Women’s participation in UN peacekeeping

*How does the duration of missions affect the participation of women in UN peace operations?*
Abstract

In this thesis, I explore how the duration of missions affects the participation of women in United Nations (UN) peace operations. I argue that women are less likely to be deployed in the early stages of missions because new missions are associated with high levels of uncertainty which is ultimately a type of risk. Instead, women’s participation will increase as the uncertainty decreases and the operating environment becomes more predictable. I also test if more gender equal force contributing countries are less prone to deploy women to new missions due to a stronger gendered protection norm constraining deployment of women to risky environments. Applying a large-N approach, this thesis studies the proportion of women in military contributions to UN peace operations between 2009 and 2015. Using a set of multilevel mixed-effects generalized linear models, the main argument initially find empirical support. But, when the main findings are challenged through robustness tests, the results become somewhat ambiguous and it is not sound to exclude the possibility that unobserved factors drive the empirical results. This thesis does not find more gender equal countries to be less prone to deploy women to the early stages of missions. Rather, countries which see higher levels of gender equality seem more prone to deploy larger proportions of women, regardless of when the deployment takes place.

Keywords: women’s participation, UNSCR 1325, peacekeeping, peace operations, United Nations
Acknowledgements

Writing this thesis has of course been challenging and difficult at times. But it has also been fun and I am happy to have learnt so much over the past four months. I am very grateful for all the time and effort my supervisor Associate Professor Lisa Hultman has put in to help guide me through this process. I feel like we have had very fruitful discussions and she has always been able to help me move forward. I also owe a big thank you to Timo Smit at Stockholm International Research Institute (SIPRI). Timo was my supervisor when I was a research intern at SIPRI during the autumn of 2016. But his supportive role did not end when I finished my internship. Instead, he came with great input and advice during the early stages of the thesis process. I am very excited about a 2017 forthcoming SIPRI publication in which Timo and I map and discuss women’s participation in peace operations.

I am lucky to have been part of the most supportive supervision group and a very productive workshop group. Special shout out goes to Gudlaug Ólafsdóttir, Kristina Petrova, Marcellina Priadi, Linn Häggqvist and Aron Vrieler. Thanks for the feedback and thanks for being the best shut-up and write partners. Also, I would like to thank my good friend Joakim Hessling for his input during the final weeks of writing. It is always good to get a second opinion on your text and Joakim’s feedback has been very valuable.

Finally, a very special thank you to Frederick Hoyles. Frederick has not only shared his great Stata wisdom and provided excellent feedback on all types of issues ranging from “why doesn’t this code work, it is exactly the same command as I used last time?” to “does it make sense to include this section here?”. He has also, as always, been the most supportive partner.
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1. Introduction

1.1 Introduction

Since the establishment of the United Nations Security Council (UNSC) resolution 1325 in 2000, the United Nations (UN) has strived for increasing the participation of women in UN peace operations\(^1\) (see for example UNSC resolution 1325 (2000); UNSC resolution 1820 (2008); UNSC resolution 2242 (2015); Mungacil 2010). The importance of increasing the participation of women, to ultimately improve the quality and efficiency of UN peacekeeping,\(^2\) has been stressed by both policy makers and researchers (see for example Berg and Bjarnegård 2016; Egnell et al 2014; Karim and Beardsley 2016 and 2017; Kenny 2016; UNPKa 2017; Valenius 2007). Still, the process of including more uniformed female personnel is rather slow. In December 2015, 3.3% of all military personnel deployed to UN peace operations were women (Smit and Tidblad-Lundholm 2017 forthcoming). In order to increase the participation of women we must learn more about which factors motivate and hinder women’s participation in UN peacekeeping.

Previous studies on women’s participation in peace operations have elaborated on where and to what types of missions women are deployed (Beardsley 2017 forthcoming; Berg and Bjarnegård 2016; Crawford et al 2015; Karim and Beardsley 2013, 2015, 2017; Kreft 2016; Olsson and Möller 2013). It has for instance been studied how the mandate of a mission (Karim and Beardsley 2013; Kreft 2017), the level of risk associated with a mission (Berg and Bjarnegård 2016; Karim and Beardsley 2017; Crawford et al 2015) and the characteristics of the force contributing countries (Karim and Beardsley 2017; Crawford et al 2015) affect the decision to deploy women to UN peace operations.

When looking at descriptive trends of women’s participation in individual missions, there seem to be a tendency that relatively few women are deployed in the early stage of missions (Smit and Tidblad-Lundholm 2017 forthcoming). This empirical observation drew my attention to a previously unstudied aspect of female participation: when in time women are deployed to UN peace operations.

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\(^1\) This thesis applies Stockholm International Peace Research Institute’s (SIPRI) general definition a peace operation which states that an operation should have been authorized by the UN Security Council and seek to: (a) serve as an instrument to facilitate the implementation of already existing peace agreements or (b) support a peace process or (c) assist in conflict prevention and/or peacebuilding efforts (SIPRI Multilateral Peace Operations Database 2017a).

\(^2\) This thesis uses the terms “peacekeeping mission” “peace operation” “peacekeeping” and “mission” interchangeably.
The impact of mission duration on women’s participation has not yet been explored in a systematic manner, hence there is a gap in the research. I intend to bridge this gap, and contribute to the research field, by elaborating on the following research question: how does the duration of missions affect the participation of women in UN peace operations?

This thesis has two purposes. The main purpose is to explore if force contributing countries (FCCs) systematically deploy different proportions of female military personnel to certain phases of missions. I argue that women are less likely to be deployed in the early stages of missions because new missions are associated with high levels of uncertainty which is ultimately a type of risk. The gendered protection norm and perceptions of the sexes’ differing capabilities leads force contributing countries to deploy fewer women in the earlier, and thus riskier, phases of missions. Instead, women’s participation in UN peacekeeping will increase with the duration of missions as the uncertainty decreases and the operating environment becomes more predictable with time.

The second purpose of this thesis is to explore how the level of gender equality in a force contributing country affects the decision to deploy female military personnel in the early stages of missions. The literature offers contradicting predictions of how a force contributing country’s level of gender equality affects the decision to deploy women to environments associated with higher risk. One line of argumentation predicts that the impact of the gendered protection norm, withholding women from participating in missions associated with higher risk, should be stronger in more gender equal force contributing countries and therefore make these states less prone to deploy women to missions associated with higher risk. Another line of argumentation states that more gender equal states will have stronger gender equalitarian values and therefore be more prone to deploy women to risky settings. I will contribute to this debate by testing the claim suggesting that more gender equal force contributing countries have stronger protection norms and will therefore be less prone to deploy women to new missions.

Learning more about when in time women are deployed to UN peace operations will add to the cumulative knowledge about what factors affect women’s participation. It will also add nuance to the concept of risk discouraging deployment of women. Learning more about what motivates and what hinders women’s participation is not only interesting for the research community but also for policy makers and military leaders seeking to increase women’s presence in the field.

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3 In this thesis, force contribution country (FCC) refers to a UN member state that deploy military personnel to a UN peace operation. The UN does not have its own military forces, instead the organization must rely on contributions from member states. This thesis uses both ‘force contributing country’ and ‘FCC’.
By learning more about what factors affect force contributing countries’ decisions to deploy women to UN missions, these actors can get a better understanding of what needs to be done to successfully increase women’s participation.

This thesis uses a set of multilevel mixed-effects generalized linear models to study the variation in the proportion of female military personnel deployed by a force contributing country to a UN peace operation that were active between 2009 and 2015. The dataset used in this study has been created by combining open sources as well as replication datasets of previous studies.4

Initially, the main argument finds empirical support as the models indicate that force contributing countries are less prone to deploy women to the early stages of missions. Instead, women’s participation is seen to increase with the duration of missions. These findings are in line with the main argumentation and could be the result of the gendered protection norm, which favours deploying male peacekeepers to missions associated with higher uncertainty and withholds women from participating in these risky operating environments. However, when the main findings are challenged through robustness tests, the results become somewhat ambiguous and it is therefore not sound to exclude the possibility that unobserved factors drive the empirical results. Further, this study does not find more gender equal countries to be less prone to deploy women to the early stages of missions. Rather, the egalitarian values in more gender equal countries seem to play a role as force contributing countries which see higher participation of women in its labor force seem more prone to deploy larger shares of women to UN peacekeeping, regardless of when the deployment takes place.

1.1.2 Disposition

This thesis will continue as follows: First, previous research on women’s participation in peacekeeping is presented to put this thesis in a context and motivate the research gap. Second, the theoretical framework surrounding mission duration, risk, and it’s puzzling interaction with gender equality in the sender country, is explored. Third, the research design including the data, the operationalized variables and the statistical methodology will be presented and discussed. Fourth, the empirical results are presented and discussed, and the strength of the main findings are evaluated through robustness tests and extended analysis. The empirical section ends with

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4 I would like to thank Assistant Professor Sabrina Karim and Associate Professor Kyle Beardsley for kindly sharing data from their study ‘Ladies Last: Peacekeeping and Gendered Protection’ (2015).
a general discussion where alternative explanations are explored. Finally, the results of the empirical analysis and the following discussion lead to a conclusion.
2. Previous research and the research gap

This section will present the most central parts of the previous research which this thesis builds upon. This section will also help identify and stress the research gap which motivates this study.

2.1 Previous research: what affects women’s participation in UN peacekeeping missions

The literature focusing specifically on women’s participation in peace operations is relatively young (Beardsley 2017 forthcoming; Olsson and Gizelis 2014). In their pioneer study Karim and Beardsley (2013) find that women are less likely to be deployed to missions associated with higher risk. Their findings indicate that the percentage share of female peacekeepers is expected to be lower in missions with relatively high numbers of battle related deaths and relatively high numbers of fatalities amongst peacekeepers (Karim and Beardsley 2013). They also find that the GDP per capita in the country where the mission takes place has a positive effect on women’s participation in UN peacekeeping (Karim and Beardsley 2013). These findings indicate that the concept of risk withholding women from participating in peacekeeping is broader than just battle related fatalities. Berg and Bjarnegård (2016) extend the analysis by broadening the concept of risk to also include the level of sexual violence in the conflict context. Their empirical study indicates that missions operating in environments with high levels of reported sexual violence are expected to see fewer female UN troops (Berg and Bjarnegård 2016).

Previous research has also explored if women are strategically deployed to missions where they, according to the functionalist argumentation, are “most needed”5. Berg and Bjarnegård (2016), explore if women are strategically deployed to missions where allegations of sexual misconduct by peacekeepers have been made. On a similar note, Karim and Beardsley (2013) explore if female peacekeepers are more prevalent in missions where there is a greater gender-based need in the host country. These arguments have not yet yield robust empirical support (Berg and Bjarnegård 2016, 9-10; Karim and Beardsley 2013, 483-484)6.

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5 The functionalist argumentation stresses including women in peacekeeping because women fill different functions than men and their inclusion makes missions more efficient. For instance, it has been argued that the presence of women can have positive effects on reporting of sexual misconduct by peacekeepers (Karim and Beardsley 2013, 465-466).

6 One interesting remark is that the studies by Karim and Beardsley (2013) and Berg and Bjarnegård (2016) were based on Karim and Beardsley’s data from the study ‘Female Peacekeepers and Gender Balancing: Token Gestures or Informed Policymaking?’ (2013). Although Berg and Bjarnegård (2016) included other independent variables, the construction of the data and the time period could potentially have had an impact on the homogeneity of the results in these two studies.
Additionally, the impact of the language used in mission mandates has been studied. Kreft (2017), finds mandates which encourage gender mainstreaming\(^7\) to increase the overall gender mainstreaming of a peace operation. Further, there is modest empirical support for women’s participation being higher in missions where the mandate specifies the security of women as a priority (Karim and Beardsley 2013).

The research field has been constrained by the availability of qualitative and quantitative data (Beardsley 2017 forthcoming; Olsson and Gizelis 2014). But, when the UN began publishing disaggregated gender-balance data, including information on which force contributing country sent peacekeepers to which mission, researchers could extend the literature and explore how different characteristics of the sender state affected the decision to deploy women. Crawford et al (2015) has found more progressive force contributing countries to be more prone to deploy women to UN peacekeeping. This implies that contributors with higher levels of women’s rights, as well as more democratic senders, are more inclined to deploy women to UN peacekeeping. Crawford et al (2015) further found that states which are involved in gender politics on the international arena are more prone to deploy women to peacekeeping\(^8\). These findings are in line with St-Pierre’s (2011) argumentation stating that implementing UNSC resolution 1325 takes a lot willingness of leaders, UN member states and actors within the UN (St-Pierre 2011, 12). Having relatively high levels of women’s rights, and being engaged in gender politics on the international arena, could potentially be an expression for this willingness.

Like Crawford et al (2015), Karim and Beardsley (2015) explore hypotheses connecting higher levels of gender equality in the force contributing country with the participation of women in peacekeeping forces. When operationalizing gender equality as the percentage share of women

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\(^7\) The term “gender mainstreaming” is recurring in the literature. It can be defined as “a strategy to achieve gender equality by assessing the implications for women and men of any planned action, including legislation, policies and programmes in all areas and at all levels, in order to ensure that concerns and experiences of women and men are taken into account in the design, implementation, monitoring, and evaluation of policies and programmes in all political, economic, and social spheres.” (Egnell et al 2014, 4).

\(^8\) Although Crawford et al’s (2015) research adds to the cumulative knowledge about what motivates and what hinders women’s participation in UN peacekeeping, the accuracy and the robustness of the empirical findings can be questioned. Whilst the study includes various characteristics of the force contributing state (independent variables), it only includes female deployment in two years namely 2010 and 2011. Further, unlike most other studies, Crawford et al (2015) regard women’s participation in UN peacekeeping as a binary variable (rather than measuring the proportion or ratio of women sent to a mission). Not surprisingly, one of the strongest explanatory factors in Crawford et al’s (2015) study is that states which send many peacekeepers, in absolute terms, are more likely to send at least one women. The research design and the operationalization of the dependent variable could possibly bias the results and one should therefore be restrictive when drawing conclusions based on this study.
in domestic labor forces, Karim and Beardsley (2015) find that more gender equal contributors are more prone to deploy a larger share of women to UN peacekeeping. These findings are in line with Carreiras (2015) who argues that increased gender equality, through increased participation of women in the political and social arenas, has a positive effect on recruitment of women to military forces (Carreiras 2015, 171).

Karim and Beardsley (2015) also introduce the possibility that more gender equal contributors are less prone to send female personnel to missions associated with higher risk. The authors test this claim by interacting the percentage share of women in the labor force (in the contributing country) with a proxy for the level of risk associated with a mission. They find tendencies of more gender equal force contributing countries being less prone to deploy female police personnel to missions associated with higher risk (Karim and Beardsley 2015, 85). There is, however, no empirical support for this tendency in the case of military personnel.

Another crucial discussion in previous works is how the participation of women in domestic military forces affects the participation of women in contributions to peace operations. One reoccurring argument is that states with higher participation of women in its domestic armed forces should be more likely to send women to peace operations (Karim and Beardsley 2015 and 2017; Crawford et al 2015; Schjølset 2010). Having more women in the domestic armed forces indicate that the contributing states allow women to be part of the military institutions. Having more women in the domestic armed forces also indicates that there is a larger supply of women who could potentially be deployed (Karim and Beardsley 2017). The data availability on numbers of women within a state’s military is very limited and is therefore often approximated. Crawford et al (2015) exclude women in domestic forces from their analysis due to insufficient and systematically missing data (Crawford et al 2015, 265). Karim and Beardsley (2015 and 2017) include an indicator of women’s participation contributor’s domestic forces in their analyses and find a positive relationship between the participation of women in domestic military forces and the participation of women deployed to UN peacekeeping. However, they urge caution in generalizing the results due to data shortcomings (Karim and Beardsley 2017, 71-71). What can be concluded is that even if the share of women in domestic military forces affects the proportion of women sent by a force contributing country to peace operations, previous research indicates that this is not the only factor that explains women’s participation. Rather, there are numerous other factors that also affect women’s participation in UN peacekeeping.
2.2 The gap: introducing duration of mission as a determinant of women’s participation in UN peacekeeping

It is evident that efforts have been made to increase the understanding of what affects women’s participation in peace operations, but until now the *time aspect* has been neglected. It has not been studied if force contributing countries deploy larger (or smaller) proportions of women during any particular phase of a mission. Descriptive data on the gender-balance among military peacekeepers indicate that the participation of women is generally low in the early stages of missions and increases over time. Figure 1 illustrates this empirical tendency by presenting the percentage share of female military staff in UN missions: MINUSCA (Central African Republic), MINUSMA (Mali), MINUSTAH (Haiti), MONUC/MONUSCO (The DR Congo, MONUC was renamed MONUSCO mid-2010) and UNAMID (Darfur). As seen in figure 1, the percentage shares of women in these missions has increased over time. This could be the natural result of the UN’s attempt to include more women in peace operations. But it could also be the result of force contributing countries being less prone to deploy women during the early stages of missions. This tendency is puzzling and motivates further analysis of how the duration of missions affect the participation of women in UN peacekeeping missions.

