HCSS StratMon 2016

THE WHEEL OF FORTUNE

UP AND DOWN, ROUND AND ROUND, FASTER AND FASTER

Annual Report 2015-2016

HCSS helps governments, non-governmental organizations and the private sector to understand the fast-changing environment and seeks to anticipate the challenges of the future with practical policy solutions and advice.

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The Hague Centre for Strategic Studies

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Rota fortunae

The picture used as inspiration for the 2016 Strategic Monitor is the 'wheel of fortune' from the beautifully illuminated manuscript *Hortus deliciarum* (Garden of Delights). This manuscript contained the first pictorial encyclopedia that was produced in the 12th century by Herrad of Landsberg, abbess of Hohenburg Abbey (Mont St. Odile) in the Vosges mountains, France. Herrad spearheaded a small think tank (*avant la lettre*) that set out to compile the knowledge that was known in those days. The team did so in an historically unusually 'visual' way, yielding one of the most celebrated illuminated manuscripts of the period: even in the last few years (950 years later) two books were still written on it. As the manuscript was born in one of Europe's historic shatterbelts, the original was destroyed in the Franco-German war of 1870, but it survived because others had replicated it in their work. We respectfully dedicate our own attempts to build and convey strategic knowledge in a visual way to abess Herrad's *Hortus deliciarum*.

Salomon et le jeu des marionnettes. La roue de la Fortune Planche XXXVII
Bibliothèque nationale de France

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EXECUTIVE SUMMARY

The 2016 HCSS contribution to the Dutch government's Strategic Monitor surveys a number of basic trends in the international security environment and what they may tell us about its shorter and longer term future(s). We continue to build our analyses on a set of tools and datasets that provides decision makers a both fine-grained *and* big-picture 'monitor' of what is going on in the security environment – much in the same way as they have become accustomed to in, for instance, financial and economic matters. The image we use for our analysis this year is that of a 'Wheel of Fortune' that keeps going up and down, round and round – and seems to be doing so faster and faster. This executive summary will first summarize what our monitoring tools tell us about the gyrations of the Wheel of Fortune, and will then tease out some of the key implications for defense and security organizations in general and for the Dutch defense and security organization in particular.

MAIN FINDINGS

In this year's edition we report on five separate work strands that HCSS pursued. Three of these focus on recent trends and what these might alert us to: 1) trends in conflict and cooperation; 2) trends in violent conflict; and 3) trends in what we call *geodynamics*: the different shifts between great powers and some key pivot states that are moving closer to or further away from them. Two additional work strands look more resolutely at the future by using the HCSS *MetaFore* approach in which we try to map the bandwidth of views on various aspects of the future security environment: 4) one strand uses our multilingual *MetaFore* approach to code the insights from a few hundred foresight studies published in the past few years in different languages (Arabic, Chinese, English, Farsi and Russian); and 5) the last strand applies our approach to map how the legal scholarly community looks at the future(s) of law and international security.

Cooperative international events still dominate conflictual ones. However, the arguably most impactful types of events – the factual military and security ones – have been steadily deteriorating.

With respect to recent **trends in conflict and cooperation**, our event datasets continue to show a world in which cooperative international events still dominate conflictual ones by a ratio of three to one. However, a number of important caveats apply. First of all, the majority of these cooperative events are verbal and not factual. As the saying goes: "Talk is cheap". Secondly, the relative proportion of cooperative events shows a slight downwards trend over the past decade, even though 2015 proved a slightly better year than 2014 on this indicator – a finding that we see recur in quite a few of this year's data-series. Thirdly, we have now added a capability to zoom in on the different types of cooperation, and the findings there show that the arguably most impactful types of events – the factual military and security ones – have been steadily deteriorating, with very small additional decreases over past three years. Finally, when we zoom in on the amount of cooperation and conflict in different regions – which we are able to do for the first time this year – we see big differences between them. In the overall figures for the past three years Oceania, Europe and North America jump out as the most cooperative ones, even though the metric we use for this (their average Goldstein scores) shows all of them declining – most of all in Oceania. Africa started this time series relatively high, but it has the most downward slope of all regions. Asia exhibits the smallest decline and Latin America is the only region that displays a slightly positive slope. In terms of pure military events, we see that three regions show improvements in their scores; Latin America most visibly, Oceania and North America quite modestly. The other three regions are experiencing ever less cooperation: Europe sees the biggest decline, Africa declines by about half the amount of Europe and Asia almost 10 times less than Europe.

We also look at the respective roles of state and non-state actors (NSAs) in conflict and cooperation. The gap in the relative importance of state vs non-state actors started narrowing quite significantly in the mid-noughties, without, however, non-states taking over from states. That trend of convergence essentially stalled in the 2010s. This yields a double message: the two types of actors are closer to each other in terms of relative importance in global events than many politicians or policy-makers may think; but contrary to what many global captains of industry

may think, the data still show states remaining dominant. We also find that states still engage in relatively more conflictual events than non-states, but not by much. This gap was bigger during the Cold War, and has never been as small as in recent years. When we look at these data by region, we observe that – not surprisingly – most NSA-events do not get associated with a particular country (and therefore region). But we also see that most NSAs that do get associated with a country (and therefore region) are in Northern America. Asia is in second position here – with a much lower overall number, followed by Europe.

In our analysis of **trends in violent conflict**, we show that the number of violent deaths from intra-state, inter-state, state-to-non-state, and non-state-to-non-state conflicts was higher in 2014 than in any year since 1994. It still, however, remains below a Cold War era average of over 180,000 battle-related deaths per year. Large differences across regions appear. Volatile regions like the Middle East, North Africa, South Asia and Sub-Saharan Africa are much more affected by violent conflict than more affluent and developed regions such as Europe and North America. A relatively small number of countries, especially in Sub-Saharan Africa, seem to be caught in so-called conflict traps and do not (yet?) seem to be able to escape their enduring histories of violence. In addition, a number of long-term, low-intensity conflicts, with recurring episodes of violence, are located in the East Asia and Pacific region (e.g., Myanmar, Philippines) and in Latin America (Colombia, Mexico – which in many years counts as a major conflict).

In the last few years, the number and the death toll of *major conflicts* has gone up while the number of *minor conflicts* has decreased. In 2014, the number of deaths from major conflicts was over 10 times larger than in 2005 (a little under 122,000 deaths). Much of the high death toll of 2014 was due to the intensity of Syrian Civil War (over 50,000 deaths) as well as the related conflict in Iraq (over 15,000 deaths). When we look at the difference between internal and external conflicts, we see that the death toll from *internal conflicts* has increased from

roughly 20,000 in 2010 to over 100,000 deaths in 2014, accounting for more than 80% of overall conflict related deaths. The number of casualties from non-state and state-to-non-state violence is also going up, from roughly 5,000 deaths each in the second half of the last decade to above 10,000 people in 2014. In most years, traditional interstate wars have not been responsible for a significant amount of deaths, the exceptions are 1991 (the First Gulf War), 1999 and 2000 (the Eritrean – Ethiopian War) and 2003 (the invasion of Iraq).

The findings of this analysis reveal the stagnation of the New Peace. Although the overall picture is not entirely gloomy, recent and ongoing trends offer little factual basis for optimism about global levels of violence in the near future.

We this year also for the first time produced a set of instability projections for all countries based on two models from the HCSS portfolio of political instability forecasting models. One projects future conflict intensities based on observed fatalities. The second one projects conflict status based on extrapolations from both traditional country/year datasets (like infant mortality, regime characteristics, proximity, conflict duration, etc.) and event datasets. The findings of this analysis reveal the stagnation of the New Peace, while projecting substantial conflict risk especially in volatile regions such as the Middle East and Sub Saharan Africa. Europe is not shielded from these conflicts due to spillover effects that manifest themselves in the form of terror attacks and refugees. Despite overall negative trends in global violence, there have also been a number of positive developments, including lower intensities of non-state violence in Latin America and lower levels of intrastate conflict in the East Asian and Pacific region. As such, although the overall picture is not entirely gloomy, recent and ongoing trends offer little factual basis for optimism about global levels of violence in the near future.

The third monitoring effort that we report on in this year's edition looks at what many analysts describe as tectonic shifts in the world's geopolitical plates. We introduce the term **geodynamics** to encompass all spatial aspects of geo-political, geo-economic, geo-societal, geo-legal, geo-cultural, etc. dynamics in the international system. And what we set out to do with these geodynamics is to *nowcast* them – a term that has found its way from weather forecasting into economics and that is made possible by the proliferation of highly granular datasets that can be used to generate reasonable accuracy within a relatively

nearby 'window of predictability' in those areas. HCSS focuses especially on what is happening with the world's great powers and with some smaller, strategically important states that 'pivot' between them.

Based on our *event datasets*, we do not find significantly increased **great power assertiveness** across the board. These datasets do, however, reveal increased noticeable increases over the past few years especially in the category of confrontational military behavior – presumably the most dangerous form of assertiveness. Other, *non-event-based* indicators of great power assertiveness paint a balanced picture even on the military side, although it should be noted that these yearly figures typically lag 1-2 years behind. Overall arms sales by great powers have declined in recent years and have stayed significantly below the high levels that characterized the Cold War. Military expenditures by all great powers have stabilized and even declined somewhat in recent years after steady increases in the first decade of this century. In terms of military personnel as percentage of the active labor force, 2013 was the lowest year for this indicator since 1992. Great powers, as a group, deployed significantly fewer troops in 2013 than in 2012 (from 330k to 280k). In 2014, that trend was reversed somewhat (to 285k) but still remained significantly lower than in 2013. The various weapon systems in the arsenals of the great powers, as reported in the most frequently cited dataset (the IISS *Military Balance*), also show a mixed picture. We see fairly sizeable increases in a number of weapon systems that can be construed as reflecting power projection ambitions like fourth and fifth generation aircraft; attack helicopters; cruisers/destroyers; heavy unmanned aerial vehicles, modern armored infantry fighting vehicles, main battle tanks and principal amphibious ships. At the same time we see declines in the number of bomber aircraft, frigates and in tankers/mixed tanker-transport aircraft. The number in other categories of major weapon platforms either increased slightly or stayed at the same level. We hasten to add that, based on their steeply more ambitious longer-term investment plans, the projected future trajectories for both Russia and China presage a darker future in many of these categories. But at this moment in time, the evidence we are able to present does not show a major spike in overall (!) great power assertiveness.

Great power assertiveness over the past few years has increased in the category of confrontational military behavior – presumably the most dangerous form of assertiveness.

When we turn our attention to the individual great powers however, a different picture emerges – even just based on current data (and, again, not on projected trends). Here we find two great powers that show clear signs of what we have called *assertivitis*: an affliction characterized by an almost pathological inclination to assert one's power, especially in negative ways. In one case – China – we find a case of developed assertivitis and in another one – Russia – of inchoate (but recidivist) acute assertivitis. We find another great power – the United States – that has been suffering from chronic assertivitis for an extended period of time but seems to have embarked upon a path of (a modest and uneven) recovery. And we observe two great powers – India and the European Union – that do not appear to be suffering from this affliction. They exhibit an overall much lower-profile stance, even though they also show what may still prove to be early symptoms of assertivitis: in the case of Europe mostly in the (both positive and negative) economic realm; and in the case of India in a number of forms of positive assertiveness.

This year's reporting on great power assertiveness leaves us even more worried than last year. China represents a case of developed assertivitis and Russia of inchoate (but recidivist) acute assertivitis. The chance of a Cuban Missile Crisis-type event or worse continues to increase.

Overall, this year's reporting on great power assertiveness leaves us even more worried than last year. We have no way to reliably discern where the tipping point exactly lies that pushes the world over the brink into a major cataclysm of the sort we have not seen since the Korean War. But we demonstrably see a number of great powers recklessly moving towards that point. The chance of a Cuban Missile Crisis-type event, or worse, in Syria, the South China Sea, the Baltics, Ukraine, Moldova or elsewhere — whether because of accidental, inadvertent or deliberate escalation — continues to increase.

Our nowcasting geodynamics chapter also includes some preliminary new data that build on the work HCSS did on **pivot states** last year. We are in the process of constructing a new dataset in order to get a better handle on the

We see pivot states – not just regionally, but across the world – increasingly gravitating towards China, whereas the EU's clout is seen to be waning.

directions in which pivot states are re-aligning themselves towards or away from great powers in four categories: diplomatic, economic, ideational and military. We are not

yet in a position to present a full analysis of all datasets, but we do present preliminary figures on the overall 'attraction' to two great powers – China and the EU – of the pivot states. The *non-event data* show a remarkably steady pivoting trend towards China – very much in line with China's own claim of its 'peaceful rise'. If we look at the components of this overall rise, we see that it is especially driven by a steady diplomatic and a much more dramatic economic rise – whereas the military component, as indicated by arms sales, is much more erratic. The story we obtain from the *event data* is quite similar. We see pivots – not just regionally, but across the world – increasingly gravitating towards China: not so much ideationally, which remains fairly steady on this indicator, but especially economically and – maybe surprisingly – even more militarily. For Europe, our *non-event dataset* shows the world's pivots displaying a fairly steady amount of affinity towards the EU. When we look at the breakdown, we see that especially the collapse of the Soviet Union meant that the newly independent post-Soviet states started (partially) gravitating towards the EU diplomatically and ideationally. Militarily and economically, however, the EU's clout is seen to be waning. The *event data* for the European Union also show that the EU still exercises a quite strong pull towards the world's pivots. That pull is declining in ideational terms, but still strengthening in both economic and – even – military terms.

Good old-fashioned politics widely seen as a key driver of the future security environment, as a key development and as a domain in which future conflict is seen to take place.

We this year once again put quite some effort into systematically surveying the bandwidth of views on the future(s) of international security as they emerge from different language domains using our **multilingual *MetaFore*** approach. This year we collected, hand-coded and then visualized and analyzed 483 recent security foresight documents in Arabic, Chinese, English, Farsi, Russian, and Turkish. The first major finding is how diverse views of the future are, both across and even within these language domains. There are a few themes that pop up fairly consistently throughout many of these documents. One of them is the primacy not of technology or of the economy (as we saw in many Western foresight studies in previous editions), but of good old-fashioned politics as a key driver of the future security environment, as a key development and as a domain in which future conflict is seen to take place. Other fairly consistent themes are the emphasis across all languages (except Turkish) on major powers

as significant drivers and the regional focus across all languages – particularly on regional cooperation as a driver and on regional security as a key development.

A second important finding is that on many issues, English foresight studies really do 'see' a future that is different from the futures that other languages domains see. Western studies, for instance, are the only ones that view Russia as a declining power with a diminished role in the future – a view not shared by any of the other language domains. Western sources also focus much more strongly on China as having a global scope of influence, while Chinese and Russian sources see China more as a regional player.

English foresight studies really do 'see' a future that is different from the futures that other languages domains see.

The final piece of analysis applies our MetaFore protocol to the **legal foresight** literature. Our choice to take a closer look at this literature was inspired by the second main task of the Dutch Armed Forces which is 'to protect and promote the international rule of law'. Most observers agree that the current state of international law – especially as applied to international peace and security – remains decidedly unsatisfactory. We therefore decided to take a closer look at how the international legal community looks at the future and especially at *lex ferenda* – the law as it should be. We find that this community also expects state actors to remain more powerful than non-state or inter-governmental actors and to adopt expansive interpretations of international humanitarian law's geographical scope to strike 'enemies' whenever and wherever the opportunity presents itself. It anticipates the growing application of domestic law to security issues – also in dealing with various non-state actors who engage in security-related acts internationally. With respect to *international criminal law*, it sees a growing role for fact-finding commissions to make preliminary assessments of the willingness and ability of a state to prosecute serious crimes, and play an important role in determining threats to fragile peace, as well as in proposing possible non-armed countermeasures As far as *International human rights law* is concerned it generally sees a quite bleak future despite some promising ideas. Significant

The international legal community expects state actors to remain more powerful than non-state or inter-governmental actors. It anticipates the growing application of domestic law to security issues.

attention is also devoted to how the dynamic development of technologically advanced weapons will affect the evolution of *international humanitarian law*, whereby many question whether the law will be able to keep pace.

IMPLICATIONS

This analysis contained in HCSS' contribution to the Dutch Strategic Monitor this year presents many strong arguments in favor of significantly more effective defense and security efforts. The *demand* for security is stronger and broader than it has been in a long time. But as demand is increasing, the *supply* of effective and sustainable security solutions remains underprovided. This already tenuous supply is furthermore under growing pressure from an increasingly resentful and vocal part of the European electorate that would prefer to hide behind illusory walls – as the outcome of the Dutch referendum on Ukraine's Association Agreement with the European Union illustrated. A more in-depth and broader defense and security debate is required to face up to these dilemmas.

The demand for security is stronger and broader than it has been in a long time, while, the supply of effective and sustainable security solutions remains underprovided.

RISK SPACE EXPANDING

It is impossible to deny that the risk space – the overall set of risks *and* opportunities (upside risks) that confront our societies today – and against which our defense and security organizations have to design their strategic portfolio – has expanded significantly. The number and intensity of actual and potential crises that surround Europe are undisputed: the renewed Russian threat from the Barents Sea all the way to the Mediterranean Sea; a MENA on fire; high migration pressures on all sides that could even intensify; an acute terrorist threat that triggered a number of lethal attacks in Europe over the past year. Russia's nuclear and conventional military build-up combined with unprecedented saber-rattling in both of these areas mean that the current (and future) risk space has expanded to once again include nuclear as well as large-scale,

Risk space has expanded to once again include nuclear as well as large-scale, high-intensity conventional challenges. At the same time, the increased real and present threats at lower and/or different levels of the violence spectrum also expand the risk space in directions like information, cyber and terrorist attacks.

high-intensity conventional challenges much higher in the violence spectrum from what we had been preparing for in the past few decades. At the same time, the increased real and present threats at lower and/or different levels of the violence spectrum also expand the risk space in directions like information, cyber and terrorist attacks. All of these developments demand that we redouble our efforts on the *risk* side of the risk space.

The opportunity side of the risk space is expanding as well – maybe even more dynamically than the downside risks.

We also want to emphasize, however, that the opportunity side of the risk space is also expanding – maybe even more dynamically than the downside risks. In two separate contributions to this year's Strategic Monitor, HCSS has pointed to a wide number of encouraging examples. In one study[1], we have shown how technology-driven personal empowerment across the globe is one of the most powerful mega-trends affecting – among many other things – security resilience. In that study we tried to identify where and how our defense and security organizations could contribute to that positive trend. In another study[2], we have examined radically new forms of cooperation that are already yielding remarkable results in other walks of life but that also could – we argued – offer great opportunities for defense and security organizations. So, the opportunity side requires that we double down on our efforts there as well.
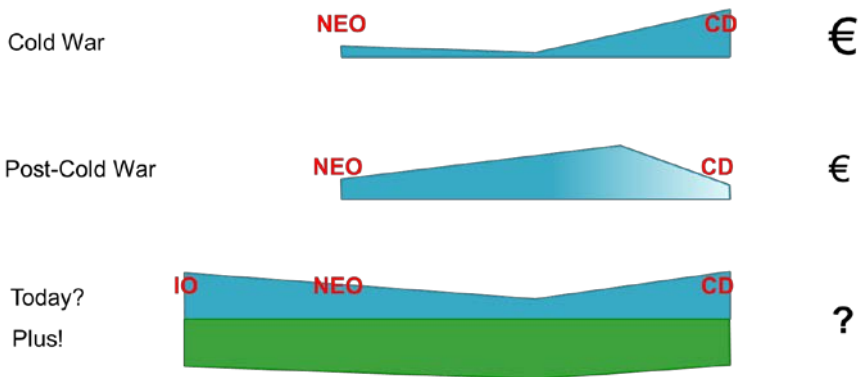
FIGURE 0.1: EXPANDING RISK SPACE

1   Willem Th. Oosterveld et al., Si Vis Pacem, Para Utique Pacem. Individual Empowerment, Societal Resilience and the Armed Forces (The Hague, The Netherlands: The Hague Centre for Strategic Studies, 2015), http://www.literatuurplein.nl/boekdetail.jsp?boekId=1078494.
2   Sijbren de Jong et al., *Better Together. Towards a New Cooperation Portfolio for Defense* (The Hague, The Netherlands: The Hague Centre for Strategic Studies, 2016).

Figure 0.1 tries to visualize the conclusion that the risk (and thus, mission) space is widening, deepening *and* inverting in a purely notional way based on NATO mission types[3]. These used to run from non-combatant evacuation operations ('NEO') on the 'low' end of the spectrum to collective defense ('CD' – Art. 5) on the 'high' end. In the post-Cold War era, the principal de-facto dimensioning element became expeditionary operations. Collective defense remained on the books, but the entire NATO defense posture (and also doctrine, training and exercising, etc.) de-emphasized that part of the spectrum. This notional mission-type spectrum is now widening to also include various non-kinetic elements – in what some are calling 'hybrid' warfare – further to the left of the mission spectrum (labeled as Information Operations, IO). As NATO has to now once again re-discover (in ways that we hope will go beyond a return to the Cold War capability bundle) the high-end of this widened mission spectrum, it also has to start grappling with the

It is hard to escape the conclusion that we face a defense and security deficit that we need to tackle. The questions is how.

expanded 'left' side of the spectrum. The planning problems this widened and deepened risk space poses are furthermore compounded by the new opportunities we have identified in various contributions this year – which also seem to 'flip' or invert the risk space.

In short: the insights into the various pluses and minuses in our security environment that emerge from this year's HCSS Strategic Monitor – the ups and downs of our Wheel of Fortune – point to a high and growing demand on both the down- *and* the up-side of security risks while at the same time the supply of effective and sustainable security solutions seems suboptimal at best. This is an extremely combustible mix. Whatever one feels about foreign entanglements or about 'defense' as an instrument; and however one assesses the relative merits of our security efforts over the past few decades – it is hard to escape the conclusion that we face a defense and security deficit that we need to tackle. But how?

TOWARDS BETTER VALUE FOR MONEY
Is the solution to this problem to spend more money on defense and security? Based upon our work in the Strategic Monitor, our intuition tells us we should. However, we confront two main problems that make it impossible to provide a definite answer to this question. First of all, our insight into and debates about

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3   And we want to emphasize that we use these illustratively – as they also apply to national and EU defense efforts.

the 'input'-side of our defense effort – our current overall defense and security investments – remains limited. And secondly, we have no real yardstick by which we can measure the true value for money (in terms of defense and security) we receive from these 'inputs' on the 'output' – let alone the 'outcome' – side. One of the key implications of the growing security deficit that all sides of this debate might converge on is to design better ways of providing insight into strategic balance of investment trade-off choices. Let us take a closer look at both of these points.

MORE INSIGHT INTO 'COMPREHENSIVE SECURITY' SPENDING

It is increasingly difficult to differentiate between internal and external security at the strategic level. We see 'security' as the condition whereby our societies and the people that embody them can realize their innate potential without having to worry (*se-cura* – without care) about various dangers that might inhibit them from doing so. Defense is the active effort undertaken to ward off (*de-fendere* – to strike away) these dangers. There is a broad political consensus that governments have a key role to play in safeguarding those 'secure' conditions through an adequately powerful, fit for purpose defense capability portfolio. In that light, it is a clear omission that we do not have sound insight into comparative figures for 'comprehensive security' spending.

Governments have a key role to play in safeguarding 'secure' conditions through an adequately powerful, fit for purpose defense capability portfolio.

One might reasonably expect that public expenditures on these issues would be available in a format that reveals the main high-level choices and would allow us to compare them with other types of expenditures (for health, education, etc.), within a country and with similar expenditures in other countries. And that these figures would then give rise to substantiated and substantive discussions about the high-level choices that are implicit in them – e.g. whether we feel comfortable with the balance between prevention and response, between internal and external, etc. Unfortunately, neither of those expectations are currently met.

There are attempts to collate at least some topline figures on the 'defense' side of these security expenditures. This is a fiendishly difficult task because of the various – very different but universally byzantine – reporting categories different countries use, even within NATO. A valiant EDA-sponsored effort by a consortium of European think tanks in January 2016 to compile a comparative overview shows that the politics of defense are changing in Europe. For the first time in 20 years, European defense budgets are trending upwards.

Net defence budgets variation in Europe between 2015 and 2016
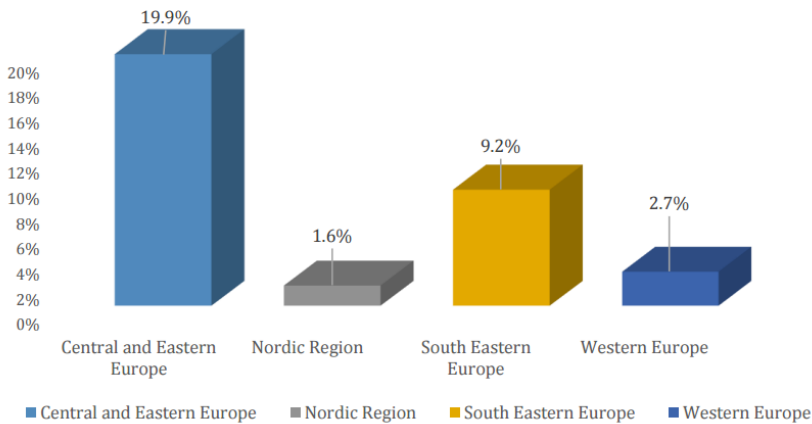
FIGURE 0.2: NET DEFENSE BUDGET VARIATIONS IN EUROPE BETWEEN 2015 AND 2016

In 2016, defense budgets will increase in real or nominal terms in all but four European countries: Italy, Greece, Luxembourg, and Sweden (which also plans to increase its defense budget between 2016 and 2019). The Netherlands continues to hide in the middle of the pack, and remain not only significantly below the NATO agreed standard of 2% of GDP, but even below the EDA average.

But those are merely the outlays of our *defense* organizations. They do not include the various other forms of public spending that go towards 'security', such as the security-relevant expenditures of the ministries of foreign affairs,
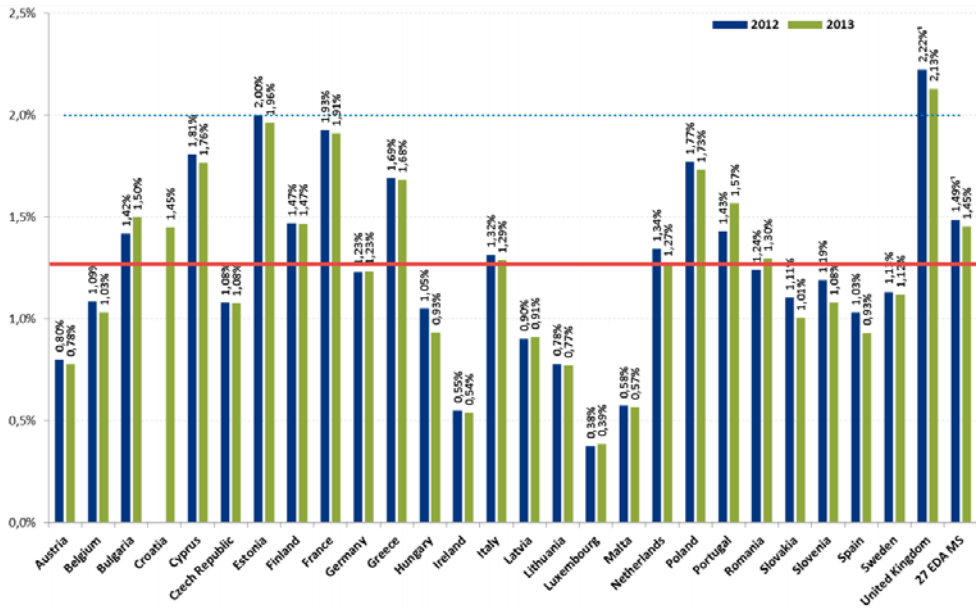
FIGURE 0.3: DEFENSE SPENDING AS PERCENTAGE OF GDP IN EUROPE IN 2012 AND 2013

the development aid agencies[4], our 'homeland security' agencies, our intelligence agencies, etc. We do see some trends towards more integrated reporting on these issues in various countries. In the United States, for instance, there is a budget category 'Defense and international security assistance', which represents about 16% of the official budget (which is separate from 'non-Security international' – representing another 1% of the budget). Similarly, the Dutch government reports yearly on its (interdepartmental) expenditures on foreign policy through the HGIS (the Dutch acronym for the Homogenous Budget for International Cooperation) note that is made public with the rest of the budget in May of each year. That note contains a cross-cutting policy theme 'Peace, Security and Stability', but it too, like in the US, only includes 'external' expenditures. We submit it would greatly encourage truly strategic defense and

It would greatly encourage truly strategic defense and security planning if the government were to make an effort to report on all (internal and external) cross-cutting security expenditures.

4   Here the data situation is slightly better thanks to the OECD efforts to streamline the 'Official Development Assistance' reporting standards on the basis of agreed criteria.

security planning (including ex ante and ex post adjudication of strategic balance of investment trade-offs) if the government were to make an effort to also report on all (internal and external) cross-cutting security expenditures.

BETTER METRICS FOR SECURITY OUTCOMES

Better data on the 'input'-side of the security equation – as useful as we think they would be – would still say very little about the return on that investment in terms of 'output', let alone 'outcome'. As the aforementioned report on European defense spending states: "increased defence budgets are no guarantee that the 31 countries under examination will spend their money better... than before 2015." We need to do better to assess the relative value for money that these various expenditures yield. For this, we would need to construct some 'better roughly right, than precisely wrong' methods for assessing the relative value added various investments from a defense/security point of view. We strongly encourage all parties involved – government departments, parliaments, audit offices, political parties, think tanks, NGOs, etc. – to work energetically towards a more evidence-based substantiation of our governments' strategic '(security) value for (security) money' proposition. We are convinced that it would be possible to develop an inter-subjective method to assess the expected return, based on past and projected 'evidence', of various investment options – e.g. along the lines of the national risk assessment method that was developed in the 2007 Dutch National Security Strategy.

We would need to construct some 'better roughly right, than precisely wrong' methods for assessing the relative value added of various investments from a defense/security point of view.

BETTER (INFORMED) PORTFOLIO CHOICES

The discussion about the impact of the findings of the Strategic Monitor on the part of our public wealth that we are willing to allocate to defense and security is a critically important one. But HCSS also feels that this discussion has to be accompanied by a more in-depth discussion about the actual options portfolio that these investments are intended to finance. At a time when our (upside and downside) security risk space is both widening and

Three main 'forward' defense planning questions are crucially important: what can we do (policy options), with what (capability options) and with whom (ecosystem partner options).

deepening, it stands to reason that we have to put more thought into the appropriate portfolio mix that will enable our defense and security organizations to reliably fulfill both difficult current and uncertain future obligations. In our own work over the past few years, we have put increasing emphasis on what we have called *strategic portfolio design,* as the 'bridge' between strategic orientation (finding one's bearings in the evolving security environment – e.g. this report) and strategic navigation (acting and – more and more – learning: what our defense organization does). Portfolio thinking is widely recognized as one of the robust stratagems for hedging risk and uncertainty. In our own view, three main 'forward'[5] defense planning questions are crucially important for any defense organization in this respect: *what* can we do (policy options), *with what* (capability options) and *with whom* (ecosystem partner options).

A Portfolio of Policy Options

This report does not try to identify a robust portfolio of policy options that would serve our societies better in coping with the current and future risk space. It does, however, propose two actionable ideas for how we might better be able to develop, test and calibrate such a broader policy options portfolio.

A first recommendation is to explore new ways to assist our policy-makers and politicians by generating, prioritizing and discussing trade-offs between various creative and promising policy options before crises happen but also as they unfold. HCSS has been experimenting – together with policymakers from different departments and selected others – with a number of different ways to generate such inputs. We have conducted a number of strategic '*design sessions*' based on recent insights from the 'design thinking' and the 'human-centered design' schools on topics ranging from 'how to deal with a more assertive Russia'

The 'policy-making' process itself may require a strategic aggiornamento with the changing requirements of an ever more dynamic security environment. New forms of 'policy-making' are more broadly participatory, interactive and exploratory in nature, and aim at sketching a broader substantiated policy option space.

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5   That part of the defense planning community that focuses on tomorrow rather than on today. The tomorrow time horizon is currently still frequently defined as 15-20-30 years ahead, but it is becoming increasingly clear that in periods of rapid change like today, it might as well be 2-3 years from now. In our view, the key element here is not time per se but the degree of (in)visibility of risk and uncertainty.

to 'information as a weapon'. We have also conducted a number of *serious games* on issues like cyber or crisis management. These new forms are more broadly participatory, interactive and exploratory in nature, and aim at sketching a broader substantiated policy option space from which policy-makers and politicians can then pick and choose.

Secondly, the report wonders whether we may want to start conducting such design efforts not just here in the Netherlands with local stakeholders, but also in potential conflict zones (like the ones our monitoring efforts suggest may be particularly vulnerable) with the stakeholders there. Most of our Dutch design efforts to date typically remain stuck in the *ideation* stage of the human-centered design process. If we were to take 'Dutch design' in theater, however, we would also be able to put more emphasis on (and learn from) the *empathy* and especially also innovative *prototyping* stages of that approach. More broadly speaking, both of these ideas suggest that the entire 'policy-making' process itself may require a strategic *aggiornamento* with the changing requirements of an ever more dynamic security environment.

A Portfolio of Capability Options

Defense is first and foremost focused on purposive action, for which capabilities are critical. The widening and deepening of the risk space that we have sketched suggest increased pressure on the Dutch military capability portfolio. Political realities indicate

The capability portfolio discussion should not start with concrete capacities but with capabilities ("the ability to").

that the high-level budgetary parameters might loosen up somewhat, but certainly not sufficiently to accommodate all of the additional investment risks and opportunities that we outline in the report. This means that – as we also argued for policy options – we may have to start thinking more creatively about our capability portfolio. This report makes four key points of these issues.

The first one is that the capability portfolio discussion should not start with concrete *capacities* (submarines, jet fighters, tanks, etc.) but with *capabilities* ("the ability to"): what we want to be able to achieve and what we have to be able to do for that. The many design sessions and serious games that we have participated in over the past few months suggest that we lack a better method (and metrics) to have that discussion in a creative, structured and meaningful

way and to then – at least as importantly – also be able to actuate those broader capabilities into concrete effectors.

In the absence of a more substantiated way to support such capability decisions, choices still have to be made. Based on our own analyses and insights we still feel that the main strategic choice that was made in the last bottom-up defense review remains the most persuasive option. This does not imply that the Dutch Armed Forces have to be able to do everything. It does mean, however, that this country wants to be able and ready to make useful contributions in many different capability areas across the multiple dimensions of the risk space.

This brings us to our third key recommendation: that the choices we make in picking those capability areas may have to be rethought. The main idea, from our point of view, behind the agile force concept is that defense organizations want to have a balanced portfolio or – to put it differently – to have eggs in multiple baskets across the entire capability space. Right now it does so, for instance, by providing capabilities in both the lower and the higher areas of the conflict spectrum. But what about all of the other possible baskets? Would we not want to pursue a better balance between the kinetic and non-kinetic capability baskets, for instance? Or between what our defense organizations do to disempower (/'destroy') the agents of

The strategic choice 'agile force' (veelzijdig inzetbaar) remains the most persuasive option. The main idea behind the agile force concept is that defense organizations want to have a balanced portfolio. However, better mainstreaming the agility imperative that leaps out of all of our monitors is necessary.

conflict as opposed to what they might do to empower the agents of resilience – a topic to which we devoted a separate study in this year's cycle.[6] Should we not aspire to a better balance between the types of efforts our defense organizations make on their own with their own capabilities versus the efforts in which they empower others to take the lead with their own capabilities (maybe carefully enabled through some of our own)?

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6   Willem Th. Oosterveld et al., *Si Vis Pacem, Para Utique Pacem. Individual Empowerment, Societal Resilience and the Armed Forces* (The Hague, The Netherlands: The Hague Centre for Strategic Studies, 2015), http://www. literatuurplein.nl/boekdetail.jsp?boekId=1078494.

Our fourth and final recommendation is to better mainstream the agility imperative that leaps out of all of our monitors throughout our capability planning methods, processes and outcomes. Our defense organizations have indeed started implementing some of these in certain areas, but we continue to be persuaded that principles such as modularity, real options, strategic buffers, etc. deserve much more attention (and actual change) than they receive right now.

A Portfolio of Ecosystem Options

The last but not least important monitoring finding, suggest that we may have to put more thought into the 'with whom' decision. At the 2015 Future Force Conference, the Commander of the Dutch Armed Forces General Tom Middendorp introduced the 'defense ecosystem' concept: "I think it's of vital importance that we come to realize that we are all actors in a defensive ecosystem. A system that constantly reshapes itself... Parts of this ecosystem can be – and have to be – actively arranged and managed in conventional structures... However, as the custodians of our societies' security, we also have to explore other parts of this ecosystem... Take Google or Apple for example with their mobile 'app' stores. They provide a free and open platform, that all sorts of 'ecosystem partners' can hitch a ride on. Both 'planned' and 'unplanned', while in the meantime allowing Google and Apple to benefit from the ideas, creativity, capabilities and actions of others. We wonder whether that is something that our defense organizations might learn from."

In periods of deep uncertainty and exponential technological change nobody can 'go at it alone'. Defense and security organizations should further develop their portfolio of partners. The (expanded) ability to cooperate with all value-added partners should be considered a key 'capability'.

Most would agree that in periods of deep uncertainty and exponential technological change nobody can 'go at it alone'. Defense and security organizations should think strategically about their portfolio of partners. The Dutch defense organization already manages a broad portfolio of cooperation partners. This portfolio consists first and foremost of the other Allied defense organizations with whom it works closely together. But its current portfolio goes far beyond these military partners. It includes other government departments or agencies; NGOs; local communities in their home countries and abroad; defense and non-defense industry partners or suppliers; knowledge institutes,

etc. In other crucial dimensions, however, the cooperation portfolio tends to be more lopsided. Traditionally, defense organizations exhibit a (historic) preference for long-term, formalized, closed cooperation setups with mostly like-sized, like-minded, and likewise organizations. These traditional kinds of cooperation clearly remain important, but should in our view be augmented. In our *Better Together* report[7], we explored *other* forms of cooperation in our everyday lives that are both successful and quite different from the more common forms of cooperation in the defense and security domain. It is our sincere belief that the 'with whom?' portfolio of our defense organizations should be expanded to include the ability to cooperate with a wide range of different partners, including ones that may differ dramatically from the defense organization itself; in more open and more loosely coupled ways that are facilitated by new technological developments; and more in the 'digital' than in the 'physical' sphere. We are convinced that the post-industrial age we are rushing into a dynamic but controlled connectivity will increasingly become a prerequisite for being able to achieve strategic effects in many different domains.

This expanded ability to cooperate with all value-added partners – full-spectrum cooperability – should be considered a key 'capability'. Such a capability has to be mainstreamed throughout the entire organization and cannot just be relegated to any one part of the organization or to an overriding 'cooperation department'. In order to identify and recognize suitable partners and cooperation forms, the defense organization should more closely monitor the entire 'cooperation space' in order to remain situationally aware of new promising developments and to experiment with various new forms of cooperation technologies.

Finally, we suggest that cooperation choices be seen as portfolio choices that require pragmatic, evidence-based analysis and that can be and constantly are recalibrated based on that analysis. The final choices should be made politically. But those political decisions, we submit, should increasingly be informed by a more pragmatic, dispassionate, rigorous, a-/pre-political analytical stage. It is a sound risk mitigation strategy to dynamically diversify the portfolio of partners. The key *analytical* question then becomes how to determine which different

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7   Sijbren de Jong et al., *Better Together. Towards a New Cooperation Portfolio for Defense* (The Hague, The Netherlands: The Hague Centre for Strategic Studies, 2016).

categories of partners to choose. As we look towards the future, there may be sound reasons to reweigh our cooperation portfolio towards closer, maybe even organic, linkages with companies like Google, Facebook, IBM or Microsoft, towards some key NGOs; and towards many other potentially high value-added ecosystem partners.

TOWARDS A RE-THINK OF DEFENSE AND SECURITY?

The findings laid out in this report suggest a growing mismatch between the demand for security that our security environment requires and the supply that is currently being provided. To confront the resulting security deficit, we submit that the Netherlands, building on the experience of the 2011 Future Policy Survey, may want to engage in a new ecosystem-wide consultation on how we want to 'design' our future defense and security efforts.

We think the Netherlands may be as optimal a fertile breeding ground as currently exists for such a re-think of defense and security. This is a country that has historically been persistently willing to think out of the box from the days of the Dutch empire, which it built more as a 'trader' than as a 'warrior'.[8] Its size allows for a span of control that – unlike many larger countries – seems to make these more inclusive forms of strategic balance of investment exercises not necessarily easy, but at least more manageable. Its geostrategic location is exposed enough to increasingly have to take defense and security needs seriously, but not so vulnerable that it is

The time is ripe for a new strategic exercise involving the entire defense and security ecosystem in a more fundamental re-think of what the emerging new security environment means for our defense and security value proposition as we move towards a post-industrial incarnation of 'armed force'.

constantly consumed by short-term operational considerations. Its civil service is competent and meritocratic enough to be open to new strands of thinking on how better to achieve public value in this (and other) realms. And finally, the country is affluent enough to be able to finance some of these innovations.

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8   For an interesting take on how the Dutch empire might be a better example for China today than the British, Portuguese or Spanish empires, see Parag Khanna, *Connectography: Mapping the Future of Global Civilization* (New York: Random House, 2016).

Our security environment is changing too rapidly and dramatically – in negative, but also in positive directions – to continue with business as usual. The 2011 Future Policy Survey remained, in essence, about 'defense'. We submit the time is ripe for a new strategic exercise, involving the entire defense and security ecosystem in a more fundamental re-think of what the emerging new security environment means for our defense and security value proposition as we move towards a post-industrial incarnation of 'armed force'.

1 INTRODUCTION

The year 2016 finds Europe in a pessimistic mood. Discord from within and without is putting enormous strains on societal cohesion both at the national and the European level. Terrorist attacks are striking in the heart of European capitals. The influx of refugees is undercutting already waning support for the free movement of people, goods, services and capital across the continent, one of the key foundations of the European project. High unemployment rates accompany feeble economic growth, thus providing further fuel for nationalist sentiments. Some governments, including the Dutch government, either by their own accord or spurred on by popular movements, have registered referenda on the future terms of European cooperation. Other leaders reject liberal democratic ideals outright and openly call for the "building [of] an illiberal new state based on national foundations"[9] as the way forward. The overall sense is that the European wheel of fortune has taken a turn for the worse. And in many ways, this sentiment is not without grounds – certainly from a security perspective.

On Europe's southeastern borders, the wages of war are continuing, claiming hundreds of thousands of deaths in the wake of the Arab revolutions with many million men, women and children on the run. The contagion and fusion of conflicts in the Middle East have morphed multiple struggles into one, and one into many, with religious fundamentalist violence transcending national borders. Russia's intervention in and subsequent withdrawal from the Syrian civil war on the side of Syrian President Assad illustrate the geopolitical linkages of conflict across different geographical theatres. So do the terrorist attacks in Paris in November 2015 Paris and in Brussels in March 2016, which have once again hammered home to Europeans the message that internal and external security are inextricably intertwined. Also on Europe's eastern borders, conflict

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9   Zoltan Simon, "Orban Says He Seeks to End Liberal Democracy in Hungary," *Bloomberg.com*, July 28, 2014, http://www.bloomberg.com/news/articles/2014-07-28/orban-says-he-seeks-to-end-liberal-democracy-in-hungary.

simmers on. The successive Minsk Agreements, negotiated under the auspices of Merkel, Hollande and Putin, did not end the Ukrainian civil war. While large-scale armed hostilities seem to have subsided, the endgame is not yet in sight. Ever since the Obama administration's 2009 'Russia Reset' policy – which aimed to cool tensions with Russia after its 2008 invasion of Georgia[10] – was itself reset by the 2014 Crimea Crisis, East-West relations have deteriorated to levels reminiscent of – what some in effect have dubbed – the 'First Cold War'.[11] The prevailing zero-sum thinking continues to fuel a vicious cycle of economic sanctions and counter-sanctions, constant saber-rattling, and the polarization of states and their societies in diametrically opposed camps.[12] The current standoff carries considerable costs. The conflict in Ukraine has claimed at least 9,000 lives.[13] Sanctions regimes have cumulatively eliminated tens of billions of EUROs. Security concerns have necessitated higher levels of military readiness and greater outlays in defense expenditures. Meanwhile, Russia's posturing has prompted NATO and its member states to reconsider the role of nuclear weapons as an instrument of deterrence, decreasing the chances of getting to Global Zero any time soon.

At the global level, the ongoing global redistribution of power continues to put a significant strain on great power relations. Assertive behavior on the part of (aspiring) great powers, has become the rule rather than the exception, as they quibble over a range of political, economic, and military issues: the status of international law, the terms of international trade, and the right to develop military capabilities. Indeed, in recent years the world has seen contestations of the implications of national sovereignty and the principle of non-interference in conflict hotspots (from Kosovo to Crimea and from Sudan to (for a while at

10   Maxwell Tani, "Hillary Clinton Just Made Two Statements to Boost Her Foreign Policy Credentials – and One Is Iffy | Business Insider," *Business Insider Australia*, June 15, 2015, http://www.businessinsider.com.au/hillary-clinton-russia-and-the-reset-2015-6.

11   Robert Legvold, "Managing the New Cold War: What Moscow and Washington Can Learn From the Last One," *Foreign Affairs*, 2014, https://www.foreignaffairs.com/articles/united-states/2014-06-16/managing-new-cold-war.

12   Bruce Stokes, "Russia, Putin Held in Low Regard around the World," *Pew Research Center's Global Attitudes Project*, August 5, 2015, http://www.pewglobal.org/2015/08/05/russia-putin-held-in-low-regard-around-the-world/.

13   Ivan Šimonović, "Remarks by Ivan Šimonović, Assistant Secretary-General for Human Rights, to the Human Rights Council on Cooperation and Assistance to Ukraine in the Field of Human Rights, Geneva, 22 March 2016" (OHCHR, March 22, 2016), http://www.ohchr.org/FR/NewsEvents/Pages/DisplayNews.aspx?NewsID=18534&LangID=E.

least) Syria); radically different interpretations of international maritime law and disputed areas of national jurisdiction (from the North Pole to the South China Sea); financial quarrels over currency manipulation versus quantitative easing that go right to the heart of the foundations of economic prosperity and national power (especially between the United States and China); and major discord over the right to acquire and develop advanced military systems, including space based arms, new cyber capabilities, anti-access area denial (A2AD) instruments, nuclear weapons, and long range delivery vehicles (increasingly no longer confined to particular countries or geographical regions). While this is to a certain extent 'business-as-usual'[14], history also shows us how amidst changing international hierarchies, quibbles can easily escalate into quarrels.[15] This process opens up various crisis windows, which carry increased risks of escalation to war, even if the latter are likely to emerge in 21st century hybrid incarnations. It is impossible to put precise GIS coordinates on the location of future crises. But it is clear that some states and regions are more pivotal than others, with especially those pivot states located along critical international junctures that are more likely to trigger conflict. The last twelve months we already saw multiple interstate crises that involved national leaders engaging in dangerous brinkmanship.

Worryingly, nationalist narratives rooted in sentiments of righteousness and historical grievances have gone mainstream in security discourses in China, Russia, and the United States. Calls to 'defend civilizational values', 'make the country great again', and 'live up to the national destiny' are very much *en vogue* these days in Beijing, DC, and Moscow. The European Union and European states are once again engaging in some serious soul searching about their proper role in this environment, and the responsibilities and capabilities that come with it, in the lead up to the publication of a new European Security Strategy, which is due later this year.

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14 René Albrecht-Carrié, *A Diplomatic History of Europe since the Congress of Vienna* (University of Michigan: Harper & Row, 1973).

15 Charles F. Doran, "Economics, Philosophy of History, and the 'Single Dynamic' of Power Cycle Theory: Expectations, Competition, and Statecraft," *International Political Science Review* 24, no. 1 (January 1, 2003): 13–49, doi:10.117 7/0192512103024001002.

The images percolating through the 24/7 news cycle impregnate us with the sense that the security wheels of fortune have not only turned and twisted for the worse, but are also currently at an all time low. This is far from being true though. As Steven Pinker tirelessly reminds us, 'our sense of danger is warped by the availability of memorable examples [...] peaceful territories, no matter how numerous, don't make news.'[16] While the New Peace has disturbingly stagnated, the state of the overall human condition has improved considerably, with immense, albeit largely underreported, progress across the board.[17] Individual empowerment along social, economic, political, and quality-of-life dimensions is unabatedly marching forward. People worldwide are 'better-educated, better-fed, healthier, freer, and more tolerant—and it looks set to get richer, too.'[18] The figures are indeed impressive. The number of undernourished people that were as a percentage of the world population decreased from 19 to 11 percent over the past two decades – from over one billion to 795 million.[19] Between 1990 and 2015, the global under-5 mortality rate fell from 12.7 million to 5.9 million.[20] The number of people enjoying political freedom remains at an all time high, with a near doubling of the total number of democracies worldwide from 49 in 1989 to 95 in 2014.[21] The forces of individual empowerment, far from being only good news for human development, do in fact bolster the resilience of societies worldwide and thereby lower their vulnerability to the onset of violent conflict.[22]

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16   Steven Pinker, "Now for the Good News: Things Really Are Getting Better," *The Guardian*, September 11, 2015, sec. Opinion, http://www.theguardian.com/commentisfree/2015/sep/11/news-isis-syria-headlines-violence-steven-pinker.

17   Cf. { | anon. Home | HumanProgress.org, no date | | |zg:492638:FN8HJSWU}

18   Charles Kenny, "2015: The Best Year in History for the Average Human Being," *The Atlantic*, December 18, 2015, http://www.theatlantic.com/international/archive/2015/12/good-news-in-2015/421200/.

19   Food and Agriculture Organization of the United Nations, International Fund for Agricultural Development, and World Food Programme, "The State of Food Insecurity in the World 2014" (Rome: FAO, 2014), http://www.fao.org/3/a-i4030e.pdf., 8-12; World Hunger Education Service, "2015 World Hunger and Poverty Facts and Statistics," 2015, http://www.worldhunger.org/articles/Learn/world%20hunger%20facts%202002.htm.; Food and Agriculture Organization of the United Nations, "FAO Statistical Yearbook 2012" (Rome: FAO, 2012), http://www.fao.org/docrep/015/i2490e/i2490e03a.pdf., 174; Food and Agriculture Organization of the United Nations, "ESS Website ESS : Food Security," 2015, http://www.fao.org/economic/ess/ess-fs/en/.

20   Danzhen You et al., "Global, Regional, and National Levels and Trends in under-5 Mortality between 1990 and 2015, with Scenario-Based Projections to 2030: A Systematic Analysis by the UN Inter-Agency Group for Child Mortality Estimation," *The Lancet* 386, no. 10010 (December 2015): 2275–86, doi:10.1016/S0140-6736(15)00120-8.

21   Monty G. Marshall and Benjamin R. Cole, *Global Report 2014: Conflict, Governance and State Fragility* (Vienna: Center for Systemic Peace, 2014).

22   Ibid., 34

Despite dangerous spikes in confrontation, we also still see plenty of cooperation, both in state and non-state actor relations, and both locally and globally. This other side of the confrontation-cooperation coin typically gets little scrutiny in appreciations of the security environment. Yet, it constitutes one of the positive forces pushing the wheel of fortune upwards, that is as real as the causes of conflict pushing it downwards. Along this side of the coin, radically new forms of transnational cooperation foster new mechanisms of human interaction. This not only harnesses perils, but also creates great promises for peace and security. What one author calls global solution networks (GSN), are springing up around the globe, leveraging the opportunities offered by the ongoing ICT revolution. Operating in self-synchronizing ways, these GSNs, introduce new ways of tackling global problems and are making impressive strides in fields as varied as crisis and disaster management, peacebuilding and humanitarian aid. The security and prosperity of the Netherlands is dependent on trends on both sides of the security coin.

This annual report offers a synthesis of HCSS' monitoring efforts of some of these trends. It is part of our public contribution to the strategic anticipation function of the Dutch government within its Strategic Monitor Program. The objective of the Strategic Monitor is to identify, track and analyze global trends and risks that either negatively or positively affect Dutch national security. It feeds the strategic planning processes of the Dutch defense and security ministries. In providing Dutch decision makers with a balanced assessment of the continuously evolving security context, we strive to monitor the forces for bad and the forces for good that both tilt and jerk the wheel of fortune in upward and downward directions.

This report continues our annual analysis of global trends in conflict, confrontation and cooperation. It also offers brief summaries of the studies we have conducted this year, each of which concludes with a number of key insights for Dutch decision makers. The different chapters can be read as standalone sections. The conclusion sums up the main findings and identifies the overall takeaways for Dutch defense and security policies.

The overall report is structured as follows:

- Chapter 2 reports our findings on **trends in confrontation and cooperation** for state and non-state actors, paying specific attention to the **position of the Netherlands**;
- Chapter 3 describes **trends in violence** worldwide and offers a **future violence outlook**;
- Chapter 4 examines what we call geodynamics and focuses on what has been happening in **great power assertiveness** in the international system and with **great power – pivot state relations**;
- Chapter 5 presents the results of our **multilingual MetaFore** study which examined changing views on the nature of international security in the Arabic, Chinese, English, Farsi, Russian, and Turkish language domains;
- Chapter 6 summarizes the key findings of our MetaFore effort in the legal domain which explores views in the academic legal literature on the future of international security; and
- Chapter 7 concludes with a **wrap-up of the main findings** and an **assessment of implications** of the developments in the security environment for **DSOs** with a special focus on the Dutch DSO.

2 TRENDS IN CONFLICT AND COOPERATION

This chapter takes a broad look at how the Wheel of Fortune goes up and down: how the key actors in the international system cooperate with each other *and* how they clash with each other. HCSS started monitoring broader trends in global conflict and cooperation between both state and non-state actors in last year's StratMon report[23]. The focus on these two specific aspects of the international system goes back to the Dutch government's 2011 Future Policy Survey[24], in which a broad interdepartmental study group derived a number of profiles for possible future Dutch armed forces. As part of the analysis the group developed a scenario framework[25] with four quadrants positioned along two axes: 1) who will be the main actors in the international system: states or non-states; and 2) will these actors behave in more cooperative or more conflictual ways. Since the Future Policy Survey, both Clingendael[26] and HCSS[27] have

23 Tim Sweijs et al., *Strategic Monitor 2015: The Return of Ghosts Hoped Past? Global Trends in Conflict and Cooperation* (The Hague, The Netherlands: The Hague Centre for Strategic Studies, 2015).

24 Interdepartmental Working Group, The Netherlands, *Final Report. Future Policy Survey. a New Foundation for the Netherlands' Armed Forces. Summary and Conclusions* (The Hague, The Netherlands: Ministry of Defence, The Netherlands, 2010). For an English summary, see Ministerie van Defensie, *Verkenningen. Houvast Voor de Krijgsmacht van de Toekomst*.

25 We want to emphasize again that these four quadrants in this scenario framework are not 'scenarios' *stricto sensu*. They are in our view better seen as broad characterizations of quite different but still all plausible future security environments within which a variety of different more concrete scenarios can (and should) be developed. We have also stressed that these two axes only represent but two dimensions of what is in essence a much more multidimensional (and dynamic) scenario-space. Finally, we have pointed out that the two axes are not nicely binary variables, but more complex than the visuals suggest. Despite these caveats, we continue to find it useful - also for our defense and security organizations - to keep tracking movements along these two crucially important aspects of the international system, which is also why we continue monitoring them and presenting them in our yearly reports.

26 Jan Rood et al., *Een Wereld Zonder Orde? [A World without Order?] Clingendael Monitor 2015* (The Hague: Clingendael, Netherlands Institute of International Relations, 2015).

27 Tim Sweijs et al., "Licht Op de Toekomst. Zeven Perspectieven Op de Toekomstige Veiligheidsomgeving [Light on the Future. Seven Perspectives on the Future Security Environment]," HCSS Report for the Netherlands Defence Organization (The Hague: The Hague Centre for Strategic Studies (HCSS), 2012).; Stephan De Spiegeleire et al., *De Toekomst in Alle Staten. HCSS Strategic Monitor 2013. [The Future in All Its States]*, vol. 20, HCSS Report (The Hague: HCSS, 2013); Joris Van Esch et al., *Strategic Monitor 2014. Four Strategic Challenges* (The Hague: HCSS, 2014); Sweijs et al., *Strategic Monitor 2015*, 2015.

developed ways to monitor trends along these axes. Since 2013, HCSS has started using newly available automated event datasets for this monitoring effort as they remain, to this date, the only available data to cover not just conflicts, but the entire range of international events – positive and negative; diplomatic, economic, military, legal etc. – on a systematic basis since 1979. [see Figure 2.1]. In this year's contribution to the Strategic Monitor we once again introduce some new data and visualization approaches which will be described as they are introduced.

