

Long-Term Defence Planning in an Unsettled Security Environment

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ABSTRACT

FFI provides operations research support to Norwegian long-term defence planning. The support is based on a scenario portfolio, designed to span the range of missions Norwegian defence could become involved in over the next 20 years. Capability requirements for the Norwegian Armed Forces are analysed from the scenarios. The Russian invasion of Ukraine in February 2022 will change the security situation in Europe for years to come. This will also have implications for the type of scenarios of relevance to Norwegian long-term defence planning. In order to develop a flexible force, able to handle a wide variety of security challenges, it is essential to understand this uncertainty and its consequences. In this paper, we will present our approach to review the scenario portfolio in a changing and unsettled security environment. We have identified the most important strategic parameters as well as possible trends and future developments. These form a set of alternative future strategic contexts, within which we can systematically evaluate the relevance of different types of scenarios. The method allows us to revisit and reevaluate scenario relevance on a regular basis or when we observe a shift in trends.

1.0 INTRODUCTION

One of the main difficulties in long-term defence planning is the necessity of planning for an unknown future. The future security environment is uncertain, with an infinite variation in specific situations that may challenge national security. Since significant changes to the defence force often take many years to implement, planners should aim for flexible force structures that are capable of solving a wide variety of security problems. To this end, the Norwegian Defence Research Establishment (FFI) maintains a portfolio of scenarios for use in our analysis support to Norwegian long-term defence planning. The purpose of the scenario portfolio is to span the range of possible conflicts well enough that if a capability is needed in a real future conflict, this capability need has also been identified in the scenario analysis.

In addition to serving as a testing ground for future force structures, the scenario portfolio is a representation, or an interpretation, of the level of ambition for Norway's military defence: It describes the range of threat situations that are considered likely enough and consequential enough to plan for. The design of the scenario portfolio thus involves a judgement about whether scenarios are plausible within (in this case) a 20-year perspective. Quantifying the likelihood of such scenarios happening is difficult, but ultimately one needs to decide whether a proposed capability is critical enough to justify acquisition, and this depends on what scenarios are used for analysis.

In this paper, we describe our challenges with updating our scenario portfolio simultaneously with the Russian invasion of Ukraine. Not wanting to develop a new scenario portfolio that would soon be irrelevant, we took a step back and reconsidered relevant variables for the future strategic context, and how changes in the variable would influence the Russia-related scenarios. This has a wider scope than consequences of the Ukraine conflict, since other changes in the security environment should also influence our scenario portfolio when it comes to scenarios involving Russia.

The method enables us to identify the strategic factors in the security environment that may have an impact on our analysis. By monitoring continuous developments or sudden changes in these factors, we may systematically reevaluate the relevance of the various scenarios on a regular basis, without reviewing the entire scenario portfolio.

The work is ongoing, and we have so far only developed the framework in a small group for internal purposes. In subsequent work, we hope to involve a wider group of experts. The problem represents a moving target that suggests that we can never fully conclude, but the work will still be of use to us when discussing what the world would have to look like for our scenarios to be relevant.

2.0 SCENARIOS IN LONG-TERM DEFENCE PLANNING

The word “scenario” is somewhat ambiguous, and can carry at least a couple of distinct meanings, depending on the user’s habits and the objective of their work. Chermack et al. [1], in their review of scenario planning literature, describe scenarios as tools to consider “paradigms that challenge [scenario planners’] current thinking”. They trace the origins of scenario planning and use Kahn and Wiener’s [2] description of the year 2000 from 1967 as an example of early scenario thinking. In this sense, a “scenario” is a description of what a future world may look like. As an application, analysis utilizing such “strategic context” scenarios has been widely used in corporate business strategic planning.¹

In contrast, the word “scenario” may denote a specific hypothetical situation, which analysts can use for contingency planning, for assessing an organisation’s capacity for handling events, or for training purposes. Scenarios of this kind differ from the “strategic context” type scenarios by being much more detailed and by describing evolving events rather than what the world looks like in the hypothetical future. They can be set in an alternative future, but can also be set in today’s strategic context, or even without relation to any specific strategic context. Scenarios of this kind are widely used for military planning: The NATO RTO SAS-081 Specialist Team described such scenarios as “particular military operational-tactical contingencies”, with descriptions “detailing the operation, together with associated assumptions on opponent forces, terrain, and environmental features.” [3] This is also the way we at FFI use the term,² and the way we will use the term in the rest of this paper, unless we explicitly note that we are discussing “strategic context” scenarios.