*Figure 1: Percentage share of women in UN peace operations 2006-2015*

Source: Figure 1 was made using data from SIPRI Multilateral Peace Operations Database (2017b)
3. Theory

This section will theoretically define the dependent variable and discuss underlying assumptions of the thesis’ main argumentation. It will also present theories used in previous works to explain why force contributing countries are less prone to deploy women to missions associated with higher risk. Then, it will extend established theories by explaining why I expect duration of mission to have a positive effect on women’s participation in UN peacekeeping. Further, it will present the contradicting theoretical arguments regarding the impact of gender equality in force contributing countries and their decisions to deploy women to missions associated with higher risk. This section will also present the testable implications of the theoretical arguments which will be tested in the empirical section.

3.1 Theoretical definitions and assumptions

This thesis’ use of the concept women’s participation requires some reflection and explanation. UNSC resolution 1325 (2000) presents a holistic approach to the participation of women in UN peace operations. The resolution recognizes the need to mainstream a gender perspective into peacekeeping operations as well as expand the role and contribution of women in field missions (UNSC resolution 1325 2000, 2). The resolution stresses the importance of women being active agents in peace and security organizations, including peace operations (Egnell et al 2014, 20). For the sake of this thesis, however, the concept of women’s participation has been limited to focus on the physical presence of female military personnel in UN peace operations. Unfortunately, it is out of the scope of this thesis to include the roles of the deployed women and how they contribute once deployed. Although this definition simplifies the concept of participation it is in line with previous studies and offers a researchable approach in the absence of data on women’s roles and actual contributions in UN peacekeeping.

Also in line with previous studies, this study assumes that force contributing countries make active decisions regarding what personnel it should deploy to UN missions. Bluntly, this implies that the process of recruiting and deploying military personnel to missions is not random. Rather it is a process where mainly political and military leaders, but also individual recruits, can affect the process and ultimately affect what personnel is deployed where and when. Political leaders have an impact as they can affect the recruitment and deployment process by providing political guidelines and praxis to who can/should serve within the domestic forces and who can/should be deployed to field-missions. Leaders within domestic military forces have an impact as they recruit, train and deploy military personnel. Thereby they gain leverage in the process. An illustrative example of an active recruitment and deployment process comes from an interview
conducted by Karim and Beardsley (2017) with Group Captain in the Bangladesh Air Force, Sade Uddin Ahmed Sohel, who was responsible for deployments in the Bangladeshi armed forces. The Group Captain stated that:

“…officially risk factors are not taken into consideration while selecting female officer in mission areas, but till today female officers are deployed with contingent only where other officers and soldiers resides in a secured camp area… Definitely, safety, security and cultural factors are taken into consideration while selecting female officers for mission areas. I have seen in two mission areas like East Timor and D R Congo, other countries are also taking risk factors in consideration. They also deploy female officer or female soldiers with contingent only.” (Karim and Beardsley 2017, 76).

It should be stressed that the recruitment and deployment processes vary between force contributing countries. Given findings of previous studies, there is however little reason to believe that any UN member state randomly selects who to deploy. If they did, the share of female peacekeepers would not follow any trends. Rather states have different processes and structures where political leaders, military leaders and the individual personnel can affect the recruitment and deployment process.

3.2.1 Unpacking the black box: why does risk have negative effect on women’s participation in UN peacekeeping?

The theoretical explanations for the negative correlation between risk and women’s participation in UN missions are often derived from ideas regarding the comparative advantages between the sexes, perceptions of differences in the sexes’ capabilities, perceptions of what capabilities a peacekeeper should possess and ultimately prevailing norms regarding manhood and womanhood.

Although many states have started to revise their military institutions to include a broader gender perspective, military institutions are often thought of as masculine spaces (Whitworth 2004). Spaces where stereotypically masculine characteristics such as: physical strength, bravery, rationality, ability to carry out orders, aggression and leadership are strongly appreciated and valued (see for example Berg and Bjarnegård 2016; Duncanson 2009; Higate 2003; Karim and Beardsley 2015 and 2017; King 2016; Whitworth 2004). In cases where the level of risk is high these characteristics are valued even more which promotes participation of those who possesses these characteristics, stereotypically men (Karim and Beardsley 2013).
A central aspect of the military masculinity ideal is that it is masculine to engage in combat and take lethal risks (Berg and Bjarnegård 2016, 3). Therefore, combat itself is a very gendered activity favouring carriers of the masculine identity (Berg and Bjarnegård 2016, 3). Berg and Bjarnegård (2016) argue that the main explanation behind the negative correlation between risk and the participation of women is the result of existing norms and perceptions in the recruitment process: “When recruiting for an assignment with a high risk of combat, the preferred candidate is as close as possible to an idealized military masculinity. In such a recruitment process, being male becomes an invisible but preferred characteristic because it is a first shortcut to a favourable assessment.” (Berg and Bjarnegård 2016, 5).

The perception of men being most fit for deployment and combat is closely interlinked with the gendered protection norm - the norm confirming men as protectors and women (and children) as those who need protection (Karim and Beardsley 2015 and 2017). This norm reinforces the perception of men as the natural warrior and protector, while it confirms women as those who should be protected (Karim and Beardsley 2017, 76-78). Karim and Beardsley (2017) argue that the gendered protection norm constrains the participation of women in the riskiest UN missions via two mechanisms.

First, the norm can make political and military leaders in the contributing countries withhold female personnel from entering missions associated with higher risk because leaders themselves perceive women as those who should be protected rather than act as protectors (Karim and Beardsley 2017, 76-78). Whilst characteristics commonly related to masculinity include aspects of being strong and rational, femininity is thought to include characteristics such as: “vulnerability, emotion, passivity, privacy, submission, and care” (Karim and Beardsley 2017, 28). If women are perceived as not having comparative advantages in protection, that will negatively affect force contributing countries’ decisions to deploy women to missions associated with higher risk (Karim and Beardsley 2017, 37).

Second, because women are brought up in societies where masculine militaries and gendered protection norms exist, the female military personnel’s own perceptions of their abilities can make them consider themselves as unfit for the riskiest missions (Karim and Beardsley 2017, 76-78; Harris and Miller 2000). Relating to this logic, women have been found to be less risk-seeking than men (see for example Byrnes, Miller, and Schafer 1999; McDermott and Cowden 2001). Regardless of if this characteristic is genetic or socialized, it can explain why women themselves refrain from participating in missions associated with higher risk (Karim and Beardsley 2017, 76-78).
Extending the impact of existing norms about the perceived capabilities of the sexes, Karim and Beardsley (2013) argue that leaders within force contributing countries can refrain from sending women to missions associated with higher risk because they want to avoid the expected public cost of losing a woman in the field (Karim and Beardsley 2013, 483). Generally, force contributing countries have an interest in keeping all their peacekeepers safe (Bove and Elia 2011; Karim and Beardsley 2013). Karim and Beardsley (2013) suggest that this preference may be even stronger in the cases where the peacekeepers are women (Karim and Beardsley 2013, 469). If the norms and values of citizens in force contributing countries question if women should be deployed as peacekeepers, the loss of female peacekeepers can result in debates and questionings of responsible actors which can result in costly backlashes for the leaders (Karim and Beardsley 2013, 469). The risk of potentially politically costly public debates, in the case of a fallen female peacekeeper, is further increased as female soldiers tend to obtain disproportionate attention in media when they are injured or killed (Sjolander and Trevenen 2010). In line with the gendered protection norm, the relatively higher costs military and political leaders incur in the case of an injured or killed female peacekeeper would make them reluctant towards sending female peacekeepers to risky missions (Karim and Beardsley 2013, 469).

### 3.2.2 Extending the theory: why would duration of missions affect women’s participation on UN peacekeeping?

Building on previously presented theory, I claim that the participation of women will be relatively low in the early stages of UN peacekeeping and increase with the duration of the mission. This study broadens the concept of risk to also include the uncertainty associated with deploying personnel to a new mission. Not knowing how the mission and its staff is going to be greeted by local actors, having to establish contacts on the ground, establishing and safeguarding base camps and exploring on-site are all elements that include uncertainty. I argue that this uncertainty reflects a type of risk that is not necessarily captured by, for instance, conflict intensity but is unique in the new missions setting.

Due to the uncertainty and risk associated with the early stages of missions, force contributing countries prefer to deploy military personnel who are brave, physically strong, rational and able to carry out orders. According to the gendered protection norm and existing perceptions of the ideal soldier, these peacekeepers are likely to be male. Also, leaders want to avoid the expected high political costs of losing a female peacekeeper in the early, risky, stages of a mission. The gendered protection norm will therefore make leaders hesitant towards deploying female staff
in the early stages of missions, and the female personnel will, to a higher degree than their male colleagues, perceive themselves as unfit for the task. As men are perceived to have comparative advantages in risky environments, male peacekeepers will be favourable over female peacekeepers in the early stages of missions. Hence, women’s participation in the early stages of UN peacekeeping will be relatively low.

With the duration of missions, the level of uncertainty regarding the risk associated with a mission decreases because UN personnel on the ground become more familiar with the local actors and the current mission environment. This tendency can be found when studying the UN Security General’s Mission Reports. In the early stages of UNAMID (Darfur) the UN Security General’s report on the situation on the ground reflects uncertainty and lack of sustainability, and the main task for peacekeepers was to make sure camps and the personnel were safe (UNSC S/2008/98). In later reports, the brief of the situation on the ground reflects what the UN personnel knows about the recent developments of conflict dynamics and intensity, and the main tasks of peacekeepers included carrying out patrols and assisting with humanitarian tasks (UNSC S/2013/607).

As the uncertainty about the risks of being deployed to a certain mission decreases, the need for stereotypically male characteristics decreases. This implies that the perceived comparative advantage of being male decreases. When the perceived advantage of deploying male personnel decreases, the incentive to deploy female peacekeepers increases. Further, the UN acknowledge that there is a connection between peacekeeping personnel carrying out more humanitarian tasks and perceived need for female peacekeepers. For instance, the UN argues that women have become “increasingly part of the peacekeeping family” as peacekeeping has “evolved to encompass a broader humanitarian approach” (UNPKa 2017). As the majority of currently ongoing UN missions have wider mandates including humanitarian aspects, the demand for characteristics which are perceived to be feminine, such as care, increases once the mission and its basic security has been established. For some tasks, like establishing connections with local women and search women and children at checkpoints, female peacekeepers are even perceived as having comparative advantages over male peacekeepers. As the demand for other types of personnel than the typical protector increases with duration, the perceived comparative advantage of being a male decrease. Therefore, I expect the participation of women to increase with the duration of missions. Figure 2 summarizes the causal mechanism explaining why I expect duration of missions have a positive effect on women’s participation in UN peacekeeping missions.
From the theoretical reasoning presented above I draw the following testable implication:

\[ H_1 = \text{The participation of women is likely to be lower in the early stages of UN peacekeeping and increase with the duration of the mission.} \]
3.2.3 Different responses to risk: why would more gender equal states be less willing to deploy female peacekeepers to new missions?

Previous research has found that a force contributor’s level of gender equality⁹ (women’s participation in the labor force, women’s rights, the state’s engagement in gender politics on the international arena) generally has a positive effect on its decision to deploy female personnel to field-missions. This positive relation is argued to be the result of stronger established egalitarian values in more gender equal contributors (Karim and Beardsley 2015; Carreiras 2015). These egalitarian values allow for women to engage in more roles in society and reduce the gendered roles of men and women (Karim and Beardsley 2015, 72). Political and social inclusion of women further stimulates gender egalitarian values and normalizes women’s participation in previously male dominated spheres, including military forces (Karim and Beardsley 2015 and 2017; Carreiras 2015). This would imply that even if deployment of peacekeepers to missions associated with higher risk is traditionally an arena for men, states with stronger established egalitarian values should be more prone to deploy women to risky missions (than states with less established egalitarian values). This theoretical explanation suggests that the relationship between gender equality and women’s participation is rather linear: as gender equality and egalitarian values institutionalize, we expect women to access more previously male dominated areas including participation in peace operations associated with higher risk.

Whilst Karim and Beardsley (2015) recognize (and find empirical support for) the argument that contributors with higher participation of women in domestic labor forces are more prone to deploy women to UN peace operations, they also propose that states with higher levels of gender equality could be less prone to deploy women to missions associated with higher levels of risk. The authors suggest that the gendered protection norm could potentially be stronger in force contributing countries with higher levels of gender equality and women’s rights (Karim and Beardsley 2015, 72). The reasoning behind this proposed relation is the possibility that the gendered protection norm is a “symptom of overcorrection in the struggle for gender equality” (Karim and Beardsley 2015, 72). Based on argumentation from Carpenter (2005), Karim and

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⁹ This thesis applies a general definition of gender equality which is in line with Egnell et al. (2014) and UN Women: “Gender equality refers to the equal rights, responsibilities and opportunities for women and men, and girls and boys. Equality does not mean that women and men will become the same, but that women’s and men’s rights, responsibilities and opportunities will not depend on whether they are born female or male.” (Egnell et al. 2014; UN Women 2017). This thesis acknowledge that the concept gender equality is not dichotomous and that none of the included force contributing countries is completely gender equal. With ‘more gender equal states’, this thesis refers to states that have made larger progress in their implementation of equal rights, responsibilities and opportunities for men and women, boys and girls.
Beardsley (2015) suggest that non-governmental organizations (NGOs), networks and movements advocating for women’s rights and protection could diffuse the gendered protection norm in their strive to improve women’s rights and protection (Karim and Beardsley 2015, 72). This would imply that the gendered protection norm would be stronger in states that have seen a larger development of gender equality because the awareness of gender related issues and the will to improve women’s situations has the externality of a strengthened gendered protection norm. Therefore, states which have seen increased women’s rights and gender equality should be less prone to send women “into harm’s way” (Karim and Beardsley 2015, 72). Karim and Beardsley (2015) note that if this suggested relation between movements advocating for gender equality and stronger gendered protection norm exists, we would expect more gender equal states, “predominantly developed, Western ones”, to be more sensitive to risk than other force contributing countries (Karim and Beardsley 2015, 72).10 Because women’s rights movements and networks have had the most fertile ground, in terms of funding and political rights to organize, in these Western states (Karim and Beardsley 2015, 72).

Building on the latter logic, I would expect force contributing countries with relatively high levels of gender equality to be less prone to deploy female personnel in the early stages of missions. Because the gendered protection norm, favouring deployment of male peacekeepers to missions associated with higher risk and preventing women from participating in risky environments, should be stronger in these states. Figure 3 summarizes the causal mechanism explaining why more gender equal force contributing countries would be less prone to deploy women to the early stages of UN peacekeeping missions.

10 Karim and Beardsley (2015) find empirical support for the suggested relation between gender equality and risk adverseness for the UN police personnel. They do however not find this relation when studying UN military personnel.
From the theoretical reasoning presented above I draw the following testable implication:

\[ H_2 \text{ : More gender equal force contributing countries are less likely to deploy women in the early stages of missions than less gender equal force contributing countries.} \]
4. Research design

This section will present this study’s research design. First, it will introduce the data and method used to empirically test the stated hypotheses. Then, it will present and discuss the operationalized definitions of the theoretical concepts of interest, and provide an overview of all variables included in the study. Lastly, it will discuss and present the applied regression model.

