>	<b>Operationalisation</b>
<b>Economic development</b>	GDP per capita (World Development Indicators)
<b>Economic dependence on trade</b>	% Trade of total GDP (World Development Indicators)
<b>Economic dependence on trade with the EU</b>	% of trade with the EU of trade total (World Integrated Trade Solution)
<b>Level of democracy</b>	Level of democratisation (Polity IV)
<b>Trade agreements with other countries with a similar WMD non-proliferation clause</b>	Legal documents of trade agreements (Government websites)

### **4.3 Identification of treatment group and control group**

Before cases can be selected on the just described criteria, the treatment- and control group must first be identified.

#### **4.3.1 Treatment group**

‘Treatment’ cases were identified by registering which countries had established a bilateral trade agreement with the EU including a WMD non-proliferation clause. The EU External Action Service Treaties Office provided an overview (2018). Since it was hypothesised most of the clause’s effect would be visible *ex-post*, a minimum of three years had to be available to analyse. Thus, ‘treatment’ cases had to have an EU trade agreement that entered into force before 2016. Sixteen countries were marked as suitable treatment cases, which form the treatment group (see Appendix A).

#### **4.3.2 Control group**

The possible control cases were identified to be those countries that have not signed a trade agreement with the EU that contains a WMD non-proliferation clause. Additionally, countries in the control group have not signed a trade agreement including a WMD non-proliferation clause with another country.

### **4.4 Matched countries**

After the treatment- and control group were identified, countries of these two groups had to be matched on the relevant control variables. The countries in the treatment group were measured on the control variables for the year that their agreement with the EU went into force. Then, countries of the control group were measured on these control variables for that same year to see if there was a match. After a long process of comparing countries from the treatment group with countries of the

control group, two ‘matches’ were found. Albania and Indonesia, countries from the treatment group, were found to match with North-Macedonia and Paraguay respectively, who are countries from the control group. These two matches and their scores on the control variables can be found in Table 4. With these two matches the COV analysis was conducted as it proved to be too difficult to find additional matches of countries. There were too many differences on the control variables for the rest of the countries in the treatment- and control group.

Table 4 *The matches of countries with a trade agreement with the EU including a WMD non-proliferation clause and their control cases with their scores on the control variables*

<b>Treatment cases (trade agreement ratification date)</b>	<b>Level of democratisation</b>	<b>GDP per capita (current US\$)</b>	<b>Trade (% of GDP)</b>	<b>% Trade with EU of trade total</b>	<b>Control cases</b>
<b>Albania (2009)</b>	9 (democracy)	4114.14	75.09%	75.34%	
	9 (democracy)	4544.01	87.18%	58.2%	<b>North-Macedonia</b>
<b>Indonesia (2014)</b>	8 (democracy)	3491.62	48.08%	8.37%	
	8 (democracy)	6102.94	67.63%	13.18%	<b>Paraguay</b>

*Source:* 2<sup>nd</sup> column: Polity IV. (2014a, 2014b, 2014c, 2014d). 3<sup>rd</sup> column: World Bank, World Development Indicators. (2020a). 4<sup>th</sup> column: World Bank, World Development Indicators (2020b). 5<sup>th</sup> column: World Bank, WITS. (2020a, 2020b, 2020c, 2020d).

It must be noted that Indonesia and Paraguay are not a perfect match in 2014 on GDP per capita. Paraguay’s GDP per capita is considerably larger than Indonesia’s. However, both Paraguay and Indonesia were considered to be developing countries with a middle-income in 2014 (UN, 2016). Following these evaluations, it was concluded that while Paraguay and Indonesia diverge on this variable, the difference is not significant enough that it will impact the analysis at hand.

Additionally, one of the control variables that is not in Table 4 but that was controlled for is whether these countries signed a trade agreement with a similar clause to the EU’s WMD non-proliferation clause with another country or group of countries. None of the selected countries had such an agreement. However, it was found that Indonesia signed a so-called 1 2 3 agreement with the US in 1981 (National Nuclear Security Administration, 2019). The US concludes a 123 agreement

with another country when they want to engage in nuclear cooperation with said country. The 1 2 3 agreement stipulates nine non-proliferation criteria which the other country must comply to (Kerr & Nikitin, 2020).

Fortunately, this 1 2 3 agreement between Indonesia and the US does not cause any issues for the analysis. It is significantly different from the EU's WMD non-proliferation clause because it is not a trade agreement whereby Indonesia's non-proliferation behaviour is tied to access to the US market. Additionally, the 1 2 3 agreement's requirements are different from the WMD non-proliferation clause (Kerr & Nikitin, 2020). The 123 agreement does not ask that countries comply with existing non-proliferation obligations or that they must sign more non-proliferation agreements. No comment is made either about an export-control system. Thus, the obligations under the 1 2 3 agreement do not influence Indonesia's WMD non-proliferation behaviour as it is defined in this thesis.

Thus, all matches are similar on all the relevant control variables.

## **4.5 Validity and reliability**

To ensure the quality of a research project, its validity and reliability must be assessed. Without high reliability and validity, the results of a study can easily be discredited as they lack a credible basis. The trustworthiness of the research method employed is discussed below.

### **4.5.1 Internal validity**

Internal validity refers to the degree of confidence with which a researcher can conclude that a change in the dependent variable was caused by the independent variable. Kellstedt and Whitten (2013) describe four causal hurdles a research must overcome to ascertain that X causes Y.

The first hurdle refers to whether the research can establish a credible causal scenario in which X could cause changes in Y. Such a scenario is formulated by referring to theories that provide expectations that there may be a causal relationship between X and Y. Theories with expectations regarding the nature of the relationship between the WMD non-proliferation clause and non-proliferation behaviour can be read in Chapter 3.

A second hurdle is to eliminate the possibility that Y could cause X. Since this research compares the state of non-proliferation behaviour before and after a WMD non-proliferation clause went into force for a country, one can be certain that only the effect of X on Y is measured.

A research design should also establish that X and Y co-vary, which is the third hurdle. Since the COV approach works with an 'experimental' case and a 'control' case whereby everything is similar between them but the independent variable X, any difference in their non-proliferation behaviour should credibly indicate that X and Y co-vary. Thus, the COV approach employed can overcome this hurdle too.

The last hurdle a research design should control for is that it can ensure that no other confounding variables pollute the relationship between X and Y. The COV approach controls for this by ensuring that the selected cases are as identical as possible on the identified 'control' variables thereby eliminating their possibly polluting effect in the relationship between X and Y. However, while the selected cases may have matched on the relevant control variables in one year, it may very well be that in the years before and after they will diverge on these aspects. Therefore, the analysis cannot completely ensure that these variables have no impact on the relationship between X and Y. Moreover, not all relevant control variables could be controlled for. There may very well be other developments that will have an impact on countries' WMD non-proliferation behaviour such as changes in government or in the security landscape. To control for all such developments would be impossible and therefore this must be accepted as a flaw to this research. Consequently, the results must be interpreted with caution.

Thus, the COV analysis confidently avoids the first three hurdles. The fourth hurdle does cause some issues. If the results are interpreted with enough caution the COV analysis can still establish a sufficient degree of internal validity.

#### **4.5.2 External validity**

The ability to generalise the results to a larger population refers to external validity (Kellstedt & Whitten, 2013). Since the COV analysis only investigates a few cases with its small-n, the findings can be generalised to a small population (Blatter & Haverland, 2012). Large-n research usually draws its findings from a random sample, making generalisation appropriate for a relatively larger population. COV analysis selects its cases on the basis of several necessary criteria to come to credible results. Consequently, its findings can only be generalised to the population of cases that exhibit the same scores on the control variables as the cases that were under analysis (Blatter & Haverland, 2012). This can be viewed as a limitation to the COV approach. However, the results of this thesis may induce other researchers to further investigate the WMD non-proliferation clause quantitatively which produces more generalisable results.

#### **4.5.3 Reliability**

When a research is *reliable*, it means that if another researcher were to repeat the research, one should arrive at the same results (Schwend & Schimmelfennig, 2007). To achieve this, data triangulation was used. Data triangulation means that multiple sources were used to accumulate data to measure the same concept for a single unit (Blatter & Haverland, 2012). Thereby, any measurement error is more likely to be avoided, making it less probable that subsequent researchers performing the same investigation come to different conclusions. This thesis applied data triangulation when measuring compliance with the NPT and the CTBT since multiple sources were consulted. Thus, the measurements of these concepts are particularly reliable. The measurements of the other concepts for

which only one type of source could be consulted, the researcher was aware that the data had to be evaluated as impartial and unbiased as possible. Therefore, the research is considered reliable.

## Chapter 5: Results

In this chapter the results of the co-variational analysis are presented. There is a subchapter for each ‘match’ of countries. Per match, the countries are compared on the three aspects of WMD non-proliferation behaviour. The last subchapter provides a summary of the findings.

### 5.1 Albania vs. North-Macedonia

The first ‘match’ of countries includes Albania and North-Macedonia. Albania concluded a Stabilisation and Association Agreement (SAA) with the EU that went into force in 2009. SAAs are a type of EU trade agreements that aim to remove or reduce customs tariffs in bilateral trade (European Commission, 2020). The SAA with Albania included the WMD non-proliferation clause. Albania and the EU agreed that the first part of the WMD non-proliferation clause concerning compliance with pre-existing WMD non-proliferation obligations would be classified as ‘essential elements’. North-Macedonia also established a SAA with the EU which went into force in 2004. Interestingly, North-Macedonia’s SAA does not include the WMD non-proliferation clause. Considering that Albania and North-Macedonia are situated at a similar distance to the EU, both signed an SAA with the EU, are both candidate countries to accede to the EU *and* are similar on all relevant control variables makes them an excellent and robust match of countries to compare to one another. In the following sections the results for both countries are listed and compared.