A scenario is useful for analysing possible courses of action, identifying capability needs, and estimating a force composition’s ability to solve that particular type of military challenge. A scenario *portfolio*, together with concurrency considerations, can in addition represent the overall level of ambition for Norway’s military defence. It describes the range of operations that the military forces are expected to be able to handle, in the sense that capabilities needed in real future conflicts should be identified as capability needs in the scenario portfolio. Wilson [5], quoted in Amer et al. [6], suggests five criteria for scenario selection that apply here: *Plausibility*, *Consistency*, *Utility/Relevance*, *Challenge/Novelty*, and *Differentiation*. The inclusion of a scenario in the portfolio will lead to analytic recommendations to procure or maintain the capabilities needed in this scenario.

Designing the scenario portfolio therefore involves asking the delicate question about whether scenarios are sufficiently plausible for us to spend resources to mitigate the associated risk. There is no reason to include scenarios that are impossible to realise. A scenario therefore necessarily implicitly or explicitly sits inside a “strategic context” type scenario. If this realisation is possible in today’s strategic context, we have already verified plausibility. If the realisation of the scenario depends on significant changes in strategic factors,

¹ The energy company Shell is well known for using scenarios in their planning. On their website they describe their scenarios as “plausible and challenging descriptions of the future landscape.” See <https://www.shell.com/energy-and-innovation/the-energy-future/scenarios/what-are-scenarios.html> (visited 19 June 2022).

² We refer to Vatne et al. (2020) [4] for a general description of FFI’s approach to long-term defence analysis.

plausibility depends on the plausibility of the corresponding “strategic context” scenario. Conversely, if the strategic context changes, a scenario or type of scenario might gain or lose relevance.

FFI’s portfolio of scenarios is structured in scenario classes, which are categories of scenarios based on morphological analysis over the parameters *actor*, *goal*, *method*, and *means*, as described by Johansen [7]. Note that the scenario portfolio we discuss here is only concerned with the purely national part of the Norwegian defence concept, describing security problems that Norway must be able to handle on its own, and early phases of larger conflicts where the alliance is expected to become involved later. Further contributions to collective defence of the alliance, including NATO capability targets, are analysed separately.

On this abstract categorical level, designing the scenario portfolio involves plausibility questions such as:

- Is it plausible that another state will have both sufficient capability and the motivation for launching an attack on Norway with the ambition to control the entire nation and replace the regime?
- Is it plausible that a non-state actor will have military capability and motivation for using this capability in an attack against targets in Norway?

All scenario classes must be populated with specific scenarios that span the range of relevant opponent methods and means. In particular, it is important to cover the relevant weapon types (including expected technological progress), operational concepts and courses of action, and geography. For our purpose, which is to identify military capability requirements, it is not strictly necessary to cover the range of possible opponents, or the range of possible opponent objectives or goals.

As long as the current security environment is reasonably stable, we have a degree of confidence in the established plausibility judgements. However, rapid changes to the security environment compel us to revisit them. The Russian invasion of Ukraine in the spring of 2022 is an event that may change our estimates of which scenarios should be included in our scenario portfolio. Some sample observations that illustrate this are: 1) The Russian government seems more willing than expected to engage in large-scale military conflict in Europe. 2) The Russian government will use up significant resources as a result of the invasion, both economically and in terms of conventional military assets. 3) Sweden and Finland are likely to become NATO members. 4) The use of nuclear weapons may be more likely than before, especially if the war in Ukraine over time leads to desperation within the Russian government.