4.1 Research design and the empirical material

The stated hypotheses will be tested using a large-N approach. A quantitative approach is sound as the phenomena I am interested in requires broad type of data from a large number of force contributing countries, missions and years. This study presents a unique dataset which, in itself, can be seen as a contribution to the research field. Along with mission start dates, a proxy for gender equality, contextual variables and possible confounders: the data includes information on the share of female military personnel deployed by a force contributing country to a UN mission on a yearly basis between 2009 and 2015. The dataset includes 123 force contributing countries, 24 UN missions and 3463 observations (unit of analysis: force contributing country-mission-year). Any UN member state that deployed at least one military personnel during the time period studied is considered to be a force contributing country. Further, all UN peacekeeping missions that have been active (at some time) during the time period and seen presence of military UN personnel are included in the sample frame. As the data includes nearly all active UN force contributing countries as well as all missions that were active during

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11 The decision to use yearly data instead of monthly data requires some motivation and reflection. Generally, force contributing countries deploy their contributions in rotations for set periods of time. Hence, it is not theoretically or empirically motivated to believe that the force contributing countries make the decision to deploy more or less women on a monthly basis. Rather these decisions will be made in-between rotations of staff. The preferred data structure would be “contributing country-mission-rotation” as that would enable me to study how the gender-balance varies between rotations. To my knowledge, such information is not yet available. In the absence of such data, yearly information generates a better reflection of the phenomenon I am interested in and will therefore be used in this study. Furthermore, many of the variables included in this study have low monthly variation, this further motivates the use of yearly data.

12 For a full list of included force contributing countries, see appendix 1.

13 For a full list of included missions, see appendix 2.

14 The UN categorizes military personnel as ‘military troops’ and ‘military experts’, both categories are included as ‘military personnel’ in this study. The category ‘military experts’ includes military observers, investigators, advisors and more (DPKO 2009).

15 The UN recognizes Brunei, Palau, Luxembourg and Singapore as force contributing countries. These states are however not included in this study due to systematic lack of data in the control variables. As these states deployed relatively few contributions and military personnel during the time period studied, the absence of these senders should not bias or affect the results of this study.
the time period, the studied sample should well represent the population of military peacekeepers supplied by UN member states and deployed to UN peacekeeping missions. Systematically collected gender-disaggregated data, including information on which contributing country deployed what type of personnel to what UN mission, has only been available since 2009. Hence, the time period is naturally limited and the years included in this study are the product of available data. The critical reader might question the relatively short time period, and the fact that this study can only study the impact of new missions in missions that started in the 2000s and 2010s. In the best of worlds, the UN should have provided longer time series of gender-disaggregated data. I will, however, argue that the relatively short time period is not necessarily problematic as it still includes over 20 individual missions, some of them new and some of them older. Rather, it could have been problematic to compare the share of women deployed in different phases of UN missions over a longer time period as UNSC resolution 1325, and the measures taken during the 2000’s, have fundamentally changed the peacekeeping landscape. As more data have become available since previous studies were published, this study contributes to the research field by extending the studied time period from a maximum five years (Karim and Beardsley 2015 and 2017) to seven years. The findings of this study should be generalizable to the behaviour of active force contributing countries in current and future peacekeeping missions, as long as the premises for how UN military personnel are deployed, their payment and their operating environment do not dramatically change.

4.2 Operationalization
4.2.1 Measuring the dependent variable
The dependent variable has been operationalized as the proportion of female military personnel in a contribution deployed by a force contributing country to a mission in a given year. The information on the gender-balance amongst peacekeepers has been provided by the International Peace Institute (IPI) Peacekeeping Database (2017). The IPI combine the UN’s monthly reports on peacekeeping personnel and publish the data in a monthly format. To transform the monthly IPI data to yearly observations I have calculated the yearly mean of the ratio of deployed female military personnel (per force contributing country and mission) to the

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16 UN member states can also deploy personnel to non-UN missions, those contributions are naturally not included in this study.
17 The ‘IPI Providing for Peacekeeping Project’ is a collaboration between the International Peace Institute, the Elliott School at George Washington University and the Asian Pacific Centre for the Responsibility to Protect at the University of Queensland.
total number of deployed military personnel (per force contributing country and mission). This generates a variable which takes values between 0 and 1, where 0 indicates that 0% of the deployed personnel were women, and 1 indicates that 100% of the deployed personnel were women.

The reliability of the dependent variable is arguably high. The raw data used in this study has been systematically reported by the UN. The reporting procedure has not changed during the time period; hence it is straightforward to code the data and compare it over time. The UN provides public information on its monthly personnel statistics which enables me to triangulate the information provided by IPI with the raw source. Although there is little reason to believe that the UN provides biased data, one should keep in mind that it is not possible to control or triangulate the UN’s personnel statistics as no other source have access to the same information. Assuming the UN itself provides sound statistics of its staff, a strength of the data is that it has been collected from the missions’ offices rather than from the member states. This decreases the risk of within- and- between variation in reporting amongst member states (Olsson and Möller 2013). One could of course question the dichotomous disaggregation of peacekeepers as either men or women. Such discussion is however out of the scope of this thesis.

Whilst the reliability and the soundness of the dependent variable is thought to be high, the validity of the dependent variable can be questioned. The critical reader is likely to question if women’s participation in UN peace operations can be captured by as simple a measure as the proportion of women in a force contributing country’s contribution. Such measurement does not say how many women have been deployed or what tasks these women have carried out once deployed. This is a valid criticism which has also been discussed in the literature (Beardsley 2017 forthcoming). However, in the absence of information on what tasks women carry out and to what extent women are able to participate once deployed, I will argue that the percentage share of female peacekeepers is the best available indicator of women’s participation. One

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18 The number of deployed personnel by a FCC can vary during a year as personnel are sent in rotations. Therefore, I have calculated the proportion of women in a contribution based on a FCC’s average number of deployed personnel in a given year. For example, for the observation representing Sweden’s contribution to MINUSMA in 2015 I have: (summed the number of female military personnel deployed by Sweden to MINUSMA per month during 2015 and divided the sum by the number of months Sweden actively deployed military personnel to MINUSMA in 2015). This numerator has been divided by the denominator: (the total number of military personnel deployed by Sweden to MINUSMA during 2015, divided by the number of months Sweden actively deployed military personnel to MINUSMA in 2015). This solution is in line with previous studies and should give representative proportions in most cases. An alternative, also commonly used solution, is to use data from December of the year of interest. For this study, however, such solution could be unsound as missions start at different times of the year. Hence, using data from December only could potentially cause stronger bias.
strength of the measurement is that it is fairly uncomplicated to compare within and between missions. At the same time, one weakness of using the percentage share of women as an indicator of women’s participation is that the measurement is sensitive to the absolute number of deployed staff.

Figure 4 illustrates the distribution of the dependent variable in a histogram. This histogram effectively communicates the reality - despite the UN’s stated wish to include more women in UN peacekeeping, the clear majority of all contributions that took place between 2009 and 2015 contained no women at all. But, as seen in the histogram, there are also a few contributions that only included women. These are examples of contributions containing less than a handful of personnel, where all deployed military staff were women. To mitigate the problem of using a measure that is sensitive to the absolute number of deployed personnel, this study controls for the absolute number of deployed personnel in a contribution (deployed by a force contributing country to a mission in a given year).

*Figure 4: Histogram, distribution of the dependent variable proportion of female military personnel in a contribution*
4.2.2 Measuring the independent variables

4.2.2.1 Duration of mission

To test the first hypothesis - the participation of women is likely to be lower in the early stages of UN peacekeeping and increase with the duration of the mission - the main independent variable duration of UN peacekeeping missions has been operationalized in three different ways: new mission, duration of mission and squared duration of mission. The theory explaining why duration of missions would have a positive impact on the presence of female peacekeepers stresses the impact of the early stages of missions as the main driver of the effect. It is therefore appropriate to operationalize the independent variable so that these different phases can be captured. Further, it is not theoretically motivated to believe that the effect of duration is linear, therefore I have included the squared value of duration to capture a possible diminishing effect.

*New mission* is a dichotomous variable taking the value 1 if the mission is considered to be a new mission and taking the value 0 for all other missions. This variable will capture the expected negative effect of early stages of a mission on the proportion of military women in a contribution. As previous studies have neglected the impact of mission duration as an explanatory factor, there is little empirical reference for when a mission should be considered to be new. For convenience, I have coded missions as *new* during their first calendar year of military operation. This implies that all missions that started in 2013 takes the value 1 during 2013, whereas all missions that started earlier than 2013 takes the value 0 in 2013. A weakness of this operationalization is that it does not consider the actual duration of a mission. As missions start on different dates during a year, some of them can theoretically have been ongoing for a just a month and be coded as new whereas others can have been operating for nearly a year and still be coded as new. This is a downfault of using yearly data rather than monthly data. For comparability, it would have been preferable to code *new mission* based on the actual duration of the mission rather than based on calendar years. Luckily, none of the missions included as *new* in this study were deployed in the first few or last few months of the year. Hence, there is relatively little actual duration variation between the missions coded as *new mission*.

*Duration of mission* is a continuous variable indicating the duration of a mission, at a given time, in years. The duration of a mission is measured in years from the year when military peacekeepers were first deployed to a mission. This variable will capture the expected positive effect of duration of mission on the percentage share of female peacekeepers.
Squared duration of mission is included to account for a possible diminishing effect of mission duration on the proportion of women in a force contributing country’s contribution. The theory does not state that female peacekeepers are going to take over all roles of male peacekeepers if missions are active for a long enough time. Rather, it predicts that the uncertainty about the risk associated with a mission will decrease over time and this reduction of uncertainty will decrease the perceived relative advantages of deploying men and therefore increase the incentives to deploy female personnel. This process is not likely to be linear, rather the impact of duration should decrease over time as the uncertainty is revealed.

The information used to establish when military personnel were first deployed has been collected from Kathman et al (2016), the IPI Peacekeeping Database (2017) and the missions’ own information platforms. The variables indicating the duration of missions are argued to have satisfying reliability. The validity of the new mission variable can however be questioned and the operationalization and the threshold for what is regarded as a new mission might seem arbitrary. This is a valid criticism. If a correlation is found between new mission and proportion of female military personnel further research is needed to specify the concept of new mission.

4.2.2.2 Gender equal force contributing countries and new missions

To test the second hypothesis - more gender equal force contributing countries are less likely to deploy women in the early stages of missions - an interaction variable has been created.

New mission* FCC women in labor force, multiplies the variable new mission with a variable capturing the percentage share of women in a force contributing country’s labor force. This variable takes into account if the mission is a new mission or not, and interacts it with a proxy for a force contributing country’s level of gender equality. Operationalizing the complex concept gender equality is challenging. It is difficult to find an indicator that combines high validity with high reliability, data availability and comparability. In line with Karim and Beardsley (2015), this study will use women’s participation in the labor force as an indicator for gender equality. Although far from perfect in terms of validity, the participation of women in contributors’ labor forces is a suitable measure as it sheds light on the general participation of women in society. In contrast to Karim and Beardsley (2015) this study will use information on how many percent of those in the labor force are women, rather than how many percent of

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19 It is important to stress that all missions do not deploy military personnel on the missions start date. A mission could for instance have seen presence of civil staff before the military component of a mission was deployed. Therefore, the independent variable is based on the year that marks first deployment of military personnel.
women are active in the labor force. This solution gives women’s participation relative to men’s participation which is favorable. The information on women’s participation in the labor force has been provided by the World Bank’s World Development Indicators (WDI). If more gender equal force contributing countries are less prone to deploy female military personnel in the early stages of missions I expect the coefficient of the interaction term to be negative in the regression model.

Table 1 provides descriptive statistics of the main variables as well as the control variables. As seen in the table, the mean proportion of female personnel in a force contributing country’s contribution to a mission is just over 4%. The standard deviation indicates that there is a relatively large variation around the mean, a tendency which was also seen in the histogram in figure 1. The descriptive statistics further tells us that approximately 6% of the 3463 observations are identified as new missions. These observations include MINUSCA (Central African Republic), MINUSMA (Mali), UNISFA (Abyei, Sudan) UNMISS (South Sudan) and UNSMIS (Syria). Further, the duration of missions varies between 0 and 67 years with an average of nearly 15 years. The participation of women in the contributors’ labor forces do also vary broadly, from 12% (Qatar) to 54% (Rwanda) and the mean is nearly 42.5%.

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20 Countries with roughly 50% women are considered to be most equal. If a country would have had well over 50% women in its labor force, that would not have been considered as equal. There is however no such country included in this data.

21 When data was downloaded, the WDI only provided data until 2014. I have therefore used the information from 2014 as indicating values for 2015. As the within-country variation is very low during this short time period, this solution should not bias the results of this study.
Table 1: Descriptive statistics of main variables and controls

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female military personnel (%)</td>
<td>3463</td>
<td>0.0416</td>
<td>0.120</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>New mission</td>
<td>3463</td>
<td>0.0586</td>
<td>0.2349</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Duration (years)</td>
<td>3463</td>
<td>14.72</td>
<td>17.23</td>
<td>0</td>
<td>67</td>
</tr>
<tr>
<td>FCC women in labor force</td>
<td>3463</td>
<td>42.439</td>
<td>7.84</td>
<td>12.12</td>
<td>54.21</td>
</tr>
<tr>
<td>New mission*FCC women in labor force</td>
<td>3463</td>
<td>2.49</td>
<td>10.18</td>
<td>0</td>
<td>54.13</td>
</tr>
<tr>
<td>Battle related deaths (moving average 5y)/1000</td>
<td>3463</td>
<td>0.803</td>
<td>1.277</td>
<td>0</td>
<td>8.6438</td>
</tr>
<tr>
<td>PK fatalities in mission (sum previous 2y)</td>
<td>3463</td>
<td>18</td>
<td>21</td>
<td>0</td>
<td>121</td>
</tr>
<tr>
<td>Contribution size</td>
<td>3463</td>
<td>176</td>
<td>482</td>
<td>1</td>
<td>4299</td>
</tr>
<tr>
<td>Mission size</td>
<td>3463</td>
<td>7455</td>
<td>6058</td>
<td>1</td>
<td>19993</td>
</tr>
<tr>
<td>Mission chapter VII</td>
<td>3463</td>
<td>0.675</td>
<td>0.4696</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>FCC tot. deployed</td>
<td>3463</td>
<td>1206</td>
<td>1949</td>
<td>1</td>
<td>9896</td>
</tr>
<tr>
<td>FCC lib. democracy</td>
<td>3463</td>
<td>0.499</td>
<td>0.256</td>
<td>0.05</td>
<td>0.928</td>
</tr>
<tr>
<td>Log GDP/pc (2011 USD)</td>
<td>3463</td>
<td>9.1</td>
<td>1.17</td>
<td>6.53</td>
<td>11.80</td>
</tr>
<tr>
<td>FCC Population (millions)</td>
<td>3463</td>
<td>88</td>
<td>241.6</td>
<td>0.26</td>
<td>1371</td>
</tr>
</tbody>
</table>

The descriptive statistics were generated in Stata.

4.2.3 The control variables

Employing data at the contributing country-mission-year level is not only necessary for testing the second hypothesis. It also increases the chances of successfully isolating the relation between duration of mission and women’s participation in UN peacekeeping missions as it allows me to control for mission specific, contributing state specific and time specific aspects of each observation. This study will include 10 control variables as well as time fixed effects. The control variables have been included for three main reasons. First, to control for factors which can be correlated with the independent variables and have a causal impact on the outcome variable, thus generating omitted variable bias if they are not controlled for. Second, to eliminate some noise in the data and reduce the variance of the estimators, thereby reducing the risk of type 2 errors\textsuperscript{22}. Third, to increase the comparability of the results of this thesis and findings of previous studies.

Previous research has stressed battle related deaths and fatalities amongst peacekeepers as strong indicators of perceived risk facing deployed peacekeepers. These factors have also been found to constrain women’s participation through the gendered protection norm. As these

\textsuperscript{22} Type 2 error refers to the failure to reject a false null hypothesis.
factors affects the outcome variable and could also correlate with duration, as missions are often sent to prevent escalation or assist in de-escalation, they are important to include to reduce omitted variable bias.

*Battle related deaths (moving yearly average of past 5 years /1000)* has been included as an indicator for conflict intensity in the area where the mission takes place. The variable gives yearly average of battle related deaths (in the country where the mission takes place) the past five years in thousands. The raw source of this variable is the Uppsala Conflict Data Programme (UCDP) Georeferenced Event Dataset (GED) (Sundberg and Melander 2015). For the missions taking place in more than one country, the number of battle related deaths are coded for the dyad(s) or the territory(ies) which these missions are mandated to engage in.