This chapter consists of two main sections that mirror the two axes of the scenario framework of the Future Policy Survey: conflict and cooperation (Chapter 4.1) and states and non-states (Chapter 4.2). Every chapter will consecutively present our findings chronologically, functionally and geographically. The section on conflict and cooperation will also devote a special sub-section to the role of the Netherlands.
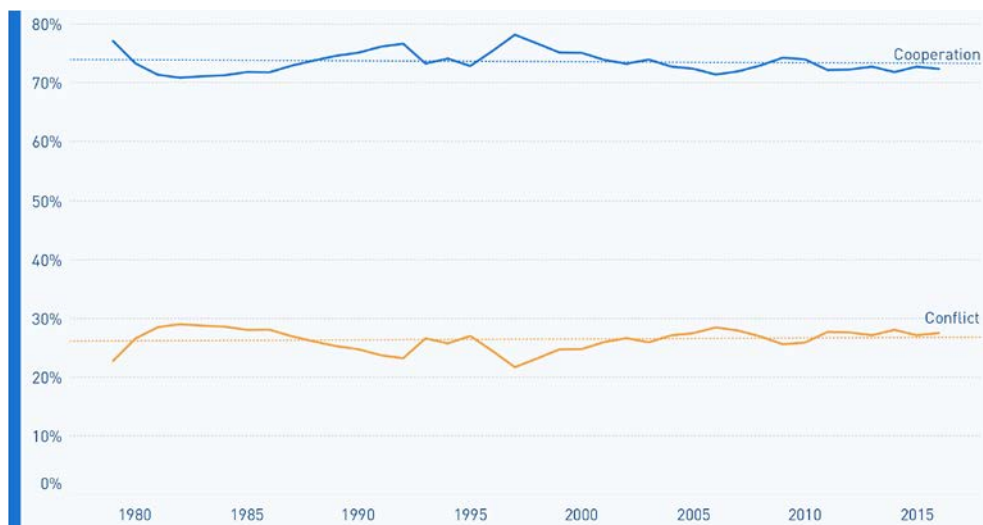
2.1 COOPERATION VS CONFLICT
OVER TIME

FIGURE 2.1: GLOBAL TRENDS IN OVERALL COOPERATION AND CONFLICT 1979-2015

Figure 2.1 shows the relative proportion of all conflictual vis-a-vis all cooperative events that are reported in GDELT for all types of actors – state and non-state. We observe that since 1979 to date, international news media report about three times more cooperative events than conflictual ones (despite the media's often claimed negativity-bias[28]). Cooperative events have been hovering around 75% with a slight downwards trend over this entire period. Whereas last year we reported a slight increase in the percentage of conflictual events in 2014 (from 27.15% to 28.08%), this year we note a small decrease (to 27.14%). The doom and gloom impression one gets from daily reporting and expert analysis is therefore not fully borne out by these more comprehensive datasets. This is not to say that they are wrong: other parts of this report will zoom in on the – very real – grislier details that are hidden within this rosier big picture. However, it does go to show that there is a more positive bigger story here that we tend to overlook – as we will argue below – not only in our analysis, but also in the strategic actionable options portfolio that our DSOs develop.

This year we also include another way to gauge the relative importance of trends in conflict versus cooperation in the international system. Whereas the aforementioned method lumps together all conflictual and cooperative events and then calculates which of these two occur more, this method ranks these very same raw event data scores along an interval-level scale that attributes the most conflictual event (e.g. "Detonate a nuclear weapon") a score of -10, a neutral event (e.g. "Make statement, not specified above") a score of 0, and the most cooperative event (e.g. "Retreat or surrender militarily"[29]) a score of 10. This scale is called the 'Goldstein scale' after the scholar who first developed it, and is widely used in the political science literature that quantitatively analyzes state and non-state interactions.[30]

28 Tim Sweijs et al., *Strategic Monitor 2015: The Return of Ghosts Hoped Past? Global Trends in Conflict and Cooperation* (The Hague, The Netherlands: The Hague Centre for Strategic Studies, 2015).: 48-49.

29 This may appear counterintuitive at first sight, but in a sense this truly is the ultimate form of 'cooperation' - e.g. '9' includes events like 'allow delivery of humanitarian aid', 'de-escalate military engagement', 'declare truce, ceasefire', 'receive deployment of peacekeepers' - and the next step from the source actor towards the target actor would then be to just fully give up.

30 Joshua S. Goldstein, "A Conflict-Cooperation Scale for WEIS Events Data," *Journal of Conflict Resolution* 36, no. 2 (1992): 369–385.

Figure 2.2 shows the weekly average Goldstein scores for all GDELT events since 1979.

We see that while Figure 2.2 shows more detail and is based on a different operationalization of the (same) GDELT event data, it still closely dovetails the broad trends shown in Figure 2.1. We see how the Cold War period became quite a bit frostier towards its end; how the immediate post-Cold War period witnessed a gradual increase towards an unprecedented (before *or* after) cooperative peak in the early 90s; how the mid-90s saw the global political temperature go down again and how that downward trend has continued up to the present. Overall, however, we notice that this measure also shows more cooperation than conflict in the world, since the averages remain above the neutral '0' score. We also observe – in ways the previous Figure did not allow us to – how the band seems to be narrowing with lower peaks and shallower troughs which merits further examination.

BY TYPE

In this section we move away from the overall analysis to look at major trends in the different types of conflictual and cooperative events. We start by looking at the breakdown between verbal and material forms of conflict and cooperation (Figure 2.3). This figure shows once again, as in previous years, that most of the

churn of reported international activity remains verbal and cooperative. Whereas 2014 had seen somewhat of a decline in this category, 2015 reverses that. We have to point out, however, that although this verbal-cooperative category remains – comfortingly – the most important one of the four, it stays at its lowest level since 1979 for the entire past decade. The second most important category is material conflict, which has been hovering around 14-15% of all recorded events since about 2004 after a quite noticeable decline in the second half of the 1990s. As with most other types of events, we see here that after the quite negative year of 2014 (with 15.46% the highest score since the height of the Cold War, even if that score was still somewhat below the peaks of the Cold War), 2015 was a better year that was more in line with previous years. The final point of interest in this graph is that material cooperation increased quite a bit from about 1979 to 2010 (its peak year since 1979) and that it remains at that high level.
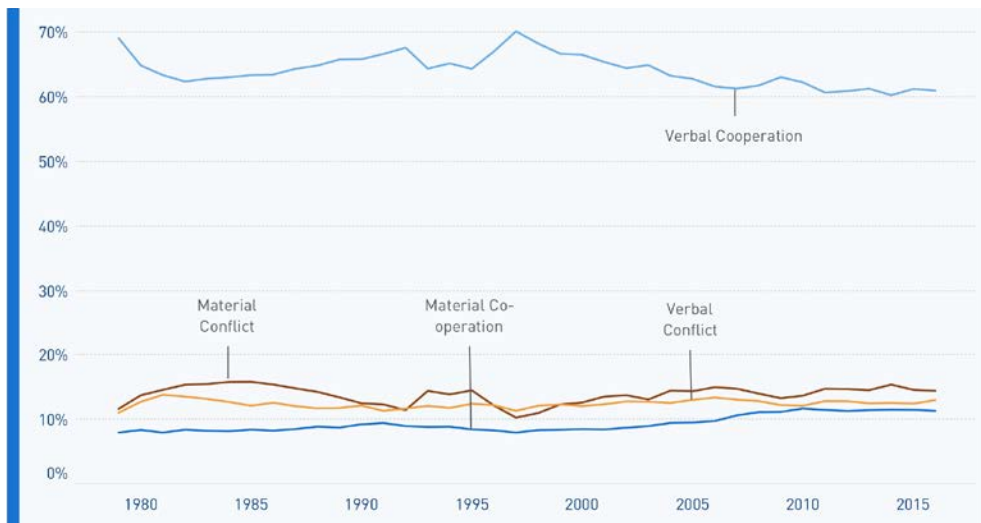
FIGURE 2.3: BREAKDOWN BETWEEN VERBAL AND MATERIAL FORMS OF CONFLICT AND COOPERATION 1979-2015

What do these trends look like for specific *types* of events like economic, military or diplomatic events? To provide some answers to these questions, HCSS developed a new coding scheme for this year's monitor that bins all CAMEO codes into a number of different substantive categories. Taking our cue from the DIME acronym (Diplomatic, Informational, Military and Economic) that is widely used in military circles for operational planning purposes, we developed

our own DISMEL acronym, which adds a 'Security' and a 'Legal' category to the DIME ones. We retain, of course, our ability to separate verbal and material events for each of these categories as well. Figure 2.4 shows the average weekly Goldstein scores from 1979 to date for just factual military events. It illustrates a trend towards more conflict over this entire 37-year period where it remains below an average of -2 for the entire duration. For the past 3 years, the average global Goldstein score has deteriorated slightly, in addition to a number of deeper lows in 2014 (Ukraine) and late 2015 (Syria). Another striking feature is that the oscillations seem to weaken over time.[31]

FIGURE 2.4: AVERAGE WEEKLY GOLDSTEIN SCORES FOR FACTUAL MILITARY EVENTS SINCE 1979

Even though the picture for just factual military events (Figure 2.4) shows more overall oscillations than the one for factual (non-military) security ones (Figure 2.5), the main trends are quite similar: events seem to be calming down over time, there is a (slight) negative trend over time and the last three years have seen very small further decreases. We do note, however, that the average Goldstein score is even lower (fluctuating around -9) than the military one (which went from around -6.5 to -7.5)

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31 While we have no immediate explanation for this trend - which we also encounter in other visuals, we are fairly confident that this is not just a statistical artefact, because what we visualize here is just the average Goldstein score and not the raw data themselves.
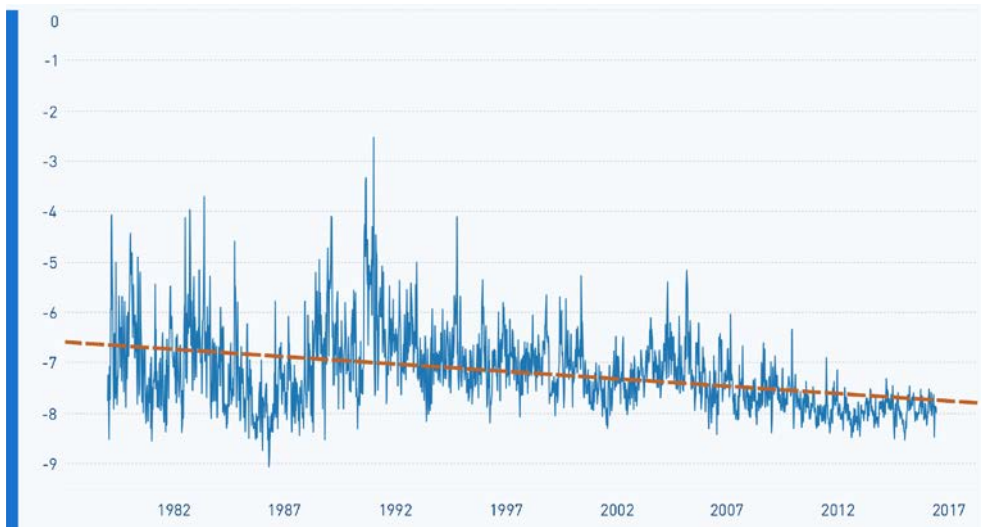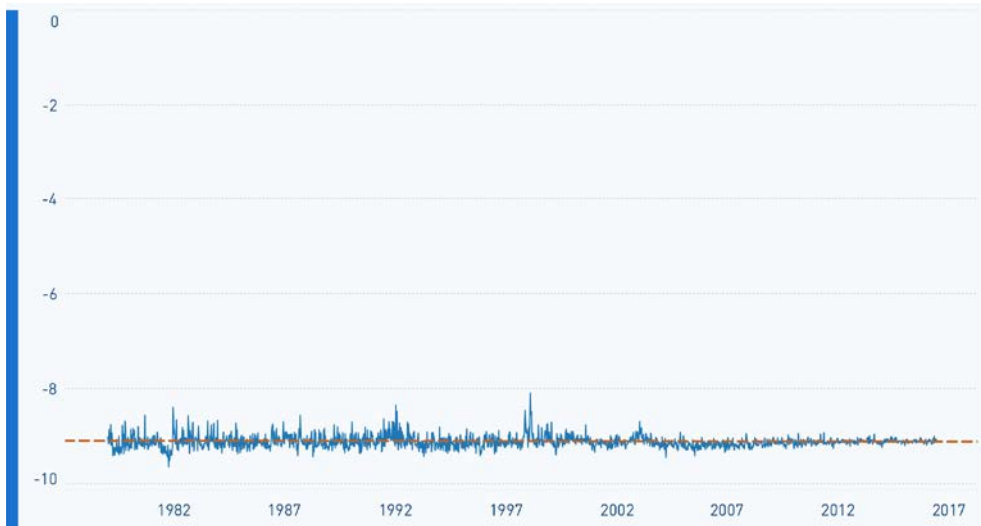
FIGURE 2.5: AVERAGE WEEKLY GOLDSTEIN SCORES FOR FACTUAL SECURITY EVENTS SINCE 1979

The picture for factual economic events (Figure 2.6) looks quite interesting: here we see a strong increase in cooperation over the entire period. We also find that the financial-economic crisis does not seem to have had a major impact, arguably because it may have triggered as much cooperation as conflict. We do see some dips in recent years (e.g. around the Crimea Annexation Crisis in March 2014), but this economic picture overall still provides an encouraging countertrend to the military and security zoom-ins. We also want to point out that if we look at the separate trend for state versus non-state actors (not pictured here for reasons for economy of space), we see that for states the intercept is around 5.4 and the slope coefficient 4.8e-5[32] whereas for non-states the intercept is somewhat lower (around 5.1) but the slope coefficient quite a bit higher (7.47e-5) – revealing how important the private sector is in 'driving' more economic cooperation.

32   These figures refer to the linear trend model that is calculated from the data to visualize the trend line. That model is expressed in the form of y = mx + b, also called the slope-intercept form, where y is the value on the y-axis for any value of x, with m representing the slope of the line and b being the y-intercept where the trend line intersects the y axis. As in many software programs, the intersect is calculated for a reference date of January 1, 1900, which explains the visual difference between where the slope intersects the y axis in the visual and the value that we give in the text.

BY REGION

What do the data tell us when we visualize them geographically on a map of the world? Like in the previous section, we use a somewhat different logic than last year. Last year we calculated for every country what percentage of all events (for which that country was the source actor), was of a cooperative nature. The following visual provides the data for 2015 with the same logic and the same visual representation as last year. To give an example for our readers' comprehension: like last year, we see that, perhaps surprisingly, Kazakhstan is one of the most cooperative countries in the world (with 89.6% cooperative events); whereas Libya remains one of the least cooperative ones with 60.6%.

Cooperation
Less <---> More

55.9%   94.9%
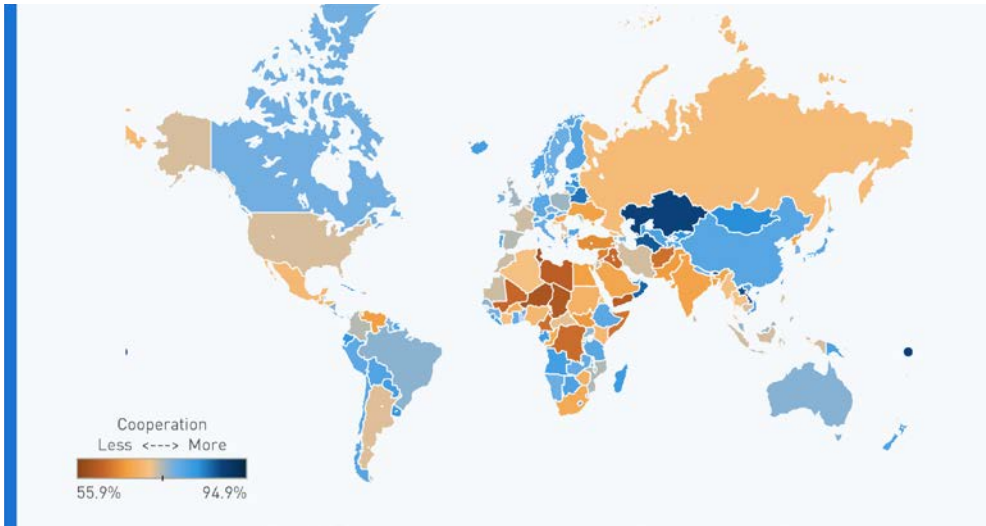
FIGURE 2.7: PERCENTILE OF COOPERATIVE EVENTS BY COUNTRIES AS A SOURCE ACTOR

In the remainder of this section, we will first compare the geographical findings for 2015 with those for 2014 by using our new metric (the average Goldstein scores) and color-coding them for the selected group of countries for both time periods: red represents lower and blue represents higher than average for that country for that year. After that, we will show some longer-term trends for every region for our *DISMEL* categories.
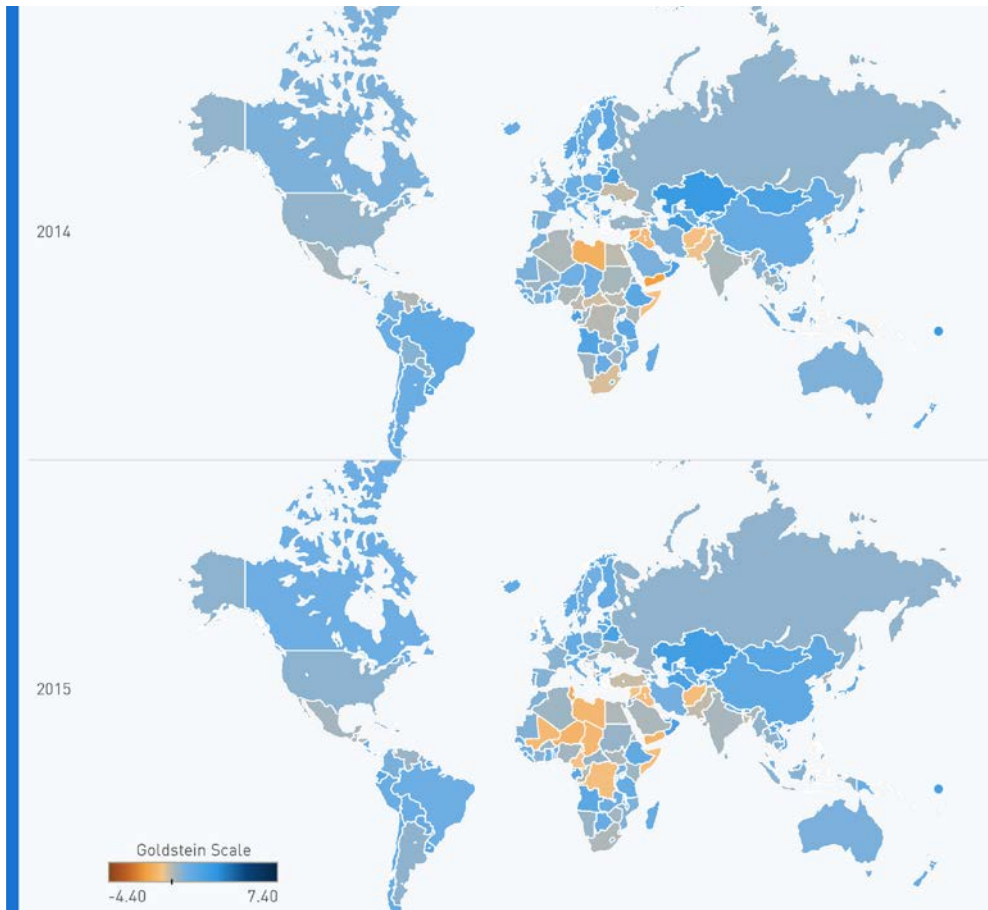
Figure 2.8 shows the average Goldstein score for the entire world for 2014 and for 2015. The changes are quite interesting. Although we already saw that overall 2015 was a slightly better year than 2014, we see quite a bit more red tones in a few important regions. What is displayed here is the color-coded range from the lowest observed average Goldstein score (-1.72 for Yemen – in 2014) to the highest one (3.66 for Andorra – also in 2014).

If we zoom in on Europe and its neighborhood, we see a number of troubling tendencies (see Figure 2.9). Even though we have already shown in a previous section that 2015 was a better year than 2014, the opposite seems to be the case in Europe's – especially southern – neighborhood. In 2014, only Libya was

colored red in Northern Africa. In 2015, Mali (once again and despite UN presence[33]), Niger, Chad and – maybe most troubling – even Tunisia, once thought of as the poster-child of the aftermath of the Arab Spring, joined Libya in being colored red. Also the deterioration of Turkey's average Goldstein score (from +.39 to -.22) is quite worrisome. There is a small silver lining in the cloud along Europe's eastern borders, where Ukraine switched from a source of conflict in 2014 (with an average Goldstein score of -.18) to a source of cooperation (+.18) in 2015. We want to highlight, however, that Ukraine's south-western neighbor Moldova, which is receiving far less attention in the media, ominously saw its Goldstein score cut in half (from 2.47 to 1.3).
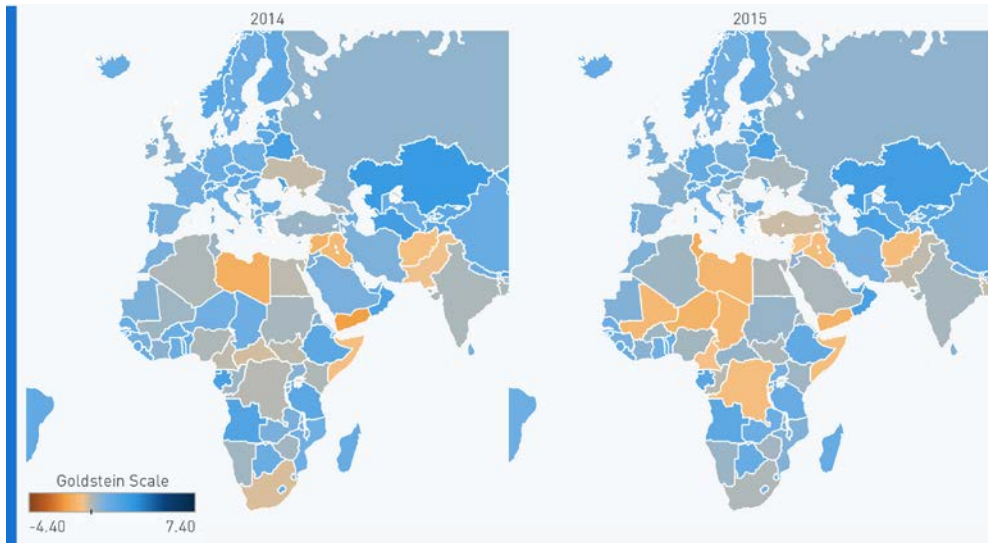
FIGURE 2.9: AVERAGE GOLDSTEIN SCORES IN EUROPE, AFRICA AND WESTERN ASIA FOR 2014 AND 2015

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33 A dive in the data for previous years (not visualized here) shows that Mali went from green (+0.27) in 2012 to red (-0.51) in 2013. In 2014, presumably helped by the UN-mandated Western-led intervention, the country colored green (+0.39) again, but in 2015 it was back down to -0.98 (red). In the first 3 months it went down even further to -1.463. If we look at just the factual military Goldstein scores for Mali, we see a somewhat similar trend, with the exception that 2012 was already quite bad (-7.32), 2013 (-7.01) and 14 (-6.7) saw improvements but 2015 was even worse than 2012 (-8.10). For the first three months of 16 this category improved again to -6.82.

Another interesting observation is that South East Asia (Figure 2.10) looked (slightly) better in 2015 than in 2014. Even in the factual military target[34] (!) category, where the region still looks overwhelmingly red, we find a slightly less conflictual Cambodia, China, Indonesia, (both) Korea(s), Laos, Malaysia, Taiwan, Thailand, Vietnam, but also a more conflictual Japan, Myanmar and Philippines.

FIGURE 2.10: AVERAGE MILITARY GOLDSTEIN SCORES IN SOUTHEAST ASIA FOR 2014 AND 2015

In Latin America, in the factual military category (and returning to countries as initiators of such events instead of as recipients), the most Northern countries (including Venezuela) except for Ecuador and Suriname actually improved in 2015. Argentina. Brazil and Bolivia deteriorated somewhat; Uruguay (quite a bit) and Chile improved (see Figure 2.11).

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34 Whereas all other visualizations show the data with the countries as the source actors of cooperation or conflict, in this visualization we color-code the countries as the target actors.

We conclude this geographical analysis by showing – for the first time – some of the longer-term trends for the different DISMEL categories in the main regions of the world as defined by the United Nations Statistics Division[35]. Figure 2.12 shows the data from 1979 to date. We once again observe how the Goldstein fluctuations seem to be subsiding across the board for all categories. Even though the changes are barely perceptible visually, the underlying data and trend models still show Oceania, Europe and North America jump out as the most cooperative ones, even if their average Goldstein scores are all declining – most of all in Oceania. Africa started this timeseries relatively high, but it has the most downward slope of all regions. Asia has the smallest decline and Latin America is the only region that has a (slightly) positive slope.

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35   United Nations Statistics Division, "Composition of Macro Geographical (Continental) Regions, Geographical Sub-Regions, and Selected Economic and Other Groupings," October 13, 2013, http://unstats.un.org/unsd/methods/m49/m49regin.htm.
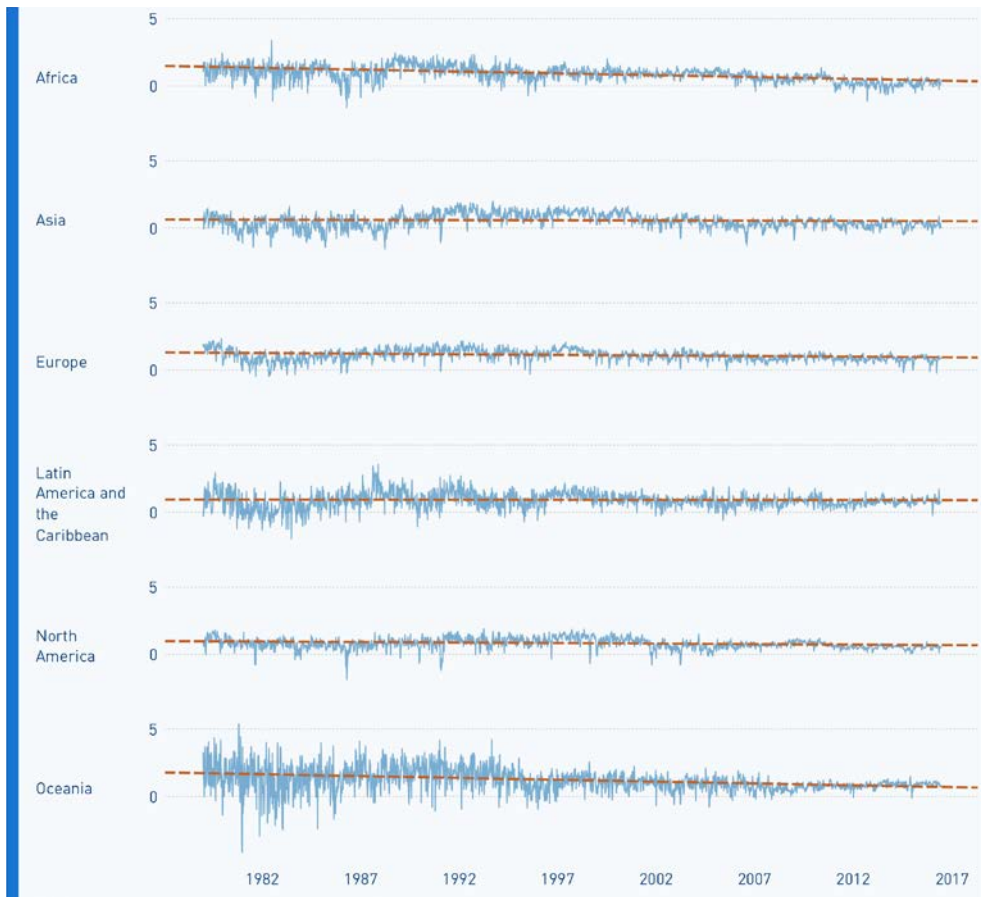
FIGURE 2.12: AVERAGE GOLDSTEIN SCORES BROKEN DOWN BY REGION SINCE 1979

If we just zoom in on the past three years, we obtain the following picture. It shows that Oceania actually started this period in the best position, followed by Europe, Latin America, North America and then Asia (all in 'positive' Goldstein territory). Africa started from around the zero-line. When we compare the slopes, we – encouragingly and in line with some of the positive trends described in section 5 – Oceania, Europe and North America jump out as the most cooperative ones, even if their average Goldstein scores are all declining – most of all in Oceania. Africa started this time series relatively high, but it has the most downward slope of all regions. Asia has the smallest decline and Latin America is the only region that has a (slightly) positive slope.
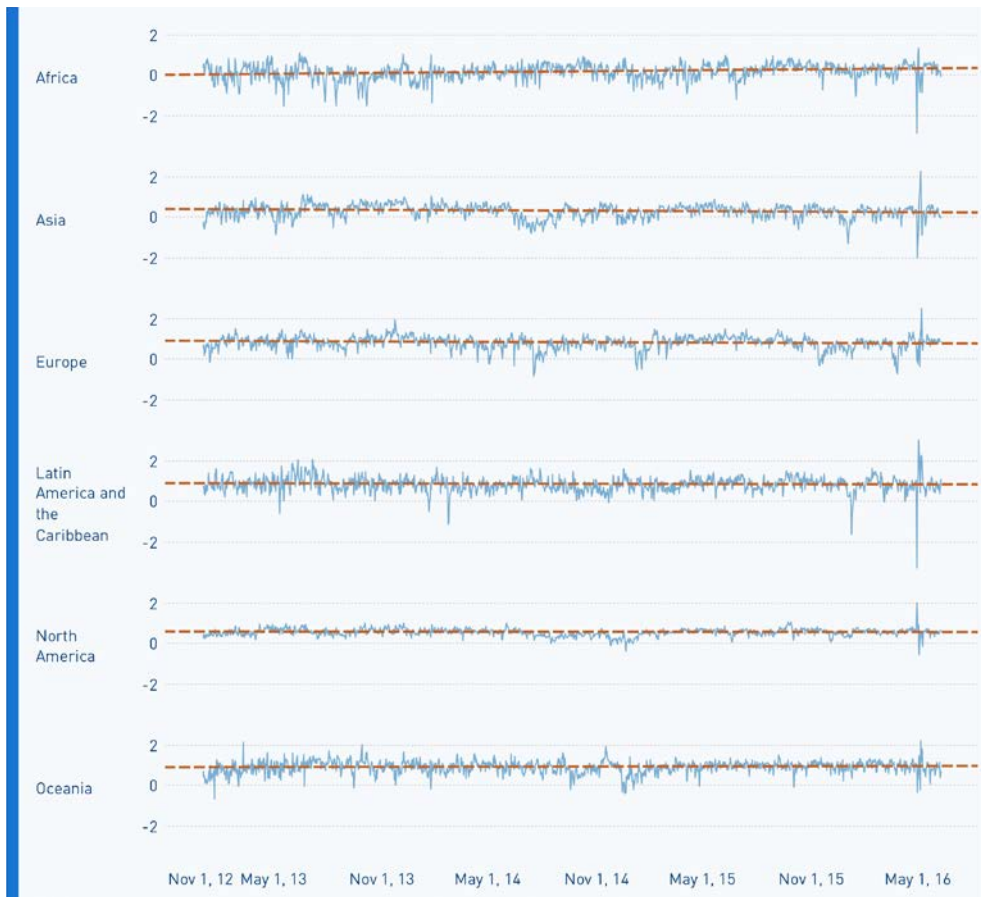
FIGURE 2.13: AVERAGE GOLDSTEIN SCORES BROKEN DOWN BY REGION 2013-2016

If we just select the military Goldstein scores, we see that out of the six regions, 4 start out at about the same level, with Europe as the only region that is visibly above that level, and – surprisingly – Latin America the one that is visibly below those 4. (see Figure 2.14) Over the course of these three years, we see that three regions show improvements in their scores; Latin America most visibly, Oceania and North America quite modestly. The other three regions show declines – in this case Europe most of all, Africa less than half compared to Europe and Asia almost 10 times less than Europe.
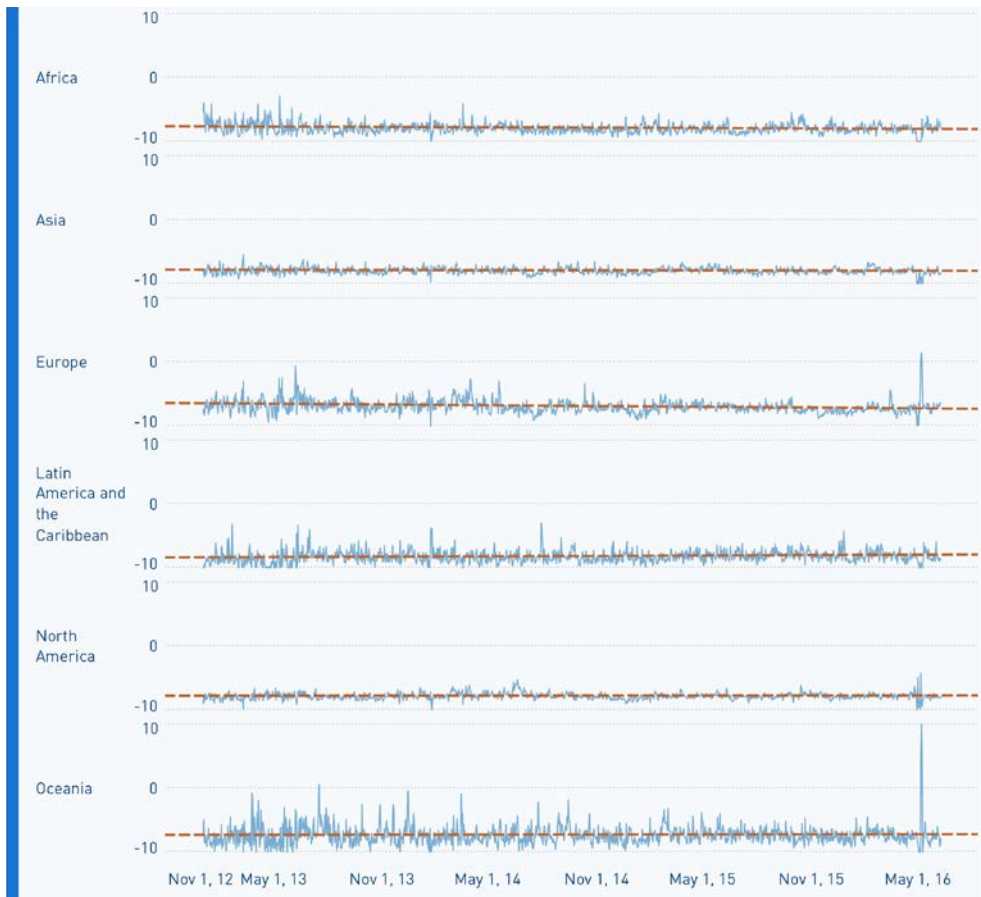
FIGURE 2.14: AVERAGE FACTUAL MILITARY GOLDSTEIN SCORES BROKEN DOWN BY REGION 2013-2016

ROLE OF THE NETHERLANDS

What do our event data tell us about the role the Netherlands plays in all of these cooperation and conflict dynamics? In this section of our monitor we first update the findings of last year's report[36] and then look at some additional insights from our new dataset based on Goldstein scores.

Figure 2.15 shows the trend for 2015 in the four main categories that we have been using in previous reports: material and verbal acts along the cooperative and conflictual axis, based on the raw number[37] of weekly events that were targeted at the Netherlands throughout the year. The most striking trend is that verbal cooperation remains, by far, the dominant category throughout 2015 in the Netherlands. Nevertheless there are large variations in this category with big spikes in the beginning of July, September and November, and large dips in both the first and last months of the year. The other categories remain below the 500 level throughout the year. Interestingly, both material conflict and cooperation show a small peak in October. In addition, material conflict peaks again in the beginning of November, and both material conflict and cooperation show a gradual decline towards the end of the year.

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36 In last year's report we used two sets of data from GDELT: GDELT's own quad scores, and our recoding of all CAMEO-codes into assertiveness categories. GDELT bins every automatically extracted event in one of 200+ CAMEO codes, which are in turn categorized into 'quad scores' based on whether an event is a) conflictual or cooperative and b) verbal or material. As metrics we typically took the number of reported events in each 'quad'-category, normalized it over all events for that country for that year and then visualized it. The second dataset was based on a subset of the CAMEO codes that we identified in our work on great power assertiveness as 'assertive events' and that we had also categorized into some functional areas: diplomatic, economic and military. (see Stephan De Spiegeleire et al., *Assessing Assertions of Assertiveness: The Chinese and Russian Cases* (The Hague Centre for Strategic Studies, 2014), http://books.google.com/ books?hl=en&lr=&id=tnRQBAAAQBAJ&oi=fnd&pg=PP1&dq=GDELT+event+extraction&ots=YFUmqFX0ip&sig =YgtluPp54R6V2NM5UULWW6beYx0; Stephan De Spiegeleire, *From Assertiveness to Aggression: 2014 as a Watershed Year for Russian Foreign and Security Policy* (The Hague Centre for Strategic Studies, 2015). and Sweijs et al., *Strategic Monitor 2015*, 2015. There are two reasons why we decided to take a slightly different approach this year: 1) because quad scores only give us a binary variable for conflict and cooperation, thus washing out the multiple gradations within these two categories' - both nuclear war and issuing a diplomatic complaint were both coded as the same 'conflict' and 2) to zoom in on just military or economic events, we could only use our assertiveness recoding into the functional categories, thus 'wasting' some potentially meaningful monitoring information. To address the first issue, we decided to take the interval-level Goldstein scores, which are recorded in the GDELT event dataset. For the second issue, we decided to recode not just the assertive CAMEO-codes into 3 functional categories but all CAMEO codes into the 5 DISMEL categories.

37 We opted for the raw figures here instead of the normalized ones we use for the other sections because a) we wanted to give a sense for the number of reported and coded events in GDELT; and b) because unlike the data from 1979 to date,, the sources for just one year and one country do not change that much.
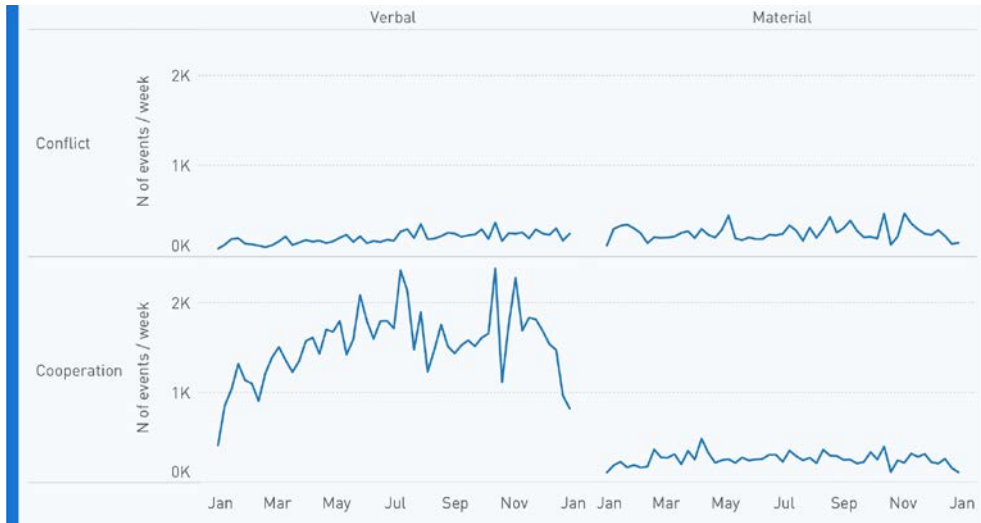
Figure 2.16 shows not the events that other countries targeted at the Netherlands, but the events that the Netherlands targeted at other countries, displayed as the percentile of positivity score[38] of the targets of Dutch assertiveness. We see that Indonesia scores the lowest with a 'neutral' 0.0% positivity score (meaning that the Netherlands initiated about as many positive assertive events towards Indonesia as it initiated negative ones), followed by Russia (0.6 – i.e. only), Ukraine (1.2), Nigeria (1.9), and Brazil (2.5). In the MENA region, Syria has the lowest positivity score with 3,1% closely followed by Iraq with 3.7%. Other countries as Libya, Yemen, Sudan and Morocco have score in the 5-10% range. The countries with the highest percentile of positivity score include most of the countries of the Global North, in addition to China (93.8), Iran (83.3), and Afghanistan (80.2).

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38   The positivity score is the measure we used last year to show the relative weight of positive vs negative assertiveness. The positivity score is the number of positive (cooperative) assertive events as a percentage of all assertive events. 0% positivity means that a country has initiated (or received) just as many cooperative as conflictual assertive events.
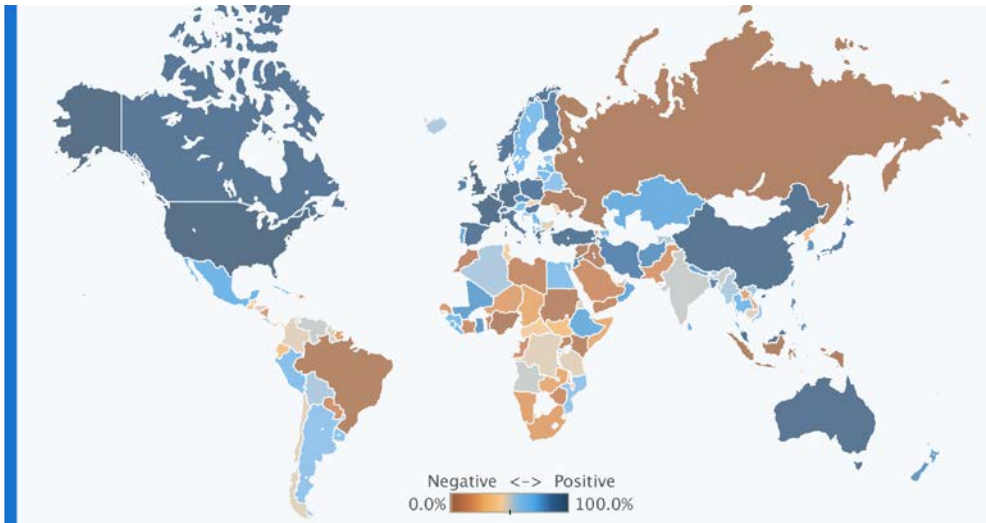
Zooming in on Europe we see that – as is to be expected – the Netherlands tends to behave cooperatively towards fellow EU Members. Notable exceptions in this trend are Slovakia (37.7%) and Bulgaria (45.7%). With regard to Europe's neighborhood, especially Armenia (11.1) and Moldova (37.7) stand out. Another interesting fact this figure points out is Turkey's score of 91.4, whereas Turkey targets the Netherlands with much more negative assertiveness (see figure 2.17).
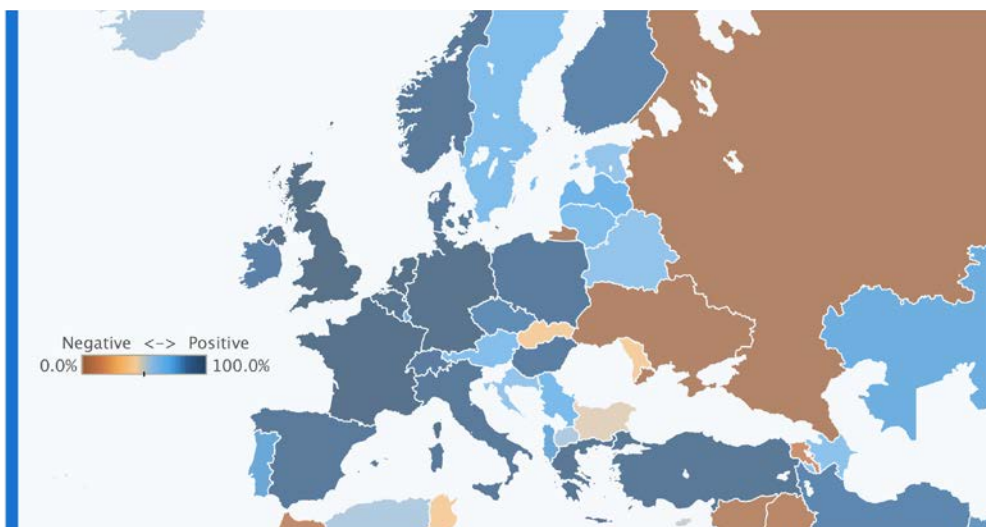
We see that Figure 2.18 in general mirrors the picture of Figure 3.16, which offers preliminary support to the thesis that assertiveness is met with assertiveness through a reciprocal mechanism. Nevertheless there are some notable exceptions. Afghanistan, Algeria, The Democratic Republic of Congo, Mali, Argentina, and Bolivia engage in more negative assertive behavior towards the Netherlands than the Netherlands does to them. In general however, countries tend to target the Netherlands slightly more positively assertive than the Netherlands does in response. The most notable countries in these regards are Iraq, Pakistan, Kenya, Nigeria, Sudan, and South Sudan.
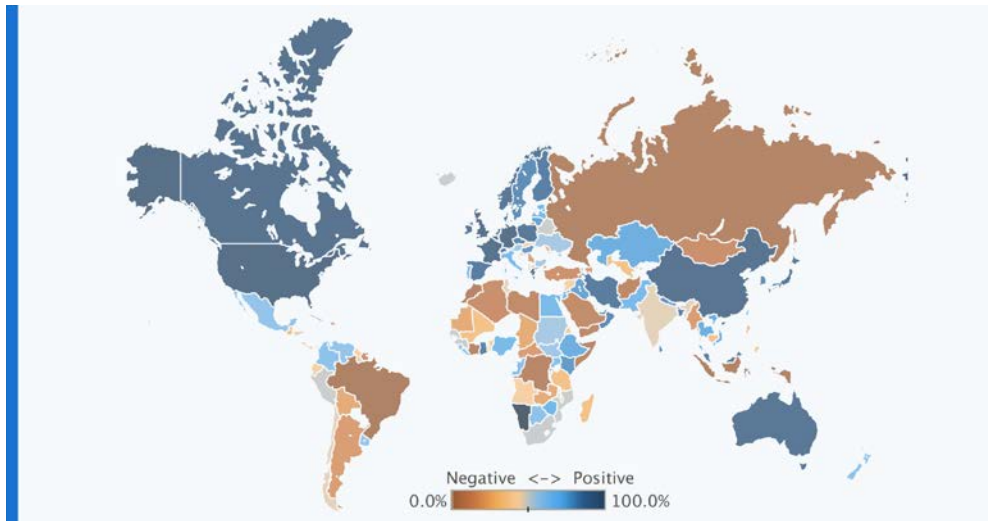
FIGURE 2.18: OTHER COUNTRIES' ASSERTIVENESS TOWARDS THE NETHERLANDS IN 2015 — WORLD

When we take a closer look at the European continent and its neighboring countries, we see that especially the European countries that joined the EU before 1994 score high on positive assertiveness. Especially Turkey scores high on negative assertiveness with a 2.6% of positive assertiveness. Also, Serbia (17.3), Azerbaijan (17.3), and Moldova (22.4) have a relatively low score on positive assertiveness towards the Netherlands.
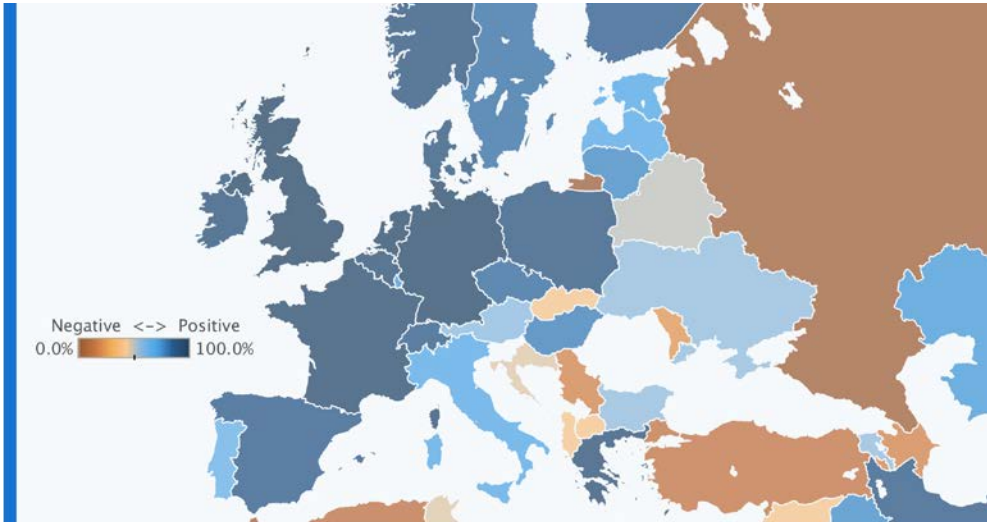
FIGURE 2.19: OTHER COUNTRIES' ASSERTIVENESS TOWARDS THE NETHERLANDS IN 2015 – EUROPE
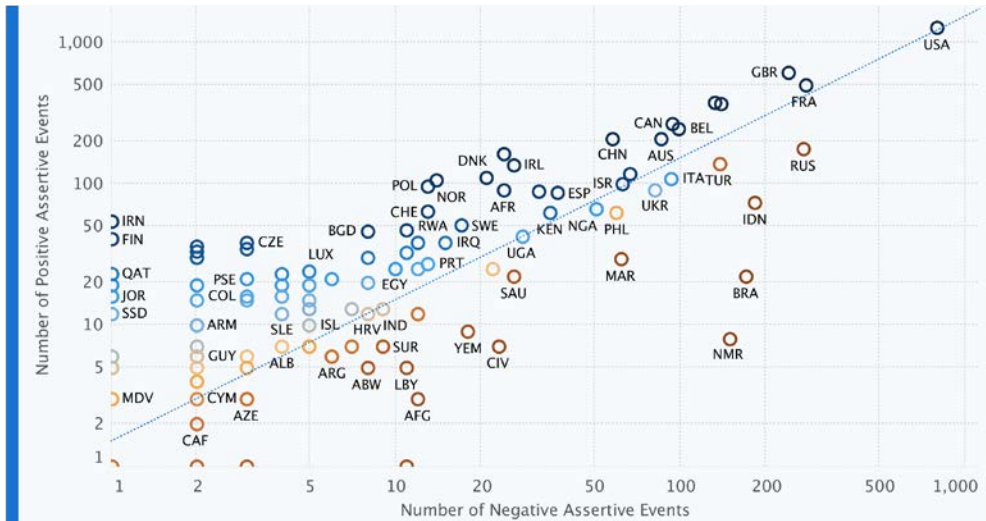
FIGURE 2.20: POSITIVE VS. NEGATIVE ASSERTIVENESS TARGETING THE NETHERLANDS

When examining Figure 2.20 we see that the Netherlands is more often a target of positive assertiveness than of negative assertiveness – which is certainly preferable over the inverse. In addition, the most prominent sources of net negative assertiveness are Russia, Indonesia, Brazil, and Turkey. Both the USA and France, however, targeted the Netherlands more often with negative assertive events than Russia did.

If we move from our update of last year's monitor to our new metric take – the average overall Goldstein scores – and use it to assess countries' overall behavior towards the Netherlands for 2015 in comparison with 2014 (Figure 2.21), we obtain somewhat mixed results. The average scores for Russia, Ukraine, Finland, Morocco, Libya, and Burkina Faso deteriorated, whereas the scores of Saudi Arabia, Sudan, Chad, the Central African Republic, and Congo-Brazzaville improved.
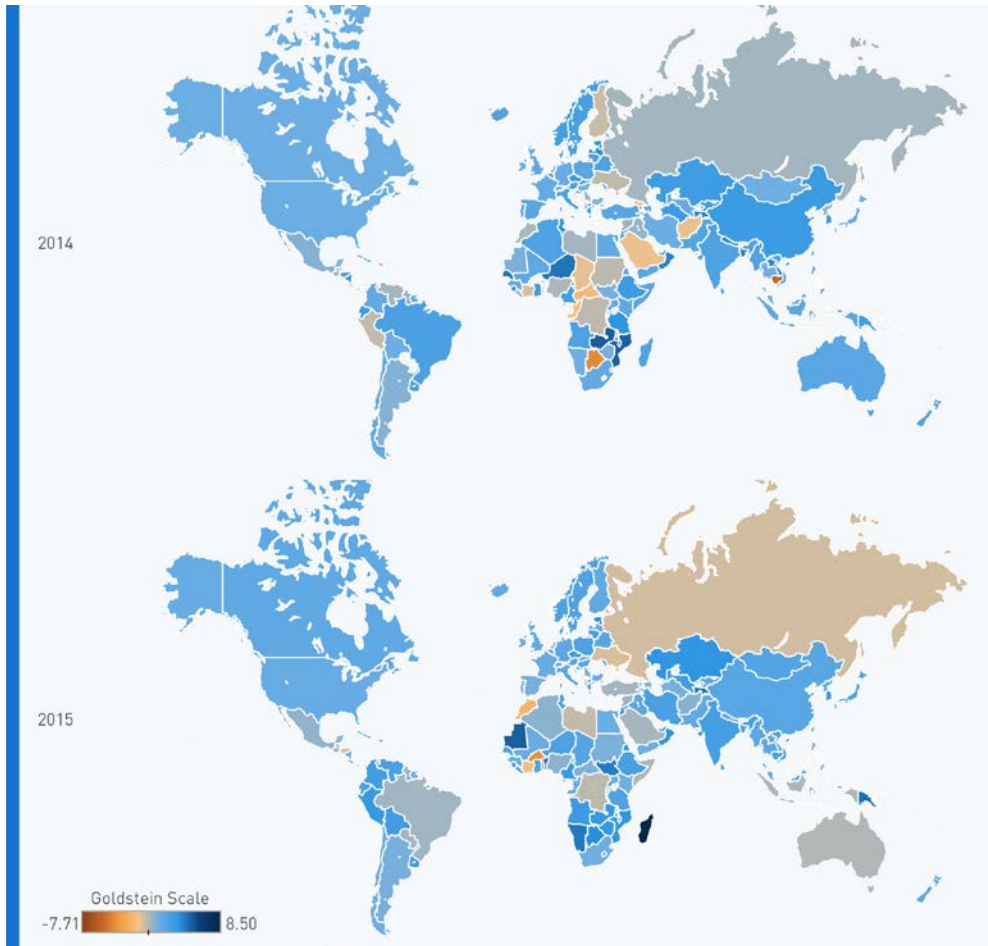
FIGURE 2.21: AVERAGE GOLDSTEIN SCORES WITH THE NETHERLANDS AS TARGET COUNTRY IN 2014 AND 2015

Let us take a look at the military factual events only. We, first of all note that even though the number of military events is quite low, more countries, especially in Africa, initiated more events in 2015 than in 2014 (with Madagascar, Malawi and Uganda as 'blue' exceptions). Within Europe itself, Finland switches blue in 2015, presumably related to the deliveries of the 100 Dutch Leopard 2A6 main battle tanks that the Finnish bought from the Netherlands.
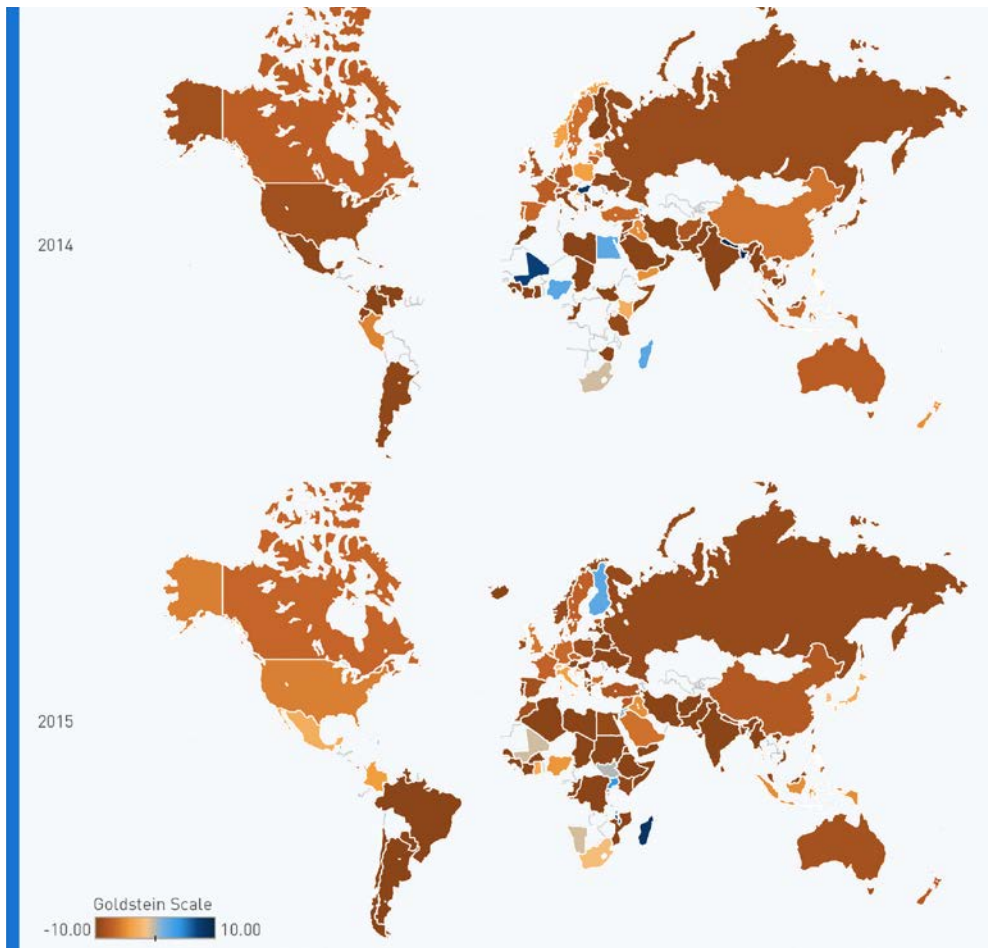
FIGURE 2.22: AVERAGE FACTUAL MILITARY GOLDSTEIN SCORES WITH THE NETHERLANDS AS TARGET COUNTRY IN 2014 AND 2015

Figure 2.23 shows the same but for economic instead of for military events. We see that average economic material Goldstein score in this region looks better in 2015 than in 2014: even Russia and Saudi Arabia score higher again. Also Hungary and Bulgaria, which were in red in 2014, now are in the blue and in fact Ivory Coast is the only country in the world (also in the parts that are not shown here for readability reasons) that seems to engage in more conflictual than cooperative economic acts.
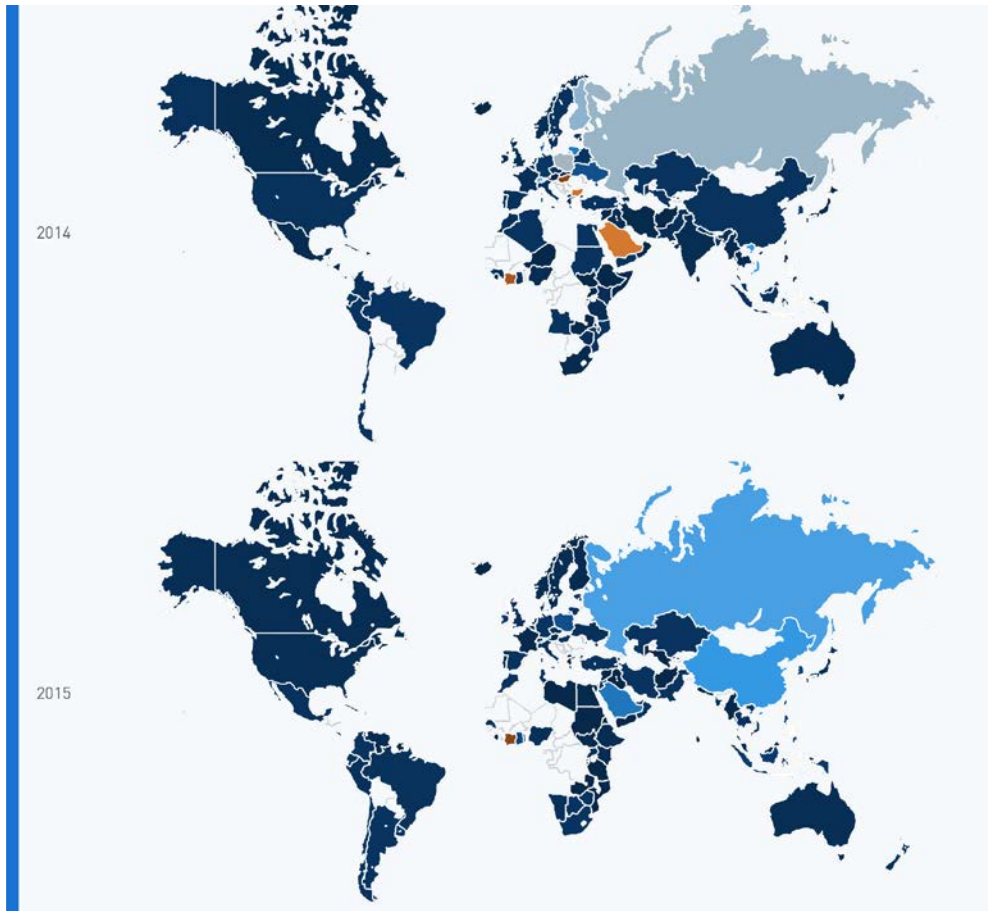
The final visual we show for the Netherlands attempts to put these different data together in a single synoptic overview. On the horizontal axis, this figure shows the average Goldstein score for the bilateral relationship between the Netherlands as a source country and the other countries. The vertical axis displays the inverse: data for the Netherlands as the target country. The size of the marks shows how many events were used to calculate the Goldstein average, whereas the color shows the overall standard deviation of those events around that average.