It is still too early to know what the security environment a few years into the future will look like, but it is not too early to begin thinking about possible consequences for our estimates. The rest of this paper describes our approach to this problem in our ongoing scenario portfolio update.

3.0 VARIABLES FOR STRATEGIC CONTEXT

In this chapter, we describe our approach to the question about how the plausibility of our Russia-related scenarios changes as a consequence of changes in the security environment. Our thought process was triggered by the Russian invasion of Ukraine, but it has a somewhat wider scope, in the sense that there are other strategic factors that are important as well.

3.1 Modelling the Strategic Context

The first step in developing our framework is to chart the variables for strategic context that we believe are relevant for the plausibility judgements. This is in line with the “influencing factors” generic step for (“strategic context”) scenario development described in Amer et al. [6].

We used a variant of brainstorming and creative combinations, described in the NATO Alternative Analysis Handbook [8]. We are still at an exploring stage in this work, so our local team, who are the users of the scenario portfolio, performed this without inviting a broad range of experts. Such an expansion would be necessary if we decide to incorporate the framework properly in our chain of analysis.

The initial question for the brainstorming was “what strategic factors are important for the plausibility of Russia-related scenarios in FFI’s scenario portfolio for Norwegian defence?” The identified variables for the strategic context include Russian, US, European and Chinese political, military and economic development, Swedish and Finnish security relations, the role of nuclear weapons in conflict, climate change and technological development. We do not claim to have identified an exhaustive list of relevant variables, partly because it is thus far based on a limited analysis, and partly because there is an element of subjectivity in judging whether a factor is important. Global economy could also be included in the list above, but this factor is indirectly covered by economic development-factors of the different actors.

3.2 Variables for Strategic Context and Implications for Scenario Plausibility

The next step in developing this framework is to describe possible future states for the different variables, and to discuss what implications these states can have for the plausibility of our scenarios. Note that the variables are *not* independent, and neither are the implications they may have on the plausibility judgements. However, it is interesting to study their impact in isolation before seeing them in relation to each other. It is outside the scope of this short paper to discuss all the factors, and the content of that discussion is still not fully developed, but the example of Russian political development illustrate how one can discuss the implications, see Table 1.

Table 1: Example of scenario plausibility considerations for the variable Russian political development. (The table represents preliminary thoughts, and not a full analysis.)

Russian political development	Consequence for scenario plausibility
Autocracy Continuation of current situation. Most likely with rapid resolution in Ukraine.	No change.
Increased isolation (towards dictatorship) Strengthening of today's regime or regime change to a leadership which is worse in Western view.	Scenarios are at least as plausible as currently.
Western orientation (towards democracy) Break-down of current regime.	Attacks are significantly less plausible. Small scale operations could be possible if European cooperation generally breaks down.
Chaos Break-down of current regime with subsequent unresolved situation.	Russian ability to conduct major operations against other countries would deteriorate, making such scenarios much less plausible. Small attacks could still be possible, but less likely as Russian actors would probably prioritise internal conflict. Nuclear scenarios, however, could become more plausible.

Eight important factors are given in Table 2. The top row is what we assessed to be pre-invasion trends. The other entries in the table span a range of possibilities by either strengthening or reversing current trends, or by considering wildcards. Values that are expected to maintain or increase the plausibility of large-scale Russian attack scenarios against Norway are shaded. The table shows a simple model, and the values are so far not sufficiently analysed. An example is that the overall effect of change in Swedish and Finnish alliance policy is very uncertain. A large-scale attack would be plausible in a “strategic context” scenario incorporating values from shaded boxes. In the table, we have highlighted an example of such a context by bold and italic font. Note that smaller scenarios could still be plausible in other strategic contexts as well.

Table 2: Eight important strategic factors with relevant values. The factors are assumed independent, i.e. different combinations are possible. Values in white cells are associated with decreased plausibility of large-scale Russian attacks against Norway. Consequences of Swedish/Finnish alliance memberships are uncertain.