*Peacekeepers fatalities (sum of previous 2 years)* is also included as an indicator of risk facing the deployed peacekeepers. The control variable has been operationalized to include peacekeeper fatalities due to combat as well as other causes of death, such as fatalities due to diseases and accidents. The decision to use the sum of peacekeepers fatalities during the past two years is based on the theoretical argumentation that force contributing countries evaluate recent developments of risk facing peacekeepers to do risk assessments before deploying female personnel. The decision to use exactly two years is arbitrary but should capture the recent information which force contributing countries use to decide who to deploy to peacekeeping missions. The data has been provided by the ‘United Nations Peacekeeping Fatalities Dataset’ by Marina E. Henke (2017).

As discussed, it is important to control for the size of personnel contributions and missions. The number of deployed military personnel is accounted for in three different ways. *FCC contribution size* captures the average number of personnel deployed by a force contributing country to a certain mission in a certain year. It is included to control for the size of the individual contribution as the dependent variable is sensitive to the absolute number of deployed personnel. *Mission size* describes the average number of military personnel deployed to a certain mission in a certain year by all force contributing countries. It has been included to

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23 Syria is not included in the UCDP GED. The number of battle related deaths for Syria has therefore been provided by the UCDP Syria Country Profile, see appendix 4.

24 It is for instance not sound to include all battle related deaths in Syria as a measurement of conflict intensity facing UNDOF (Syria/Israel) peacekeepers. For more information on how this variable has been coded, see appendix 4.

25 The broader type risk of being deployed, including the risk of being involved in an accident or die due to illness, might also trigger the gender protection norm and have an impact on when women are deployed. Including this broader operationalization of fatalities of peacekeepers should therefore provide a more difficult test for the first hypothesis and the thesis’ main argument.
control for the size of the missions. **FCC total deployed** captures the average number of deployed personnel by a force contributing country to any mission in a certain year. It has been included to control for the impact of a force contributor being a smaller or larger provider of UN peacekeepers.

**Mission size** can to some extent be used a proxy for type and scope of missions as larger and broader missions often require more personnel. But, to get a better indicator of the type and scope of missions, the dummy variable **Chapter VII** has been included. **Chapter VII** includes information on whether the mission holds a chapter VII mandate or not\(^\text{26}\). As missions which have been authorized under chapter VII are likely to have a different scope than non-Chapter VII missions this is an important contextual control variable. The information used to code this variable has been provided by the Department of Political Affairs United Nations (2017) and by the SIPRI Multilateral Peace Operation Database through a publication by van der Lijn and Smit (2015).

**FCC women in labor force** has been included as a proxy for the contributor’s level of gender equality. As previously discussed, there is strong reason to believe that the level of gender equality can have an impact on the proportion of women in a contribution, and it could also be correlated to when in time women are deployed. Therefore, this variable is included as a control variable when testing hypothesis one. This variable further constitutes part of the interaction variable **New mission**\(^*\) **FCC women in labor force** used to test hypothesis two.

**FCC GDP/pc (log)** gives the log GDP per capita of force contributing countries. It has been included as a proxy for level of development of a contributor as economic development could potentially be confounded with gender equality and women’s participation. The GDP per capita data was provided by WDI\(^\text{27}\).

**FCC population (millions)** gives the size of a contributing country’s population in millions. Previous research has suggested that the size of a contributor’s population has a positive effect on a contributor’s decision to participate in UN peacekeeping (Bove and Elia 2011) and the

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\(^{26}\) The concept **Chapter VII** refers to a chapter in the UN charter. The UN Security Council has adopted the practice of invoking Chapter VII “when authorizing the deployment of UN peacekeeping operations into volatile post-conflict settings where the State is unable to maintain security and public order” (UNPKc 2017). The invocation of Chapter VII can be seen as a “statement of firm political resolve and a means of reminding the parties to a conflict and the wider UN membership of their obligation to give effect to Security Council decisions” (UNPKc 2017).

\(^{27}\) When data was downloaded, the WDI only provided GDP per capita data until 2014. I have therefore used the information from 2014 as indicating values 2015. As the within-country variation is very low during this short time period, this solution should not bias the results of this study.
decision to deploy women (Crawford et al 2015). Although this effect has only been found when the dependent variable has been binary coded, the variable has been included as an indicator of the size of a force contributing country. The variable has been provided by WDI.

**FCC liberal democracy** is an index variable including factors as minority rights, civil liberties, independent judiciary and electoral democracy. It has been included as a proxy for how progressive a state is in terms of democracy and civil rights for all. These factors could potentially affect the impact of the gendered protection norm and correlate with gender equality, hence it is important to control for. The variable has been provided by Varieties of Democracy (V-Dem) (Coppedge et al 2016)\(^2\) and can take values from 0 to 1.

*Year dummies* are included as I expect the participation of women in UN peacekeeping to naturally increase over time due to the UN’s and the force contributing countries strive and active campaigns.

### 4.3 The regression model

To test the stated hypotheses this empirical study will rely on a set of multilevel mixed-effects generalized linear models (MEGLM) with logit link functions. This type of multilevel model allows for non-independence amongst observations by grouping observations on different levels. In this case, all observations in the dataset belongs to a force contributing country. It is therefore not sound to assume that all observations and their error terms are independent of each other. The employed model will therefore group all observations based on the contributing country and control for non-independence between these observations through the use of mixed-effects. This is motivated as many of the country specific variables vary relatively little over this short period of time which makes it difficult to capture the country specific factors with fixed effects. By using both fixed and random effects the model can capture more within country differences (Grace-Martin 2017; Torres-Reyna 2007).

Further, as the dependent variable can only take values between 0 and 1 (0-100% women in one contribution), it is bounded by nature. When plotting the residuals, it becomes evident that the residuals are not normally distributed, rather they form an s-shape which motivates the use of a logit link in the model\(^3\). A logit link function approach accounts for the bounded nature of

\(^{2}\) When data was downloaded, V-Dem only provided systematic data until 2012. Where data for 2013, 2014 and 2015 have been missing, the missing values have been replaced with the most recent reported value. As the within-country variation is generally low during this short time period, this solution should not bias the results of this study. For more information regarding coding of this variable, see Appendix 4.

\(^{3}\) See appendix 5.
the percentage share of female military personnel in a contribution by fitting the predicted values on an S-curve that ranges between 0 and 1.

The use of this type of model is further motivated by the fact that it has been used in previous studies which makes it less problematic to compare the outcome of this study with the studies it builds on (Karim and Beardsley 2015 and 2017). A weakness of this type of model is that the mixed effects and the logit link makes interpreting the coefficients fairly complicated. To determine the substantiality of the predicted effects, I will run the same model without the logit link. The non-logit estimations should be seen as approximations of the size of the coefficients. If substantial, significant and robust correlations in line with the presented theory are found, that will strengthen my argumentation. However, it is important to stress that the quantitative approach applied here can only assist in indicating if there is a correlation between the variables of interest and possibly isolate this effect. The models cannot determinate what mechanism causes the correlation. If a correlation is found, further research is necessary to trace the processes that cause such correlations. The impact of the gendered protection norm and the perceived comparative advantages of the sexes, as presented in the theory section, is likely to be found in such process tracing.
5. Empirical findings and analysis

This section will present and discuss the findings with regards to the two stated hypotheses. First, it will present and discuss the main empirical findings relating to the impact of early stages, and duration of missions, on women’s participation in UN peace operations. Second, it will present and discuss the main empirical findings relating to the impact of gender equality on the decision to deploy female military personnel to new missions. This section will end with an extended analysis including robustness tests as well as a section for alternative explanations and discussion.

5.1 Duration and women’s participation in UN peacekeeping missions

Figure 5 provides an overview of the duration of missions and the proportion of female military personnel in missions\(^{30}\). The figure allows for three interesting observations. First, the vast majority of all mission-years saw less than 7% female military personnel regardless of duration. Second, as suggested by the theoretical framework, there seems to be a positive relation between duration of mission and women’s participation in UN missions. Third, one data point stand out as it takes a value well above 15% of women in one mission/year. This data point represents the average presence of female military personnel in UNMIK (Kosovo) 2014. UNMIK is a relatively small mission which that year deployed an average of 8.6 military personnel. As the average number of deployed women during the same year was 1.4, the percentage share of women becomes, in relative terms, high at nearly 17%. This discovery stresses the importance of controlling for the size of a contributing country’s total contribution to a mission as well as the size of a mission.

---

\(^{30}\) Please note that the proportion of female military personnel in a mission is not exactly the same as this study’s operationalized dependent variable proportion of military women in a contribution deployed by a FCC to a mission in a given year. The proportion of female military personnel in a mission does however provide a good illustrative example of the phenomenon of interest and is therefore included in this scatterplot.
Table 2 (p. 38) and table 3 (p. 39) summarizes the main findings regarding the first hypothesis - the participation of women is likely to be lower in the early stages of UN peacekeeping and increase with the duration of the mission.

In table 2, model 1 explores the relation between new missions and the proportion of female military personnel deployed by a FCC to a certain mission. The bivariate model suggests that there is a negative relationship between new missions and the percentage share of women in a FCC’s contribution. The negative coefficient is significant at the 99% confidence level, indicating that contributions to new missions see a relatively lower percentage share of women than missions that have been ongoing for more than a calendar year. Model 2 explores the relation between the duration of a mission and the proportion of deployed female military personnel. The bivariate model indicates that there is a significant positive relationship between the duration of missions and the proportion of deployed female military personnel. As touched upon in the theory section and in the research design, it is not theoretically motivated to believe that the relationship between duration and women’s participation is linear. To allow for a diminishing effect of duration, the squared value of duration is introduced in model 3. The model confirms the suggestion that the impact of duration does in fact have a diminishing effect.
on women’s participation in UN peacekeeping as the squared value of duration is statistically significant and negative without drastically altering the linear duration variable’s coefficient. Model 4 captures, and provides empirical support, for the first hypothesis and this thesis’ main argument: the participation of women is relatively low at the early stages of missions, the participation of women increases with the duration of missions but the impact of duration has a diminishing effect.

To be able to determine the substantial effect of the coefficients, I have simplified the model by excluding the logit link function in model 5 and model 6\(^{31}\). This implies that I assume that the residuals of the dependent variable are normally distributed. As already discussed, this assumption is violated as the residuals forms a s-shape rather than a linear line\(^{32}\). Therefore, the coefficients in the non-logit MEGLM should be seen as approximations rather than best estimates.

Model 5 indicates that the share of female military personnel in a contribution is expected to be 1.56 percentage points (pp) lower in new missions, compared to contributions to missions that have been active for more than one calendar year. This effect is significant at the 95% confidence level. Although this estimate should be interpreted with caution, it still shows a considerable negative effect. Recognizing that the mean proportion of female military personnel in a contribution is just over 4%, an expected decrease of 1.56 pp in the new mission setting is argued to be a substantial effect. Model 6, indicates that the percentage share of female military personnel in a contribution is expected to increase with, on average, 0.17 pp per year. The coefficient is significant at the 99% level. Hence, in line with theory, the share of women in a contribution seems to increase with duration. Also in line with the presented theory, the largest effect seems to take place during the early stages of missions\(^{33}\).

\(^{31}\) With the terms ‘non-logit link function’ and ‘non-logit link’ I refer to an ‘identity link function’ which is the link function used in generalized linear models when no transformation is required. It is used when the distribution of the error terms is normal.

\(^{32}\) See appendix 5.

\(^{33}\) I have run the models exploring the effect of duration (year) (table 1: model 3 and model 6, table 2: model 2 and model 4) while excluding all observations of new missions to make sure that it is not the first year of operation that creates the effect of duration. The coefficient of duration (year) does not substantially change when excluding new missions from these models.
Table 2: Exploring the relationship between duration of missions and women’s participation in UN peacekeeping missions using a multilevel mixed-effects generalized linear model with and without a logit link

<table>
<thead>
<tr>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proportion of female military personnel</td>
<td>Proportion of female military personnel</td>
<td>Proportion of female military personnel</td>
<td>Proportion of female military personnel</td>
<td>Proportion of female military personnel</td>
<td>Proportion of female military personnel</td>
</tr>
<tr>
<td>Logit link</td>
<td>Logit link</td>
<td>Logit link</td>
<td>Logit link</td>
<td>Non-logit link</td>
<td>Non-logit link</td>
</tr>
</tbody>
</table>

| New mission | -1.027*** | -0.486** | -0.0156** | (0.202) | (0.214) | (0.00754) |
| Duration (years) | 0.00731*** | 0.0891*** | 0.0823*** | 0.00170*** | (0.00252) | (0.00895) | (0.00940) | (0.000378) |
| Duration² (years) | -0.00135*** | -0.00126*** | -0.000243*** | -0.00000604*** | (0.000142) | (0.000147) | (0.00000604) |
| Constant | -1.008*** | -1.181*** | -1.737*** | -1.653*** | 0.0429*** | 0.0292*** | (0.144) | (0.148) | (0.171) | (0.174) | (0.00647) | (0.00709) |
| Observations | 3463 | 3463 | 3463 | 3463 | 3463 | 3463 | 3463 |

Standard errors in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01. 123 groups, grouping variable (cow_fcc). The statistical results were generated in Stata.

The results of the basic models in table 2 are in line with the theoretical argumentation and can provide some empirical support for the suggested hypothesis. However, as discussed in the research design, the relationships between the main variables could potentially be overestimated due to omitted variable bias. In an attempt to isolate the observed effects, table 3 introduces the suggested confounding variables.

As seen in table 3, including the control variables do not change the nature of the relations between the independent variables and the dependent variable. Using a MEGLM with a logit link in model 1, the coefficient of new mission is still statistically significant and negative whilst controlling for the confounding variables. In model 2, also using the logit link, the duration of mission has a statistically significant positive (and diminishing) effect on women’s participation in UN peacekeeping. Model 3 and model 4 includes the same control variables as the other multivariate models but excludes the logit link.
Table 3: Isolating the relationship between duration of missions and women’s participation in UN peacekeeping missions using a multilevel mixed-effects generalized linear model with and without a logit link