FIGURE 2.24: AVERAGE GOLDSTEIN SCORE FOR THE NETHERLANDS AS SOURCE AND TARGET COUNTRY AND NUMBER OF EVENTS IN 2015

We can infer a number of interesting observations from this visual. The first one is encouraging. Most countries find themselves in the upper right quadrant where both the Netherlands is behaving cooperatively towards them and they are behaving cooperatively towards the Netherlands. This group includes most key international state actors: the US (the biggest 'bubble' in this graph with 1.19 for NLD as source and 1.48 for the Netherlands as a target), India (3.23 as source and 2.70 as target), China (2.00 as source and 1.99 as target). Brazil in 2015 is an interesting case, as it scores -0.63 as a source and 0.29 as target – meaning that Brazil behaved quite a bit more 'nicely' towards the Netherlands than the other way around. Russia scores negatively across the board: its score towards the Netherlands was -0.48, whereas the Netherlands scored a -0.21 towards Russia.

We also draw our readers' attention to the encouraging fact that overall Dutch dyadic relations greatly lean towards cooperation since the y-axis of the visual goes up to 9 but only down to -4. We see some outliers on the cooperative and the conflictual side that represent too few events (which is why the marks are so small) to be really considered meaningful. The possible exception here is Brunei, which is probably connected to Royal Dutch Shell.

The final observation we can make here is that the trend line indicates that the Netherlands is actually (a little bit) less cooperative towards the rest of the world than the rest of the world is towards the Netherlands.

2.2 STATES VS NON-STATES

What about the major trends in the relative weight of state versus non-state actors at this *big picture* level?

OVER TIME

We already noted last year that the gap between state and non-state actors in international conflict and cooperation started narrowing quite significantly in the mid-noughties, without, however, non-states taking over from states. As we see in Figure 2.25, that trend essentially stalled in the 2010s.
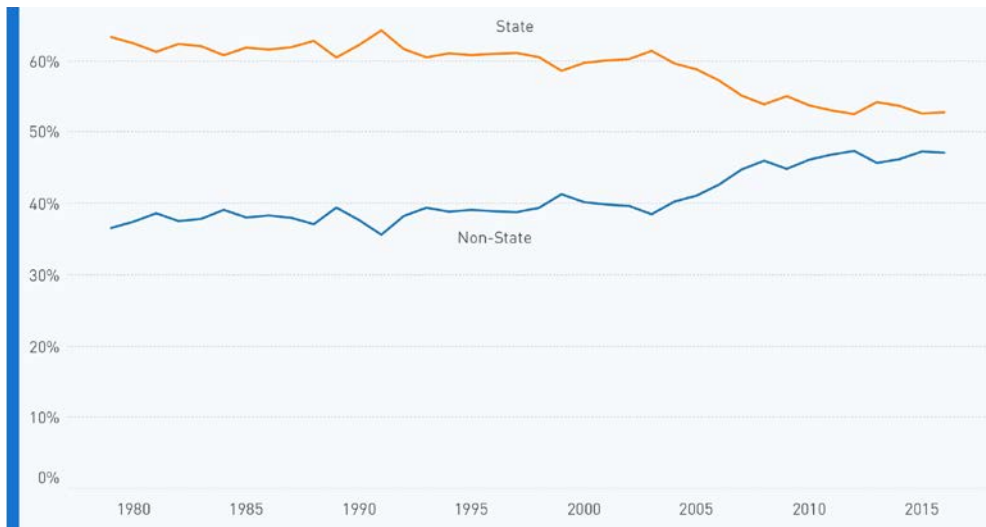
FIGURE 2.25: PERCENTAGES OF EVENTS BY STATE AND NON-STATE ACTORS 1979-2015

Also here, therefore, we find a double message: the two types of actors are closer to each other in terms of relative importance in global events than many politicians or policy-makers may think; but contrary to what many global captains of industry may think, these data still show states remaining dominant. Given the enormous sledgehammer that came down on the international system in full force in the form of a deep and protracted financial-economic crisis (2008-today), the absence of a clear impact in either direction on this visual may seem surprising. A few years ago HCSS perused the existing scholarly and expert literature for empirical or theoretical insights into what impact such

financial-economic crises have on the international system – and on international security and stability in particular[39]. Figure 2.26 shows the main findings of that study.
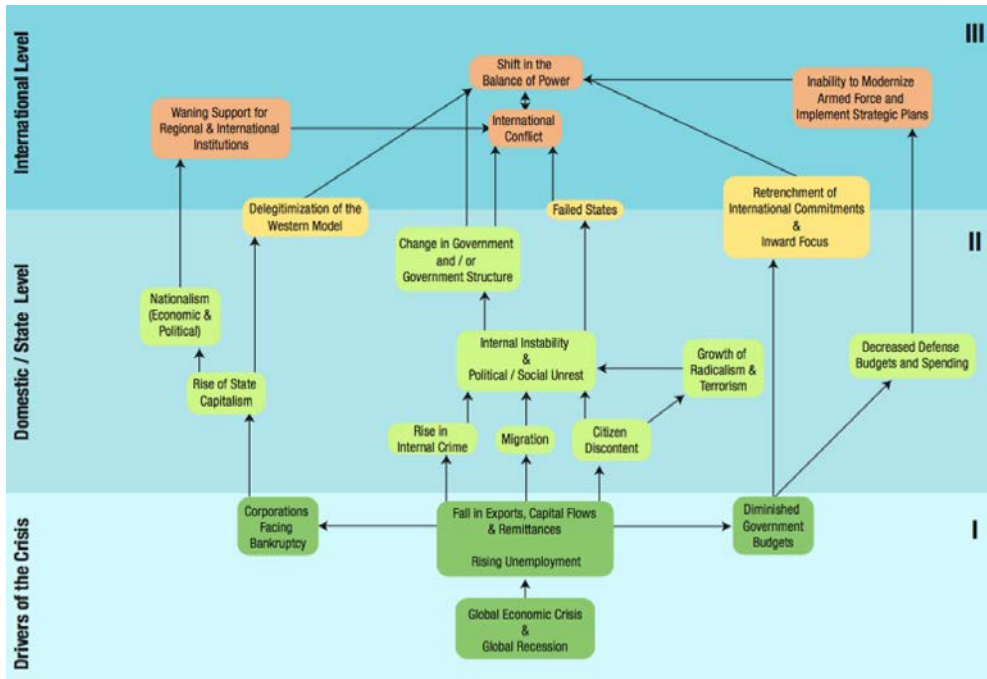
The study essentially identified three main pathways along which economic crises (on the bottom) affect stability of the international system (on top). One pathway is more ideational (on the left): by increased systemic failure of key economic actors, states are required to intervene, which delegitimizes the existing prevailing economic model (in the recent case: the 'Washington consensus'). The second pathway (in the middle) goes through declining state power because of decreased revenues leading to various socio-economic tensions which in turn trigger various forms of political failure. The third pathway (on the right) focuses on dwindling available resources in affected countries (even the affluent ones) that are allocated

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39   Stephan De Spiegeleire et al., "Economic Crises - The Security Implications," *HCSS Future Issues* 2, no. 6 (October 2009).

to the provision of various global public goods that also lead to shifts in the global balance of power and to conflicts.

In the past decade, we have certainly seen these three dynamics unfold themselves before our very eyes – in the Netherlands, in the European Union, in its immediate neighborhood and beyond. This may also help in explaining why we did not see the state/non-state power balance change dramatically after the crisis: on the one hand, (the left pathway in the diagram) states became more powerful because they were called upon to reanimate the global financial and economic system; but on the other hand, (the middle and right) they also became (certainly as far as the West is concerned) politically, economically and militarily weaker. What the future will hold here, will to a large extent depend on the success or failure of the massive exercise of financial and economic power by (mostly Western) sovereigns. They have tried – and by and large managed – to stay clear of the beggar-thy-neighbor policies that saw the previous global depression sink the world into to a World War. They have instead injected massive amounts of liquidity in the (also global) financial system. The continued fragility of the global economic engine combined with various concomitant more security-related pathologies that have reared their ugly heads again[40] suggests that the jury is out on this attempt by states to re-establish order in the system. The final verdict in this matter will determine whether we will see the upwards trajectory of non-state actors (that we see in Fig 3.25) pick up again in a renewed spurt to overtake state actors; or whether we will see the gap remain stable or even widen again in favor of states.

BY TYPE

The figures for conflict events show that the gap for this category of events was always smaller than the overall gap: states still engage in more conflictual events than non-states (as a % of their overall amount of recorded events), but not by much. This gap was bigger during the Cold War, and has never been as small as it has been in recent years. This shows that non-state actors – not surprisingly – also engage in quite a bit of conflict and that they seem to be becoming more conflict-prone.

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40 Sweijs et al., *Strategic Monitor 2015*, 2015.
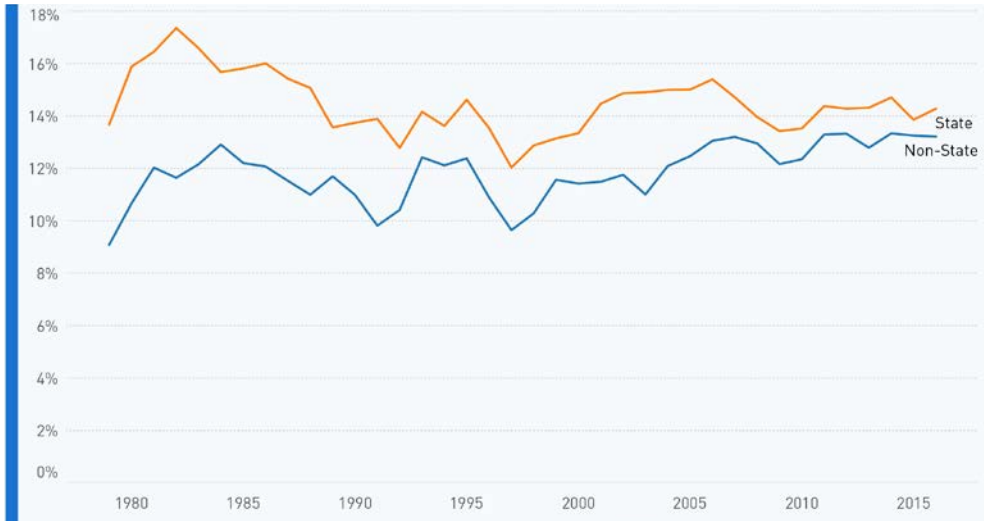
FIGURE 2.27: PERCENTAGE OF CONFLICT EVENTS BY STATE AND NON STATE ACTORS 1979-2015

If we just zoom in on cooperative events, which continue to represent the bulk of all reported events, we see states also being (somewhat) more dominant than non-states but with the gap still narrowing. So the amount of cooperative events as a percentage of all events that were recorded for state actors declined from about 45-50% during the Cold War to about 40% in the past decade; whereas the analogous figure for non-state actors increased from about 25-30% to about slightly upwards of 30 %.
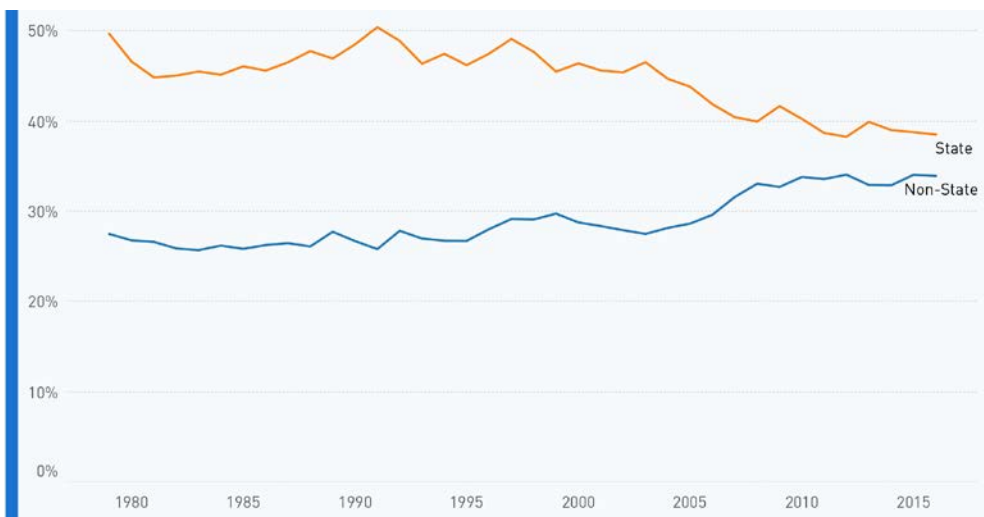
FIGURE 2.28: PERCENTAGE OF COOPERATIVE EVENTS BY STATE AND NON STATE ACTORS 1979-2015

BY REGION

Does the relative weight of states vs non-state differ regionally? Figure 2.29 shows the relative importance of events with states as source actors (SAs) vs events with non-state source actors (NSAs) in different regions. We see – not surprisingly – that most NSA-events do not get associated with a particular country (and therefore region). Hezbollah, for instance, is coded as 'Hezbollah' and not as a Lebanon-based, Iran-supported Islamist militant group and political party. But we also see that those NSAs that do get associated with a country (and therefore region) are in Northern America. Asia is in second position here – with a much lower overall number

Region		
North America	92.64%	7.36%
Asia	94.89%	
Europe	96.67%	
Africa	97.30%	
Latin America and the Caribbean	96.75%	
Oceania	97.51%	
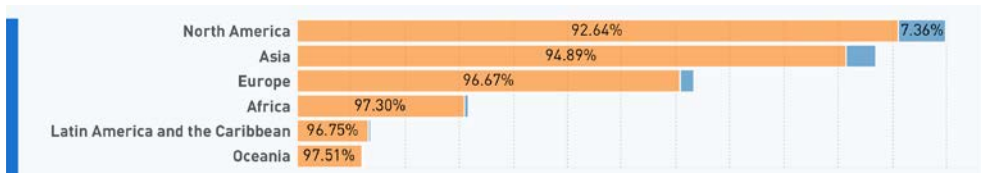
FIGURE 2.29: RELATIVE IMPORTANCE OF EVENTS INITIATED BY STATE VERSUS NON-STATE ACTORS BROKEN DOWN BY REGIONS

3 TRENDS IN VIOLENCE

Now that the overall picture of how the Wheel of Fortune spins up *and* down was presented in the previous chapter, we turn our attention specifically to the Wheel's downwards turns: to the bloody reality of violent conflict since 1989. The four types of violent events we look at are the following:

- **Intrastate Conflict**: Armed conflict that occurs between the government of a state and one or more internal opposition group(s), this included internationalized conflicts, where other states intervene on behalf of one or both sides;
- **Interstate Conflict**: Armed conflict that occurs between two or more states;
- **One-Sided Violence**: Use of armed force by the government of a state or formally organized group against civilians which results in at least 25 deaths;
- **Non-State Violence**: The use of armed force between two organized armed groups, neither of which is the government of a state, which results in at least 25 battle-related deaths in a year.

Both the taxonomy and the data are provided by Uppsala Conflict Data Program (UCDP).[41] We also distinguish between minor conflicts (25-999 deaths per year) and major conflicts (1000 deaths and higher per year). We first provide an overview of the general trends since 1989, followed by an examination of regional developments. We then describe the current state of affairs and offer our projections for the future.

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41   The definitions are from the respective codebooks of datasets used, which were UCDP Battle-Related Deaths Dataset, UCDP One-Sided Violence Dataset, and UCDP Non-State Conflict Dataset, which are available on Uppsala Conflict Data Project website at http://www.pcr.uu.se/research/ucdp/. For more information about their methodology, the following articles are helpful: {Citation}, {Citation}, 182; {Citation}

3.1 OVERALL TRENDS

The raw number of violent events across the four types has stayed relatively stable for the last few years, however the death toll has risen significantly. The proportion of conflict-related deaths occurring in Sub-Saharan Africa, while still high, is now lower than in the Middle East and North Africa. And finally, in all regions besides Latin America and the Caribbean, internal conflicts make up bigger proportions of overall death toll than the other three types of conflict do. All things considered, the trends from the last five years show an increase in overall violence and conflict.

In global conflict history since 1989, a number of trends stand out. First, even while the overall number of countries in conflicts has generally decreased for the overall time period (from 44 in 1989 to 29 in 2014), the death toll has gone up over the last decade from a low of roughly 18,000 in 2005 to a high above 125,000 in 2014 (see Figure 3.1). It is the deadliest year on record since 1994 based on UCDP data. It is still lower than the Cold War era average of over 180,000 battle-related deaths per year though.[42] In 1999, the 10 year moving average of conflict-related deaths was at slightly above 110,000; in 2009 it was roughly 43,000; in 2014, the five year average was above 60,000. All in all, the trend in the last ten years has been towards more violence and deaths.

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42   The Cold War average doesn't take into account deaths from one-sided or non-state violence. It is based on PRIO Battle Deaths data, found at {Citation}. See also the original paper, {Citation} . Best estimates were used when available, geometric mean of low and high estimates were used when this figure was not available.
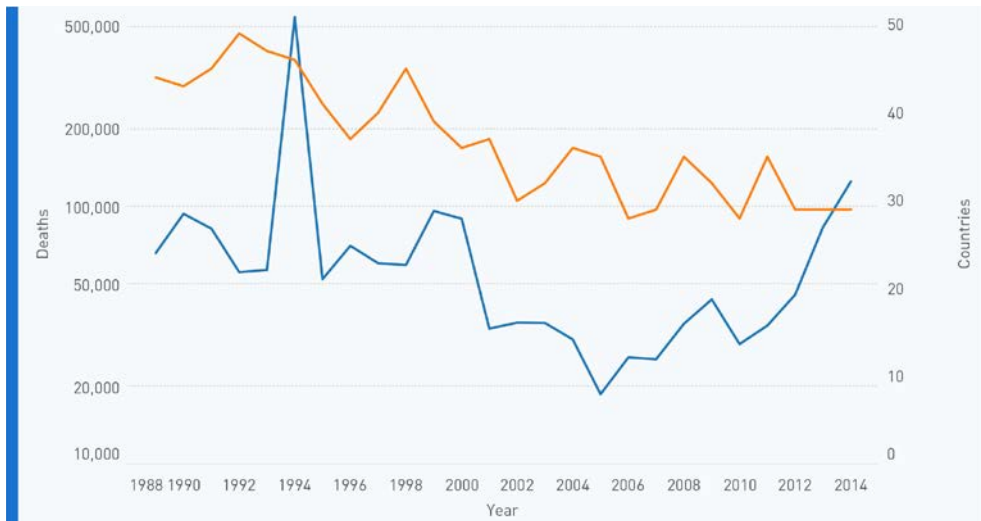
Second, we see distinctive regions of peace and war in the 25-year period (see Figure 3.2): some volatile regions like the Middle East and North Africa, South Asia as well as Sub-Saharan Africa are much more affected by violent conflict than more affluent and developed regions such as Europe and North America. This illustrates not only the regional spillover and contagion effects of violence – as described in greater detail in last year's Annual Report – but also suggests the entrenchment of violence in many societal systems. Third, a relatively small number of countries, especially in Sub-Saharan Africa, are caught in so-called conflict traps and seemingly cannot escape their protracted histories of violence. In addition, a number of long-term, low-intensity conflicts, with recurring episodes of violence, are located in the East Asia and Pacific region (e.g., Myanmar, Philippines) and in Latin America (Colombia, Mexico (which in many years counts as a major conflict)).

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43   In here and subsequent graphs, a logarithmic scale is used for death tolls because of the large differences between the years.

FIGURE 3.2: CONFLICT INTENSITY IN DIFFERENT REGIONS, BY PRIMARY CONFLICT LOCATION[44]

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44   Countries with no conflict events during the observed period are not shown on this figure.

3.2 TRENDS BY STATUS AND TYPE

Whilst the total number of minor conflicts is decreasing, rather than terminating, many of these conflicts are instead escalating into major conflicts. The combined number of internal (including internationalized internal) minor and major conflicts in the last five years has therefore not changed significantly in either direction. However, the number of deaths from those conflicts has increased quite dramatically. In some regions, other forms of violence, most often one-sided violence is prevalent in particular years. The period saw an increase in religious violence which is responsible for a growing share of the fatalities as well (as reported in greater detail in our study Barbarism and Religion: the Resurgence of Holy Violence).[45]

In the last few years, the number of major conflicts has gone up while the number of minor conflicts has decreased. As such, the death toll from major conflicts has increased significantly as well. In 2005, for instance, the year with the smallest number of fatalities in recent history, the ongoing major conflicts resulted in less than 12,000 deaths, while minor conflicts that year resulted in roughly 7,000 deaths. However in 2014, the number of deaths from major conflicts was over 10 times larger than in 2005 (a little under 122,000 deaths). Much of the high death toll of 2014 was due to the intensity of Syrian Civil War (over 50,000 deaths) as well as the conflict in Iraq (over 15,000 deaths).

The death toll from internal conflicts has increased from roughly 20,000 in 2010 to over 100,000 deaths in 2014, accounting for more than 80% of the overall conflict related deaths. The number of casualties from non-state and one-sided violence is also going up, from roughly 5,000 deaths each in the second half of the last decade to above 10,000 deaths in 2014. They still make up a relatively small fraction of overall deaths, each accounting for slightly more than 10% in 2014. (see Figure 3.4). In most years, traditional interstate wars have not been responsible for a significant amount of deaths, the exceptions are 1991 (the First Gulf War), 1999 and 2000 (the Eritrean – Ethiopian War) and 2003 (the invasion of Iraq).

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45   "In 2014, more people died at the hands of IS, Boko Haram, Al-Shabaab and affiliated groups than died as a result of religious violence during a single year period since the beginning of the 1990s. While the consolidation of these groups in the Middle East, North and Central Africa is of substantial importance, religious violence is on the rise globally and comprises agents of multiple faiths." See Tim Sweijs, Jasper Ginn, and Stephan De Spiegeleire, *Barbarism and Religion: The Resurgence of Holy Violence* (The Hague, The Netherlands: The Hague Centre for Strategic Studies, 2015).

Total Number of Minor and Major Conflicts

Deaths from Minor and Major Conflicts

Proportion of Deaths in Minor and Major Conflicts
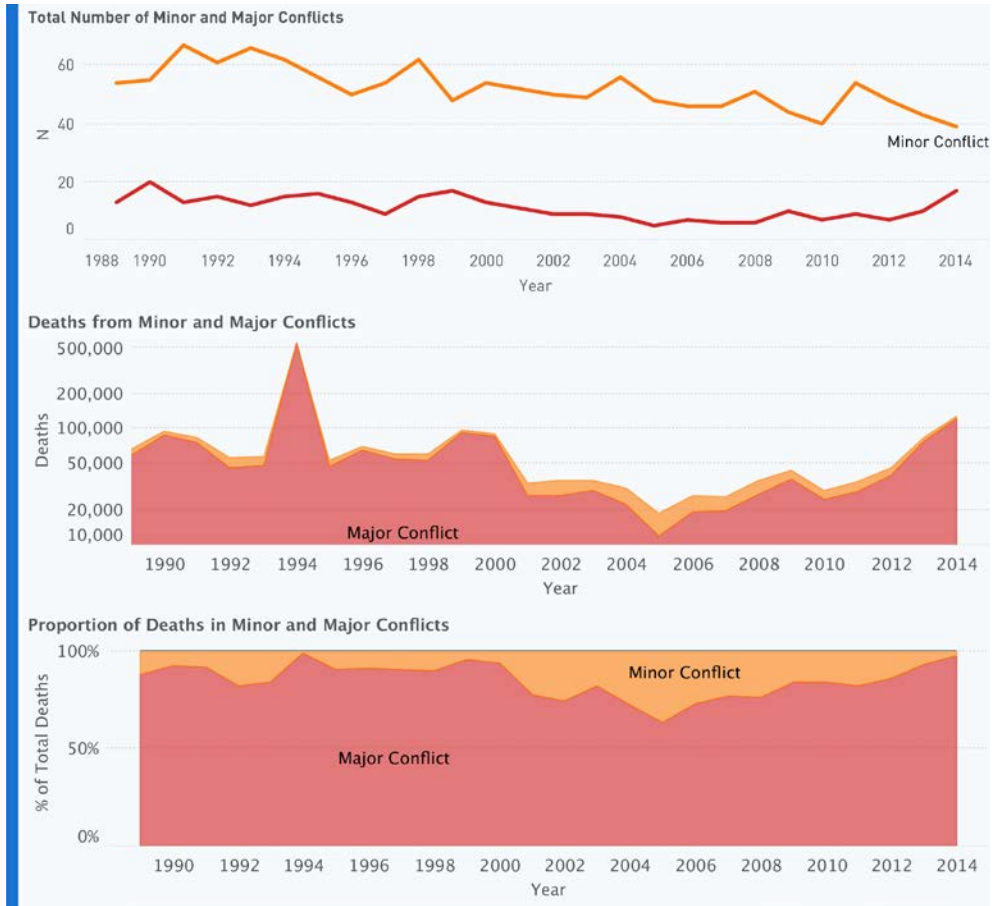
FIGURE 3.3: MINOR AND MAJOR CONFLICT TRENDS (BASED ON THE FOUR CONFLICT TYPES)

Instances by Type

Conflict Type
- Internal
- Interstate
- Non-State
- One-Sided

Deaths by Type

Proportions of Deaths by Type
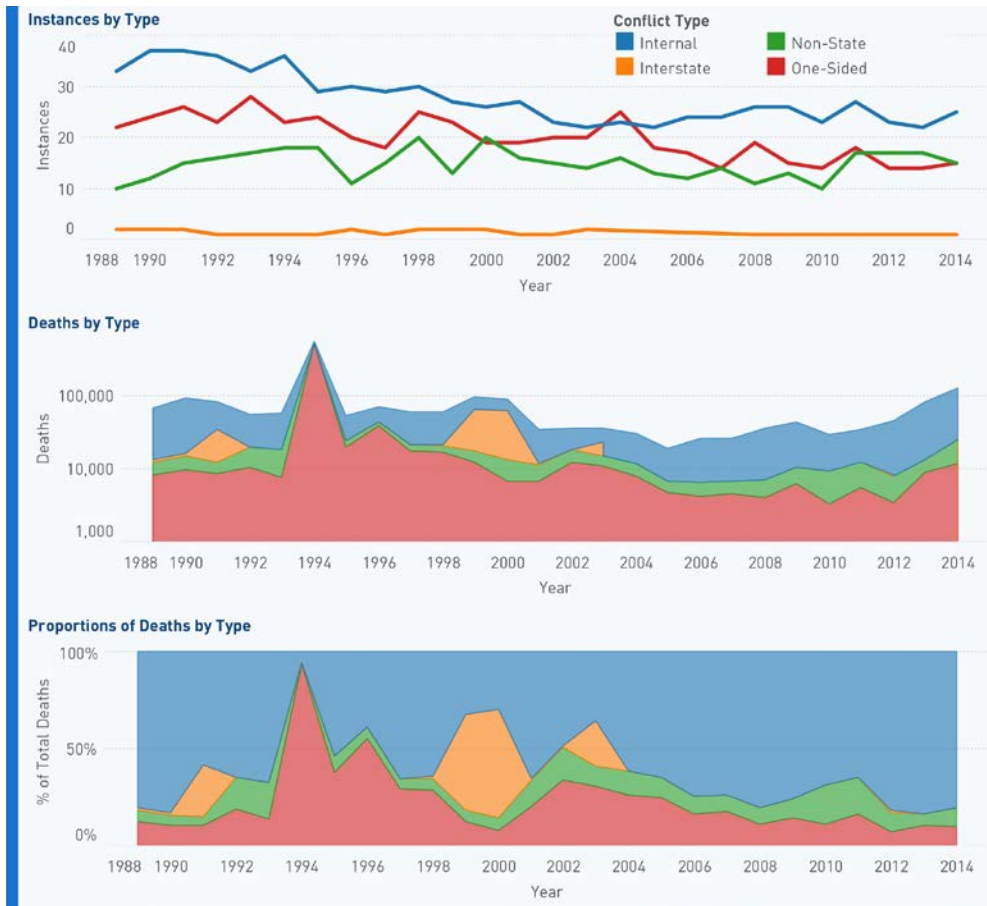
3.3 TRENDS BY REGION[47]

From a geographical perspective, both the number of various types of violence and the death toll have increased particularly in the Middle East and North Africa. A similar trend can be observed for Sub-Saharan Africa, but while this region used to account for the largest proportion of global deaths in the nineties,

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46 Note that some countries might have instances of different types of conflict simultaneously, which means that the sum of all instances in a given year is bigger than the number of countries in conflict during that year that were represented by previous graphs. Deaths from various types of conflict are only counted once as there is no overlap in the type of events covered by the various conflict data sets.

47 Regional classification is based on World Bank country groups, The World Bank, "Country and Lending Groups | Data," 2016, http://data.worldbank.org/about/country-and-lending-groups.

and South Asia in the 2000s, in recent years the Middle East and North Africa has become the most unstable and violent region of the world, with conflicts in Egypt, Iraq, Libya, Palestine, Syria and Yemen. In 1989, over 60% of violence-related deaths were from Sub-Saharan Africa, but in 2014, roughly two thirds were from the Middle East and North Africa. That trend doesn't mean that the security situation in the Sub-Saharan Africa is improving, considering that the number of deaths in that region in fact increased from slightly less than 5,000 to almost 20,000 in 2014, with the Boko Haram insurgency being, in particular, a new major source of violence and terror in West Africa. Conflicts in Sudan and South Sudan combined resulted in more than 8,000 deaths in 2014 and a similar amount in 2015. Over 2,000 deaths were also recorded in DR Congo in 2014, however in 2015, the figure has been little less than half of that.

One-sided violence has been a very big problem in Sub-Saharan Africa for many years, with the Rwandan Genocide (1994) and the First Congo War (1996 – 1997) as bloody reminders. In combination with non-state violence, it makes up roughly half (~10,000) of the overall death toll in 2014. South Asia still hosts various protracted conflicts of various forms including Afghanistan, Pakistan and India (close to 17,000 deaths in 2014).

Since the Balkan conflicts of the 1990s, Europe has been generally peaceful, until the Crimea Crisis and the onset of the intrastate conflict in East Ukraine. The November 2015 attacks in Paris and the March 2016 attacks in Brussels mark the re-emergence of one-sided violent events in Western Europe that claim more than 25 deaths per year. North America similarly tends to have a relatively small share of conflict-related deaths on US soil with the exception of the 2001 terrorist attacks.

In Latin America, both the Mexican drug-related violence and the Colombian intrastate conflict, which also includes clashes between various non-state actors (right-wing paramilitaries and left-wing guerrilla movements), has wreaked tremendous societal havoc claiming tens of thousands of deaths over the years. The latter conflict has seen a ceasefire while peace negotiations between the FARC movement and the Colombian government are ongoing.

The East Asian and Pacific region hosts numerous protracted conflicts including between those the government of Myanmar and various groups (with some but not all of them being recently solved), low level insurgencies in Thailand and the Philippines, and recurring episodes of one-sided violence in Indonesia (until the year 2005) (see Figure 3.5).
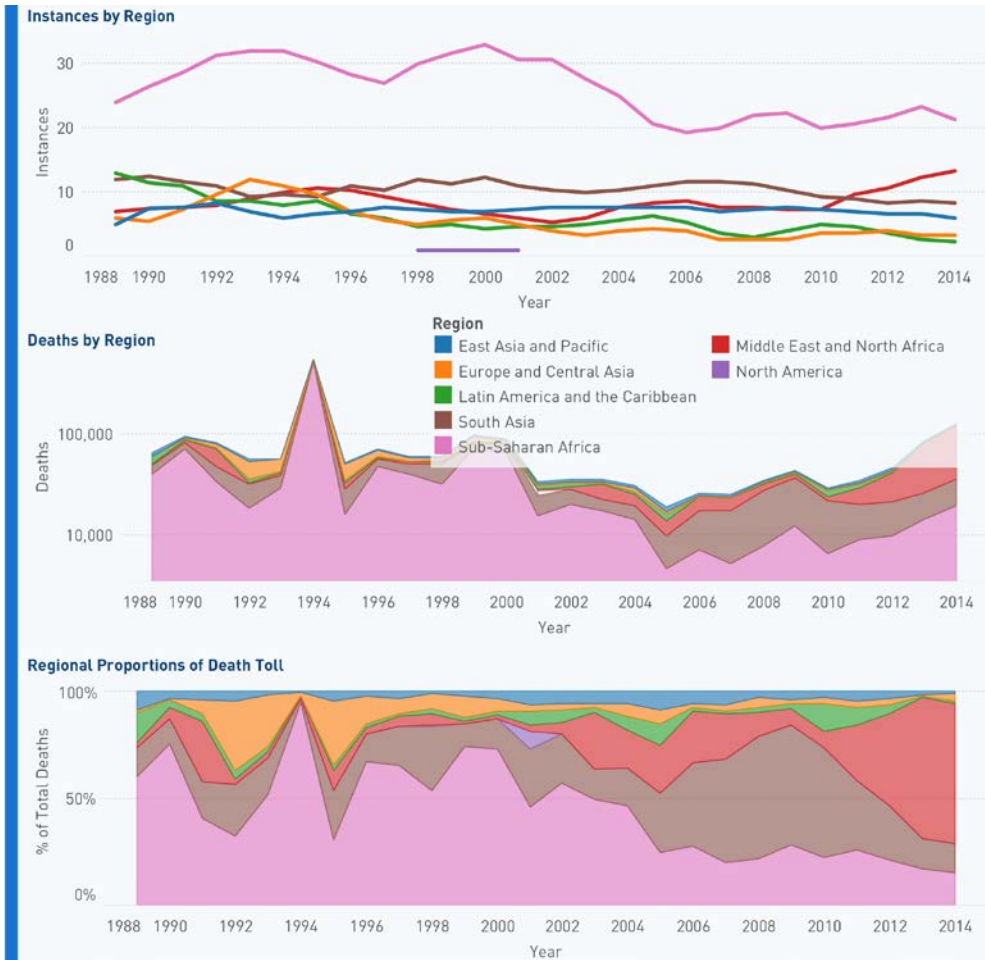
FIGURE 3.5: VIOLENT CONFLICT INSTANCES AND DEATHS BY REGION
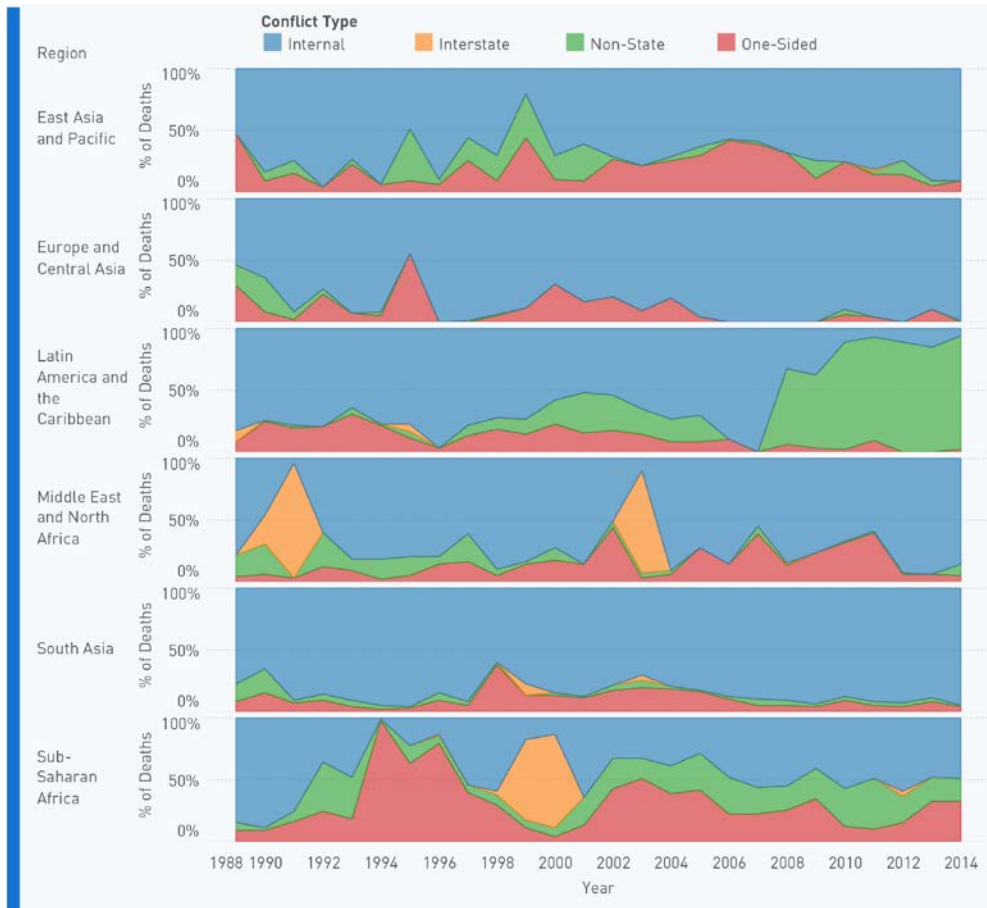
3.4 CURRENT CONFLICT HOTSPOTS

Since the most recent year for which UCDP data are publicly available is 2014 (and UCDP will not finalize its data collection until later this year), we decided to do a separate assessment of ongoing violence based on our monitoring of these conflicts (see Figure 3.7). Out of the major conflicts that were active in 2014, four have de-escalated (the ones in Central African Republic, DR Congo, Ethiopia and Israel) into minor conflicts, and two minor conflicts have terminated (the ones in Algeria and Djibouti). The conflict-related death tolls are currently the highest in Middle Eastern and South Asian countries (Syria, Iraq, Afghanistan, and Pakistan), as well as in Western- and Central African countries (Nigeria, Cameroon, Niger, and Chad). The Libyan and Yemeni civil

wars are wreaking societal havoc while Egypt faces an insurgency in the Sinai. The Kurdish-Turkish conflict is again in an active phase. Both Sudan and South Sudan are the stage of civil wars that as of yet have no end in sight. In Latin America, the Mexican Drug War continues to claim many deaths.

Many of the deadliest conflicts feature government forces on one side and various fundamentalist Islamist rebel groups (Daesh, Taliban, al-Nusra, al-Qaeda, Boko Haram etc) as at least one of the opposing sides. They are typically not bound by borders and their reach stretches over multiple continents. Considering the scope of these movements, the attraction they exert on recruits from far away, as well as the material support they receive from outside regional actors, it is unlikely that they will cease to exist any time soon. In fact, the spillover and contagion of the conflicts they are involved in, significantly widens their base and will likely prolong their longevity, even if they evolve during this process. So does the fusion of conflicts, where a myriad of armed groups are fighting both the government and other non-state actors, often at an enormous loss of life.
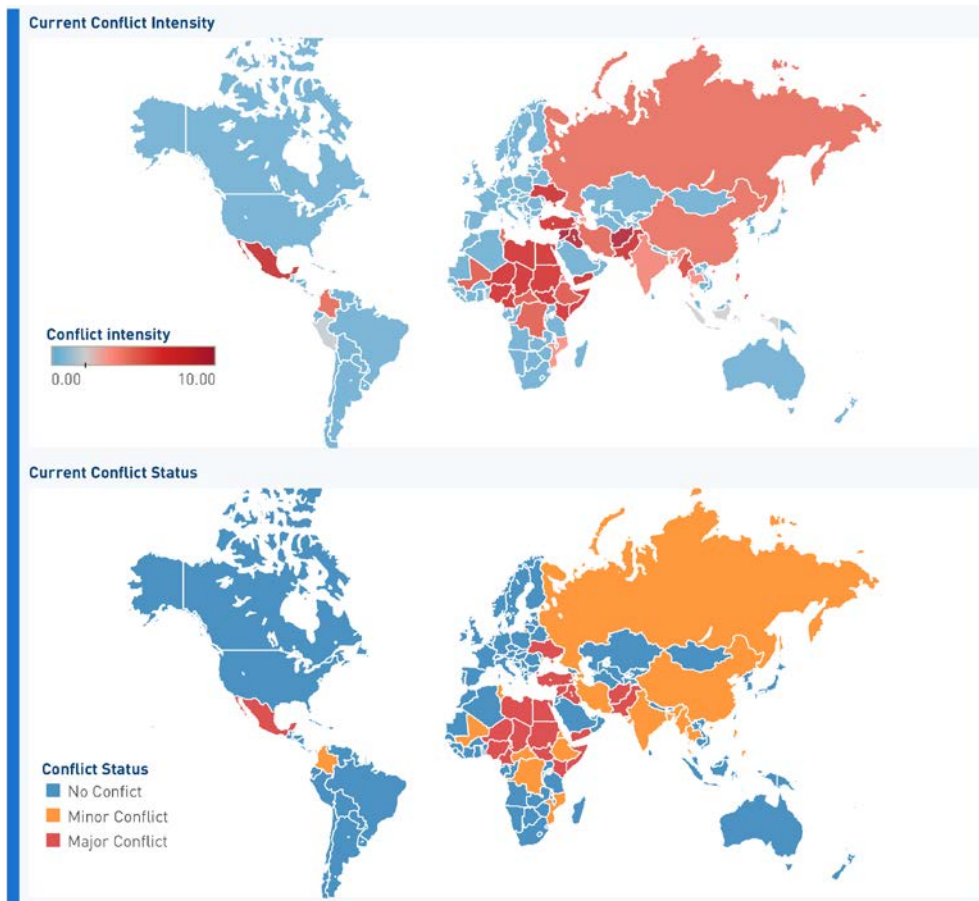
FIGURE 3.7: CURRENT CONFLICTS AROUND THE WORLD[48]

3.5 FUTURE CONFLICT HOTSPOTS

Conflicts seldom if ever emerge in a vacuum. A myriad of factors ('drivers') render countries vulnerable to the onset of conflict. To track this vulnerability, and as part of its contribution to the Strategic Monitor, HCSS has developed the Drivers of Vulnerability Monitor which contains over 50 drivers of state vulnerability to intrastate conflict for around 200 countries from over twenty

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48   This graph is based on various reliable news and data sources that HCSS is monitoring. The continuous scale is based on the logarithm of the estimated death toll from the last 12 months from those conflicts.

years. The Monitor is publicly available in a web-based interface.[49] Building on this work, we have been developing a portfolio of political instability forecasting models that allows us to produce instability forecasts for countries worldwide. The output of two of them – the first one projecting future conflict intensities based on expected fatalities and the second one projecting conflict status[50] – is described below.

Our approach is novel considering the type of the predictors we use. Most of the models that either try to explain the onset of conflict or offer future projections largely rely on structural variables (e.g., infant mortality or regime characteristics), sometimes in combination with some temporal and/or proximity measurement of conflict. We complement this approach with an analysis of automated event data in which we use the ratio between conflictual or cooperative events the year before as a predictive factor of the continuation and the onset of violence the next year. (see textbox 4.1) Before turning to our actual projections, we want to add two important caveats up front: first, our focus is principally on intrastate and internationalized intrastate conflict rather than on traditional interstate conflict. The latter are rare events and extremely hard to predict. Second, the future is uncertain. As hard as we may try to get it right, we will more often be wrong then right, as even superforecasters are.[51]

Inspired by work done by Håvard Hegre *et al.* and the Political Instability Task Force[52], we have constructed two forecasting models: one to give estimates for likelihood of minor or major conflict and second to estimate the intensity of the conflict. We incorporated key drivers of conflict on the basis of their ability to explain the onset of conflict in the period 1989-2003. All data from year t and all

49 The Hague Centre for Strategic Studies, "HCSS Drivers of Vulnerability Monitor," 2016, http://www.hcss.nl/dossiers/drivers-of-vulnerability-monitor/21/.

50 Conflict intensity is based on natural logarithm of the death toll minus a constant: for example, intensity of 1 means 25 deaths; 5 reads 1363 deaths; 7 implies roughly 10,000 deaths. Conflict status is categorical, with three levels - no conflict, minor conflict and major conflict, and the definitions of those comply with ones provided by UCDP. cf. Ralph Sundberg, Kristine Eck, and Joakim Kreutz, "Introducing the UCDP Non-State Conflict Dataset," *Journal of Peace Research* 49, no. 2 (March 1, 2012): 351–62, doi:10.1177/0022343311431598.

51 Philip E. Tetlock and Dan Gardner, *Superforecasting: The Art and Science of Prediction* (New York: Crown, 2015).

52 See Håvard Hegre et al., "Predicting Armed Conflict, 2010-2050," *International Studies Quarterly* 57, no. 2 (June 2013): 250–70. and Robert Bates et al., "A Global Model for Forecasting Political Instability," *The American Journal of Political Science* 54, no. 1 (2010): 190–208., 190-208

projections are for year t+1. We distinguished between three different types of drivers of violence and conflict:

- **Conflict history variables**: (1) death toll (logged and normalized as described before), (2) the average of the last three years of the same figure, proportion of years country has been in (3) minor or (4) major conflict from 1989 until the year t, and (5) proportion of countries in the region in major conflict (all data from UCDP, except 2015 data which we collected ourselves);
- **Structural factors**: (6) infant mortality rate (logged and normalized to year average, from World Development Indicators of World Bank), (7) regime type (categorical, with six levels: full autocracy, partial autocracy, partial democracy with factionalism, partial democracy, full democracy, transition; from Polity IV Project dataset of Centre of Systemic Peace), (8) state-led discrimination (binary, provided by the director of Centre of Systemic Peace, Monty G. Marshall);
- **Dynamic factors**: (9) how conflictual or cooperative were the events that involved the country (yearly averages of Goldstein scale scores of inwards, internal and outwards events, from GDELT).

The effects of those factors were varied. Death toll in the previous year and the average of three preceding years, country-level histories of minor and major conflict, countries in major conflict in the region and Goldstein scale average were very important drivers of future conflict. Out of the structural variables infant mortality added only a minimal amount of predictive power; countries in transition were more likely to be in minor conflict, but regime type otherwise had minimal effect on conflict likelihood; discrimination resulted in higher chance of minor, but not major conflict. Major conflicts in the region as well as high proportions of conflictual events also increased the likelihood and predicted intensity of conflict.

Even though chosen predictors explain roughly 70% of the variance of conflict intensity, there are some "blind spots". For example, if a country lacks a history of protracted conflict during the observed period and the region is relatively stable, then the projections for conflict will be low. However, as history shows, in some cases they will still occur. Having trained our model to predict 'in sample', we then used it to predict conflict status 'out of sample' in the period 2004-2015.

As the highest-risk countries were the ones already in conflict, we also fit an additional model for conflict onset, in which we essentially followed a similar procedure, but excluded those countries that are currently in conflict. This allowed us to gain a better sense for which countries are likely to experience an onset of a new conflict, instead of trying to project overall conflict status which skews projections heavily towards countries already in conflict.

Technical details of the models are the following: both linear and multinomial models were fit for general models, and multinomial one for onset model. The dependent variable for the linear model is the natural logarithm of the death toll (further normalized); for the multinomial model the conflict status has three levels – no conflict, minor conflict and major conflict. The projections were always for year t+1, while the input data was always from the year t.

For the conflict status models, which included countries that were currently in conflict, the variance explained by predictors in the linear model was 68.6% and the percentage correctly predicted in the multinomial model was 90%, and the Area Under the Receiver Operating Characteristic (ROC) curve was 0.95. Only once (Sri Lanka, 2010) we predicted major conflict when in fact there was no conflict; 7 times we predicted no conflict when there in fact was a major conflict (mostly these were onsets of new conflicts that have been stable for a while).

For the conflict onset models, the accuracy of the results are quite promising. The ROC curve was 0.80. High-risk countries, or those in the top quartile (top 25%) in terms of projected likelihood of conflict onset, accounted for 73% of conflict onsets. Our model was successful in predicting the resurgence of conflict in historically conflict prone countries like Somalia, Uganda and Turkey, while it underestimated the conflict risk in countries without an extensive conflict history like Libya, Syria and Ukraine.

Rank	Country	Conflict Status	Predicted Intensity of Conflict	Likelihood of Minor Conflict	Likelihood of Major Conflict	Combined Likelihood of Conflict
1	Syria	Major Conflict	6.5	0.05	0.93	0.98
2	Afghanistan	Major Conflict	6.1	0.08	0.91	0.99
3	Iraq	Major Conflict	5.9	0.13	0.86	0.99
4	South Sudan	Major Conflict	5.7	0.19	0.80	1.00
5	Pakistan	Major Conflict	5.2	0.24	0.74	0.98
6	Sudan	Major Conflict	5.1	0.20	0.79	0.99
7	Yemen	Major Conflict	5.1	0.15	0.81	0.96
8	Cameroon	Major Conflict	5.0	0.16	0.80	0.96
9	Nigeria	Major Conflict	5.0	0.29	0.68	0.97
10	Mexico	Major Conflict	4.7	0.23	0.66	0.89
11	Libya	Major Conflict	4.3	0.22	0.67	0.89
12	Egypt	Major Conflict	4.1	0.33	0.55	0.88
13	Kenya	Major Conflict	4.0	0.37	0.51	0.88
14	Central African Republic	Minor Conflict	3.9	0.57	0.37	0.93
15	Ukraine	Major Conflict	3.8	0.19	0.39	0.57
16	Congo-Kinshasa	Minor Conflict	3.8	0.54	0.43	0.97
17	Turkey	Major Conflict	3.5	0.45	0.40	0.85
18	Chad	Major Conflict	3.3	0.44	0.45	0.88
19	Ethiopia	Minor Conflict	3.3	0.75	0.17	0.92
20	Somalia	Major Conflict	3.2	0.46	0.38	0.84
21	Niger	Major Conflict	3.1	0.29	0.41	0.70
22	Mali	Minor Conflict	3.1	0.58	0.28	0.86
23	Myanmar	Minor Conflict	3.0	0.76	0.14	0.91
24	India	Minor Conflict	3.0	0.62	0.27	0.89
25	Philippines	Minor Conflict	3.0	0.69	0.16	0.85
26	Russia	Minor Conflict	3.0	0.69	0.16	0.84
27	Lebanon	Minor Conflict	2.5	0.65	0.12	0.77
28	Israel	Minor Conflict	2.4	0.56	0.09	0.66
29	Algeria	Minor Conflict	2.4	0.79	0.11	0.90
30	Colombia	Minor Conflict	2.3	0.68	0.07	0.75
31	Thailand	Minor Conflict	2.1	0.35	0.05	0.40
32	Burundi	Minor Conflict	1.9	0.56	0.15	0.71
33	Tunisia	Minor Conflict	1.8	0.36	0.14	0.50
34	Bangladesh	Minor Conflict	1.7	0.64	0.07	0.72
35	Iran	Minor Conflict	1.6	0.58	0.05	0.63
36	Azerbaijan	Minor Conflict	1.4	0.43	0.04	0.47
37	Mozambique	Minor Conflict	1.3	0.31	0.05	0.36
38	Eritrea	Minor Conflict	1.3	0.33	0.05	0.38
39	China	Minor Conflict	1.2	0.16	0.02	0.17
40	Armenia	Minor Conflict	1.0	0.25	0.02	0.27

TABLE 3.1: CONFLICT STATUS LIKELIHOOD AND INTENSITY PREDICTIONS FOR 2016-2017 (INCLUDING COUNTRIES CURRENTLY IN CONFLICT)[53]

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53   Predicted intensity scale is based on estimated death toll as explained before; likelihoods are shown as probabilities.

Likelihood of Minor Conflict

Likelihood
0.000 — 1.000

Likelihood of Major Conflict
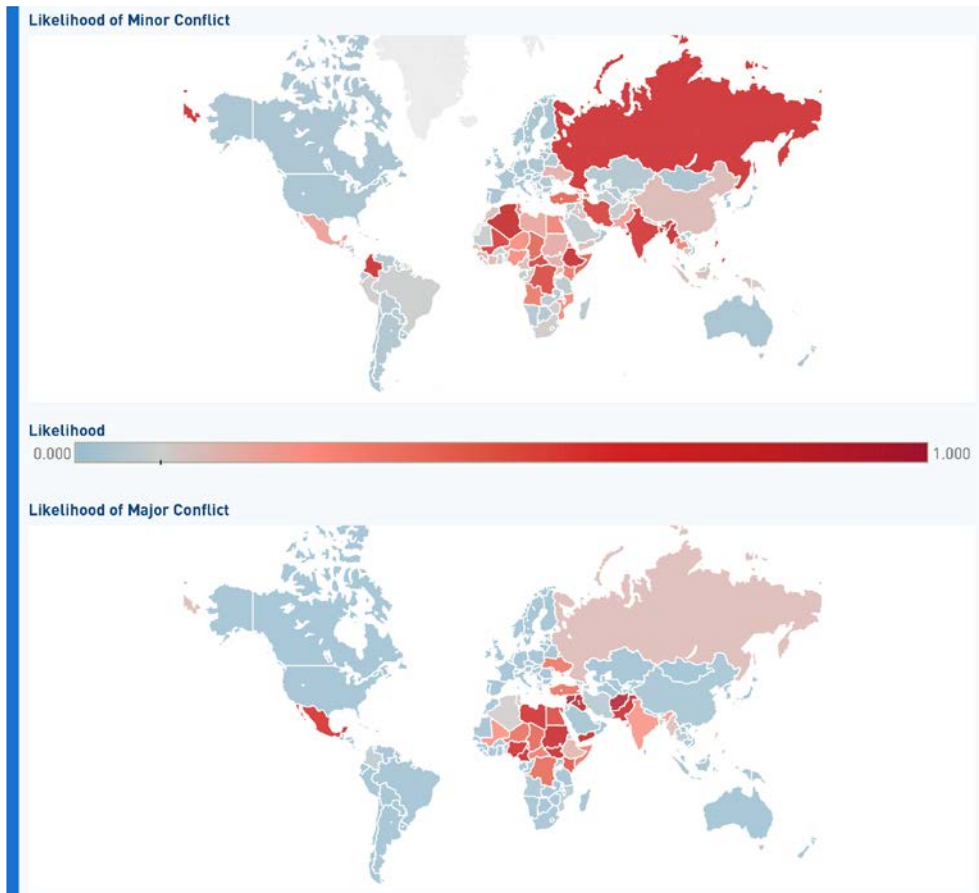
FIGURE 3.8: ESTIMATED CONFLICT STATUS LIKELIHOOD IN 2016

Unsurprisingly, our projections show that the protracted conflict in Afghanistan as well as the intensive civil war in Syria and the related conflict in Iraq, are likely to be some of the most deadly, and at the same time the least likely ones to be resolved in the next year (see Table 3.1 and Figure 3.8). We project that most of the violence and conflict will continue to be concentrated in the volatile regions in the Middle East and Africa. The conflict risk in West Africa, especially in Nigeria, Cameroon, Niger and Chad has risen notably. Conflicts in Sudan and South Sudan are also likely to continue. Even though DR Congo and the Central African Republic had minor conflicts last year, we project that the escalation risk is high in those countries.