#### 5.1.1 Existing obligations and compliance

Table 5 (next page) provides an overview of all the existing non-proliferation obligations Albania and North-Macedonia were bound to prior to the WMD non-proliferation clause. Both countries signed the NPT, ICSANT, CTBT and CPPNM before 2009. Their compliance with these agreements before and after the clause is evaluated.

Table 5 *Overview of non-proliferation treaties signed and/or ratified by Albania and North-Macedonia before the WMD non-proliferation clause went into force for Albania in 2009.*

<b>Treaty</b>	<b>Albania</b>	<b>North-Macedonia</b>
<b>NPT</b>	1990 (accession)	1968 (signed by former Yugoslavia) 1970 (ratified by former Yugoslavia) 1995 (succession by North-Macedonia)
<b>ICSANT</b>	2005 (signed)	2005 (signed) 2007 (ratified)
<b>CTBT</b>	1996 (signed) 2003 (ratified)	1998 (signed) 2000 (ratified)
<b>CPPNM</b>	2002 (accession)	1980 (signed by former Yugoslavia) 1986 (ratified by former Yugoslavia) 1996 (succession by North-Macedonia)
<b>WMD non-proliferation clause into force</b>	<b>2009</b>	-

### *The NPT*

#### *Comprehensive safeguards agreements*

Both Albania and North-Macedonia concluded a comprehensive safeguards agreement with the IAEA in 2002 prior to the WMD non-proliferation clause entered into force (IAEA, 2019, 2020a).

#### *IAEA safeguards statements 2003-2018*

The results of the IAEA safeguards statements (see Appendix B) provide evidence that the WMD non-proliferation clause may have urged Albania to speed up its compliance with IAEA safeguards.

Between 2003 and 2009, prior to the WMD non-proliferation clause, North-Macedonia was one step ahead of Albania. While they performed almost the same from 2003 to 2006, both signing the Additional Protocol in those years, North-Macedonia managed to ratify the Additional Protocol already in 2007, within two years after its signature. The ratification of the protocol also started the evaluation for *all* nuclear material in North-Macedonia. Albania ratified the Additional Protocol in 2010 *six years* after its signature in 2004. This was just after the entry into force of the clause.

From 2010 Albania is seen to catch up quicker than North-Macedonia. While the evaluation for North-Macedonia took four years to conclude *all* nuclear material remained in peaceful activity, that evaluation only took three years for Albania. Indeed, in 2013 all Albania's nuclear material was declared to remain in peaceful activities. However, while North-Macedonia was noted to have

integrated safeguards implemented just *one year* after its evaluation was concluded, it took Albania *three years* to implement those after its evaluation was finished.

While the last finding waters down the evidence that the obligations under the WMD non-proliferation clause may have urged Albania to speed up its compliance with IAEA safeguards, Albania is still seen to approximate North-Macedonia's performance faster than prior to 2009. Moreover, the fact that Albania ratified the Additional Protocol one year after the WMD non-proliferation clause went into force, gives the impression that the clause may have provided an extra push there. Additionally, no significant changes in the progress of North-Macedonia's performance on IAEA safeguards were noted. Since the treatment case is seen to comply faster with IAEA safeguards while the control case's behaviours stayed the same in the period after the WMD non-proliferation clause it can be said that the WMD non-proliferation clause had some impact here.

#### *NPT review Conferences 2000-2015*

The results of the NPT review conferences indicate that the WMD non-proliferation clause has had little impact on Albania's participation.

Namely, in all NPT review Conferences before and after the clause Albania's and North-Macedonia's participation was roughly the same (see appendix C). While there were some minor differences in their performance in the 2000, 2005, and 2010 Conferences their performance was even identical in the 2015 Conference. Additionally, Albania's participation remained on a similar level before and after the WMD non-proliferation clause. Since North-Macedonia, the control case, behaved similarly to Albania, there is no indication that the WMD non-proliferation clause had any effect.

#### ***The ICSANT***

While both Albania and North-Macedonia signed the ICSANT in 2005, only North-Macedonia ratified the treaty, which was in 2007. Thus, officially Albania is not bound yet to the obligations under the ICSANT. However, Albania and North-Macedonia are both partner to the GICNT. While the exact date of accession of both countries cannot be found, it was mentioned by an article in 2009, that Albania and North-Macedonia were among the 76 countries that had signed onto the GICNT (Olsen, 2009). This could have been evidence for some *ex ante* improvement in Albania's WMD non-proliferation behaviour just before the trade agreement went into force. However, North-Macedonia, the control case, also signed onto the GICNT in the same time period. Consequently, it cannot be said that the WMD non-proliferation clause had an influence there.



## ***The CTBT***

### *Article XIV Conferences 2001-2018*

The results of the XIV Conference are rather strange. While North-Macedonia improved its participation after the WMD non-proliferation clause went into force for Albania, Albania's performance worsened. In contrast, prior to the clause both countries showed an overall similar commitment to the CTBT in their participation in XIV Conferences (See Appendix D).

Indeed, from 2001 to 2007 both countries did partake in the Conferences but did not issue a statement or undertake any activities to promote the CTBT. Then, from 2009 to 2018, Albania only participated *once* in the XIV Conferences while North-Macedonia participated *four times* and made statements with each time in the same period. Albania limits the gap in performance with the *ten activities* it has undertaken in 2013 and 2015 to promote the entry into force of the CTBT while North-Macedonia did not undertake any such activities. However, while North-Macedonia, the control case, improved its performance, Albania, the treatment case, kept its performance constant at best. These findings therefore indicate that the WMD non-proliferation clause did not have a positive effect on Albania's participation.

### *CTBT Ministerial Conferences 2002-2016*

The results from the CTBT Ministerial Conferences neither show any impact of the WMD non-proliferation clause (see Appendix E). Albania and North-Macedonia barely differed in their participation in the Ministerial Conferences prior to 2009. Both countries generally signed the joint statement issued at every Ministerial Conference. Only in 2004, Albania signed the joint statement while North-Macedonia did not. Then from 2010 to 2016, Albania signed as many joined ministerial statements as in the previous time period, namely three out of four. North-Macedonia behaved similarly to Albania. Thus, since Albania did not increase its participation and the treatment and control case behaved similarly after the WMD non-proliferation clause, no effect can be noted.

## ***The CPPNM***

Press releases on nuclear security-focused peer reviews by the IAEA were used to measure compliance. In following paragraphs, the results are summarised per country and then compared.

### *Albania*

One of the nuclear security-focused peer reviews of the IAEA is the International Physical Protection Service (IPPAS). The IPPAS compares, amongst other things, the national nuclear security measures implemented to the requirements under the CPPNM (Mattar, 2020).

Albania requested the first ever IPPAS mission to its country in 2016. The IPPAS mission reviewed the nuclear security-related legislative and regulatory framework Albania has in place for radioactive material and associated facilities and activities. The press release on the mission stated

that “Albania has taken important steps to strengthen nuclear security. The team identified a number of good practices while also making recommendations and suggestions for continuous improvement.” (International Atomic Energy Agency [IAEA], 2016, para. 3). Additionally, Nicolas Delaunay, the IAEA technical coordinator for the mission, was quoted to have said “The example given by Albania strongly reinforces the importance and the value of establishing and applying IAEA nuclear security guidance” (in IAEA, 2016a, para. 4). From these statements, it can be derived that Albania has made some significant progress to incorporate the requirements under the CPPNM but there is still room for improvement.

#### *North-Macedonia*

North-Macedonia has yet to request an IPPAS mission. However, North-Macedonia subjected itself to another nuclear security-focused peer review that the IAEA provides, the Integrated Regulatory Review Service (IRRS). The IRRS mission was carried out in North-Macedonia in 2017 at the request of the North-Macedonian government (IAEA, 2017a). The IRRS reviewed the regulatory framework of North-Macedonia for its nuclear and radiation safety. One of the IRRS’s recommendations was that North-Macedonia should ‘review and revise the legal and regulatory framework to ensure compliance with IAEA safety standards’ (IAEA, 2017a, para. 13). The IRRS mission recognised that Radiation Safety Directorate of North-Macedonia “is committed to improving safety and protecting people and the environment” from the dangers of radiation and nuclear material (IAEA, 2017a, para. 8). From these statements it can be derived that North-Macedonia is motivated and willing to comply with the IAEA safety standards regarding nuclear and radiation safety, however, its legal and regulatory frameworks are not sufficient yet.

#### *Comparison*

Countries that request nuclear security-focused peer reviews of the IAEA show that they are committed to improving their nuclear security, which includes physical protection of nuclear material. Countries have been able to request these missions since 1995. Prior to the entry into force of the WMD non-proliferation clause for Albania, both countries apparently felt no need for any assistance to ensure nuclear safety. After 2009, when the clause went into force for Albania, both countries seem to have realised the use of such missions and requested a peer review of the IAEA around the same time. The press releases indicate a similar situation: efforts have been made to improve the security standards, but to both recommendations are made to strengthen their security provisions. Since both the treatment case, Albania, and North-Macedonia, the control case, are at a similar level *after* the WMD non-proliferation clause it can be concluded that the clause has had no significant impact on Albania’s compliance with the CPPNM.

