REPORT - SPRING 2020

A minefield of opportunity

Transatlantic defence in the Trump era



NATO Secretary General Jens Stoltenberg visits the United States, April 2017



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About the author

Paul Taylor is a Paris-based journalist who writes the "Europe at Large" column for POLITICO. He previously spent four decades working for Reuters as a foreign correspondent in Paris, Tehran, Bonn and Brussels, as bureau chief in Israel/Palestine, Berlin and Brussels, as chief correspondent in France, as diplomatic editor in London, and finally as European affairs editor.

As a Senior Fellow at Friends of Europe, Paul has also written the reports "Crunch time: France and the future of European defence" (April 2017), "Jumping over its shadow: Germany and the future of European defence" (October 2017) and "Safer together: The United Kingdom and the future of European Security and Defence" (June 2018), "'Fort Trump' or bust?' Poland and the future of European defence (January 2019) and "Molto Agitato: Italy and Mediterranean security" (June 2019). With our European defence cooperation series, we aim to contribute to the overall debate on international security developments and offer a country specific in-depth analysis with interesting insights and specific recommendations, relevant to high-profile and senior decision-makers as well as thought-leaders from around the world.

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Foreword



Jamie P. Shea Senior Fellow, Friends of Europe

A former secretary-general of NATO, Lord George Robertson, was fond of saying that "you cannot send a wiring diagram into a crisis". Institutional arrangements were all very well but successful security policy rested first and foremost on the three priorities of "capabilities, capabilities and capabilities". In recent times, and with President Trump leading the charge, much of the debate in the NATO alliance or in the EU quest for strategic autonomy has focused on increasing defence budgets and up to the NATO benchmark of 2% of GDP as a minimum. Of course, no capabilities can be procured without resources; but it is equally true that if all the extra money the non-US allies are now spending on defence (which NATO estimates at €130bn euros since 2016) is devoted to salaries and operational costs rather than to modern equipment, Europe's armed forces will not see much long-term benefit.

Indeed, a recent report on defence data from the European Defence Agency welcomes the achievement of EU members states in increasing their defence budgets by an average 3% since 2017 while simultaneously noting that these same countries are spending less on research and development and long-term investment in 21st century capabilities and technology. The value of money is clearly relative to how well it is spent. If the industrial and procurement strategies of the European NATO allies are not geared to producing the best capabilities on time and at reasonable cost, then more will actually mean less. The sacrifices that these allies – and their non-NATO EU counterparts – have made to increase defence budgets since Russia's annexation of Crimea in 2014 and NATO's subsequent defence spending pledge will have been in vain. Accordingly, it will be difficult, absent a massive and immediate threat, to gain public support for higher defence spending in the future. Governments and their military establishments and defence planners may well define the capability requirements. But it is industry that builds and delivers those capabilities. No military alliance, such as NATO, can be healthy if it lacks a robust and innovative defence industrial base. The European strategic autonomy that President Macron and others have called for will not be credible if Europe wastes billions of euros every year on duplication of equipment programmes or becomes increasingly dependent on foreign technology and supply chains. So increased defence budgets must be urgently matched by more efficient pooling and sharing of Europe's resources, research investments and equipment production cycles if Europe is to narrow the burden sharing gap with the United States and take care of its own strategic priorities and operations where the US is unlikely to be involved. As this debate has unfolded over the last five years two distinct challenges have arisen.

The first is to define what an autonomous defence industrial and technology base means for the EU and how this could also benefit NATO and the wider cause of transatlantic burden sharing. This has to be grounded in a conviction that a stronger EU defence capability is good for the US, and not just for Europe, and as such something that Washington should encourage rather than see as a rival. Given that 22 member states of the EU are also NATO allies, it makes sense for the two organisations to work closer together to ensure that EU initiatives such as Permanent Structured Cooperation (PESCO) and the European Defence Fund (EDF) both harmonise and support the urgent capability requirements of both organisations.

Increased European defence spending has to strengthen European defence industry which produces nearly half a million jobs in the EU and a good deal more across the supply chain. But it is also a golden opportunity to produce more transatlantic defence cooperation in joint programmes. But is the US willing to give European industry more access to its home market and to share technology – not to mention accepting to see Europe's armed forces use more European equipment (such as fighter aircraft, helicopters, missiles and armoured vehicles) and less US equipment in the future? It is a tall order but the question has to be asked.

The second challenge is the need for more coherence in Europe's own defence industry. Observers of the European defence scene have been accustomed for decades already to the fragmentation of the EU defence market with a multitude of companies competing for small order books. The duplication of research and equipment programmes was estimated by McKinsey to cost EU member states €25bn annually in its report to the European Parliament in 2017. Europeans have problems aligning their equipment specifications or agreeing to common export policies. Going it alone often seems easier and thus preferable to multinational collaboration even if it will be more expensive in the long run.

So unsurprisingly many supporters of a larger role for Europe in defence and international security hope that the current juncture will engender more consolidation and integration of Europe's defence industries and more ambitious and large-scale multinational programmes, especially in key future capabilities such as sixth generation fighter aircraft, drones, multipurpose lend vehicles and space assets. The creation of a new division in the EU Commission with responsibility for defence industry and greatly increased common funding moves in this direction, as does the appointment of a Commissioner to handle defence industry, research and development as part of the EU internal market. But will this new portfolio be successful? Will the full funding for the European Defence Fund be made available? Are the EU member countries prepared to put the resources and the political will behind their stated aspiration for strategic autonomy? These two challenges are each enormous and putting them together and making them mutually reinforcing even more so. The historical juncture has created the urgency and the opportunity but it does not guarantee success. That will require sound analysis and the injection of fresh thinking and bold ideas.

This is why Friends of Europe has once again turned to its Senior Fellow, Paul Taylor, to take on this demanding task. As always Paul has pursued his task with professionalism and deep knowledge of the European and Transatlantic defence and security environments. He pulls no punches in his sharp analysis of the current situation in transatlantic defence industry cooperation, but he is fair and balanced in his assessments. Above all, he believes - as do I - that both sides of the Atlantic can and should do more together and not just for better burden sharing but to make both the EU and NATO more secure in the 21st century. As always Paul does not only provide sound analysis based on in-depth research and scores of interviews with decision makers on both sides of the Atlantic but also provides some imaginative recommendations to move the debate forward. That is why I am convinced that this report - the latest in Friends of Europe's series on European defence challenges - will not only be read with considerable interest but also receive the political attention that it deserves.

Jamie P. Shea.

Jamie P. Shea Senior Fellow, Friends of Europe

Methodology and Acknowledgements

This is the sixth in a series of reports I have written for Friends of Europe on European defence issues. It follows country studies on France and Germany in 2017, the United Kingdom and Poland in 2018, and Italy and Mediterranean security in 2019.

It was informed by more than 40 in-depth interviews with present and past US, European Union, French, British, German, Swedish, Italian and NATO policy officials, members of parliament, military officers, strategists, diplomats and defence industry executives. The interviews were conducted in person or by telephone and email between September and December 2019.

Many serving officials, soldiers, diplomats and executives whom I interviewed were willing to talk provided they were not identified, due to the sensitivity of their roles or of the subject. So I am mostly reduced to thanking institutions generically for their help. I am grateful to NATO, the European Commission and the European External Action Service, the European Defence Agency, the US State and Defence Departments, the Congressional Research Service, the US Mission to the European Union and the governments of Sweden, Finland, France and the UK.

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Paul Taylor Senior Fellow, Friends of Europe

I am most grateful to the Atlantic Council for hosting me in Washington and for arranging a round-table with some of their senior experts. In particular, I would like to thank Chris Skaluba, Lauren Speranza and Noah Ramsey for their generous assistance and Bill Greenwalt, Leo Michel and Wayne Schneider for the most helpful brainstorming.

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While in Washington, I was fortunate to participate in an off-therecord seminar on transatlantic defence cooperation with numerous stakeholders at the Carnegie Endowment for International Peace. I am grateful to Erik Brattberg and Tomas Valasek for offering me that opportunity. I would also like to thank Jim Townsend, Hans Binnendijk and Jeff Bialos, three of the wisest and most experienced Atlanticists in the US defence community, for great conversations.

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Special thanks to my friends Bill Drozdiak and Renilde Loeckx-Drozdiak, who hosted me during my week in Washington, for their generous hospitality and stimulating conversation.

And finally, I'm ever thankful to my wife Catherine for her companionship and support while I was working on this project and for her patience during my frequent travel.

Paul Taylor Senior Fellow, Friends of Europe



Executive summary

For 70 years, NATO allies in Europe and North America have stood together to defend their territorial integrity and uphold a broad set of shared interests and values against common security threats. Yet despite pledging in the North Atlantic Treaty to "seek to eliminate conflict in their international economic policies and ... encourage economic collaboration between any or all of them", allies have largely gone their separate ways in their national defence industries. With some political leaders on both sides of the Atlantic now questioning the relevance of the alliance, amid mutual accusations of deficient defence spending, failure to consult, protectionism and trade-distorting subsidies, the drive for integrated security and industrial collaboration may seem less of an imperative.

But the need to be able to conduct operations together, whether through NATO, on UN



Family photo, 2019 London Summit of the North Atlantic Treaty Organisation (NATO)

missions or in ad hoc coalitions, as well as the search for economies of scale, will continue to provide a strong incentive for cooperation beyond current political frustrations.

Moreover, the emergence of cyber and hybrid forms of warfare that target civilian infrastructure, information networks, the media and democratic governance without overt military action, present a common challenge to densely interconnected Western democracies.

Governments, defence officials and experts on both sides of the Atlantic have long advocated greater cooperation in developing and manufacturing defence equipment to use budgets more efficiently, avoid duplication, harness the best technology and ensure interoperability among allied armed forces.

A rare exception has been France, which has pursued the goal of national - and more recently European - strategic autonomy, interpreted as avoiding as far as possible dependence on US or other non-European technologies, knowhow and materials in a quest for freedom from external constraints. Even France, however, could not have conducted a campaign like the current Operation Barkhane against jihadist groups in the Sahel region without US intelligence, surveillance and reconnaissance, and allied assistance with airlift.

The French seek to substitute growing European interdependence for dependence on the US.

An uncommon market

Defence has always been the most national of industries and the least amenable to the disciplines of the global market economy. That is partly because governments are the monopoly customers. Jobs, factories and politics as much as commercial factors drive the way they spend taxpayers' money. Defence companies are also often either monopolies or duopolies in their specialist fields, limiting competition. They know how to seduce politicians and use respected retired military commanders and diplomats as lobbyists.

Each nation wants to preserve security of supply of weapons, munitions and strategic minerals in crisis and wartime, guard its military technology from rivals and protect itself against espionage or sabotage. For the French and British, freedom to export to clients in the Middle East and Asia is key to the business model of their industries and reduces unit costs for their own armed forces.

NATO has implemented a small number of commonly funded programmes, mostly based on off-the-shelf US platforms, such as the Airborne Warning and Control System aircraft and the Allied Ground Surveillance based on the Global Hawk. But several allies are averse to common funding, so the alliance's budget is puny - barely 0.1 percent of combined defence spending.

The alliance has a panoply of institutions to push joint projects - the Conference of National Armaments Directors, the NATO Industrial Advisory Group (NIAG), the NATO Support and Procurement Agency (NSPA) that runs a sort of "eBay of the defence industry" matching buyers and sellers of an online catalogue of kit ⁽¹⁾, and a Multinational Capability Cooperation Unit within its Defence Investment Division - yet it cannot force nations to collaborate.

The United States has prodded allies since the 1970s to pool capabilities around NATO priorities. More recently, the NATO secretariat has tried to nudge groups of countries into cooperative efforts under the buzzword Smart Defence. It has had limited success, for example facilitating transfers of precision-guided munitions among allies.