The minor and major conflict risk is not always concentrated in the same areas: for example, there are a number of countries in the East Asian and Pacific region that have had longstanding minor conflicts (Philippines, Thailand, Myanmar) which nevertheless have a relatively small risk of escalating into major, full scale conflicts. At the same time, there are volatile countries in the Middle East and North Africa and Sub-Saharan African region where the conflict intensity fluctuates between major, minor and no conflict and where projecting the status for the upcoming year is extremely complicated. In some cases there is a dissonance between projected intensity and conflict likelihood: for example in Ukraine, which has not had a prolonged conflict history since regaining independence, but had an onset of violent conflict in 2014. As the current intensity is high, so will be the projection for the next year, however, Ukraine may be able to escape the long-term conflict trap because until recently it experienced substantial, long duration stability.

As far as the onset of new conflict is concerned, our models put the following 30 countries in top 25% of conflict risk (where there currently is no active conflict): Angola, Guinea, Uganda, Ivory Coast, Djibouti, Senegal, Haiti, Sierra Leone, Papua New Guinea, Morocco, Nepal, Cambodia, Congo-Brazzaville, Liberia, Guatemala, Indonesia, Tajikistan, Ghana, Rwanda, Burkina Faso, Togo, South Africa, Equatorial Guinea, Sri Lanka, Guinea-Bissau, Gambia, Zimbabwe, Brazil, Peru and Georgia. (see Figure 3.9).

To wrap things up, our analysis reveals the stagnation of the New Peace, while projecting substantial conflict risk especially in volatile regions such as the Middle East and Sub-Saharan Africa. Europe is not shielded from these conflicts due to spillover effects which are already manifesting themselves in the form of terror attacks and refugees. Despite overall negative trends in global violence, there have also been a number of positive developments, including lower intensities of non-state violence in Latin America and lower levels of intrastate conflict in the East Asian and Pacific region. As such, although the overall picture is not entirely gloomy, current trends do not allow for too much optimism about global levels of violence in the near future.
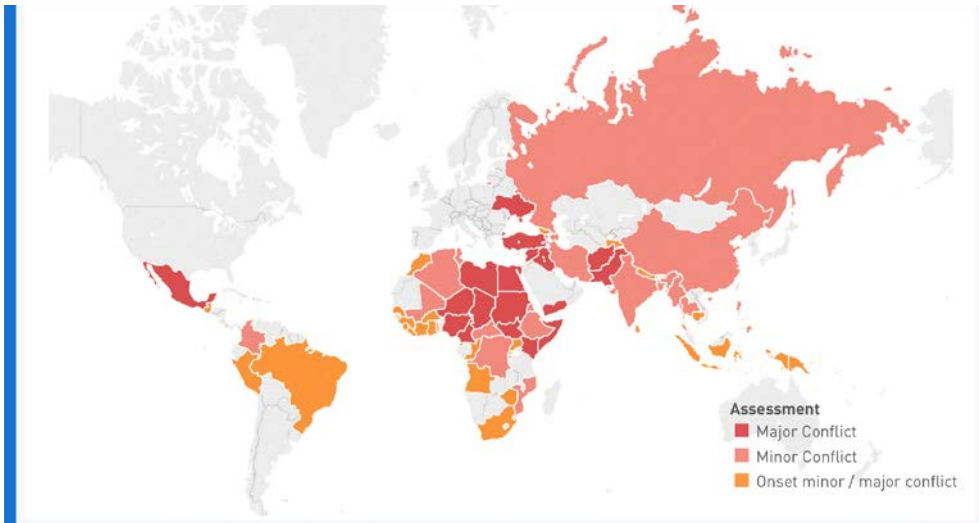
FIGURE 3.9: COUNTRIES WITH HIGH RISK OF CONFLICT ONSET OR CONTINUATION: (RED = HIGHEST LIKELIHOOD OF MAJOR CONFLICT (CONTINUATION); SOFT RED = HIGHEST RISK OF MINOR CONFLICT (CONTINUATION); ORANGE = HIGHEST RISK OF CONFLICT (ONSET)

4 NOWCASTING GEODYNAMICS

This chapter zooms out again from the bloody nether-regions of our Wheel of Fortune to look at it from yet another angle. It introduces a new monitoring effort by HCSS that aims to enable policy makers and the public at large to monitor the tectonic shifts in the international system. The two terms 'nowcasting' and 'geodynamics' probably sound unfamiliar to most of our readers and we therefore start by explaining them in some more detail before we proceed with presenting the actual evidence.

One of the most popular memes in the geopolitically-inclined *Kommentariat* is that of 'shifting tectonic plates' in the international system. This is a reference to geologists' well-supported grand unified theory of plate tectonics[54]. Geologically speaking, the earth's upper crust consists of plates that are about 100 km thick and that float on top of a deeper ductile layer. The continents are the tips of these larger plates that, moved by convection currents that are triggered by the immense energy of the earth's inner heat, shift sideward along the upper mantle of that deeper layer. The plates can move towards each other, away from each other, and they can also transform each other. Wherever these plates rub against each other, a fault line emerges that exhibits significant seismic activity.

Of all analysts of international affairs, geopolitical analysts are probably the ones most wont to reify (make concrete[55]) the abstract concept of the nation state. In their attempts to make sense of the international system in the twentieth century, adherents of the school(s) of geopolitics resorted to various more tangible (hydraulic, mechanical, biological, geological, etc.) analogies such

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54   Frequently used textbooks include Philip Kearey, Keith A. Klepeis, and Frederick J. Vine, *Global Tectonics* (John Wiley & Sons, 2013); Allan Cox and Robert Brian Hart, *Plate Tectonics: How It Works* (John Wiley & Sons, 2009).

55   Reification is generally defined as the 'fallacy of misplaced concreteness', which is making an abstract concept concrete and attributing all sorts of material qualities to it.

as pivots, buffers, lynchpin states etc. *Lebensraum*[56] became a particularly pernicious term in light of its subsequent usage to rationalize Nazi Germany's expansionism. Countries were compared to living organisms that legitimately require more (or less) 'living space' (in the geographical sense of more territory) as they grow more (or less) powerful, in the process of which they will likely infringe upon the interests of other countries in what is essentially a zero sum context. Their contemporary successors also seem particularly enamored with the territorial-geographical reification of a state that covers more territory as its success – typically measured in national economic and/or military terms – waxes or wanes. Just like moving tectonic plates at some point trigger seismic activity, so too – they argue – is the lateral pressure[57] created by power shifts bound to lead conflict.

Whether one agrees or disagrees with this reification[58], only foolhardy people would ignore the growing evidence that the dynamics between the great powers in the 'real world' have taken a turn for the worse. Even though in some observable sense geography is disappearing because of globalization and the overall digitization of many aspects of modern-day (even material – see 3D printing) life[59], in other senses geography is still very much with us – maybe even having come back with a vengeance in recent years[60]. Even so, a purely geographic view on international dynamics is unnecessarily reductionist. As we have emphasized throughout our yearly reports to date, we think it is critically important for prudent strategic planners to look at the world through multiple

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56 Christian Abrahamsson, "On the Genealogy of Lebensraum," *Geographica Helvetica* 68, no. 1 (2013): 37–44.

57 Nazli Choucri and Robert C. North, "Lateral Pressure in International Relations: Concept and Theory," *Handbook of War Studies*, 1989, 289–326.

58 Many authors have criticized various aspects of this 'a-political' characterization of international relations, which seems to understate the role of human individual or collective agency (and the ensuing responsibilities it entails) to the benefit of some more almost mechanistic (and merely three-dimensional - as opposed to high-dimensional) 'inevitability'.

59 For this argument, see e.g. Thomas L. Friedman, *The World Is Flat [Further Updated and Expanded; Release 3.0]: A Brief History of the Twenty-First Century*, 3rd edition (New York: Farrar, Straus and Giroux, 2007).

60 For this argument, see e.g. Robert D. Kaplan, *The Revenge of Geography: What the Map Tells Us About Coming Conflicts and the Battle Against Fate* (Random House, 2012), https://books.google.com/books?hl=en&lr=&id=njs-hFHxR2sC&oi=fnd&pg=PA131&dq=kaplan+revenge+geography&ots=4WkVqGQdkj&sig=P3XZOQypwFlxfxfSpgkFvg1JQxU.

perspectives[61]. We therefore introduce the term 'geodynamics' as a concept that encompasses all spatial aspects of geo-political, geo-economic, geo-societal, geo-legal, geo-cultural, etc. dynamics in the international system. The *geo-* here does not stand for 'geographical' per se but for the Greek word γῆ (gê) – the earth we live on. Geodynamics tries to analyze the dynamics of international relations in a neutrally geodetic[62] way that avoids – to the extent possible – excessive ideological (i.e. mono-perspectivist) overtones. In this chapter, we report the main findings from our monitoring effort of the world's recent geodynamics with a special focus on what is happening with the world's great powers and with some smaller, strategically important, states that 'pivot' between them.

We boldly entitled this chapter of our report '*nowcasting* geodynamics' in line with other recent attempts to provide the international community with a better sensory mechanism about what is currently going on in the international system. Nowcasting is a term that originated in weather forecasting[63]. It refers to the detailed description of the current weather that has become possible through the explosion of weather sensors and our increased ability to process those in the cloud. This has enabled forecasts obtained by extrapolation for a period of 0 to 6 hours ahead, for small features such as individual storms with reasonable

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61 For those interested in philosophy of science, we highly recommend the work by Ronald Giere on 'scientific perspectivism', which tries to bridge the gap between the strong objectivism of most scientists ("science is about discovering the objectively real inner workings of nature) and the constructivism of humanities and some social scientists ("there is at best a consensus among scientists regarding what to say they have found. And reaching a consensus is a complex social process in which exhibiting empirical evidence is only a part, and by no means a determining part"). Ronald N. Giere, *Scientific Perspectivism*, Paperback ed (Chicago: Univ. of Chicago Press, 2010). See also Bas C. van Fraassen, *Scientific Representation: Paradoxes of Perspective* (OUP Oxford, 2008), https://books.google.com/books?hl=en&lr=&id=11RVgVXwulcC&oi=fnd&pg=PT2&ots=2OKwwsdMhd&sig=j4K_O1-ZNuqTSVTsmkBpnrKHq6k; William C. Wimsatt, *Re-Engineering Philosophy for Limited Beings: Piecewise Approximations to Reality* (Harvard University Press, 2007), https://books.google.com/books?hl=en&lr=&id=in_rMFXR3agC&oi=fnd&pg=PA3&dq=Re-engineering++philosophy++for++limited++beings:+piecewise++approximations++to++reality.&ots=IVmNniODsU&sig=uI3yqw_Sm1rIeV7lI3G3R9Zl-8A.

62 Geodetic is a branch of applied mathematics and earth sciences that deals with the measurement and representation of the Earth, including its gravitational field, in a three-dimensional time-varying space. Geodesists also study geodynamical phenomena such as crustal motion, tides, and polar motion. For this they design global and national control networks, using space and terrestrial techniques while relying on datums and coordinate systems. Zhiping Lu, Yunying Qu, and Shubo Qiao, *Geodesy* (Berlin, Heidelberg: Springer Berlin Heidelberg, 2014), http://link.springer.com/10.1007/978-3-642-41245-5.

63 World Metereological Organization, "Nowcasting," *World Metereological Organization*, accessed March 29, 2016, https://www.wmo.int/pages/prog/amp/pwsp/Nowcasting.htm.

accuracy within this 'window of predictability'. The term is now enjoying growing popularity in the field of economics, where analysts are using multiple (near-)real-time datasets to generate a better understanding of what is actually going on in different parts of the economy.

> Nowcasting is the economic discipline of determining a trend or a trend reversal objectively in real time[64]. Nowcasting is fact-based, focuses on the known and knowable, and therefore avoids forecasting. Nowcasting is the basis of a robust decision-making process[65].

Especially Central Banks across the developed world have been putting increased emphasis on nowcasting to inform their own decision-making processes as well as supporting their policy boards in their fiduciary responsibilities. It is with a similar aim in mind that we have been building a broader strategic evidence base (StratBase) in order to track these geodynamics.

4.1 GREAT POWER ASSERTIVENESS

In our study *Great Power Assertivitis*, HCSS continued its efforts to monitor great power assertiveness (GPA). We qualify a country as assertive when either its projected (factual) or professed (rhetorical) power increases. To ascertain whether this is the case, we collected different datasets: some more traditional ones (with yearly economic and – especially – military indicators); and a few ones that have only recently become available – especially the new large event datasets that dynamically track international interactions on a daily (and even 15-minute) basis. The combination of these indicators offers unprecedented insights into the ebb and flow of international cooperation and conflict. In exploring and exploiting these various datasets, HCSS has focused on a number

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64 It is based on the sobering realization that the economic-financial field has not only proved remarkably inept at *fore*casting key economic and financial trends, but even at '**now**casting' them. Not only do we get the future wrong; we apparently even have a terrible time getting the present 'right'. "IT IS hard to predict the future: witness forecasters' failure to foresee the financial crisis. Indeed, even ascertaining the current state of the economy is tricky." "Taking the Economic Pulse," *The Economist*, July 5, 2014, http://www.economist.com/news/finance-and-economics/21606325-how-gauge-current-state-economy-taking-economic-pulse.

65 Alexander Ineichen, "Nowcasting: A Risk Management Tool," *Alternative Investment Analyst Review* 4, no. 3 (Summer 2015): 45–50. For an overview of different approaches to economic nowcasting, see Jennifer Castle and David Hendry, "Forecasting and Nowcasting Macroeconomic Variables: A Methodological Overview," Economics Series Working Paper (University of Oxford, Department of Economics, 2013), https://ideas.repec.org/p/oxf/wpaper/674.html.

of great powers (in this study: China, 'Europe', India, Russia and the United States), which wield such disproportionate influence on the international system. The historical record shows that great powers tend to participate more in militarized conflict, to impose more economic sanctions, to possess more nuclear weapons, to form more military alliances and to mediate or intervene more in civil and international conflicts[66]. This means that the entire international community has a stake in closely monitoring their behavior and their statements. The different datasets we have collated and analyzed paint a differentiated, but overall worrisome picture about the assertiveness of these actors in the international system.

We find it is not the case that we can speak of increased great power assertiveness across the board. However, when we just look at confrontational military behavior – presumably the most dangerous form of assertiveness – we do see in the top right segment of Figure 4.1 that it has increased noticeably over the past few years.
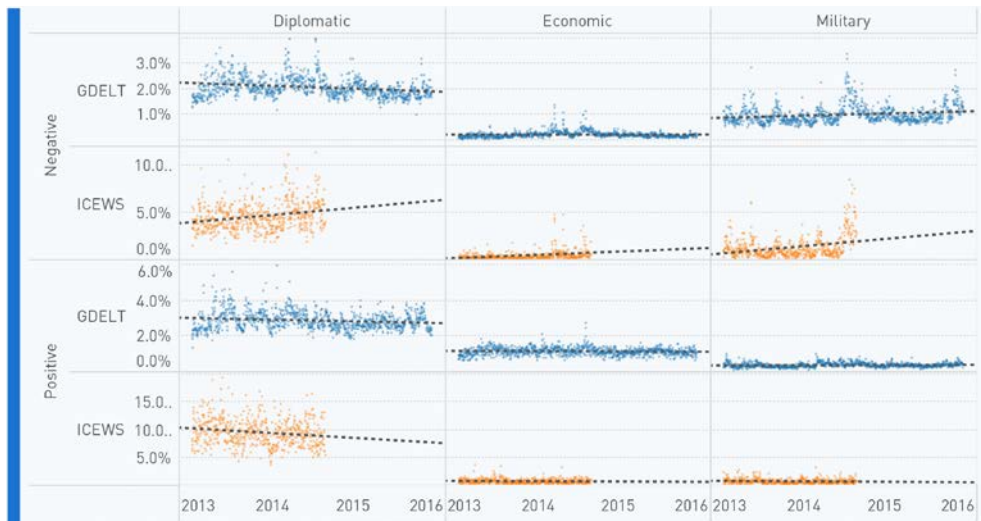
FIGURE 4.1: GLOBAL TRENDS IN OVERALL GREAT POWER ASSERTIVENESS 2013-2015

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66   De Spiegeleire et al., *Assessing Assertions of Assertiveness*.: 8-9.

Other (non-event-based) indicators of great power assertiveness, however, paint a more balanced picture even on the military side (see Figure 4.2). Overall arms sales by great powers have declined in recent years and have stayed significantly below the high levels that characterized the Cold War. Military expenditures by all great powers have stabilized and even declined somewhat in recent years after steady increases in the first decade of this century. In terms of military personnel as percentage of the active labor force, 2013 was the lowest year for this indicator since 1992. Great powers deployed significantly fewer troops in 2013 than in 2012 (from 330k to 280k). In 2014, that trend was reversed somewhat (to 285k) but still remained significantly lower than in 2013.

The various weapon systems in the arsenals of the great powers, as reported in the most frequently cited dataset (the IISS *Military Balance*), also show a mixed picture. We see fairly sizeable increases in a number of weapon systems that can be construed as reflecting power projection ambitions: the overall numbers of fourth and fifth generation aircraft; attack helicopters; cruisers/destroyers; heavy unmanned aerial vehicles, modern armored infantry fighting vehicles, main battle tanks (they were still declining in 2012, but then increased significantly in 2013) and principal amphibious ships. But at the same time we also see declines in the number of bomber aircraft, frigates and in tankers/mixed tanker-transport aircraft. Other categories of major weapon platforms either increased slightly or stayed level. We hasten to add that, based on the steeply increased longer-term investment plans of both Russia and China, these countries' projected future trajectories presage a darker future in many of these categories. But at this moment in time, the evidence we collected does not show a major spike in overall (!) great power assertiveness.

FIGURE 4.2: GLOBAL TRENDS IN MILITARY GREAT POWER ASSERTIVENESS 2013-2015
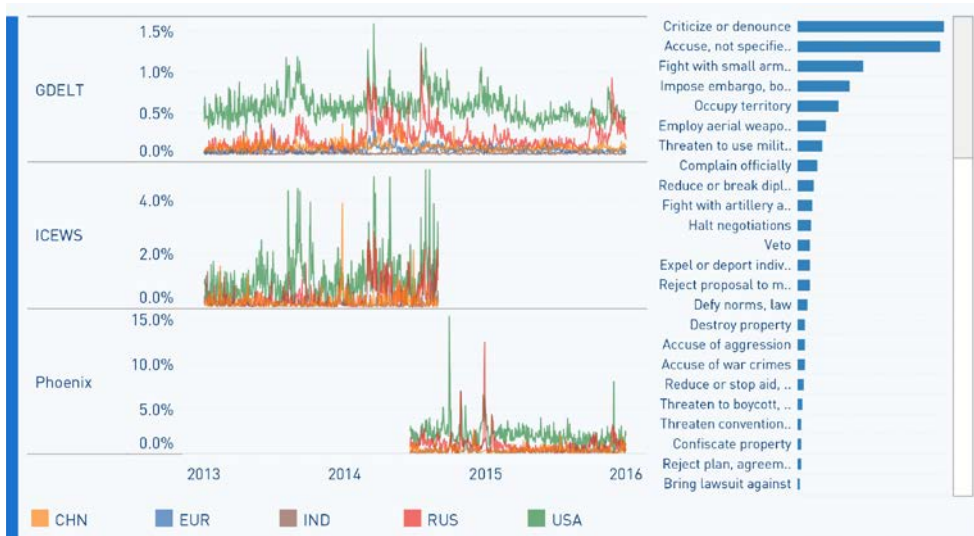
FIGURE 4.3: OVERALL GREAT POWER ASSERTIVENESS

When we turn our attention to the individual great powers however, the data paints a different picture – even just based on current data (and – again – not on projected trends). Here we find two great powers that show clear signs of what we have called *assertivitis* – an affliction characterized by an almost pathological inclination to assert one's power, especially in negative ways. In one case – China – we find a case of developed assertivitis and in another one – Russia – of inchoate (but recidivist) acute assertivitis. We find another great power – the United States – that has been suffering from chronic assertivitis for an extended period of time but seems to have embarked upon the path of (a modest and uneven) recovery. And we observe two great powers – India and the European Union – that do not appear to be suffering from this affliction. They exhibit an overall much lower-profile stance, even though they also show what may still prove to be early symptoms of assertivitis: in the case of Europe mostly in the (both positive and negative) economic realm; and in the case of India in a number of forms of positive assertiveness.

In our 2014 report we noted that tensions between great powers had increased, even though we still saw powerful countervailing trends that provided at least a modicum of antidote to assertivitis. We argued that "the sentiment was, and to a large extent remains, that on balance, all potential challengers felt and continue

to feel sufficiently inhibited to engage into too much brinkmanship. It is important to stress that we see no evidence across our various datasets that this balance has crossed some definitive tipping point. Changes appear to be more linear than exponential."

This year's report leaves us more worried than in 2014. We have no way to reliably discern where the tipping point that pushes the world over the brink exactly lies. But we certainly see a number of great powers recklessly moving full steam ahead towards it. The chance of a Cuban Missile Crisis-type event (or worse) in Syria, the South China Sea, Ukraine, Moldova or elsewhere – whether because of accidental, inadvertent or deliberate escalation – continues to increase.

What does all of this mean to Europe in general, and to the Netherlands in particular? Our analysis of how the Netherlands fits into the great power assertiveness dynamic in the study we devoted to great power assertiveness this year still paints an overall comfortingly positive picture (on the relations between the Netherlands and great powers, see chapter X). But the MH17 tragedy showed that these fairly positive fundamentals offer absolutely no guarantee that the country will not be affected. There can be no splendid isolation from these global gales of renewed assertiveness – not even for a small European power that at first glance may seem to be comfortably nested in a safe and sheltered neighborhood. The country's interconnectedness with its close European and Transatlantic partners and with the broader world beyond that, is bound to further expose it to the broader worrying trends that we describe in this report.

4.2 PIVOT STATES

In a study we produced for the Strategic Monitor last year[67], HCSS identified a number of countries in the world as 'pivot states'. We defined pivot states as "states who possess military, economic or ideational strategic assets that are coveted by great powers. They are caught in the middle of overlapping spheres of influence of these great powers. [..] A change in a pivot state's association has

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67 Tim Sweijs et al., *Why Are Pivot States so Pivotal?: The Role of Pivot States in Regional and Global Security*, vol. 4 (The Hague Centre for Strategic Studies, 2014), https://books.google.com/books?hl=en&lr=&id=vDxNBAAAQB AJ&oi=fnd&pg=PP1&dq=%22Hague+Centre+for+Strategic%22+%22states+are+states+that+possess+ military,+economic+or+ideational+strategic%22+%22international+system+have+at+various+moments+in+ history+been+crucial+to%22+&ots=CA2STiWcJR&sig=0B1PqWk9LGWwwPReXp3jihKySew.

important repercussions for regional and global security". To return to the geodetic analogy: whereas the previous section on great power assertiveness focused on equivalent of the earth crust's main tectonic plates, this section focuses on the equivalent of the fault lines between them. Assertiveness was the object of a special HCSS study this year, which we summarized in the previous section. Despite the fact that pivot states were not the object of a special HCSS study this year, we still have been rebuilding a new dataset on the pivoting behavior of pivot states. Our main ambition here is to get a better handle on the directions in which pivot states are re-aligning themselves towards or away from great powers – the same ones that we analyzed in the previous section.

To this end, we compiled two datasets: one based on our event datasets (in this case just GDELT[68]); and one based on a number of non-event datasets[69]. In both cases, we tried to gauge changes in pivoting behavior in four categories: diplomatic, economic, ideational and military. We are not yet in a position to present a full analysis of all datasets, but we still decided to already include a few visuals based on them that show the overall 'attraction' of two 'great powers' – China and the EU – to the pivot states.

CHINA
Non-Event Data
Figure 4.6 shows all non-event data across all categories for the same pivot states that we identified in last year's study[70] with respect to China. Within this streamgraph, the pivot states countries are color-colored and the thickness of

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68   From GDELT, we built a directional dyadic dataset (with the pivot state as the source actors and the great power as the target actor) with the average Goldstein scores for the diplomatic, economic and military categories based on our new DISMEL re-categorization of CAMEO-codes, and the number of all rhetorical CAMEO coded international events that a pivot stated 'targeted' at any of the great powers as a percentage of that country's overall number of rhetorical events for that time period. All of these data were then normalized on a scale from 0 to 1, with 1 representing the figure for the great power with whom a pivot state that has the highest average Goldstein score; '0' representing the great power with the lowest average Goldstein score and all others distributed accordingly between 1 and 0. For example: for Ukraine, Russia has the lowest average Goldstein of all 5 great powers. It therefore receives a score of 0 and is thus not displayed.

69   For the non-event datasets, we used Pardee's diplomatic representation dataset (diplomatic); UN Comtrade's commodity trade figures and the OECD.stat data of FDI flows between partner countries (economic); SIPRI's arms exports trade register for arms sales and Douglas M. Gibler's Alliance data (military); and the Correlates of War World Religion dataset's for shared religion (ideational). They too were normalized in the same way we described in the previous footnote for the event data.

70   We did add Ukraine to that list.

'their' stream represents the extent to which it is pivoting towards China. We observe a remarkably steadily growing pivoting trend towards China — very much in line with China's own claim of its 'peaceful rise'.

FIGURE 4.6: OVERALL PIVOTING BEHAVIOR TOWARDS CHINA FROM NON-EVENT DATA

If we look at the components of this overall rise, we see that it is especially driven by a (steady) diplomatic and a (much more dramatic) economic rise — whereas the military component (as indicated by arms sales) is much more erratic.

FIGURE 4.7: DIPLOMATIC PIVOTING BEHAVIOR TOWARDS CHINA FROM NON-EVENT DATA
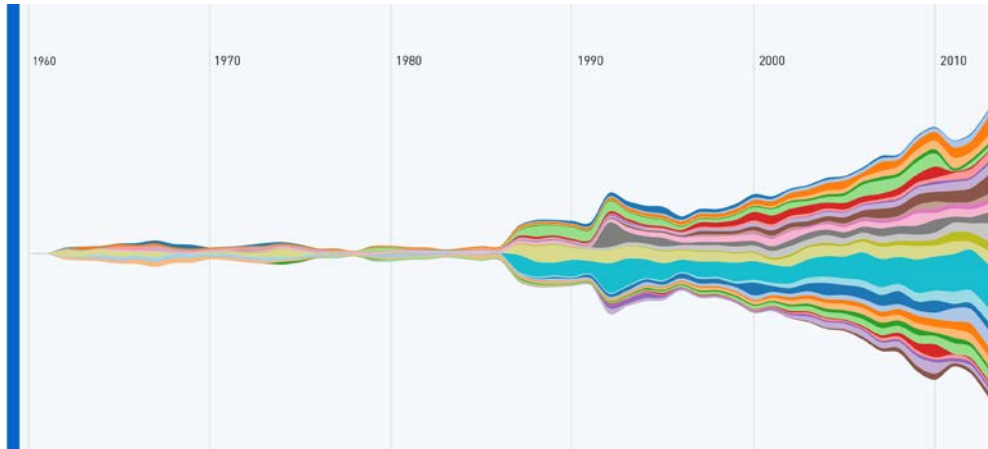
FIGURE 4.8: ECONOMIC PIVOTING BEHAVIOR TOWARDS CHINA FROM NON-EVENT DATA
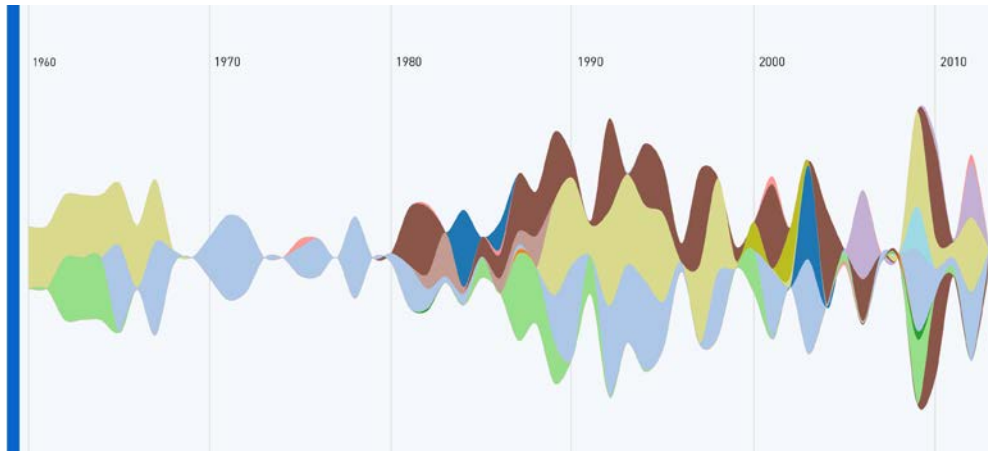
FIGURE 4.9: MILITARY PIVOTING BEHAVIOR TOWARDS CHINA FROM NON-EVENT DATA

Event data

The story we obtain from the event data is quite similar. We see pivots increasingly moving towards China: not so much ideationally (which remains fairly steady as an indicator), but especially economically and – maybe surprisingly – even more militarily.
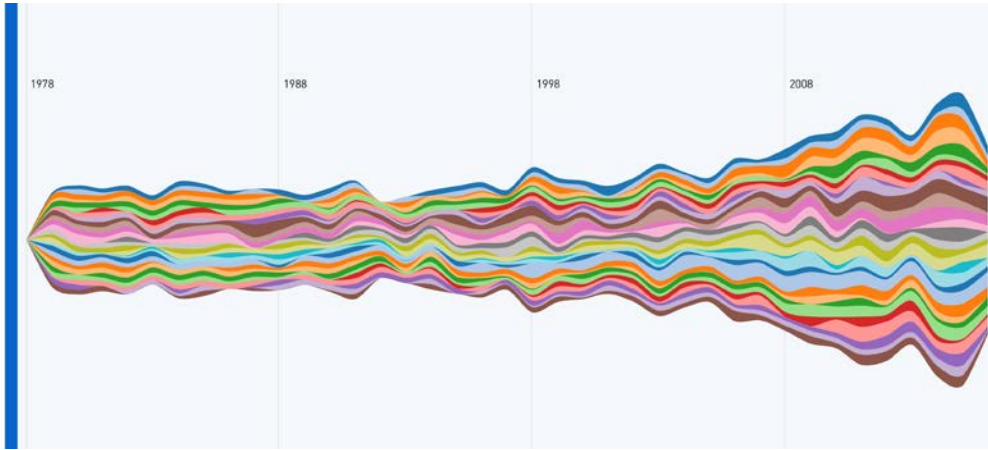
FIGURE 4.10: OVERALL PIVOTING BEHAVIOR TOWARDS CHINA FROM EVENT DATA
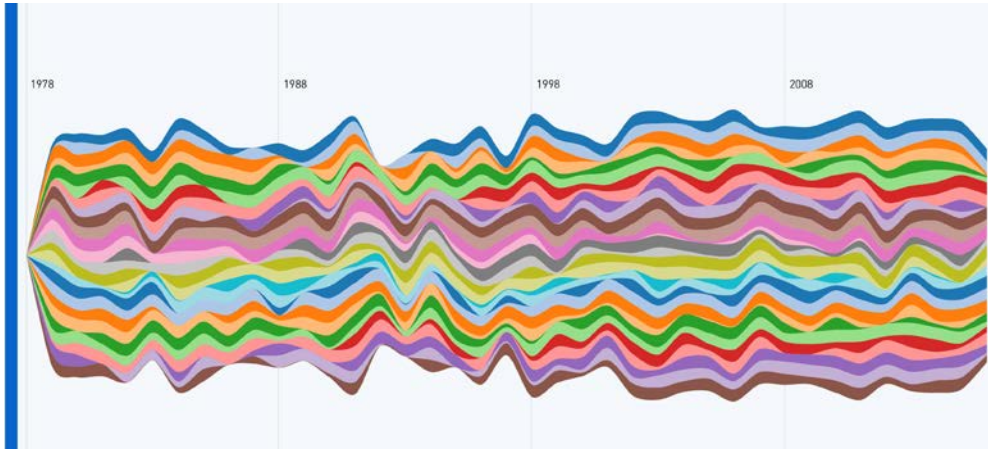
FIGURE 4.11: IDEATIONAL PIVOTING BEHAVIOR TOWARDS CHINA FROM EVENT DATA
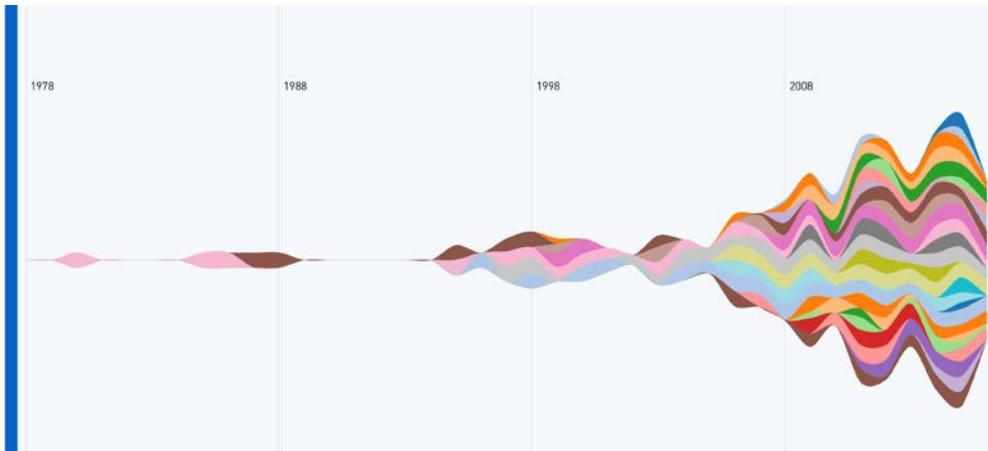
FIGURE 4.12: ECONOMIC PIVOTING BEHAVIOR TOWARDS CHINA FROM EVENT DATA

FIGURE 4.13: MILITARY PIVOTING BEHAVIOR TOWARDS CHINA FROM EVENT DATA

EUROPEAN UNION
Non-Event Data

The non-event dataset for the European Union shows the world's pivots displaying a fairly steady amount of affinity towards the EU. When we look at the breakdown, we see that especially the collapse of the Soviet Union saw the newly independent post-Soviet states (partially) gravitating towards the EU diplomatically and ideationally; militarily and economically, however, the EU's clout seems to be waning.
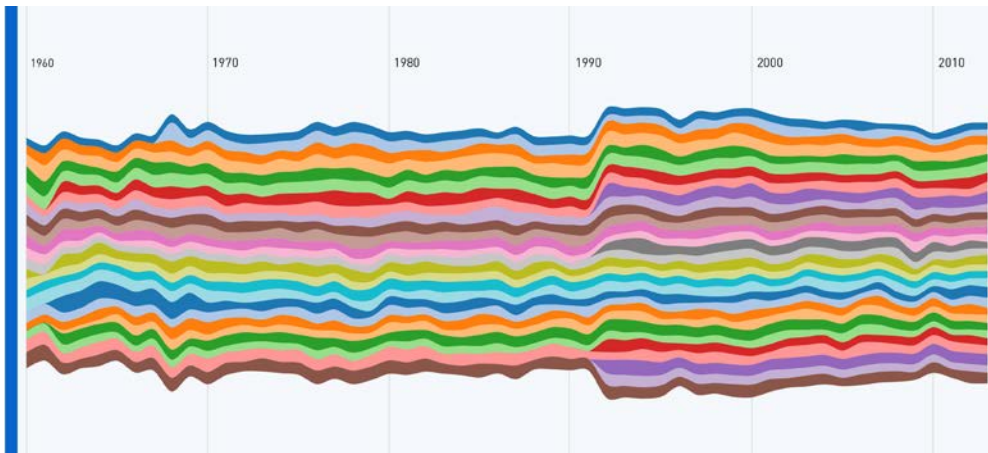
FIGURE 4.14: OVERALL PIVOTING BEHAVIOR TOWARDS EUROPE FROM NON-EVENT DATA
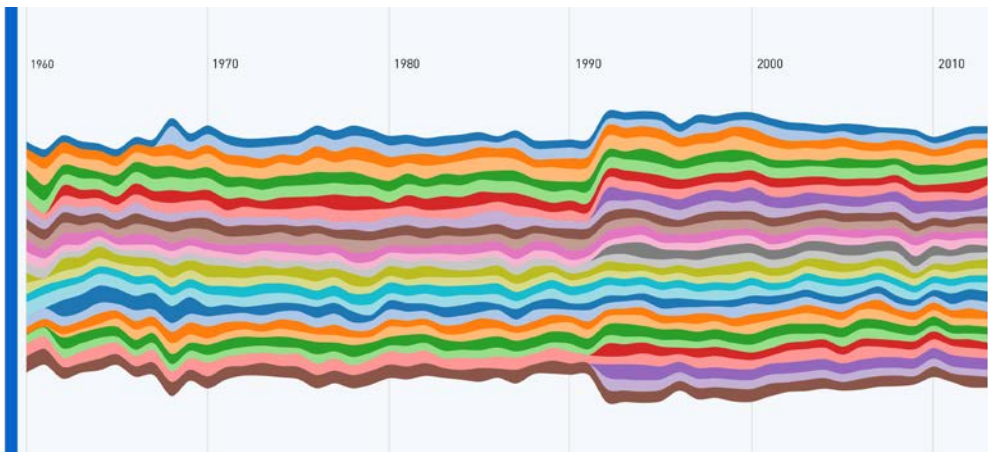
FIGURE 4.15: DIPLOMATIC PIVOTING BEHAVIOR TOWARDS EUROPE FROM NON-EVENT DATA
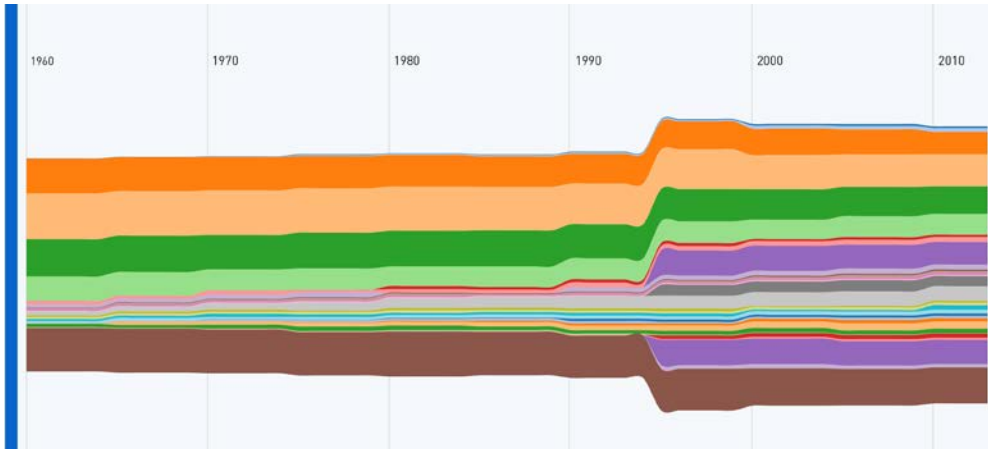
FIGURE 4.16: IDEATIONAL PIVOTING BEHAVIOR TOWARDS EUROPE FROM NON-EVENT DATA
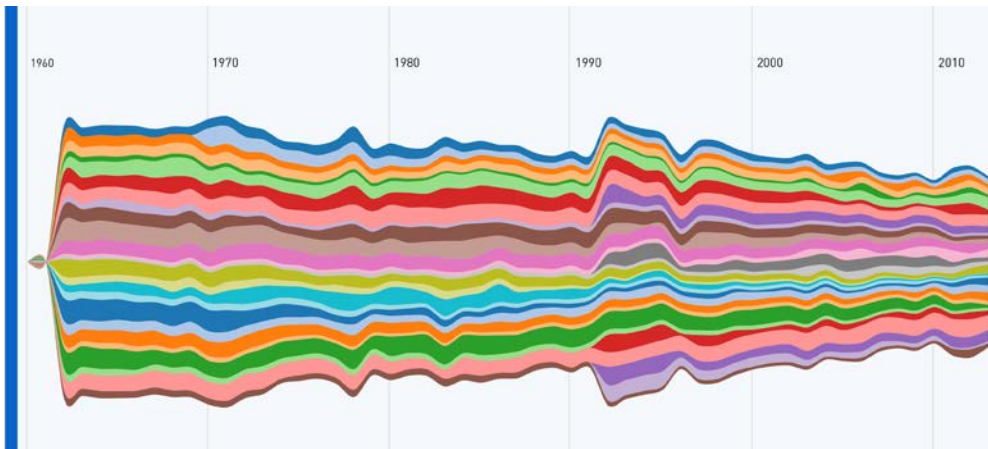
FIGURE 4.17: ECONOMIC PIVOTING BEHAVIOR TOWARDS EUROPE FROM NON-EVENT DATA
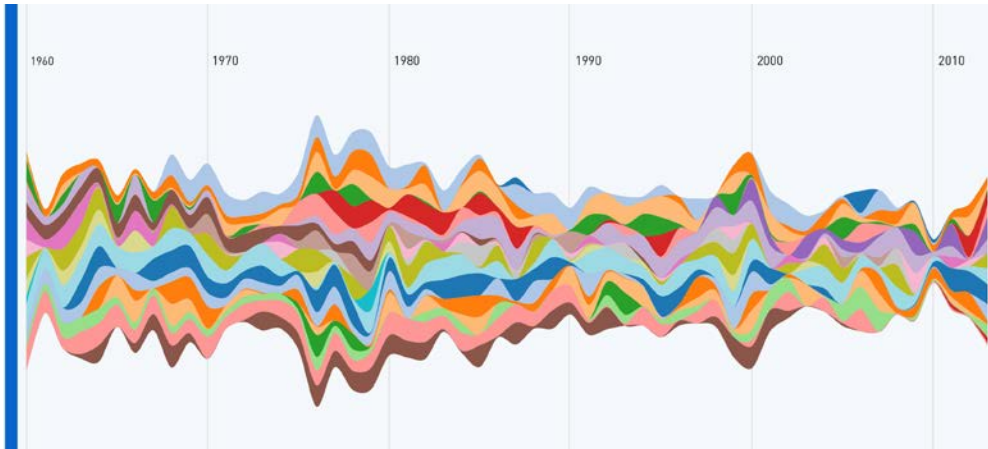
FIGURE 4.18: MILITARY PIVOTING BEHAVIOR TOWARDS EUROPE FROM NON-EVENT DATA

Event data

The event data with respect to the European Union also suggest that the EU still exercises a quite strong 'pull' towards the world's pivots. That pull is declining in ideational terms, but strengthening in both economic and – even – military terms.
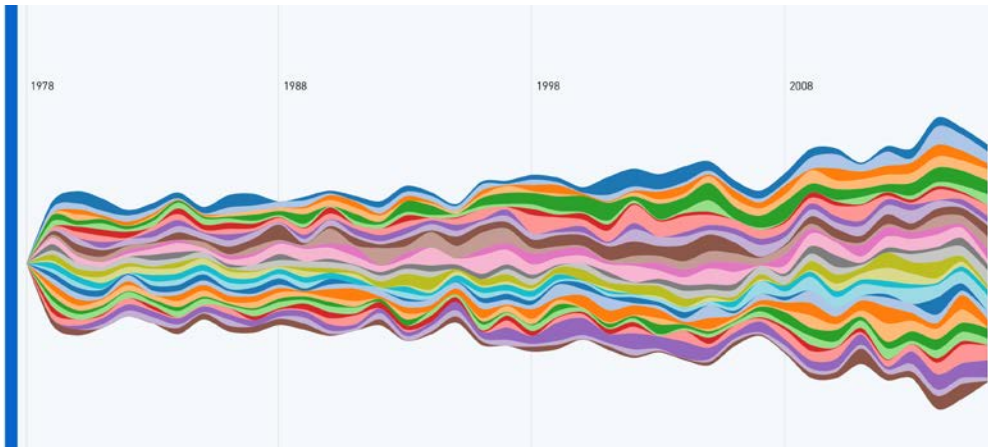
FIGURE 4.19: OVERALL PIVOTING BEHAVIOR TOWARDS EUROPE FROM EVENT DATA
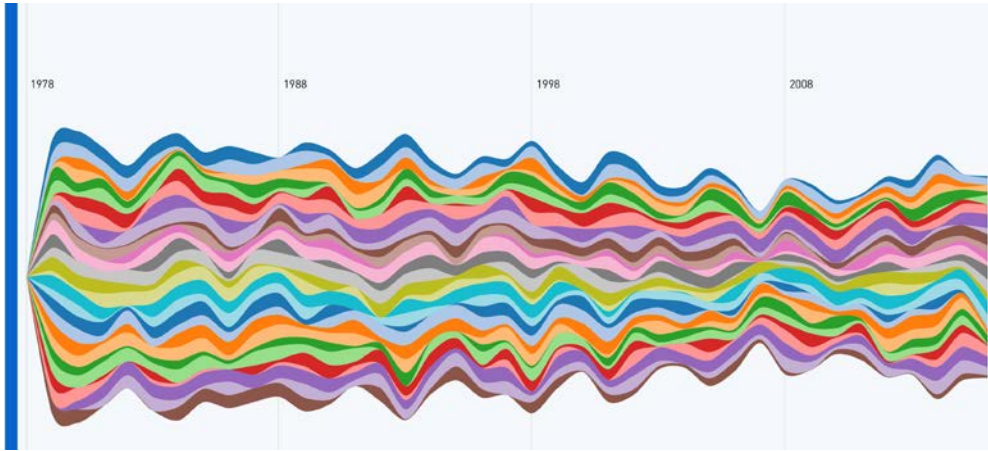
FIGURE 4.20: IDEATIONAL PIVOTING BEHAVIOR TOWARDS EUROPE FROM EVENT DATA
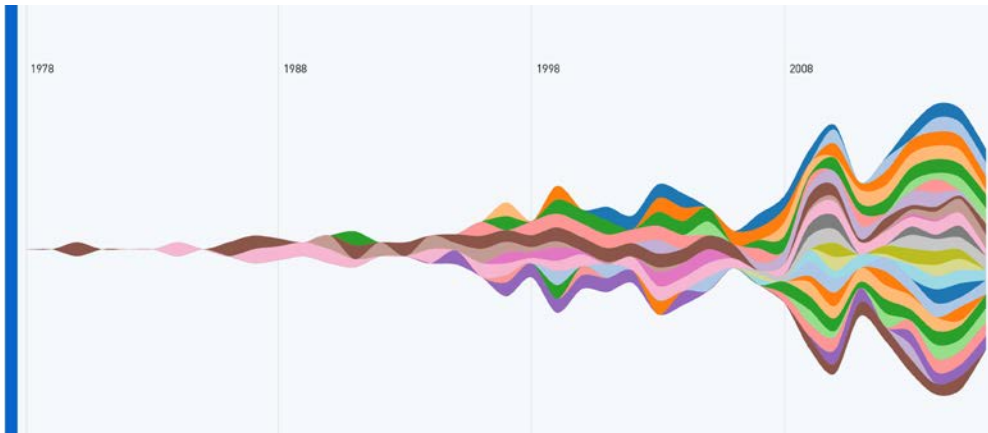
FIGURE 4.21: ECONOMIC PIVOTING BEHAVIOR TOWARDS EUROPE FROM EVENT DATA
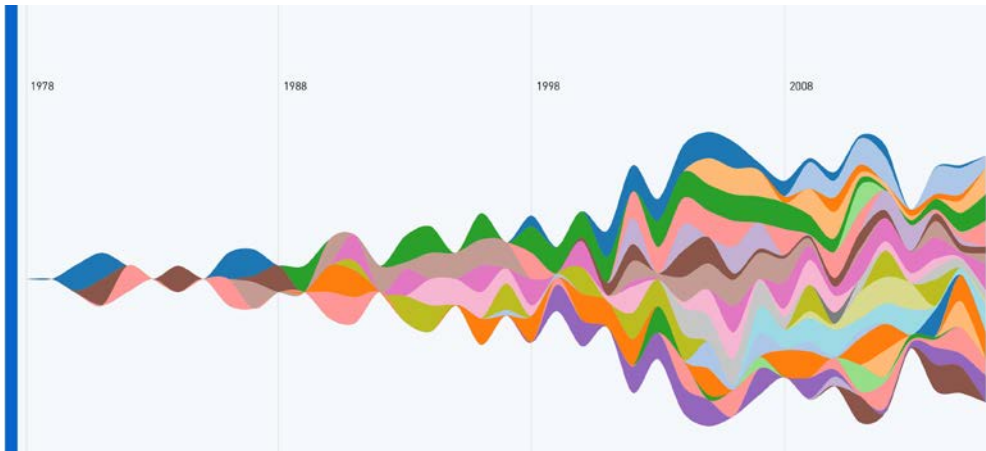
China
Europe
India
Russia
USA
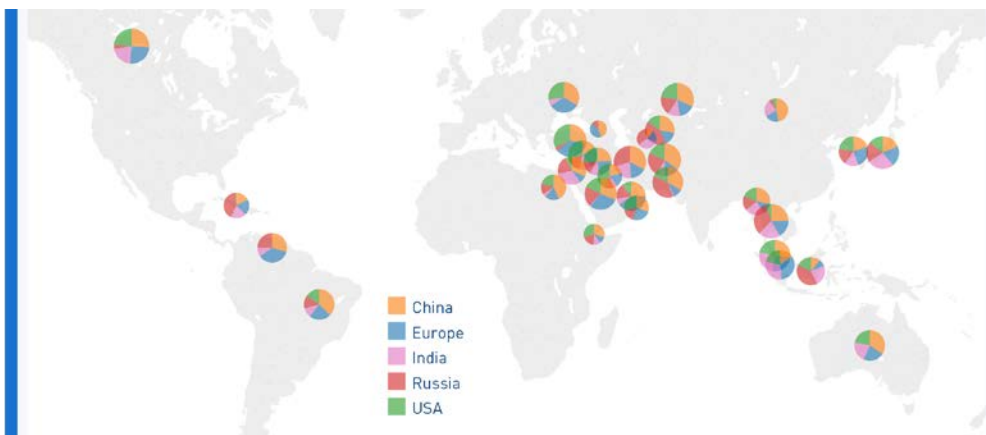
Figure 4.23 shows the pivot states we selected in last year's report[71] with pie charts that represent the sum of average Goldstein scores of all events for 2015 in which they were the source actor and in which one of the great powers used in this report was the target. To give an example: Cuba in 2015 once again shows the highest affinity with Russia (a sum of 2.09), followed by – in that order the EU (1.02), India (1) and China (0.86). Cuba's affinity with the US remains (this was before President Obama's historic trip in March 2016) negligible (0.05).

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71 For the criteria that were used, see *Sweijs et al., Why Are Pivot States so Pivotal?*. For this year, we also added Belarus, Moldova and Ukraine to the list

One striking observation from this visual is that the pie charts for all pivot states are quite diversified, suggesting that they continue to be able to dynamically adjust their pivoting portfolio as events unfold. We still see quite a bit of (European) blue in most pie-charts, suggesting that Europe remains an important attractor globally – including in Latin America and Asia. HCSS looks forward to further developing our datasets and our visualization tools and will report on all of this in more details in the next StratMon edition.

5 MULTILINGUAL METAFORE: THE FUTURE OF THE INTERNATIONAL SECURITY ENVIRONMENT IN DIFFERENT LANGUAGES

In these final two substantive sections, we zoom out again – away from the wheel of fortune that we have ridden up and down throughout this report based on the evidence of the past – and now we try to project what it may look like in the future. To do so, these sections employ HCSS' approach to meta-foresight, called MetaFore,[72] which systematically maps different views on the future(s) of international security as they emerge from diverse foresight studies written in the past few years. A team of trained international HCSS ecosystem partners (native speakers) collect and hand-code the relevant parts of these studies based on a jointly developed coding scheme. This then allows us to analyze, visualize, and compare the views on various topics within and across different foresight communities in a more systematic way than any more traditionally discursive analysis ever could. This year, we targeted our MetaFore arrows in two directions: on a number of different "language domains"[73] and on the legal community. This section of the report summarizes some key insights from the former, while chapter 8 reports on the latter.

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[72] *Meta-fore* has a double meaning: 1) it implies doing a meta-analysis of existing foresight insights ('meta-foresight'); but 2) it also tries to move the futures field beyond (Greek: meta-ferein: carry beyond) trying to predict 'the' future (forecasting) towards critically but constructively developing and curating a more intellectually modest and honest database of various diverse insights about different futures that are culled from a variety of different methodological approaches, academic disciplines, ideological schools, and cultural or linguistic backgrounds ((meta-)foresighting)." De Spiegeleire, et al., 2016.

[73] This chapter uses the term "language domain" (LD) to refer to the set of foresight studies that were written in a particular language for local/regional audiences .

In the multilingual section, our main aim is to move beyond the Western perspective, striving to assess how leading experts and sources from around the world perceive future security opportunities and challenges. Amalgamating and mining foresight across and within language-specific foresight communities allows for the identification and investigation of how potential trends and fundamental changes in the realm of global security are viewed around the world. Specifically, we investigate how the different language domains view potential international security developments; the geographic regions where developments are expected; the key actors and their attitudes (cooperative versus non-cooperative); the drivers (impetus) of those developments; and how those drivers are envisioned to evolve over the next decade. The intention is not to forecast but to systematically map different views of the future across different disciplines and across different parts of the world.

We thereby also have to point out that it is important to recognize that foresight as a 'genre' differs significantly across these regions: the Western foresight community is under far fewer political constraints to contemplate starkly different views about the future than its counterparts in other parts of the world. Yet we have often been struck by the riches in views in these other language domains as well, which strengthens us in our determination to keep exploring them.[74]

This chapter presents a condensed selection of insights collected on the basis of a multilingual meta-analysis.[75] For this purpose, we analyzed 483 studies that dwell on future security, in several languages: English,[76] Chinese, Russian, Arabic, Farsi, and Turkish, with more than half of the documents in all languages coming from 2014 and 2015. The findings should be interpreted as warning indicators and avenues for deeper research: they indicate the elements of future security that call for attention according to various foresight communities. Due to readability objectives, it was impossible to reflect all the richness and depth of our findings in this report. A deeper dive into this research strand's results and a more elaborate cross-comparative analysis will be made available upon request in a separate, unabridged MetaFore report.

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74 See De Spiegeleire, et al., 2011.

75 For a more detailed discussion of the methodology of this section, including regarding the research collection process, development of the coding scheme, and application of codes, see the separate, unabridged MetaFore report.

76 English foresight documents come from European countries and the United States. When discussing the geographical location of the English domain, the term "West" is used to capture the spread of countries that foresight comes from.

5.1 ACTORS

A first, important, element of our coding scheme deals with the main actors that the different language domains (LDs) see as the dominant ones in the future security environment. Much has been written on the profusion of actors, operating on multiple levels of security and defense outside nation states' control. Our multilingual MetaFore results confirm this array of actors, yet they clearly demonstrate that security remains widely seen as a state-centric and mostly state-led matter, notwithstanding the competition by non-state actors, and to a lesser extent Intergovernmental Organizations (IGOs).

Our results indicate that **all LDs see state actors remaining in the driver's seat**. This is particularly the case in the Russian, Chinese, and Turkish LDs, in which the anticipated future dominance of state actors is above 60%. Other LDs exhibit a more balanced distribution between state and non-state actors, and in the Arabic and Western LDs there is only a fine difference between both types. **The low interest on IGOs is verifiable in all LDs**. In this case, the Russian LD is the exception for it concedes a greater relevance, albeit tenuous, to IGOs relative to non-state actors.

	Arabic	Chinese	Farsi	Russian	Turkish	Western
State Actor	128 (36.3%)	147 (50.3%)	261 (41.8%)	208 (44.1%)	109 (63.7%)	59 (33.5%)
Non-State Actor	123 (34.8%)	40 (13.7%)	153 (24.5%)	19 (4.0%)	56 (32.7%)	58 (33.0%)
Non-cooperative	66 (18.7%)	56 (19.2%)	68 (10.9%)	117 (24.8%)	4 (2.3%)	22 (12.5%)
Cooperative	22 (6.2%)	38 (13.0%)	107 (17.1%)	100 (21.2%)	1 (0.6%)	14 (8.0%)
IGO	14 (4.0%)	11 (3.8%)	35 (5.6%)	28 (5.9%)	1 (0.6%)	23 (13.1%)
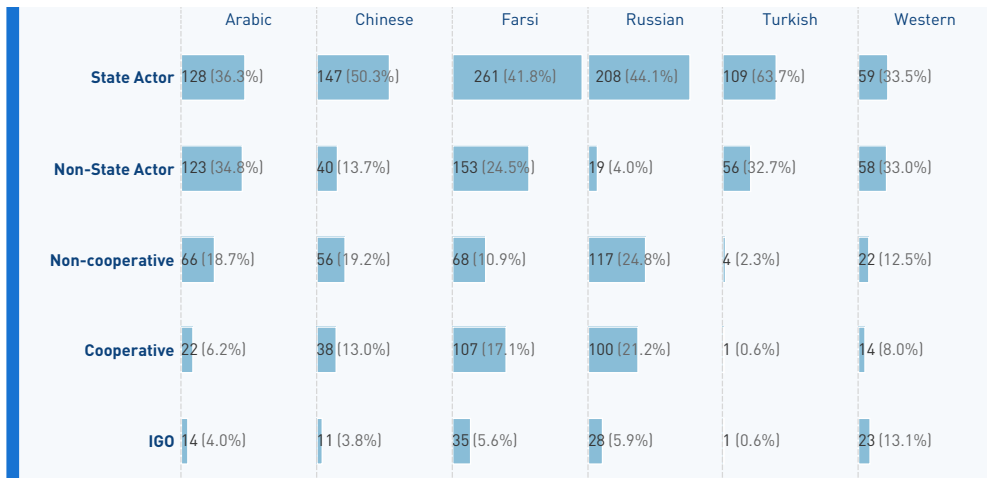
FIGURE 5.1: ACTORS BY TYPE (ALL LANGUAGES)

Our team also coded which types of state actors were expected to be driving the future security environment. The way in which states conduct their international relations (bilaterally and multilaterally) and orchestrate their internal configurations (e.g., military structure, governance structure, budget distribution) affect regional and global security complexes. Our coding results show the dominance of the international and diplomatic dimensions of state interventions, but internal realities are certainly not ignored (the following sections of this report will further elaborate on these levels). Within states the **government** and the **military** are seen as the main future actors. The first assumes a greater role in the Arabic, Farsi, Russian, and Western LDs, whilst the latter more in the Chinese and Turkish ones. **Political alliances** and the positioning of the **ruling party** are seen to be additional players that affect states' positions. This influence is noted on all LDs, with the exception of the West. **Intelligence services** are relevant for Western sources, yet there is little (Farsi) or no attention paid on this actor by other LDs. The intervention of **national parliaments** is seldom affirmed – it is only mentioned in the Arabic, Turkish, and Western domains.