### **5.1.2 Steps taken to join more non-proliferation agreements and/or treaties**

In this section, the efforts by Albania and North-Macedonia to sign/ratify/accede to more non-proliferation agreements and treaties are registered.

Both Albania and North-Macedonia have signed and ratified the CPPNM/Amendment after the WMD non-proliferation clause went into force for Albania in 2009. North-Macedonia ratified the amendment in 2011 while Albania did so in 2013. The relevant international instruments that the WMD non-proliferation clause specifically mentions – the NPT, CTBT, ISCONT and CPPNM – both countries signed and ratified these already prior to 2009. One exception being the ISCONT in the case of Albania, which Albania only signed and still has not ratified. The TPNW, another relevant international WMD non-proliferation instrument identified by this thesis, was signed neither by North-Macedonia or Albania after the treaty was adopted in 2017.

Concerning relevant *regional* instruments that states must attempt to join, while there have been initiatives in the past to establish a Balkan NWFZ or even a European NWFZ, these plans were never fulfilled (Müller et al., 2016). Thus, neither Albania nor North-Macedonia (both situated geographically in the Balkans and in Europe) can join other relevant instruments regarding non-proliferation because these do not exist for their region yet.

Following these results, the WMD non-proliferation clause can be said to not have influenced Albania's non-proliferation behaviour to sign more non-proliferation agreements. The only non-proliferation initiative that Albania signed and ratified since the WMD non-proliferation clause is the CPPNM/Amendment. Since North-Macedonia, the control case, has also signed the CPPNM/Amendment in a similar timeframe to Albania, this effect cannot be attributed to the clause.

### **5.1.3 An effective system of national export controls**

In the following paragraphs the results of the evaluation of Albania's and North-Macedonia's development of an effective system of national export controls are listed. The EU's progress reports indicate that the WMD non-proliferation clause may have pushed Albania to move ahead quicker with making its national system for controls of dual-use goods and technologies more effective than North-Macedonia.

Albania and North-Macedonia both had a legal foundation of their national export control systems in place *before* the clause went into force. North-Macedonia adopted a law that forms the legal basis of its export control system of dual-use goods and technologies in 2005 while Albania did so in 2007 (Albanian State Export Control Authority, 2009; Republic of Macedonia, 2006).

The EU's progress reports of 2005-2009 indicated that North-Macedonia had a further developed effective national system for export controls of dual-use items than Albania prior to the entry into force of the WMD non-proliferation clause. From 2005 to 2007 the European Commission did not note any progress on Albania and all reports stressed that Albania needed to make more effort

to deal *effectively* with dual-use goods (European Commission, 2005a; Commission of the European Communities [CEC], 2006a, 2007a). In contrast, North-Macedonia was noted to have adopted specific national legislation to subject dual-use goods and technology to export controls and to have introduced a new system for control of dual-use goods (CEC, 2005b; CEC, 2007b).

From the progress reports between 2009-2018 *after* the entry into force of the clause becomes clear that Albania made significant progress in 2011 and 2012. Albania was noted to have made progress on multiple aspects of its export system. While some progress was noted for North-Macedonia it was not that much. Both countries also experienced a few years in which progress stagnated. For North-Macedonia that was between 2011 and 2014 and for Albania that was from 2013 to 2015 (European Commission, 2011b, 2012b, 2013a, 2013b, 2014a, 2014b, 2015a). Interestingly, in 2016 both countries received a similar recommendation, namely that Albania should enhance its administrative *and* control capacity while North-Macedonia was told to strengthen *only* its administrative capacity regarding dual-use goods export control (European Commission, 2016a, 2016b). This indicates that North-Macedonia was still slightly ahead in its capacity to run an effective dual-use goods export control. However, Albania was far less behind North-Macedonia than prior to the WMD non-proliferation clause. Thus, this provides evidence to conclude that the clause may have induced Albania to move ahead quicker with making its national system for exports controls on dual-use goods more effective.

## 5.2 Indonesia vs. Paraguay

The second country comparison is Indonesia vs. Paraguay. Indonesia established a Framework Agreement on Comprehensive Partnership and Cooperation (FACP) with the EU including the WMD non-proliferation clause in 2014. Such EU agreements provide a general framework for bilateral economic relations (European Commission, 2020). Indonesia and the EU agreed that the first part of the WMD non-proliferation clause concerning compliance with pre-existing WMD non-proliferation obligations would be classified as ‘essential elements’. Paraguay signed a Framework Cooperation Agreement with the EU in 1992 which governs their relations and does not include the WMD non-proliferation clause. Prior to the FACP of 2014 Indonesia was part of a similar agreement to the one of Paraguay that was established in 1980. Thus, prior to 2014 Indonesia had a similar relation to the EU as Paraguay. Therefore, Paraguay is an excellent control case for Indonesia, besides the fact that Paraguay scores similarly to Indonesia on the relevant control variables. Moreover, it is important to note that both Indonesia and Paraguay are part of the Non-Alignment Movement (NAM)<sup>2</sup>, although Indonesia as a full member while Paraguay only as an observer. Indonesia is not just any member of the NAM but is actually one of the movement’s leading actors (Potter & Mukhatzhanova, 2011). Therefore, it will be even more interesting to see how Indonesia behaves on WMD non-proliferation aspects, and if that behaviour lives up to its leadership status in the NAM. In the following sections the results are listed and compared.

### 5.2.1 Existing obligations and compliance

Table 6 (next page) provides an overview of all existing WMD non-proliferation obligations Indonesia and Paraguay were bound to prior to the WMD non-proliferation clause’s entry into force. Both had already signed the NPT, ICSANT, CPPNM and CTBT before or in 2014. Indonesia also signed the CPPNM/Amendment prior to 2014 but Paraguay only did so in 2016. In the following paragraphs, their compliance with the treaties is evaluated before and after the clause went into force.

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<sup>2</sup> The NAM is an international forum and consists of 120 developing countries that are not formally aligned with or against any major power bloc. It was founded in 1961 in the time the decolonisation process was at its peak and in response to the Cold War between the US and the Soviet Union. One of the NAM’s main aims is to ensure the security of its members and therefore promote nuclear disarmament and non-proliferation. Leaders in the NAM, for example, speak on behalf of the countries that are member of the NAM during NPT review conferences. Thus, the NAM plays an important role in WMD non-proliferation (Potter & Mukhatzhanova, 2011).

Table 6 *Overview of WMD non-proliferation treaties signed and/or ratified by Indonesia and Paraguay before the WMD non-proliferation clause went into force for Indonesia in 2014*

<b>Treaty</b>	<b>Indonesia</b>	<b>Paraguay</b>
<b>NPT</b>	1979	1970
<b>CPPNM</b>	1986 (ratification)	1985 (ratification)
<b>CPPNM/A</b>	2010	- (after the WMD non-proliferation clause)
<b>CTBT</b>	2012	2001
<b>ICSANT</b>	2014 (acceded)	2005 (signed) 2009 (ratified)
<b>WMD non-proliferation clause into force</b>	<b>2014</b>	-

### *The NPT*

#### *Comprehensive safeguards agreements*

Both Indonesia and Paraguay concluded a comprehensive safeguards agreement with the IAEA in 1980 and 1979 respectively, prior to the WMD non-proliferation clause (IAEA, 2020b, 2020c).

#### *IAEA safeguards statements 2009-2018*

The results from the IAEA safeguards statements from 2010 to 2018 indicate little impact of the WMD non-proliferation clause (see Appendix F). Namely, Indonesia and Paraguay both performed on a constant level in every single annual safeguards statement. Indonesia performed at a higher level than Paraguay as *all* its nuclear material were declared to remain in peaceful activities every year while for Paraguay only its *declared* nuclear material. Indonesia was already at the highest possible level of performance for IAEA safeguards statements in 2010 and remained on that level. Therefore, the WMD non-proliferation clause could not push Indonesia to perform any better on this aspect. Moreover, since Paraguay's performance, the control case, also remained on the same level, and did not, for example, perform worse after 2014, no effect of the clause could be noted.

#### *NPT review Conferences 2005-2015*

The NPT review conferences of 2005 and 2010 show that Indonesia's commitment to the NPT stayed on the same level while Paraguay was seen to improve its commitment to the NPT significantly from 2005 to 2010 (see Appendix G). In 2005 Paraguay did not participate in any of the preparatory sessions, did not hand in any documents or reports and did not make a statement while Indonesia did. In 2010 Paraguay improved significantly and scored similarly to Indonesia who continued the level of participation it had in 2005 and 2010.

In the 2015 NPT review Conference, which took place just one year after the entry into force of the WMD non-proliferation clause, Indonesia and Paraguay were seen to perform quite differently again. Indonesia participated in the Conference and its Preparatory sessions, sent ten representatives, made a statement, and even handed in *three* documents in 2015. In contrast, Paraguay did not even participate in the Conference in 2015, and thus sent zero participants.

It is difficult to derive any conclusions from these results. What becomes clear is that while Indonesia's commitment to the NPT has been rather stable from 2005 to 2015, Paraguay's commitment is seen to fluctuate, performing well in 2010 but showing much less commitment in 2005 and 2015. Results from the 2020 Conference could have made both countries' behaviour trends after the clause clearer, but it is deferred to 2021. However, some information on countries' participation in the preparations for the 2020 Conference was found. Indonesia's trend of preparing more documents after the WMD non-proliferation clause is seen to continue as Indonesia handed in three documents *again*. Thus, given this significant increase in 2015 and 2020 for Indonesia, while Paraguay, the control case, has not improved its performance, the clause has had a positive influence on Indonesia's commitment to the NPT.