Twelve NATO nations jointly own a fleet of C-17 strategic airlift planes based in Hungary, managed by the NSPA that operate on a time-share basis. The European Air Transport Command, established in the Netherlands in 2010, manages pooling and sharing of some 220 nationally owned aerial refueling and military transport aircraft of seven EU member states.

While the United States is a major supplier of equipment to European allies, especially in aerospace and missiles, seemingly insurmountable barriers remain to any sort of genuine common defence market. Put simply, the US is too strong and the Europeans too weak and divided to achieve a level playing field.

The transatlantic game is overwhelmingly played by US rules, notably the 1933 Buy American Act, the 1941 Berry Amendment that requires the Defence Department to give preference to domestically sourced products and materials, and the sweeping 1976 International Traffic in Arms Regulations (ITAR), which control and restrict the export of weapons, defence-related technology and know-how.

The United States does not treat all NATO allies equally in defence trade and regulatory policy.

Three closest partners - the UK, Canada and non-NATO Australia - are officially designated as being part of the US National Technological and Industrial Base (NTIB), though not always treated as such in practice. Other allies, notably those that have individual Memorandums of Understanding on defence cooperation with Washington, may obtain discretionary, case-by-case waivers from ITAR and other constraints. Waivers may also be withheld without explanation. All allied companies face daunting compliance costs to compete in the US market.

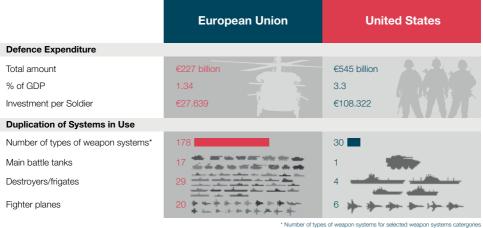
European suppliers are almost never main contractors to the US Defence Department. UK-owned BAE Systems Inc. is the only foreign firm on the Pentagon's list of authorised prime contractors, but it acts mostly as a subcontractor. Other European companies partner with US primes to become part of the supply chain. To operate in the US market, companies have to create a ring-fenced US subsidiary with an all-American proxy board and a Special Security Agreement (SSA) under which the foreign parent forfeits the right to use equipment or know-how developed in the United States in its home base or in exports, and has little insight into the activities of its US unit.

Fragmented Europe

The fragmentation of the European defence sector has led to a grossly inefficient proliferation of weapons systems. The European Commission estimates that lack of cooperation among EU member states costs between 25 and 100 billion euros a year due to duplication, absence of competition and lack of economies of scale. The Europeans field 178 major weapons systems while the equivalent United States figure is 30. They have 17 types of main battle tanks, compared to one in the US inventory, and 20 different types of combat aircraft where the US has six.

In 2009, the European Union tried for the first time to create conditions for a more integrated market by adopting two laws governing defence procurement and arms transfers among member states. However, the attempt to use regulatory tools to make the sector more transparent, competitive and efficient has had little impact since the EU treaty allows governments to bypass EU tendering rules in awarding contracts by invoking essential national security interests.

In 2016, the EU adopted a global strategy enshrining the goal of "an appropriate level of strategic autonomy" in order to "ensure Europe's



Source: European Commission, Data: NATO, International Institute for Strategic Studies, SIPRI, Munich Security Report 2017

ability to safeguard security within and beyond its borders". The following year, it launched a framework for closer defence cooperation among 25 member states, known as Permanent Structured Cooperation (PESCO).

This entails a series of binding commitments on defence spending and investment in equipment and in research and technology, an annual defence review under peer pressure and a set of joint projects among groups of willing EU countries to develop missing capabilities.

For the first time, EU budget funds are being allocated to incentivize cross-border cooperative defence research and development, and eventual joint procurement. While the initial sums were small, the plan is to earmark 13 billion euros for defence R&D in the 2021-27 budget, with additional money for military-related space projects and infrastructure improvements. The EU's unprecedented venture into this field comes more than 60 years after a first attempt to create a European Defence Community failed. It was triggered partly by a heightened threat perception following Russia's 2014 seizure and annexation of Crimea and military destabilization of eastern Ukraine, as well as a wave of jihadist terror attacks in western Europe and instability across Europe's southern periphery. For the first time since the end of the Cold War, European countries began to reverse the steep decline in their defence spending. Most have sustained increases for the last five years.

In parallel, NATO and the EU embarked on an unprecedented programme of cooperation and dialogue after decades of largely ignoring each other. Among the highlights are joint workstreams on cyber security, hybrid threats and so-called military mobility - facilitating rapid reinforcements by removing bureaucratic barriers to cross-border movement of troops and materiel and upgrading roads, railways, air and sea ports and bridges for military use with EU funds.

Another driver of closer EU defence cooperation has been the perception of a gradual, long-term US disengagement from Europe and the Middle East, predating the current administration, as Washington has focused more policy attention and military resource on Asia. The political need to strengthen the EU in the aftermath of the UK's 2016 vote to leave the bloc was also a factor. The NATO-centric British had long been a brake on EU defence integration, although they now belatedly want to remain part of it.

Even the most enthusiastic advocates of European strategic autonomy acknowledge that it is a very long-term goal. The EU is not going to be a cohesive power capable of conducting more than modest external military interventions or of ensuring its own territorial defence without the United States for the foreseeable future.

The Trump factor

The election of President Donald Trump, who called NATO "obsolete" and initially declined to reaffirm its mutual defence clause, spurred the Europeans to step up their efforts. Trump accused European allies of owing the US billions in defence spending and branded the EU a "foe" in trade, imposing punitive tariffs on imports of European steel and aluminium in the name of national security. He also questioned whether America would come to the defence of Montenegro, which joined the alliance in 2017.

Trump's impetuous tweets, lack of consultation on strategic decisions, transactional approach to security, disdain for the EU and rough treatment of allies, especially Germany, raised doubts about his commitment to NATO, despite a substantial increase in US spending and military presence in eastern Europe on his watch.

The United States has long urged Europeans to shoulder a fairer share of the defence burden and not free-ride on American protection. The Obama administration welcomed the plan to use EU taxpayers' money to plug capability gaps identified by NATO and the European Defence Agency.

Trump preferred the stick to the carrot, demanding that allies finally meet their NATO commitment to spend 2 percent of GDP on defence, and pressing them to buy more American kit, implicitly to secure preferential US protection.

While Britain, Poland and the Baltic states meet the NATO spending guideline and France comes close, wealthy west European states such as Germany, Italy, Denmark and the Netherlands, spend less than 1.4 percent of GDP even after recent increases, and Belgium and Spain less than 1 percent.

In 2019 the Trump administration suddenly expressed deep concern at the way the EU was going about setting up its European Defence Fund and Permanent Structured Cooperation. A strongly worded letter from the State and Defence Departments complained that draft regulations governing the EDF and PESCO would discriminate against non-EU NATO allies and effectively shut American companies out of joint European projects.

The letter accused the Europeans of inserting "poison pills" in the rules to preclude firms from the US and other third countries participating, and hinted at possible retaliation. "It is clear that similar reciprocally imposed US restrictions would not be welcomed by our European partners and allies, and we would not relish having to consider them in the future," it said.⁽²⁾

A wounded response from Brussels said the European market was and would remain significantly more open than the US market and called for "an open and transparent discussion with the US on access to our respective defence markets".⁽³⁾

Washington objected chiefly to requirements that US-owned subsidiaries in Europe that want to join a consortium for an EDF project be bound to keep intellectual property arising from such EU-funded projects in Europe and subject to the arms export restrictions of their host country, and to rules that effectively bar the usage of items and technologies subject to US export controls.

Those terms closely mirror conditions that have long applied to European firms doing business

with the U.S. Department of Defence and its agencies, as the EU rejoinder noted.

Both sides accuse each other of protectionism. In interviews for this study, a senior US official voiced concern that for some EU countries - which he indicated included France and Germany - the EDF was "a trade policy masquerading as a defence policy", designed to shut US firms out. Another called it "an industrial policy masquerading as a defence policy".⁽⁴⁾

For their part, some European officials have expressed dismay that Trump's drum-beating for higher European military spending carries an implied trade-off between US protection and buying American equipment.

"I am personally more concerned at the notion that the strength of NATO's solidarity might be made conditional on allies buying this or that equipment. The alliance should be unconditional, otherwise it is not an alliance. NATO's solidarity clause is called article V, not article F-35," French Defence Minister Florence Parly said in a reference to the hi-tech US fighter aircraft.⁽⁵⁾

Despite the US protests, the EDF regulation, key terms of which had already been agreed by EU governments and the European Parliament, is highly unlikely to be amended. It could, however, be clarified by implementation guidelines after a calmer transatlantic dialogue.

(4) Interviews with the author, Washington DC, week of Sept 23-27, 2019

⁽²⁾ https://int.nyt.com/data/documenthelper/1073-19-5-1-02-letter-to-hrvp-moghe/6cdebd319d226b532785/optimized/full.pdf (3) https://int.nyt.com/data/documenthelper/1069-european-commission-reply-to-u/6cdebd319d226b532785/optimized/full.pdf

⁽⁵⁾ https://www.defense.gouv.fr/english/salle-de-presse/discours/discours-de-florence-parly/discours-a-l-atlantic-council-the-us-french-relationship-in-a-changing-world

The EU is considering allowing countries that "share European values" to participate in PESCO projects by invitation on a case-by-case basis. They would be open to selective US, Canadian and UK participation, without giving China, or for that matter NATO ally Turkey, a right to take part. The US letter pointed out that such exceptional access would be time-limited and an extension would require unanimous approval. That would give any EU country a veto at each stage.

It noted that "one member state" (France) has been blocking the opening of negotiations between the European Defence Agency and the United States on an administrative agreement setting a basis for cooperation since 2016.

Lopsided balance

The balance in the transatlantic arms trade is lopsided in favour of the United States. This is hardly surprising since it has by far the world's largest military budget, spending more than double EU countries' combined outlays. It is home to the top five global defence companies - Lockheed Martin, Boeing, Raytheon, Northrop Grumman and General Dynamics. And its weapons systems have been battle-tested in multiple overseas operations in East Asia and the Middle East.

At the end of the Cold War, as Washington cut back military spending, the US defence sector underwent a sweeping, top-down consolidation triggered by a 1993 dinner hosted by then Deputy Defence Secretary William Perry that became known as the "Last Supper". Some past and present officials, including Perry himself, feel the wave of mergers and acquisitions went too far in reducing competition. The Pentagon has since encouraged European, Canadian and Australian companies to bid for US contracts in an effort to keep costs down and combat overcharging.

The transatlantic **balance of defence trade** over a 20 year period



Cumulative value of arms transfer deliveries, \$ billion

*Source: EU Institute for Security Studies (modified version of infographic in "The Poison Pill: EU defence on US terms?" EUISS Brief No. 7, June 2019); Data: US State Department However, some EU players say they do not compete on a level playing field, citing the egregious case of a US Air Force refueling tanker tender won in 2008 by pan-European aircraft manufacturer EADS (now called Airbus) in partnership with Northrup Grumman. The Defence Department overturned the decision after protests to Congress by Boeing, which won the re-run contest.

The fragmented European defence sector has yet to eat its last supper. Political discussions between the leaders of France and Germany in 1993 on a grand bargain involving joint fighter and tank projects that might have led to major cross-border consolidation foundered when the Gaullists returned to government in Paris. The "Last Breakfast" came to nought.

A generation later, the same fighter-for-tank trade-off is back on the Franco-German agenda but still faces political and industrial obstacles.