	Arabic	Chinese	Farsi	Russian	Turkish	Western
Government	3 (2.5%)	13 (27.1%)	164 (77.7%)	17 (9.4%)	5 (11.6%)	7 (35.0%)
National Government	79 (66.4%)	6 (12.5%)	5 (2.4%)	114 (63.0%)		
Military Forces		20 (41.7%)	35 (16.6%)	4 (2.2%)	10 (23.3%)	5 (25.0%)
Armed Forces	24 (20.2%)		2 (0.9%)	21 (11.6%)	15 (34.9%)	3 (15.0%)
Military Alliance	7 (5.9%)	6 (12.5%)	2 (0.9%)	8 (4.4%)	2 (4.7%)	
Political Alliance	1 (0.8%)		1 (0.5%)	16 (8.8%)	1 (2.3%)	
Ruling Party	4 (3.4%)	1 (2.1%)	1 (0.5%)	1 (0.6%)	8 (18.6%)	
Intelligence services			1 (0.5%)			4 (20.0%)
Parliament	1 (0.8%)				2 (4.7%)	1 (5.0%)
Community of states and governments		2 (4.2%)				

FIGURE 5.2: BREAKDOWN OF STATE ACTORS (ALL LANGUAGES)

Non-state actors (NSAs) are the second most relevant category of actors across all language domains and their diversity truly attest to the profusion of actors. The type and importance attributed to each type of NSA varies considerably across languages and only two types of NSAs make the top five in all language domains: **terrorist groups** and **civil society** (including national and foreign NGOs).

Private companies (including military companies) are the most relevant NS actor for the Chinese domain, and second (tied with terrorist groups) in the Western LD, yet they are absent from the Russian and Turkish languages. **Opposition parties** are extremely important in the Turkish domain (which indicates a strong importance of the domestic factor in Turkey), and are present in all other language domains, excluding the West. Likewise, **separatist movements** are given some importance in the Chinese and Farsi domains, but have little or no relevance on other domains. The **financial sectors** follow the same pattern, being relevant in Chinese, Farsi, and Russian foresight documents, but absent in others. **Migrants** and **refugees** appear in all language domains except in Russian, and exhibit more prominence in the Turkish and Western documents – no doubt due to the recent increases of irregular human fluxes into Europe. Other actors that show with some relevance include **rebels** (Arabic), **political alliances** (Farsi, Russian, and Turkish), **religious organizations** (Russia, and Western), and **militias** (Arabic). Also, in at least several studies, the **media**, **pirates** and **smugglers** were identified.

	Arabic	Chinese	Farsi	Russian	Turkish	Western
Terrorist Group	32 (26.0%)	5 (14.7%)	54 (40.9%)	5 (27.8%)	5 (17.9%)	7 (24.1%)
Civil Society	13 (10.6%)		14 (10.6%)		4 (14.3%)	6 (20.7%)
Private Companies/Corporations	6 (4.9%)	11 (32.4%)	8 (6.1%)			5 (17.2%)
Citizens	13 (10.6%)	4 (11.8%)	7 (5.3%)	3 (16.7%)		1 (3.4%)
Rebels	20 (16.3%)		4 (3.0%)			1 (3.4%)
Separatists	3 (2.4%)	6 (17.6%)	15 (11.4%)			
Opposition Party	7 (5.7%)	1 (2.9%)	1 (0.8%)		12 (42.9%)	
Militia	10 (8.1%)	1 (2.9%)	4 (3.0%)		1 (3.6%)	1 (3.4%)
Political Alliance	2 (1.6%)		5 (3.8%)	3 (16.7%)	2 (7.1%)	
Refugees	5 (4.1%)	1 (2.9%)	1 (0.8%)		2 (7.1%)	3 (10.3%)
NGO			6 (4.5%)	2 (11.1%)		
Religious Organization	4 (3.3%)		2 (1.5%)	1 (5.6%)		1 (3.4%)
Financial sector		3 (8.8%)	1 (0.8%)	3 (16.7%)		
Foreign Civil Society Organizations	2 (1.6%)		4 (3.0%)			
Migrants	1 (0.8%)	1 (2.9%)			2 (7.1%)	2 (6.9%)
Private Security Company	2 (1.6%)					2 (6.9%)
Smugglers	1 (0.8%)		2 (1.5%)			
Local Initiatives			2 (1.5%)			
Media		1 (2.9%)	1 (0.8%)			
People Acting in Coordination	1 (0.8%)			1 (5.6%)		
Pirates	1 (0.8%)		1 (0.8%)			

FIGURE 5.3: BREAKDOWN OF NON-STATE ACTORS (ALL LANGUAGES)

Intergovernmental Organizations (IGOs) are less emphasized across languages, yet their role is not forgotten. Both global and regional IGO's are mentioned, but our results point to a story mostly lead by regional organizations.

At the regional IGO level, NATO is seen by the West as the most important military organization in existence; furthermore, the Western domain strongly foresees the expansion of the organization's role (other language domains contain similar foresight but not as pervasively). The Western domain unsurprisingly also discusses the EU. However, in an inverse of discussion on NATO's future, the debate around the EU centers on the organization's lack of cohesion and possible disaggregation, questioning the EU's future ability to project power (albeit soft) as a block.

In the Chinese domain, Asia-Pacific regional IGOs such as the Association of Southeast Asian Nations (ASEAN) and the Asia-Pacific Economic Cooperation (APEC) do not feature prominently. The most frequently mentioned organization there is the Shanghai Cooperation Organization (SCO), a China-led cooperation forum. This could suggest that the China-centric Chinese domain chooses to overlook organizations in which China does not have a leadership role and focuses on state-level analysis where China benefits from its regional hegemonic status. Lack of cohesion among the policies and priorities of member states could explain the lack of emphasis on IGOs in the Arabic domain. While the Gulf Cooperation Council (GCC) is sometimes viewed as being at the forefront of Saudi Arabia's rivalry with Iran, Arabic foresight largely ignores the Arab League in discussions regarding the region's future, possibly reflecting the importance of nationalism within Arab states and animosity between them.

Our team not only analyzed which actors are seen to be dominant in the future in the different LDs, but also how they see the future nature of the interactions between these actors. Our coding results indicate that **non-cooperative** attitudes appear to be the norm in most language domains. Several factors could be responsible for this negative attitude: from China's negative perception of American military cooperation with Japan and Vietnam, to European wariness of Russian revisionism and assertiveness, to Iranian expansionism, foreign interventionism, separatists and terrorists. Internal factors such as domestic politics, rising sentiments of national identity, and rising nationalist parties also contribute to this finding. Only the Farsi domain foresees actors as

overwhelmingly cooperative, reflecting the domain's rosy visions of Iranian diplomacy and renewed cooperation (particularly economic) following the completion of the Iran Deal.

Often, cooperative and non-cooperative attitudes are strongly intertwined. In Russian views, non-cooperative attitudes could well characterize the confrontation between Russia and the West in particular. However, this feeds Russia's desire for increased cooperation with China. Win-win regional cooperation and the rhetoric of a peaceful rise are hallmarks of Chinese diplomacy, which is one of the main focuses of the Chinese domain; yet, China perceives US action in the Asia-Pacific region as pushing China into a more uncooperative stance as well. Turkish diplomacy similarly emphasizes diplomacy and security cooperation in the face of conflict. The West, however, paints a pessimistic picture: while cooperation may arise in the fields of energy and cyber security, relations between Europe and Russia appear likely to deteriorate and – without a change from the status quo – European regional cohesion is set to decrease.

	Arabic	Chinese	Farsi	Russian	Turkish	Western
Non-cooperative	66 (75.0%)	56 (59.6%)	68 (38.9%)	117 (53.9%)	4 (80.0%)	22 (61.1%)
Cooperative	22 (25.0%)	38 (40.4%)	107 (61.1%)	100 (46.1%)	1 (20.0%)	14 (38.9%)
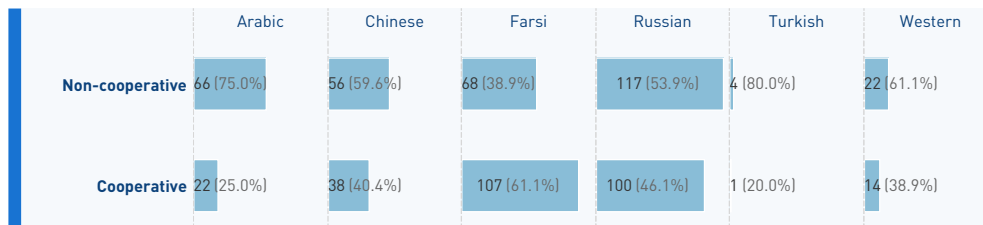
FIGURE 5.4: ACTORS ATTITUDE (ALL LANGUAGES)

5.2 REGIONS

Now that we have taken a look at *who* is seen in these different LDs as being the leading actors, let us turn our attention to *where* these actors are thought to become most active geographically speaking. Our analysis suggests that geographically each LD's attention will be divided between global, regional, and national levels. Global attention is mostly reserved for the great powers (US, Russia, and China); overall, our results suggest a pattern in which language domains are strongly focused on their own regions. Perhaps as a result, geographic areas not covered by the selected language domains are either barely present (e.g., Sub-Saharan Africa) or absent (e.g., Latin America except Brazil) from the results.

Three regions are tracked as possible future locales of instability across LDs: the area between Europe and Russia, the Asia-Pacific region, and the Middle East. From the Western perspective, the area between the EU and Russia receives significant attention, as the deterioration of EU-Russia relations and the situation in Ukraine are a cause for concern. From the Russian perspective, however, the energy relationship between Russia and the EU is of greater concern. Likewise, the internal cohesion of the EU, particularly as a security actor, is a significant topic in the English domain as lack of unity weakens the organization with potential negative economic, political, and military consequences for the Old Continent.

Security concerns of the Chinese domain are focused nearly exclusively on the Asia-Pacific region, especially with regard to territorial disputes in the South China Sea. The Chinese domain views increasing American military cooperation with regional players, such as Vietnam and Japan, as threatening and forcing China into a more uncooperative position, despite the domain's emphasis on Chinese diplomacy and promoting China's peaceful rise.

The Farsi and Arabic domains expect increasing instability in the Middle East, while the Turkish domain sees terrorism and separatism (especially by ISIS and the PKK) in its neighborhood. Both the Farsi and Arabic domains emphasize the role of foreign military and political intervention and interference in driving instability (and the Arabic includes not only great powers, but also Iran in that category). Two additional drivers dominate within the Arabic domain: issues of governance as well as water security, cross-border rivers/ frontiers, and water/ food dependency. Threats of partition, particularly in Iraq, Yemen, and Libya, are further viewed as threatening by the Arabic and Farsi domains. The Farsi, Turkish, and Arabic domains all highlight the large number of influential actors in the region and discuss the resolution of current conflicts and the future of regional (in)stability as contingent on the interaction of these stakeholders' often diverging actions and interests.

	Arabic	Chinese	Farsi	Russian	Turkish	Western
Russia	4 (1.3%)	6 (3.2%)	46 (8.4%)	152 (41.3%)	2 (1.1%)	39 (16.0%)
Turkey	14 (4.6%)		35 (6.4%)	9 (2.4%)	103 (58.2%)	5 (2.1%)
US		15 (8.0%)	73 (13.3%)	64 (17.4%)		8 (3.3%)
North East Asia	1 (0.3%)	95 (50.8%)	12 (2.2%)	19 (5.2%)	6 (3.4%)	17 (7.0%)
Iran	17 (5.5%)		101 (18.4%)	3 (0.8%)	1 (0.6%)	5 (2.1%)
MENA	33 (10.7%)	4 (2.1%)	36 (6.5%)	5 (1.4%)	23 (13.0%)	14 (5.8%)
Europe	4 (1.3%)	4 (2.1%)	9 (1.6%)	9 (2.4%)	9 (5.1%)	73 (30.0%)
Syria	29 (9.4%)		43 (7.8%)	8 (2.2%)	2 (1.1%)	
Arab Gulf Countries	54 (17.6%)		14 (2.5%)		1 (0.6%)	2 (0.8%)
Western Europe	3 (1.0%)	1 (0.5%)	12 (2.2%)	32 (8.7%)	4 (2.3%)	18 (7.4%)
North Africa	44 (14.3%)		11 (2.0%)	1 (0.3%)	1 (0.6%)	1 (0.4%)
Iraq and Levant	1 (0.3%)		43 (7.8%)	1 (0.3%)		1 (0.4%)
Central Asia & Caucasus		6 (3.2%)	17 (3.1%)	9 (2.4%)	9 (5.1%)	4 (1.6%)
Asia		26 (13.9%)	2 (0.4%)	8 (2.2%)	1 (0.6%)	5 (2.1%)
All countries around the world			25 (4.5%)			16 (6.6%)
Iraq	33 (10.7%)		5 (0.9%)			
Ukraine	2 (0.7%)		8 (1.5%)	14 (3.8%)	2 (1.1%)	10 (4.1%)
Eastern Europe	1 (0.3%)	3 (1.6%)	4 (0.7%)	17 (4.6%)	1 (0.6%)	6 (2.5%)
South Asia	2 (0.7%)	3 (1.6%)	16 (2.9%)	3 (0.8%)	3 (1.7%)	
Yemen	16 (5.2%)		8 (1.5%)			
South East Asia		19 (10.2%)	1 (0.2%)	1 (0.3%)	1 (0.6%)	
Africa	5 (1.6%)	1 (0.5%)	4 (0.7%)	2 (0.5%)		6 (2.5%)
Israel	1 (0.3%)		12 (2.2%)			
Palestine/Israel	11 (3.6%)		1 (0.2%)		1 (0.6%)	
North America	3 (1.0%)		2 (0.4%)		4 (2.3%)	3 (1.2%)
Germany			2 (0.4%)	4 (1.1%)		3 (1.2%)
Sudan	9 (2.9%)					
Great Britain			1 (0.2%)	3 (0.8%)		4 (1.6%)
East Africa	6 (2.0%)					
Jordan	5 (1.6%)				1 (0.6%)	
Lebanon	5 (1.6%)		1 (0.2%)			
League of Arab States			4 (0.7%)			
South America		1 (0.5%)	1 (0.2%)			2 (0.8%)
Afghanistan	2 (0.7%)				1 (0.6%)	
Arctic			1 (0.2%)	2 (0.5%)		
Asia-Pacific		2 (1.1%)		1 (0.3%)		
Region				1 (0.3%)	1 (0.6%)	
Mali	1 (0.3%)					
North Europe						1 (0.4%)
Oceania		1 (0.5%)				
South Sudan	1 (0.3%)					

FIGURE 5.5: REGIONS (ALL LANGUAGES)

5.3 DEVELOPMENTS, DOMAINS, AND DRIVERS: THE PRIMACY OF (CURRENT) POLITICS

Our team not only coded the future-relevant excerpts about *who* the different language domains see as the main actors in the future security environment and *where* these are likely to be active geographically, but also the key future *developments* that these documents describe, the most important (functional, non-geographical) *domains* in which these are likely to occur and the main *drivers* behind them. Notably, foresight across the LDs emphasizes political developments, drivers, and domains in the future security environment. Beyond the political, military power, security and conflict, economic, and resource dimensions are emphasized, as shown in the breakdown in Figure 5.6. The further breakdown of expected domains, drivers, and key developments (Figure 5.7, Figure 5.8, and Figure 5.9 respectively) demonstrate a cross-language emphasis on the domain of international relations and drivers related to major powers in particular, although domestic issues (i.e., governance or domestic politics) are also emphasized. Beyond these, the emphasis on developments related to food and water in the Arabic LD is notable, as is the emphasis on the cyber domain in the English LD. Here, we will take a look at some key findings across the three coding elements of key developments, domains, and drivers. These are split into two parts: one section covering international issues and a second covering domestic issues. A more detailed discussion of the findings regarding these three elements can be found in our separate Multilingual MetaFore report.

		Arabic	Chinese	Farsi	Russian	Turkish	Western
Domains	Political	105 (7.2%)	107 (6.4%)	389 (14.7%)	285 (12.6%)	92 (5.6%)	29 (2.1%)
	Economic	44 (3.0%)	60 (3.6%)	42 (1.6%)	31 (1.4%)	17 (1.0%)	15 (1.1%)
	Security and Conflict Dimension	83 (5.7%)	110 (6.6%)	250 (9.5%)	71 (3.1%)	70 (4.3%)	95 (7.0%)
	Human Terrain	26 (1.8%)	24 (1.4%)	51 (1.9%)	9 (0.4%)	12 (0.7%)	18 (1.3%)
	Technology	4 (0.3%)	18 (1.1%)	34 (1.3%)	29 (1.3%)	42 (2.6%)	46 (3.4%)
	Nature and Environment	4 (0.3%)	8 (0.5%)	3 (0.1%)	2 (0.1%)	1 (0.1%)	1 (0.1%)
	Energy	4 (0.3%)	50 (3.0%)	23 (0.9%)	6 (0.3%)	9 (0.6%)	3 (0.2%)
	Legal		1 (0.1%)	6 (0.2%)	28 (1.2%)	11 (0.7%)	8 (0.6%)
	Religion	24 (1.6%)	2 (0.1%)	16 (0.6%)	2 (0.1%)	1 (0.1%)	
	Culture	15 (1.0%)	2 (0.1%)	6 (0.2%)	1 (0.0%)		
	Domains			1 (0.0%)		1 (0.1%)	
Drivers	Political	361 (24.6%)	227 (13.6%)	687 (26.0%)	555 (24.5%)	295 (18.1%)	216 (15.9%)
	Economic	127 (8.7%)	179 (10.7%)	74 (2.8%)	85 (3.7%)	140 (8.6%)	111 (8.2%)
	Military Power	87 (5.9%)	74 (4.4%)	110 (4.2%)	260 (11.5%)	185 (11.3%)	119 (8.8%)
	Terrorism	31 (2.1%)	19 (1.1%)	74 (2.8%)	31 (1.4%)	33 (2.0%)	41 (3.0%)
	Resources	43 (2.9%)	77 (4.6%)	32 (1.2%)	5 (0.2%)	16 (1.0%)	31 (2.3%)
	Societal/Cultural	99 (6.8%)	5 (0.3%)	14 (0.5%)	4 (0.2%)	68 (4.2%)	32 (2.4%)
	Globalization	18 (1.2%)	27 (1.6%)	12 (0.5%)	63 (2.8%)	6 (0.4%)	20 (1.5%)
	Demographics	30 (2.0%)	21 (1.3%)	74 (2.8%)	7 (0.3%)	31 (1.9%)	44 (3.2%)
	Human Terrain	18 (1.2%)	5 (0.3%)	12 (0.5%)	7 (0.3%)	13 (0.8%)	4 (0.3%)
	Ideas and Ideologies	17 (1.2%)	26 (1.6%)	46 (1.7%)	64 (2.8%)	14 (0.9%)	18 (1.3%)
	Science, Technology and Cyber	13 (0.9%)	37 (2.2%)	18 (0.7%)	27 (1.2%)	26 (1.6%)	63 (4.6%)
	More uncertainty	6 (0.4%)	28 (1.7%)	45 (1.7%)	18 (0.8%)	29 (1.8%)	23 (1.7%)
	Nature and Environment	51 (3.5%)	47 (2.8%)	5 (0.2%)	2 (0.1%)	8 (0.5%)	20 (1.5%)
	Legal	8 (0.5%)		11 (0.4%)	13 (0.6%)	2 (0.1%)	
	Criminality	6 (0.4%)	8 (0.5%)	17 (0.6%)	5 (0.2%)	20 (1.2%)	15 (1.1%)
	Geopolitical events		2 (0.1%)	19 (0.7%)	8 (0.4%)	2 (0.1%)	4 (0.3%)
	Religious	6 (0.4%)	6 (0.4%)	22 (0.8%)			1 (0.1%)
	Health	10 (0.7%)	2 (0.1%)			2 (0.1%)	4 (0.3%)
	Drivers		1 (0.1%)	3 (0.1%)		8 (0.5%)	3 (0.2%)
Key Developments	Political	82 (5.6%)	194 (11.6%)	207 (7.8%)	275 (12.1%)	165 (10.1%)	150 (11.1%)
	Economic	8 (0.5%)	66 (3.9%)	37 (1.4%)	40 (1.8%)	20 (1.2%)	29 (2.1%)
	Terrorism	13 (0.9%)	6 (0.4%)	45 (1.7%)	16 (0.7%)	107 (6.6%)	14 (1.0%)
	Military	37 (2.5%)	45 (2.7%)	66 (2.5%)	161 (7.1%)	61 (3.7%)	58 (4.3%)
	Resources	38 (2.6%)	89 (5.3%)	21 (0.8%)	7 (0.3%)	5 (0.3%)	26 (1.9%)
	Societal/Cultural	10 (0.7%)	14 (0.8%)	7 (0.3%)	12 (0.5%)	22 (1.3%)	13 (1.0%)
	Globalization	6 (0.4%)	7 (0.4%)	12 (0.5%)	17 (0.7%)	6 (0.4%)	25 (1.8%)
	Collective Security	6 (0.4%)	29 (1.7%)	75 (2.8%)	27 (1.2%)	28 (1.7%)	27 (2.0%)
	National Security	8 (0.5%)	33 (2.0%)	39 (1.5%)	41 (1.8%)	56 (3.4%)	6 (0.4%)
	Global security	1 (0.1%)	1 (0.1%)	12 (0.5%)	31 (1.4%)	2 (0.1%)	2 (0.1%)
	Health	2 (0.1%)	3 (0.2%)		1 (0.0%)		8 (0.6%)
	Migration and flow of people	7 (0.5%)	3 (0.2%)	3 (0.1%)	6 (0.3%)	4 (0.2%)	8 (0.6%)
	National Identity	3 (0.2%)	3 (0.2%)	2 (0.1%)	6 (0.3%)	1 (0.1%)	1 (0.1%)
	Environmental	3 (0.2%)	8 (0.5%)			1 (0.1%)	2 (0.1%)
	KD) Domestic security			13 (0.5%)			1 (0.1%)
	Nuclear activities			5 (0.2%)			2 (0.1%)
	Diplomacy and Democracy			3 (0.1%)			
	UN Reform	1 (0.1%)	1 (0.1%)				
	Key Developments			1 (0.0%)			

FIGURE 5.6: THE PRIMACY OF POLITICS, SHOWING OVERARCHING CATEGORIES OF DRIVERS, KEY DEVELOPMENTS, AND DOMAINS (ALL LANGUAGES)

	Arabic	Chinese	Farsi	Russian	Turkish	Western
International relations		78 (20.4%)	121 (14.7%)	193 (41.6%)	37 (14.5%)	7 (3.3%)
Security and Conflict Dimension	15 (4.9%)	63 (16.5%)	55 (6.7%)		32 (12.5%)	13 (6.0%)
Political	85 (27.5%)	10 (2.6%)	28 (3.4%)		28 (10.9%)	7 (3.3%)
Economic	9 (2.9%)	30 (7.9%)	35 (4.3%)	15 (3.2%)	10 (3.9%)	
Regional security			70 (8.5%)			16 (7.4%)
Domestic security	12 (3.9%)	10 (2.6%)	35 (4.3%)	30 (6.5%)	7 (2.7%)	
Terrorism and Extremism	27 (8.7%)		36 (4.4%)	10 (2.2%)	11 (4.3%)	7 (3.3%)
Political stability			48 (5.8%)	23 (5.0%)		
Traditional Military	38 (12.3%)	17 (4.5%)				
Energy		36 (9.4%)	17 (2.1%)		8 (3.1%)	
Cyber		9 (2.4%)			22 (8.6%)	17 (7.9%)
Sovereignty			32 (3.9%)	11 (2.4%)		
Vital Elements	34 (11.0%)	11 (2.9%)				
Human Terrain	16 (5.2%)				8 (3.1%)	
Weapons of Mass Destruction			18 (2.2%)		10 (3.9%)	8 (3.7%)
Modern Military		10 (2.6%)		14 (3.0%)		
Technology					9 (3.5%)	12 (5.6%)
Laws, regulations, policies				27 (5.8%)	7 (2.7%)	6 (2.8%)
Religion	24 (7.8%)					
New military technologies				15 (3.2%)	8 (3.1%)	7 (3.3%)
Domestic politics			21 (2.6%)			
Iran's international policies			30 (3.7%)			
Intelligence					8 (3.1%)	11 (5.1%)
Global Logistics and Trade		13 (3.4%)				5 (2.3%)
Financial system				13 (2.8%)		
Culture	15 (4.9%)					
International discourses/ agreements				12 (2.6%)		
Nature and Environment		8 (2.1%)				
Post-Cold War era					9 (3.5%)	
Global security						10 (4.7%)
Health and diseases						9 (4.2%)
Big data						6 (2.8%)
Hybrid warfare						11 (5.1%)

FIGURE 5.7: THE PRIMACY OF POLITICS, BREAKDOWN OF DOMAINS, ONLY INCLUDING DOMAINS THAT ACCOUNT FOR GREATER THAN 2% OF APPLIED CODES WITHIN A GIVEN LD (ALL LANGUAGES)

	Arabic	Chinese	Farsi	Russian	Turkish	Western
Major Powers	24 (2.6%)	40 (5.1%)	74 (5.8%)	143 (12.3%)		45 (5.9%)
Foreign Interference	73 (7.8%)	27 (3.4%)	83 (6.5%)	101 (8.7%)	24 (2.7%)	
Domestic Politics	48 (5.2%)			43 (3.7%)	91 (10.1%)	
Governance	86 (9.2%)			32 (2.7%)		35 (4.6%)
Regional Cooperation		24 (3.0%)	60 (4.7%)	32 (2.7%)	34 (3.8%)	21 (2.7%)
Economic Trends		23 (2.9%)		24 (2.1%)		24 (3.1%)
Iranian nuclear issue			51 (4.0%)			
Political					62 (6.9%)	
Instability in the Middle East			40 (3.1%)			
More uncertainty		26 (3.3%)				
Nuclear Proliferation				26 (2.2%)		
Military Power					56 (6.2%)	
Resource Scarcity	20 (2.1%)	19 (2.4%)				19 (2.5%)
Ukrainian-Russian Conflict						23 (3.0%)
Changing Concepts				54 (4.6%)		
National Army					22 (2.4%)	
Economic					41 (4.6%)	
War	28 (3.0%)					
Border issues		19 (2.4%)				
Growing Interdependence				41 (3.5%)		
Globalization		16 (2.0%)				
Resource Dependency		20 (2.5%)				
(S&T) Technology and Connectedness						23 (3.0%)
Economic Growth		19 (2.4%)				
Demand/Consumption		27 (3.4%)				
(S&T) Cyberattacks						24 (3.1%)
Mutual Trust and Confidence-Building		16 (2.0%)				
Societal/Cultural					33 (3.7%)	
Public or social engagement	19 (2.0%)					
Striving for Hegemony			27 (2.1%)			
Climate Change		18 (2.3%)				
Ethnic groups			29 (2.3%)			
Public Pressures, Uprising, Social Unre..	26 (2.8%)					
Migrations and flows of people						18 (2.3%)
Separatism		16 (2.0%)				
Threat of Escalation				26 (2.2%)		
Disputes in South China Sea		20 (2.5%)				

FIGURE 5.8: THE PRIMACY OF POLITICS, BREAKDOWN OF DRIVERS, ONLY INCLUDING DRIVERS THAT ACCOUNT FOR GREATER THAN 2% OF APPLIED CODES WITHIN A GIVEN LD (ALL LANGUAGES)

	Arabic	Chinese	Farsi	Russian	Turkish	Western
Diplomacy	10 (4.4%)	84 (16.7%)	60 (10.9%)	29 (4.5%)	120 (25.1%)	19 (5.1%)
Threat to national security		27 (5.4%)	25 (4.6%)	34 (5.3%)	26 (5.4%)	
ISIS	10 (4.4%)		26 (4.7%)		44 (9.2%)	
(CS)Regional security		25 (5.0%)	27 (4.9%)	17 (2.7%)		
Domestic Political Stability	21 (9.3%)			24 (3.8%)	13 (2.7%)	12 (3.2%)
Collective Security			28 (5.1%)		17 (3.6%)	12 (3.2%)
International cooperation/dialogue		26 (5.2%)		19 (3.0%)		8 (2.2%)
Military Cooperation		12 (2.4%)		24 (3.8%)		
National Security	7 (3.1%)				30 (6.3%)	
Global security			12 (2.2%)	31 (4.8%)		
Future of Conflict			22 (4.0%)			
Change in ideology				33 (5.2%)		
Terrorism					25 (5.2%)	
Worse EU-Russia Relations						20 (5.4%)
Arms proliferation				26 (4.1%)		
Threat to energy security		21 (4.2%)				8 (2.2%)
Increased focus on non-traditional secu..						19 (5.1%)
Military Involvement in Politics	5 (2.2%)			23 (3.6%)		
Threat to Law and Order						17 (4.6%)
PKK					29 (6.1%)	
Smart Defence					10 (2.1%)	8 (2.2%)
New World Order				20 (3.1%)		
US Interference				18 (2.8%)		
Economic			16 (2.9%)			
Foreign Military Internvention				13 (2.0%)		
Increase cyber-competences of the mili..						9 (2.4%)
Instability in APAC region		23 (4.6%)				
Rise of Asia						16 (4.3%)
Food (In)Security/Gap	16 (7.1%)					
Globalization			12 (2.2%)			
Military					17 (3.6%)	
War	11 (4.9%)					
Refugee Crisis	6 (2.7%)					
Securing energy sources		15 (3.0%)				
Increasing Iranian Influence			12 (2.2%)			
Water Security	14 (6.2%)					
KD) Domestic security			13 (2.4%)			
Political future of Iraq			13 (2.4%)			
Iranian threat / intervention	7 (3.1%)					
Societal/Cultural					10 (2.1%)	
Partition	5 (2.2%)					
Resources			11 (2.0%)			
Arab National Security	5 (2.2%)					

FIGURE 5.9: THE PRIMACY OF POLITICS, BREAKDOWN OF KEY DEVELOPMENTS, ONLY INCLUDING KEY DEVELOPMENTS THAT ACCOUNT FOR GREATER THAN 2% OF APPLIED CODES WITHIN A GIVEN LD (ALL LANGUAGES)

DOMESTIC LEVEL

On the domestic level, domestic politics (e.g., interaction between internal political actors) and issues of governance are seen as drivers of the future security developments across languages, as are public pressures, uprisings,

social unrest, and general disagreements. Developments regarding domestic political stability are expected in English, Russian, and especially Arabic foresight. In addition, sovereignty issues are a top domain in the Farsi LD.

Governance (e.g., corruption, government weakness, and mismanagement) is seen as a particularly critical driver in the Arabic and English LDs. For the Arabic world, domestic (in)stability (specifically regime stability) is a significant key development, with a focus on the (in)ability to maintain a stable political regime and erosion of regime legitimacy; civil war is further expected by the LD. Areas of interest for both the Arabic and Farsi LDs include Libya, Yemen, Syria, and Iraq, as well as the Kurdish separatist movement (also critical in the Turkish LD) and the political Salafism movement. In relation to these areas, threats of partition are foreseen not only in the Arabic domain but also the Farsi domain.

Within the Turkish LD, domestic politics are one of the most frequently cited drivers of security developments, and political rivalry and opposition movements are central themes. Internal security is often linked within sources to the state of relations between the opposition and ruling parties. The future of the PKK as well as Turkey-PKK relations are a significant topics of conversation in the Turkish domain. Overall, however, the Turkish domain is strongly focused on national security, with other codes such as 'ISIS attacks outside of Iraq and Syria', reflecting Turkey's proximity to ISIS-held territory and the significant domestic conversation regarding the Turkish government's border and counter-terrorism policies.

According to Western foresight, threats to law and order (e.g., shootings and civil disobedience) will likely characterize future security developments. This domain foresees governance issues, corruption, and empowerment of authoritarian regimes as potential impetuses for these threats. To a lesser degree, the domain also expects developments regarding the establishment of the rule of law.

INTERNATIONAL LEVEL

The presence and influence (*de facto or perceived*) of great powers such as the US, Russia, and to some extent China is often observed across languages (except the Turkish domain), and the interplay between these powers is seen as an indisputable factor of (in)stability. In a multipolar world, the way in

which major powers struggle for and assert their power is a significant driver identified across multiple LDs.

Besides great powers that pursue a truly global agenda, other major powers will often be concerned with their own regional security complexes, which could be seen as a contradiction considering the current rate of interstate interdependence and high level of globalization. Discussions of political and military foreign interference and intervention (by both great powers and key regional players such as Iran) crosses several LDs. Strengthening regional cooperation – a further cross-LD theme – is often regarded as a means for assuring stability, peace, and economic growth, yet struggles over regional dominance are expected by all LDs. In this duality, diplomatic relations, international cooperation and dialogue, (threats to) national or domestic security, and issues of global and collective security (notably WMD governance) are common developments foreseen within the international dimension. Due to the richness of this topic, the following section will delve deeper into these major powers (global and regional).

5.4 MAJOR POWERS

Major powers, particularly the stance and interests of the United States (US), are among the most frequently cited drivers of future security developments in the English, Chinese, Russian, and Farsi language domains (though barely mentioned in the Turkish domain). This section outlines portraits of China, the US, and Russia both from the perspective of their respective languages as well as from the other LDs.

	Arabic	Chinese	Farsi	Russian	Turkish	Western
US Stance	15 (62.5%)	21 (52.5%)	26 (35.1%)	47 (32.9%)		21 (46.7%)
Agreement among Major Powers	3 (12.5%)	2 (5.0%)	16 (21.6%)	28 (19.6%)		1 (2.2%)
Shift to Multipolarity	1 (4.2%)	4 (10.0%)	3 (4.1%)	19 (13.3%)		14 (31.1%)
Disagreement among major powers		1 (2.5%)	13 (17.6%)	22 (15.4%)		1 (2.2%)
Major Powers		10 (25.0%)	5 (6.8%)	1 (0.7%)	3 (100.0%)	1 (2.2%)
Reduced Support from Major Power	2 (8.3%)	1 (2.5%)	4 (5.4%)	11 (7.7%)		
Russian revisionism			1 (1.4%)	10 (7.0%)		7 (15.6%)
Western Support	1 (4.2%)		2 (2.7%)	5 (3.5%)		
Declining US hegemony			3 (4.1%)			
Competition among superpowers		1 (2.5%)	1 (1.4%)			
Disregard for Developing Countries	2 (8.3%)					

FIGURE 5.10: BREAKDOWN OF MAJOR POWER DRIVERS (ALL LANGUAGES)

Who are the 'major powers'?

Due to the prevalence of major power drivers across the majority of languages, this category was selected for re-coding at a more granular level. From this coding, a portrait of great powers and key regional players emerged. From the former category, foresight across languages highlighted the US, China, and Russia in particular as great powers. The English and Turkish domains further underline the EU or individual European countries, such as the United Kingdom or Germany, as great powers. However, Europe's influence as an actor in the security environment is considered weak by the Russian domain and foresight about Europe is relatively absent from the Chinese domain, likely due to the Chinese domain's strong emphasis on the Asia-Pacific region where Europe is not a key player.

The other category of major powers to emerge included regional heavyweights such as Iran, Turkey, and Japan. Several Chinese sources perceive Japan as a major power and thorn in the side of Chinese regional hegemony due to its overall economic weight, ties with Southeast Asian countries, military alliances with Western countries, and the decision by the government to enhance the status of Japan's self-defense force to that of a regular army.[77]

Iran was the only country not typically defined as a great power (including by HCSS in the great power section in this report) whose potential future trajectory was discussed in all language domains – more discussed than the trajectories of India, Brazil, or Indonesia. This is likely due in part to the language domains selected (more discussion of Iran than any of these is expected in the Turkish, Farsi, and Arabic languages), but it may also reflect the sway Iran could hold in the future security environment. Across several language domains, the Turkish role is also foreseen as expanding – in large

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77 Kongxiang Zhang, "南海能源安全问题及其战略选择/ South China Sea Security Question and Strategy," *Journal of Socialist Theory Guide*, no. 3 (December 2012), http://niis.cass.cn/upload/2012/12/d20121207222223023.pdf.; ROC (Taiwan) Ministry of Defense, "中華民國一零四年國防報告書/ ROC (Taiwan) National Defense Report 2015" (Taiwan: Ministry of Defense ROC (Taiwan), October 1, 2015).; PRC State Council, "中国的军事战略 白皮书/ China's military defense white paper 2015" (Press Office, State Council, PRC, May 2015), http://www.mod.gov.cn/affair/2015-05/26/content_4588132.htm.; Lingyuan Hu and Lan Gao, "'积极和平主义': 日美同盟的福音？/ Japan's Active Pacifism and the Future of US-Military Alliance," *China International Studies*, May 15, 2015, http://www.ciis.org.cn/gyzz/2015-05/15/content_7933130.htm; Chengri Li, "日本解禁集体自卫权的举措与影响/ Japan Legalizing Self-Defense and Its Impact," *China International Studies*, July 22, 2014, http://www.ciis.org.cn/gyzz/2014-07/22/content_7084438.htm.

part due to Turkey's proximity to conflict in Syria and Iraq (which, for example, makes it a key player for addressing irregular migration from the English perspective) and its increasing military investment. In addition, the Arabic domain considers Israel a major power, while the Turkish domain (unlike the Farsi and Arabic domains) ascribes greater than nominal major power status to Saudi Arabia and the Gulf states.

The discussion regarding India's potential great power trajectory was notably missing and went unmentioned in the Russian, Turkish, and Arabic excerpts that were re-coded. The English excerpts that do discuss India paint its future in broad strokes, often lumping it together with Brazil or China with general statements about continuing economic growth[78] and increasing assertiveness with regard to a desire to "request a seat at the table" of the global system.[79]

CHINA

The future major power potential of China is widely seen as deriving from two sources: first, from China's economic and trade weight, noted by all language domains; and second, from China's potential to reshape the global system by serving as an alternative to the United States, noted most frequently in the Russian domain.

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78 HM Government, "National Security Strategy and Strategic Defence and Security Review 2015," November 2015, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/478933/52309_Cm_9161_NSS_SD_Review_web_only.pdf.; G. John Ikenberry, "The Future of Multilateralism: Governing the World in a Post-Hegemonic Era.," *Japanese Journal of Political Science*, September 2015, http://journals.cambridge.org.ludwig.lub.lu.se/download.php?file=%2F1609_3CF7D6F9DB7944693BBB1F1E1442A065_journals__JJP_JJP16_03_S1468109915000158a.pdf&cover=Y&code=40dd09e795f3063c559d97c60a9e146d.; Alexander Siedschlag, "'Focus': Foresight Security Scenarios to Plan for Research to Support the 'EU 2035' As a Comprehensive Security Provider," *Information & Security: An International Journal* 29 (2013): 5–17.

79 Ikenberry, "The Future of Multilateralism: Governing the World in a Post-Hegemonic Era."

Increasing Chinese power and influence is foreseen across languages. However, while the Chinese domain does foresee China's increasing importance on the global scene, Chinese-language foresight focuses strongly on its own region, especially the Asia-Pacific, where it perceives the United States and Japan as threats. The exception to the Chinese domains' regional focus is the discussion of the "One Belt, One Road" economic mega-initiative,[80] from which China expects new economic and political allies not only in Southeast Asia but also Central Asia and beyond.[81] China is also expected to enhance its global footprint, especially in Latin America and Africa, following the government's ambitions to become a leader in South-South cooperation.[82] The regional focus of China foreseen by the Chinese domain is an interesting deviation from the tendency within other LDs (except the Russian) to focus on China's global scope of influence (see Figure 5.11).

FIGURE 5.11: SCOPE OF CHINESE INFLUENCE, WHERE 3 EQUALS GLOBAL SCOPE OF INFLUENCE, 2 EQUALS REGIONAL SCOPE OF INFLUENCE, AND 1 EQUALS AN INTERNAL OR DOMESTIC SCOPE OF INFLUENCE (ALL LANGUAGES)

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80 Debin Du and Yahua Ma, "'一带一路': 中华民族复兴的地缘大战略/ 'One Belt One Road': Silk Road strategy," *Geographical Research* 34, no. 6 (June 2015): 1005–14.; Jie Wang, "全球能源格局发展趋势及其影响研究/ Global Energy Situation and Outlook," ICBC Global Report (ICBC, February 7, 2014), http://www.icbc.com.cn/ SiteCollectionDocuments/ICBC/Resources/ICBC/fengmao/download/2014/quanqiunengyuangeju.pdf.; Siguei Liu, "发展海洋合作伙伴关系 推进21世纪海上丝绸之路建设的若干思考," *China International Studies*, July 22, 2014, http://www.ciis.org.cn/gyzz/2014-07/22/content_7084449.htm.; Tim Summers, "What Exactly Is 'One Belt, One Road'?," The World Today (Hong Kong: Chatham House, September 2015), https://www.chathamhouse. org/publication/twt/what-exactly-one-belt-one-road.: The name One Belt, One Road refers to two concepts: first, the Eurasian Silk Road routes (translated from Chinese as "belt") and second, 21st century maritime Silk Road trading routes (translated as "road"). The goal of the One Belt, One Road initiative is establishing and strengthening historical, geographically diverse economic linkages between China and other areas of the world.

81 Du and Ma, "'一带一路': 中华民族复兴的地缘大战略/ 'One Belt One Road': Silk Road strategy."; Liu, "发展海洋合作伙伴关系 推进21世纪海上丝绸之路建设的若干思考."

82 Yi Wang, "坚定不移走和平发展道路 为实现民族复兴中国梦营造良好国际环境/ Unwavering China on Path toward Peace," *China International Studies*, January 20, 2014, http://www.ciis.org.cn/gyzz/2014-01/20/ content_6624904.htm.; Jiehu Yang, "在纷繁复杂的国际形势中开创中国外交新局面/ New Chinese Diplomacy in Changing Geopolitical Landscape," *China International Studies*, January 20, 2014, http://www.ciis.org.cn/ gyzz/2014-01/20/content_6624906.htm.; ROC (Taiwan) Ministry of Defense, "中華民國一零四年國防報告書/ ROC (Taiwan) National Defense Report 2015."

Chinese authors anticipate China's main concerns to include defending its territorial sovereignty (specifically in the South China Sea) and bolstering regional cooperation in pursuit of the country's peaceful rise. Political and economic motives are intertwined, as China's domestic political stability is seen as dependent on continuing economic growth.[83] Pertaining to this contingency, China seeks to build close cooperation ties with its neighbors.[84] Nonetheless, historical conflicts and asymmetric relations in the region,[85] especially those associated with territorial claims,[86] hinder the Chinese goal of a peaceful rise.[87] Concomitantly, China operates on a global scale in an effort to strengthen relations with Russia, the US, and increasingly India. Using the same rhetoric, China promotes, as described by President Xi Jinping, non-confrontation, cooperation, and mutual avoidance of zero-sum thinking.[88] However, the logic of such rhetoric extends to non-interference in each other's interests and affairs, including non-interference in China's actions in the South China Sea.

Despite China's much stronger focus (at least rhetorically) on cooperation and dialogue, Chinese foresight foresees tensions between China and other regional powers. The Chinese domain highlights hostility in particular from the US, Japan, and Asian neighbors such as Taiwan, the Philippines, and Vietnam, who have a negative perception of China's rise due to unresolved territorial disputes

83   Jianchao Liu, "建设和平、稳定与合作的亚洲/ Create Peaceful, Stable, Collaborative Asia," *China International Studies*, May 30, 2014, http://www.ciis.org.cn/gyzz/2014-05/30/content_6946429.htm.

84   Zhenmin Liu, "亚洲的安全与中国的责任/ Peace in Asia and China's Responsibility," *China International Studies*, January 20, 2014, http://www.ciis.org.cn/gyzz/2014-01/20/content_6624897.htm.; Yao Yao, "推进周边公共外交：理念、问题与对策/ Promoting Neighborhood Public Policy," *China International Studies*, November 20, 2014, http://www.ciis.org.cn/gyzz/2014-11/20/content_7385037.htm.; Jinpo Wang, "国际贸易规则发展趋势与中国的应对/ Evolution in International Trade Rules and China's Response," *China International Studies*, March 26, 2014, http://www.ciis.org.cn/gyzz/2014-03/26/content_6772706.htm.

85   Xiangyang Li, "中国周边环境的发展趋势/ Development trends of China's neighborhood," *Current International Relations*, no. 1 (2015): 12–14.

86   Haiyan Zhu, "日澳关系'同盟化'的新发展及其前景/ Japan-Australia Alliance and Its Future," *Current International Relations*, no. 8 (2014): 44–51.; Yao, "推进周边公共外交：理念、问题与对策/ Promoting Neighborhood Public Policy."

87   Wang, "国际贸易规则发展趋势与中国的应对/ Evolution in International Trade Rules and China's Response."; Yao, "推进周边公共外交：理念、问题与对策/ Promoting Neighborhood Public Policy."; Liu, "亚洲的安全与中国的责任/ Peace in Asia and China's Responsibility."; Liu, "建设和平、稳定与合作的亚洲/ Create Peaceful, Stable, Collaborative Asia."; Zhang, "南海能源安全问题及其战略选择/ South China Sea Security Question and Strategy."

88   Wang, "国际贸易规则发展趋势与中国的应对/ Evolution in International Trade Rules and China's Response.";

or detrimental economic competition.[89] From the Chinese perspective, these hostile powers have forced China into a less cooperative stance.[90] China's attitude is particularly intransigent regarding the disputed islands in the South China Sea and in regard to Taiwan, whose separatism is seen as supported by the US and Japan.[91] Both Chinese and Taiwanese sources contemplate the possibility of future military intervention by China in Taiwan.

UNITED STATES

The stance of the US (and particularly whether an issue falls within US interests) is seen as a determinant of action within the future security environment in all language domains except for the Turkish. Foresight across LDs highlights the global role that the United States is likely to play (see Figure 5.13). English and Russian sources emphasize that America's military will bolster its power,[92] while the Russian domains chafes at the preservation of US influence through the

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89   Feng Zhu, "中国未来十年的战略机遇期: 我们必须做出新的选择吗?/ China's next ten years: Do we need a new strategy?," *International Politics Study*, no. 2 (2014), http://www.ciss.pku.edu.cn/ueditor/net/upload/file/20141 030/635502585291875446762 6986.pdf.; Yao, "推进周边公共外交：理念、问题与对策/ Promoting Neighborhood Public Policy."

90   Yongming Shi, "美国的南海政策：目标与战略/ US South-China Sea policy: Strategy and goals," *Southeast Asian Affairs*, no. 1 (2015), http://www.ciis.org.cn/chinese/2015-05/11/content_7895326.htm.; Chunping Xiu, "东亚变局与两岸关系走向/ East Asian Geopolitics and the Future of Cross-Strait Relations," *China International Studies*, November 20, 2014, http://www.ciis.org.cn/gyzz/2014-11/20/content_7385271.htm.; PRC State Council, "Military strategy of China White Paper."

91   Lijiu Wang, "论当前中美俄三边关系新特征和新趋势/ Present and future trends in China-US-Russia triparty relations," *Peace and Development*, no. 1 (2012): 16–19; Min Wang, "权力变迁冲击下的 东亚安全新态势/ New East-Asian security environment," *World Economics and Politics*, no. 10 (2012): 132–48.

92   English domain: Jean-Marie Guéhenno, "World (Re-)Order," *The Security Times*, February 2015.; ESPAS, "Global Trends to 2030: Can the EU Meet the Challenges Ahead?" (European Strategy and Policy Analysis System, July 23, 2015), http://europa.eu/espas/pdf/espas-report-2015.pdf.; Ikenberry, "The Future of Multilateralism: Governing the World in a Post-Hegemonic Era."; UK Ministry of Defence, "Global Strategic Trends out to 2045" (UK Ministry of Defence, August 29, 2014), https://www.gov.uk/government/publications/global-strategic-trends-out-to-2045.. Russian domain: Vladimir Dvorkin, "Стратегическая безопасность и управление военными рисками в эпоху после Крыма/ Strategic security and military control of risk in the post-Crimea" (Carnegie Moscow Center, August 2015), http://carnegie.ru/2015/08/24/ru-61115/if6s.; Alex Podberezkin, "Военно-политическая обстановка ближайших десятилетий: сценарии и стратегии/ Military-political situation the next few decades: Scenarios and strategies" (Council on Foreign and Defense Policy, April 2015), http://svop.ru/main/14975/.

array of international institutions that support the *status quo* of its global position.[93]

		Arabic	Chinese	Farsi	Russian	Turkish	Western
				Language Domain			
USA	Domestic			2.33%	2.27%		16.67%
	Regional	4.17%	22.22%	60.47%	36.36%	50.00%	16.67%
	Global	95.83%	77.78%	37.21%	61.36%	50.00%	66.67%
		0 20 40	0 20 40	0 20 40	0 20 40	0 20 40	0 20 40

FIGURE 5.12: SCOPE OF US INFLUENCE, WHERE 3 EQUALS GLOBAL SCOPE OF INFLUENCE, 2 EQUALS REGIONAL SCOPE OF INFLUENCE, AND 1 EQUALS AN INTERNAL OR DOMESTIC SCOPE OF INFLUENCE (ALL LANGUAGES)

		Arabic	Chinese	Farsi	Russian	Turkish	Western
				Language Domain			
Influence	Unable to			15.38%			20.00%
	Limited	16.67%	25.00%	69.23%			20.00%
	Strong	83.33%	75.00%	15.38%	100.00%	100.00%	60.00%
		0 5 10 15	0 5 10 15	0 5 10 15	0 5 10 15	0 5 10 15	0 5 10 15

FIGURE 5.13: FORESIGHT REGARDING INFLUENCE OF THE US IN SECURITY AREAS, WHERE 3 EQUALS STRONG ABILITY TO ACHIEVE DESIRED OUTCOMES, 2 EQUALS LIMITED ABILITY, AND 1 EQUALS UNABLE TO INFLUENCE OUTCOMES (ALL LANGUAGES)

93 Russian domain:Karataeva, Zakharov, and Kravtsov, "РИКС и международная финансовая архитектура: от МВФ к справедливому многополярному миропорядку/ BRICS and international financial architecture: From the IMF to the fair multipolar world order," Problems of National Strategy, 2015, http://riss.ru/images/pdf/journal/2015/3/04_.pdf.; Dmitry Suslov, "Всерьез И Надолго: Глобальные Аспекты Новой Конфронтации России И США/ Here to Stay: Global Aspects of a New Confrontation between Russia and the US," *Russia in Global Affairs*, November 2014, http://www.globalaffairs.ru/number/Vserez-i-nadolgo-17102.; Podberezkin, "Военно-политическая обстановка ближайших десятилетий: сценарии и стратегии/ Military-political situation the next few decades: Scenarios and strategies."; "За дестабилизацией Украины скрывается попытка радикального ослабления России/ In an attempt to destabilize Ukraine lies a radical weakening of Russia: Russian Security Council Secretary Nikolai Patrushev on the main threats to Russia's security," Елена Черненко, "«За Дестабилизацией Украины Скрывается Попытка Радикального Ослабления России»," Коммерсантъ, June 22, 2015, http://www.kommersant.ru/doc/2752250.; Andrey Bezrukov, "Наш век пройдет под знаком новой Большой игры/ Our century will be marked by a new Great Game," *Kommersant*, August 2015, http://www.kommersant.ru/doc/2781713.; ; Alex Podberezkin, "Военно-политическая обстановка ближайших десятилетий: сценарии и стратегии / The military-political situation the next few decades: Scenarios and Strategies," Development and Economy (Intelros, 2015), http://www.intelros.ru/pdf/Razvitie_i_ekonomika/2015_12/10.pdf.; Dvorkin, "Стратегическая безопасность и управление военными рисками в эпоху после Крыма/ Strategic security and military control of risk in the post-Crimea.";;;Suslov, "Всерьез И Надолго: Глобальные Аспекты Новой Конфронтации России И США/ Here to Stay: Global Aspects of a New Confrontation between Russia and the US."; Institute of American Studies, "نفوذ آمریکا در آسیای مرکزی در چارچوب ژئوپلیتیکی/Geopolitical Framework of America's Influence in Central Asia," Think Tank Webpage, *asipress.us*, (November 5, 2013), http://www.asipress.us/vdcfmtd0.w6dvxagiiw.txt.

		Arabic	Chinese	Farsi	Russian	Turkish	Western
					Language Domain		
Influence	Unable to	25.00%	9.09%	26.09%	11.11%		66.67%
	Limited	12.50%	45.45%	52.17%	22.22%		
	Strong	62.50%	45.45%	21.74%	66.67%	100.00%	33.33%
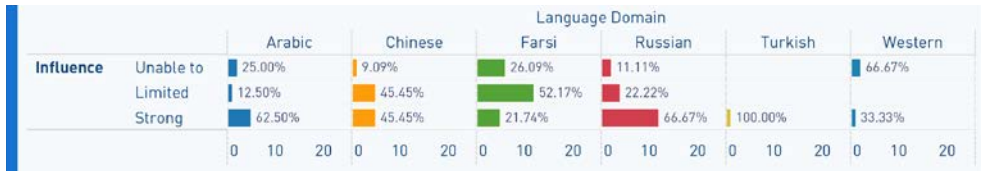
FIGURE 5.14: FORESIGHT REGARDING INFLUENCE OF THE US IN POLITICAL AREAS, WHERE 3 EQUALS STRONG ABILITY TO ACHIEVE DESIRED OUTCOMES, 2 EQUALS LIMITED ABILITY, AND 1 EQUALS UNABLE TO INFLUENCE OUTCOMES (ALL LANGUAGES)

While foresight is limited, the Chinese and Western LDs are more likely to foresee America's role contracting rather than expanding (see Figure 5.14). However, overall neither sees American power declining in absolute terms; rather, sources that discuss the trajectory of the US in both LDs generally describe the American position as stable, yet likely to decline in relative terms or be increasingly constrained as the global order changes.[94] Other authors in the English domain foresee a more tempered global role for the US due to the country having learned the limits of the utility of force[95] and thus, using its influence in a more multilateral manner.[96] Furthermore, domestic politics, including possible domestic retrenchment or domestic weariness of American interventions abroad, could further curtail America's global involvement according to English foresight studies.[97]

94 Western domain: EEAS Strategic Planning, "Strategic Review – The European Union in a Changing Global Environment," June 25, 2015, https://europa.eu/globalstrategy/en/strategic-review-european-union-changing-global-environment.; Jean-Marie Guéhenno, "World (Re-)Order."; Ikenberry, "The Future of Multilateralism: Governing the World in a Post-Hegemonic Era.".Chinese domain: Japan National Security Council, "国家安全保障戦略/ National Security Strategy" (Japan: National Security Council, December 17, 2013), http://www.cn.emb-japan.go.jp/fpolicy/nss_c.pdf.;ROC (Taiwan) Ministry of Defense, "中華民國一零四年國防報告書/ ROC (Taiwan) National Defense Report 2015."

95 Jean-Marie Guéhenno, "World (Re-)Order."; Stratfor, "Decade Forecast: 2015-2025," February 23, 2015, https://www.stratfor.com/forecast/decade-forecast-2015-2025.

96 Ikenberry, "The Future of Multilateralism: Governing the World in a Post-Hegemonic Era.".

97 Barry Pavel and Magnus Nordenman, "Global Trends and the Future of NATO: Alliance Security in an Era of Global Competition" (The Atlantic Council, October 2013), http://www.atlanticcouncil.org/images/publications/Global_Trends_and_the_Future_of_NATO.pdf.; Joseph S. Nye, "Which Way for US Foreign Policy?," Project Syndicate, December 10, 2015, https://www.project-syndicate.org/commentary/three-questions-for-us-foreign-policy-by-joseph-s–nye-2015-10.; Wolfgang Ischinger, "The Fog of Disorder," Munich Security Conference, February 25, 2015, https://www.securityconference.de/en/discussion/monthly-mind/single-view/article/monthly-mind-february-2015-the-fog-of-disorder/.;Stratfor, "Decade Forecast: 2015-2025."; Jean-Marie Guéhenno, "World (Re-)Order."; Stratfor, "Decade Forecast: 2015-2025.".

FIGURE 5.15: TRAJECTORY OF THE UNITED STATES, WHERE 3 EQUALS RISING POWER OR EXPANDING ROLE, 2 EQUALS STABLE POSITION, AND 1 EQUALS FALLING POWER OR CONTRACTING ROLE, (ALL LANGUAGES)

		Language Domain					
		Arabic	Chinese	Farsi	Russian	Turkish	Western
USA	Falling/Contracting	30.00%	40.00%	17.24%	17.65%		37.50%
	Stable	30.00%	40.00%	55.17%	50.98%	68.42%	62.50%
	Rising/Expanding	40.00%	20.00%	27.59%	31.37%	31.58%	

Despite foreseeing a more constrained future for the US, the country's global reach is certainly on China's radar due to the US Pivot to Asia; Chinese foresight generally expects American presence in the Asia-Pacific to continue *via-à-vis* US economic and geostrategic interests.[98] Moreover, Chinese authors that discuss the topic perceive American influence over political and security issues as relatively strong and effective given the geopolitical and military weight of the US and its large number of allies in the APAC region.[99] However, from the Chinese perspective, competition between the US and China (and potentially Russia) is likely to be the norm, even as the LD also emphasizes that cooperation is in the interest of all,[100] as regional stability is at the core of each hegemon's (economic) interests and depends on their mutual goodwill.[101]

98 Yao, "推进周边公共外交：理念、问题与对策/ Promoting Neighborhood Public Policy."; ;Qingyan Li, "非传统安全挑战对中国未来周边环境的影响/ Non-Traditional Security Threats to China and Its Environment," *Chinese Institute of International Studies*, November 27, 2012, http://www.ciis.org.cn/chinese/2012-11/27/content_5530613.htm.;Zhang, "南海能源安全问题及其战略选择/ South China Sea Security Question and Strategy."