### ***The CTBT***

#### *Article XIV Conferences 2009-2019*

Indonesia's and Paraguay's behaviour in XIV Conferences could almost be no further apart (see Appendix H). Paraguay only participated once in any of the XIV Conferences between 2009 and 2019. In contrast, Indonesia participated in all Conferences. Before the WMD non-proliferation clause Indonesia would occasionally be noted to have undertaken an activity to promote the entry into force of the CTBT. In the XIV Conference of 2015, just one year after the clause's entry into force, Indonesia is noted to suddenly have undertaken *six* activities. That is a significant increase. However, in 2017 and 2019 Indonesia undertook no activities at all. Thus, if the WMD non-proliferation clause had an effect on Indonesia's performance in 2015, it did not have a lasting effect. However, since the 2015 increase was so significant, and Paraguay's behaviour, the control case, remained constant, some positive influence of the WMD non-proliferation clause is still noted here.

#### *CTBT Ministerial Conferences 2012-2016*

Firstly, it must be noted that Indonesia only signed and ratified the CTBT in 2012 while Paraguay already did so in 2001. Consequently, while Paraguay could already sign the joint statement of each meeting since 2001, Indonesia could only do so from 2012 onwards. Thus, the results of the Ministerial meetings were only analysed from the moment Indonesia could sign the statement as well (see Appendix I). Interestingly, while Indonesia did sign the statement in 2012 and 2014, before the WMD non-proliferation clause, Indonesia did not in 2016, after the entry into force of the clause.

Paraguay signed all the joint statements between 2012 and 2016. These results show that the WMD non-proliferation clause had some *ex ante* influence on Indonesia's WMD non-proliferation behaviour. Namely, Indonesia signed and ratified the CTBT in 2012 during the trade agreement negotiations *and* signed the joined statement in 2012 and 2014 prior to the agreement's entry into force. However, the clause did not have any impact after 2014 since Indonesia did not sign the statement in 2016. Unfortunately, 2016 was the only year after the trade agreement went into force that data was available for, so the impact of the clause *ex post* is still unclear due to this limited data.

### ***ISCANT***

Indonesia acceded to the ISCANT in 2014, the year the WMD non-proliferation clause went into force. Paraguay already ratified the ICSANT in 2009. Commitment to the obligations under the ISCANT was evaluated by checking whether these countries joined the GICNT which reinforces the obligations under the ISCANT. While Paraguay was admitted officially as a new partner to the GICNT in 2017, Indonesia has not joined the GICNT yet (GICNT, 2017). There is almost ten years between Paraguay's ratification of the ISCANT and when it joined the GICNT as a partner. Thus, Indonesia might need some time as well before being ready to join the GICNT. Thus far the WMD non-proliferation clause is not seen to speed up that process. However, the clause has had an *ex post* influence on Indonesia since the country acceded to the ISCANT in September 2014, just after the trade agreement with the EU went into force in May that same year.

### ***CPPNM***

Press releases on nuclear security-focused peer reviews by the IAEA were used to measure compliance with the CPPNM. In the following paragraphs, the results are summarised per country.

#### ***Indonesia***

Indonesia subjected itself to multiple peer reviews of the IAEA. The Indonesian government requested IPPAS missions in 2001, 2007, and 2014. A press release on the findings of the 2014 IPPAS mission stated that since the last two missions "*Indonesia has improved its national security regime, especially its legislation and regulations, and had introduced new physical protection equipment*" (IAEA, 2014, para. 2). However, the IPPAS mission also found that some areas required further attention to ensure a comprehensive and effective nuclear security regime (IAEA, 2014).

The Indonesian government also requested IRSS missions to review its nuclear security in 2015 and 2019. In 2015, the IRSS mission concluded that Indonesia is "*implementing a framework that provides for the protection of public health and safety*" (IAEA, 2015, para. 2). A number of good practices were identified indicating that the IRSS mission found that Indonesia's framework was of good quality. However, the IRSS mission also had multiple suggestions for improvement. The 2019 IRSS mission noted that most of the 2015 recommendations had been addressed by Indonesia and that



progress was made in strengthening the regulatory framework for nuclear safety (IAEA, 2019). The press release on the 2015 IRSS mission was very positive, stating “Indonesia has made significant progress across many areas of nuclear and radiation safety since 2015” (IAEA, 2019, para. 7).

#### *Paraguay*

Paraguay requested its first IPPAS mission in 2019. The IPPAS team found that Paraguay has established a nuclear security regime that is in line with IAEA guidelines for nuclear security. Some good practices were even identified that could serve as examples to other countries. The team also offered Paraguay several suggestions to further enhance and sustain its nuclear security (IAEA, 2019).

In addition to one IPPAS mission Paraguay also requested two Advisory Missions on Regulatory Infrastructure for Radiation Safety (AMRAS) for a review in 2017 and 2018. While AMRAS missions are advisory missions of the IAEA and not necessarily peer reviews, they are still mentioned here because the fact that Paraguay requested them shows Paraguay’s commitment to ensure nuclear safety. Ahmad Al Khatibeh who led the 2018 AMRAS mission said, “Paraguay has made significant progress by strengthening its legal and regulatory framework and by the establishment in 2016 of an independent regulatory authority” (in IAEA, 2018, para. 4). Paraguay’s regulatory body was deemed effective and independent in securing nuclear safety.

#### *Comparison*

From these results it can be derived that Indonesia’s commitment to ensuring that it meets the safety obligations of the CPPNM has remained constant before and after the WMD non-proliferation clause. There was no increase in the amount of missions Indonesia requested to review its nuclear safety after the WMD non-proliferation clause. Moreover, all the press releases indicated that Indonesia makes sincere efforts to improve its nuclear security and makes progress to that end. Paraguay only started requesting IAEA missions in recent years. The press releases on Paraguay indicate a similar commitment to nuclear security. Since Indonesia’s behaviour remains constant, no effect of the WMD non-proliferation clause can be derived from this data.

### **5.2.2 Steps taken to join more non-proliferation agreements and/or treaties**

In this section, the efforts by Indonesia and Paraguay to sign/ratify/accede to more non-proliferation agreements, initiatives and/or treaties are registered.

The relevant international instruments that the WMD non-proliferation clause specifically mentions – the NPT, CTBT, ISCANT, and CPPNM – Indonesia and Paraguay signed and ratified almost all of these treaties already before the clause went into force in 2014 for Indonesia. Paraguay only signed the CPPNM/Amendment after 2014, Indonesia already did so in 2010. The other relevant international instrument, the TPNW, was signed by Indonesia in 2017 but has not been ratified yet. Paraguay signed the TPNW in 2017 and ratified the treaty in 2020. Both Paraguay and Indonesia

joined relevant regional treaties that include NWFZ agreements *prior* to 2014. Both did not sign new relevant regional instruments *after* the entry into force of the clause for Indonesia.

The WMD non-proliferation clause had no impact here. While Indonesia did sign the TPNW in 2017, after the WMD non-proliferation clause, this effort is likely not caused by the clause since Paraguay, the control case, signed the TPNW as well in 2017. Paraguay even already ratified the TPNW while Indonesia has not done so yet.

### **5.2.3 An effective system of national export controls**

In the following paragraphs the results of the evaluation of Indonesia's and Paraguay's development of an effective system of national export controls are listed.

Prior to the entry into force of the WMD non-proliferation clause for Indonesia, both countries seemed to have little of a system in place to control the export of dual-use goods. In 2012 it was reported that Indonesia has barely any procedures or the basic infrastructure needed to control the trade of sensitive materials such as dual-use goods and technologies. Indonesia is even sceptical about the need for such extensive trade controls (Lieggi, 2012). In its 2004 and 2005 national reports under the UN resolution 1540, Indonesia did not once mention that it was making efforts to establish an export control system on dual-use goods (Permanent Mission of Indonesia to the United Nations, 2004, 2005). Paraguay's 2004 and 2006 national reports also do not mention anything about export control on dual-use items (Permanent Representative of Paraguay, 2004, 2006).

After the WMD non-proliferation clause entered into force for Indonesia in 2014, both countries headed into a similar direction by attaching more importance to an effective export control system on dual-use goods, however Paraguay more so than Indonesia. In 2014 Indonesia noted that it was considering developing a more comprehensive regulation that tightens the control of transit and transshipment of dual-use goods (Rachmianto, 2016). Nevertheless, in its 2018 national report under the UN resolution 1540 no such efforts were noted (Permanent Mission of Indonesia to the United Nations, 2018). Paraguay went much further than Indonesia and published a national action plan in 2019 for the implementation of UN resolution 1540 for the period 2019–2022 (Republic of Paraguay, 2019). The national action plan describes multiple actions to establish a better export control system for dual-use goods. Moreover, Paraguay's 2019 national report mentioned efforts made regarding its export control system on dual-use items (Permanent Representative of Paraguay, 2019).

The data indicates that the WMD non-proliferation clause has provided little stimulus for Indonesia to move ahead quicker with strengthening its export control system on dual-use items. Paraguay has even moved ahead of Indonesia in recent years with a national action plan while Indonesia does not have any concrete plans on paper. Since Indonesia, the treatment case, has remained more or less on the same level while Paraguay, the control case, has significantly improved on this aspect, it is clear the clause had no impact here.