An industry-led attempt in 2012 to forge a European defence champion on the scale of the US Big Five by merging EADS with Britain's BAE Systems collapsed due to German government opposition, dealing a severe blow to hopes of building a more integrated European defence industry. Despite the potential synergies, the deal failed chiefly due to political reluctance in Berlin.

While companies such as Airbus, Leonardo, MBDA and BAE Systems are cross-border players, procurement is run on strictly national lines and European cooperative projects are the exception rather than the rule. NATO and the EDA struggle to persuade defence ministries and armed forces to align their requirements, specifications, procurement timetables, testing and certification.

Some US majors, such as Lockheed Martin and Boeing, promote themselves as champions of transatlantic defence industrial cooperation, boasting of multinational supply chains with European subsidiaries and partners. Boeing has research centres in Madrid and Munich. Lockheed Martin and Leonardo have an F-35 assembly line in Italy.

Despite EU efforts to outlaw so-called offsets as a distortion of competition and a source of corruption, promising work-share or other reciprocal economic benefits as a lure for contracts is a mainstay of US defence sales, officially reported to Congress every year. French and British defence companies use similar techniques.

European governments often trust each other less than they trust the United States. Countries such as Poland and Romania on NATO's eastern flank make no secret of their belief that by buying US weapons systems such as Patriot air defence missiles, they bind Washington more closely to their own defence, securing extra bilateral insurance against Russia that may be worth more than their NATO and EU membership.

According to official US figures, American companies won about 80 percent of international arms contracts in Europe in 2014-16. US defence imports from the EU amounted to less

than 2 percent of US defence expenditure in 2016, while EU imports from the US amounted to almost 10 percent of member states' defence outlays.

The vaunted two-way street is in fact a fivelane highway with four of the lanes going in one direction.

Path dependence

Little of this is likely to change rapidly, and not just because of President Trump's explicit "America first" priority, aggressive pursuit of exports and suspicion of some key European allies, notably Germany but also France. The president has issued orders that domestic US defence projects must include early planning for "exportability" and has tightened enforcement of Buy American rules. However, he is also keen to impose cost control on US defence contractors, leaving room for competition from European companies down the supply chain.

Signs of this were clear in the Defence Department's 2018 choices of a joint venture between Boeing and Sweden's Saab for the \$9.2bn T-7 training aircraft contract, and of the Leonardo-Boeing MH-139 helicopter to guard US nuclear silos for an initial \$2.38bn.

There is a high degree of what social scientists call path dependence - doing what we've always



NATO's Airborne Warning and Control System (AWACS) aeroplane

done - in the behaviour of European states in the defence market. The US is most strongly present in the aerospace and missile sector in Europe, while Europeans mostly make their own armoured vehicles, artillery and ships.

Those such as Norway, Denmark, the Netherlands, Belgium and Greece that have long been part of the US military aerospace ecosystem are overwhelmingly likely to remain there because of industrial, economic, airforceto-airforce and personal ties. Those such as France, Germany and Spain, that have historically been involved in European or national military aerospace programmes are likely to continue to give precedence to European cooperation.

Most central European governments, grateful for US support for their NATO accession, bought F-16s to replace legacy Soviet fighters. But Hungary and the Czech Republic opted to lease Swedish Gripen fighters.

A couple of key swing states have participated in both US and European ventures - the UK and Italy. Both are now locked into the F-35, and this may well determine their path for decades to come, especially since the UK will be more politically dependent on the US once it leaves the EU.

Germany's decision to exclude the F-35 from its search for a successor to the Tornado multirole combat aircraft, which caused howls of outrage in Washington, was an example of the pattern. Five NATO allies - Germany, the Netherlands, Belgium, Italy and Turkey - own strike aircraft modified to deliver US nuclear weapons stored on their territory under NATO's so-called nuclear sharing programme. Germany and Italy adapted the Tornado for this purpose. Italy is switching its nuclear sharing capability to the F-35, but Germany has yet to decide how it will replace its Tornados, due to retire in 2024, for the nuclear role, which will require US agreement.

The French and the Germans - especially the French, who have been historically more ambivalent about NATO - consider it a matter of national technological and industrial sovereignty to maintain their own capability to build top-ofthe-range military platforms.

"The times they are a'changing"

This is not to say that more transatlantic defence industrial cooperation is impossible or unlikely.

The cost constraints of high-tech, high-end platforms are forcing the Europeans especially to look for partners, either in Europe or across the Atlantic. No European nation is likely to produce a fighter aircraft or a main battle tank on its own again.

Even cross-border projects such as the Franco-German sixth generation Future Combat Air System (FCAS) and the rival Anglo-Italian Tempest project will face huge difficulty finding adequate funding. It would be unrealistic to expect two sixth generation European combat aircraft to emerge. The more likely number is one, or none. While the EDF and PESCO may encourage collaboration in the European defence sector, without strong, top-down political leadership they are unlikely to be game-changers, given the limited funds involved. That would also require the Europeans to reconcile widely divergent national arms export restrictions, which are arguably as big a constraint as ITAR on joint projects.

One factor that is changing defence procurement is the extent to which the civilian tech sector has overtaken the military-industrial complex at the cutting edge of technology. This trend is accelerating in the fields of artificial intelligence, quantum computing, cyber warfare, autonomous vehicles, space and digital communications.

The United States is worried about Chinese telecoms equipment maker Huawei penetrating next generation Western mobile networks, partly because its own telecoms industry has fallen behind, creating a security vulnerability. Ericsson of Sweden and Nokia of Finland are potential alternative 5G technology providers, which ought to give the Europeans some leverage.

The pace of innovation in the digital economy is making the lumbering 20-to-25 year development cycle for major weapons platforms look obsolescent. Increasingly, defence purchasers are looking for fast off-the-shelf solutions that can be bolted onto existing military platforms, or adapted and hardened for defence uses.

However, some in Silicon Valley and its European and Canadian counterparts are wary of working

with the US Defence Department either for ethical and reputational reasons or because they fear having their know-how restricted from commercial use at home and abroad. If cuttingedge US tech companies insist on remaining "ITAR-free", the Pentagon has a problem.

Japanese officials say Tokyo developed its own space launch industry rather than submit to ITAR.

Such technological and commercial factors may well drive reform of the US restrictions on technology transfer and export controls more effectively than any pressure from European allies.

The way ahead

Without illusions of a major breakthrough, given the entrenched interests and toxic politics, this report recommends modest measures that could create balanced, win-win outcomes.

Whatever its feelings about NATO, the United States will always turn to the allies when it needs partners to do heavy lifting - whether naval patrols in the Gulf, special forces in Syria or trainers in Afghanistan. The need for coalitions is a political as much as a military imperative. Remaining interoperable is thus strongly in Washington's interest since the US military would have to do everything alone if no one could talk to it or operate with it.

The United States should see EU defence cooperation, including in the industrial and research fields, as in the long-term interests of the Atlantic Alliance. US industry may miss out on a sale or access to a European capability project here or there, but in the big picture, NATO would be better served by a stronger, more coherent European defence industrial base. Also, if Europeans are increasing their defence budgets by around \$400bn up to 2024 there should be enough money available for new investments to keep everyone happy.

The European Union should press ahead with the EDF and PESCO without being unduly swayed by the US objections, which in part reflect industrial lobbying. It should continue to ensure that its projects are aligned with capability gaps identified by NATO.

A more constructive and balanced dialogue on removing regulatory barriers to transatlantic defence cooperation may become possible under a future US administration if the EU initiatives are successful in generating extra capabilities and innovative technology.

EU-NATO cooperation should give top priority to military mobility and cyber security that are crucial enablers for transatlantic defence.

The United States and the EU should consider a joint challenge fund for transatlantic research and technology projects in artificial intelligence, cyber security, digital communications equipment and space vehicle protection. Such projects would have to benefit from a general, mutual waiver of technology transfer and export restrictions among participating countries.

The EU, for its part, should enable the EDA to conclude an administrative agreement with the United States to facilitate working on joint capability projects.

The long-term common interests of the United States and Europe continue to point towards the value of partnership and cooperation in defence. Each would be far poorer without the other.

In chapter 1, we look at the strategic and political context surrounding transatlantic defence cooperation. Chapter 2 examines the US defence market with its opportunities and limits. Chapter 3 explores Europe's fragmented defence market, EU efforts to reform it and US objections to it. Finally, chapter 4 contains conclusions and recommendations.



European Commission President, Jean-Claude Junker, President of the United States, Donald Trump and former President of the European Council, Donald Tusk at the EU-US Leaders' Meeting, May 2017

CHAPTER 1

The strategic context A widening Atlantic

Post-Pax Americana

Pax Americana is not what it used to be. But Europeans have no obvious substitute.

The 'unipolar moment', when the United States dominated the international order after the collapse of the Soviet Union, has given way to a more disorderly multipolar world. America remains the strongest global power but its leadership is contested by a rising China, an assertive Russia and regional powers such as Iran, Turkey and North Korea that challenge the status quo. Multilateral institutions and alliances are under severe strain.

While NATO remains the backbone of European security 70 years after its creation, the Atlantic has widened politically and psychologically over the last decade, and especially in the last three years. US and European threat perceptions and priorities have diverged.

NATO continues to function as a military alliance – planning, training and exercising to operate together, adapting incrementally to new challenges on its eastern flank and addressing new security threats from terrorism and hybrid warfare, in cyberspace and space. Habits of defence cooperation tried and tested during the Cold War, in the Balkans and in Afghanistan are holding together. New money is going into defence on both sides of the Atlantic in response to heightened threat perceptions. Investments in readiness and military mobility are under way. Doctrinally, NATO has evolved, recognising space and cyber space as domains in which it needs to operate, in addition to air, land and sea.

However, as a political alliance, NATO is experiencing growing dysfunction. Habits of consultation and consensus have broken down. The so-called Quad of leading powers that long shaped Western policy – the United States, Britain, Germany and France – has essentially ceased to function in the Trump era, insiders say.

Allies learn of US decisions affecting their strategic interests via Twitter. After two embarrassing summits in 2017 and 2018 that showcased differences rather than unity between President Trump and European leaders, transatlantic coordination sank to a low ebb over northern Syria in 2019.

An attempt to patch up those differences at a NATO leaders' meeting in London was only partially successful. Public jousting between Trump, French President Emmanuel Macron, Turkish President Tayyip Erdoğan and Canadian Prime Minister Justin Trudeau overshadowed agreement on new defence plans for the Baltic states and Poland and, for the first time, on studying the strategic challenge of China's rise.

Unless present trends are reversed, the two pillars of what used to be called the West face creeping strategic estrangement.

Within Europe, there are divergent threat perceptions. Poland, the Baltic and Nordic countries and Romania understandably prioritise the danger from a resurgent Russia, which is engaged militarily in Ukraine and frequently probing their air, sea and cyber defences. Alarmist strategists fret that Moscow could overrun the Baltic states within 30 to 60 hours, before NATO would have time to mobilise, or might grab a border slice of Lithuania overnight without having to fire a shot.⁽¹⁾ Whether any Russian leader would risk a prolonged war with the West by taking such action is far from clear.

France, Italy and Spain are equally understandably preoccupied by chronic instability in North Africa, the Sahel and the Middle East, which affects their internal security through the nexus of jihadist terrorism, people smuggling and migration. Macron shocked many allies by saying that terrorism is a greater threat than Russia. Where you sit is where you stand.

This all creates a complex environment for transatlantic defence cooperation – a moment of both risk and opportunity. The United States and European allies continue to share many common interests and have the world's biggest

trade and investment relationship. Their armed forces still need to be able to operate together. But political trust is frayed and each wants to protect its technological and industrial sovereignty.