99 Wang, "权力变迁冲击下的 东亚安全新态势/ New East-Asian security environment.";PRC State Council, "Military strategy of China White Paper."; Ge Su, "国际格局变化与中国外交战略/ Transformation of the international structure and China's diplomatic strategy," *China International Studies*, July 15, 2015, http://www.ciis.org.cn/gyzz/2015-07/15/content_8094829.htm.; Zhenmin Liu, "坚持合作共赢 携手打造亚洲命运共同体/ How to Build a Common Asia Security Strategy through Win-Win Cooperation," *China International Studies*, March 26, 2014, http://www.ciis.org.cn/gyzz/2014-03/26/content_6772745.htm.

100 Yuan Zhang and Dekun Hu, "防止海上事件与中美海上军事互信机制建设/ Create a US-China Military Maritime Trust Mechanism," *China International Studies*, March 26, 2014, http://www.ciis.org.cn/gyzz/2014-03/26/content_6772711.htm.; Wang, "国际贸易规则发展趋势与中国的应对/ Evolution in International Trade Rules and China's Response."; Jianguo Sun, "坚定不移走中国特色国家安全道路/ National security with Chinese characteristics," *China International Studies*, April 1, 2015, http://www.ciis.org.cn/gyzz/2015-04/01/content_7796394.htm.

101 Wang, "论当前中美俄三边关系新特征和新趋势/ Present and future trends in China-US-Russia triparty relations."

According the English domain, security and defense areas are viewed as the most prominent concerns for the United States, with the themes cyber, terrorism, and nuclear weapons particularly prominent. Non-state actors (i.e., the Islamic State) pose a series of threats to the US, from terrorists acquiring weapons of mass destruction (WMDs)[102] to the illicit weapons, drug smuggling, and refugee flows that accompany the rise of extremist groups.[103] Nuclear weapons play a common theme throughout American security concerns; examples include concern that the Russia-EU conflict could escalate into a situation, involving nuclear weapons[104] and concern for the future of Russian nuclear weapons given Western uncertainty about Russian stability.[105] The third area of American concern for the future is the possibility of a confrontation with China, be it in the cyber realm or regarding territorial disputes.[106]

RUSSIA

Among drivers of future security developments, the Ukrainian-Russian conflict, a shift to a multipolar world, and (to a lesser extent) Russian Revisionism are highlighted by the English domain. As to the particular developments expected, a large subset of English authors expect the *deterioration of relations between Russia and Europe*, although a small splinter group expects closer EU-Russia relations (see Figure 5.16). The Russian domain likewise foresees worsening EU-Russian relations, especially in terms of their energy relationship; overall, however, the topic of EU-Russian relations receives less attention in the Russian than in the English domain. Russian studies pays particular attention to China's rise and the threat of Russian isolation from the West: envisioning a quickly changing, multipolar world in which Asia is expected to grow in importance,

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102 Lassina Zerbo, "Rebooting Nuclear Security," *Project Syndicate*, July 11, 2014, https://www.project-syndicate.org/commentary/nuclear-weapons-global-security-by-lassina-zerbo-2014-11.

103 The White House, *US National Security Strategy 2015*, 2015, https://www.whitehouse.gov/sites/default/files/docs/2015_national_security_strategy.pdf.

104 Steinberg, Jeffrey, "Ukraine Crisis Escalates, as Experts Warn of Thermonuclear War.," *Executive Intelligence Review* 42, no. 5 (2015), http://www.larouchepub.com/eiw/public/2015/eirv42n05-20150130/08-09_4205.pdf.

105 Stratfor, "Decade Forecast: 2015-2025.".Simon Lunn Oliver Meier, "Trapped: NATO, Russia, and the Problem of Tactical Nuclear Weapons," *Arms Control Today*, 2014, http://legacy.armscontrol.org/act/2014_01-02/Trapped-NATO-Russia-and-the-Problem-of-Tactical-Nuclear-Weapons.

106 Michael Spence, "The Global Security Deficit," *Project Syndicate*, July 25, 2014, https://www.project-syndicate.org/commentary/michael-spence-warns-that-political-instability-and-conflict-are-now-the-main-threat-to-the-global-economy.

Russia emphasizes the need to strengthen and optimize relations with non-Western powers, especially China but also the other BRICs.[107]

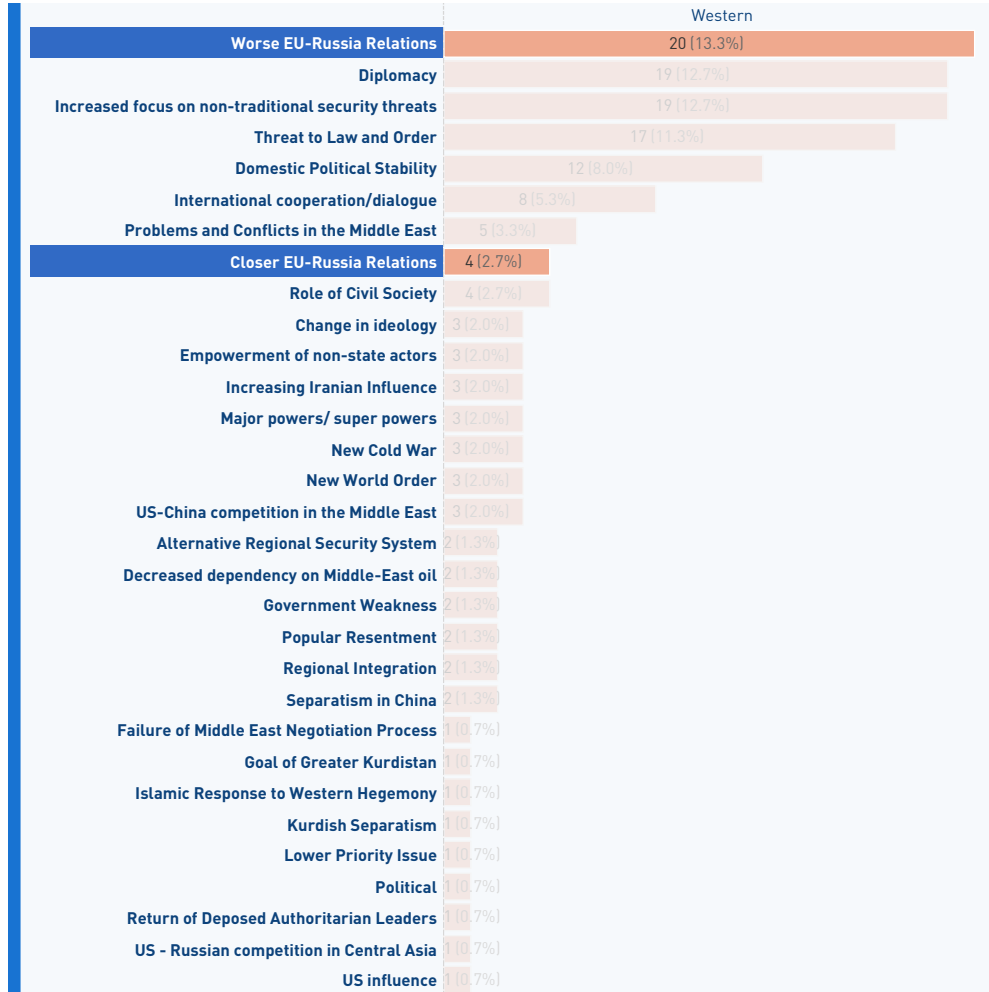|	Western
Worse EU-Russia Relations	20 (13.3%)
Diplomacy	19 (12.7%)
Increased focus on non-traditional security threats	19 (12.7%)
Threat to Law and Order	17 (11.3%)
Domestic Political Stability	12 (8.0%)
International cooperation/dialogue	8 (5.3%)
Problems and Conflicts in the Middle East	5 (3.3%)
Closer EU-Russia Relations	4 (2.7%)
Role of Civil Society	4 (2.7%)
Change in ideology	3 (2.0%)
Empowerment of non-state actors	3 (2.0%)
Increasing Iranian Influence	3 (2.0%)
Major powers/ super powers	3 (2.0%)
New Cold War	3 (2.0%)
New World Order	3 (2.0%)
US-China competition in the Middle East	3 (2.0%)
Alternative Regional Security System	2 (1.3%)
Decreased dependency on Middle-East oil	2 (1.3%)
Government Weakness	2 (1.3%)
Popular Resentment	2 (1.3%)
Regional Integration	2 (1.3%)
Separatism in China	2 (1.3%)
Failure of Middle East Negotiation Process	1 (0.7%)
Goal of Greater Kurdistan	1 (0.7%)
Islamic Response to Western Hegemony	1 (0.7%)
Kurdish Separatism	1 (0.7%)
Lower Priority Issue	1 (0.7%)
Political	1 (0.7%)
Return of Deposed Authoritarian Leaders	1 (0.7%)
US - Russian competition in Central Asia	1 (0.7%)
US influence	1 (0.7%)

FIGURE 5.16: KEY DEVELOPMENTS, EXCLUDING CODES THAT ACCOUNT FOR 1% OR LESS OF CODE APPLICATIONS (WESTERN DOMAIN)

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107 N. A. Baranov, "Россия И Европейский Союз: Геополитический Контекст | Russia and Europe: The Geopolitical Context," ed. S.M. Klimov et al., *ИВЭСЭП, Знание*, Problems and Prospects for International Development, 20 (2013): 15–24.

In this regard, Russian authors see changes in ideology, the establishment of a New World Order, and international cooperation / dialogue, including closer China-Russia relations as key developments in the future security environment. These are followed by international cooperation and dialogue, domestic political stability (e.g., national unity), and the interference of foreign states (not Russia) in countries that fall within Russia's sphere of influence. On this last point, especially US interference and influence, with the aim of preserving the status quo of an international system created by and for the US, is highlighted.

The Russian domain itself flags developments in security and defense as the major concerns for Russia itself, followed by political concerns. Even though the Russian economy is expected to be in a recession, the enhancement and modernization of defense capabilities is flagged by the domain as a clear priority for the future.[108] Following this line, preserving Russia's nuclear deterrence capabilities, which enable strategic stability with the US and add credence to Russia's persistent claims for the development of a multipolar world order, is a topic of conversation in the domain.

Although the median foresight in the Russian domain sees Russia having a regional scope of influence, a significant contingent foresees Russia having a global scope of influence, a sentiment echoed in the Farsi domain. The Russian domain sees Russia becoming more active as a military-political player outside its territory[109] and expects the country to derive a significant amount of its global and regional influence from control over energy supply, especially to the EU[110] and to Turkey.[111] However, the scope of Russia's influence is seen as dependent on the condition of the country's economy and the ability of the ruling elite to make radical and effective reforms. Therefore, within the Russian domain some

108 Dmitri Trenin, "Должен Ли Запад Опасаться Новой Военной Доктрины России?/ Should the West Fear the New Russian Military Doctrine?" (Carnegie Moscow Center, January 2015).

109 Western domain: David Blagden, "Global Multipolarity, European Security and Implications for UK Grand Strategy: Back to the Future, Once Again," *International Affairs* 91, no. 2 (2015): 333–350.; Nye, "Which Way for US Foreign Policy?". Russian domain: Ivan Timofeev, "Новая Предсказуемость России/ New Predictability Russia," October 26, 2015, http://www.globalaffairs.ru/global-processes/Novaya-predskazuemost-Rossii-17769..

110 Ibrahim Al-Minshawy, "مستقبل العلاقات الأوربية- الروسية في ضوء أزمة القرم/ Russian Euro-Mediterranean future relations in the light of the Crimean crisis" (Cairo, Egypt: Arab Center for Research & Studies, May 11, 2014), http://www.acrseg.org/5839.

111 Kamer Kasim, "Türk-Rus İlişkileri Yeni Dönem, Yeni Parametreler," September 15, 2015, http://usak.org.tr/kose_yazilari_det.php?id=2433&cat=323#.VhQtb26uKe9.

authors nod to the idea that Russia's regional scope of influence, i.e. with respect to the idea of the Eurasian Union, may have a more selective character due to resource scarcity.[112]

Chinese studies devote surprisingly little attention to Russia, with the few sources that do focus on it suggesting that Russia is likely to exert regional influence in Central Asia and Eastern Europe.[113] Given China's focus on the Asia-Pacific front, Russia may not appear threatening to Chinese security interests.

		Language Domain					
		Arabic	Chinese	Farsi	Russian	Turkish	Western
Russia	Domestic				3.33%		12.50%
	Regional	66.67%	100.00%	84.09%	61.67%	100.00%	87.50%
	Global	33.33%		15.91%	35.00%		
		0 20 40 60	0 20 40 60	0 20 40 60	0 20 40 60	0 20 40 60	0 20 40 60

FIGURE 5.17: FORESIGHT REGARDING THE SCOPE OF INFLUENCE OF RUSSIA, WHERE 3 GLOBAL SCOPE OF INFLUENCE, 2 EQUALS REGIONAL SCOPE OF INFLUENCE, AND 1 EQUALS DOMESTIC SCOPE OF INFLUENCE (ALL LANGUAGES)

The difference between English language views on the future trajectory of Russia and the perceptions of the other language domains is striking (Figure 5.18); while the English domain on average sees Russian power falling, all other language domains tend to foresee Russia rising in power or having an expanding role. In some cases, this does come with a caveat: Farsi and Russian authors emphasize that Russia's trajectory depends upon reform and shoring up the economy.[114]

112 Timofeev, "Новая Предсказуемость России/ New Predictability Russia"; Dmitri Trenin, "После Крыма: к чему пришли Россия и Запад/ After Crimea: Where have Russia and the West come to," *Forbes*, March 2015, ://www.forbes.ru/ mneniya-column/mir/282735-posle-kryma-k-chemu-prishli-rossiya-i-zapad.

113 Wang, "国际贸易规则发展趋势与中国的应对/ Evolution in International Trade Rules and China's Response."; Yao, "推进周边公共外交：理念、问题与对策/ Promoting Neighborhood Public Policy."

114 Russian domain: Timofeev, "Новая Предсказуемость России/ New Predictability Russia.". Farsi domain: Mohammad Rahim Eyvazi, "آینده انقلاب اسلامی و منازعات آینده جهان/ The future of the Islamic Revolution and the future world conflicts," Online News Source, *Fars News Agency*, (April 10, 2013), http://www.farsnews.com/newstext.php?nn=13920119000231.

Although a few in the English domain see Russia's future role as – somewhat – expanding vis-a-vis the US or China,[115] others see Russian power as strongly circumscribed. One states that Moscow's weakening power can be expected to lead to the "formal and informal fragmentation of Russia"[116] while another sees the Ukraine crisis as potentially the result of "an emerging power reacting violently to its inability to modernize its economy and establish itself as a regional soft power".[117] Other discussions of Russia's declining power base their arguments on Russia's illiberal and corrupt regime[118]; demographic decline[119]; and/or an economy that is dependent on energy exports, which are prone to unreliable pricing.[120]

Russia's engagement in Ukraine is seen by some in the English domain as a distraction from domestic problems and Russia's engagement in Syria a distraction from its engagement in Ukraine,[121] – an unsustainable pattern. Therefore, while Western foresight generally agrees that Russia will increasingly assert regional influence within former Soviet countries or Central Asia,[122] sources differ on the sustainability of Russian influence. From the English language view, Russia is constantly teetering on the brink of overstretching its reach – and might tip.

		Language Domain					
		Arabic	Chinese	Farsi	Russian	Turkish	Western
Russia	Falling/Contracting		12.50%	11.54%	11.25%		72.73%
	Stable		50.00%	42.31%	56.25%	71.43%	18.18%
	Rising/Expanding	100.00%	37.50%	46.15%	32.50%	28.57%	9.09%
		0 50	0 50	0 50	0 50	0 50	0 50
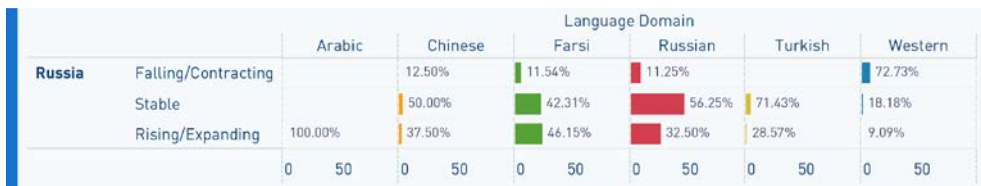
FIGURE 5.18: FORESIGHT REGARDING THE TRAJECTORY OF RUSSIA, WHERE 3 EQUALS RISING POWER OR EXPANDING ROLE, 2 EQUALS STABLE POSITION, AND 1 EQUALS A FALLING POWER OR CONTRACTING ROLE (ALL LANGUAGES)

115 Blagden, "Global Multipolarity, European Security and Implications for UK Grand Strategy: Back to the Future, Once Again."; Nye, "Which Way for US Foreign Policy?".

116 Stratfor, "Decade Forecast: 2015-2025."

117 ESPAS, "Global Trends to 2030: Can the EU Meet the Challenges Ahead?", 203.

118 Nye, "Which Way for US Foreign Policy?".

119 Stratfor, "Decade Forecast: 2015-2025.".

120 Ibid.

121 Richard N. Haass, "Testing Putin in Syria," *Project Syndicate*, October 15, 2015, https://www.project-syndicate.org/commentary/testing-putin-syria-military-intervention-by-richard-n–haass-2015-10.

122 ESPAS, "Global Trends to 2030: Can the EU Meet the Challenges Ahead?"; Marek Menkiszak 2014.

Relationship to Watch: Russia and China

Overlaps in Chinese and Russian interests are generally described within the Russian domain as opportunities for cooperation rather than conflict; although the Chinese domain contains less foresight regarding Russia, the attitude expressed (including among stakeholders such as Xi Jinping) is relatively cooperative in tone. Within the (limited) discussion of overlapping Chinese and Russian interests in the Western domain, Russia could either become China's "junior partner,"[123] possibly risking alienation from the West,[124] or compete with China for influence in Central Asia[125]; neither the Chinese nor Russian domains strongly supports such analysis.

Some in the Russian domain see China as an appealing alternative to the West, with foresight that the partnership between Russia and China will be strengthened. The sphere of energy, where Chinese demands are constantly growing, is discussed as one area of cooperation.[126] Another direction of potential affinity between China and Russia is that of a military-political nature, where rivalry with the United States is seen as coming to the fore. Some in the Russian domain, as with the Arabic and Farsi domains, note that a Russia-China partnership could counter the power of the United States. However, the Council of Foreign and Defense Policy (Russian domain) urges caution in relations with China, which could potentially become a security threat to the Russian Federation.[127]

Within the Chinese domain, discussion of the future of Chinese-Russian relations is more limited than the Russian domain and more neutral, but not negative. Russian interests are generally not in direct opposition with Chinese political objectives (despite some inevitable competition for influence on the global stage) and cooperation is seen as compatible with the pursuit of

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123 Joschka Fischer, "Europe's Migration Paralysis," *Project Syndicate*, August 24, 2015, https://www.project-syndicate.org/commentary/eu-migration-crisis-by-joschka-fischer-2015-08.;   Nye, "Which Way for US Foreign Policy?". (Note: The same language is used in both documents.)

124   Nye, "Which Way for US Foreign Policy?".

125 Fischer, "Europe's Migration Paralysis."; Walter Kemp and Leopold Schmertzing, "Threats and Challenges to the OSCE Area," *Security and Human Rights* 25 (2014): 242–58.

126 Thomas Gomar, "Последствия Раскола Между Россией И Западом/ The Consequences of the Split between Russia and the West," 2015, http://www.globalaffairs.ru/ukraine_crysis/Posledstviya-raskola-mezhdu-Rossiei-i-Zapadom-17387.

127 Fyodor Lukyanov, "Россия: Внешняя Политика В миРе Будущего/ Russia: Foreign Policy in the World of the Future," in *Strategy XXI*, 2013, http://svop.ru/wp-content/uploads/2014/02/11strategy21_external.pdf.

diverging agendas.[128] However, Russia is discussed in one source as a potential competitor from the perspective of China's One Belt, One Road economic project, given Russia's strong influence within Central Asia, where China hopes to expand its reach.[129]

5.5 REGIONAL FOCUS

The regionalization of global politics is foreseen as a trend within global politics. Although regional cooperation is emphasized more often than regional competition across languages, the latter is nonetheless omnipresent. To explore this trend, the drivers of regional focus were re-coded in the second round of coding. The results are shown in Figure 5.19.

Political drivers were the most commonly cited driver of regional focus in all language domains except the Turkish and Western, where security concerns drive regional focus; however, security drivers are prevalent across language domains. Notably, major power action (i.e. the US Pivot to Asia for the Chinese domain) further drives regional focus, as do resource or energy drivers in the Arabic and Western domains.

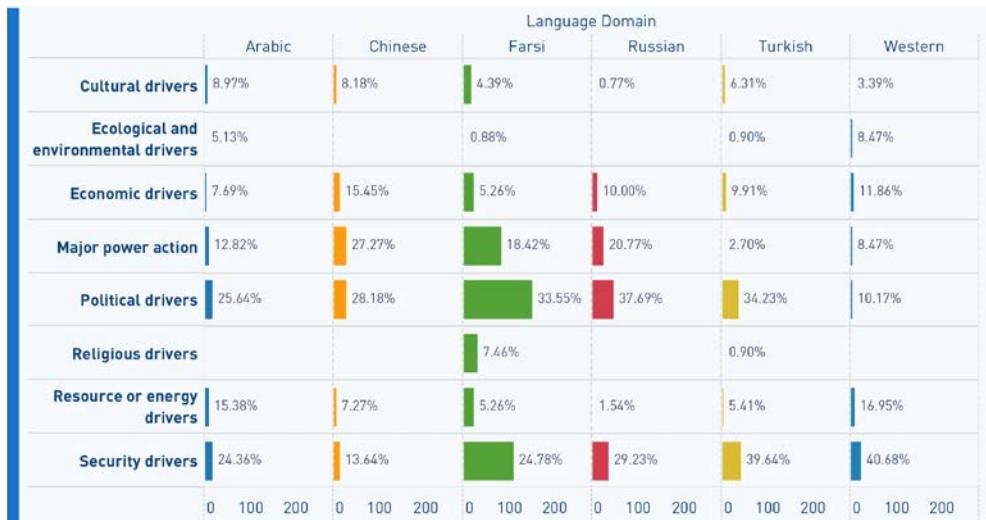|	Language Domain					
	Arabic	Chinese	Farsi	Russian	Turkish	Western
Cultural drivers	8.97%	8.18%	4.39%	0.77%	6.31%	3.39%
Ecological and environmental drivers	5.13%		0.88%		0.90%	8.47%
Economic drivers	7.69%	15.45%	5.26%	10.00%	9.91%	11.86%
Major power action	12.82%	27.27%	18.42%	20.77%	2.70%	8.47%
Political drivers	25.64%	28.18%	33.55%	37.69%	34.23%	10.17%
Religious drivers			7.46%		0.90%	
Resource or energy drivers	15.38%	7.27%	5.26%	1.54%	5.41%	16.95%
Security drivers	24.36%	13.64%	24.78%	29.23%	39.64%	40.68%
	0 100 200	0 100 200	0 100 200	0 100 200	0 100 200	0 100 200

FIGURE 5.19: DRIVERS OF REGIONAL FOCUS (ALL LANGUAGES)

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128 Wang, "论当前中美俄三边关系新特征和新趋势/ Present and future trends in China-US-Russia triparty relations"; Wang, "权力变迁冲击下的 东亚安全新态势/ New East-Asian security environment."
129 Du and Ma, "'一带一路'：中华民族复兴的地缘大战略/ 'One Belt One Road': Silk Road strategy."

In terms of security drivers, terrorism and extremism, a refrain across languages, often cannot be separated from foresight regarding regional and domestic security concerns. For the English domain, regional security will come to the fore in the US, Europe, and the Middle East. The Russian domain foresees Eurasian regional cooperation and alternative regional security structures, as does the Farsi domain.

In addition to terrorism and extremism, other security concerns within the Middle East – especially foreign intervention, regional conflicts, separatism, threats of partition, and resource competition – are one cause of the Farsi, Turkish, and Arabic domains, focusing on their own neighborhood. For Europe, the regional focus of the European Union derives significantly from an increasingly assertive Russia, meddling along Europe's borders, which is seen as a security threat. With the conflict in Ukraine, the flow of migrants from Syria and its neighboring region, and terrorism at home, Europe has recently started to reconnect with the concepts of border security and (civil) war. Concern about the cohesion of the European Union permeates the English domain: a lack of unity can weaken its defense and decrease its international standing, bringing about negative economic, political, and military consequences.

For the Chinese domain, bolstering regional relationships through Chinese diplomacy is one of the key political focuses of the domain, as are maritime territorial disputes regarding islands in the East and especially South China Seas. China views regional Asian cooperation as a mutually beneficial means of securing both China's own security: securing trade routes and resources bolsters the growth of the Chinese economy, which in turn bolsters domestic political stability. The US Pivot to Asia, especially increasing military cooperation between the US and regional players such as Japan and Vietnam, threatens Chinese regional interests in both the political (i.e., diplomatic) and security (i.e., of trade routes) domains. The perception of opportunities at the regional level from within China combined with external threats to China's regional interests explain China's regional focus.

Over the next sections we detail selected regional dynamics.

EUROPE

According to "the West" itself, Europe/ the EU has an obvious role to play in the future security environment – but neither the Chinese nor the Russian LD seems to agree, if the lack of discussion of either the EU or Europe in both LDs is an indication of the perceived lack of importance of the EU or Europe as a security actor. Overall, the collected studies tend to foresee that Europe's security role will contract and its influence in security issues will decline in the coming decade in at least relative if not absolute terms. In some cases, projections of Europe's increasing power often relate either to the foresight of Europe lumping into a general category of "Western" or "NATO" countries that includes the US or to Europe's economic weight. Exhortations to counter this trend by increasing European security integration and cooperation are numerous within the English domain.

The Russian domain devotes scarce attention to the EU, while the EU is virtually absent from the Chinese radar. Chinese sources acknowledge that the European Union is set to have a global impact, but mostly an economic one, e.g. with respect to the debt crisis.[130] The Chinese domain's higher assessment of Europe's future trajectory reflects a single, optimistic view on increasing Chinese and European trade.[131] Overall, the Chinese domain does not foresee the EU having influence on China's security in the future, a position largely due to the relative absence of Europe from one of China's main concerns: the Asia-Pacific region.

FIGURE 5.20: FORESIGHT REGARDING THE TRAJECTORY OF THE EU, WHERE 3 EQUALS RISING POWER OR EXPANDING ROLE, 2 3EQUALS STABLE POWER OR STABLE ROLE, AND 1 EQUALS A FALLING POWER OR CONTRACTING ROLE (NO CODING IN THE ARABIC OR RUSSIAN DOMAINS)

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130 Wang, "国际贸易规则发展趋势与中国的应对 /Evolution in International Trade Rules and China's Response."
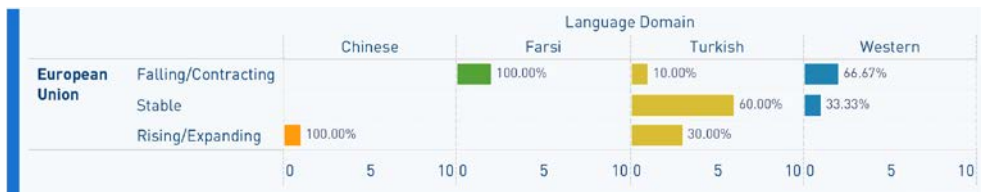131 Ibid.

FIGURE 5.21: FORESIGHT REGARDING THE TRAJECTORY OF EUROPE, WHERE 3 EQUALS RISING POWER OR EXPANDING ROLE, 2 EQUALS STABLE POWER OR STABLE ROLE, AND 1 EQUALS A FALLING POWER OR CONTRACTING ROLE (NO CODING IN THE ARABIC DOMAIN)

Reasons cited for Europe's diminishing relevance in security matters (Figure 5.22) includes: increasing internal tensions in the EU and declining multilateralism in favor of bilateralism[132]; the EU's glacial response to emerging crises on its periphery[133] and its failure to become a more strategically flexible actor[134]; as well as the possibly diminishing focus of the United States on the Euro-Atlantic area.[135] Additionally, while Europe's tug-of-war with Russia over Ukraine and other former Soviet satellite states may negatively impact Russia, some foresee the possibility that a sustained standoff will also negatively affect either European political unity (particularly over maintaining sanctions)[136] or European "regional stability, energy security, or economic growth".[137]
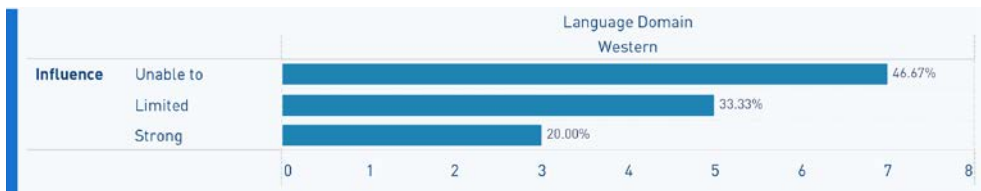
FIGURE 5.22: FORESIGHT REGARDING INFLUENCE OF THE EU IN SECURITY AREAS, WHERE 3 EQUALS STRONG ABILITY TO ACHIEVE DESIRED OUTCOMES, 2 EQUALS LIMITED ABILITY, AND 1 EQUALS UNABLE TO INFLUENCE OUTCOMES (WESTERN DOMAIN)

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132 Stratfor, "Decade Forecast: 2015-2025.".

133 Charap, Samuel, "Ukraine: Seeking an Elusive New Normal," *Survival: Global Politics and Strategy* 56, no. 3 (Jun/Jul2014): 85–94. , 85–94.

134 Jean-Marie Guéhenno, "World (Re-)Order."; McKinsey, "The Future of European Defence: Tackling the Productivity Challenge," 2013.; Andrew Rettman, "US to Quadruple Military Spending in Europe," EU Observer, February 2, 2016, https://euobserver.com/foreign/132101.; Sten Rynning, "The False Promise of Continental Concert: Russia, the West and the Necessary Balance of Power," International Affairs 91, no. 3 (2015): 539–552.

135 McKinsey, "The Future of European Defence: Tackling the Productivity Challenge.". Note: At the time of writing, the US DoD that it would quadruple the funds allocated for the European Reassurance Initiative to $3.4 billion. cf. Rettman, "US to Quadruple Military Spending in Europe."

136 Judy Dempsey, "Double Take: Does Russia Divide Europe?," New Eastern Europe, October 26, 2015, http://www.neweasterneurope.eu/articles-and-commentary/1762-doubletake-does-russia-divide-europe..

137 Spence, "The Global Security Deficit."

Caveats to Europe's declining security role exist; however, while the EU's role in the security environment may contract, foresight regarding NATO (which overlaps significantly with the EU) generally expects NATO's global role and influence to increase in the future. Moreover, some in the English domain foresee individual European countries such as Germany[138] and Britain[139] as likely to maintain significant influence in the future security environment, likely with other European countries as allies. Some in the Russian domain also foresee German power increasing in the future, an exception from the Russian LD's perception of the rest of Europe.[140] The heft of individual European countries is further reflected in the Farsi and Turkish domains' traditional definition of great powers as P5+1: not only the US, Russia, and China but also Britain, France, and Germany.

The Turkish domain likewise foresees increasing Turkey-EU security cooperation due to increasing terrorist activities in the Middle East, particularly in Syria, not only in addressing irregular migrations to Europe, but also in bolstering collective security and defense, as the domain expects NATO-EU strategic cooperation in the Middle East to rely heavily on Turkey.[141] Turkey therefore considers the EU a significant partner in regional security. However, the situation in Cyprus is seen as a remaining obstacle for Turkey-EU progress and may hinder EU-NATO cooperation.[142]

Security and defense areas will be the overwhelming source of concern for the EU according to the English LD, with abundant warnings that Europe must

138 Russian domain: Bezrukov, "Наш век пройдет под знаком новой Большой игры/ Our century will be marked by a new Great Game.". Western domain: Dempsey, "Double Take: Does Russia Divide Europe?"; Ibid..

139 Blagden, "Global Multipolarity, European Security and Implications for UK Grand Strategy: Back to the Future, Once Again.".

140 Tatiana Arzamanova, "'Middlegame' Angela Merkel: From the Role of European Counterparty to Continental Leadership," European Security: Events, Evaluations, Forecasts 52, no. 36 (March 2015), http://www.inion.ru/files/File/Evropeiskaya_bezopasnost_36_52_2015.pdf.

141 TC Dışişleri Bakanlığı, "Dışişleri Bakanı Davutoğlu "21. Yüzyılın Balkanlar İçin Barış, Refah ve Istikrar Yüzyılı Olmasını Temenni Ediyoruz."," T.C. Dışişleri Bakanlığı, October 18, 2012, http://www.mfa.gov.tr/disisleri-bakani-davutoglu-21-yuzyilin-balkanlar-icin-baris-refah-ve-istikrar-yuzyili-olmasini-temenni-ediyoruz.tr.mfa.

142 Süreç, "Türkiye'nin Barış Politikası," Text, Süreç Analiz, (June 22, 2015), http://www.surecanaliz.org/tr/makale/turkiyenin-baris-politikasi.

bolster its security.[143] Veljanovskal's warning that Europe must do more to become a "security provider rather than a security consumer" summarizes this position.[144] Otherwise, a lack of action is seen as potentially leading to "a Europe that is permanently diminished as an actor on the international security stage".[145] Other foresight that follows this potential path is rosier insofar as individual European countries, such as the UK or Germany, could lead the charge where a unified Europe fails.[146]

Therefore, according to the Western LD the main concern for European security will be the development of a more cohesive security strategy, which will depend on closer cooperation among its members, and the capacity of the EU to implement all-encompassing counterterrorism measures.[147] In addition, "increasing European security also means increasing European solidarity".[148] EU influence in security issues is likely to depend on the ability to speak with one voice, which will be complicated in the security realm by tighter defense budgets.[149] Western foresight is concerned with the potential political paralysis of the EU if the impediments to cohesion are not resolved, as the future is viewed as only bringing more challenges that will need unified action – including, for example, when dealing with effects of climate change, governance, and/ or migration flows.[150]

143 Blagden, "Global Multipolarity, European Security and Implications for UK Grand Strategy: Back to the Future, Once Again."; McKinsey, "The Future of European Defence: Tackling the Productivity Challenge."; Veljanovska, Katerina, "The Changing Nature of Security in Europe: The Triangle between Russia's New Foreign Policy, the CSDP and NATO."; Constanze Stelzenmüller, "Why Europe Needs America, a Little," September 29, 2015, http://www. brookings.edu/blogs/order-from-chaos/posts/2015/09/29-transatlantic-security-responsibility-stelzenmueller.

144 Veljanovska, Katerina, "The Changing Nature of Security in Europe: The Triangle between Russia's New Foreign Policy, the CSDP and NATO."

145 McKinsey, "The Future of European Defence: Tackling the Productivity Challenge.".

146 Blagden, "Global Multipolarity, European Security and Implications for UK Grand Strategy: Back to the Future, Once Again.".

147 HM Government, "National Security Strategy and Strategic Defence and Security Review 2015.".

148 Veljanovska, Katerina, "The Changing Nature of Security in Europe: The Triangle between Russia's New Foreign Policy, the CSDP and NATO," Romanian Journal of European Affairs 15, no. 3 (September 2015): 51–65.

149 Ibid.

150 William Drozdiak, "Why Can't NATO and the EU Just Get Along?," September 28, 2015, http://www.brookings. edu/blogs/order-from-chaos/posts/2015/09/28-strategic-partnership-nato-eu-drozdiak; Fischer, "Europe's Migration Paralysis"; Siedschlag, "'Focus': Foresight Security Scenarios to Plan for Research to Support the 'EU 2035' As a Comprehensive Security Provider."

DECREASED US ATTENTION TO EUROPE

A common theme throughout foresight is that, in the words of Pavel and Nordenman, the US and China relationship has the potential to "be the single most important bilateral linkage for shaping the global security environment in the coming decades".[151]

Foresight about the future power or role of the European Union often considers this context: as the attention of the United States pivots towards Asia, English language authors worry about the future of NATO and Europe's global influence. While some do not foresee decreasing attention from the United States affecting Europe, others foresee Europe's decreasing defense budgets combined with America's potentially decreasing focus on the Atlantic region harming Europe's security and hampering the European Union's ability to exert itself internationally. (Although the United States did increase its NATO spending following the end of the research collection period, some from the Western domain highlight a trend of decreasing American defense spending in Europe and increasing defense spending in the Asia-Pacific region.) Meanwhile, from the English LD perspective, Russia's potential increases in power and influence depend on successfully increasing its regional influence and altering the contours of the European security environment "with the use of force and subversion".[152]

RUSSIA-EU COMPETITION

Within the Western domain, exhortations that Europe bolster its security to obviate the threat of the United States downgrading its focus there are usually made within the context of Russia's actions in Ukraine, which are often interpreted as an attempt to undermine and reshape European security structures. Overall, two streams shape the contours of this debate within the Western domain: the first (and predominate) stream specifically regards EU-Russia competition to (re)establish regional security structures, particularly in Ukraine; the second, related debate regards European (in)dependence on Russian oil and resources (and how it affects European security action, given Russian meddling). The Russian domain, by contrast, focuses more heavily on the energy relationship.

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151 Pavel and Nordenman, "Global Trends and the Future of NATO: Alliance Security in an Era of Global Competition.".
152 Magnus Nordenman, "The Naval Alliance: Preparing NATO for a Maritime Century" (Atlantic Council's Brent Scowcroft Center on International Security, July 13, 2015), http://www.atlanticcouncil.org/images/publications/NATOMaritime_finalPDF.pdf..

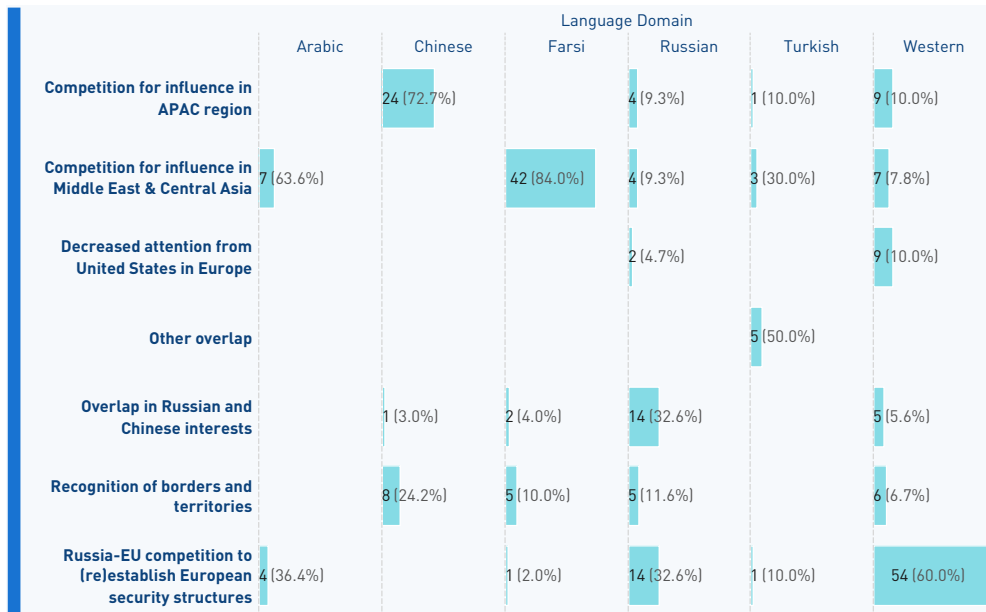| | Language Domain | | | | | |
	Arabic	Chinese	Farsi	Russian	Turkish	Western
Competition for influence in APAC region		24 (72.7%)		4 (9.3%)	1 (10.0%)	9 (10.0%)
Competition for influence in Middle East & Central Asia	7 (63.6%)		42 (84.0%)	4 (9.3%)	3 (30.0%)	7 (7.8%)
Decreased attention from United States in Europe				2 (4.7%)		9 (10.0%)
Other overlap					5 (50.0%)	
Overlap in Russian and Chinese interests		1 (3.0%)	2 (4.0%)	14 (32.6%)		5 (5.6%)
Recognition of borders and territories		8 (24.2%)	5 (10.0%)	5 (11.6%)		6 (6.7%)
Russia-EU competition to (re)establish European security structures	4 (36.4%)		1 (2.0%)	14 (32.6%)	1 (10.0%)	54 (60.0%)

FIGURE 5.23: INSTANCES OF OVERLAPPING MAJOR POWER INTERESTS CITED IN EACH LD (ALL LANGUAGES)

Western sources tend to agree that the security environment between Europe and Russia is becoming less stable.[153] In the face of such uncertainty, debates about the future vary. Less optimistic sources expect Russia to continue altering the European security order[154] with the aim of establishing " 'strategic sovereignty' ";[155] others state that an attack on NATO allies,[156] military action along NATO's borders,[157] or a major confrontation between Europe and Russia,

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153 Samuel Goda, "European Security Architecture and the Conflict in Ukraine," International Issues & Slovak Foreign Policy Affairs XXIV, no. 1–2 (2015): 3–16.; HM Government, "National Security Strategy and Strategic Defence and Security Review 2015."; Dempsey, "Double Take: Does Russia Divide Europe?"; Karl-Heinz Kamp, "From Wales to Warsaw: NATO's Future beyond the Ukraine Crisis," American Foreign Policy Interests: The Journal of the National Committee on American Foreign Policy 36, no. 6 (2014): 361–65.; Jens Stoltenberg, "Keynote Speech by NATO Secretary General Jens Stoltenberg at the Opening of the NATO Transformation Seminar," March 25, 2015, http://www.nato.int/cps/en/natohq/opinions_118435.htm.; Jens Stoltenberg, "The Secretary General's Annual Report 2014," January 30, 2015, http://www.nato.int/cps/en/natohq/opinions_116854.htm.

154 Nordenman, "The Naval Alliance: Preparing NATO for a Maritime Century."; HM Government, "National Security Strategy and Strategic Defence and Security Review 2015."; Marek Menkiszak 2014.

155 ESPAS, "Global Trends to 2030: Can the EU Meet the Challenges Ahead?".

156 HM Government, "National Security Strategy and Strategic Defence and Security Review 2015.".

157 Blagden, "Global Multipolarity, European Security and Implications for UK Grand Strategy: Back to the Future, Once Again."; Kemp and Schmertzing, "Threats and Challenges to the OSCE Area."

be it in the Middle East or in Eastern Europe,[158] is possible. Within this context, sources from the Western domain contain exhortations on the necessity of increased security cooperation and coordination among European countries[159] as well as increased alignment between NATO and the EU.[160]

Regardless, geopolitical competition is back[161] in the Western point of view, with a subset of authors stating that the logic of geopolitical calculations should shape the West's response to Russia's actions. According to Wolff, the European security order could change through more purposeful consideration of the strategic benefits of potential enlargement candidates both for NATO and the EU. Democratization and 'transformative' criteria for inclusion would, therefore, decline in importance. He states that NATO's "business-as-usual enlargement policy" escalates tensions by putting Russia in a defensive position and thereby engenders a spiraling security dilemma, warning that the status quo therefore, "risks perpetuating European instability in the form of Russian hostility and periodic episodes of conflict".[162]

The bulk of the Russian discussion regarding EU-Russia competition revolves around the economic interdependence between the EU and Russia, as what was once a solid basis for a strategic partnership appears to have become increasingly and mutually regarded as a source of serious concern.[163] Particularly in the sphere of energy, conversation regarding the EU minimizing its dependence on Russian gas supplies exists in both the English and Russian LDs,[164] as "Moscow's policy that 'Oil is money and gas is power'" will no longer be true if Europe can

158 ESPAS, "Global Trends to 2030: Can the EU Meet the Challenges Ahead?".

159 McKinsey, "The Future of European Defence: Tackling the Productivity Challenge."; Kemp and Schmertzing, "Threats and Challenges to the OSCE Area"; Veljanovska, Katerina, "The Changing Nature of Security in Europe: The Triangle between Russia's New Foreign Policy, the CSDP and NATO."

160 Veljanovska, Katerina, "The Changing Nature of Security in Europe: The Triangle between Russia's New Foreign Policy, the CSDP and NATO."

161 HM Government, "National Security Strategy and Strategic Defence and Security Review 2015."; Fischer, "Europe's Migration Paralysis."; Nordenman, "The Naval Alliance: Preparing NATO for a Maritime Century.".

162 Andrew T. Wolff, "The Future of NATO Enlargement after the Ukraine Crisis," International Affairs 91, no. 5 (2015): 1103–1121.

163 J Borko, "The Future of EU-Russia Relation: Problems and Perspectives," European Security: events, evaluations, forecasts, 54, no. 38 (2015), http://www.inion.ru/files/File/Evropeiskaya_bezopasnost_38_54_2015.pdf.; A Saveliev, "Величайшая осторожность и благоразумие/ Great Caution and Prudence," August 2015, http://www.globalaffairs.ru/number/Velichaishaya-ostorozhnost-i-blagorazumie-17638.

164 Borko, "The Future of EU-Russia Relation: Problems and Perspectives."

reduce its dependence on Russian energy resources and thereby reduce Russian influence on European countries.[165]

However, shaking up the global security order through actions in Ukraine (often equated with rebuffing not Europe but the United States) are lauded by some Russian sources as the foundation for international recognition of and noninterference in Russian foreign policy – a step towards true multipolarity.[166] Other Russian forecasts regarding security encourage compromise and dialogue between the West and Russia to obviate the possibility of a long-term confrontation or a limited arms race.[167]

Turkish sources analyze the tug-of-war between the West and Russia in Ukraine through the lens of their own geopolitical position. The fact that Turkey, as a regional leader, followed an independent policy towards the Ukraine crisis and did not participate in sanctions against Russia portrays Turkey as a more reliable partner for Russia than Western states, according to some in the Turkish domain. Therefore, this newly obtained special relation between Turkey and Russia may confront Turkey's Western partners in the future if they fail to acknowledge Turkey's emerging interests and perspectives. The Ukrainian crisis, according to some, could initiate a new era in Turkish-Russian relations from the Black Sea to the Central Asia, as long as Russia compromises to show sensitivity towards Turkey's Crimean Tatars.[168]

THE MIDDLE EAST: A PLAYGROUND FOR GREAT AND REGIONAL POWERS
Increasing instability is the backdrop of competition in the Middle East and Central Asia. The number of stakeholders in regional issues and conflicts has created a complex situation of interacting interests and shifting relationships.

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165 Tomescu, Cătălin Tomiță, "Ukrainian Crisis Influence Over Strategic Political-Military Directions Set In Nato 2014 Summit And Nato – Russia Relation." (Bucharest, Romania: Ministry of National Defence, 2015), http://www.armyacademy.ro/reviste/rev1_2015/TOMESCU.pdf.

166 Cassad, "Дестабилизация Старого Мира/ Destabilization of the Old World," March 2015, http://trueinform.ru/modules.php?name=News&file=article&sid=36537.; Dmitry Suslova, "Российско-американская конфронтация продлится еще минимум 10 лет/ Russian-American confrontation will last at least another 10 years," RuBaltic. Ru speech, September 2015, http://www.rubaltic.ru/article/politika-i-obshchestvo/11092015-konfrontatsiya/.

167 Saveliev, "Величайшая осторожность и благоразумие/ Great Caution and Prudence."

168 Kamer Kasim, "Türk-Rus İlişkileri Yeni Dönem, Yeni Parametreler.".

While not garnering a significant amount of attention from the Chinese domain, the Russian and Western domains do touch on the topics of instability and influence in the Middle East. Several themes predominate: regional (in)stability; terrorism and extremism; the future of Syria and other regional hotspots; the role of the United States, Russia, and regional players, particularly Iran and Turkey, in influencing uncertain outcomes; and the configuration of relationships between these countries.

IRAN'S REGIONAL ROLE

Regional conflicts, and the prolongation of these conflicts due to foreign interference, are foreseen by the Farsi domain. Like the Arabic domain, the Farsi domain identifies major powers as the source of instability with regard to the domestic and national security of both Iran and Middle Eastern countries in general. Most of the Farsi domain's attention is devoted to the US, particularly regarding rapprochement with Iran and US interference in the region (e.g., US support to Israel), as the domain perceives the US as a key power in the region due to the number of US military bases.

As Iran increases engagement in regional politics and conflicts, Farsi sources foresee the country seeking alliances with neighboring countries and great powers alike, and the Farsi domain envisages Iranian diplomacy as a key development within the future security environment. (Iranian diplomacy also ranks moderately high in Arabic and Turkish foresight.) The recipient of Iran's diplomatic overtures differs from source to source in the Farsi LD: some see Iran reinforcing its relations with Moscow in order to thwart the US's regional influence; others contemplate the benefits of a more cooperative relationship with the United States. Regionally, the Farsi domain emphasizes relations with Turkey, Syria, and other Gulf countries (with antagonism, characterizing relations with the latter two). The high rank of other drivers such as 'striving for regional hegemony' in the Farsi domain and 'Iranian expansion and interventionism' in the Arabic domain reflect Iran's regional ambitions and actions. Wars characterized by Iran-Saudi competition or foreign intervention (e.g., by Iran in Yemen or by non-regional powers such as the US) are further developments expected by the Arabic domain.

Some foresight regarding Iran's regional and superregional influence focuses on its role as an oil exporter. Tanchum of the Atlantic Council (English LD) captures

this sentiment: "By defining the pattern of major energy flows through long-term supply contracts and costly pipeline infrastructure investment, the pattern of Iran's piped gas exports in the immediate post-sanctions period will influence the development of both China's "One Belt, One Road" (OBOR) initiative and the European Union's "Eastern Neighborhood" policy."[169]

Beyond oil, the Farsi domain expects the Iranian Nuclear Deal/ Iran nuclear negotiations to further drive Iran's international openness and strategic partnerships as Iran anticipates that the reception of the deal in the international community will spur new economic cooperation. Regional economic relations (including those beyond oil) are foreseen as an additional venue for the spread of Iranian influence.[170]

TURKEY'S REGIONAL ROLE

Developments relating to not only Iran, but also Turkey, specifically Turkish diplomacy, are also expected in multiple LDs. Overall, Turkish diplomacy receives more attention than any other potential security development (i.e. domestic politics, terrorism, etc.) in the Turkish domain and ranks high in Farsi foresight as well. The Turkish domain envisages developing Turkish diplomatic ties both with great powers, notably the US and Russia, as well as with regional players. Some in the Turkish domain view the country as caught in a regional tug-of-war between Russia (on whose gas Turkey is dependent) and America (viewed as a significant partner who is uncooperative regarding Turkish policies towards the Kurds). The domain expects developments related to both Turkey-USA relations and Turkey-Russia relations.

On the regional level, discussion of Turkey's diplomatic efforts appear focused on the Middle East, specifically Syria, Iran, Qatar (where Turkey is opening a military base), and the Gulf countries, although Turkey's other regional neighbors, such as Greece and Serbia, are also mentioned. The Turkish domain

169 Micha'el Tanchum, "A Post-Sanctions Iran and the Eurasian Energy Architecture: Challenges and Opportunities for the Euro-Atlantic Community," Dinu Patriciu Center and Atlantic Council's Global Energy Center, September 25, 2015, http://www.atlanticcouncil.org/images/publications/Iran_Energy_Architecture_web_0925.pdf.

170 Ministry of Foreign Affairs, "رییس جمهوری: پیام من به کشورهای منطقه ، مذاکره برای ثبات ، توسعه و رونق اقتصادی است/ The President: My Message to Countries of the Region is Cooperation for Stability, Development and Prosperity," Government Website, Ministry of Foreign Affairs, (October 13, 2015), http://www.mfa.gov.ir/index.aspx?fkeyid=&siteid=1&pageid=128&newsview=362175.

also emphasizes the role of regional dynamics (political, economic, and military), and especially regional cooperation, in driving security developments.

Military buildup and cooperation, particularly in the face of regional instability and terrorism, are further focuses of the Turkish domain; however, skepticism of Turkey's military efficacy remains high within the domain, with foresight, such as that of Gowan, that Syria could become Turkey's Vietnam.[171]

5.6 TERRORISM

Terrorism receives attention across LDs, with a significant amount of focus on terrorist tactics and development (e.g., online radicalization and recruitment, cyber terrorism, etc.), military cooperation (particularly counter-terrorism coalitions), and the effects of terrorist actions (i.e., increases in forced and voluntary migration). It should be noted that who is defined as a terrorist differs to some degree across LDs. In the Chinese domain, discussion of terrorists also covers discussion of the East Turkestan Islamic Movement. The PKK comes in a close second to ISIS in the Turkish LD.

Irregular migration flows are frequently mentioned in relation to terrorism and instability, and are foreseen as a driver of Western security action,[172] often with regard to restoring stability to the Middle East.[173] The security threat posed by ISIS, especially radicalized extremists returning to Europe,[174] also drives Europe's focus on terrorism and the Middle East.

Geographical proximity spurs the focus of the Farsi, Turkish, and Arabic foresight communities. The Turkish domain expects significant threats to Turkish national security, resulting from weak border controls between Syria and Turkey. In particular, domestic critics in Turkey argue that weak border enforcement by

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171 Richard Gowan, "Europe Needs Strategy to Address Libya, Ukraine Crises – Not Panic," World Politics Review, February 23, 2015, http://eds.b.ebscohost.com/eds/detail/detail?sid=de4cedf0-506d-4e39-a2ca-e4944edfacac%40sessionmgr114&vid=0&hid=127&bdata=JnNpdGU9ZWRzLWxpdmUmc2NvcGU9c2l0ZQ%3d%3d#db=poh&AN=101146401.

172 Fischer, "Europe's Migration Paralysis."; Stratfor, "Decade Forecast: 2015-2025."; HM Government, "National Security Strategy and Strategic Defence and Security Review 2015.".

173 Gowan, "Europe Needs Strategy to Address Libya, Ukraine Crises – Not Panic."; Blagden, "Global Multipolarity, European Security and Implications for UK Grand Strategy: Back to the Future, Once Again.".

174 HM Government, "National Security Strategy and Strategic Defence and Security Review 2015.".

Turkey's Justice and Development Party (AKP) have made the country vulnerable to ISIS, especially considering retaliation attacks for Turkish involvement in the conflict,[175] while also calling Turkey's interventions in Syria an overall failure.

The Turkish domain stresses increasing military cooperation (e.g., the anti-ISIS coalition) and emphasizes that new alliances and regional powers could emerge from the Syrian crisis. In particular, the Turkish (and to a lesser degree the Farsi) domain emphasizes the necessity of multi-stakeholder cooperation for lasting resolution of regional conflicts, with some combination of the US, Russia, Saudi Arabia, Iran, and Turkey all coming to the table.[176] The ceasefire that began after the end of the research collection period lends credence to the necessity of coordination between key players.

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175 Cahit Armağan DİLEK, "PKK'nın Yol Haritası: Ya Çözüm Süreci Kumpasına Dönüş Ya Da Iç Savaşa Giden Ayaklanma!," 21. Yüzyıl Türkiye Enstitüsü, September 17, 2015, http://www.21yyte.org/tr/arastirma/terorizm-ve-terorizmle-mucadele/2015/09/17/8298/pkknin-yol-haritasi-ya-cozum-sureci-kumpasina-donus-ya-da-ic-savasa-giden-ayaklanma.

176 Turkish domain: Kamer Kasim, "Türk-Rus İlişkileri Yeni Dönem, Yeni Parametreler."; Mehdi Jokar, "دیپلماسی و دموکراسی؛ راه حل بحران سوریه/ Diplomacy and Democracy, Solution for the Syrian Crisis," Online News Source, Islamic Republic News Agency – IRNA, (September 22, 2015), http://www.irna.ir/fa/News/81769500/.; Ahmet Gencehan BABİŞ, "Suriye'de Kontrolsüz Politikadan Sonra 'Kontrollü Geçiş' Mümkün Mü?," September 29, 2015, http://www.turksam.org/tr/analiz-detay/1248-suriye-de-kontrolsuz-politikadan-sonra-%EF%BF%BDkontrollu-gecis-mumkun-mu.. Farsi domain: Islamic Republic News Agency – IRNA, "روسیه و آمریکا در راه حمله به داعش منافع مشترک اما موقت دارند/Russia and the US have Common, but Temporary Interest Regarding the Attack on ISIS," Official News Website, Islamic Republic News Agency – IRNA, (November 10, 2015), http://www.irna.ir/fa/News/81794057/.