### 5.3 Summary of the findings

In this subchapter the results of the country comparisons are summarised and connected to the hypotheses formulated in chapter 3. An overview of the hypotheses can be found in Table 1 on page 18. Table 7 provides a summary of the results.

Table 7 *Summary of the results of the co-variational analysis.*

<b>WMD Non-proliferation behaviour</b>		<b>Albania vs. North-Macedonia</b>	<b>Indonesia vs. Paraguay</b>
<b>Compliance with existing obligations</b>	NPT	A slight improvement after entry into force of the WMD non-proliferation clause	A slight improvement after entry into force of the WMD non-proliferation clause
	CTBT	No effect	A slight improvement before and after entry into force of the WMD non-proliferation clause
	CPPNM	No effect	No effect
	ICSANT	No effect	A slight improvement after the entry into force of the WMD non-proliferation clause
<b>Efforts to sign new obligations</b>		No effect	No effect
<b>Export control system</b>		A slight improvement after entry into force of the WMD non-proliferation clause	No effect

These results provide confirming evidence for H1. In almost all instances where an improvement was noted, this improvement was noted *after* the WMD non-proliferation clause went into force. Only in the case of compliance with the CTBT for Indonesia it was found that Indonesia made some significant improvements in the two years before the entry into force of the clause. However, in four of the five instances in which an improvement was noted, this was noted to be *ex post* which is a large majority.

In contrast, the results provide no evidence for H3. Namely, the WMD non-proliferation clause was not found in any country comparison to cause an improvement in the ‘treatment’ cases to

sign more WMD non-proliferation agreements than the 'control' cases after the WMD non-proliferation clause went into force for them.

For H2 and H4 concerning the other two aspects of WMD non-proliferation behaviour it is more difficult to draw conclusions. While improvements have been noted in compliance with existing obligations and establishing an effective control system, in both instances these improvements were rather small. Additionally, the evidence noted for H2 and H4 was not completely similar across country comparisons. In compliance with the NPT a slight improvement was noted for both Albania and Indonesia. However, in the case of the CTBT and the ICSANT, while a slight improvements were noted in Indonesia's compliance after the WMD non-proliferation clause entered into force, no such improvements were registered for Albania. Additionally, an effect of the WMD non-proliferation clause on developing effective export controls on dual-use items was only noted in Albania vs. North-Macedonia. What can be concluded from these results is that *if* the WMD non-proliferation clause does have an effect on countries' commitment to their existing WMD non-proliferation agreements and developing an effective export control system, this effect may differ per country. Although the improvements noted are only small, these results do provide supporting evidence for H2 and H4 which can therefore not be refuted as of yet.

## Chapter 6: Discussion

In this chapter the results are discussed and put in a broader theoretical context. Specifically, the literature and theories described in Chapter 2 and 3 are revisited to discuss the theoretical implications.

### 6.1 Hard vs. soft trade agreements

A first takeaway from the results is that the WMD non-proliferation clause only led to *slight* improvements in WMD non-proliferation behaviour of the treatment cases and that these were mostly visible in the years *after* the clause went into force. These findings have several implications for literature on *soft* trade agreements and the theory on policy transfer. Together these in turn have implications for the debate on the effectiveness of hard and soft clauses in trade agreements.

Firstly, these findings reinforce the literature on *soft* enforcement measures. As argued by Hafner-Burton (2005), Bastiaens and Postnikov (2017), and Postnikov and Bastiaens (2014), *soft* persuasive measures such as the EU employs will mostly start exerting influence *after* the trade agreement has entered into force and will have a slow and gradual effect. Their findings are supported by this thesis as the WMD non-proliferation clause employs soft enforcement measures and was found to have a gradual and slight effect mostly after agreements entered into force. However, similarly to the findings of Postnikov and Bastiaens (2014) some improvements were also noted *ex ante* the trade agreements, specifically in the case of Indonesia. Postnikov and Bastiaens (2014) explained this phenomenon by stating that countries may try to appease EU officials during the negotiation stage of the trade agreement. Interestingly, no *ex ante* improvements were noted in the WMD non-proliferation behaviour of Albania while arguably Albania would want to appease EU officials even more than Indonesia since Albania wants to accede to the EU. Perhaps Albania's WMD non-proliferation behaviour was already of a higher standard than Indonesia's during the trade agreement negotiations, and did Indonesia feel more pressure than Albania from the EU to already make some changes during the negotiations.

Secondly, the results add to the research on the *effectiveness* of the EU's *soft* enforcement measures. The results reinforce the findings of Bastiaens and Postnikov (2014) and Postnikov and Bastiaens (2017) who found that labour and environmental clauses in the EU's *soft* trade agreements affected the policies of the EU's trade partners. This research provides a first indication that the WMD non-proliferation clause can also induce countries to improve their policies. Consequently, it can be said with increasing confidence that the EU's soft enforcement measures work to influence countries' policies.

Thirdly, the findings provide implications for the theory on policy transfer. As explained in Chapter 3, the first part of the WMD non-proliferation clause can be termed as coercive policy

transfer due to its ‘essential elements’ classification whereas the second and third part of the clause rely on voluntary policy transfer. The findings implicate that coercive policy transfer had slightly more effect on countries’ WMD non-proliferation behaviour than voluntary policy transfer. Namely, a stronger improvement was found for countries’ compliance with their existing WMD non-proliferation obligations as the effect could be noted in *both* country comparisons. For countries’ commitment to sign more WMD non-proliferation obligations *no* improvement at all was found in either country comparison. Only a small improvement in just *one* country comparison was registered for countries’ commitment to establish effective national export controls on dual-use items. Thus, the results implicate that coercive policy transfer works better to induce countries to change their policies than voluntary policy transfer does.

Together, these implications provide for some interesting perspectives on the debate on the effectiveness of hard clauses vs. soft clauses in trade agreements. Namely, *coercive* policy transfer can be related to enforcement measures typically used in hard clauses while *voluntary* policy transfer can be related to enforcement measures typically used in soft clauses. The difference in effect of the clause’s ‘essential elements’ part and the other parts that rely completely on voluntary policy transfer provides further evidence for Hafner-Burton’s (2005) argument that *hard* measures have a bigger impact on countries’ behaviour than *soft* measures. However, while Hafner-Burton (2005) found that *soft* measures alone were not enough to change countries’ performance on human rights, this may not apply to the WMD non-proliferation clause since improvements were noted as well for the parts that relied completely on voluntary policy transfer. These results reinforce the findings and arguments in Postnikov and Bastiaens’ studies that *soft* measures are effective as well. Therefore, it seems more and more that both sides in the debate have a point and that it depends on a matter of preference whether the effect of a clause should be visible immediately, *ex ante* the agreement, or whether the clause’s effect can be visible *ex post* the agreement to allow countries to change their policies at their own pace.

## **6.2 Why do states accept the WMD non-proliferation clause**

The findings of this thesis indicate that both Indonesia and Albania were already quite committed to the international nuclear non-proliferation regime prior to the entry into force of the WMD non-proliferation clause. Indonesia had already signed and ratified all relevant international treaties and Albania all but the CPPNM/Amendment. Moreover, while their compliance and commitment to their existing obligations increased over the years after the WMD non-proliferation clause, they were not performing badly before. Increasing their compliance, especially concerning their existing WMD non-proliferation obligations, did not require much changes in policies, merely an extension of the existing policies. Thus, this thesis provides evidence in support of Spilker and

Böhmelt (2012) findings that countries may only accept NTI clauses in trade agreements when they are inclined to abide by them.

Additionally, the cost-explanation of Milewicz et al. (2016) provides a compelling explanation for why the EU has been able to include the WMD non-proliferation clause in agreements with countries like Albania and Indonesia but not with countries of WMD proliferation concern. Namely, while the policy changes for Albania and Indonesia on the issue of WMD non-proliferation were not so costly as their policies were in a similar direction already, such policy changes would be much more costly for countries of WMD proliferation concern. Namely, the WMD non-proliferation clause interferes with a country's security policies, which is a sensitive 'high-politics' policy area especially for countries with WMD or with the ambition to develop WMD. Interference in this area of domestic policy would be unacceptable to these countries. Even the trade power the EU derives from its internal market is therefore too weak to push these countries of WMD proliferation concern to accept the WMD non-proliferation clause.

### **6.3 Power *through* trade**

The fact that this thesis found that the WMD non-proliferation could improve EU trade partners' WMD non-proliferation behaviour reinforces the arguments made by Meunier and Nicolaïdis (2006). Indeed, the EU is able to use its power *through* trade to influence countries' policies in other areas. Nevertheless, the improvements registered were rather limited and indicate that the amount of influence the EU can exert is not as large as one might hope. Perhaps this is a given that coincides with the current developments on the world stage, whereby the label of a *global actor* may have been applied to the EU too soon. As Van Ham (2011) argued, the balance of power is changing, and market access is becoming less important to new powers. However, perhaps the effect has also been limited because of the conflicts that reside within the EU as a trade power (Meunier and Nicolaïdis, 2006). Moreover, the EU's choice to apply mostly soft measures to reinforce countries' compliance with the WMD non-proliferation clause may also have reduced the influence the EU could have had.

While there are multiple explanations for the limited impact of the WMD non-proliferation clause, what does become clear is that exerting power *through* trade is not as straightforward as it may seem. There are many factors that mediate the eventual effect that conditionality has by tying access to the EU's market to countries' compliance with NTI clauses included in the trade agreement.

