PhD Summary

This thesis departs from the re-emergence of strategic competition between nations across an increasing number of domains. Besides traditional threats, the West faces a broad number of challenges in the informational and other non-military (e.g. economic) domains, popularly named as ‘hybrid threats’. We study these interactions by means of a traditional deterrence game, which exhibits the competition between a defender (Western nations) and a challenger (e.g. Russia, China, Iran) that aims to revise the status quo. Our model presents the two-stage choice problem the defender is confronted with, since it has to allocate a limited number of resources across diverse deterrent capabilities. In doing so, it must not only decide on the force posture (i.e. the guns vs butter trade-off) but also on the underlying force structure (i.e. a guns vs guns trade-off), which entails the determination of priorities between capabilities. The further expansion of our model, by incorporating findings from behavioural-economic theory, indicates that a defender will be subject to biases when choosing between a series of threats that diverge strongly in terms of probabilities and impact. Altogether, our model demonstrates that the challenger forces the defender to devote large budgetary resources to deterring high impact/low probability events by playing a signalling game (e.g. by organising exercises, regularly probing NATO’s borders). Paradoxically, this further increases the probability that the challenger will resort to hybrid threats, as the success rate of hybrid conflict is perceived to be higher. Consequently, the traditional notion of the ‘status quo’ (i.e. a peaceful equilibrium) has been replaced by a dynamic situation in which hybrid intrusions occur frequently. These frequent attacks, illustrated by numerous available datasets, lead to considerable cumulative losses and an associated gradual shift in the status quo.
Policy responses to this increasing number of threats could diverge strongly. States that acknowledge the consequences associated with hybrid threats respond by increasing their security expenditures, i.e. substituting butter by guns (e.g. the US). States that do not have the available budgetary space (due to other non-military priorities) continue to prioritise conventional deterrence, providing only limited resources to augment their hybrid deterrence. The strong increase in a nation’s security budget to compete in all the operational domains does not necessarily constitute the most optimal response strategy. As we currently lack precise estimates regarding the (economic) consequences of several hybrid threats and as the nature of hybrid threats (e.g. the ability to remain undetected) renders it difficult to determine the opponent’s intensity of using these threats, we could fall into the trap of ‘addition warfare’. This could lead to excessive reactions, which in turn inflict high societal costs as we are ‘over securing’ the state. Since the operational cost of launching hybrid attacks is low (compared to preventing them), it will become more and more difficult for the defender to remain superior in all domains and to fend off all attacks at an acceptable (societal) cost.

A more reasoned approach consists of balancing threats according to their probability of occurrence and their consequences. Approaching this question from a defence-economic perspective shows the importance of comparing the marginal costs of different hybrid attacks and the associated costs of deterring them. This thesis already provides two examples of such estimates: the consequences arising from economic statecraft (stemming from an analysis of the Russian-Ukrainian conflict in 2014), and the potential repercussions associated with disinformation campaigns. Both cases show that the impact of these threats can be far-reaching, indicating the need for more in-depth research.

Hybrid threats should not be countered solely by the military, but require a coordination across sectors and national/international institutions, resulting in a whole of governance approach. This does not only necessitate a clear listing of responsibilities, but also affects the way we think about burden sharing. Whereas strategic (e.g. nuclear) deterrence provides purely public benefits, the outputs required to deter (by denial) hybrid threats create benefits that are private or impurely public and that are aggregated according to the weakest-link composition function. While NATO takes on a number of responsibilities, many of the measures to be taken remain a national responsibility, as directed by NATO’ article 3 concept of ‘resilience’. Consequently, we must strive for a fair benefit-burden concordance between the alliance members, incorporating the consequences of hybrid threats, if we want to maintain solidarity within the
alliance. As a result, we can no longer solely look at aggregate military expenditures when assessing NATO members’ burden sharing efforts.