Shifting focus

With rare exceptions, Europeans have been long happy to rely on the United States to guarantee security, free trade and freedom of navigation. For many, this offered a low-cost 'holiday from history' after the Cold War ended and the existential threat from the Soviet Union evaporated.

The Balkan wars of the 1990s showed that the European Union, despite aspirations to building a common foreign and security policy enshrined in the 1992 Maastricht Treaty, was unable to stop armed conflict on its doorstep. US-led NATO intervention eventually ended the fighting.

Shamed by their collective failure, EU leaders agreed in 1999 to establish a 60,000-strong rapid reaction force to be able to handle such challenges for themselves, but little came of the plan. They also appointed a first High Representative for foreign and security policy, Javier Solana, with a small military staff but no headquarters.

Since 2003, the EU has conducted a series of modest peacekeeping or monitoring missions in Indonesia, Bosnia, Georgia and several African states. It has led anti-piracy and antismuggling naval patrols in the Mediterranean and off the Horn of Africa, and training and rule-of-law missions in Kosovo, Mali, the Central African Republic, Somalia, Afghanistan, Iraq and Gaza. None involved combat operations. Europeans also make up the backbone of the UN peacekeeping force in southern Lebanon.

From 1997 onwards, the eastward enlargement of NATO and the European Union appeared to anchor stability, democracy and the market economy across the continent. To be sure, there was still a grey zone of former Soviet republics from Belarus and Ukraine to Moldova and Georgia that were contested politically between Russia and the West. But even after Moscow fought a short war in Georgia in 2008 there was little sense of a turning point in European security.

NATO had turned its focus to out-of-area counter-terrorism and crisis management operations. Its forces were bogged down far from home in Afghanistan. The alliance's 2011 air campaign in Libya helped rebels overthrow dictator Muammar Gaddafi but left the north African country in chronic instability with competing militias and plenty of loose weapons. Most Europeans only began to register a heightened sense of threat with the triple wakeup call of Russia's annexation of Crimea and destabilisation of eastern Ukraine in 2014, a wave of jihadist terror attacks in France, Belgium, Spain, Germany and the United Kingdom in 2015-2017, and the uncontrolled influx of more than one million Syrian refugees and other migrants to Europe in 2015.

Those events wrenched NATO's attention back to collective defence in Europe, while the EU focused on strengthening border controls, tightening internal security and re-investing in defence.

More recently, some European leaders have begun to fear Europe could become marginalised or pulled apart in a growing contest between America and China. Beijing is spinning a web of infrastructure, economic and diplomatic links in central and southern Europe under the mantle of its Belt and Road Initiative. For the first time in 2019, the EU adopted a strategy document branding China a "systemic rival" as well as a partner in cooperation, and NATO agreed to discuss the implications of China's rise for allied security.⁽²⁾⁽³⁾



High Representative of the Union for Foreign Affairs and Security Policy Federica Mogherini is welcomed by the Chairman of the EUMC, General Mikhail Kostarakos, at the Chief of Defence Meeting, May 2017

Rebalancing

The United States has gradually shifted its strategic focus away from Europe and the Middle East since President Barack Obama's so-called 'pivot' to Asia, articulated in Secretary of State Hillary Clinton's 2011 article "America's Pacific Century".⁽⁴⁾ This is reflected in a rebalancing of its overseas deployments, especially of naval forces.

After protracted, inconclusive wars in Iraq and Afghanistan, Americans were weary of acting as global policeman. That was one reason why Obama decided not to intervene in Syria in 2013 when his red line against the use of chemical weapons was breached. Likewise, the UK parliament, reflecting public fatigue with interventions, refused to support military action. France, which was set to join a US-led punitive strike, had to stand its planes down when Obama cancelled the operation, leaving a bitter taste in Paris.

That episode created a strategic vacuum that Russian President Vladimir Putin was quick to fill, calculating that the West would not act to stop him. Some Europeans, especially the French, who had chafed at US 'hyperpower' now lamented an absence of reliable American leadership.

Moscow seized and annexed Crimea from Ukraine in 2014 and provided military support to pro-Russian separatists in eastern Ukraine, incurring only limited EU and US economic sanctions. Putin also intervened with air and missile strikes and limited ground action in 2015 to tilt the balance of power in the Syrian civil war in favour of President Bashar al-Assad and his Iranian allies. The Syria intervention impressed Western militaries with the range, synchronisation and accuracy of the initial missile and air strikes.

Obama pressed European allies to share more of the burden of international security, notably in the NATO intervention in Libya in 2011 and in sanctioning Russia. He voiced irritation at what he called "free-riders" who were "holding our coats while we did all the fighting".⁽⁵⁾ But he sought multilateral solutions, signing up to an EU-brokered agreement to curb Iran's nuclear programme in exchange for sanctions relief, and he encouraged the EU to take more responsibility.

(5) https://www.theatlantic.com/magazine/archive/2016/04/the-obama-doctrine/471525/

⁽⁴⁾ https://foreignpolicy.com/2011/10/11/americas-pacific-century/

Centrifugal forces

President Trump's unabashed 'America First' approach has accelerated the centrifugal forces in transatlantic relations, despite continued strong support for NATO in Congress and within the US foreign policy and defence establishment.

Trump struck a belligerent tone towards west European allies except Britain, demanding that they immediately increase defence spending and branding the EU a "foe" on trade. He applauded the UK's vote to leave the EU, pushing it towards a harder form of Brexit, and forecast that other countries would follow suit. In private, he offered some European leaders preferential trade deals if they too would quit the union.⁽⁶⁾

"For the first time in history, we have an American administration that is, to put it mildly, not enthusiastic about a united and strong Europe," European Council President Donald Tusk said in 2018.⁽⁷⁾

Trump pulled the United States out of the Iran nuclear deal and the Paris agreement on fighting

climate change. He hobbled the World Trade Organization, imposed tariffs on imports of EU steel and aluminium on national security grounds and threatened to do the same on European cars and unleash a trade war if Europeans tried to tax US digital companies.

Having called NATO "obsolete" during his campaign, he pointedly declined to reaffirm the alliance's Article V mutual defence pledge on his first visit to NATO headquarters in 2017 and has repeatedly appeared to qualify that commitment. At a NATO summit in 2018, he threatened that the US would "go our own way" if Europeans did not radically raise defence spending.

Trump also walked away from the nuclear arms control framework that ended the Cold War arms race in Europe 30 years ago, withdrawing from the Intermediate Nuclear Forces (INF) treaty with Russia. NATO endorsed Washington's accusation that Moscow had violated the treaty by testing a cruise missile in breach of its range limits and blamed Russia for the INF's demise. But Berlin, Paris and London would all

(6) Trump's offer to French President Macron was first reported by the Washington Post, and later confirmed by Macron to author William Drozdiak for a forthcoming biography to be in April 2020: https://www.washingtonpost.com/opinions/global-opinions/trump-is-trying-to-destabilize-the-european-union/2018/06/28/729cb066-7b10-11e8-aeee-4d04c8ac6158_story.html; https://www.publicaffairsbooks.com/ titls://illiam-drozdiak/the-last-president-of-europe/9781541742574/

(7) https://www.euractiv.com/section/global-europe/news/tusk-lashes-out-at-trump-stance-on-europe/

have preferred to preserve the fabric of arms control, with its verification and confidencebuilding measures, especially since Europe has no collective nuclear deterrent of its own and the issue is taboo in many European countries.

The Trump administration has also indicated to NATO allies that it wants to abandon the 1992 Open Skies Treaty that permits unmanned reconnaissance flights over the territory of the 34 signatories including Russia and the United States, arguing that it poses a threat to national security, and surveillance can be achieved by satellite instead. European governments including the UK, France and Germany as well as Sweden have told Washington that they value the flights as both a confidence-building measure and a diplomatic way of signalling vigilance and concern over Russian exercises or troop movements. A decision was due in January 2020.⁽⁸⁾

On the positive side, the United States has substantially raised spending on a European Deterrence Initiative to strengthen NATO's eastern flank with a rotating troop presence, pre-positioned equipment and air patrols. US spending on reinforcing eastern Europe has risen from \$1bn to \$6bn a year since 2014. America has put tanks back in Europe for the first time since their post-Cold War withdrawal was completed in 2013. US soldiers are on the front line of NATO's Enhanced Forward Presence in the Baltic states and eastern Poland to deter Russian attack and rebuff incursions into their airspace. They are also, less visibly, supporting France's counter-insurgency Operation Barkhane across the Sahel belt in Africa.

The United States has taken the lead in NATO and bilateral exercises to improve and demonstrate the capacity to reinforce northern and eastern Europe rapidly in a crisis. It is also supporting regional efforts to make central Europe less dependent on Russian energy supplies, has pushed NATO to adopt a security package for the Black Sea, signed an agreement with Athens to increase its use of military facilities in Greece, and approved a national strategy for the eastern Mediterranean, a region of rising tension.

US diplomats urge Europeans to look at those actions rather than at presidential tweets.

However, European alarm spiked when Trump announced on Twitter that he was withdrawing US special forces from northern Syria in October 2019. They had been operating with French and UK special forces against remnants of Islamic State (ISIS) and supporting the Kurdish-led Syrian Democratic Forces, who bore the brunt of ground combat and were holding thousands of captured jihadists. The unilateral drawdown, later partially rescinded, ran counter to the principle of "in together, out together".

It opened the way for a Turkish offensive, also launched without consulting NATO allies, to drive Kurdish forces away from the border area and create a 'security zone' inside Syria controlled by the Turkish army and its brutal Arab militia allies. It increased the risk of foreign jihadist fighters and their families escaping from captivity and surveillance.



High Representative of the Union for Foreign Affairs and Security Policy, Federica Mogherini and Donald Trump, President of the United States, at the EU-US Leaders' Meeting, May 2017

The absence of consultation prompted Macron to declare that the United States was turning its back on Europe and NATO was experiencing "brain death". This should prompt Europe to build its own autonomous defence, the French leader argued. He also questioned whether Russia was the main threat to NATO, saying terrorism was a common threat to all.⁽⁹⁾

Return to normal?

In contrast to Macron's stark analysis, most European allies are eager to avoid saying or doing anything that might aggravate transatlantic differences or hasten US disengagement.

To be sure, German Chancellor Angela Merkel declared after the first NATO and G7 summits with Trump in 2017 that Europe could no longer rely on "others" to the same extent and would have to "take our fate into our own hands".⁽¹⁰⁾ Merkel, Macron and former European Commission President Jean-Claude Juncker all spoke of the long-term objective of a "European army".

However, Macron's questioning of NATO's future prompted German, Polish and British leaders and Juncker's successor, Ursula von der Leyen, to reaffirm the centrality of the alliance to European security. Even those who privately share his frustration with Trump would prefer a distracted and unpredictable American hegemon to a less powerful French one with its own agenda.

After securing the promise of a review led by the NATO Secretary-General of how to strengthen the political dimension of the alliance, Macron reaffirmed his commitment to NATO at a leaders' meeting in London in December 2019, stressing that he sought to build "the European pillar of the alliance", not an alternative to it. Trump traded barbs with European leaders outside the meeting but was more supportive of NATO, claiming credit for allies' increases in defence spending. The French leader's outburst at least succeeded in widening the discussion of transatlantic defence cooperation beyond the sterile 2% debate and Trump's obsession with reducing the burden on the US, to the alliance's strategic objectives and the need for better political consultation.

Many European leaders still hope transatlantic relations will somehow "return to normal" after the 2020 US presidential election.