<table>
<thead>
<tr>
<th></th>
<th>(1) Proportion of female military personnel</th>
<th>(2) Proportion of female military personnel</th>
<th>(3) Proportion of female military personnel</th>
<th>(4) Proportion of female military personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Logit link</td>
<td>Logit link</td>
<td>Non-logit link</td>
<td>Non-logit link</td>
</tr>
<tr>
<td>New mission</td>
<td>-0.619***</td>
<td>-0.0163***</td>
<td>0.00235***</td>
<td>0.000329***</td>
</tr>
<tr>
<td></td>
<td>(0.239)</td>
<td>(0.00811)</td>
<td>(0.000504)</td>
<td>(0.0000710)</td>
</tr>
<tr>
<td>Duration (years)</td>
<td>0.0724***</td>
<td>0.00960***</td>
<td>-0.00777***</td>
<td>-0.000329***</td>
</tr>
<tr>
<td></td>
<td>(0.0138)</td>
<td>(0.00152)</td>
<td>(0.00163)</td>
<td>(0.00000710)</td>
</tr>
<tr>
<td>Duration² (years)</td>
<td>-0.000941***</td>
<td>-0.0000329***</td>
<td>-0.000329***</td>
<td>-0.000329***</td>
</tr>
<tr>
<td></td>
<td>(0.00188)</td>
<td>(0.0000710)</td>
<td>(0.0000710)</td>
<td>(0.0000710)</td>
</tr>
<tr>
<td>BRD (mov. avg. 5y)/1000</td>
<td>-0.292***</td>
<td>-0.213***</td>
<td>-0.0960***</td>
<td>-0.07777***</td>
</tr>
<tr>
<td></td>
<td>(0.0504)</td>
<td>(0.0513)</td>
<td>(0.00152)</td>
<td>(0.00163)</td>
</tr>
<tr>
<td>PK fatalities (previous 2y)</td>
<td>0.00729***</td>
<td>0.00857***</td>
<td>0.000140</td>
<td>0.000173</td>
</tr>
<tr>
<td></td>
<td>(0.00318)</td>
<td>(0.00315)</td>
<td>(0.00124)</td>
<td>(0.00121)</td>
</tr>
<tr>
<td>Chapter VII</td>
<td>-0.521***</td>
<td>0.168**</td>
<td>-0.0565</td>
<td>0.0136*</td>
</tr>
<tr>
<td></td>
<td>(0.136)</td>
<td>(0.217)</td>
<td>(0.00513)</td>
<td>(0.00768)</td>
</tr>
<tr>
<td>Mission size</td>
<td>0.0000783***</td>
<td>0.0000486***</td>
<td>0.000000642</td>
<td>0.000000309</td>
</tr>
<tr>
<td></td>
<td>(0.0000121)</td>
<td>(0.0000134)</td>
<td>(0.00000455)</td>
<td>(0.000000504)</td>
</tr>
<tr>
<td>FCC women in labor force</td>
<td>0.162***</td>
<td>0.163***</td>
<td>0.00290***</td>
<td>0.00294***</td>
</tr>
<tr>
<td></td>
<td>(0.0238)</td>
<td>(0.0239)</td>
<td>(0.00845)</td>
<td>(0.00849)</td>
</tr>
<tr>
<td>FCC GDP/pc (log)</td>
<td>0.124**</td>
<td>0.0906</td>
<td>0.00301</td>
<td>0.00196</td>
</tr>
<tr>
<td></td>
<td>(0.157)</td>
<td>(0.158)</td>
<td>(0.00647)</td>
<td>(0.00650)</td>
</tr>
<tr>
<td>FCC population (millions)</td>
<td>0.00126</td>
<td>0.00126</td>
<td>-0.0000160</td>
<td>-0.0000182</td>
</tr>
<tr>
<td></td>
<td>(0.000802)</td>
<td>(0.000810)</td>
<td>(0.0000361)</td>
<td>(0.0000363)</td>
</tr>
<tr>
<td>FCC lib. democracy</td>
<td>0.495</td>
<td>0.566**</td>
<td>-0.0531*</td>
<td>-0.0507*</td>
</tr>
<tr>
<td></td>
<td>(0.682)</td>
<td>(0.688)</td>
<td>(0.0280)</td>
<td>(0.0281)</td>
</tr>
<tr>
<td>FCC contribution size</td>
<td>0.00416***</td>
<td>0.00411***</td>
<td>-0.000145***</td>
<td>-0.000153***</td>
</tr>
<tr>
<td></td>
<td>(0.000291)</td>
<td>(0.000289)</td>
<td>(0.0000446)</td>
<td>(0.00000445)</td>
</tr>
<tr>
<td>FCC total deployed</td>
<td>0.0001000</td>
<td>0.0001010</td>
<td>-0.00000601</td>
<td>-0.00000473</td>
</tr>
<tr>
<td></td>
<td>(0.0000866)</td>
<td>(0.0000876)</td>
<td>(0.00000324)</td>
<td>(0.00000325)</td>
</tr>
<tr>
<td>Year dummies</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Constant</td>
<td>-10.16***</td>
<td>-10.97***</td>
<td>-0.0750</td>
<td>-0.0967</td>
</tr>
<tr>
<td></td>
<td>(1.857)</td>
<td>(1.875)</td>
<td>(0.0721)</td>
<td>(0.0725)</td>
</tr>
<tr>
<td>Log likelihood</td>
<td>-1604.80</td>
<td>-1594.15</td>
<td>2872.58</td>
<td>2881.67</td>
</tr>
<tr>
<td>Observations</td>
<td>3463</td>
<td>3463</td>
<td>3463</td>
<td>3463</td>
</tr>
</tbody>
</table>

Standard errors in parentheses * p < 0.10, ** p < 0.05, *** p < 0.01. 123 groups, grouping variable (cow_fcc). The statistical results were generated in Stata.
In model 3, the coefficient for new mission indicates that the percentage share of female military personnel in a contribution is expected to be 1.63 pp lower in new missions than in missions that have been active for more than a calendar year. The coefficient is significant at the 95% confidence level whilst controlling for the possible confounding variables. In model 4, the coefficient for duration (years) indicates that the percentage share of female military personnel in a contribution is expected to increase with, on average, 0.24 pp per year. The coefficient is significant at 99% confidence level whilst keeping the control variables constant. The fact that neither the size, nor the significance levels, of the main coefficients changes substantially when including the control variables indicates that no large omitted variable bias has been detected when including these controls\textsuperscript{34}. This implies that the positive relation between decreased uncertainty associated with a mission and women’s participation in a mission is robust when controlling for different aspects of conflict intensity.

The main analysis of the first hypothesis provides empirical support for this thesis’ main argument the participation of women will be lower in the early stages of missions. This is in line with the suggested mechanism suggesting that the gendered protection norm makes force contributing countries favouring deployment of male peacekeepers to missions associated with higher risk. Instead, the participation of women seems to increase with the duration of time, as missions get established and the uncertainty about the risks of being deployed decreases. These empirical findings will be further scrutinized in the section for robustness tests and extended analysis\textsuperscript{35}.

5.1.1 The impact of the control variables

Although the impact of the control variables is not the main interest of this study, the findings still contribute to the larger understanding of what motivates and hinders women’s participation in UN peacekeeping. Some of them are therefore worth commenting on.

In line with previous studies, this study confirms that the number of battle related deaths associated with the location of a mission is expected to have a negative effect on the proportion of female personnel. Also in line with previous studies, this study finds that higher participation of women in a FCC’s labor force has a positive effect on the FCC’s decision to deploy women

\textsuperscript{34} I have also controlled for the sum of battle related deaths during the past five years in in the force contributing countries (FCC BRD previous 5 years). Including this variable does not change the estimates of interest or the relation between women in FCCs labor forces and women’s participation in peacekeeping.

\textsuperscript{35} I have also run the simple Ordinary Least Squares (OLS) regressions, with FCC clustered standard errors, including all control variables to do the residual analysis and multicollinearity analysis. The nature of the coefficients of interest do not change in these simpler models. The output from the OLS and VIF-analysis can be found in appendix 5.
to UN peacekeeping. Further in line with previous studies, this study finds that the total number of deployed military personnel by a FCC (to any mission in a year) do not significantly affect the proportion of deployed women. Hence, it is not necessarily the largest (or smallest) providers of peacekeepers who provides the largest percentage shares of female military staff.

Unlike previous studies, this empirical study does not find a significant negative effect of fatalities amongst peacekeepers on women’s participation. Rather, it suggests that there is a statistically significant positive relationship between fatalities amongst peacekeepers and women’s participation in UN peacekeeping. This empirical finding needs to be put in context. In an attempt to construct a difficult test for this thesis’ main argumentation, the control variable has been operationalized to include peacekeeper fatalities due to combat as well as other causes of death, such as fatalities due to diseases and accidents. The suggested positive effect of fatalities amongst peacekeepers on women’s participation is prominently driven by MINUSTAH (Haiti), where extraordinarily many peacekeepers died without it noticeable affecting the relatively high percentage share of women in contributions. Looking into the data, it becomes evident that these fatalities were caused by the earthquake that hit Haiti in 2010. When MINUSTAH (Haiti) is excluded from the analysis, the positive correlation between fatalities amongst peacekeepers and the percentage share of female military personnel disappears. The exclusion of MINUSTAH does however not affect the statistical relation between this study’s main variables.
5.2 Gender equality and the decision to deploy women to new missions

Figure 6 provides an overview of how the percentage share of women in a FCC’s labor force affects the proportion of women in a FCC’s contribution. This scatterplot illustrates what this study, and studies before it, have found – that a FCC’s level of gender equality has a positive impact on its decision to deploy women to UN peace operations.

*Figure 6: Scatterplot, women in FCCs labor forces and proportion of female military personnel in contributions*

In this section, the impact of gender equality in force contributing countries will be further investigated by empirically evaluating the second hypothesis - *more gender equal force contributing countries* are less likely to deploy *women in the early stages of missions* than less gender equal force contributing countries. The proposed hypothesis will be tested using two different complementing methodological approaches.

First, as discussed in the research design, an interaction variable has been constructed which captures what impact women’s participation in a FCC’s labor force has in the *new mission* environment. If more gender equal states are reluctant towards deploying women in the early stages of missions, due to a stronger gendered protection norm, I would expect the coefficient of *New mission*\(\ast\)FCC in labor force to be negative. That would imply that FCCs with higher
participation of women in their labor forces would be less prone to deploy women to new missions, than FCCs with lower female participation in the labor force. Looking at the estimates in table 4 (p. 44), model 1 indicates that there is no relation between a higher level of female participation in a FCC’s labor force and the proportion of female military personnel deployed to the new mission setting. Model 2, includes the control variables and confirms the finding of model 1 as the coefficient of interest is not significant. Hence, this approach does not provide any empirical support for the proposed hypothesis suggesting that more gender equal countries should be less prone to deploy women to new missions.

Using the second methodological approach, the interaction variable has been re-coded to capture the interactive effect of missions that have been active for more than one calendar year and the level of gender equality in a FCC. The interactive variable *Old mission*×*FCC women in labor force* has been included in model 3 and model 4. By studying the coefficient for *FCC women in labor force* in model 3 and model 4 we can get an understanding of the impact of gender equality in the new mission setting. The positive significant coefficient of *FCC women in labor force* found in model 3 and model 4 indicates that even in the new mission setting, more gender equal FCCs are more prone to deploy a higher proportion of female military personnel. Hence, like the first approach, this second approach does not support the suggested hypothesis. Rather, it indicates that even in the new mission setting, the level of gender equality in a FCC is expected to have a positive effect on the percentage share of women in a contribution.

---

36 The constitutive term $\hat{\beta}_{FCC\ women\ in\ labor\ force}$ is the expected effect of *FCC women in labor force* when *old mission* = 0. When old mission=0, the observation is by default a new mission (“not old”).
Table 4: Exploring the relation between more gender equal contributors and their decision to deploy female military personnel in the early stages of missions using a multilevel mixed-effects generalized linear model with a logit link

<table>
<thead>
<tr>
<th></th>
<th>(1) Proportion of female military personnel</th>
<th>(2) Proportion of female military personnel</th>
<th>(3) Proportion of female military personnel</th>
<th>(4) Proportion of female military personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>New mission</td>
<td>-1.525</td>
<td>-0.115</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1.430)</td>
<td>(2.097)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New mission* Wom. in labor force</td>
<td>0.0110</td>
<td>-0.0111</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0317)</td>
<td>(0.0458)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Old mission</td>
<td></td>
<td>1.508</td>
<td>0.115</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.014)</td>
<td>(1.460)</td>
<td></td>
</tr>
<tr>
<td>Old mission*Wom. in labor force</td>
<td>-0.0193</td>
<td>0.00303</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.0225)</td>
<td>(0.0318)</td>
<td></td>
</tr>
<tr>
<td>FCC women in labor force</td>
<td>0.0827***</td>
<td>0.162***</td>
<td>0.101***</td>
<td>0.159***</td>
</tr>
<tr>
<td></td>
<td>(0.0178)</td>
<td>(0.0238)</td>
<td>(0.0272)</td>
<td>(0.0376)</td>
</tr>
<tr>
<td>BRD (mov.avg 5y)/1000</td>
<td>-0.292***</td>
<td>-0.289***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0504)</td>
<td>(0.0504)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PK fatalities (previous 2y)</td>
<td>0.00730***</td>
<td>0.00731***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.00318)</td>
<td>(0.00333)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mission size</td>
<td>0.0000783***</td>
<td>0.0000797***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0000121)</td>
<td>(0.0000121)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chapter VII</td>
<td>-0.522***</td>
<td>-0.520***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.136)</td>
<td>(0.142)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FCC GDP/pc (log)</td>
<td>0.124</td>
<td>0.127</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.157)</td>
<td>(0.157)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FCC population (million)</td>
<td>0.00126</td>
<td>0.00126</td>
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<tr>
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<td>(0.000803)</td>
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<td>(0.683)</td>
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<td>FCC contribution size</td>
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<td>0.00417***</td>
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</tr>
<tr>
<td></td>
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<td>(0.000292)</td>
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<td>FCC total deployed</td>
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<td>0.000101</td>
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<tr>
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<td>(0.0000867)</td>
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<td>Year dummies</td>
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<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
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<td>-5.982***</td>
<td>-10.32***</td>
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<td>(1.857)</td>
<td>(1.224)</td>
<td>(2.282)</td>
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<td>-1604.77</td>
<td>-1972.82</td>
<td>-1607.37</td>
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<td>Observations</td>
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<td>3463</td>
<td>3463</td>
<td>3463</td>
</tr>
</tbody>
</table>

Standard errors in parentheses: * p < 0.10, ** p < 0.05, *** p < 0.01. 123 groups, grouping variable (cow_fcc). The statistical results were generated in Stata.
The main analysis of the second hypothesis does not find empirical support for the gendered protection norm, favouring deployment of male peacekeepers to missions associated with higher risk, being stronger in more gender equal states and thus make more gender equal states less prone to deploy women to risky missions. Rather, it seems like strengthened egalitarian values, which are achieved by including women in more arenas in the society, like the labor force, have a positive effect on a FCC’s decision to deploy women to UN peacekeeping. Even in the early, higher risk, stages of missions. This effect is illustrated in figure 7 which provides a scatterplot of the relation between women’s participation in FFCs labor forces and the percentage share of women in contributions deployed to new mission. Figure 7 further illustrates the relatively lower shares of female personnel in contributions to new missions. As seen in figure 7, none of the contributions to new missions saw more than 50% women. This implies that all contributions with a majority of women were deployed to missions that had been ongoing for more than a calendar year.

Figure 7: Scatterplot, women in FFCs labor forces and proportion of female military personnel in contributions deployed to new missions
As discussed in the theory section, Karim and Beardsley (2015) have suggested that if the gendered protection norm is a “symptom of overcorrection in the struggle for gender equality”, partly diffused by active women’s rights advocates and networks, we would expect more gender equal states, “predominantly developed, Western ones”, to be more sensitive towards deploying women to missions accosaited with risk than other force contributing countries (Karim and Beardsley 2015:72). This suggestion will be further explored in the next section which includes robustness tests and extended analysis.
5.3 Robustness tests and extended analysis

This section will test the robustness of the observed correlations and extend the empirical analysis. The aim of this section is to challenge the study’s main empirical findings. If the observed relationships are robust when excluding arguably dominating outlier observations and controlling for underlying structures, the suggested determining factors gain robustness and credibility. This section will also extend the analysis and further scrutinize the impact of the gendered protection norm in states which are thought to be more gender equal.

5.3.1 Robustness: Duration and women’s participation in UN peacekeeping missions

As explained in the research design section, one weakness of using the percentage share of female military personnel in a contribution (deployed by a FCC to a mission) as the dependent variable is the fact that shares are sensitive to the absolute number of deployed staff. To mitigate this problem, the size of contributions has been included as a control variable. However, when exploring the data, it becomes evident that all observations that have seen a contribution including more than 50% women have deployed less than 4 peacekeepers in total. These observations can possibly affect the results of the study, especially if the size of contributions tend to become smaller as a result of duration. To avoid a situation where the results are prominently driven by a few dominating observations which deploy very few peacekeepers, all contributions of less than 10 personnel have been excluded from the analysis in table 5 (p. 49), model 1 and model 2.

Further, as discussed in the previous research section, there is an ongoing debate regarding the impact of women’s participation in domestic military forces and the participation of women in peace operations. Naturally, for FCC’s to be able to deploy female military personnel, they must have female personnel to deploy\textsuperscript{37}. As there is a systematic lack of data on women’s participation in domestic forces, the variable has not been included in the main analysis. It will however be included in table 5, model 3 and model 4. The variable has been provided by Karim and Beardsley (2015)\textsuperscript{38}. Although the variable was used in Karim and Beardsley’s study ‘Ladies

\textsuperscript{37} It should be noted that although it is intuitive to argue that the presence of women in domestic forces should condition the number of female candidates for deployment to UN missions, lack of data has made it difficult to empirically strengthen such claims (Karim and Beardsley 2017:71-72,195-197).

\textsuperscript{38} Karim and Beardsley (2015) coded the variable based on information from multiple sources including: “the NATO Committee on Gender Perspectives’ national reports (2004-2012); a DCAF report entitled “Security Sector and Gender in West Africa;” The Military Balance; a US Africa Command study of women in African militaries; the 2012 UK armed forces annual personnel report; the US Department of Defense’s active duty military personnel statistics”; and reported numbers from government websites.”(Karim and Beardsley 2015:73).
Last: Peacekeeping and Gendered Protection’, to determine the impact of women’s participation in domestic military forces on women’s participation in UN peacekeeping, I would advise the reader to be hesitant when drawing conclusions based on this variable. The quality of the variable is reduced as there is systematic bias in the raw data both between FCCs (not all FCC report the gender balance within its domestic forces) and within FCCs (information on the share of women in domestic forces tend to be reported differently in different years and some FCCs only present the gender balance for parts of it military organization)\textsuperscript{39}. Although the variable is far from perfect out of reliability and bias aspects, it will provide a good test of isolation and robustness for the variables of interest.