Russia political	Russia military	Russia economic	NATO/EU political	NATO/EU military	US	Sweden/Finland	China
Autocracy	<i>Regional great power</i>	Stagnation	Existing, cohesion slowly deteriorating	<i>Slowly increasing capability</i>	<i>Increased security interests in Asia</i>	<i>NATO enhanced partners</i>	Security interests in Asia, economic interests globally
<i>Increased isolation</i>	Increased military capability	Economic growth	Increased cohesion	Significantly increasing capability	Increased security interests in Europe	NATO members	Increased global security interests
Western orientation	Reduced military capability	Economic recession	<i>Disintegration / diverging interests</i>	Reduced capability	International withdrawal	Turn away from NATO	International withdrawal
Chaos	Radical military concepts	<i>Backed by partner</i>				Nordic defence union	<i>Strong Russian supporter</i>

3.3 How Do the Factors Affect Our Scenario Planning?

The identified variables for strategic context listed in the previous chapter, and the range of possible values for each of the variables, indicate that any kind of quantitative estimate of likelihood for scenarios is out of reach. However, we may get indications about what developments, and combinations of developments, will make our scenarios more or less plausible. At best, we can say something about what the future world will have to look like for a conventional attack against Norwegian territory (with the intention of time limited control over parts of the territory) to be likely. Note that this is somewhat different from ordinary use of “strategic context” scenarios, where one would develop a set of “strategic context” scenarios based on compatible values from each of the identified variables, and then use these to study possible environments for future conflict involving our armed forces. In a sense, our approach turns that analysis upside-down.

The strategic factors described by our variables are changing, and the changes will have consequences for Norwegian defence planning. One of the most pressing questions concerns the effect of a Swedish and Finnish entry into NATO on our scenarios. In particular, a Russian territorial threat against Norway based in Russia’s need for strategic depth will have military consequences for Sweden and Finland. Although this is true even in the current situation, a Swedish and Finnish entry into NATO changes the options for allied courses of action and strengthens the force pool on NATO’s side. It makes it even less plausible with a conflict between NATO and Russia that involves Norwegian territory without also involving Swedish and/or Finnish territory. It may also lead to changed priorities within Russian peacetime organization. We need to revise our scenario portfolio with this in mind in order to advise on the future disposition of Norway’s military defence.

4.0 CONCLUSION AND FURTHER WORK

As this paper has discussed, we are in the early stages of considering what changes we need to make in FFI’s scenario portfolio because of the Russo-Ukrainian war. As a framework, we have made a preliminary description of strategic factors of relevance, and discussed their individual contributions to the plausibility of scenarios. In order to make proper use of these ideas, we need to validate our findings thus far by involving a broader range of experts, and work on the cross-impact of the different factors. This will give us a better understanding of what the world needs to look like for our scenarios to be plausible.

Additionally, we experienced the usefulness of defining the strategic context explicitly for communications purposes. This is very valuable when conducting war-games as part of the scenario analysis, and simplifies discussions about assumptions.

The variables and factors are also interdependent. It would be interesting to model these dependencies to be able to create coherent and internally consistent alternative futures. Our ambition when we started his work was actually to describe a range of “most likely” futures to be able to inform the decision of level of ambition for the Norwegian Armed Forces. Finding such a range of “most likely” futures requires a large team of experts using future studies techniques, identifying underlying drivers, taking outside views and assessing probabilities. This is unfortunately not doable within the available resources in this research project. Nevertheless, we have made a model of the future security environment, and we monitor the factors to identify changes that will affect our scenario portfolio, e.g. Sweden’s and Finland’s NATO membership.

The future is a moving target, and our descriptions of the security environment in a long-term perspective will never reach a final state. We aim to better our ability to translate observations in the current world to judgements about future scenarios and capability needs.

5.0 BIBLIOGRAPHY

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