Some governments, particularly in Poland and Hungary and to an extent in the UK, have sought national advantage from their ideological kinship with Trump. Those most directly vulnerable to Russian aggression - Poland, Romania and the Baltic states - have hedged their bets by vying to demonstrate they are America's most loyal allies, including through arms purchases and offering to host more US bases and infrastructure on their soil. "If you buy American, you buy a layer of protection above and beyond what you get with NATO. The US encourages that belief in a context where there is a lot of doubt and suspicion about whom you trust to come to your defence," said Tomáš Valášek, a former Slovakian ambassador to NATO and director of the Carnegie Europe think-tank.⁽¹¹⁾

Non-NATO Sweden and Finland are also concerned about Russia's military modernisation, build-up of Anti-Access/Area Denial capabilities including nuclear weapons in the Kaliningrad exclave between Lithuania and Poland on the Baltic coast, and intrusions into their air and sea space. Both have concluded closer bilateral defence agreements with the United States since the Ukraine crisis, rather than go through the political wringer of seeking NATO membership in the teeth of fierce Russian opposition and with public opinion and the political establishment divided.

Trump sees defence trade as part of a zero-sum game of commercial rivalry and competition rather than as a collective benefit. His browbeating of European allies over inadequate defence spending has undoubtedly resulted in some additional sales for US manufacturers, although the number is difficult to quantify precisely.

A previous Polish government had already begun talks to buy Patriot air-defence missiles under a previous US president. The current conservative nationalist Warsaw government scrapped a planned order of European military helicopters from Airbus, bought US HIMARS rocket launchers and announced its intention to procure 32 F-35s to replace its Soviet era fighters.

Belgium, which spurned a pressing French offer of Rafale planes, was always likely to choose the F-35, given its long history with the F-16, its long-standing partnership with the Netherlands in air forces, and the involvement of Belgian companies in the F-35 supply chain. By making its choice later, it got a significantly cheaper price than the British and Dutch, who ordered early. Other countries such as Bulgaria have received the White House red carpet treatment after yielding to months of unsubtle political and diplomatic pressure to buy F-16s. (See chapter 3)

US strategists, angered by Germany's decision to rule out the F-35 as a replacement for its ageing Tornado strike aircraft, some of which are also equipped to deliver US nuclear bombs, argue that European countries need to focus on the present threat from improved Russian air and missile power rather than on distant, hypothetical European industrial projects.

The dispute highlights the unresolved dichotomy between pursuing greater long-term European strategic autonomy and meeting NATO's short-to-medium term needs to strengthen deterrence.

Close-up of a US Flag patch as a US Army UH-60A Black Hawk helicopter returns to Ellington Field, Texas

CHAPTER 2

Open but skewed The US defence market The US defence market is open to all, like the Ritz Hotel. $^{\!\!(1)}$

With an annual budget approaching \$700bn, of which some \$150bn is earmarked for equipment and a further \$95bn for research, development, testing and evaluation, the US Department of Defence (DoD) is by far the world's biggest military spender. The United States, as a global power, accounts for twothirds of defence spending by NATO nations. There is no breakdown of how much of that expenditure is dedicated to the North Atlantic area and how much to other theatres.

The US defence market is roughly four times larger than the EU one. That makes it a magnet for European companies eager to get a piece of the action and to compete in the most advanced market, despite an array of obstacles.

However, US statistics show that European allies win only a small fraction of contracts despite official proclamations that the market offers robust opportunities for European firms. The State Department says the Pentagon procured goods worth \$2.6bn from 13 European countries in 2017. Figures provided to Congress on Defence Department purchases show total procurement from EU entities of \$3.52bn in 2017, equivalent to 1.1% of DoD procurement. That ratio had been constant for three years and has declined from previous levels.

In 2016, the Defence Department allocated \$120mn in research and technology funds to companies and research institutions based in 24 of the 28 EU member states. That was just 0.17% of US R&T spending. "It's peanuts," said Jeff Bialos, a former senior Pentagon official in the Clinton administration. The Defence Advanced Research Projects Agency (DARPA), responsible for developing emerging technologies for use by the military, worked with 90 US subsidiaries and entities of European companies and institutes that year.

Questioned about the apparently slim pickings for European companies, US officials say the figures do not reflect the whole picture of the transatlantic defence market. "EU-based companies with US parentage are an essential part of the European and US defence industrial base, and many European defence companies have become increasingly integrated into the North American defence sector," said Lt.-Col. Mike Andrews, a Defence Department spokesman.

"There is significant trade on both sides of the Atlantic which we do think is not only sustainable but continues to flourish, with many European affiliates establishing a presence in the US to gain more of the market share," he said in an interview. "Affiliate sales, not trade, are the primary means by which European firms deliver goods and services to US consumers."⁽²⁾

US officials cite recent successes by European defence companies such as BAE Systems, Saab, Leonardo, Rolls Royce and Airbus, in partnership with US defence companies.

ThalesRaytheonSystems, the defence industry's first transatlantic joint venture, was formed

⁽¹⁾ This is derived from a saying attributed to the 19th century Irish judge Sir James Mathew (1830-1907) that "In England, justice is open to all - like the Ritz Hotel."



US Soldiers use the Swedish-designed Saab-Bofors Carl Gustaf recoilless rifle

between French electronics and space specialist Thales and US missile and radar giant Raytheon in 2001. The business provides battlefield radar solutions for the US Army as well as the primary air defence/battle management system for North American Air Defense (NORAD) and the US Pacific Command (PACOM). A UK firm, Martin-Baker, makes ejection seats for a range of US military aircraft, most recently the F-35 Lightening.

However, a raft of overtly protectionist legislation, some of it a century old, inhibits the role that foreign suppliers can play in the US defence market and the terms on which they can participate. The 1920 Jones Act, for example, mandates that vessels transporting goods between US ports must be built in the United States, owned by US citizens and crewed by Americans, so that the merchant marine can serve as a military auxiliary in wartime.⁽⁶⁾

The 1933 Buy American Act requires the US government to prefer US-made products in all its purchases. The president has the authority to waive the act in return for reciprocal agreements on access for US products. The 1941 Berry Amendment specifically requires the Pentagon to give preference to domestically-sourced products and materials in defence procurement. Congress has added waivers since 2007,

removing specialty metals, to prevent delays in critical supplies for US forces in combat.

Above all, the onerous 1976 International Traffic in Arms Regulations (ITAR) restrict and control the export of a wide range of defence-related technologies and equipment to safeguard the national security of the United States and promote US foreign policy interests. Information and material pertaining to defence and militaryrelated technologies listed on a regularly updated US Munitions List may only be shared with "US Persons" (including firms) unless the State Department grants an exemption. Companies and individuals can face heavy fines if they give foreign persons access to ITAR-protected defence articles, services or technical data.

ITAR is repeatedly cited by European and some US industrialists and by European defence officials as the single biggest obstacle to transatlantic defence trade and cooperation.

Some US experts also argue it is missing its target and risks cementing US technological inferiority by mostly controlling technology widely available to great power adversaries, while creating disincentives to R&D collaboration with allies and with the commercial tech sector.

The administration's response to such criticism is reminiscent of Treasury Secretary John Connally's comment to European finance ministers after the US abandoned the gold standard in 1971 and devalued the dollar, exporting inflation to its allies: "The dollar is our currency, but your problem." Except that ITAR is America's problem too.

Tarred by ITAR

Attempts by well-intentioned US officials to render implementation of ITAR more flexible have resulted in making the rules and exemptions almost as complex as the US tax code, in the words of former deputy assistant secretary of defence Jim Townsend, who was involved in the Obama administration's 2009 Export Control Reform Initiative. The complexity creates a legal minefield for companies and a goldmine for lawyers.⁽⁴⁾

The central purpose of the ITAR provisions is to control the export of items that have been specifically designed, developed, configured, adapted, or modified for military applications. In many cases, design intent and use are clear. Increasingly, however, commercial items purchased off-the-shelf are being used in military applications. Sometimes, technologies originally designed for military applications are used with very slight modifications in commercial applications.

If an advanced technology or product is subject to ITAR, an individual license application must be submitted for each export from the United States and each re-export from one foreign country to another. Each license application must identify all parties, including consignees, distributors, and freight forwarders, and in some cases, the exporter must obtain enduse statements signed by the purchaser and the purchaser's government.

These license requirements also apply extraterritorially to foreign products that incorporate US-origin ITAR-controlled content. Exports of defence articles and services to countries that are subject to an arms embargo, such as China, are prohibited. In addition, these licensing requirements apply to ITAR-controlled technical data released to foreign nationals whether they reside in or outside the United States. Such technical data are subject to the same restrictive licensing requirements, which mandate approval for exports and re-exports.⁽⁶⁾

"This means that the US government has the power to restrict defence exports between EU member states for certain defence technologies, something which is counter to the efforts the EU has taken to lower barriers to intra-EU transfers of defence equipment," writes Daniel Fiott, a researcher at the EU Institute for Security Studies.⁽⁶⁾

⁽⁴⁾ Interview with the author, Washington DC, Sept 25, 2019

⁽⁵⁾ Export Control Challenges Associated with Securing the Homeland, National Research Council of the National Academies, The National Academies Press, Washington DC, 2012

US officials insist the restrictions are more fearsome on paper than in practice, and note that allies that have cooperation agreements with the United States receive waivers from some of the most onerous constraints.

"The signing of a reciprocal defence cooperation Memorandum of Understanding waives the Buy American Act and allows defence companies of those nations to operate in the United States as if they were a US company," a senior Pentagon official said.⁽⁷⁾

Official US figures show that about 90% of ITAR export and re-export licenses requested are granted. However, European companies and Washington-based European diplomats say waivers from ITAR are discretionary, not subject to judicial review, involve extensive disclosure requirements and can be slow to obtain.

Refusals sometimes look politically motivated. For example in 2018, the State Department blocked a French deal to export Rafale fighters with European-made Scalp cruise missiles to Egypt on the grounds that the missiles contained a component subject to ITAR. The French eventually developed a non-ITAR work-around. Such incidents drive European companies and governments increasingly to work toward 'ITAR-free' technology.

"We know that these problems supposedly related to strategic questions are in reality often due to issues of commercial competition. We mustn't be fooled," French Defence Minister Parly told aerospace journalists in 2018, confirming that Paris had launched a programme to make its companies less vulnerable to ITAR, even if a total disconnection would not be feasible.⁽⁶⁾

⁽⁷⁾ Interview with the author, Washington DC, Sept 24, 2019

⁽⁸⁾ https://www.latribune.fr/entreprises-finance/industrie/aeronautique-defense/reglementation-itar-la-france-veut-reduire-sa-dependanceaux-composants-americains-789612.html

The ITAR-free movement

France is not alone in pursuing a policy of reducing and seeking to eliminate dependence on ITAR. In 2017, Germany issued a €250mn invitation to tender for 120,000 standard assault rifles stipulating that components must not be subject to ITAR regulations. Two bidders dropped out of the competition apparently as a result of that condition, according to German public procurement lawyer Roland Stein.

"This particular use of an ITAR-free clause is not an isolated case, but representative of a growing practice that is becoming more and more frequent in European procurement projects," Stein wrote in the online journal Whoswholegal. "This practice is not just a German development, but indicative of a Europe-wide trend. ITAR-free clauses are becoming increasingly common as exclusion criteria in international invitations to tender. A corresponding widespread, albeit not concerted, effort to avoid the purchase of products subject to ITAR regulation is observable throughout the entire landscape of European defence procurement."⁽⁹⁾

A German defence industry executive said the US market was by no means closed. All the big European companies were present and making

money, but the best way was to team up in a long-term relationship with a US industrial partner with political influence, regulatory knowledge and "who knows how the game is played in the US."

A senior US administration official acknowledged "some frictions at times when we are not able to approve US technology being integrated into European systems ... That's where some of the upset is located." The official said the United States was not forcing European companies to hand over their intellectual property rights in perpetuity without compensation.