As seen in table 5, the nature of the coefficients of interest does not dramatically change when their robustness is challenged by excluding small contributions and controlling for women’s participation in domestic forces. This strengthens the credibility of the impact of early stage and duration on women’s participation in UN peacekeeping missions.

\textsuperscript{39} The approximated percentage share of women in FCCs’ domestic forces do not vary during the time period studied. For a list of included FCCs and the approximated participation of women in their military forces, see Appendix 3.
Table 5: Robustness test of hypothesis 1, excluding small contributions and controlling for women’s participation in domestic forces, using a multilevel mixed-effects generalized linear model with a logit link

<table>
<thead>
<tr>
<th></th>
<th>(1) Proportion of female military personnel &gt; 10 personnel</th>
<th>(2) Proportion of female military personnel &gt; 10 personnel</th>
<th>(3) Proportion of female military personnel Women in domestic forces</th>
<th>(4) Proportion of female military personnel Women in domestic forces</th>
</tr>
</thead>
<tbody>
<tr>
<td>New mission</td>
<td>-1.373***</td>
<td>-0.874**</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.486)</td>
<td>(0.365)</td>
<td></td>
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</tr>
<tr>
<td>Duration (years)</td>
<td></td>
<td>0.100***</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>(0.0344)</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>0.0598**</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.0202)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Duration² (years)</td>
<td></td>
<td>-0.00197***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.000469)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-0.000912***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.000279)</td>
<td></td>
<td></td>
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<tr>
<td>Women in domestic forces</td>
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<td>BRD (mov.avg 5y)/1000</td>
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<td>-0.371**</td>
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<td></td>
<td>(0.137)</td>
<td>(0.145)</td>
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<td>(0.0715)</td>
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<td>FCC women in labor force</td>
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<td></td>
<td>0.211***</td>
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<td>(0.0416)</td>
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<td></td>
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<td>0.129***</td>
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<td></td>
<td></td>
<td>(0.0452)</td>
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<td></td>
<td></td>
<td>0.135***</td>
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<td>FCC lib. democracy</td>
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<td>2.697**</td>
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<td>(0.000222)</td>
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<td>0.00857***</td>
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<td>(0.000795)</td>
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<td>FCC total deployed</td>
<td>0.000355***</td>
<td>0.000379***</td>
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<td>(0.000143)</td>
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<td>0.000227*</td>
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<td>(0.000117)</td>
<td></td>
<td></td>
</tr>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
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<td>-10.50***</td>
<td>-10.77***</td>
<td>-11.44***</td>
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<td>(3.167)</td>
<td>(3.318)</td>
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<td>(3.034)</td>
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<td>Log likelihood</td>
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<td>-531.11</td>
<td>-638.28</td>
<td>-635.85</td>
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<td>Observations</td>
<td>1305ⁱ</td>
<td>1305ⁱ</td>
<td>1464ⁱⁱ</td>
<td>1464ⁱⁱ</td>
</tr>
</tbody>
</table>

Standard errors in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01. ⁱ 92 groups, grouping variable (cow_fcc). ⁱⁱ 42 groups, grouping variable (cow_fcc). The statistical results were generated in Stata.
It is possible that there are other factors than \textit{duration} that makes the UN’s newest missions different from the older missions, and also affect the proportion of female military personnel, but are not controlled for in this study. If that is the case, this study could overestimate the effect of contributors being less prone to deploy women to the early stages of missions. To investigate this matter, table 6 (p. 51) tests the impact of early stages of missions, and duration of mission, on the five missions that have been observed as being new at some point during the time period used in this study.

Model 1 and model 2 in table 6 are simple models exploring the effect of new missions and duration of missions on this subset of data which only includes the 695 observations where a FCC deployed military personnel to a mission that, at some time during the studied time period, was coded as a \textit{new mission}. The maximum \textit{duration (years)} in this subset of data is 4 years. As seen in model 1 and model 2, the coefficient for new missions is negative and the coefficient of duration is positive. Both coefficients are significant and the main correlations seem to be robust when excluding all older missions. Model 3 and model 4 includes two of the influential control variables: battle related deaths and women’s participation in a FCC’s labor force. These controls do not seem to detect any omitted variable bias in the models as the nature and significance of the main coefficients do not dramatically change. But, when the full models, including all control variables, are employed in model 5 and model 6 the impact of new missions and duration is no longer significant. Neither is the impact of numbers of battle related deaths in the host country. This could be the result of relatively few observations and perhaps not enough variation within the variables. But it could also be the result of \textit{new missions} and \textit{duration} having moderate impact on the percentage share of female military personnel in these newer missions. The fact that neither the duration variables nor the conflict intensity variables are significant when studying the subset of newer missions could indicate that the relatively low participation of women in the early stages of missions is explained by factors which are not included in this study. This reasoning is extended in the next section where the findings and the shortcomings of this study are discussed.
Table 6: Robustness tests of hypothesis 1, including only the five missions that have been coded as new during the studied time period, using a multilevel mixed-effects generalized linear model with a logit link.

<table>
<thead>
<tr>
<th></th>
<th>(1) Proportion of female military personnel</th>
<th>(2) Proportion of female military personnel</th>
<th>(3) Proportion of female military personnel</th>
<th>(4) Proportion of female military personnel</th>
<th>(5) Proportion of female military personnel</th>
<th>(6) Proportion of female military personnel</th>
</tr>
</thead>
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<tr>
<td>New mission</td>
<td>-1.068***</td>
<td>-0.936***</td>
<td>-0.0813</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.264)</td>
<td>(0.293)</td>
<td>(0.488)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Duration (years)</td>
<td>0.980***</td>
<td>0.968***</td>
<td>0.219</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.270)</td>
<td>(0.273)</td>
<td>(0.482)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Duration² (years)</td>
<td>-0.210***</td>
<td>-0.275***</td>
<td>-0.110</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0677)</td>
<td>(0.0726)</td>
<td>(0.104)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BRD (mov.avg 5y)/1000</td>
<td>0.273</td>
<td>1.133***</td>
<td>-1.099</td>
<td>-0.157</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.296)</td>
<td>(0.403)</td>
<td>(0.727)</td>
<td>(1.162)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PK fatalities (previous 2y)</td>
<td>-0.0263</td>
<td></td>
<td>-0.00926</td>
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</tr>
<tr>
<td></td>
<td>(0.0200)</td>
<td></td>
<td>(0.0309)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>FCC women in labor force</td>
<td>0.107**</td>
<td>0.108***</td>
<td>0.171***</td>
<td>0.177***</td>
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<td></td>
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<tr>
<td></td>
<td>(0.0421)</td>
<td>(0.0418)</td>
<td>(0.0524)</td>
<td>(0.0531)</td>
<td></td>
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</tr>
<tr>
<td>Mission size</td>
<td></td>
<td></td>
<td></td>
<td>0.000379**</td>
<td>0.000366**</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.000113)</td>
<td>(0.000117)</td>
<td></td>
</tr>
<tr>
<td>Chapter VII</td>
<td>-0.455</td>
<td>-0.477</td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>(1.065)</td>
<td>(1.064)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FCC GDP/pc (log)</td>
<td>0.260</td>
<td>0.255</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.306)</td>
<td>(0.306)</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>FCC population (million)</td>
<td>0.00228</td>
<td>0.00234</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.00149)</td>
<td>(0.00150)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FCC lib. democracy</td>
<td>2.979**</td>
<td>3.025**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1.479)</td>
<td>(1.479)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FCC contribution size</td>
<td>0.00687***</td>
<td>0.00685***</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>(0.00106)</td>
<td>(0.00106)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FCC total deployed</td>
<td>0.0000412</td>
<td>0.0000377</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.000191)</td>
<td>(0.000191)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year dummies</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Constant</td>
<td>-1.567***</td>
<td>-2.497***</td>
<td>-6.401***</td>
<td>-7.544***</td>
<td>-15.00***</td>
<td>-16.05***</td>
</tr>
<tr>
<td></td>
<td>(0.310)</td>
<td>(0.370)</td>
<td>(1.928)</td>
<td>(1.934)</td>
<td>(3.974)</td>
<td>(4.062)</td>
</tr>
<tr>
<td>Log likelihood</td>
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<td>-331.75</td>
<td>-326.48</td>
<td>-324.23</td>
<td>-232.99</td>
<td>-232.10</td>
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<td>Observations</td>
<td>695</td>
<td>695</td>
<td>695</td>
<td>695</td>
<td>695</td>
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</table>

Standard errors in parentheses. **p < 0.10, ***p < 0.05, ****p < 0.01. 104 groups, grouping variable (cow_fcc). The statistical results were generated in Stata.
5.3.2 Extended analysis: Gender equality and the decision to deploy women to new missions

This thesis’ main study did not find any empirical support for the second hypothesis: more gender equal force contributing countries are less likely to deploy women in the early stages of missions than less gender equal force contributing countries. Rather, the empirics indicate that more gender equal states appear to be more prone to deploy contributions with higher shares of women, even in the early stages of mission. In table 7 (p.53), the impact of gender equality in a FCC and its decision to deploy women to missions associated with risk is further explored.

It has been suggested that if the gendered protection norm is the result of an overreaction in the struggle for gender equality, partly diffused by women’s rights networks and advocates, it should be stronger in developed Western states, as these states have provided the most fertile ground for these networks and movements (Karim and Beardsley 2015:72). Therefore, model 1 and model 2 in table 7 will explore the impact of Western States by include a variable taking the value 1 if a FCC is considered to be a Western state and 0 for all other states. The FCCs considered to be Western states are those located in Western Europe and North America as well as Cyprus, Australia and New Zealand. This coding is in line with the politico-geographic coding of V-Dem (Coppedge et al 2016).

As seen in model 1, Western states do not seem to be more or less prone to deploy female personnel than non-Western countries when we do not consider when the personnel are deployed. In model 2, the variable Western states has been multiplied with the variable new mission. This generates an interaction variable, New mission*Western states, which captures the effect of a FCC being a Western state and deploying personnel to new missions. Quite surprisingly, the coefficient of the interaction variable is positive and significant at the 95% confidence level. This indicates that in the new mission setting, Western states are more prone to deploy contributions with a higher share of women, than non-Western states. This contradicts the theoretical reasoning and undermines the suggestion that a strengthened gendered protection norm is diffused by women’s rights advocates and networks, as the claim does not find support in this arguably ‘most-likely setting’. Rather, these empirical results indicate that Western states could be more prone to deploy women to new missions.

I have also explored the interactive relation between more gender equal states and deployment to new missions by operationalizing gender equality as women’s participation in civil society and women’s civil liberties as defined by V-Dem (Coppedge et al 2016). These specifications support the study’s general empirical findings suggesting that more gender equal FCCs are not less prone to deploy women to new missions. Rather, more gender equal states tend to be more prone to deploy women regardless of when the deployment takes place. The regression table and a short discussion can be found in appendix 6.
Table 7: Extended analysis of hypothesis 2, exploring the impact of Western states and an alternative operationalization of risk, using a multilevel mixed-effects generalized linear model with a logit link

<table>
<thead>
<tr>
<th></th>
<th>(1) Proportion of female military personnel</th>
<th>(2) Proportion of female military personnel</th>
<th>(3) Proportion of female military personnel</th>
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<td>New mission</td>
<td>-0.619***</td>
<td>-0.900***</td>
<td></td>
</tr>
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<td></td>
<td>(0.239)</td>
<td>(0.286)</td>
<td></td>
</tr>
<tr>
<td>Western states</td>
<td>0.0588</td>
<td>0.0203</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.489)</td>
<td>(0.490)</td>
<td></td>
</tr>
<tr>
<td>New mission*Western state</td>
<td></td>
<td></td>
<td>1.023**</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.494)</td>
</tr>
<tr>
<td>BRD*Women in labor force</td>
<td></td>
<td></td>
<td>-0.00330</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.00881)</td>
</tr>
<tr>
<td>FCC women in labor force</td>
<td>0.161***</td>
<td>0.162***</td>
<td>0.164***</td>
</tr>
<tr>
<td></td>
<td>(0.0243)</td>
<td>(0.0243)</td>
<td>(0.0251)</td>
</tr>
<tr>
<td>BRD (mov.avg 5y)/1000</td>
<td>-0.292***</td>
<td>-0.288***</td>
<td>-0.138</td>
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<tr>
<td></td>
<td>(0.0504)</td>
<td>(0.0504)</td>
<td>(0.398)</td>
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<tr>
<td>PK fatalities (previous 2y)</td>
<td>0.00730***</td>
<td>0.00720**</td>
<td>0.00898***</td>
</tr>
<tr>
<td></td>
<td>(0.00318)</td>
<td>(0.00318)</td>
<td>(0.00314)</td>
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<td>Mission size</td>
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<td>0.000780***</td>
<td>0.000801***</td>
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<td>(0.000121)</td>
<td>(0.000121)</td>
<td>(0.000121)</td>
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<td>Chapter VII</td>
<td>-0.521***</td>
<td>-0.527***</td>
<td>-0.585***</td>
</tr>
<tr>
<td></td>
<td>(0.136)</td>
<td>(0.136)</td>
<td>(0.134)</td>
</tr>
<tr>
<td>FCC GDP/pc (log)</td>
<td>0.115</td>
<td>0.110</td>
<td>0.130</td>
</tr>
<tr>
<td></td>
<td>(0.173)</td>
<td>(0.173)</td>
<td>(0.157)</td>
</tr>
<tr>
<td>FCC population (million)</td>
<td>0.00126</td>
<td>0.00125</td>
<td>0.00128</td>
</tr>
<tr>
<td></td>
<td>(0.000802)</td>
<td>(0.000802)</td>
<td>(0.000806)</td>
</tr>
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<td>FCC lib. democracy</td>
<td>0.469</td>
<td>0.459</td>
<td>0.526</td>
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<td></td>
<td>(0.716)</td>
<td>(0.717)</td>
<td>(0.684)</td>
</tr>
<tr>
<td>FCC contribution size</td>
<td>0.00416***</td>
<td>0.00418***</td>
<td>0.00416***</td>
</tr>
<tr>
<td></td>
<td>(0.000291)</td>
<td>(0.000292)</td>
<td>(0.000292)</td>
</tr>
<tr>
<td>FCC total deployed</td>
<td>0.0000994</td>
<td>0.0000995</td>
<td>0.000102</td>
</tr>
<tr>
<td></td>
<td>(0.0000867)</td>
<td>(0.0000868)</td>
<td>(0.0000869)</td>
</tr>
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<td>Year dummies</td>
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<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
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<td>-10.34***</td>
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<tr>
<td></td>
<td>(2.062)</td>
<td>(2.064)</td>
<td>(1.890)</td>
</tr>
<tr>
<td>Log likelihood</td>
<td>-1604.79</td>
<td>-1602.72</td>
<td>-1608.28</td>
</tr>
<tr>
<td>Observations</td>
<td>3463</td>
<td>3463</td>
<td>3463</td>
</tr>
</tbody>
</table>

Standard errors in parentheses * p < 0.10, ** p < 0.05, *** p < 0.01. 123 groups, grouping variable (cow_fcc). The statistical results were generated in Stata.
In model 3, the percentage share of women in a FCC’s labor force has been interacted with the number of battle related deaths (moving average of past 5 years/1000). This model is thought to be a source of reference when testing the second hypothesis. Because, even though the empirical findings of this thesis strengthen the assumption that the uncertainty which exists in the beginning of missions is a type of risk. And even though this thesis has found that this type of risk (uncertainty) makes FCCs respond similar to how they react to other types of risk (like conflict intensity), someone might still wonder if this uncertainty is enough to activate the gendered protection norm in more gender equal countries. To avoid such speculations, model 3 tests the same claim using another operationalization of risk – battle related deaths.