### **6.4 Effectiveness of the WMD non-proliferation clause**

Grip (2009, 2015) and Cottey (2014) concluded in their papers on the effectiveness of the WMD non-proliferation clause, that it had not been effective and had not lived up to the expectations with which it was created by the European Council in 2003. However, both authors merely focused on

the fact that the EU had not been able to include the clause in agreements with third countries of WMD proliferation concern and that the clause was mostly included in agreements with states of little WMD proliferation concern. The results of this thesis provide the first counter evidence to their conclusions. While the WMD non-proliferation clause may not have been applied consistently and not to the countries of most WMD proliferation concern, the clause may still prove to be important in the instances where it has been applied. Indeed, this thesis found that the clause could have an impact on the WMD non-proliferation behaviour of the EU's trade partners. The improvements found may not be as large as the EU's policy makers would have hoped when they formulated the WMD non-proliferation clause in 2003 but still the findings suggest that the WMD non-proliferation clause could have a positive impact, albeit small. Therefore, the WMD non-proliferation clause could help strengthen the international WMD non-proliferation regime. The clause was found to have strengthened countries' commitment to their existing WMD non-proliferation obligations under the various treaties and international agreements they had signed. Moreover, countries were found to strengthen their export control system on dual-use items after the clause went into force. These are positive improvements that the WMD non-proliferation clause made happen. Thus, while Grip (2009, 2015) and Cottey (2014) make valid points, the WMD non-proliferation clause must certainly not be dismissed as useless altogether.



## Chapter 7: Conclusion

In this chapter an answer to the research question of this thesis is provided. Thereafter, the limitations to the research carried out are considered and suggestions for future research are provided. The chapter will conclude with the practical implications of this thesis.

### 7.1 Answer to the research question

The research question this thesis attempted to answer was: *How does the WMD non-proliferation clause in EU trade agreements affect the WMD non-proliferation behaviour of EU's trade partners?*

From the findings it became clear that the research provided the strongest evidence for H1. If the EU's WMD non-proliferation clause has any influence on the WMD non-proliferation behaviour of countries, then this influence will likely mostly be visible *after* the clause has entered into force. However, countries may also improve their WMD non-proliferation behaviour slightly in some instances already in the negotiation stage, possibly to appease EU officials. Additionally, some evidence was found for H2 and H4 that the WMD non-proliferation clause stimulates countries to increase their compliance with existing WMD non-proliferation obligations and to establish an effective export control system on dual-use goods and technologies. The co-variational analysis generated no evidence that confirmed H3. None of the treatment cases signed significantly more WMD non-proliferation agreements than their control cases.

Thus, the answer to the research question is that the WMD non-proliferation clause affects the WMD non-proliferation behaviour of EU's trade partners mostly *after* the clause has entered into force. Moreover, the WMD non-proliferation clause may stimulate countries to comply better with existing WMD non-proliferation obligations and/or to put more effort into developing an effective export control system on dual-use goods. The research provided no indication that the WMD non-proliferation clause stimulates countries to take on more WMD non-proliferation obligations. Additionally, it must be noted that the WMD non-proliferation clause's effects may not be similar across countries. The WMD non-proliferation clause may stimulate one trade partner to comply better with existing obligations but not to establish a more effective export control system as was found in this particular research. Another country may improve on both aspects. Lastly, it is important to remark that the 'essential elements' classification may have played a minor role. While improvements in the establishment of an effective export control system were noted for Albania, improvements in countries' compliance with existing obligations were visible in *both* treatment cases. Thus, the essential elements' classification may explain the difference in the strength of the improvement that was noted on the different aspects of countries' WMD non-proliferation behaviour.

## 7.2 Limitations & future research

While the research carried out was deemed externally and internally valid and reliable, there were still some limitations that must be noted.

Firstly, as was noted in Chapter 4, it was difficult to establish with certainty the causality between independent variable *X* and dependent variable *Y* in this thesis. Therefore, the answer to the research question must be interpreted with caution because the possibility that the improvements noted may have been caused by other variables cannot be excluded. Especially since the differences found between the ‘treatment’ cases and ‘control’ cases were rather small. This thesis only provides a first exploration of the effect of the WMD non-proliferation clause. A suggestion for future research would be to carry out a quantitative study on this subject. Quantitative methods can investigate whether the results found are statistically significant. A quantitative study could therefore provide more certainty about the effect of the WMD non-proliferation clause. Another reason why a quantitative research should be carried it out is because the results of this qualitative research can only be generalized to a small population. The COV analysis only investigated the clause’s effects in two country contexts. The results can just be generalised to those countries similar to the ‘treatment’ cases. Consequently, there is still a large body of countries with an EU trade agreement including the WMD non-proliferation clause for which the latter’s effect is still uncertain. A quantitative research uses a large-*n* and can generalise the results to a much bigger extent.

Secondly, the WMD non-proliferation clause is also applied in regional trade agreements. In this thesis only countries with bilateral trade agreements including the clause were investigated. A study investigating the clause’s effect for countries with regional trade agreements is therefore necessary. Thus, the full scope of the WMD non-proliferation clause’s effect must still be mapped.

Thirdly, this thesis had much difficulty in obtaining data and finding credible measurement instruments for certain aspects of countries’ WMD non-proliferation behaviour. Namely, measuring compliance with the ICSANT, CPPNM and investigating how countries had developed their national export control system concerning dual-use items turned out to be difficult. While the other treaties held conferences regularly of which documents were readily available or issued annual statements indicating countries’ compliance, such data was unavailable for the ICSANT and CPPNM. While proxies were found that could substitute the missing data, these proxies still could not provide a complete review of countries’ compliance with these treaties. Consequently, the conclusions derived from these data are not based on an entirely solid basis of information and must be interpreted with caution. The same applies to the data used to measure countries’ progress to establish an effective system of national export controls on dual-use items. The information derived from the consulted reports was limited and difficult to compare across years. Future research on the effects of the WMD non-proliferation clause must consider these data limitations and search for better alternatives.

### 7.3 Policy implications

Lastly, the findings of this thesis provide an important take-home message for EU- and other policy makers.

This thesis indicates that the EU can indeed exert influence *through* trade. However, as the country comparisons showed, the impact of the WMD non-proliferation clause through which the EU employed its trade power was rather limited. The fact that the EU, which holds control over the biggest market globally, can only influence trade partners to a limited extent via the WMD non-proliferation clause, may indicate that including such clauses in trade agreements is not as fruitful as EU policy makers may hope for. Policy makers of other countries that may have a (much) smaller market must take into account that the effect of a WMD non-proliferation clause in their trade agreements may likely have an even smaller effect or no effect at all.

Policy makers must consider that the WMD non-proliferation clause touches upon a sensitive ‘high politics’ policy area, which increases the costs of accepting such an NTI in a trade agreement substantially. Therefore, it is logical that the EU has managed to include the clause only in trade agreements with countries of limited WMD proliferation concern since the changes in their non-proliferation policies cost considerably less than for those countries that own nuclear weapons or aim to acquire them. For countries that do not have nuclear weapons nor have the means or aims to acquire them, the WMD non-proliferation clause is likely to be in line with their policies already since nuclear weapons pose a security risk to their nation that they want to reduce. Since the WMD non-proliferation clause is only applied in trade agreements with countries of the latter category, this may explain why the changes noted in WMD non-proliferation behaviour were rather small in this thesis.

While this may lead policy makers to conclude that WMD non-proliferation clauses are not useful at all, this thesis does find that the EU’s WMD non-proliferation clause helped strengthen the nuclear non-proliferation regime. Countries were seen to improve their compliance with existing obligations especially. The stronger the nuclear non-proliferation regime becomes, and the more outspoken countries are *against* nuclear weapons, the more pressure countries of WMD proliferation concern may feel to stop or reduce their nuclear weapon activities. However, there may be more effective and easier ways to strengthen the nuclear non-proliferation regime than by tying WMD non-proliferation requirements to market access via a trade agreement, which can complicate and increase the costs of the negotiation process.

Thus, power *through* trade is not as straightforward as it may seem. Policy makers must consider the policy area on which a conditionality clause hinges, the costs that policy changes may bring about for trade partners, and whether countries would be even willing to accept the clause in the first place. Such a pre-assessment will help policy makers better decide whether it is a good plan to introduce an NTI clause in the trade negotiations.