"We have undertaken an effort to try to dispel some ITAR-related myths, whether they are deliberate or accidental. We are trying to explain better," the official said. He also said the US was aware of the growth of what he called an "ITAR-free movement" among companies.⁽¹⁰⁾

 ⁽⁹⁾ https://whoswholegal.com/features/features/the-rise-of-itar-free-procurement-in-europe
(10) Interview with the author, Washington DC, Sept 23, 2019

Chinese walls, compliance costs

To compete for sensitive Pentagon contracts, European companies have to create a ringfenced US subsidiary with a proxy board comprised only of US citizens and conclude a Special Security Agreement with the Department of Defence. A strict 'Chinese wall' is put in place and the US subsidiary is not permitted by law to share information about its activities or technologies with its European parent company.

"We want to be seen in the US as a US company. Our American competitors of course question our parentage and say we're not really American," an executive of one European defence major said. "To all intents and purposes, our US business is treated like a fully US-held company."⁽¹¹⁾

While there may be a particular political needle in the treatment of the French, they are not the only European victims of these restrictions. In one recent example, UK engine maker Rolls Royce was denied permission to transfer advanced ceramics technology developed at its facility in Los Angeles to its UK headquarters for projects, some of which involved the United States, a source familiar with the issue said.⁽¹²⁾

- (12) Telephone interview with the author, Oct 29, 2019
- (13) Interview with the author, Washington DC, Sept 25, 2019

Technology developed by European defence companies in the United States is subject to the US code on patents permitting the government to issue a secrecy order allowing a patent to be withheld on national security grounds. Foreign firms can apply for compensation but it is awarded at the US government's discretion.

European diplomats in Washington say the legal compliance costs for EU companies operating in the US defence market are exceptionally high. For example, British businesses register between \$1.5bn and \$2bn a year in defence sales in the United States but UK industry estimates its annual compliance costs with ITAR and other US regulations at £460mn – about \$595mn – between one-third and a quarter of turnover.⁽¹³⁾

The compliance costs, and the risk of seeing key commercial technologies restricted by ITAR, is a major factor in European small and mediumsize enterprises' decisions on whether to bother entering or remaining in the US market.

The independent, non-partisan Potomac Institute for Public Policies, which specialises in the nexus between science, technology and national security, concluded in a major 2016 study on US export controls that Congress should enact legislation to rescind ITAR in the interest of US companies and to preserve the US lead in strategic technologies.⁽¹⁴⁾

Others, however, argue that the United States needs to strengthen controls on technology, especially on artificial intelligence (AI), to counter Chinese efforts at intellectual property theft. In the current mood of partisan confrontation and trade protectionism, there appears to be little appetite in either Congress or the administration to substantially reform or grandfather ITAR. Any such fundamental review would probably require a new political start.

Incumbency and ITAR

An executive of one European company that has a ring-fenced US subsidiary said the two biggest challenges to competing in the US market are "incumbency and ITAR". The firms' US competitors enjoy a "political promiscuity" which is hard for any foreign firm to match, even one that has a long history in the supply chains of US prime contractors.

As for ITAR, "it's always a big business consideration in deciding whether to tender for a US contract", the executive said. "If we want to incorporate technology we use in the United States to our European products, we bring into play ITAR restrictions ... As a result, we sometimes keep stuff 'non-US eyes only' to make sure we stay clean of ITAR," he said.

An executive at another European company that operates in the US market said, "It's clear that ITAR rules mean we have to be very careful before cooperating with the United States, which wants to keep a technological lead."⁽¹⁵⁾

Perhaps the most infamous case in which a European manufacturer was denied a US contract despite having won the competitive tender was when the European Aerospace Defence and Space company (EADS), now known as Airbus, bid with Northrop Grumman to supply the US Air Force with air-to-air refuelling tankers, adapted from the A-330 civilian airliner. The Airbus consortium was initially awarded the deal over fierce opposition from Boeing, which appealed to Congress and the Government Accounting Office, and had the contest declared invalid on a technicality. The Department of Defence took the tender out of the Air Force's hands and re-ran it, awarding the contract to Boeing.

The British have traditionally been the most closely tied into the US defence sector after Canada, and the UK was officially recognised as being part of the US National Technological and Industrial Base (NTIB) under a 2018 treaty. US law provides for the "seamless integration between the persons and organizations that comprise the NTIB". The reality still looks somewhat different.

The UK has not sold a major defence platform to the United States since the 1990s, when it sold the M-177 howitzer.

"We're supposed to be trusted allies and partners, yet we are treated with the same suspicion as the others," one European diplomat involved in defence cooperation said.⁽¹⁶⁾

Heavy metal vs high tech

One potential driver for reform of the US regulatory forest is some technology leaders' reluctance to engage in defence projects, for ethical as well as commercial reasons. In 2018, search engine giant Google withdrew from a \$10bn cloud computing tender with the Department of Defence, which it said was incompatible with the company's ethics for handling Al. The company had faced staff protests over the work.

"We couldn't be assured that [the JEDI deal] would align with our AI Principles and second, we determined that there were portions of the contract that were out of scope with our current government certifications," Google said in a statement.⁽¹⁷⁾ The principles bar use of Google's AI software in weapons as well as services that violate international norms for surveillance and human rights. The company also has a lower level of security clearance for handling US government data than rival bidders Microsoft and Amazon.

The cloud computing project was awarded to Microsoft, but Google's decision was a setback for the Defence Department's so-called Third Offset Strategy, launched in 2014, aimed at achieving a step change in military innovation in order to maintain US global hegemony in a new era of great power competition.⁽¹⁸⁾ Google can afford to turn its back on such a large contract because its own commercial R&D budget far outstrips what even the DoD can afford. The defence sector is a niche market for the US tech giants, and one fraught with risk.

Other tech firms have expressed concerns about working on big data, quantum computing and facial recognition for the DoD, as well as voicing worries about intellectual property rights and commercial usage of innovation. "The (US) government has sent out a request about who's working on what emerging technology that industry is very concerned about. It's an attempt to control our technology," said a representative of the US aerospace sector.⁽¹⁹⁾

Palantir Technologies, a Palo Alto, California data analytics firm does work with the Pentagon, crunching and synchronising mountains of data to provide military decision-makers with real-time comprehensive situational awareness on which to base their actions.

Noam Perski, international government lead at Palantir, said it was "culturally incredibly difficult" for innovative tech companies to work with the defence establishment. "I don't know whether NATO or our government knows what the divide is or how to bridge it." The fact that one of the

 ⁽¹⁷⁾ https://techcrunch.com/2018/10/08/google-will-not-bid-for-the-pentagons-10b-cloud-computing-contract-citing-its-ai-principles/
(18) https://www.dodlive.mil/2016/03/30/3rd-offset-strategy-101-what-it-is-what-the-tech-focuses-are/

⁽¹⁹⁾ The Third Offset Strategy was officially entitled the Defence Innovation Initiative, announced by US Defence Secretary Chuck Hagel on Nov 15, 2014; https://www.defense.gov/Explore/News/Article/Acticle/603658/

leading tech industries, Google, had chosen to walk away highlighted both the gap between the constant iteration and innovation cycle of Silicon Valley and the "static, conventional defence system" of the US government, as well as the ethical, security and commercial issues, he said.

However, Perski said the United States was able to deploy innovation more rapidly in the national security field than some countries in Europe, especially those with "national champions", because it had invested in the cloud.gov platform that can host secret and top-secret data, based on the underlying infrastructure of Amazon Web Services. He also noted that the DoD had become more willing to fund tech companies to experiment for six months on ways to achieve a desired outcome rather than starting with detailed specifications and technical requirements.

Asked about the challenges of navigating ITAR and other regulations, he said, "It's terrifying to young companies. We found it manageable but it costs a lot of resources to work through the issues. If you're a venture capital-backed company, investors look at it and say 'you're going to spend three years doing what?'" One big uncertainty factor was that many tech firms were working on dual-use technologies with broad applications that could fall under ITAR constraints.⁽²⁰⁾

William Greenwalt, a Senior Fellow at the Atlantic Council who has worked in high-level positions in both the Pentagon and the Senate Armed Services Committee, argues that the export control system designed for heavy metal defence industries during the Cold War is no longer fit for purpose in the digital era or the new strategic environment and actually handicaps the United States.

"The continuing erosion of US technological dominance and the re-emergence of a great power competition are revealing the current US export control system to be not only inadequate with respect to the United States' closest allies, but, as a whole, detrimental to the national security of the United States," he wrote in a study published in 2019.^{[21)}

"The net result of the US export control system is that the country is missing out on emerging technology and incentivising a walling off of capabilities for which the United States needs to go it alone," Greenwalt said.

The ITAR system still focuses partly on Cold War technologies that have long since proliferated to US adversaries, he said, leaving allies with the burden of compliance with obsolete controls, exacerbated by the DoD's outsourcing of logistic and maintenance activities to the private sector.

Fear of ITAR contamination and the extraterritorial application of US export control laws limits the industrial base available to US defence programmes and has given allies and the commercial sector incentives to exclude US technology and persons and develop their own solutions. It has also, as we shall see in Chapter 3, driven the EU to mirror some of the most constricting US regulations in its own ground rules for publicly funded research programmes, eliciting protests from Washington.

⁽²⁰⁾ Remarks at NATO Engages conference and interview with the author, London, Dec 3, 2019

⁽²¹⁾ Interview with the author, Washington DC, Sept 26, 2019; see also Leveraging the National Technology Industrial Base to Address Great-Power Competition: the Imperative to Integrate Industrial Capabilities of Close Allies, William Greenwalt, Atlantic Council, Washington DC, April 2019

Bridging the Atlantic

Rather than threatening a tit-for-tat transatlantic defence trade war over EU efforts to ring-fence a small corner of EU-funded research and technology projects, as Trump administration officials have done, some experienced US practitioners are suggesting a cooperative solution.

Jeff Bialos, Hans Binnendijk and Jim Townsend have decades of experience between them in dealing with NATO and European defence issues as government officials, academics and think tankers. Bialos, a partner with Washington law firm Eversheds Sutherland, was deputy under secretary of defence for procurement in 1999-2000, Binnendiik, a former vice-president of the National Defence University, served on the National Security Council and at the State Department and is a Distinguished Fellow of the Atlantic Council. Townsend served for eight vears as deputy assistant secretary of defence for European and NATO policy from 2009 to 2017, and is an Adjunct Senior Fellow at the Center for a New American Security (CNAS).

It has led them to the same conclusion: the US and the EU should establish a fund for joint R&D projects to the benefit of both sides.