This specification does not either provide any empirical support for the claim that more gender equal force contributing countries are less likely to deploy women to missions associated with higher risk. Hence, this study does not find support for the second hypothesis. These findings indicate that the gendered protection norm does not occur to be stronger in more gender equal states, not even in Western states. Rather, in line with Carreiras (2015), this study finds that inclusion of women in the political and social arenas stimulates gender egalitarian values and normalizes women’s participation in previously male dominated spheres, including deployment to missions associated with higher risk. The theoretical implications of this thesis’ findings will be further discussed in the next section.
5.4 Discussion and alternative explanations

Initially, the findings of this thesis’ empirical study support the main argumentation that force contributing countries are less prone to deploy women to the early stages of missions because force contributing countries recognizes the uncertainty in new missions as a type of risk and perceive male peacekeepers to have comparative advantages in risky settings. Instead women’s participation will increase with the duration of missions. But although these findings are in line with the presented theory, the robustness test indicates that there could possibly be other factors, which are not controlled for, that explain why we see relatively few women in the UN’s newest missions. This suggestion is in line with recent debate regarding the development of modern peace operation environments. For instance, it is often claimed that “contemporary United Nations peace operations perform their functions in increasingly dangerous environments and are therefore more likely to suffer casualties than in previous years” (Van Der Lijn and Smit, 2015:1). Although both SIPRI researchers Van Der Lijn and Smit (2015) and IPI researcher Henke (2016) find that contemporary UN operations are generally not more likely to suffer casualties than previous missions (Van Der Lijn and Smit 2015:1; Henke 2016:10); there could still be factors that make these new missions different from the older ones and also affects women’s participation. For instance, the impact of asymmetric warfare, terrorism and epidemics has been overlooked in this study and its precursors.

Simply due to lack of time, this study has not included GDP in the host country as a control variable. Given that previous research has found that the level of development in the country where the mission takes place effects the proportion of deployed women (Karim and Beardsley 2013; 2015 and 2017), this study should preferably have controlled for this factor. Although GDP per capita is a blunt measurement of development, which often covaries with conflict and conflict intensity, it could perhaps have assisted in identifying if there is some factor that makes the environment in the relatively new UN missions different from other missions. If not, including GDP per capita in the host state would still have served the purpose of another good test of robustness for the main findings.

Another possible shortcoming of this study is that it has not been able to control for country specific regulations and praxis regarding what parts of the FCC’s domestic military organization are open for women. As the multilevel mixed-effects generalized linear model creates individual intercept for FCCs, the country specific regulations and other characteristics have to some extent been considered. However, including a better measurement of women’s chances of actually having suitable training and being candidates for international deployment
could assist in detecting possible omitted variable bias and identify the casual mechanism at play.

On a similar note, not only do different FCCs provide different types of military services and personnel to UN peace operations. FCCs do also often provide different types of military personnel and resources to UN missions during different stages of missions, depending on what expertise is perceived to be needed (Försvarsmakten 2017). A FCC could for instance first deploy a military engineering company and later deploy a military intelligence company. If the ratio of women varies amongst different types of military professions, the deployment of certain types of personnel could covary with duration and proportion of women in a contribution. The inability to control for factors as roles, ranks, and tasks of deployed personnel are issues which this study shares with other studies within the research field as there is shortness of data.

Controlling for these factors would not necessarily change the nature of the relations between new missions, duration and the percentage share of female military personnel deployed to UN peacekeeping. Rather, it could add nuance to why these correlations exist. Because although this study find fairly strong relationships between new missions, duration and women’s participation, and these relationships are in line with the suggested theory and previous studies exploring the concept of risk - it is difficult to prove that the relationships are the result of the presented mechanism. As discussed in the research design, this study can only attempt to establish the relation between the variables and to some extend isolate the effect. Further, preferably qualitative, research is needed to learn more about why FCC tend to deploy fewer women to the early stages of missions and to the UN’s newest missions. During such process-tracing, the mechanism presented in this study should be further explored.

Regarding the second hypothesis, this study does not find any empirical support for more gender equal states being less prone to deploy women to the early stages of missions. This implies that the results do not support the theoretical reasoning suggesting that the gendered protection norm is the result of overcorrection in the struggle for gender equality and is therefore stronger in more gender equal states. Rather, this study suggests that as gender equality and egalitarian values institutionalize, the participation of women in FCCs’ contributions increases - regardless of when the deployment takes place.

The suggested mechanism explaining why more gender equal states would see stronger gendered protection norms, and therefore be less prone to deploy women to risky settings, is fairly complex. Future research would benefit from exploring the suggested connection between women’s rights advocates and a strengthened gender protection norm. If the suggested
overcorrection only takes place in some cases, or is generally rather weak, it can explain why the theoretical argument does not find support. Although the empirical findings regarding the second hypothesis are unanimous, it is important to stress that the results are based on limited operationalizations of gender equality. As discussed in the research design, operationalizing the holistic concept of gender equality is challenging. Before rejecting the hypothesis suggesting that more gender equal states should be less prone to deploy women to new missions (or any other high risk environment), the claim should be investigated using a more holistic approach of gender equality. This is preferably done in a small-N manner.

Finally, it is expected that the critical reader will question if the decision to deploy women to UN peacekeeping is as active and strategic as previous research and this thesis suggests. St-Pierre (2011) argues that it takes a lot of willingness of leaders to implement resolution 1325. While this sounds plausible, and while the process of including more women in UN peacekeeping would probably ease if it became a priority of force contributors’ political and military leaders, ultimately deploying female military staff requires trained female personnel and female personnel who are willing to be deployed. Given that the military has historically been a male dominated arena, the low levels of female participation in UN peacekeeping could be explained by the operating structures and standard operating procedure within organizations (Boin et al 2005) rather than by the perceptions and behaviors of individual military and political leaders, which is what the theory presented here focuses on. This is a valid criticism. Still, political and military leaders are typically those who are in position to change established structures and standard operating procedures. It is therefore not too bold to argue that they can make direct or indirect active decisions regarding who can/should be deployed to UN peace operations when and where.
6. Summary and conclusion

This thesis had two purposes. The main purpose was to explore if force contributing countries systematically deploy different proportions of female military personnel to particular phases of missions. The second purpose was to explore how the level of gender equality in a force contributing country affects the decision to deploy female military personnel in the early stages of UN peacekeeping. The study has been guided by the broad research question: how does the duration of missions affect the participation of women in UN peace operations?

The theoretical framework has extended the discourse’s use of the concept risk and suggests that force contributing countries regard the uncertainty associated with the early stages of missions as a type of risk, and therefore they are less prone to deploy women to the early stages of missions. It also discusses the contradicting theoretical explanations of how a force contributing country’s level of gender equality affects the decision to deploy women to missions which are associated with higher risk.

When analyzing a large dataset, including all UN peace operations that were active between 2009 and 2015, and a set of multilevel mixed-effects generalized linear models (MEGLM), the study initially finds support for the main hypothesis suggesting that the participation of women is likely to be lower in the early stages of UN peacekeeping and increase with the duration of missions. Hence the short answer to the research question is: force contributing counties seem to be less prone to deploy women to the early stages of UN peacekeeping, instead women’s participation increase with the duration of the peace operation. The relation between duration and women’s participation is robust when controlling for battle related deaths, fatalities amongst peacekeepers, size of missions and personnel contributions as well as other variables which previous research has emphasized as determining factors for women’s participation in peace operations. However, when the main findings are challenged, by only including the UN’s newest missions, the results become somewhat ambiguous and it is therefore not sound to exclude the possibility that unobserved factors drive the empirical results.

This study does not find empirical support for the second hypothesis stating that more gender equal force contributing countries are less likely to deploy women in the early stages of missions than less gender equal force contributing countries. Rather, the findings indicate that more gender equal states are more prone to deploy women to UN peace operations, regardless of when in time the deployment takes place.
This thesis contributes to the research field by adding nuance to the concept of risk favouring deployment of male peacekeepers to missions associated with higher risk. Although this thesis struggles to tie the statistical relationship between duration and women’s participation in peace operations to the suggested causal mechanism, the general support for the main argument suggests that the concept of risk is broader than previous research has suggested. This thesis also contributes to the debate regarding the impact of gender equality on the decision to deploy women to missions associated with higher risk, by finding unanimous results indicating that more gender equal contributors are not less prone to deploy women to the early, risky, stages of missions.

Based on the results and discussions of this thesis, the research field would gain from further investigating the connection between duration and women’s participation. Initially by exploring what explains the observed negative statistical relation between early stages of missions and women’s participation. Future research should also investigate the suggested link between increased gender equality and a strengthened gendered protection norm. It is puzzling that Karim and Beardsley (2015) found a tendency of contributors being less prone to deploy female police personnel to missions associated with higher risk, while this tendency was not observed when observing deployment of military personnel. Another interesting research gap, which should be researchable from a data availability perspective, is to explore how the different types of risk, which have been found to constrain women’s participation, affects the two different types of UN military personnel; military troops and military observers. It is often argued that these two type of personnel face different levels of risk once deployed due to their different roles on the field. To add nuance to the concept of risk, these staff categories can preferable be studied separately, as also suggested by Berg and Bjarnegård (2016).

This thesis has contributed to the cumulative knowledge about what motivates and what hinders women’s participation in UN peacekeeping missions. This information is valuable for researchers as well as policy makers and military leaders striving to increase the participation of women in UN peacekeeping. Like its precursors, this study does however suffer shortcomings, mainly due to lack of data. For future research on women’s participation in peace operations to be successful, more gender-disaggregated data as well as data on peacekeepers roles and tasks once deployed is necessary. But just like successfully including more women in peacekeeping, and implementing the holistic approach of gender-mainstreaming suggested in UNSC resolution 1325: that takes priorities, resources, time and willingness. A lot of willingness.
7. References

Data and replication files are available on request. Please contact Kajsa Tidblad-Lundholm, kajsa.tidblad.lundholm@gmail.com.


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# Appendix 1: Included force contributing countries

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<thead>
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<th>Albania</th>
<th>Dominican Republic</th>
<th>Lithuania</th>
<th>Rwanda</th>
</tr>
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<td>Turkey</td>
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<td>Cameroon</td>
<td>Honduras</td>
<td>Niger</td>
<td>Uganda</td>
</tr>
<tr>
<td>Canada</td>
<td>Hungary</td>
<td>Nigeria</td>
<td>Ukraine</td>
</tr>
<tr>
<td>Chad</td>
<td>India</td>
<td>Norway</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>Chile</td>
<td>Indonesia</td>
<td>Pakistan</td>
<td>United States of America</td>
</tr>
<tr>
<td>China</td>
<td>Iran</td>
<td>Papua New Guinea</td>
<td>Uruguay</td>
</tr>
<tr>
<td>Congo</td>
<td>Ireland</td>
<td>Paraguay</td>
<td>Vanuatu</td>
</tr>
<tr>
<td>Cote d’Ivoire</td>
<td>Italy</td>
<td>Peru</td>
<td>Vietnam</td>
</tr>
<tr>
<td>Croatia</td>
<td>Japan</td>
<td>Philippines</td>
<td>Yemen</td>
</tr>
<tr>
<td>Cyprus</td>
<td>Jordan</td>
<td>Poland</td>
<td>Zambia</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>Kazakhstan</td>
<td>Portugal</td>
<td>Zimbabwe</td>
</tr>
<tr>
<td>DR Congo</td>
<td>Kenya</td>
<td>Qatar</td>
<td></td>
</tr>
<tr>
<td>Denmark</td>
<td>Kyrgyzstan</td>
<td>Republic of Korea</td>
<td></td>
</tr>
<tr>
<td>Djibouti</td>
<td>Lesotho</td>
<td>Romania</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Liberia</td>
<td>Russian Federation</td>
<td></td>
</tr>
</tbody>
</table>
### Appendix 2: Included missions

**Included missions (missions have been active at some time during the studied time period):**

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Mission name</th>
</tr>
</thead>
<tbody>
<tr>
<td>BNUB</td>
<td>United Nations Office in Burundi</td>
</tr>
<tr>
<td>MINURCAT</td>
<td>United Nations Mission in the Central African Republic and Chad</td>
</tr>
<tr>
<td>MINURSO</td>
<td>United Nations Mission for the Referendum in Western Sahara</td>
</tr>
<tr>
<td>MINUSCA</td>
<td>United Nations Multidimensional Integrated Stabilization Mission in the Central African Republic</td>
</tr>
<tr>
<td>MINUSMA</td>
<td>United Nations Multidimensional Integrated Stabilization Mission in Mali</td>
</tr>
<tr>
<td>MINUSTAH</td>
<td>United Nations Stabilization Mission in Haiti</td>
</tr>
<tr>
<td>MONUSCO</td>
<td>United Nations Organization Stabilization Mission in the Democratic Republic of the Congo</td>
</tr>
<tr>
<td>UNAMA</td>
<td>United Nations Assistance Mission in Afghanistan</td>
</tr>
<tr>
<td>UNAMI</td>
<td>United Nations Assistance Mission for Iraq</td>
</tr>
<tr>
<td>UNAMID</td>
<td>African Union/United Nations Hybrid operation in Darfur</td>
</tr>
<tr>
<td>UNDOF</td>
<td>United Nations Disengagement Observer Force</td>
</tr>
<tr>
<td>UNFICYP</td>
<td>United Nations Peacekeeping Force in Cyprus</td>
</tr>
<tr>
<td>UNIFIL</td>
<td>United Nations Interim Force in Lebanon</td>
</tr>
<tr>
<td>UNISFA</td>
<td>United Nations Interim Security Force for Abyei</td>
</tr>
<tr>
<td>UNMIK</td>
<td>United Nations Interim Administration Mission in Kosovo</td>
</tr>
<tr>
<td>UNMIL</td>
<td>United Nations Mission in Liberia</td>
</tr>
<tr>
<td>UNMIN</td>
<td>United Nations Mission in Nepal</td>
</tr>
<tr>
<td>UNMIS</td>
<td>United Nations Mission in the Sudan</td>
</tr>
<tr>
<td>UNMISS</td>
<td>United Nations Mission in the Republic of South Sudan</td>
</tr>
<tr>
<td>UNMIT</td>
<td>United Nations Integrated Mission in Timor-Leste</td>
</tr>
<tr>
<td>UNMOGIP</td>
<td>United Nations Military Observer Group in India and Pakistan</td>
</tr>
<tr>
<td>UNOCI</td>
<td>United Nations Operation in Côte d'Ivoire</td>
</tr>
<tr>
<td>UNSMIS</td>
<td>United Nations Supervision Mission in Syria</td>
</tr>
<tr>
<td>UNTSO</td>
<td>United Nations Truce Supervision Organization</td>
</tr>
</tbody>
</table>
### Appendix 3: Women’s participation in domestic military forces

<table>
<thead>
<tr>
<th>Force contributing country</th>
<th>Women in domestic military forces, approximation (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>0.02</td>
</tr>
<tr>
<td>Belgium</td>
<td>8.11</td>
</tr>
<tr>
<td>Benin</td>
<td>9.64</td>
</tr>
<tr>
<td>Bosnia and Herzegovina</td>
<td>2.81</td>
</tr>
<tr>
<td>Burkina Faso</td>
<td>0.71</td>
</tr>
<tr>
<td>Canada</td>
<td>12.89</td>
</tr>
<tr>
<td>Chad</td>
<td>1.5</td>
</tr>
<tr>
<td>China</td>
<td>2.84</td>
</tr>
<tr>
<td>Cote d Ivoire</td>
<td>0.24</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>12.71</td>
</tr>
<tr>
<td>Denmark</td>
<td>5.48</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>3.57</td>
</tr>
<tr>
<td>France</td>
<td>11.31</td>
</tr>
<tr>
<td>Germany</td>
<td>7.15</td>
</tr>
<tr>
<td>Ghana</td>
<td>9.78</td>
</tr>
<tr>
<td>Greece</td>
<td>11.44</td>
</tr>
<tr>
<td>Hungary</td>
<td>18.97</td>
</tr>
<tr>
<td>India</td>
<td>6.082</td>
</tr>
<tr>
<td>Italy</td>
<td>2.28</td>
</tr>
<tr>
<td>Namibia</td>
<td>8.67</td>
</tr>
<tr>
<td>Nepal</td>
<td>0.58</td>
</tr>
<tr>
<td>Netherlands</td>
<td>8.98</td>
</tr>
<tr>
<td>Niger</td>
<td>0.57</td>
</tr>
<tr>
<td>Nigeria</td>
<td>3.13</td>
</tr>
<tr>
<td>Norway</td>
<td>7.85</td>
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<tr>
<td>Poland</td>
<td>1.59</td>
</tr>
<tr>
<td>Portugal</td>
<td>12.39</td>
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<tr>
<td>Romania</td>
<td>4.76</td>
</tr>
<tr>
<td>Senegal</td>
<td>10.81</td>
</tr>
<tr>
<td>Sierra Leone</td>
<td>1.89</td>
</tr>
<tr>
<td>Slovakia</td>
<td>6.53</td>
</tr>
<tr>
<td>Slovenia</td>
<td>14.61</td>
</tr>
<tr>
<td>South Africa</td>
<td>16.24</td>
</tr>
<tr>
<td>Spain</td>
<td>11.41</td>
</tr>
<tr>
<td>Sweden</td>
<td>11</td>
</tr>
<tr>
<td>Tanzania</td>
<td>9.64</td>
</tr>
<tr>
<td>Togo</td>
<td>1.54</td>
</tr>
<tr>
<td>Tunisia</td>
<td>9.78</td>
</tr>
<tr>
<td>Turkey</td>
<td>3.04</td>
</tr>
<tr>
<td>Uganda</td>
<td>1.44</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>9.43</td>
</tr>
<tr>
<td>United States of America</td>
<td>14.48</td>
</tr>
</tbody>
</table>
Appendix 4: Coding of variables

Coding of battle related deaths:


The variable has been coded by summarizing the events in the UCDP GED data per country code and year. To get the yearly average of battle related deaths the past 5 years in thousands, I have asked Stata to, for each observation, calculate:

\[
\frac{BRD_{t-1} + BRD_{t-2} + BRD_{t-3} + BRD_{t-4} + BRD_{t-5}}{5} \times 1000
\]

But as touched upon in the research design, some countries and some missions have needed some extra attention due to lack of data and missions operating over more than one boarder. The coding of those cases is described below.