		Arabic	Chinese	Farsi	Russian	Turkish	Western
Drivers	Terrorism	1 (2.3%)	10 (40.0%)	15 (12.6%)	4 (8.5%)	11 (7.9%)	12 (21.8%)
	Counter-terrorism			25 (21.0%)	7 (14.9%)	5 (3.6%)	2 (3.6%)
	Cyber Terrorism		1 (4.0%)	1 (0.8%)	1 (2.1%)	2 (1.4%)	5 (9.1%)
	Expansion of Terrorist Organization	6 (13.6%)	2 (8.0%)	9 (7.6%)	6 (12.8%)	1 (0.7%)	1 (1.8%)
	Strength of Terrorist Group	4 (9.1%)		9 (7.6%)	4 (8.5%)	2 (1.4%)	1 (1.8%)
	Terrorist Attacks and Political Violence	7 (15.9%)	3 (12.0%)	2 (1.7%)		1 (0.7%)	4 (7.3%)
	Islamic Extremism	1 (2.3%)	1 (4.0%)	7 (5.9%)	2 (4.3%)	2 (1.4%)	2 (3.6%)
	Terrorism Recruitment	1 (2.3%)		1 (0.8%)		5 (3.6%)	6 (10.9%)
	Online Radicalisation and Recruitment by Te..	2 (4.5%)	1 (4.0%)		1 (2.1%)		5 (9.1%)
	Terrorist Infiltration	2 (4.5%)	1 (4.0%)	1 (0.8%)	3 (6.4%)		1 (1.8%)
	Return of ISIS	1 (2.3%)			1 (2.1%)	4 (2.9%)	
	Terrorist Sleeper Cells	3 (6.8%)					2 (3.6%)
	Nuclear terrorism				1 (2.1%)		
	Popular Support to Terrorist Organization	1 (2.3%)		2 (1.7%)	1 (2.1%)		
	Financing Terrorism	1 (2.3%)					
	Internal clashes between Al-Qaeda forces			1 (0.8%)			
	Lone Wolf Attacks	1 (2.3%)					
	Shifting power between Al-qaeda and ISIS			1 (0.8%)			
Key Developments	Terrorism		1 (4.0%)	10 (8.4%)	1 (2.1%)	25 (17.9%)	1 (1.8%)
	ISIS			11 (9.2%)	2 (4.3%)	23 (16.4%)	3 (5.5%)
	PKK					29 (20.7%)	
	Cyber Terrorism		3 (12.0%)	5 (4.2%)	1 (2.1%)	4 (2.9%)	5 (9.1%)
	ISIS Expansion	4 (9.1%)		8 (6.7%)	3 (6.4%)	6 (4.3%)	
	ISIS Attacks outside Syria and Iraq	1 (2.3%)		2 (1.7%)	1 (2.1%)	8 (5.7%)	2 (3.6%)
	ISIS Effects on Iraq	1 (2.3%)		2 (1.7%)	1 (2.1%)	6 (4.3%)	
	Extremism	2 (4.5%)		1 (0.8%)	4 (8.5%)		
	Support to/Popularity of terrorist organization	1 (2.3%)		1 (0.8%)		4 (2.9%)	
	Disintegration of Terrorist Group	2 (4.5%)		2 (1.7%)		1 (0.7%)	
	Continued Presence of Terrorist Organization	1 (2.3%)	1 (4.0%)	1 (0.8%)	1 (2.1%)		
	Nuclear terrorism		1 (4.0%)		1 (2.1%)		1 (1.8%)
	Foreign support for terrorism or extremism			1 (0.8%)	1 (2.1%)	1 (0.7%)	
	Youth Joining Armed Groups	1 (2.3%)					1 (1.8%)
	Strategic points for terrorists			1 (0.8%)			
	Youth recruitment						1 (1.8%)

FIGURE 5.24: TERRORISM DRIVERS AND KEY DEVELOPMENTS (ALL LANGUAGES)

5.7 THE HUMAN TERRAIN

Human terrain related factors are the third or fourth most frequently foreseen domain in which security developments will occur across LDs, and include themes such as ideas and ideologies, demographics, societal and cultural, human terrain, health, national identity, culture, and religion. Across LDs, Arabic sources demonstrate a higher concern with human terrain factors, followed by the Western, Farsi, Turkish, Chinese, and Russian domains. As demonstrated on Figure 5.25, human terrain factors are specially regarded as drivers.

	ARABIC	CHINESE	FARSI	RUSSIAN	TURKISH	WESTERN
Drivers	18,83	7,65	11,61	7,06	14,93	13,53
Key developments	6,16	1,08	0,3	1,18	1,35	3,9
Domains	16,87	5,8	7,11	2,39	2,42	7,11

FIGURE 5.25: SHARE OF HUMAN TERRAIN FACTORS, EXPRESSED IN PERCENTAGES (%) (ALL LANGUAGES)

	Arabic	Chinese	Farsi	Russian	Turkish	Western
Political	105 (34.0%)	107 (28.0%)	389 (47.4%)	285 (61.4%)	92 (35.9%)	29 (13.5%)
Security and Conflict Dimension	83 (26.9%)	110 (28.8%)	250 (30.5%)	71 (15.3%)	70 (27.3%)	95 (44.2%)
Economic	44 (14.2%)	60 (15.7%)	42 (5.1%)	31 (6.7%)	17 (6.6%)	15 (7.0%)
Technology	4 (1.3%)	18 (4.7%)	34 (4.1%)	29 (6.3%)	42 (16.4%)	46 (21.4%)
Human Terrain	26 (8.4%)	24 (6.3%)	51 (6.2%)	9 (1.9%)	12 (4.7%)	18 (8.4%)
Energy	4 (1.3%)	50 (13.1%)	23 (2.8%)	6 (1.3%)	9 (3.5%)	3 (1.4%)
Legal		1 (0.3%)	6 (0.7%)	28 (6.0%)	11 (4.3%)	8 (3.7%)
Religion	24 (7.8%)	2 (0.5%)	16 (1.9%)	2 (0.4%)	1 (0.4%)	
Culture	15 (4.9%)	2 (0.5%)	6 (0.7%)	1 (0.2%)		
Nature and Environment	4 (1.3%)	8 (2.1%)	3 (0.4%)	2 (0.4%)	1 (0.4%)	1 (0.5%)
Domains			1 (0.1%)		1 (0.4%)	

FIGURE 5.26: DOMAINS (ALL LANGUAGES)

Ideas and ideologies are the most relevant human terrain drivers in the Chinese and Russian LDs. Changing concepts – one of the most prominent drivers of future security developments according to the Russian LD – and socio-economic issues are particularly emphasized within Russian studies. Chinese studies tend to observe the influence that foreign cultures and ideologies have within China. For the Turkish and Western LDs, rising nationalisms (often Kurdish or Russian) are the most relevant driver and are cited as spurring distrust and mutual incomprehension inside and outside borders. The Arabic

and Farsi domains stress the lack of a cohesive ideology and sectarian ideologies as the main driver within ideas and ideologies.

Demography is also identified as a relevant driver. Western and Russian LDs pay significant attention to migrations and flows of people, while irregular fluxes of migrants and a crisis of managing refugees are identified as key developments in all LDs. The diversity of ethnic groups is, instead, the most relevant demographic driver for the Farsi LD, with Kurds, Sunnis, and Shia's being highlighted. Arabic and Chinese LDs devote more attention to population growth and density. Urbanization rates are an additional demographic driver with relative importance in the Chinese and Western LDs.

For the Arabic and Turkish LDs, **societal and cultural** drivers assume great relevance. Within these, public and social engagement along with regaining public trust are presented as the two main elements. These drivers also appear in all other LDs, but with less relevance. Social stability and integration are important elements in the Arabic, Chinese, Farsi, Turkish, and Western LDs, and cover facets such as marginalization, social inequalities, social inclusion, and a sense of social (and economic) injustice. The Russian LD highlights economic empowerment, while consumption patterns are significant in the Chinese LD.

Other, less significant drivers include **feelings or senses** of belonging, hope, and injustice (with some attention payed to feelings of economic insecurity), as well as the preparation and potential of **human capital**. In regards to **health drivers**, malnutrition, inadequate food consumption, and infant mortality are the main elements present on the Arabic domain, whilst others focus mostly on diseases (type, and spreading speed). An interesting element covered on Western studies concerns Post-Traumatic Stress Disorders (PTSD).

	Arabic	Chinese	Farsi	Russian	Turkish	Western
Changing Concepts	1 (0.6%)	1 (1.7%)	4 (2.7%)	54 (65.9%)		
Societal/Cultural	4 (2.3%)		2 (1.4%)		33 (25.8%)	2 (2.0%)
Public or social engagement	19 (10.9%)	2 (3.4%)	2 (1.4%)	1 (1.2%)	8 (6.3%)	8 (7.8%)
Ethnic groups		1 (1.7%)	29 (19.9%)		4 (3.1%)	4 (3.9%)
Migrations and flows of people	3 (1.7%)	2 (3.4%)	5 (3.4%)	7 (8.5%)	1 (0.8%)	18 (17.6%)
Nationalism		3 (5.1%)	4 (2.7%)	1 (1.2%)	9 (7.0%)	8 (7.8%)
Population Growth	11 (6.3%)	9 (15.3%)	2 (1.4%)		2 (1.6%)	1 (1.0%)
Religious groups	1 (0.6%)	2 (3.4%)	21 (14.4%)			1 (1.0%)
Education	16 (9.2%)		1 (0.7%)		7 (5.5%)	
Demographics			4 (2.7%)		14 (10.9%)	4 (3.9%)
Demographic and Social Ties	1 (0.6%)		3 (2.1%)		9 (7.0%)	7 (6.9%)
Ideas and Ideologies		11 (18.6%)	3 (2.1%)		2 (1.6%)	3 (2.9%)
Lack of a Cohesive Ideology	5 (2.9%)		5 (3.4%)	1 (1.2%)	1 (0.8%)	6 (5.9%)
Tribalism/Regionalism	8 (4.6%)		1 (0.7%)		1 (0.8%)	5 (4.9%)
Feeling of Economic Insecurity	2 (1.1%)	1 (1.7%)	2 (1.4%)	2 (2.4%)	4 (3.1%)	2 (2.0%)
Marginalization	11 (6.3%)		1 (0.7%)			1 (1.0%)
Urbanisation	1 (0.6%)	3 (5.1%)	1 (0.7%)			8 (7.8%)
Human Terrain	1 (0.6%)		2 (1.4%)		9 (7.0%)	
Sectarian Ideology	3 (1.7%)		7 (4.8%)	1 (1.2%)		
Lack of a Culture of Democracy	3 (1.7%)		2 (1.4%)		3 (2.3%)	1 (1.0%)
World Population Growth	6 (3.4%)	1 (1.7%)	2 (1.4%)			
Desire for Stability	1 (0.6%)		1 (0.7%)		6 (4.7%)	
Human resources/ potential	1 (0.6%)	1 (1.7%)	3 (2.1%)	1 (1.2%)		2 (2.0%)
Sense of Loyalty and Belonging	5 (2.9%)	1 (1.7%)	2 (1.4%)			
Social (In)justice	8 (4.6%)					
Economic Empowerment	1 (0.6%)		3 (2.1%)	1 (1.2%)	2 (1.6%)	
Feeling of Injustice	3 (1.7%)		1 (0.7%)	3 (3.7%)		
Neglect of National Identity	2 (1.1%)		2 (1.4%)	2 (2.4%)		1 (1.0%)
Sectarian Strife	7 (4.0%)					
Foreign ideological/cultural influ..		3 (5.1%)	3 (2.1%)			
Ideological Reform	2 (1.1%)	1 (1.7%)	2 (1.4%)	1 (1.2%)		
Islamophobia	2 (1.1%)		3 (2.1%)		1 (0.8%)	
Population Density	4 (2.3%)		1 (0.7%)		1 (0.8%)	
Regaining Public Trust				1 (1.2%)	1 (0.8%)	4 (3.9%)
Sectarian/Ideological Ties	1 (0.6%)		5 (3.4%)			
Social Inequality		2 (3.4%)				4 (3.9%)
Disease	1 (0.6%)	2 (3.4%)				2 (2.0%)
Health	2 (1.1%)				2 (1.6%)	1 (1.0%)
Lack of Hope	3 (1.7%)	1 (1.7%)		1 (1.2%)		
Malnutrition	5 (2.9%)					
Polarisation of Society	3 (1.7%)				2 (1.6%)	
Population Decline		1 (1.7%)	4 (2.7%)			
Ethnic Heterogeneity	4 (2.3%)					
Inclusive Society	1 (0.6%)				2 (1.6%)	1 (1.0%)
Quality of Life	3 (1.7%)		1 (0.7%)			
Secularism-Islam Conflict	1 (0.6%)	1 (1.7%)	2 (1.4%)			
Tolerance	3 (1.7%)			1 (1.2%)		
Drug Use	1 (0.6%)				2 (1.6%)	
Gender Inequality	1 (0.6%)					2 (2.0%)
Law and Wisdom as a Major Ideol..				2 (2.4%)	1 (0.8%)	
Racism			1 (0.7%)			2 (2.0%)
Rise of extreme-right		2 (3.4%)	1 (0.7%)			
Rise of middle class	1 (0.6%)		1 (0.7%)			1 (1.0%)
Social Protection Programs	2 (1.1%)				1 (0.8%)	
Strict Ideological Control			1 (0.7%)	2 (2.4%)		
(DR)Aging		1 (1.7%)	1 (0.7%)			
Anti-communism		1 (1.7%)	1 (0.7%)			
Change in Consumption Patterns	1 (0.6%)	1 (1.7%)				
Culture of Corruption						2 (2.0%)
Fertility rates	1 (0.6%)	1 (1.7%)				
Past history of war/aggression		1 (1.7%)	1 (0.7%)			
Change in Diets	1 (0.6%)					
Chinese socialism		1 (1.7%)				
Climate change denial		1 (1.7%)				
Constructivism			1 (0.7%)			
Discrimination	1 (0.6%)					
Growing gap between society clas..	1 (0.6%)					
Idealism			1 (0.7%)			
Inadequate Food Consumption	1 (0.6%)					
Infant Mortality	1 (0.6%)					
Lack of CSR	1 (0.6%)					
Low level of art and media	1 (0.6%)					
Post-Traumatic Stress Disorders						1 (1.0%)
Pragmatism			1 (0.7%)			
Slums	1 (0.6%)					
Socialism/Capitalism schism		1 (1.7%)				

FIGURE 5.27: DRIVERS HUMAN TERRAIN; INCLUDES BREAKDOWN OF THE FOLLOWING CATEGORIES: IDEAS AND IDEOLOGIES, DEMOGRAPHICS, SOCIETAL OR CULTURAL, HUMAN TERRAIN, AND HEALTH (ALL LANGUAGES)

	Arabic	Chinese	Farsi	Russian	Turkish	Western
Refugee Crisis	6 (27.3%)	1 (4.3%)		5 (20.0%)	2 (7.4%)	5 (16.7%)
Social instability and unrest		9 (39.1%)	2 (16.7%)	2 (8.0%)	2 (7.4%)	2 (6.7%)
National Identity	3 (13.6%)	3 (13.0%)	2 (16.7%)	6 (24.0%)	1 (3.7%)	1 (3.3%)
Societal/Cultural			1 (8.3%)		10 (37.0%)	1 (3.3%)
Societal Reconciliation	2 (9.1%)			2 (8.0%)	6 (22.2%)	1 (3.3%)
E-Society	1 (4.5%)	2 (8.7%)		4 (16.0%)		1 (3.3%)
Middle East Youth	1 (4.5%)					7 (23.3%)
Migration and flow of people		2 (8.7%)	2 (16.7%)	1 (4.0%)	1 (3.7%)	2 (6.7%)
Quicker and broader spreading of contagious diseases		3 (13.0%)		1 (4.0%)		4 (13.3%)
Growth of drug cartels		1 (4.3%)		2 (8.0%)	2 (7.4%)	1 (3.3%)
Drug Use	1 (4.5%)	1 (4.3%)			2 (7.4%)	
Health						4 (13.3%)
Muslim Migrants in the West	1 (4.5%)		1 (8.3%)		1 (3.7%)	1 (3.3%)
Polarization	1 (4.5%)		1 (8.3%)	2 (8.0%)		
Sectarian Strife	2 (9.1%)					
Social justice	1 (4.5%)		1 (8.3%)			
Education	1 (4.5%)					
Influencing public opinion		1 (4.3%)				
Malnutrition	1 (4.5%)					
Population density in Islamic countries			1 (8.3%)			
Population density in third world countries			1 (8.3%)			
Spread of HIV/Aids	1 (4.5%)					

FIGURE 5.28: KEY DEVELOPMENTS HUMAN TERRAIN; INCLUDES BREAKDOWN OF THE FOLLOWING CATEGORIES: HEALTH, MIGRATION, NATIONAL IDENTITY, AND SOCIETAL OR CULTURAL (ALL LANGUAGES)

5.8 THE ECONOMICS OF SECURITY

	Arabic	Chinese	Farsi	Russian	Turkish	Western
Economic	9 (20.5%)	30 (50.0%)	35 (83.3%)	15 (48.4%)	10 (58.8%)	4 (26.7%)
Global Logistics and Trade	1 (2.3%)	13 (21.7%)	2 (4.8%)	2 (6.5%)	4 (23.5%)	5 (33.3%)
Financial system		5 (8.3%)	3 (7.1%)	13 (41.9%)	2 (11.8%)	2 (13.3%)
Water	18 (40.9%)	1 (1.7%)				
Food	10 (22.7%)	4 (6.7%)				
Natural Resources		5 (8.3%)	2 (4.8%)	1 (3.2%)	1 (5.9%)	1 (6.7%)
Vital Elements	6 (13.6%)	1 (1.7%)				1 (6.7%)
Labour Market		1 (1.7%)				1 (6.7%)
Health						1 (6.7%)

FIGURE 5.29: BREAKDOWN OF THE ECONOMIC DOMAIN (ALL LANGUAGES)

Across language domains, economic motives are consistently deemed relevant, especially as drivers of (in)security. **Economic interdependence** and **cooperation** are regarded as major drivers within Western, Chinese, and Farsi sources. Likewise, the stability of the **global financial system** is frequently observed, with great prominence in Russian sources. The security of **global logistic systems** are particularly emphasized in the Chinese, Western, and Turkish LDs, but are present on all others. **Consumption dynamics** also seem relevant across language domains.

Economic pressures, **stagnation**, **unemployment**, and **labor market** are additional salient economic drivers, especially in the Western LD. Interestingly, Russian sources appear to be very sensitive to **shifts in economic power**, yet oil prices evolution is not deemed relevant.

The Arabic LD also disregards the impact of **oil** as a commodity on security. Conversely, the Chinese domain stresses the importance of this commodity, despite some clear tendencies towards alternative sources of energy, such as solar energy. **Energy, especially energy demand,** is a serious concern in the Chinese domain, as the domain emphasizes the link between economic growth and internal political stability. This link makes the Chinese LD especially concerned about energy prices, general economic growth, and energy sources dependency (especially oil, gas, and coal). **Maritime resources** are also moderately discussed as a driver of Chinese action.

Notably, in terms of resources, the Arabic domain expects food and water – with strong emphasis on the latter – to significantly shape security in the Middle East. Water scarcity and food/water are two of the most significant drivers of security developments within the Arabic domain. Food or water dependency, for example Iraq's dependence on imported wheat, is viewed as a significant security threat in the domain.

Western sources seem to share this perspective as they observe that resource scarcity may become a leading cause of future conflict.[177] Additionally, they emphasize threats to **energy security**, **global food insecurity**, and **competition over resources**.

5.9 MILITARY AND TECHNOLOGY DEVELOPMENTS
SECURITY, DEFENSE, AND MILITARY POWER
Security, defense, and military power factors (excluding terrorism) occupy a relevant portion of the attention in all LDs. This area includes elements such as security and conflict as well as military power; global, collective and national security; and nuclear activities. Across LDs, Western sources exhibit a higher focus on these matters, followed by the Turkish, Russian, Farsi, Chinese, and Arabic LDs. Security, defense, and military power factors are especially emphasized as key developments.

	ARABIC	CHINESE	FARSI	RUSSIAN	TURKISH	WESTERN
Drivers	9,35	9,59	8,73	22,41	21,39	15,72
Key developments	32,46	32,56	43,77	63,04	52,15	41,53
Domains	26,86	28,8	30,45	15,3	27,34	44,19

FIGURE 5.30: SHARE OF SECURITY, DEFENSE, AND MILITARY FACTORS, EXPRESSED IN PERCENTAGES (%) (ALL LANGUAGES)

Drivers of military power are understood in a very different manner across LDs. In the Western LD, NATO expansion, nuclear proliferation, and general military cooperation will likely spur future security developments. The presence of these factors is equally present in the Russian, and Turkish LDs, but the prime driver differs. Within Russian LD, foreign military interventions and conflict escalation

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177   Pavel and Nordenman, "Global Trends and the Future of NATO: Alliance Security in an Era of Global Competition."

constitute the two major drivers, which are also identified to the same degree in the Arabic LD. For the Turkish domain, the state of the national army constitutes the major driver. This driver is likewise relevant in the Arabic LD, with concerns centered on the weakness of national armies across the Arab world. Connected to this fragility of regular national armed forces, the Arabic LD identifies the creation, strengthening, or expansion of non-regular military forces such as terrorist organizations or militias as major drivers, next to the aforementioned intervention of foreign forces.

Chinese LD concerns echo some of the drivers stressed by other LDs (e.g., foreign interventions, expansion of terrorist organizations, nuclear proliferation), yet the strengthening of equipment for national forces, and the costs associated with it, are identified as the main drivers. Indeed, the asymmetry of forces (especially in terms of technological development, preparedness, and incorporation) are often cited as drivers. The focus on military build-up, military R&D development, and military development are also relatively important in the Western and Russian LDs. Conversely, the Arabic LD rarely mentions military modernization, perhaps because of the fragility of some armed forces in the Arab world. Other interesting security and defense drivers include security of trade routes, especially maritime trade routes (Chinese, Western); militarization and military coups (Russian); the presence of foreign military bases (Farsi, Arabic); and space militarization (Chinese, Russian, Western).

Domestic or national security developments, particularly threats to national security, are expected across LDs. The Western LD also expects increasing focus on non-traditional security threats. In terms of operational military elements, the domain foresees the furthering of NATO's concept of smart defense. Arms proliferation (nuclear and WMD), military cooperation, and nuclear governance are developments expected in the category of collective security. Despite concerns regarding collective and regional security, the Arabic, Chinese, Russian, and Turkish LDs are mostly concerned with national security. In the Arabic LD, the role of Iran (particularly Iranian expansion and intervention, although also Iranian diplomacy), and the possible existence of military coups are a prominent discussion topic.

	Arabic	Chinese	Farsi	Russian	Turkish	Western
Military Power	1 (1.1%)	1 (1.4%)	5 (4.5%)	1 (0.4%)	56 (30.3%)	2 (1.7%)
Foreign Military Intervention	13 (14.9%)		17 (15.5%)	28 (10.8%)		3 (2.5%)
Nuclear Proliferation		7 (9.5%)	8 (7.3%)	19 (7.3%)	11 (5.9%)	13 (10.9%)
NATO Expansion	1 (1.1%)		7 (6.4%)	19 (7.3%)	13 (7.0%)	14 (11.8%)
Military Cooperation		5 (6.8%)	4 (3.6%)	20 (7.7%)	9 (4.9%)	12 (10.1%)
Investment in/ Price of Military Equipment		12 (16.2%)	2 (1.8%)	8 (3.1%)	7 (3.8%)	11 (9.2%)
Militarization	1 (1.1%)			18 (6.9%)	6 (3.2%)	8 (6.7%)
Threat of Escalation	2 (2.3%)			26 (10.0%)		2 (1.7%)
Foreign Support	8 (9.2%)	2 (2.7%)	11 (10.0%)	4 (1.5%)	3 (1.6%)	
Foreign Interference		8 (10.8%)	12 (10.9%)	4 (1.5%)	1 (0.5%)	2 (1.7%)
Effective military technologies			7 (6.4%)	10 (3.8%)	2 (1.1%)	7 (5.9%)
Military Crisis, Missions, and Wars	1 (1.1%)		5 (4.5%)	4 (1.5%)	12 (6.5%)	
National Army				1 (0.4%)	19 (10.3%)	1 (0.8%)
Reduced Influence/Capabilities of Military Po..		1 (1.4%)	2 (1.8%)	12 (4.6%)		5 (4.2%)
Security/Military Dependency	2 (2.3%)	1 (1.4%)		8 (3.1%)	6 (3.2%)	2 (1.7%)
Divergent Military Capabilities		6 (8.1%)		3 (1.2%)	3 (1.6%)	6 (5.0%)
Pressures on Military Powers				14 (5.4%)	3 (1.6%)	1 (0.8%)
Foreign military bases		2 (2.7%)	5 (4.5%)	5 (1.9%)	5 (2.7%)	
Military Coup	1 (1.1%)			14 (5.4%)	2 (1.1%)	
Global War on Terror	1 (1.1%)	2 (2.7%)	1 (0.9%)	3 (1.2%)	9 (4.9%)	
Safety & security of trade routes	4 (4.6%)	3 (4.1%)	1 (0.9%)			8 (6.7%)
Security of strategic maritime routes	2 (2.3%)	10 (13.5%)			2 (1.1%)	1 (0.8%)
Expansion of Militia Forces	3 (3.4%)		4 (3.6%)	6 (2.3%)		
Reduction in Defence Budget	1 (1.1%)	1 (1.4%)		1 (0.4%)	2 (1.1%)	6 (5.0%)
Existence of Militia Forces	4 (4.6%)		3 (2.7%)	2 (0.8%)	1 (0.5%)	
Limited Conflict Probability		1 (1.4%)		8 (3.1%)		1 (0.8%)
Limited/Lack of Foreign Support	1 (1.1%)	1 (1.4%)	1 (0.9%)	3 (1.2%)	1 (0.5%)	2 (1.7%)
Proxy War	5 (5.7%)	1 (1.4%)		2 (0.8%)		1 (0.8%)
Reduction / non-use of nuclear/ chemical we..				6 (2.3%)	2 (1.1%)	
Absence of Defence Strategy	1 (1.1%)				1 (0.5%)	5 (4.2%)
Failure of Military Alliance	1 (1.1%)			3 (1.2%)	2 (1.1%)	1 (0.8%)
Japan strengthening Self Defense Forces		5 (6.8%)				2 (1.7%)
Space Militarization	1 (1.1%)	2 (2.7%)		2 (0.8%)	1 (0.5%)	1 (0.8%)
Military doctrine		1 (1.4%)	3 (2.7%)	1 (0.4%)	1 (0.5%)	
Weakness of National Army	6 (6.9%)					
Foreign Occupation	3 (3.4%)		1 (0.9%)	1 (0.4%)		
Israeli Occupation	3 (3.4%)		1 (0.9%)		1 (0.5%)	
Support of Foreign Armed Groups	3 (3.4%)		1 (0.9%)		1 (0.5%)	
Weapons of mass destruction's discussion	1 (1.1%)		4 (3.6%)			
SALW Proliferation	3 (3.4%)	1 (1.4%)				
Combat Fatigue	2 (2.3%)		1 (0.9%)			
Failure of Military Coup	1 (1.1%)			2 (0.8%)		
Worsening Government-Military Relations	1 (1.1%)			1 (0.4%)	1 (0.5%)	
Reduction in nuclear power				1 (0.4%)	1 (0.5%)	
Sectarianism	1 (1.1%)		1 (0.9%)			
Strength of Separatist Group	1 (1.1%)		1 (0.9%)			
US Military Base	1 (1.1%)		1 (0.9%)			
Absence of National Weaponry Production	1 (1.1%)					
Chemical weapons						1 (0.8%)
Colonialism	1 (1.1%)					
Encirclement	1 (1.1%)					
Lack of Training	1 (1.1%)					
Land Mines and Unexploded Ordnance	1 (1.1%)					
Limited Equipment	1 (1.1%)					
NATO's nuclear weapons policy in Turkey					1 (0.5%)	
Russian air strikes' bombardment terror gro..			1 (0.9%)			
US retreat from Afghanistan		1 (1.4%)				
Weak Hierarchy	1 (1.1%)					
biological threat agent/ biological weapon/ bi..						1 (0.8%)

FIGURE 5.31: MILITARY POWER DRIVERS (ALL LANGUAGES)

	Arabic	Chinese	Farsi	Russian	Turkish	Western
Threat to national security		27 (25.0%)	24 (12.2%)	34 (13.1%)	26 (17.7%)	
(CS)Regional security		25 (23.1%)	22 (11.2%)	16 (6.2%)	5 (3.4%)	5 (5.3%)
Collective Security		2 (1.9%)	28 (14.2%)	5 (1.9%)	17 (11.6%)	12 (12.6%)
National Security	7 (13.5%)	5 (4.6%)	10 (5.1%)	4 (1.5%)	30 (20.4%)	1 (1.1%)
Global security	1 (1.9%)	1 (0.9%)	12 (6.1%)	31 (11.9%)	2 (1.4%)	2 (2.1%)
Future of Conflict	1 (1.9%)	2 (1.9%)	22 (11.2%)	12 (4.6%)		2 (2.1%)
Increased Military Cooperation		11 (10.2%)	1 (0.5%)	17 (6.5%)	5 (3.4%)	3 (3.2%)
Arms proliferation		1 (0.9%)	1 (0.5%)	26 (10.0%)	2 (1.4%)	6 (6.3%)
Smart Defence	1 (1.9%)	1 (0.9%)		9 (3.5%)	10 (6.8%)	8 (8.4%)
Foreign Military Internvention	3 (5.8%)		9 (4.6%)	13 (5.0%)		1 (1.1%)
Strenghtening of military power		9 (8.3%)		11 (4.2%)		3 (3.2%)
Increase cyber-competences of the military		7 (6.5%)		1 (0.4%)	6 (4.1%)	9 (9.5%)
New technologies applied to military		2 (1.9%)	2 (1.0%)	12 (4.6%)	5 (3.4%)	2 (2.1%)
Military			3 (1.5%)		17 (11.6%)	2 (2.1%)
Military Involvement in Politics	2 (3.8%)		1 (0.5%)	16 (6.2%)	1 (0.7%)	1 (1.1%)
Civil War	9 (17.3%)		5 (2.5%)			1 (1.1%)
Instability post-ISIS	2 (3.8%)	1 (0.9%)	7 (3.6%)	1 (0.4%)	3 (2.0%)	1 (1.1%)
Anti-ISIS Coalition	2 (3.8%)		4 (2.0%)	2 (0.8%)	4 (2.7%)	
(KD)Nuclear security/governance		1 (0.9%)	1 (0.5%)	3 (1.2%)	1 (0.7%)	5 (5.3%)
Prolongation of Conflict		1 (0.9%)	1 (0.5%)	5 (1.9%)		4 (4.2%)
Threat of military confrontation		1 (0.9%)	1 (0.5%)	7 (2.7%)		2 (2.1%)
Military Coup	3 (5.8%)			7 (2.7%)		
(CS)Weapons of Mass Destruction-Free Zone ..	1 (1.9%)		6 (3.0%)	1 (0.4%)		1 (1.1%)
Decreased military cooperation		1 (0.9%)		5 (1.9%)		3 (3.2%)
Information security		1 (0.9%)		3 (1.2%)		5 (5.3%)
Establishing Rule of Law				3 (1.2%)	1 (0.7%)	4 (4.2%)
Military build-up		1 (0.9%)		6 (2.3%)		1 (1.1%)
Arab National Security	5 (9.6%)		1 (0.5%)		1 (0.7%)	
Expansion of Militia Forces	3 (5.8%)		1 (0.5%)	2 (0.8%)	1 (0.7%)	
Iranian expansion/intervention	5 (9.6%)		1 (0.5%)	1 (0.4%)		
USA security				1 (0.4%)	4 (2.7%)	2 (2.1%)
Escalation of conflict in Afghanistan			1 (0.5%)	2 (0.8%)	2 (1.4%)	
Growing divergence in military capacities		1 (0.9%)		2 (0.8%)	1 (0.7%)	1 (1.1%)
Nuclear activities			3 (1.5%)			2 (2.1%)
Security of Middle East			3 (1.5%)	1 (0.4%)		1 (1.1%)
Israel security			4 (2.0%)			
Threat of Chinese military intervention in Tai..		4 (3.7%)				
Iran-Saudi War	1 (1.9%)					2 (2.1%)
Iranian Threats to Saudi Arabia			2 (1.0%)		1 (0.7%)	
Sectarian Clashes	1 (1.9%)	1 (0.9%)	1 (0.5%)			
(CS)Security and conflicts in the world of Islam			2 (1.0%)			
(KD)Sunni-Shiite conflict			2 (1.0%)			
Europe security			1 (0.5%)			1 (1.1%)
Global community support of establishment o..			2 (1.0%)			
Gulf National Security	1 (1.9%)		1 (0.5%)			
Iran Intervention in Yemen	1 (1.9%)		1 (0.5%)			
Keep the political/ millitary power in the regi..				1 (0.4%)		1 (1.1%)
Preventing the nuclear enrichment			2 (1.0%)			
Shrinking of military power		1 (0.9%)				1 (1.1%)
Space Wars	1 (1.9%)				1 (0.7%)	
Weakening Iran's regional power			2 (1.0%)			
West's involvement			2 (1.0%)			
(CS)More inclusive participation in space gov..		1 (0.9%)				
Child soldiers	1 (1.9%)					
Iran believes in peaceful nuclear power			1 (0.5%)			
Iranian threat / intervention	1 (1.9%)					
Keep the millitary power in the region			1 (0.5%)			
Post-revolutionary structural changes			1 (0.5%)			
Public mindshift			1 (0.5%)			
War			1 (0.5%)			

FIGURE 5.32: KEY DEVELOPMENTS SECURITY, DEFENSE, AND MILITARY POWER; INCLUDES BREAKDOWN OF THE FOLLOWING CATEGORIES: COLLECTIVE SECURITY, NATIONAL SECURITY, GLOBAL SECURITY, NUCLEAR ACTIVITIES, AND MILITARY

TECHNOLOGY

Transversal to human activities, technology is expected to be a significant frontier of the security according to nearly all foresight communities, especially in the Western LD. Even though all recognize the importance of technology – highlighting the cyber domain and big data – the focus of each language varies. Western sources tend to emphasize it as a security hotspot, including aspects such as **cyberattacks**, **cybercrime**, **cyberterrorism**, and **technological connectedness** (social, political, and economic), which are seen as significant drivers of security. Russian, Farsi, and Turkish domains tend to emphasize more **communication** aspects of technology. Russian sources, for instance, perceive technologies as a venue to **exert political influence**, including to **spur regime change** (e.g., through color revolutions).[178]

The intersection of technology and security and conflict constitutes a serious focus of concern, ranging from increasing **military vulnerability in cyberspace**[179] to the public's dependence on technology, which could degenerate into a scenario of **cascading system breakdowns**.[180] A further technological arena emphasized by the West is **self-made weapons** (e.g., through 3D-printing), which have the potential to empower non-state actors.[181]

Chinese and English sources expect the **cyber-competency** of the military to increase. **Cyberterrorism** and developments related to information security (as a component of national security) are further changes expected by the English domain. Increasing levels of cyber readiness and the application of new technologies to the armed forces also assume relevance across language domains.

As an area that all LDs consider a future realm of security, the next section discusses the results of a deeper dive into the topic of cyber.

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178 National Intelligence Council, "Global Trends 2025: A Transformed World," 2008, http://www.aicpa.org/Research/CPAHorizons2025/GlobalForces/DownloadableDocuments/GlobalTrends.pdf.; Baranov, N. The Place and Role of European States in the Geopolitical Structure of the Modern World

179 Kristel Van der Elst and Trudi Lang, "How Will Technology Reshape Security?," World Economic Forum, June 2, 2015, https://agenda.weforum.org/2015/02/how-will-technology-reshape-the-security-landscape/.

180 Siedschlag, "'Focus': Foresight Security Scenarios to Plan for Research to Support the 'EU 2035' As a Comprehensive Security Provider."

181 Pavel and Nordenman, "Global Trends and the Future of NATO: Alliance Security in an Era of Global Competition."

	Arabic	Chinese	Farsi	Russian	Turkish	Western
Cyber		9 (50.0%)	9 (26.5%)	6 (20.7%)	22 (52.4%)	17 (37.0%)
Technology	4 (100.0%)	7 (38.9%)	13 (38.2%)		9 (21.4%)	12 (26.1%)
New military technologies		1 (5.6%)	4 (11.8%)	15 (51.7%)	8 (19.0%)	7 (15.2%)
Communication			5 (14.7%)	7 (24.1%)	3 (7.1%)	1 (2.2%)
Big data		1 (5.6%)	3 (8.8%)	1 (3.4%)		6 (13.0%)
Self-made weapons (e.g. 3d printed)						3 (6.5%)

FIGURE 5.33: BREAKDOWN OF TECHNOLOGY DOMAIN (ALL LANGUAGES)

5.10 THE FIFTH DOMAIN OF WAR

A rather prominent place is assigned to future developments in cyberspace – the notable 'Fifth Domain' of war – after land, sea, air and space.[182]

Most LDs' foresight communities indeed recognize the deeper and growing integration of cyber within our security environment and within the ways in which all security threats are bound to evolve. Broadly, cyber is expected to become an almost intrinsic feature of conflict, driven by technological progress: "As digital technologies accelerate and our dependence on them deepens, future conflict between advanced actors (state or non-state) will also increasingly involve elements of cyber conflict".[183]

Farsi authors elaborate on the progress of modern communication technologies such as satellites, the Internet, mobile phones, modern business methods and modern high capacity information systems. These would contain ever more considerable amounts of texts, digital images, maps and video that have dramatically enabled non-conventional forces to organize espionage activities. Development in information technology will likely lead to highly accurate weapons, the improvement of objectification, control and watch capabilities, better commanding and control, and growing use of information robots. Given the instrumental role that information technologies play in the capabilities of modern war, information itself is seen as a major issue in future conflicts. In 2025, some countries will probably be using weapons designed to destroy information systems and networks, sensors, and communication systems, such

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182 "War in the Fifth Domain," The Economist, July 1, 2010, http://www.economist.com/node/16478792.

183 Anja Kaspersen, "What Will Militaries of the Future Look Like?," World Economic Forum, December 8, 2015, https://agenda.weforum.org/2015/08/what-will-militaries-of-the-future-look-like/.

as anti-satellite, anti-radio and laser weapons. This is expected to greatly influence the scale and frequency of cyberattacks.[184]

Some foresight views, such as Russia's, see cyber and cyber activities as part of the geopolitical security environment and the agenda to control this environment – reflecting a competition between major powers, the risk of disrupting societies and political systems, and the confrontation of values. Others (mostly, in the West) rather perceive cyber activities as operational processes concretely impacting systems.

It is important to note early on the unequal weight or emphasis placed on cyber across language domains. In Chinese views, cyber challenges are often mentioned alongside other aspects of non-conventional security, such as terrorism, environmental issues and climate change, drugs and epidemics, or even illegal migration and piracy.[185] But we note that Chinese foresights are still focused on traditional security threats and geopolitical challenges, and fail to produce in-depth analyses of cyber challenges.

Cyber-related threats are virtually overlooked by the selected Arabic foresights – or, at best, less emphasized than the severe crises, emanating from the hard security arena and the various regional political challenges. Some Arab countries have developed laws that deal with cyber and information security, but these have seldom been translated into national strategies. Qatar is one of the very few Arab countries to have openly published a national cyber security strategy. One of its main objectives is to safeguard the national critical information infrastructure (CII). Information security and the protection of CII are one of the main themes throughout the strategic document. There is also an emphasis on cyber threats and objectives such as financial gains and siphoning money, as well as on the protection of Industrial Control Systems (ICS) and organizational information. Another objective of the strategy is to foster a national cyber security culture within schools, colleges and universities. However, cyber-terrorism or cyber terrorists are remarkably absent. Origins of the attacks range

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184 Eyvazi, "The future of the Islamic Revolution and the future world conflicts."

185 Youfa Liu, "未来 10 年中国周边经济 安全形势及对策思考/ Coming 10 Years Chinese Periphery Economies Security Situation and Countermeasures," China International Studies, June 25, 2012, http://niis.cssn.cn/webpic/web/niis/upload/2012/11/d20121127203837364.pdf.

from Hacktivists, Advanced Persistent Threats (APT), Cybercrime Syndicates and Malicious Insiders.[186]

Western experts appear to be most acutely aware of the pivotal potential of emerging and maturing cyber technologies – as NATO Secretary General puts it: "Cyber is now a central part of virtually all crises and conflicts".[187] And according to US Director of National Intelligence, the cyber threat had surpassed terrorism as the Number One threat facing the US.[188]

ONE DOMAIN, MANY THREATS

Cyber as an activity and a threat to security is expected to take many forms, and spread to various areas and sectors. These would be typically intertwined and complex to combat. One study illustrates well this perspective of the West: "Cyber-crime now poses a threat to security on a much larger scale than a decade ago, as ICT-based banking, consumer trade, knowledge sharing and industrial processes have made it easier to interfere. There is a deficit in acknowledging this vulnerability by industries and governments. Less developed OSCE countries face particular challenges due to more limited knowhow. Here it is hard to draw the boundaries between organized crime, intelligence gathering, terrorism and warfare".[189]

Russian authors argue that cyber threats will be very diverse and highly unpredictable, covering a wide range of issues from enduring informational war, heavily relying on cyber means, to individual cyber-attacks or cyber crime. Chinese studies particularly highlight the malleability of cyber, in the sense that

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186 Ministry of Transportation and Communication, "Qatar National Cyber Security Strategy," Text, Ministry of Transport and Communications, (December 9, 2014), http://www.ictqatar.qa/en/cyber-security/national-cyber-security-strategy. These limited findings for the Arabic domain do not allow for a solid analysis that would fairly reflect the discussion of this particular foresight community. In order to build an overview of the discussion potentially taking place, HCSS recommends an additional selection of studies on the basis of search queries specifically targeting this 'cyber' theme.

187 Stoltenberg, "Keynote Speech by NATO Secretary General Jens Stoltenberg at the Opening of the NATO Transformation Seminar."

188 Aaron Boyd, "DNI Clapper: Cyber Bigger Threat than Terrorism," Federal Times, February 4, 2016, http://www.federaltimes.com/story/government/cybersecurity/2016/02/04/cyber-bigger-threat-terrorism/79816482/. See also The Department of Defense, "The DoD Cyber Strategy," THE DEPARTMENT OF DEFENSE USA, April 2015, http://www.defense.gov/Portals/1/features/2015/0415_cyber-strategy/Final_2015_DoD_CYBER_STRATEGY_for_web.pdf.

189 Kemp and Schmertzing, "Threats and Challenges to the OSCE Area."

it facilitates more diverse forms of offensive operations. Coordinated actions are feared from military adversaries, private actors and terrorist groups alike.

The Turkish foresight community does include similar elements, but in the sense that cyber developments are likely to focus on technological advancement in securing and increasing coordination efforts across the military and government organs. Cyber technologies are expected to facilitate life and public services at an increasing rate, including areas of transportation, energy use and environmental concerns.[190] This reflects a more positive perspective – a refreshing finding among a rather bleak picture.

FIGURE 5.34: TYPES OF CYBER ACTIVITIES FORESEEN (NO RELEVANT CODING IN ARABIC LD)

Overall, our results for the cyber theme show that the West points to cyberespionage and cybercrime as the main future forms of cyber threat, while the Russian LD foresees more dramatic evolutions – such as cyber wars, which could then involve such social networks as Facebook or Twitter as observed during the Arab Spring. Chinese officials refer to 'information warfare' as the way in which global competition will happen: "As the military is deeply revolutionized by new technologies, military equipment is increasingly precise, smart, invisible and automatic, space and cyber become new hotspots of international competition, and in the future the trend towards information warfare will accelerate".[191]

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190 Maritime transport and Communications Ministry, "TÜRKİYE ULAŞIM VE İLETİŞİM STRATEJİSİ – Hedef 2023 | Turkish Transport and Communications Strategy – Target 2023" (Maritime transport and Communications Ministry, 2014), http://geka.gov.tr/Dosyalar/o_1adq0msuh7ii17b91di7ohp1hbg8.pdf.
191 PRC State Council, "Military strategy of China White Paper."

CYBER AS AN INSTRUMENT OF POWER

Russian foresight, and to a lesser extent Farsi and Turkish authors, identify cyber activities as no less than major power tools to establish or strengthen geopolitical hegemony and to trigger ideological, political, or societal disruptions. Russian foresight precisely refers to cyberattacks in the context of interstate competition or to attempts of the non-state actors (such as terrorists) to destabilize crucial operational systems of a country. Generally, and in contrast with Western views, the objectives of cyber-attacks are seen as politicized: the achievement of geopolitical goals and spreading of disruptive ideas, deriving from the interstate competition, stand out as the most significant ones. A large-scale armed clash is no longer possible due to the global interdependencies, which determines the distinctly new character of the struggle for power in the international system: the competition between countries moves from the traditional military sphere to the technological, economic and ideological fields. Thus, being situated in the middle of this technology-politics nexus, cyber is becoming a new tool of interstate confrontation and a new field of great powers' competition: "The character of the interstate armed struggle will be determined by a country's capabilities in outer space, in the field of information warfare and, most significantly, cyberspace. These factors, along with nuclear weapons, will become the new instruments for achieving political and strategic goals".[192]

Marked by the Gezi Park protests, the Turkish foresight community expects cyber activities to be unspecified foreign attacks, aiming at sabotaging current government's political initiatives. In this context of soft power wars, information technologies and media may target Turkey and its government's gained reputation and damage its authority, thus, jeopardizing political stability.[193]

Farsi foresights consider cyber activities can be a tool for some major powers to influence some other countries, to disintegrate a particular country, to impose their thoughts and ideologies through social networks such as Facebook or Twitter, as it was used during the 2009 Presidential elections in Iran and also the Arab Spring. Cyber activities can also be used as a cheaper, practical and

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192 Lukyanov, "Россия: Внешняя Политика В миРе Будущего/ Russia: Foreign Policy in the World of the Future."
193 Atilla Sandikli, "Türkiye'nin Yumuşak Gücünün Kırılma Noktası: Gezi Olayları," BILGESAM, December 3, 2014, http://www.bilgesam.org/incele/417/-turkiye–8217-nin-yumusak-gucunun-kirilma-noktasi–gezi-olaylari-/#. VhaKIG6uKe9.

safer tool for terrorist groups, enabling them to expand their influence globally – for example by sharing the videos of beheaded victims on social media they gain leverage and spread terrorism's ideas globally.
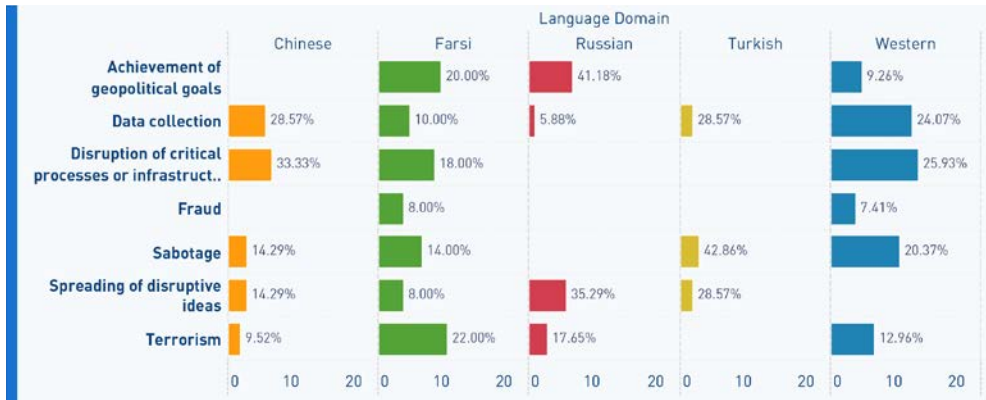

	Language Domain				
	Chinese	Farsi	Russian	Turkish	Western
Achievement of geopolitical goals		20.00%	41.18%		9.26%
Data collection	28.57%	10.00%	5.88%	28.57%	24.07%
Disruption of critical processes or infrastruct..	33.33%	18.00%			25.93%
Fraud		8.00%			7.41%
Sabotage	14.29%	14.00%		42.86%	20.37%
Spreading of disruptive ideas	14.29%	8.00%	35.29%	28.57%	
Terrorism	9.52%	22.00%	17.65%		12.96%

FIGURE 5.35: OBJECTIVES OF CYBERATTACKS (NO RELEVANT CODING IN THE ARABIC LD)

Chinese authors consider the spread of disruptive ideas through cyber activities as a major threat as well, precisely through the lens of opposing ideologies and values between the West and the Chinese model of society and governance. The context identified is that of an ideological opposition between China and Western countries, and even of a raging "Cultural Cold War": the West is trying to "alter the political DNA"[194] of China through cyber propaganda, creating a serious peril to its long-term stability: "The attempts by Western countries at infiltrating and undermining China are increasingly obvious, and their activities more and more assertive […]". A "political alteration work" on the Internet is "causing a major and tangible threat to our country's political security and stability".[195] More generally speaking, even in the absence of a fixed political agenda, cyber technologies allow faster and wider spreading of information, which is expected to strengthen new media, enhance competition for "soft power" between different and sometimes antagonistic cultures, and pose new governance challenges.[196]

194 Sun, "坚定不移走中国特色国家安全道路/ National security with Chinese characteristics."
195 Ibid.
196 Su, "国际格局变化与中国外交战略/ Transformation of the international structure and China's diplomatic strategy."

In contrast with Russian, Turkish and Farsi views, the Western domain puts less emphasis on cyber as a tool or a space for governments to achieve geopolitical goals. Nonetheless, in future interstate conflicts, cyber is expected to be a main leverage.[197] At the same time, while cyber operations will complement traditional instruments of Russian geopolitics, they are unlikely to replace them, as "such attacks still ultimately sit below various other military options in the escalation spectrum, and were only one facet of Russia's 2008 Georgian and 2014–5 Ukrainian campaigns".[198]

Still, state power benefits from the use of cyber. The most serious cyber threats are generally expected to remain within the sole remit of capable programs run by governments or their militaries. Western and Russian foresights expect states to be indeed the main perpetrators of cyber-attacks or other destructive cyber activities against other states, preceding non-state actors such as terrorists and private sector actors. Each has its own 'scapegoat'.
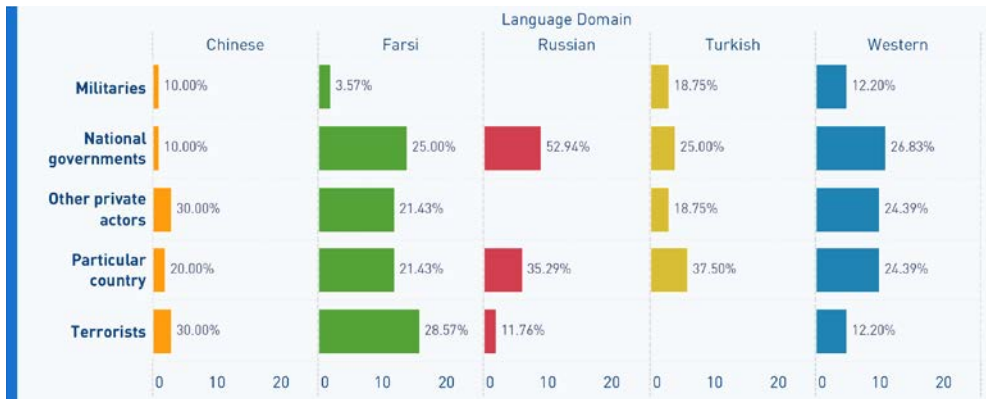
FIGURE 5.36: ORIGINS OF CYBERATTACKS (NO RELEVANT CODING IN THE ARABIC LD)

197 Siedschlag, "'Focus': Foresight Security Scenarios to Plan for Research to Support the 'EU 2035' As a Comprehensive Security Provider."

198 Blagden, "Global Multipolarity, European Security and Implications for UK Grand Strategy: Back to the Future, Once Again."
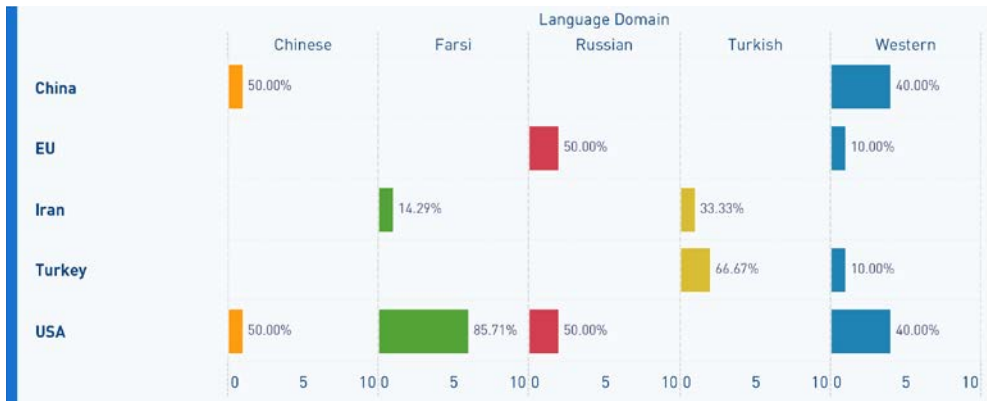
FIGURE 5.37: PARTICULAR COUNTRY THAT IS EXPECTED TO BE THE ORIGIN OF A CYBERATTACKS (NO RELEVANT CODING IN THE ARABIC LD)
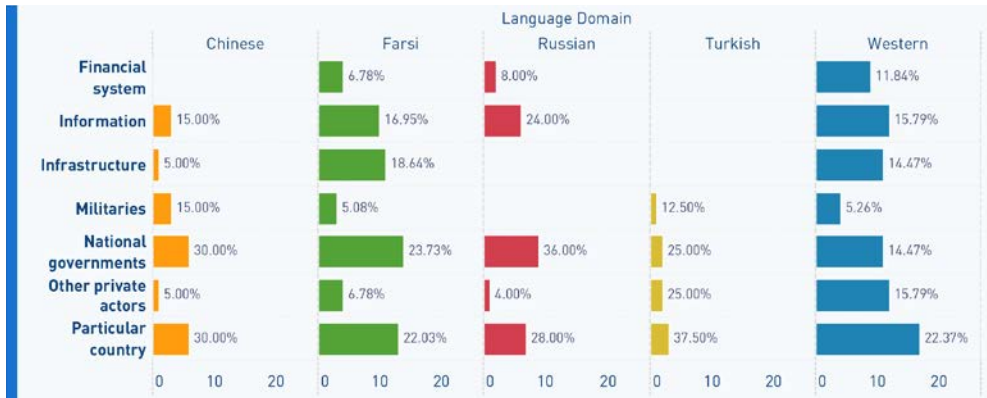
FIGURE 5.38: TARGETS OF CYBERATTACKS (NO RELEVANT CODING IN THE ARABIC LD)
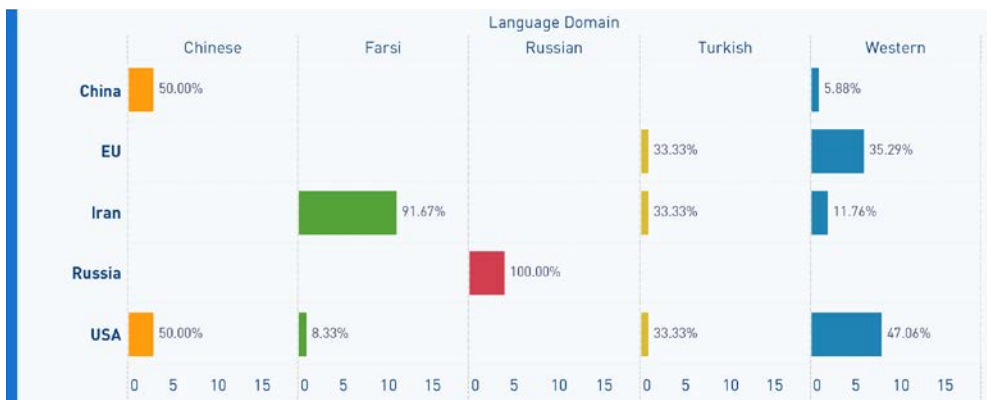
FIGURE 5.39: PARTICULAR COUNTRY THAT IS EXPECTED TO BE A TARGET OF CYBERATTACKS (NO RELEVANT CODING IN THE ARABIC LD)

In line with the focus on interstate competition as an objective of cyber activities, Russia typically mentions the West – i.e., EU countries and the US. These "are seeking to maintain their leading position also in the new, sixth technological order (bio-, nano-, cogno-, info- and others) and are doing their best, as long as possible, to extend the hegemony of the petrodollar economy, to restrain their competitors from the other countries".[199]

The West points to the US and China's national governments. For example, the Cyber Security Strategy by the US Department of Defense (DoD) explicitly identifies cyberespionage by members of the Chinese People's Liberation Army (PLA).[200]

China sees in the Snowden affair evidence that "the US government is engaging in large-scale cyber-surveillance and cyber-offensive on the world".[201] At the same time, across Chinese studies, the US stands out as a recurrent target as well, due to its higher exposure to cyber-threats as opposed to Chinese-speaking countries,[202] the higher pervasiveness of cyber technologies in its society and economic system,[203] its geopolitical importance in the global arena, or because it is a major target of radical Islamic terrorist groups.[204]

Terrorism is set to be a key objective and generator of cyber activities as well. Russian foresights refer to the opportunities of online-recruitment of followers by the regional and international terrorist groups (including the ISIS) as well as to their destructive activities in the global cyber network. Chinese studies identify the "cyberification" of global terrorist activities as a major trend of the

199 Sergey Nebrenchin, "Итоги и прогнозы: в 2015 году информационные войны вспыхнут с новой силой," 2014, http://politobzor.net/show-40693-itogi-i-prognozy-v-2015-godu-informacionnye-voyny-vspyhnut-s-novoy-siloy.html.

200 The Department of Defense, "The DoD Cyber Strategy."

201 Xulong Chen, "当今世界面临的主要全球性问题/Current Global Challenges," Perspective Magazine, September 28, 2015, http://www.ciis.org.cn/chinese/2015-09/28/content_8268802.htm.

202 ROC (Taiwan) Ministry of Defense, "中華民國一零四年國防報告書/ ROC (Taiwan) National Defense Report 2015."; Bingxi ZHEN, "美国经济新增长点与中国的应对," China International Studies, July 22, 2014, http://www.ciis.org.cn/gyzz/2014-07/22/content_7084251.htm.