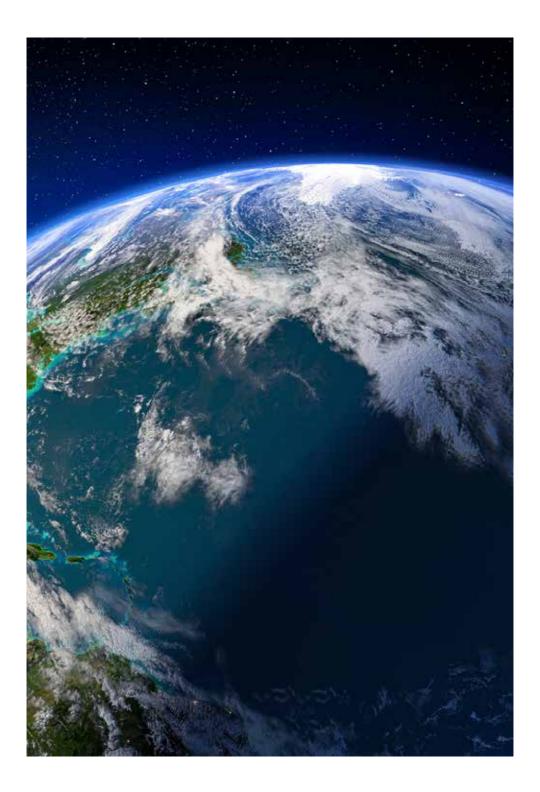
"We should be incentivising the EU to spend money in areas where it makes sense for our joint defence," said Bialos, author of an authoritative DoD-funded study of the transatlantic defence market published in 2009. "If we're really serious, the US ought to put some money in the pot in a joint effort with the European Defence Fund (EDF) and try to encourage the EU towards very specific capabilities."⁽²²⁾

Binnendijk and Townsend made a similar suggestion in a joint article calling for a compromise in the dispute with the EU over the rules for third-country participation in EDF projects. "The United States has much to gain from a strong European defence industry. Europe has much to gain from cooperation with the US defence industry. All NATO allies need to stimulate defence innovation to compete effectively with Russia and China," they wrote.^[23]

Some defence officials inside the Trump administration harbour similar thoughts. But whether such counsel can prevail under this administration is far from certain. It is also not clear whether France and Germany, leading the quest for greater EU self-reliance in defence technology, would necessarily embrace such an initiative. But it's worth trying.

(22) Interview with the author, Washington DC, Sept 24, 2019; see also: Fortresses & loebergs: The Evolution of the Transatlantic Defence Market and the Implications for US National Security Policy, Jeffrey P, Bialos, Christine E. Fisher, Stuart L. Koehl, Centre for Transatlantic Relations, Johns Hopkins University, Washington DC, 2009

(23) https://www.defensenews.com/opinion/commentary/2019/10/16/a-compromise-is-needed-on-trans-atlantic-defense-cooperation/





CHAPTER 3

Open but fragmented The European market

Size matters

The European defence market is open and competitive in theory but dominated by national champions and plagued by procurement inefficiencies in practice.

The European defence sector has a combined turnover of more than €100bn euros and employs about 500,000 people directly and claims to represent 1.2 million jobs altogether.⁽¹⁾ Europeans spend 80% of their defence budget at home on average, causing massive duplication among their forces and weapons systems.

A handful of European countries have significant defence industries. The UK and France are by far the largest and of roughly equal size, if Frenchheadquartered pan-European aerospace giant Airbus and missile maker MBDA can be counted as French. The British and French each had a total defence turnover of about €34bn euros in 2017, followed by Italy with around €10bn, Germany with nearly €8bn, Sweden with €2.6bn and Spain and Poland each with about €1bn. Non-EU Switzerland and Norway also have sizable defence manufacturers.⁽²⁾

In addition to some 20 big companies each with a defence turnover of more than €1bn, the European sector includes some 1,350 small and medium enterprises.

All the major US defence companies have a direct presence in Europe as well as having acquired European subsidiaries. Between them, America's 'Big Five' – Lockheed Martin, Boeing, General Dynamics, Raytheon and Northrop Grumman – employ some 17,000 people directly in Europe in addition to numerous subcontractors. Boeing boasts that 23 European armed forces use its defence platforms.

The Armaments Industry European Research Group (ARES) established by the French think tank Institute for International and Strategic Affairs (IRIS) estimates that up to one-quarter of EU armed forces' equipment comes from US suppliers.⁽³⁾ Other estimates are smaller but all agree the US is by far the biggest foreign supplier.

As we have seen, the quest for greater European defence integration is driven both by the political imperative for Europe to take more responsibility for security in its neighbourhood and by a strong desire to preserve economic and technological sovereignty.

However, European governments have rarely seen eye-to-eye on how to go about it. Struggles between Europeanists and Atlanticists, battles over the relative powers of EU institutions and of

⁽²⁾ https://www.sipri.org/sites/default/files/SIPRI-Top-100-2002-2018.xlsx; (3) ARES

member states, disputes about the appropriate level of military and political ambition, and about the balance between state interests and market forces have shaped and constrained cooperation.

While France, and to a lesser extent Germany, are keen to Europeanise the defence market as much as possible, with a strong role for the European Commission, Britain and Sweden have led a rear-guard action to keep member states in control and ensure an open, international market. Both of those countries' defence industries are tightly plugged into the US sector.

Top 10 arms-producing and military services companies in the U.S. and Europe*

Rank	Company	Country	Arms sales, 2018 in US\$ billion	Arms sales as a % of total sales, 2018
1	Lockheed Martin Corp.	U.S.	\$47.3	88%
2	Careema Boeing	U.S.	\$29.2	29%
3	Northrop Grumman Corp.	U.S.	\$26.2	87%
4	Raytheon	U.S.	\$23.4	87%
5	General Dynamics Corp.	U.S.	\$22.0	61%
6	BAE Systems	U.K.	\$21.2	95%
7	Airbus Group	Netherlands/France	\$11.7	15%
8	Garage Leonardo	Italy	\$9.8	68%
9	THALES Thales	France	\$9.5	50%
10	States United Technologies Corp.	U.S.	\$9.3	14%

*Source: SPIRI Top 100 Arms-Producing Companies, 2018

Different agendas

Put simply, the French want partners willing to operate with them in the Middle East and Africa, alongside a consolidated, French-led European defence industry that is not technologically dependent on the United States or shackled by national arms export restrictions of other states, including those of its European partners.

The dirigiste tradition of state-directed industrial policy applies particularly strongly to the defence sector, where the Directorate General of Armaments (DGA) procurement agency calls the shots. The state owns sizable minority stakes in Thales, Safran and Airbus, which in turn owns a big stake in pan-European missilemaker MBDA and almost 10% of Dassault Aviation. That makes the French uncomfortable partners for countries with a strong private sector culture, such as Germany and Sweden.

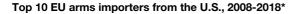
Ironically, the French military prefer working with their US and UK counterparts, seen as the most professional, to collaborating with other European armed forces, many of which do not share their strategic culture or willingness to take risks in combat operations.

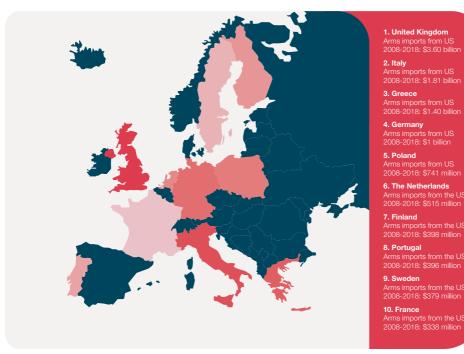
In 2017, when he was conservative presidential candidate François Fillon's foreign policy advisor, Bruno Le Maire spelled out French

ambition bluntly to EU ambassadors. "France will no longer tolerate European countries buying non-European defence equipment," he said, according to two participants in the meeting. Fillon lost the election but Le Maire is now economy minister. His comment was a rare acknowledgement of what many see as France's true agenda. It also illustrated how remote that vision is from current European realities.⁽⁴⁾

Having voted to leave the EU, the British believe that their strength in defence entitles them to the best of both worlds – or as Prime Minister Boris Johnson would put it, to have their cake and eat it. They want to be leading players in NATO and in military coalitions of the willing, while remaining an integral part of the European defence industrial and technological base. They also aim to make the most of their special relationship with the United States, both militarily and industrially.

London long used its veto power to keep European defence cooperation strictly intergovernmental and block any role for the Commission. The UK prefers bilateral cooperation with the US or France, and small multilateral initiatives such as the six-nation Letter of Intent (LOI) treaty signed with France,





*Source: SIPRI Arms Transfers Database

Germany, Italy, Spain and Sweden in 2000 to promote restructuring of the defence industry. Having contributed to the creation of the European Defence Agency (EDA), created in 2004 to identify key capability gaps, the British starved it of cash and staff for more than a decade.

The British defence sector is overwhelmingly privately owned although the government retains a golden share in BAE Systems, the biggest company, allowing it to veto certain decisions including mergers and acquisitions. The issue arose during the aborted merger attempt in 2012 between the European Aeronautic Defence and Space Company (EADS, renamed Airbus in 2014) and BAE Systems, when the UK government agreed to the deal but set conditions. It insisted the defence arm of the merged company be based in London with a British chief executive and a separate board comprised exclusively of UK and US citizens to preserve its Special Security Arrangement with the Pentagon and safeguard access to the US market.

The UK government also intervened in 2019 to suspend a proposed takeover of aerospace and defence group Cobham plc by a US private equity group until it obtained assurances on national security concerns. The deal went ahead.

The Italians want to be at the top table in Europe and NATO. Rome is engaged in military operations short of high-intensity combat, and industrially integrated with both the European and the US defence sectors. Leonardo, by far the biggest Italian defence company, was a core partner in the transatlantic Joint Strike Fighter project which became the F-35 and hosts the only assembly line for the top-of-the-range US fighter in Europe. Leonardo is also engaged with France on space satellite projects, and in the UK. Poland and the United States on helicopters, while Fincantieri, Italy's major naval shipbuilder, is in a joint venture with France's Naval Group to build frigates. The Italian state has substantial shareholdings in both Leonardo (30.2%) and Fincantieri (71.3%).

For historic reasons, the Germans are schizophrenic about defence, seeking to be major players in the European industry on an equal footing with France, while remaining extremely reluctant to participate in combat operations and applying the strictest arms export regulations in Europe. Putting a European flag on defence in Germany, particularly if it involves cooperation with core EU partner France, makes it more politically acceptable to a pacifist-leaning electorate.

Germany was the world's fourth largest arms exporter in 2018, close behind France and far ahead of the UK, according to the Stockholm International Peace Research Institute (SIPRI).⁽⁶⁾

Yet its export restrictions on sales, enforced by the Economy Ministry under close parliamentary oversight, have been used to prevent France from selling jointly produced helicopters and missiles to clients in the Middle East and Central Asia, and to stop Britain delivering Eurofighter jets to Saudi Arabia – to the European partners' intense irritation. Berlin banned arms exports to Riyadh unilaterally in protest at the murder of Saudi journalist Jamal Khashoggi and extended it at least until 2020 over the Saudi conduct of the war in Yemen.

Berlin's official policy is that "German exports should neither intensify conflicts nor contribute to internal repression or other severe human rights violations in crisis areas."⁽⁶⁾

Unpredictability of export authorisations had become a show-stopper for closer Franco-German arms cooperation, prompting Paris and Berlin to reach an agreement in October 2019 "recognising the importance of having a reliable outlook concerning transfers and exports to

⁽⁶⁾ https://www.bafa.de/EN/Foreign_Trade/Export_Control/export_control_node.html

⁽⁷⁾ https://www.legifrance.gouv.fr/affichTexte.do;jsessionid=BBA0C960E6FD91DFEF7DEBF27EF23FD0.

tp/gfr42s_1?cidTexte=JORFTEXT000039373201&dateTexte=&oldAction=rechJO&categorieLien=id&idJO=JORFCONT000039373107

ensure the political and economic success of their industrial and governmental cooperation".

Under the deal, one of the countries may only prohibit the export of jointly produced weapons in exceptional cases justified by "harm to its direct interests or to its national security", within a maximum two-month deadline after notification of the intention to export. In such cases, consultations would take place with a view to an alternative solution. The agreement explicitly applies to future air and ground combat systems at the heart of Franco-German defence industry plans. It also scraps requirements for end-user certificates - intended to prevent resale to unauthorised parties - for components provided they comprise less than 20% of any weapon system. A permanent consultative committee will oversee implementation.(7)

However, diplomats say the agreement applies only to future joint projects rather than to existing contracts. Whether this has laid the vexed arms export issue to rest remains to be seen, but it has at least reduced one key impediment to future cooperation.