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## Appendix A

List of countries that form the treatment group

Table A1 *Countries that have signed a trade agreement with the EU that includes the WMD non-proliferation clause, the type of agreement, and the date of entry into force*

Country	Type of agreement	Entry into force
Republic of Cuba	Political Dialogue and Cooperation Agreement	13/12/2016
Canada	Strategic Partnership Agreement	03/12/2016
Socialist Republic of Viet Nam	Framework Agreement on Comprehensive Partnership and Cooperation	03/12/2016
New Zealand	Partnership Agreement on Relations and Cooperation	29/11/2016
Republic of Kazakhstan	Enhanced Partnership and Cooperation Agreement	04/02/2016
Bosnia and Herzegovina	Stabilisation and Association Agreement	30/06/2015
Georgia	Association Agreement	30/08/2014
Republic of Moldova	Association Agreement	30/08/2014
Ukraine	Association Agreement	29/05/2014
Republic of Indonesia	Framework Agreement on Comprehensive Partnership and Cooperation	26/04/2014
Republic of Serbia	Stabilisation and Association Agreement	18/10/2013
Republic of Korea	Framework Agreement	23/01/2013
Republic of Iraq	Partnership and Cooperation Agreement	31/07/2012
Republic of Montenegro	Stabilisation and Association Agreement	29/04/2010
Republic of Tajikistan	Partnership and Cooperation Agreement	29/12/2009
Republic of Albania	Stabilisation and Association Agreement	28/04/2009

*Source:* European Union External Action Service Treaties Office (2020)

## Appendix B

Data of Albania and North-Macedonia in the 2003-2018 IAEA safeguards statements

Table B1

*The performance of Albania and North-Macedonia in IAEA's safeguards statements from 2003- 2009*

<b>IAEA safeguard statement</b>	<b>Albania</b>	<b>North-Macedonia</b>
<b>2003</b> Safeguard conclusion:	declared nuclear material remained in peaceful activities	declared nuclear material remained in peaceful activities
Evaluation ongoing:	No	No
Integrated safeguards:	No	No
Additional Protocol:	No	No
<b>2004</b> Safeguard conclusion:	declared nuclear material remained in peaceful activities	declared nuclear material remained in peaceful activities
Evaluation ongoing:	No	No
Integrated safeguards:	No	No
Additional Protocol:	Signed (but not into force)	No
<b>2005</b> Safeguard conclusion:	declared nuclear material remained in peaceful activities	declared nuclear material remained in peaceful activities
Evaluation ongoing:	No	No
Integrated safeguards:	No	No
Additional Protocol:	Signed (but not into force)	Signed (but not into force)
<b>2006</b> Safeguard conclusion:	declared nuclear material remained in peaceful activities	declared nuclear material remained in peaceful activities
Evaluation ongoing:	No	No
Integrated safeguards:	No	No
Additional Protocol:	Signed (but not into force)	Signed (but not into force)
<b>2007</b> Safeguard conclusion:	declared nuclear material remained in peaceful activities	declared nuclear material remained in peaceful activities
Evaluation ongoing:	No	Yes
Integrated safeguards:	No	No
Additional Protocol:	Signed (but not into force)	Went into force
<b>2008</b> Safeguard conclusion:	declared nuclear material remained in peaceful activities	declared nuclear material remained in peaceful activities
Evaluation ongoing:	No	Yes
Integrated safeguards:	No	No
Additional Protocol:	Signed (but not into force)	Into force
<b>2009</b> Safeguard conclusion:	declared nuclear material remained in peaceful activities	declared nuclear material remained in peaceful activities
Evaluation ongoing:	No	Yes
Integrated safeguards:	No	No
Additional Protocol:	Signed (but not into force)	Into force

Source: International Atomic Energy Agency (2003, 2004, 2005, 2006, 2007, 2008, 2009)

Table B2

*The performance of Albania and North-Macedonia in IAEA's safeguards statements from 2010- 2014*

<b>IAEA safeguard statement</b>	<b>Albania</b>	<b>North-Macedonia</b>
<b>2010</b> Safeguard conclusion:	declared nuclear material remained in peaceful activities	declared nuclear material remained in peaceful activities
Evaluation ongoing:	Yes	Yes
Integrated safeguards:	No	No
Additional Protocol:	Went into force	Into force
<b>2011</b> Safeguard conclusion:	declared nuclear material remained in peaceful activities	all nuclear material remained in peaceful activities
Evaluation ongoing:	Yes	No
Integrated safeguards:	No	No
Additional Protocol:	Into force	Into force
<b>2012</b> Safeguard conclusion:	declared nuclear material remained in peaceful activities	all nuclear material remained in peaceful activities
Evaluation ongoing:	Yes	No
Integrated safeguards:	No	Were started during the course of the year
Additional Protocol:	Into force	Into force
<b>2013</b> Safeguard conclusion:	all nuclear material remained in peaceful activities	all nuclear material remained in peaceful activities
Evaluation ongoing:	No	No
Integrated safeguards:	No	Were implemented for the whole year
Additional Protocol:	Into force	Into force
<b>2014</b> Safeguard conclusion:	all nuclear material remained in peaceful activities	all nuclear material remained in peaceful activities
Evaluation ongoing:	No	No
Integrated safeguards:	No	Were implemented for the whole year
Additional Protocol:	Into force	Into force

*Source:* International Atomic Energy Agency (2010, 2011, 2012, 2013, 2014)

Table B3

*The performance of Albania and North-Macedonia in IAEA's safeguards statements from 2015-2018*

<b>IAEA safeguard statement</b>	<b>Albania</b>	<b>North-Macedonia</b>
<b>2015</b> Safeguard conclusion:	all nuclear material remained in peaceful activities	all nuclear material remained in peaceful activities
Evaluation ongoing:	No	No
Integrated safeguards:	No	Were implemented for the whole year
Additional Protocol:	Into force	Into force
<b>2016</b> Safeguard conclusion:	all nuclear material remained in peaceful activities	all nuclear material remained in peaceful activities
Evaluation ongoing:	No	No
Integrated safeguards:	Were started during the course of the year	Were implemented for the whole year
Additional Protocol:	Into force	Into force
<b>2017</b> Safeguard conclusion:	all nuclear material remained in peaceful activities	all nuclear material remained in peaceful activities
Evaluation ongoing:	No	No
Integrated safeguards:	Were implemented for the whole year	Were implemented for the whole year
Additional Protocol:	Into force	Into force
<b>2018</b> Safeguard conclusion:	all nuclear material remained in peaceful activities	all nuclear material remained in peaceful activities
Evaluation ongoing:	No	No
Integrated safeguards:	Were implemented for the whole year	Were implemented for the whole year
Additional Protocol:	Into force	Into force

*Source:* International Atomic Energy Agency (2015, 2016b, 2017c, 2018)



## Appendix C

Data of Albania and North-Macedonia from the 2000-2015 NPT Review Conferences

Table C1

*Overview of participation of Albania and North-Macedonia in the year 2000 NPT Review Conference*

<b>2000 NPT Conference</b>	<b>Albania</b>	<b>North-Macedonia</b>
Participated in the Conference?	Yes	Yes
Participated in one or more sessions of the Preparatory Committee?	Yes	Yes
How many representatives at the Conference?	2	6
Statements made during the plenary debate?	No	Yes
Documents handed in?	Yes, a joint statement with Poland and other Eastern European countries	Yes, a joint statement with Poland and other Eastern European countries

*Source:* United Nations (2000a, 2000b, 2000c)

Table C2

*Overview of participation of Albania and North-Macedonia in the year 2005 NPT Review Conference*

<b>2005 NPT Conference</b>	<b>Albania</b>	<b>North-Macedonia</b>
Participated in the Conference?	Yes	Yes
Participated in one or more sessions of the Preparatory Committee?	Yes	Yes
How many representatives at the Conference?	3	2
Statements made during the plenary debate?	No	No
Documents handed in?	Yes, 1 working paper handed in by Luxembourg on behalf of the EU and Albania	Yes, 3 working papers handed in by Luxembourg on behalf of the EU and North-Macedonia

*Source:* United Nations (2005a, 2005b, 2005c)

Table C3

*Overview of participation of Albania and North-Macedonia in the year 2010 NPT Review Conference*

<b>2010 NPT Conference</b>	<b>Albania</b>	<b>North-Macedonia</b>
Participated in the Conference?	Yes	Yes
Participated in one or more sessions of the Preparatory Committee?	Yes	Yes
How many representatives at the Conference?	1	4
Statements made during the plenary debate?	Yes	No
Documents handed in?	No	No

Source: United Nations (2010a, 2010b, 2010c)

Table C4

*Overview of participation of Albania and North-Macedonia in the year 2015 NPT Review Conference*

<b>2015 NPT Conference</b>	<b>Albania</b>	<b>North-Macedonia</b>
Participated in the Conference?	Yes	Yes
Participated in one or more sessions of the Preparatory Committee?	Yes	Yes
How many representatives at the Conference?	2	2
Committee Positions?	No	No
Statements made during the plenary debate?	No	No
Documents handed in?	No	No

Source: United Nations (2015a, 2015b, 2015c)

## Appendix D

Data of Albania and North-Macedonia from the CTBT's XIV Conference documents from 2001-2019

Table D1

*Participation of Albania and North-Macedonia in XIV Conferences from 2001-2007*

<b>Year</b>	<b>Participation aspects</b>	<b>Albania</b>	<b>North-Macedonia</b>
<b>2001</b>	Participated in Conference:	No	Yes
	Made a statement:	No	No
	Undertook activities:	-	-
<b>2003</b>	Participated in Conference:	Yes	Yes
	Made a statement:	No	No
	Undertook activities:	-	-
<b>2005</b>	Participated in Conference:	Yes	Yes
	Made a statement:	Yes	No
	Undertook activities:	No	No
<b>2007</b>	Participated in Conference:	Yes	Yes
	Made a statement:	No	No
	Undertook activities:	No	No

*Source:* Comprehensive Nuclear-Test-Ban Treaty Organization (2001, 2003, 2005a, 2005b, 2007a, 2007b)