203 ZHEN, "美国经济新增长点与中国的应对."

204 Chen, "当今世界面临的主要全球性问题/ Current Global Challenges.", Li, "非传统安全挑战对中国未来周边环境的影响/ Non-Traditional Security Threats to China and Its Environment.", Po Hu, "军事安全未来冲突因子： 核武云集是亚太的平安符吗/ Future Conflict Elements in Military Security," Phoenix International Think Thank, September 8, 2015, http://pit.ifeng.com/dacankao/warieover20152/1.shtml.

future.[205] Farsi views also consider that terrorists will prefer to use cyberspace instead of the physical world to achieve their goals and objectives. The inability of the governments to control cyberspace represents an opportunity for terrorist to carry out their activities. While shifting to actions in the cyberspace reduces the cost of criminal activities, at the same time it also reduces the probability of arrest for terrorists.[206]

Private actors may well be targeted as well. They include individuals, communities, as well as corporations – for example, Turkish authors particularly expect cyberattacks to target independent, small firms for financial motivations. These firms would become foreign and domestic targets of cyberattacks due to a lack of security measures and adaptation efforts. Bigger firms are expected to develop mitigation and protection mechanisms against cyber threats.[207]

DEPENDENCE IS DANGER

Western and Chinese concerns are also about other disruptions – those damaging infrastructure and critical systems, or the loss or hacking of data. Chinese authors still accuse the West of trying to undermine China's security and governance model.

The disruption of critical processes and sabotage are defined as actions and activities, affecting important networks and systems that are vital for national and economic security or public safety.[208] One study notes that with the growth in cyber capabilities, "[c]oncerns are growing over vulnerabilities in critical infrastructure, ranging from electrical grids to energy-production facilities and fuel-distribution networks".[209] The more integrated our societies or militaries are with a system, the greater they depend on it, and the greater strategic value can be gained from attacking it. And the wider and the more complex a system

205 Chen, "当今世界面临的主要全球性问题/ Current Global Challenges.", LIU Yiufa, Li, "非传统安全挑战对中国未来周边环境的影响/ Non-Traditional Security Threats to China and Its Environment.", Hu, "军事安全未来冲突因子：核武云集是亚太的平安符吗/ Future Conflict Elements in Military Security."

206 Morteza Mohammadi, "واکاوی ابعاد تهدیدات سایبری ضرورت علیه منیت ملی ایران / Analysis of Cyber-terrorism Threats against Iran's National Security," Online News and Analysis Site, Habilian Foundation, (July 30, 2013).

207 PWC, "Siber Güvenlik Tehdidi Sandığınızdan Çok Daha Tehlikeli," PwC, April 10, 2014, http://www.pwc.com.tr/tr/basin-odasi/2014-basin-bulteni/pwc-bigli-guvenligi-siber-guvenlik-tehdidi.html.

208 The Department of Defense, "The DoD Cyber Strategy."

209 Kaspersen, "What Will Militaries of the Future Look Like?"

is, the more potential points of entry or attack it offers to attacking actors. In the Chinese perspective, the use of cyber as a means to disrupt security is mainly analyzed from a military point of view, as the target of the attacks are most often public infrastructure, military activities or state-level security information.

Farsi studies highlight the disruption of critical processes or infrastructure as well, in order to prevent a country's progress in undesirable areas, or to provide a basis for their decline. In this respect, the overall picture resembles that of Russia's idea of competition between powers. Another significant role of cyber-attacks lies in security and defense areas. For instance, we may point to the cyber-attacks on Iran's nuclear facilities, its oil and gas infrastructure, and its defense industry.[210]

In Western views, data collection is not only considered as an external threat to be evaded or mitigated: it should also be or become a key component of cyber strategies, for instance in employing predictive policing algorithms and analysis to anticipate security threats and criminal behavior. The UK National Security Strategy illustrates this double-edged sword, noting: "Western states will want access to […] data held by other states and by the private sector. Conversely, the proliferation of cyber capabilities will make it ever harder to protect the information and well-being of private individuals, corporations and states".[211]

In Chinese views, the importance of data protection versus data collection in the era of cyber is mentioned in relation to the development of big data and its future potential. Foresights related to big data, however, refer almost exclusively to the US rather than China, where big data technologies are less developed and not expected to see important progress yet due to the stringent governmental control on information technologies.[212]

210 Didehban Strategic Institute, "سایبر تروریسم و ابعاد تهدید امنیت ملی/ Cyber-terrorism and National Security Dimensions," Think Tank Webpage, Didehban Strategic Institute, (January 7, 2015), http://www.didehbancenter.com/تروریسم/تروریسم-مجازی-بررسی-ویژگی‌های-سایبرتروریسم-و-ابعاد-تهدید-علیه-امنیت-ملی-ایران.

211 HM Government, "National Security Strategy and Strategic Defence and Security Review 2015."

212 ZHEN, "美国经济新增长点与中国的应对."; Su, "国际格局变化与中国外交战略/ Transformation of the international structure and China's diplomatic strategy."

SIGNALS OF UNPREPAREDNESS

Cyber and the greater integration of cyberspace are seen as bringing about a whole range of new and multifaceted challenges, many of those may not even be foreseen yet. Most language domains acknowledge this, but with different levels of emphasis and interest.

Cyber challenges entail building up resilience at several levels, primarily the political and military ones. These are the main realms where cyber challenges likely manifest themselves – are our intergovernmental frameworks ready to face these? Another form of challenge is societal – cyberspace has already profoundly changed our societies and the concept of security. How will we ensure the protection of populations and their best interest? Cyber is also changing the control, monitoring and exchange of information, and impacting digital equality.

There is a growing awareness of the need to strike a balance between both defensive and offensive capabilities, in order to keep an edge in the global competition and to protect citizens and infrastructure. And when it comes to defending against cyberattacks, Western sources, dealing with Europe are wary of governments and private actors failing to acknowledge an obvious vulnerability.[213]

Considering the range of actors, many of the foresight communities suggest them being complementary and interdependent, rather than acting through isolated initiatives. The state remains the main driver in pushing for cyber security. But collaborating with other state actors, involving both the military and private, non-military or civilian initiatives, and renewing the approach toward cybersecurity are starting to sink in. Western authors, for example, call for a holistic cooperation between the industry (including scientific research centers) and the military.[214] Technological advancements in the military are one way to improve readiness in terms of defensive capability increase – Turkish foresight suggests working more intensely with high-tech equipment and

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213 Kemp and Schmertzing, "Threats and Challenges to the OSCE Area."

214 Siedschlag, "'Focus': Foresight Security Scenarios to Plan for Research to Support the 'EU 2035' As a Comprehensive Security Provider."

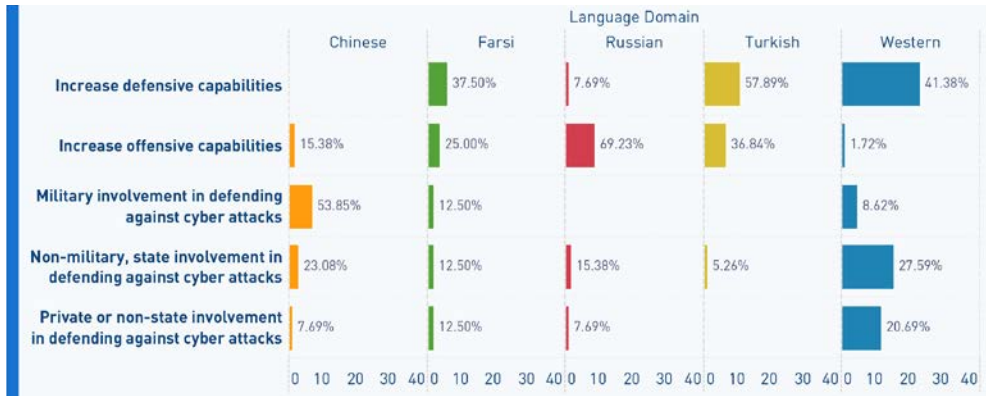personnel, with better research capabilities for technological development purposes.[215]

FIGURE 5.40: CYBER READINESS (NO RELEVANT CODING IN THE ARABIC LD)

The ability to provide sufficient informational control to resist the cyber challenges is seen as another task to handle future uncertainties, particularly across the Russian, Turkish and Farsi domains. As a solution, Russian governmental documents propose to "create conditions which would reduce the risks of the use of information and communication technologies aimed at discrediting national sovereignty, violation of the territorial integrity and threatening the international peace, security and stability".[216] Russian governmental sources advocate strengthening the country's cyber security through the adoption of the comprehensive and integrated system of informational security. International information security regulations ought to be built at the bilateral, multilateral, regional and global levels.[217] Another avenue for action is to put international efforts to bridge the digital inequalities between developed and developing countries.

215 AA, "'Ar-Ge ve Yüksek Teknolojiyi Arttırmak Zorundayız,'" TRT Türk Beş Kıtanın Haber Merkezi, October 17, 2014, http://www.trtturk.com/haber/ar-ge-ve-yuksek-teknolojiyi-arttirmak-zorundayiz-87736.html.

216 Security Council of the Russian Federation, "Основы Государственной Политики Российской Федерации В Области Международной Информационной Безопасности На Период До 2020 Года || Basic Principles for State Policy of the Russian Federation in the Field of International Information Security to 2020," 2013, http://www.scrf.gov.ru/documents/6/114.html.

217 Podberezkin, "Военно-политическая обстановка ближайших десятилетий: сценарии и стратегии/ Military-political situation the next few decades: Scenarios and strategies."

Russian sources consider the direct impact of cyber information campaigns on ordinary citizens. To address these concerns, Russian sources suggest the use of an appropriate state ideology which would protect the fundamental interests of the majority of population. This would ensure the country's survival in an era of global challenges and threats.[218] Turkish documents include references to cyberspace, having led to large-scale social changes and an era of profound societal changes (e.g., era of information and social networks).[219]

Remarkably, the dilemma surrounding national security versus individual privacy gets little to no attention from all language domains – this is somewhat less true for the Western domain, as the UK National Security Strategy notes: "The relationship between individual privacy and national security is increasingly challenging, and increasingly important to get right".[220] Rather than ensuring privacy, the Chinese domain focuses on the need to control information in cyberspace: from a state-security viewpoint, this is essential to attain a winning position in the future information warfare.[221] Information communication and control are seen as a technological as well as political battleground of crucial importance, as a losing of control of information flows can be strongly disruptive.[222]

The West acknowledges its vulnerability in cyberspace with respect to the pressing challenge of re-organizing and coordinating groups of decision-makers: "the scale of the cyber threat requires urgent action by leaders and organizations across the government and the private sector" – although no concrete way to make this happen is made explicit.[223] There is a broad awareness in the Western literature that the technological edge held by (Western) governments is set to diminish in coming years, as more and more non-state actors including private

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218 Nebrenchyn, Sergei. "Results and Prognoses: in 2015 Information Wars will Flare Up Again", 2015. http://politobzor.net/show-40693-itogi-i-prognozy-v-2015-godu-informacionnye-voyny-vspyhnut-s-novoy-siloy.html

219 Dünya Bülteni. 2014. "Genelkurmay'ın Yeni Tehdit Algısı; Sosyal Medya.."Dünya Bülteni. 6.http://www.dunyabulteni.net/haber/299608/genelkurmayin-yeni-tehdit-algisi-sosyal-medya.

220 HM Government, "National Security Strategy and Strategic Defence and Security Review 2015."

221 CPC Politburo, "准确把握世界军事发展新趋势 与时俱进大力推进军事创新/ New Trends in World Military Development," People's Daily, August 31, 2014, http://politics.people.com.cn/n/2014/0831/c1024-25571990.html.; Chen, "当今世界面临的主要全球性问题/ Current Global Challenges.",Su, "国际格局变化与中国外交战略/ Transformation of the international structure and China's diplomatic strategy."

222 Sun, "坚定不移走中国特色国家安全道路/ National security with Chinese characteristics."

223 The Department of Defense, "The DoD Cyber Strategy."

actors, terrorists and organized crime groups gain a foothold on this new technology. As a result of this, "controls on access to knowledge and materials become harder to maintain".[224]

Many avenues for action are suggested. Concrete steps, however, have yet to be designed and implemented.

224 HM Government, "National Security Strategy and Strategic Defence and Security Review 2015."

6 LEGAL METAFORE

The choice to take a closer look at the legal foresight literature was inspired by the second main task of the Dutch Armed Forces which is directly based on Art. 97 of the Dutch constitution: to protect and promote the international rule of law. This main task has essentially been interpreted in more recent policy documents and practice as military contributions to international peace support and/or stabilization operations. HCSS has suggested in previous work that, also in light of the special position of The Hague as the city of peace, justice and security, the defense organization might want to explore in more detail whether it might not be able to make other contributions to international law.[225] Most observers agree that the current state of international law – especially as applied to international peace and security – remains decidedly unsatisfactory. Yet we have also seen some encouraging changes in recent years in both thinking (discussions about shared international responsibility, terrorism, how to deal with territorial annexation, etc.) and action (three convictions and sentences from the International Court of Justice; 81 sentences from the International Criminal Tribunal for the Former Yugoslavia; about 100'000 troops permanently deployed in UN Peace Operations etc.). We therefore decided to examine more closely how the international legal community looks at the future of international law with respect to international security. Unlike the multilingual approach, only English language documents were consulted for the assessment of the legal community perspective. We especially collected documents from the academic legal literature that focus on *lex ferenda* – the law as it should be. In this respect, we collected 140 studies. We then had a team of trained, international HCSS ecosystem partners and legal specialists hand-code the relevant parts of these studies based on a jointly developed coding scheme with a focus on the following questions: Which actors are expected to be involved in conflict? What is the appropriate legal framework to be applied? What will be the subject matter areas, means, and methods of the conflict? And in what way will international legal institutions be required to evolve?

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225 For instance by developing special conflict forensic capabilities De Spiegeleire, Wijninga, and Sweijs, *Designing Future Stabilization Efforts.*: 39-41.

6.1 ACTORS

The role, influence and environment of actors are expected to significantly change, requiring for legal discussions and frameworks to evolve and new legal strategies to be implemented.

The state is the most commonly identified actor. The documents seldom refer to a particular state - if they do so, they primarily point to the US in relation to its military activity or use of unmanned aerial vehicles (drones), and the controversial legal status therein. A number of evolutions in the global environment are set to change the role of states as subjects of international law. First, where non-state actors are seen as the main opponent of a state, it is often emphasized that state actors are facing asymmetric threats in novel arenas, and need a new legal basis for their response. State influence has been atrophied by the rise of newly-formed non-state actors, which challenge the classical paradigm of war. As a result, the traditionally state-oriented international system and legal community need to evolve. Second, globalization undermines the control of states over their citizens. States will be more likely to engage in conflicts with third parties inapposite to their national interests, either individually or through membership with non-state actors. In this respect, some authors argue that developing conventional international law is preferable, as it may create norms that consider non-state actor conduct. Third, it is foreseen that the lines between non-state actors and states will continue to blur, as some states seek to secure various advantages while minimizing their own exposure by sponsoring non-state actors.

Yet states are expected to remain more powerful than non-state actors. They are likely to adopt expansive interpretations of international humanitarian law's geographical scope to strike the enemy whenever and wherever the opportunity presents itself.

Terrorist groups and militias are non-state actors likely to trigger a great amount of legal discussions about who is detainable and targetable in conflicts. The cyber war environment, for example, may well raise controversies regarding the legal demarcation between a combatant and a civilian. Other non-state actors such as criminal organizations will likely become more sophisticated in terms of their access to technologies or hardware. It is expected that private military companies will become more involved in armed conflicts, while corporations are set to gain more power while lacking legal or social accountability.
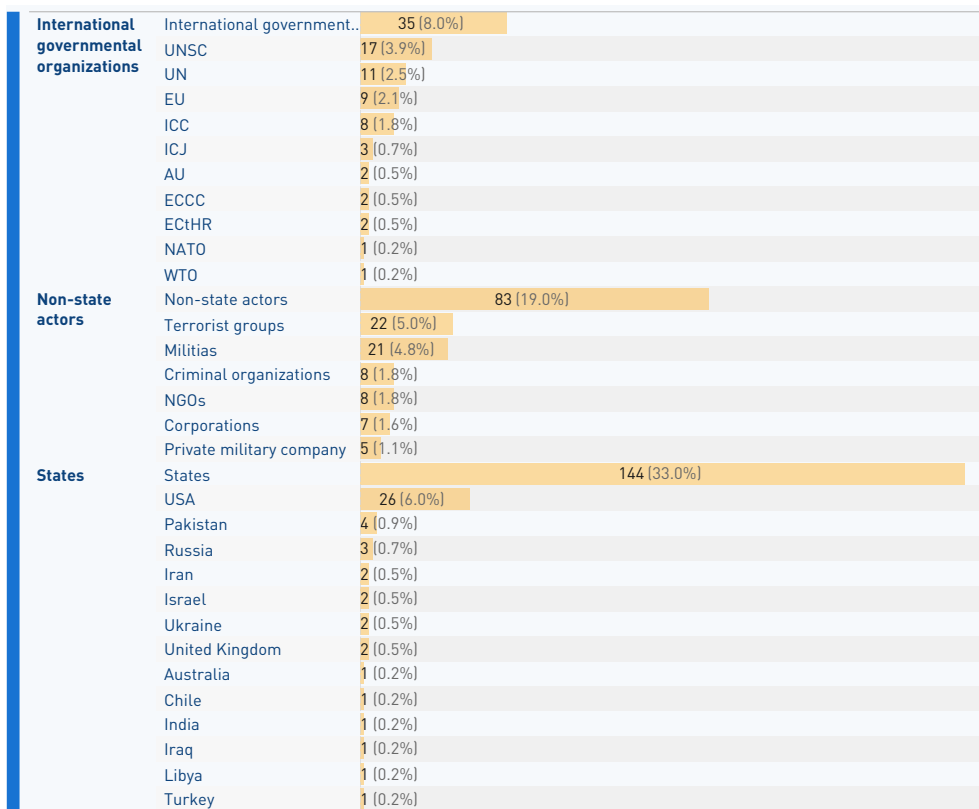
International governmental organizations	International government..	35 (8.0%)		
	UNSC	17 (3.9%)		
	UN	11 (2.5%)		
	EU	9 (2.1%)		
	ICC	8 (1.8%)		
	ICJ	3 (0.7%)		
	AU	2 (0.5%)		
	ECCC	2 (0.5%)		
	ECtHR	2 (0.5%)		
	NATO	1 (0.2%)		
	WTO	1 (0.2%)		
Non-state actors	Non-state actors		83 (19.0%)	
	Terrorist groups	22 (5.0%)		
	Militias	21 (4.8%)		
	Criminal organizations	8 (1.8%)		
	NGOs	8 (1.8%)		
	Corporations	7 (1.6%)		
	Private military company	5 (1.1%)		
States	States			144 (33.0%)
	USA	26 (6.0%)		
	Pakistan	4 (0.9%)		
	Russia	3 (0.7%)		
	Iran	2 (0.5%)		
	Israel	2 (0.5%)		
	Ukraine	2 (0.5%)		
	United Kingdom	2 (0.5%)		
	Australia	1 (0.2%)		
	Chile	1 (0.2%)		
	India	1 (0.2%)		
	Iraq	1 (0.2%)		
	Libya	1 (0.2%)		
	Turkey	1 (0.2%)		

FIGURE 6.1: ACTORS, DIVIDED BY STATE, NON-STATE, AND IGOS

IGOs are much less emphasized than the other types of actors, similarly to the results of the multilingual analysis. Scholars are not optimistic about the future of the United Nations (UN), often mentioning the incapacity of this institution to preclude and solve international friction and disputes. Authors also express little belief in fundamental and effective reform of the UN in the future, including a reform of the membership, working methods, and voting procedure of the Security Council. The veto power is mentioned as an obstacle to prosecute a Security Council member for crimes of aggression. It is interesting to take a closer look at the future of the International Criminal Court (ICC): scholarly materials consider that the future of international law will be impacted by increased exercise of domestic jurisdiction, leading the future role of the ICC to be either diminished or more advisory in nature. In its current iteration, the ICC has several wrinkles needing to be ironed out in the future. Despite the

international legal community's misgivings and the perpetual clamor for withdrawal from the Rome Statute by some member states, legal scholars seem to anticipate that the ICC will lumber on. There appears to be a near-consensus amongst scholars that the future ICC must increase legitimacy and efficiency.

6.2 CHOICE OF LAW

The international legal framework manages discord through the evolution of the various types of law that co-exist. To maintain their relevance and impact, these would need to adjust to changes in the conflict space in a timelier manner.

First, the future of international security may see the growing potential of domestic law. Decisions and rulings of domestic courts have shaped international law in the past, and are likely to influence it again in the future. For example, one crucial area in which domestic law is expected to play a vital role in the future of international security is the status of non-state actors in each state. In this respect, national rules and standards need to adapt to a changing international environment, particularly with the advent of new non-state actors striving for recognition. One first step could be for states to regard these non-state actors as combatants and apply IHL; however, the more likely scenario is that states will continue to prosecute armed non-state actors as criminal organizations under their own domestic criminal codes. States could also face difficulty balancing public security concerns with personal liberty, particularly when it comes to counter-terrorism measures.

As far as *international criminal law* is concerned, the increasing popularity of regional forums may be one of the drivers behind its further incorporation at the domestic level. Conflicts of interest in collecting evidence during cases is likely to continue in the future. Fact-finding commissions could become particularly important. Their relevance is expected to increase, given the future challenges of the security environment. They would allow governments to make preliminary assessments of the willingness and ability of a state to prosecute serious crimes, and play an important role in determining threats to fragile peace, as well as proposing possible non-armed countermeasures. Regarding the large-scale conceptual future of ICL, one researcher proposed adopting the paradigm of 'universal crimes' instead of the current

'international crime' regime. 'Universal' would stress the justification for the fundamental values and interests embedded in the UN paradigm of international (criminal) law. In addition, it would provide greater framework flexibility and consistency, thereby making the incorporation of new crimes under international law easier.

International human rights law remains a necessary foundation of international order and also reflects a legal area that is also set to evolve. Some authors anticipate for its prominence to be on the rise, in terms of its impact on international human rights norms – but others foresee a greater disregard for human rights issues: in many developing countries, normative international human rights would be less important indeed. Another challenge is the uncertainty as to how the law can be expected to regulate the future means and methods of warfare. Overall, its future looks bleak, but a number of promising ideas are put forward to improve effectiveness. These include: the integration of human rights commitments in the codes of conduct and adoption of such codes by IGOs engaged in peacekeeping activities in order to increase the protection of human rights in peace processes; legal reforms focused on maintaining balance between government power; and the protection of civil liberties in anticipation of future terrorist attacks in order to strike a balance between security and freedom.

It is foreseen that the dynamic development of technologically advanced weapons will significantly affect the evolution of *international humanitarian law (IHL)* – also known as law of armed conflicts. The protection of civilians from the effects of armed conflict is a major concern in this area of law, which would have to adapt to sufficiently regulate various expected new weapon developments. The conventional IHL requirements that an attacker be identifiable to victims or their weapons be openly carried are seen as increasingly outmoded with the development of advanced unmarked weapons such as viruses, nanobots, and computer malwares. Those may affect civilians yet fall below the threshold required to be considered an 'armed attack'. As a result, more detailed law can be expected as increasingly necessary to protect civilians, in armed conflict, and new prohibitions may be adopted that provide special protection for certain civilian objects, such as critical infrastructure, or an expansion of the definition of collateral damage. At the same time, the increasing use of more precise, fully autonomous systems is set to allow to better

distinguish lawful targets from civilians and civilian objects, thus, reducing the need for new or expanded prohibitions and definitions. Furthermore, the increasing presence of autonomous weapons is a challenge to IHL, because there are currently no treaties specifically addressing them. The law would have to keep pace with technological advances that are expected to affect conflict and weapons in the future: precision airstrikes and the use of drones will likely increase; future arms by non-state actors will likely proliferate; nanotechnology will likely render weapons smaller, more mobile, more lethal.

Future weapons systems and tactics will likely increase the number of civilians who become actors in armed conflict, either intentionally or otherwise. It is foreseen that participants in conflict will defy classification as a combatant or noncombatant, constituting a new type of belligerent. Other transformations may include the way in which civilians are protected, through the rejection of legal distinctions between 'combatants' or 'civilians' for purposes of targeting. The IHL principles of proportionality and necessity may also be affected by the changing nature of armed conflict or of what constitutes an attack. Demands for precision, in line with the IHL principle of discrimination could intensify as well, for example because of the use of autonomous robots as weapon systems.

Given the importance placed on future weapons under IHL and the practical implications therein, further examination and ongoing monitoring of this topic will be necessary. The focus of the international legal community currently indicates that use and regulation of autonomous weapons; increasingly complex battlefield dynamics; blurred civilian and combatant distinctions; and the proliferation of smaller and more mobile weaponry are all expected to be areas of burgeoning interest with the potential for profound impact on international security in the future.

Law of armed conflict	215 (50.4%)
Domestic law	32 (7.5%)
International human rights law	30 (7.0%)
International criminal law	25 (5.9%)
Future of the UN	23 (5.4%)
Non-state actors status in international law	20 (4.7%)
Transitional justice	14 (3.3%)
Customary law	12 (2.8%)
Treaty law	9 (2.1%)
Responsibility to protect	8 (1.9%)
Right to self-defense	8 (1.9%)
Jus cogens	7 (1.6%)
Jus ad bellum	6 (1.4%)
Non-international armed conflicts	5 (1.2%)
Hard law	4 (0.9%)
Soft law	4 (0.9%)
Military necessity	3 (0.7%)
Domestic Law	1 (0.2%)
Neutrality	1 (0.2%)

FIGURE 6.2: TYPES OF LAW

6.3 SUBJECT MATTER AREAS

Two major prospective arenas of conflict were identified: armed conflicts and governance issues. Other aspects, such as state sovereignty, economic security, or globalization are less or seldom mentioned, which is notable given the universal importance of economics and the ongoing globalization processes.

In *armed conflicts*, the most significant problems regarding future application and execution of law stem from the appearance of new arenas of conflict and the usage of future weapons systems. These adaptations implicate the coded combatant and civilian distinction, the expansion of the definition of 'battlefield', and military forces. The future of law execution is a problem related to the growing problem of attribution of attack. This appears in conjunction with the increasing activity of non-state actors, which are much more difficult to identify – a fact exacerbated by their unsettled status in international law.

The rise of transnational conflict, which is set to change the character of modern warfare, yet escapes the traditional conflict classification will likely frustrate the current understanding of the application of IHL and the doctrine of neutrality: a state's ability to control the emanation of state-level violence coming from transnational fighters is seen as more difficult in the future.

In line with one of the aspects further examined in the multilingual analysis, there is a clear and understandable indication of rising significance of cyberspace as a conflict arena across the scholarly material examined. Cyberattacks and cyber operations are expected to dominate the future discussion in the legal domain. Countries, companies, and individuals will likely continue to become increasingly dependent on cyber activities. Actors are expected to all try to use and exploit cyberspace for their own will, making cyber warfare more common and an ongoing challenge to international law. Here again, the law needs significant adaptation – one example being the lack of consensus, clarity and boundaries in the definition of cyber weapons (the traditional definition of weapon includes the physical harm of people, which cyber weapons may not lead to), or even 'armed attacks' – for example whether they cover cyberattacks and their subsequent damages (such as the disruption of services). Another problem of classification comes from the dichotomy of cyberspace, where the same operation can be defined as an uncontroversial data collection, or as an attack, when it is based on destruction of data.[226]

A number of governance issues were identified, such as counter-terrorism, regional cooperation, global crime, and accountability. Migration, trafficking in human beings, and diplomacy did emerge, though much less significantly. But the three main governance issues included environmental security, terrorism, and lawmaking.

First, the international legal community recommends progress regarding the protection of the environment on the future battlefield. The advancing globalization process provokes more concern about the environment and international environmental law. Authors foresee that this will conflict with other international legal frameworks e.g., international trade law, as such a member state's WTO obligations. As customary international law develops, it may well require parties to engage in environmental protection, clarifying what constitutes 'excessive' environmental damage, conduct environmental impact assessment, etc. Concretely, for example, improvements in future international environmental treaties could include providing a mechanism for access to state

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226 Gary D. Brown and Andrew O. Metcalf, "Easier Said than Done: Legal Reviews of Cyber Weapons," SSRN Scholarly Paper (Rochester, NY: Social Science Research Network, February 12, 2014), http://papers.ssrn.com/abstract=2400530.

performance statistics and provide more opportunities for NGOs to contribute to treaty-related monitoring and implementation.

Second, as terrorism continues to evolve from the expansion of highly organized transnational groups to increasing activity of self-radicalized lone wolves, additional demands will be placed on local law enforcement as the first line of defense. Authors expect that a number of issues will be raised, regarding the legality of lethal strikes against terrorists, the increasing use of modern and new kinds of weapons by terrorists (biological weapons, nanotechnology, etc.), the uncertainty of whether terrorists may continue using well-known tools, such as improvised explosive devices or car bombs in the future. Against this background, international law must develop.

Third, lawmaking constitutes another governance issue, due to the greater participation of actors such as NGOs, connected to the greater importance of organizational codes of conduct and national foreign assistance guidelines in the making of future norms. Nuanced international law may well be necessary to adjust the laws regarding conflict targets, as well as the principles of discrimination and distinction. This is closely linked to the evolution of the role and status of actors which will no longer fit into 'civilians' or 'combatants' as traditional categories.
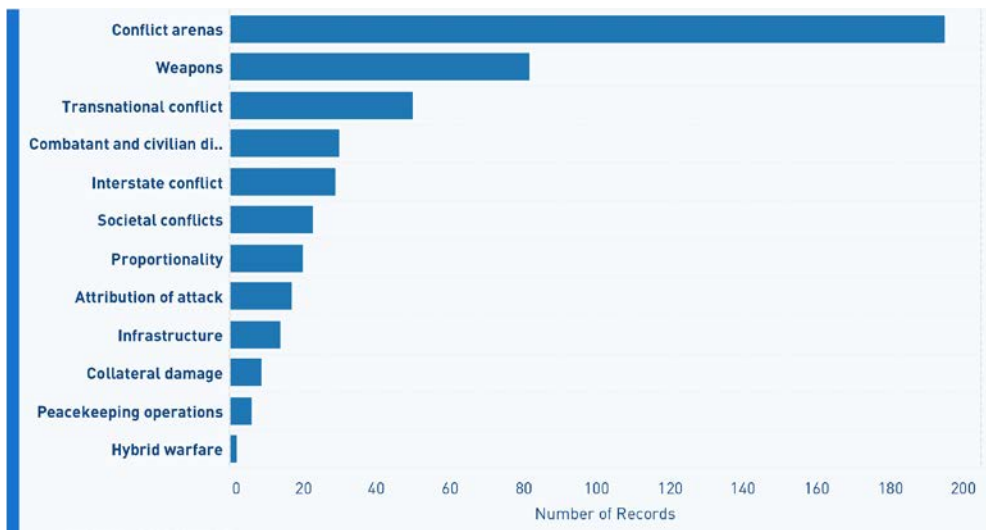
FIGURE 6.3: BREAKDOWN OF ARMED CONFLICT
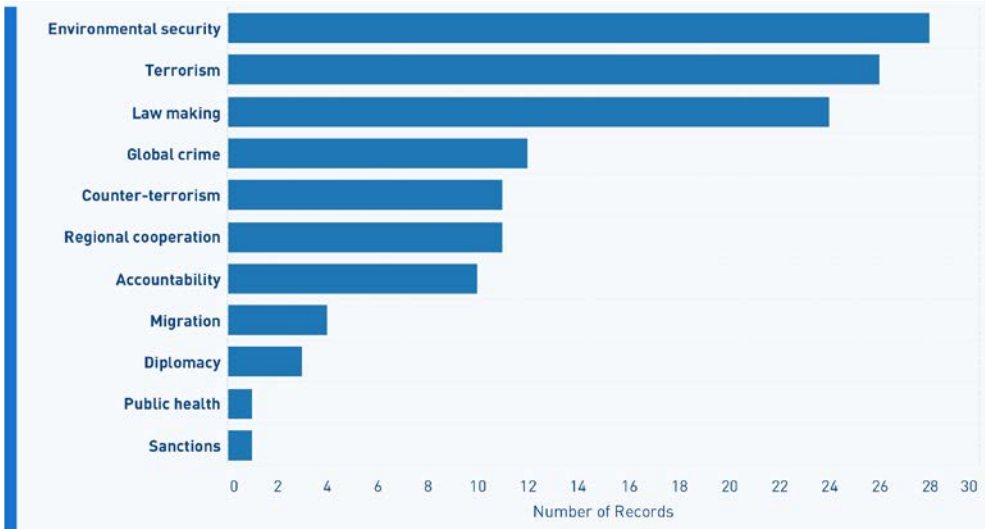
FIGURE 6.4: BREAKDOWN OF GOVERNANCE ISSUES
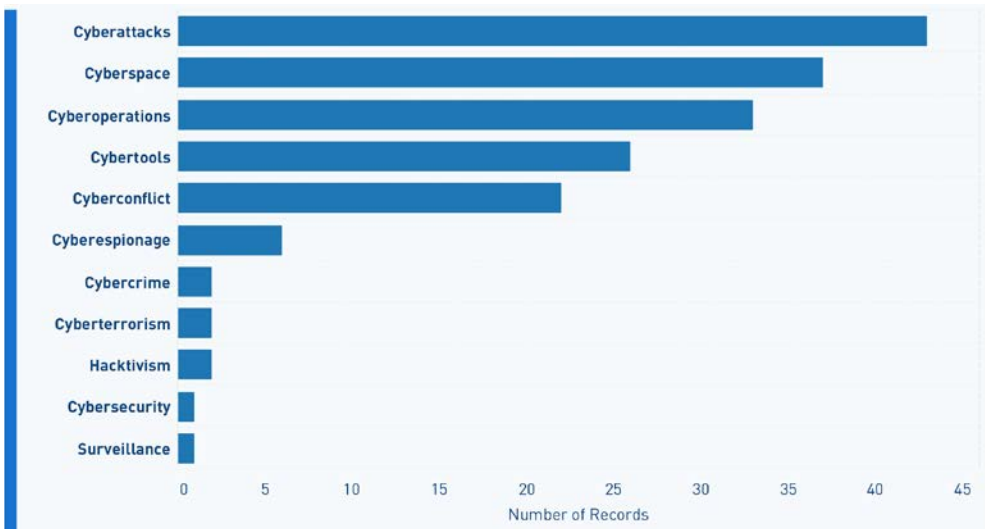
FIGURE 6.5: BREAKDOWN OF CYBERSPACE

7 WHAT TO DO?

The analysis contained in HCSS' contribution to the Dutch Strategic Monitor this year presents many strong arguments in favor of significantly more effective defense and security efforts. The *demand* for security is stronger and broader than it has been in a long time. But as demand is increasing, the *supply* of effective and sustainable security solutions remains underprovided. This already tenuous supply is furthermore under growing pressure from an increasingly resentful and vocal part of the European electorate that would prefer to hide behind illusory walls – as the outcome of the Dutch referendum on Ukraine's Association Agreement with the European Union illustrated. A more in-depth and broader defense and security debate is required to face up to these dilemma's.

RISK SPACE EXPANDING

It is impossible to deny that the risk space – the overall set of risks *and* opportunities (upside risks) that confront our societies today and against which our defense and security organizations have to design their strategic portfolio – has expanded significantly. The number and intensity of actual and potential crises that surround Europe are undisputed: the renewed Russian threat from the Barents Sea all the way to the Mediterranean Sea; a MENA on fire; high migration pressures on all sides that could even intensify; an acute terrorist threat that triggered a number of lethal attacks in Europe over the past year. Russia's nuclear and conventional military build-up combined with unprecedented saber-rattling in both of these areas mean that the current (and future) risk space has expanded to once again include nuclear as well as large-scale, high-intensity conventional challenges; much higher in the violence spectrum from what we had been preparing for in the past few decades. At the same time, the increased real and present threats at lower and/or different levels of the violence spectrum also expand the risk space in directions like information, cyber and terrorist attacks. All of these developments demand that we redouble our efforts on the *risk* side of the risk space.

We also want to emphasize, however, that the opportunity side of the risk space is also expanding – maybe even more dynamically than the downside risks. In two separate contributions to this year's Strategic Monitor, HCSS has pointed to a wide number of encouraging examples. In one study[227], we have shown how technology-driven personal empowerment across the globe is one of the most powerful mega-trends affecting – among many other things – security resilience. In that study we tried to identify where and how our defense and security organizations could contribute to that positive trend. In another study[228], we have examined radically new forms of cooperation that are already yielding remarkable results in other walks of life but that also could – we argued – offer great opportunities for defense and security organizations. So, the opportunity side requires that we double down on our efforts there as well.
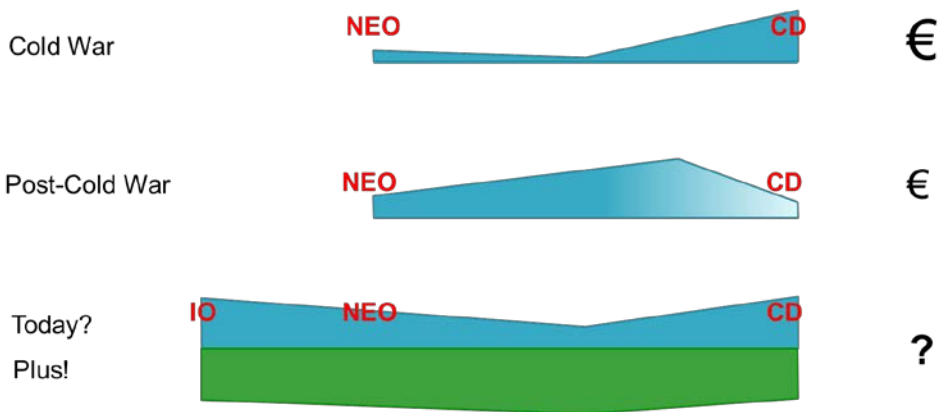
FIGURE 7.1: EXPANDING RISK SPACE

Figure 7.1 tries to visualize the conclusion that the risk (and thus, mission) space is widening, deepening *and* inverting in a purely notional way based on NATO mission types[229]. These used to run from non-combatant evacuation operations ('NEO') on the 'low' end of the spectrum to collective defense ('CD' – Art. 5) on the

227 Willem Th. Oosterveld et al., Si Vis Pacem, Para Utique Pacem. Individual Empowerment, Societal Resilience and the Armed Forces (The Hague, The Netherlands: The Hague Centre for Strategic Studies, 2015), http://www.literatuurplein.nl/boekdetail.jsp?boekId=1078494.

228 Sijbren de Jong et al., Better Together. Towards a New Cooperation Portfolio for Defense (The Hague, The Netherlands: The Hague Centre for Strategic Studies, 2016).

229 And we want to emphasize, that we use these illustratively – as they also apply to national and EU defense efforts.

'high' end. In the post-Cold War era, the principal de-facto dimensioning element became expeditionary operations. Collective defense remained on the books, but the entire NATO defense posture (and also doctrine, training and exercising, etc.) de-emphasized that part of the spectrum. This notional mission-type spectrum is now widening to also include – various non-kinetic elements – in what some are calling 'hybrid' warfare – further to the left of the mission spectrum (labeled as Information Operations, IO). As NATO has to now once again re-discover (in ways that we hope will go beyond a return to the Cold War capability bundle) the high-end of this widened mission spectrum, it also has to start grappling with the expanded 'left' side of the spectrum. The planning problems this widened and deepened risk space poses are furthermore compounded by the new opportunities we have identified in various contributions this year – which also seem to 'flip' or invert the risk space.

In short: the insights into the various pluses and minuses in our security environment that emerge from this year's HCSS Strategic Monitor – the ups and downs of our Wheel of Fortune – point to a high and growing demand on both the down- *and* the up-side of security risks while at the same time the supply of effective and sustainable security solutions seems suboptimal at best. This is an extremely combustible mix. Whatever one feels about foreign entanglements or about 'defense' as an instrument; and however one assesses the relative merits of our security efforts over the past few decades – it is hard to escape the conclusion that we face a defense and security deficit that we need to tackle. But how?

TOWARDS BETTER VALUE FOR MONEY

Is the solution to this problem to spend more money on defense and security? Based upon our work in the Strategic Monitor, our intuition tells us we should. However, we confront two main problems that make it impossible to provide a definite answer to this question. First of all, our insight into and debates about the 'input'-side of our defense effort – our current overall defense and security investments – remains limited. And secondly, we have no real yardstick by which we can measure the true value for money (in terms of defense and security) we receive from these 'inputs' on the 'output' – let alone the 'outcome' – side. One of the key implications of the growing security deficit that all sides of this debate might converge on is to design better ways of providing insight into strategic balance of investment trade-off choices. Let us take a closer look at both of these points.

More Insight into 'Comprehensive Security' Spending

It is increasingly difficult to differentiate between internal and external security at the strategic level. We see 'security' as the condition whereby our societies and the people that embody them can realize their innate potential without having to worry (*se-cura* – without care) about various dangers that might inhibit them from doing so. Defense is the active effort undertaken to ward off (*de-fendere* – to strike away) these dangers. There is a broad political consensus that governments have a key role to play in safeguarding those 'secure' conditions through an adequately powerful, fit for purpose defense capability portfolio. In that light, it is a clear omission that we do not have sound insight into comparative figures for 'comprehensive security' spending. One might reasonably expect that public expenditures on these issues would be available in a format that reveals the main high-level choices and would allow us to compare them with other types of expenditures (for health, education, etc.), within a country and with similar expenditures in other countries. And that these figures would then give rise to substantiated and substantive discussions about the high-level choices that are implicit in them – e.g. whether we feel comfortable with the balance between prevention and response, between internal and external, etc. Unfortunately, neither of those expectations are currently met.

There are attempts to collate at least some topline figures on the 'defense' side of these security expenditures. This is a fiendishly difficult task because of the various – very different but universally byzantine – reporting categories different countries use, even within NATO. A valiant EDA-sponsored effort by a consortium of European think tanks in January 2016 to compile a comparative overview shows that the politics of defense are changing in Europe. For the first time in 20 years, European defense budgets are trending upwards.

In 2016, defense budgets will increase in real or nominal terms in all but four European countries: Italy, Greece, Luxembourg, and Sweden (which also plans to increase its defense budget between 2016 and 2019). The Netherlands continues to hide in the middle of the pack, and remain not only significantly below the NATO agreed standard of 2% of GDP, but even below the EDA average.

Net defence budgets variation in Europe between 2015 and 2016
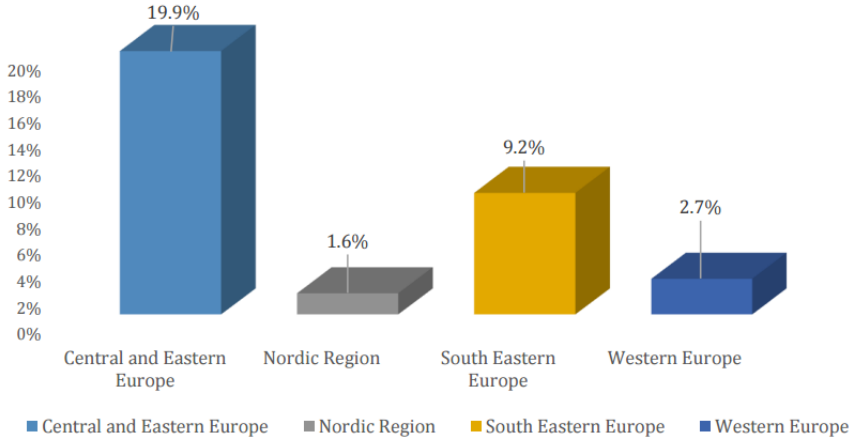
FIGURE 7.2: NET DEFENSE BUDGET VARIATIONS IN EUROPE BETWEEN 2015 AND 2016
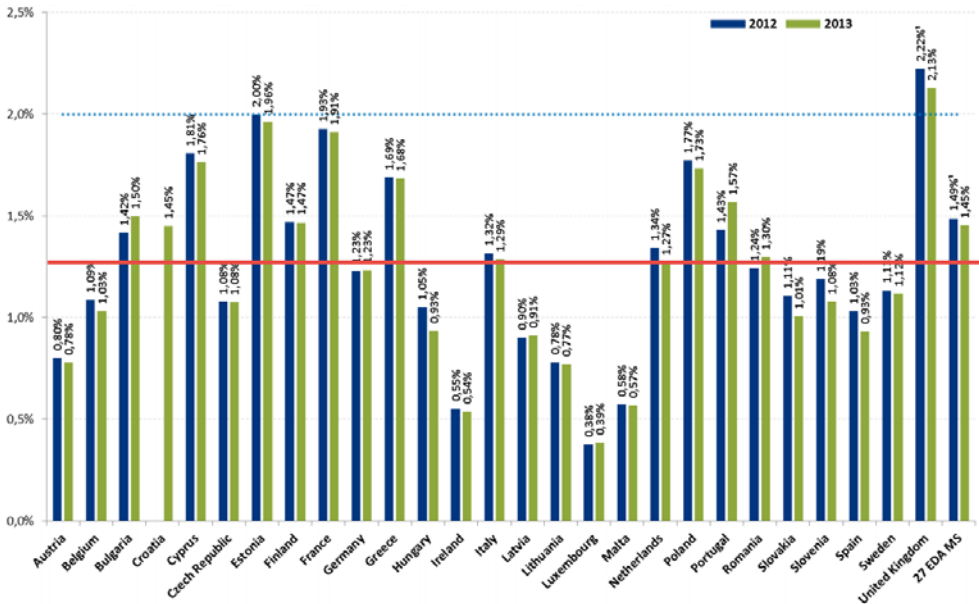
FIGURE 7.3: DEFENSE SPENDING AS PERCENTAGE OF GDP IN EUROPE IN 2012 AND 2013

But those are merely the outlays of our *defense* organizations. They do not include the various other forms of public spending that go towards 'security', such as the security-relevant expenditures of the ministries of foreign affairs, the development aid agencies[230], our 'homeland security' agencies, our intelligence agencies, etc. We do see some trends towards more integrated reporting on these issues in various countries. In the United States, for instance, there is a budget category 'Defense and international security assistance', which represents about 16% of the official budget (which is separate from 'non-Security international' – representing another 1% of the budget). Similarly, the Dutch government reports yearly on its (interdepartmental) expenditures on foreign policy through the HGIS (the Dutch acronym for the Homogenous Budget for International Cooperation) note that is made public with the rest of the budget in May of each year. That note contains a cross-cutting policy theme 'Peace, Security and Stability', but it too, like in the US, only includes 'external' expenditures. We submit it would greatly encourage truly strategic defense and security planning (including ex ante and ex post adjudication of strategic balance of investment trade-offs) if the government were to make an effort to also report on all (internal and external) cross-cutting security expenditures.

Better Metrics for Security Outcomes

Better data on the 'input'-side of the security equation – as useful as we think they would be – would still say very little about the return on that investment in terms of 'output', let alone 'outcome'. As the aforementioned report on European defense spending states: "increased defence budgets are no guarantee that the 31 countries under examination will spend their money better... than before 2015." We need to do better to assess the relative value for money that these various expenditures yield. For this, we would need to construct some 'better roughly right, than precisely wrong' methods for assessing the relative value added various investments from a defense/security point of view. We strongly encourage all parties involved – government departments, parliaments, audit offices, political parties, think tanks, NGOs, etc. – to work energetically towards a more evidence-based substantiation of our governments' strategic '(security) value for (security) money' proposition. We are convinced that it would be possible to develop an inter-subjective method to assess the expected return,

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230 Here the data situation is slightly better thanks to the OECD efforts to streamline the 'Official Development Assistance' reporting standards on the basis of agreed criteria.

based on past and projected 'evidence', of various investment options – e.g. along the lines of the national risk assessment method that was developed in the 2007 Dutch National Security Strategy.

BETTER (INFORMED) PORTFOLIO CHOICES

The discussion about the impact of the findings of the Strategic Monitor on the part of our public wealth that we are willing to allocate to defense and security is a critically important one. But HCSS also feels that this discussion has to be accompanied by a more in-depth discussion about the actual options portfolio that these investments are intended to finance. At a time when our (upside and downside) security risk space is both widening and deepening, it stands to reason that we have to put more thought into the appropriate portfolio mix that will enable our defense and security organizations to reliably fulfill both difficult current and uncertain future obligations. In our own work over the past few years, we have put increasing emphasis on what we have called *strategic portfolio design*, as the 'bridge' between strategic orientation (finding one's bearings in the evolving security environment – e.g. this report) and strategic navigation (acting and – more and more – learning: what our defense organization does). Portfolio thinking is widely recognized as one of the robust stratagems for hedging risk and uncertainty. In our own view, three main 'forward'[231] defense planning questions are crucially important for any defense organization in this respect: *what* can we do (policy options), *with what* (capability options) and *with whom* (ecosystem partner options).

A Portfolio of Policy Options

This report does not try to identify a robust portfolio of policy options that would serve our societies better in coping with the current and future risk space. It does, however, propose two actionable ideas for how we might better be able to develop, test and calibrate such a broader policy options portfolio.

A first recommendation is to explore new ways to assist our policy-makers and politicians by generating, prioritizing and discussing trade-offs between various

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231 That part of the defense planning community that focuses on tomorrow rather than on today. The tomorrow time horizon is currently still frequently defined as 15-20-30 years ahead, but it is becoming increasingly clear that in periods of rapid change like today, it might as well be 2-3 years from now. In our view, the key element here is not time per se but the degree of (in)visibility of risk and uncertainty.

creative and promising policy options before crises happen but also as they unfold. HCSS has been experimenting – together with policymakers from different departments and selected others – with a number of different ways to generate such inputs. We have conducted a number of strategic '*design sessions*' based on recent insights from the 'design thinking' and the 'human-centered design' schools on topics ranging from 'how to deal with a more assertive Russia' to 'information as a weapon'. We have also conducted a number of *serious games* on issues like cyber or crisis management. These new forms are more broadly participatory, interactive and exploratory in nature, and aim at sketching a broader substantiated policy option space from which policy-makers and politicians can then pick and choose.

Secondly, the report wonders whether we may want to start conducting such design efforts not just here in the Netherlands with local stakeholders, but also in potential conflict zones (like the ones our monitoring efforts suggest may be particularly vulnerable) with the stakeholders there. Most of our Dutch design efforts to date typically remain stuck in the *ideation* stage of the human-centered design process. If we were to take 'Dutch design' in theater, however, we would also be able to put more emphasis on (and learn from) the *empathy* and especially also innovative *prototyping* stages of that approach. More broadly speaking, both of these ideas suggest that the entire 'policy-making' process itself may require a strategic *aggiornamento* with the changing requirements of an ever more dynamic security environment.

A Portfolio of Capability Options

Defense is first and foremost focused on purposive action, for which capabilities are critical. The widening and deepening of the risk space that we have sketched suggest increased pressure on the Dutch military capability portfolio. Political realities indicate that the high-level budgetary parameters might loosen up somewhat, but certainly not sufficiently to accommodate all of the additional investment risks and opportunities that we outline in the report. This means that – as we also argued for policy options – we may have to start thinking more creatively about our capability portfolio. This report makes four key points of these issues.

The first one is that the capability portfolio discussion should not start with concrete *capacities* (submarines, jet fighters, tanks, etc.) but with *capabilities*

("the ability to"): what we want to be able to achieve and what we have to be able to do for that. The many design sessions and serious games that we have participated in over the past few months suggest that we lack a better method (and metrics) to have that discussion in a creative, structured and meaningful way and to then – at least as importantly – also be able to actuate those broader capabilities into concrete effectors.

In the absence of a more substantiated way to support such capability decisions, choices still have to be made. Based on our own analyses and insights we still feel that the main strategic choice that was made in the last bottom-up defense review remains the most persuasive option. This does not imply that the Dutch Armed Forces have to be able to do everything. It does mean, however, that this country wants to be able and ready to make useful contributions in many different capability areas across the multiple dimensions of the risk space.

This brings us to our third key recommendation: that the choices we make in picking those capability areas may have to be rethought. The main idea, from our point of view, behind the agile force concept is that defense organizations want to have a balanced portfolio or – to put it differently – to have eggs in multiple baskets across the entire capability space. Right now it does so, for instance, by providing capabilities in both the lower and the higher areas of the conflict spectrum. But what about all of the other possible baskets? Would we not want to pursue a better balance between the kinetic and non-kinetic capability baskets, for instance? Or between what our defense organizations do to disempower (/'destroy') the agents of conflict as opposed to what they might do to empower the agents of resilience – a topic to which we devoted a separate study in this year's cycle.[232] Should we not aspire to a better balance between the types of efforts our defense organizations make on their own with their own capabilities versus the efforts in which they empower others to take the lead with their own capabilities (maybe carefully enabled through some of our own)?

Our fourth and final recommendation is to better mainstream the agility imperative that leaps out of all of our monitors throughout our capability

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232 Willem Th. Oosterveld et al., Si Vis Pacem, Para Utique Pacem. Individual Empowerment, Societal Resilience and the Armed Forces (The Hague, The Netherlands: The Hague Centre for Strategic Studies, 2015), http://www. literatuurplein.nl/boekdetail.jsp?boekId=1078494.

planning methods, processes and outcomes. Our defense organizations have indeed started implementing some of these in certain areas, but we continue to be persuaded that principles such as modularity, real options, strategic buffers, etc. deserve much more attention (and actual change) than they receive right now.

A Portfolio of Ecosystem Options

The last but not least important monitoring finding, suggest that we may have to put more thought into the 'with whom' decision. At the 2015 Future Force Conference, the Commander of the Dutch Armed Forces General Tom Middendorp introduced the 'defense ecosystem' concept: "I think it's of vital importance that we come to realize that we are all actors in a defensive ecosystem. A system that constantly reshapes itself... Parts of this ecosystem can be – and have to be – actively arranged and managed in conventional structures... However, as the custodians of our societies' security, we also have to explore other parts of this ecosystem... Take Google or Apple for example with their mobile 'app' stores. They provide a free and open platform, that all sorts of 'ecosystem partners' can hitch a ride on. Both 'planned' and 'unplanned', while in the meantime allowing Google and Apple to benefit from the ideas, creativity, capabilities and actions of others. We wonder whether that is something that our defense organizations might learn from."

Most would agree that in periods of deep uncertainty and exponential technological change nobody can 'go at it alone'. Defense and security organizations should think strategically about their portfolio of partners. The Dutch defense organization already manages a broad portfolio of cooperation partners. This portfolio consists first and foremost of the other Allied defense organizations with whom it works closely together. But its current portfolio goes far beyond these military partners. It includes other government departments or agencies; NGOs; local communities in their home countries and abroad; defense and non-defense industry partners or suppliers; knowledge institutes, etc. In other crucial dimensions, however, the cooperation portfolio tends to be more lopsided. Traditionally, defense organizations exhibit a (historic) preference for long-term, formalized, closed cooperation setups with mostly like-sized, like-minded, and likewise organizations. These traditional kinds of cooperation clearly remain important, but should in our view be augmented. In our *Better Together*

report[233], we explored *other* forms of cooperation in our everyday lives that are both successful and quite different from the more common forms of cooperation in the defense and security domain. It is our sincere belief that the 'with whom?' portfolio of our defense organizations should be expanded to include the ability to cooperate with a wide range of different partners, including ones that may differ dramatically from the defense organization itself; in more open and more loosely coupled ways that are facilitated by new technological developments; and more in the 'digital' than in the 'physical' sphere. We are convinced that in the post-industrial age we are rushing into such a dynamic but controlled connectivity that will increasingly become a prerequisite for being able to achieve strategic effects in many different domains.

This expanded ability to cooperate with all value-added partners – full-spectrum cooperability – should be considered a key 'capability'. Such a capability has to be mainstreamed throughout the entire organization and cannot just be relegated to any one part of the organization or to an overriding 'cooperation department'. In order to identify and recognize suitable partners and cooperation forms, the defense organization should more closely monitor the entire 'cooperation space' in order to remain situationally aware of new promising developments and to experiment with various new forms of cooperation technologies.

Finally, we suggest that cooperation choices be seen as portfolio choices that require pragmatic, evidence-based analysis and that can be and constantly are recalibrated based on that analysis. The final choices should be made politically. But those political decisions, we submit, should increasingly be informed by a more pragmatic, dispassionate, rigorous, a-/pre-political analytical stage. It is a sound risk mitigation strategy to dynamically diversify the portfolio of partners. The key *analytical* question then becomes how to determine which different categories of partners to choose. As we look towards the future, there may be sound reasons to reweigh our cooperation portfolio towards closer, maybe even organic, linkages with companies like Google, Facebook, IBM or Microsoft, towards some key NGOs; and towards many other potentially high value-added ecosystem partners.

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233 Sijbren de Jong et al., Better Together. Towards a New Cooperation Portfolio for Defense (The Hague, The Netherlands: The Hague Centre for Strategic Studies, 2016).

TOWARDS A RE-THINK OF DEFENSE AND SECURITY?

The findings laid out in this report suggest a growing mismatch between the demand for security that our security environment requires and the supply that is currently being provided. To confront the resulting security deficit, we submit that the Netherlands, building on the experience of the 2011 Future Policy Survey, may want to engage in a new ecosystem-wide consultation on how we want to 'design' our future defense and security efforts.

We think the Netherlands may be as optimal a fertile breeding ground as currently exists for such a 're-think of defense and security'. This is a country that has historically been persistently willing to think out of the box from the days of the Dutch empire, which it built more as a 'trader' than as a 'warrior'.[234] Its size allows for a span of control that – unlike many larger countries – seems to make these more inclusive forms of strategic balance of investment exercises not necessarily easy, but at least more manageable. Its geostrategic location is exposed enough to increasingly have to take defense and security needs seriously, but not so vulnerable that it is constantly consumed by short-term operational considerations. Its civil service is competent and meritocratic enough to be open to new strands of thinking on how better to achieve public value in this (and other) realms. And finally, the country is affluent enough to be able to finance some of these innovations.

Our security environment is changing too rapidly and dramatically – in negative, but also in positive directions – to continue with business as usual. The 2011 Future Policy Survey remained, in essence, about 'defense'. We submit the time is ripe for a new strategic exercise, involving the entire defense and security ecosystem in a more fundamental re-think of what the emerging new security environment means for our defense and security value proposition as we move towards a post-industrial incarnation of 'armed force'.

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234 For an interesting take on how the Dutch empire might be a better example for China today than the British, Portuguese or Spanish empires, see Parag Khanna, Connectography: Mapping the Future of Global Civilization (New York: Random House, 2016).

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