Regarding Syria:
When data was downloaded, UCDP GED did not include events in Syria. The number of battle related deaths for Syria has therefore been provided by the “UCDP Syria Country Profile” (http://ucdp.uu.se/#country/652).

Regarding UNMOGIP:
The UN mission United Nations Military Observer Group in India and Pakistan (UNMOGIP) is mandated to supervise the ceasefire between India and Pakistan in the State of Jammu and Kashmir. To get battle related deaths in "target area" for UNMOGIP I have used the number of battle related deaths from the dyad “Government of India” and “Government of Pakistan” from the “UCDP Government of India- Government of Pakistan Profile” (http://ucdp.uu.se/#statebased/422).

Regarding UNDOF:
The UN mission United Nations Disengagement Observer Force (UNDOF) is mandated to maintain and supervise the ceasefire between Israeli and Syrian forces in the Golan. As the mission has not been mandated to handle the intra-state conflict in Syria it is not sound to include all battle related deaths generated in that conflict as possible threats to UNDOF personnel. In fact, UNDOF personnel was removed from the Syrian side of the boarder as hostilities in the area increased. I have therefore used the battle related deaths in Israel as a proxy for battle related deaths for UNDOF. The data was downloaded from the “UCDP Israel Country Profile” (http://ucdp.uu.se/#country/666). As data include battle related deaths from Gaza, the level of conflict intensity facing UNDOF peacekeepers could possibly be overestimated. It should however be more representative than including all battle related deaths caused in Syria during the time period.

Regarding UNTSO:
The United Nations Truce Supervision Organization (UNTSO) operates in the Middle East and is mandated to “monitor ceasefires, supervise armistice agreements, prevent isolated incidents from escalating and assist other UN peacekeeping operations in the region to fulfill their respective mandates” (UNTSO, 2017). Because this mission operates over boarders and can be moved with short notice it is difficult to code it as operating in one specific area. For
convenience, I have coded all battle related deaths taking place in Egypt as a proxy for conflict intensity facing UNTSO peacekeepers. This decision was mainly based on practical reasoning but also to avoid including the battle related deaths from Syria. Although far from perfect, it should be a reasonable approximation.

**Coding FCC level of liberal democracy**


When data was downloaded, V-Dem only provided systematic data until 2012. Where data for 2013, 2014 and 2015 have been missing, the missing values have been replaced with the most recent reported value. Here is an overview of missing values that have been replaced with values from last reported year:

- **Countries which were not included in V-Dem 2013:**
  - Austria, Cote d Ivoire, Croatia, Cyprus, Czech Republic, Djibouti, Ecuador, France, Gambia, Greece, Guatemala, Guinea, Guinea-Bissau, Honduras, Hungary, Ireland, Italy, Lesotho, Liberia, Malaysia, Mali, Mauritania, Montenegro, New Zealand, Niger, Senegal, Serbia, Sierra Leone, Slovakia, Togo, United Kingdom.

- **Countries which were not included in V-Dem 2014:**
  - Austria, Chad, Congo, Cote d Ivoire, Croatia, Cyprus, Czech Republic, DR Congo, Djibouti, Ecuador, France, Gabon, Gambia, Greece, Guatemala, Guinea, Guinea-Bissau, Honduras, Hungary, Ireland, Italy, Lesotho, Liberia, Madagascar, Malaysia, Mali, Mauritania, Montenegro, New Zealand, Niger, Senegal, Serbia, Sierra Leone, Slovakia, Togo, United Kingdom, Vietnam.

- **Countries which were not included in V-Dem 2015:**
  - Australia, Austria, Bangladesh, Belgium, Bulgaria, Canada, Chad, Chile, China, Congo, Cote d Ivoire, Croatia, Cyprus, Czech Republic, DR Congo, Denmark, Djibouti, Ecuador, Egypt, Finland, France, Gabon, Gambia, Greece, Guatemala, Guinea, Guinea-Bissau, Honduras, Hungary, India, Indonesia, Ireland, Italy, Japan, Lesotho, Liberia, Malaysia, Mali, Mauritania, Mexico, Namibia, Netherlands, New Zealand, Niger, Norway, Pakistan, Papua New Guinea, Peru, Republic of Korea, Senegal, Serbia, Sierra Leone, Slovakia, South Africa, Spain, Sri Lanka, Sweden, Switzerland, Togo, United Kingdom, Uruguay, Vietnam.
Appendix 5: OLS model fit, residual and fitted values analysis

To get an understanding of the distribution of the residuals I run a simple regression with clustered standard errors including the dependent variable, the duration variables and the control variables.

Table with OLS regressions.

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Proportion of female</td>
<td>Proportion of female</td>
</tr>
<tr>
<td></td>
<td>military personnel</td>
<td>military personnel</td>
</tr>
<tr>
<td>New mission</td>
<td>-0.0208*</td>
<td>0.00180**</td>
</tr>
<tr>
<td></td>
<td>(0.0114)</td>
<td>(0.000845)</td>
</tr>
<tr>
<td>Duration(years)</td>
<td></td>
<td>0.000245**</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.000118)</td>
</tr>
<tr>
<td>Duration² (years)</td>
<td>-0.0000245**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0000118)</td>
<td></td>
</tr>
<tr>
<td>BRD (mov. avg. 5y)/1000</td>
<td>-0.00685***</td>
<td>-0.00514***</td>
</tr>
<tr>
<td></td>
<td>(0.00230)</td>
<td>(0.00189)</td>
</tr>
<tr>
<td>PK fatalities (previous 2y)</td>
<td>0.000248</td>
<td>0.000303</td>
</tr>
<tr>
<td></td>
<td>(0.00172)</td>
<td>(0.00190)</td>
</tr>
<tr>
<td>Chapter VII</td>
<td>0.000389</td>
<td>0.0151</td>
</tr>
<tr>
<td></td>
<td>(0.00731)</td>
<td>(0.0130)</td>
</tr>
<tr>
<td>Mission size</td>
<td>0.000000406</td>
<td>-0.000000314</td>
</tr>
<tr>
<td></td>
<td>(0.00000777)</td>
<td>(0.00000956)</td>
</tr>
<tr>
<td>FCC women in labor force</td>
<td>0.00285***</td>
<td>0.00289***</td>
</tr>
<tr>
<td></td>
<td>(0.000898)</td>
<td>(0.000910)</td>
</tr>
<tr>
<td>FCC GDP/pc (log)</td>
<td>-0.000631</td>
<td>-0.000881</td>
</tr>
<tr>
<td></td>
<td>(0.00714)</td>
<td>(0.00712)</td>
</tr>
<tr>
<td>FCC population (million)</td>
<td>-0.0000194</td>
<td>-0.0000196</td>
</tr>
<tr>
<td></td>
<td>(0.0000206)</td>
<td>(0.0000205)</td>
</tr>
<tr>
<td>FCC lib. democracy</td>
<td>-0.0407</td>
<td>-0.0408</td>
</tr>
<tr>
<td></td>
<td>(0.0346)</td>
<td>(0.0349)</td>
</tr>
<tr>
<td>FCC contribution size</td>
<td>-0.0000113</td>
<td>-0.0000119</td>
</tr>
<tr>
<td></td>
<td>(0.00000895)</td>
<td>(0.00000897)</td>
</tr>
<tr>
<td>FCC total deployed</td>
<td>0.00000128</td>
<td>0.00000144</td>
</tr>
<tr>
<td></td>
<td>(0.00000467)</td>
<td>(0.00000469)</td>
</tr>
<tr>
<td>Year dummies</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.0539</td>
<td>-0.0769</td>
</tr>
<tr>
<td></td>
<td>(0.0699)</td>
<td>(0.0693)</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.0469</td>
<td>0.0485</td>
</tr>
<tr>
<td>Observations</td>
<td>3463</td>
<td>3463</td>
</tr>
</tbody>
</table>

Clustered standard errors in parentheses, clustered by “FCC”, 123 clusters.  
* p < 0.10, ** p < 0.05, *** p < 0.01. The statistical results were generated in Stata.
I then asked STATA to plot the distribution of the residuals based on model 2 in the OLS table.

Kernel density plot of the distribution of the residuals.

Pnorm plot. Pnorm graphs a standard normal probability and is sensitive to non-normality in the middle range of data. If residuals are normally distributed they should follow the linear line.
Qnorm plot. Qnorm plots the quantiles of the residuals against the quantiles of a normal distribution. It is sensitive to non-normality near the tails. Again, if residuals were normally distributed they should follow a linear line.

Checking homoscedasticity of residuals. For a linear ordinarily least squares model to be sound there should be no pattern when the residuals are plotted against fitted values. As seen, that is not the case when applying a simple regression model to my data.
I also checked for multicollinearity using variance inflation factor and correlation matrixes. There does not occur to be any strong multicollinearity between the variables.

<table>
<thead>
<tr>
<th>Variable</th>
<th>VIF</th>
<th>1/VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>FCC GDP/pc (log)</td>
<td>2.33</td>
<td>0.429913</td>
</tr>
<tr>
<td>Mission size</td>
<td>2.27</td>
<td>0.439669</td>
</tr>
<tr>
<td>FCC lib. democracy</td>
<td>2.26</td>
<td>0.441825</td>
</tr>
<tr>
<td>PK fatalities (previous 2y)</td>
<td>2.10</td>
<td>0.477172</td>
</tr>
<tr>
<td>FCC total deployed</td>
<td>1.86</td>
<td>0.536550</td>
</tr>
<tr>
<td>Chapter VII</td>
<td>1.69</td>
<td>0.592258</td>
</tr>
<tr>
<td>FCC contribution size</td>
<td>1.47</td>
<td>0.681281</td>
</tr>
<tr>
<td>FCC women in labor force</td>
<td>1.37</td>
<td>0.728316</td>
</tr>
<tr>
<td>FCC population (million)</td>
<td>1.27</td>
<td>0.785256</td>
</tr>
<tr>
<td>New mission</td>
<td>1.18</td>
<td>0.850795</td>
</tr>
<tr>
<td>BRD (mov. avg. 5y)/1000</td>
<td>1.09</td>
<td>0.916536</td>
</tr>
</tbody>
</table>
### Appendix 6: Alternative operationalizations of gender equality

<table>
<thead>
<tr>
<th></th>
<th>(1) Proportion of female military personnel</th>
<th>(2) Proportion of female military personnel</th>
<th>(3) Proportion of female military personnel</th>
<th>(4) Proportion of female military personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>New mission</td>
<td>-2.723***</td>
<td>-3.962***</td>
<td>-1.912**</td>
<td>-2.223**</td>
</tr>
<tr>
<td></td>
<td>(1.027)</td>
<td>(1.352)</td>
<td>(0.812)</td>
<td>(0.977)</td>
</tr>
<tr>
<td>New mission*Women in civil society</td>
<td>2.239*</td>
<td>4.210**</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1.304)</td>
<td>(1.638)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New mission*Women civil liberties</td>
<td></td>
<td></td>
<td>1.215</td>
<td>2.113*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(1.068)</td>
<td>(1.228)</td>
</tr>
<tr>
<td>Women civil liberties index</td>
<td></td>
<td></td>
<td>-0.159</td>
<td>-1.153</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.617)</td>
<td>(1.065)</td>
</tr>
<tr>
<td>Women civil society participation</td>
<td>1.265*</td>
<td>-0.00710</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.722)</td>
<td>(1.025)</td>
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<td></td>
</tr>
<tr>
<td>BRD (mov.avg 5y)/1000</td>
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<td>-0.289***</td>
<td>-0.289***</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.0505)</td>
<td>(0.0505)</td>
<td></td>
</tr>
<tr>
<td>PK fatalities (previous 2y)</td>
<td>0.00715**</td>
<td>0.00722**</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.00319)</td>
<td>(0.00318)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chapter VII</td>
<td></td>
<td>-0.525***</td>
<td>-0.522***</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.136)</td>
<td>(0.136)</td>
<td></td>
</tr>
<tr>
<td>FCC women in labor force</td>
<td>0.163***</td>
<td>0.164***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0247)</td>
<td>(0.0236)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FCC GDP/pc (log)</td>
<td>0.118</td>
<td>0.145</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.166)</td>
<td>(0.157)</td>
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<td></td>
</tr>
<tr>
<td>FCC population (million)</td>
<td>0.00126</td>
<td>0.00112</td>
<td></td>
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<tr>
<td></td>
<td>(0.000804)</td>
<td>(0.000807)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FCC lib. democracy</td>
<td>0.410</td>
<td>0.970</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.705)</td>
<td>(0.844)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FCC contribution size</td>
<td>0.00421***</td>
<td>0.00419***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.000293)</td>
<td>(0.000292)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mission size</td>
<td>0.0000782***</td>
<td>0.0000781***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0000121)</td>
<td>(0.0000121)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FCC total deployed</td>
<td>0.0000984</td>
<td>0.0000877</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0000867)</td>
<td>(0.0000867)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year dummies</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-1.980***</td>
<td>-10.13***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.578)</td>
<td>(1.858)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-0.888*</td>
<td>(0.484)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-9.796***</td>
<td>(1.865)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Observations:** 3463 3463 3463 3463

Standard errors in parentheses: * p < 0.10, ** p < 0.05, *** p < 0.01. 123 groups, grouping variable (cow_fcc).

The statistical results were generated in Stata.
The mechanism explaining why more gender equal force contributing countries should be less prone to deploy women to risky settings emphasizes women’s rights networks and movements as actors who potentially diffuse the gendered protection norm. In an attempt to capture the presence of women’s rights advocates in a force contributing country, I have operationalized the interaction variable in two alternative ways:

*New mission* × *FCC women civil society*, multiplies the variable *new mission* with a variable capturing women’s participation in force contributing countries’ civil societies. *FCC women civil society* is an index variable including indicators as freedom of discussion for women, women’s participation in civil society organizations, and presence of female journalists. The variable was provided by Varieties of Democracy (V-Dem) (Coppedge et al. 2016) and can take values between 0 and 1.

*New mission* × *FCC women civil liberties*, multiplies new mission with a variable capturing the level of civil liberties amongst women in force contributing countries. *FCC women civil liberties* is an index variable including indicators as freedom of domestic movement for women, freedom from forced labor for women, property rights for women, and access to justice for women. The variable was provided by Varieties of Democracy (V-Dem) (Coppedge et al. 2016) and can take values between 0 and 1.

When data was downloaded, V-Dem only provided systematic data for these two variables until 2012. Where data for 2013, 2014, and 2015 have been missing, the missing values have been replaced with the most recent reported value. As the within-country variation is generally low during this short time period, this solution should not bias the results of this study.

As discussed in the main piece, the result does not provide support for the hypothesis stating that more gender equal countries are less prone to deploy women to the early stages of missions. Rather, more gender equal states seem more prone to deploy women to the early, risky, stages of missions.