Table D2

*Participation of Albania and North-Macedonia in XIV Conferences from 2009-2019*

<b>Year</b>	<b>Participation aspects</b>	<b>Albania</b>	<b>North-Macedonia</b>
<b>2009</b>	Participated in Conference	No	Yes
	Made a statement	No	Yes
	Undertook activities:	No	No
<b>2011</b>	Participated in Conference	No	Yes
	Made a statement:	No	Yes
	Undertook activities:	No	No
<b>2013</b>	Participated in Conference	No	No
	Made a statement	No	No
	Undertook activities	Yes, 6 activities	No
<b>2015</b>	Participated in Conference	Yes	No
	Made a statement	No	No
	Undertook activities	Yes, 4 activities	No
<b>2017</b>	Participated in Conference	No	Yes
	Made a statement	No	Yes
	Undertook activities	No	No
<b>2019</b>	Participated in Conference:	No	Yes
	Made a statement:	No	Yes
	Undertook activities	No	No

*Source:* Comprehensive Nuclear-Test-Ban Treaty Organization (2009a, 2009b, , 2011a, 2011b, 2013a, 2013b, 2015a, 2015b, 2017a, 2017b, 2019a, 2019b)

## Appendix E

Data of Albania and North-Macedonia from the joint ministerial statements of the CTBT Ministerial meetings from 2002-2016

Table E1

*Participation of Albania and North-Macedonia in CTBT Ministerial Conferences from 2002-2008*

<b>Year</b>	<b>Albania</b>	<b>North-Macedonia</b>
<b>2002 joint ministerial statement</b>	Not signed	Not signed
<b>2004 joint ministerial statement</b>	Signed	Not signed
<b>2006 joint ministerial statement</b>	Signed	Signed
<b>2008 joint ministerial statement</b>	Signed	Signed

*Source:* United Nations General Assembly (2002, 2004, 2006, 2008)

Table E2

*Participation of Albania and North-Macedonia in CTBT Ministerial Conferences from 2010-2016*

<b>Year</b>	<b>Albania</b>	<b>North-Macedonia</b>
<b>2010 joint ministerial statement</b>	Not signed	Signed
<b>2012 joint ministerial statement</b>	Signed	Not signed
<b>2014 joint ministerial statement</b>	Signed	Signed
<b>2016 joint ministerial statement</b>	Signed	Signed

*Source:* United Nations General Assembly (2011, 2012, 2014, 2017)

## Appendix F

Data of Indonesia and Paraguay from the 2010-2018 IAEA safeguards statements

Table F1

*The performance of Indonesia and Paraguay in IAEA's safeguards statements from 2010-2014*

<b>IAEA safeguard statement</b>	<b>Indonesia</b>	<b>Paraguay</b>
<b>2010</b> Safeguard conclusion:	all nuclear material remained in peaceful activities	declared nuclear material remained in peaceful activities
Evaluation ongoing:	No	Yes
Integrated safeguards:	Were implemented for the whole year	No
Additional Protocol:	Into force	Into force
<b>2012</b> Safeguard conclusion:	all nuclear material remained in peaceful activities	declared nuclear material remained in peaceful activities
Evaluation ongoing:	No	Yes
Integrated safeguards:	Were implemented for the whole year	No
Additional Protocol:	Into force	Into force
<b>2013</b> Safeguard conclusion:	all nuclear material remained in peaceful activities	declared nuclear material remained in peaceful activities
Evaluation ongoing:	No	Yes
Integrated safeguards:	Were implemented for the whole year	No
Additional Protocol:	Into force	Into force
<b>2014</b> Safeguard conclusion:	all nuclear material remained in peaceful activities	declared nuclear material remained in peaceful activities
Evaluation ongoing:	No	Yes
Integrated safeguards:	Were implemented for the whole year	No
Additional Protocol:	Into force	Into force

*Source:* International Atomic Energy Agency (2010, 2011, 2012, 2013, 2014)

Table F2

*The performance of Indonesia and Paraguay in IAEA's safeguards statements from 2015-2018*

<b>IAEA safeguard statement</b>	<b>Indonesia</b>	<b>Paraguay</b>
<b>2015</b> Safeguard conclusion:	all nuclear material remained in peaceful activities	declared nuclear material remained in peaceful activities
Evaluation ongoing:	No	Yes
Integrated safeguards:	Were implemented for the whole year	No
Additional Protocol:	Into force	Into force
<b>2016</b> Safeguard conclusion:	all nuclear material remained in peaceful activities	declared nuclear material remained in peaceful activities
Evaluation ongoing:	No	Yes
Integrated safeguards:	Were implemented for the whole year	No
Additional Protocol:	Into force	Into force
<b>2017</b> Safeguard conclusion:	all nuclear material remained in peaceful activities	declared nuclear material remained in peaceful activities
Evaluation ongoing:	No	Yes
Integrated safeguards:	Were implemented for the whole year	No
Additional Protocol:	Into force	Into force
<b>2018</b> Safeguard conclusion:	all nuclear material remained in peaceful activities	declared nuclear material remained in peaceful activities
Evaluation ongoing:	No	Yes
Integrated safeguards:	Were implemented for the whole year	No
Additional Protocol:	Into force	Into force

*Source:* International Atomic Energy Agency (2015, 2016b, 2017b, 2018)

## Appendix G

Data of Indonesia and Paraguay from the 2005-2020 NPT Review Conferences

Table G1

*Overview of participation of Indonesia and Paraguay in the year 2005 NPT Review Conference*

<b>2005 NPT Conference</b>	<b>Indonesia</b>	<b>Paraguay</b>
<b>Participated in the Conference?</b>	Yes	Yes
<b>Participated in one or more sessions of the Preparatory Committee?</b>	Yes	No
<b>How many representatives at the Conference?</b>	10	4
<b>Statements made during the plenary debate?</b>	Yes	No
<b>Documents handed in?</b>	Yes, 1 report	No

*Source:* United Nations (2005a, 2005b, 2005c)

Table G2

*Overview of participation of Indonesia and Paraguay in the year 2010 NPT Review Conference*

<b>2010 NPT Conference</b>	<b>Indonesia</b>	<b>Paraguay</b>
<b>Participated in the Conference?</b>	Yes	Yes
<b>Participated in one or more sessions of the Preparatory Committee?</b>	Yes	Yes
<b>How many representatives at the Conference?</b>	7	6
<b>Statement made during the plenary debate?</b>	Yes	Yes
<b>Documents handed in?</b>	No	No

*Source:* United Nations (2010a, 2010b, 2010c)

Table G3

*Overview of participation of Indonesia and Paraguay in the year 2015 NPT Review Conference*

<b>2015 NPT Conference</b>	<b>Indonesia</b>	<b>Paraguay</b>
<b>Participated in the Conference?</b>	Yes	No
<b>Participated in one or more sessions of the Preparatory Committee?</b>	Yes	Yes
<b>How many representatives at the Conference?</b>	10	0 (1)
<b>Statement made during the plenary debate?</b>	Yes	Yes
<b>Documents handed in?</b>	Yes, 3 reports	No

*Source:* United Nations (2015a, 2015b, 2015c)

Table G4

*Overview of participation of Indonesia and Paraguay in the year 2020 NPT Review Conference*

<b>2020 NPT Conference</b>	<b>Indonesia</b>	<b>Paraguay</b>
<b>Participated in the Conference?</b>	-	-
<b>Participated in one or more sessions of the Preparatory Committee?</b>	Yes	Yes
<b>How many representatives at the Conference?</b>	-	-
<b>Statements made during the plenary debate?</b>	-	-
<b>Documents handed in?</b>	Yes, 3 working papers	Yes, endorsed 3 joint-statements

*Source:* Preparatory Committee for the 2020 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons (2019)



## Appendix H

Data of Indonesia and Paraguay from the CTBT's XIV Conference documents from 2009-2019

Table H1

*Participation of Indonesia and Paraguay in the XIV Conferences from 2009-2019*

<b>Year</b>	<b>Participation aspects</b>	<b>Indonesia</b>	<b>Paraguay</b>
<b>2009</b>	Participated in Conference	Yes	No
	Made a statement	Yes	No
	Undertook activities:	Yes, one activity	No
<b>2011</b>	Participated in Conference	Yes	No
	Made A statement	Yes	No
	Undertook activities:	No	No
<b>2013</b>	Participated in Conference	Yes	Yes
	Made a statement	Yes	No
	Undertook activities	Yes, 1 activity	No
<b>2015</b>	Participated in Conference	Yes	No
	Made a statement	Yes	No
	Undertook activities	Yes, 6 activities	No
<b>2017</b>	Participated in Conference	Yes	No
	Made a statement	Yes	No
	Undertook activities	No	No
<b>2019</b>	Participated in Conference	Yes	No
	Made a statement	Yes	No
	Undertook activities	No	No

*Source:* Comprehensive Nuclear-Test-Ban Treaty Organization (2009a, 2009b, 2011a, 2011b, 2013a, 2013b, 2015a, 2015b, 2017a, 2017b, 2019a, 2019b)

## Appendix I

Data of Indonesia and Paraguay from the joint ministerial statements of the CTBT Ministerial meetings from 2006-2016

Table I1

*Participation of Indonesia and Paraguay in CTBT ministerial Conferences 2006-2016*

<b>Year</b>	<b>Indonesia</b>	<b>Paraguay</b>
<b>2006 joint ministerial statement</b>	-	Signed
<b>2008 joint ministerial statement</b>	-	Signed
<b>2010 joint ministerial statement</b>	-	Not signed
<b>2012 joint ministerial statement</b>	Signed	Signed
<b>2014 joint ministerial statement</b>	Signed	Signed
<b>2016 joint ministerial statement</b>	Not signed	Signed

*Source:* United Nations General Assembly (2006, 2008, 2011, 2012, 2014, 2017)