Divergent export policies are not the only obstacle to Franco-German defence collaboration. The Bundestag withheld funding for the concept study of the proposed Future Combat Air System (FCAS) for several months in 2019 to insist on a greater work share for German manufacturers in the Main Ground Combat System (MGCS) project to produce a Franco-German tank for 2035. As a result, Germany's Rheinmetall secured a bigger share of this work.⁽⁸⁾

Attempts to reform the Bundeswehr's own procurement system have been a fiasco despite tens of millions of euros spent on external consultants. More than half of German tanks, ships and aircraft are out of action at any one time for lack of maintenance and spare parts due to a quarter century of downsizing and neglect of the armed forces.⁽⁹⁾

The Swedes, like the British, are determined to minimise the role of the European Commission and to keep European defence as intergovernmental as possible. Like the British, they are strong supporters of letting market forces, rather than state intervention, drive the defence sector.

Stockholm sees the survival of its privatelyowned industry, dominated by aircraft and submarine manufacturer Saab, as dependent on access to US technology and hence opposes the French vision of strategic autonomy and industrial consolidation.

"Third party access is crucial, both transatlantic and trans-Channel," a Swedish defence official said. "We sometimes hear phrases like 'the EU cannot afford more than one fighter manufacturer'. We say the EU cannot afford less than two."⁽¹⁰⁾

⁽⁸⁾ https://www.german-foreign-policy.com/en/news/detail/7972/

 ⁽⁹⁾ https://www.reuters.com/article/us-germany-military/german-military-requires-urgent-action-parliamentary-report-idUSKCN1PN28I
(10) Interview with the author, Brussels, Sept 11, 2019

Other EU countries with smaller defence industries that mostly serve the domestic market such as Poland and the Czech Republic are above all concerned that Permanent Structured Cooperation (PESCO) and the European Defence Fund (EDF) do not give a still bigger advantage to the more technologically advanced European countries, leading to their companies being swallowed and downsized by well capitalised west European manufacturers.

For them it was crucial that the EDF regulations reserve EU funding for projects involving at least three companies from at least three member states to avoid what a Polish official called "a Franco-German carve-up" and a Czech diplomat branded "structural funds for rich countries".⁽¹¹⁾

European defence initiatives

The European Commission's first venture to try to bring single market disciplines of competitive tendering, a cross-border level playing field and transparency to the EU defence sector achieved only modest results. The 2009 directives on the intra-EU transfer of defence-related products and on defence procurement attempted to prise open a segmented and secretive market.

Member states have continued to make liberal usage of Article 346 of the Treaty on Functioning of the European Union (TFEU) permitting a government to invoke "essential interests of its security which are connected with the production of or trade in arms, munitions and war material" to avoid applying EU single market rules to defence purchases. Attempts by the European Court of Justice and the Commission to circumscribe that exception have been slow to have an impact.⁽¹²⁾

The EU defence initiatives of 2017 launched PESCO among 25 member states with theoretically binding defence spending and equipment investment targets, a coordinated annual review of defence (CARD) and a raft of multinational projects to plug key capability gaps. Separately, the EDF was created to incentivise cross-border military research and development projects. While each entails complex administrative processes, taken together they have a greater potential to promote intra-European cooperation and consolidation in defence industries.

Many, though not all, of the 47 PESCO projects announced in 2018 and 2019 correspond to capability shortfalls identified by the EDA and the NATO defence planning process. Probably the most immediately relevant to improving transatlantic security are the military mobility drive led by the Netherlands to remove administrative hurdles to cross-border movement of troops and materiel and upgrade European ports, airports, roads, railways and bridges to facilitate rapid reinforcement of NATO's flanks; the medium-altitude (MALE) drone, a field in which Europe is woefully behind; and the cyber rapid response team and mutual assistance project led by Lithuania.⁽¹³⁾

As for the EDF, serious money will only become available in 2021 when a new seven-year EU budget cycle begins. The Commission has proposed \in 13bn over that period, of which \in 4.1bn for collaborative defence research

⁽¹²⁾ https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:12016E346&from=EN

⁽¹³⁾ Full list of PESCO projects and participating countries: https://www.consilium.europa.eu/media/41333/pesco-projects-12-nov-2019.pdf



Boeing-Leonardo MH 139 Military Helicopter, due for delivery to the US from 2021

and technology (R&T) projects and €6.9bn for capability development. A small part of the envelope is earmarked for disruptive projects.

Assuming the full amount survives EU budget negotiations, one question is whether it will all be new money, on top of the dwindling amounts that member states invest in defence research. In Finland, Sweden and Spain, defence planners have been told by their finance ministries that the EU funding will be docked from national defence budgets, diplomats say. "We face losing R&T money and being told to go fight for it in Brussels," one said.⁽¹⁴⁾

For Europeans to be able to make significant progress in armaments cooperation and

industrial consolidation among themselves will take more than seed money, Even if the financial incentive for cross-border projects instils habits of collaboration.

Member states will also need to tackle politically sensitive issues such as reconciling divergent national arms export legislation, bridging statist and private sector industrial cultures and balancing their quest for strategic autonomy with the technological and economic opportunities of transatlantic cooperation. They have barely begun.

De-linking, duplication, discrimination

When the Europeans began to develop their own collective security and defence identity (ESDI) in the 1990s, it triggered a decade of quasi-theological wrangling in NATO. Then Secretary of State Madeleine Albright set out three US demands which became known as the "three Ds". "Any initiative must avoid preempting alliance decision-making by de-linking ESDI from NATO, avoid duplicating existing efforts and avoid discriminating against non-EU members," she told NATO foreign ministers in 1999.

The anxiety about de-linking was a reversal of longstanding European concerns that the United States might "decouple" from European security. Some in Washington worried that a well-drilled EU caucus could pre-cook NATO decisions and turn up to alliance meetings with a fait accompli, taking leadership out of US hands. Had they known the EU better, they need not have worried.

Others feared that the Europeans could launch an ill-conceived military operation with or without recourse to NATO assets and command structures, forcing the United States to intervene to extricate or support them, as had happened with European UN peacekeepers in Bosnia in 1995. Still others worried that greater European military autonomy, if successful, would reduce America's ability to control or influence the strategic situation in or around Europe.

Industrial as well as political concerns were reflected in the second D - duplication. Washington, strongly backed by London, opposed any move to create an EU operational military headquarters to run operations in which NATO as a whole chose not to be involved. Elaborate arrangements, known in diplomatic jargon as "Berlin Plus", were negotiated to enable the FU to use the NATO chain of command under the European deputy NATO supreme commander, traditionally a UK officer. They have been used only twice, briefly for missions in North Macedonia and Bosnia. Most EU missions have been run by a lead country's national headquarters, but the EU is likely to establish its own operational HQ once Britain leaves.

One longstanding US contention has been that any European replication of existing US capabilities is wasteful. That argument was made forcefully at the turn of the century when the Pentagon tried to block the EU's plan to deploy its own navigational satellite system. Why do you need Galileo when you can use our Global Positioning System (GPS), US officials asked.



Airbus A400M aircraft

French President Jacques Chirac responded that without its own system, Europe would become a "scientific and technological and then an industrial and economic vassal". The UK, fired up by Washington, tried unsuccessfully to prevent EU funding for Galileo, which British officials ridiculed as "the Common Agricultural Policy in space".

US Deputy Defence Secretary Paul Wolfowitz wrote to European NATO defence ministers that the EU's planned secure Public Regulated Service (PRS) could interfere with US military communications to the detriment of NATO in crisis or wartime and should be examined "in an appropriate forum". The EU went ahead anyway, reaching an agreement with the US to make the two systems interoperable and avoid spectrum conflicts. In return, Washington recognised that Galileo was an independent navigational system.

Galileo went live in 2016, several years behind schedule and at a cost more than 50% higher than initially budgeted. It now has 1 billion users, including the US military, which considers the redundancy a useful fallback in case of attacks on its encrypted GPS channels, according to European Commissioner Elżbieta Bieńkowska, in charge of industry in the Juncker Commission.⁽¹⁵⁾

Debate over transatlantic duplication of other capabilities persists. American defence planners derided the Europeans' decision to plough investment into their own military transport aircraft, the Airbus A400M, rather than buy US C-130 tactical transport and C-17 strategic airlift planes off the shelf. It was a prime example of politics trumping strictly operational needs, at high financial cost.

The European consortium even developed its own turbo-prop engine from scratch rather than buying an available US/Canadian one more cheaply. This was by no stretch of the imagination cutting edge technology, but the French insisted on independence. The result was long delays, cost overruns and the late delivery of several variants of an aircraft that cannot fly without refuelling to many of the theatres where European forces are engaged, such as Afghanistan.

In 2010, Belgium, Britain, France, Germany, Luxembourg, Spain and Turkey had to bail out the programme with €3.5bn euros to prevent it collapsing. Germany tried in vain to sell off 13 of its A400Ms and refused to take delivery of two in 2019 citing recurrent technical problems. "We still laugh about the A400M. What a waste!" a US Air Force colonel said.⁽¹⁶⁾

The charge of duplication arose again when Germany's decision to reject the F-35 fighter from the contest to replace its ageing Tornado strike aircraft angered US manufacturer Lockheed Martin, which developed the fifthgeneration fighter in partnership with the UK, Italy, the Netherlands, Australia, Canada, Norway, Denmark and Turkey.

The head of the German Air Force was dismissed in 2018 after he voiced a preference for the F-35. Defence ministry officials said Berlin would prefer "a European solution". They did not rule out buying fourth generation US F-18 combat aircraft and/or upgraded Eurofighter planes to meet their bridging needs.

Germany, which has continental Europe's biggest defence budget, has agreed to pursue a future sixth-general combat air system (FCAS) with France and Spain, tentatively set to fly in 2035.

Jonathan Hoyle, Vice-President of Lockheed Martin International, called the German rebuff to the F-35 "a retrograde step... So when we go off and collaborate together operationally, if you are flying stealth, fifth-generation jets, you don't want a fourth-generation jet in the middle of your operations because everyone can see that."⁽¹⁷⁾

US officials and industrialists also question the point of a Franco-German maritime airborne warning system (MAWS) project, for which Paris and Berlin plan to launch a feasibility study in 2020, probably based on a modified Airbus A320 civilian airliner. Why would continental Europe's two leading powers spend precious resources, and perhaps try to tap EU funds, for a capability which already exists off the shelf, since the UK and Norway are already flying US Boeing P8 sea patrol aircraft, US players ask.

It is also not clear how the Franco-German initiative squares with an 8-nation NATO project for "multinational maritime multi-mission aircraft capabilities," on which a memorandum of understanding was signed in 2018. Paris and Berlin are both signatories. On the face of it, there would appear to be at the least overlap between the bilateral Franco-German project and the transatlantic cooperation effort involving non-EU Canada and Turkey are also partners.

As for the third D – discrimination – it reflected both US concern at being shut out of European industrial projects and concern for the interests of other, non-EU NATO allies (notably Norway, Canada and Turkey). Those arguments have been given new vigour by Britain's impending departure from the EU, removing the country with Europe's biggest defence industry and

⁽¹⁶⁾ Interview with the author, Washington, Sept 27, 2019

⁽¹⁷⁾ https://www.ft.com/content/4b56e040-6993-11e9-80c7-60ee53e6681d

25% of NATO Europe military spending from the Union.

There are strong echoes of the 1990s arguments in today's transatlantic exchanges over PESCO and the EDF. The United States has pressed the EU to change the regulations even after they had been put to bed in a political compromise between member governments and the European Parliament pending formal adoption of the legislation. It argues that the rules create barriers to the transatlantic defence market and go against objectives agreed in the EU-NATO Joint Declaration to encourage the participation of non-EU allies in EU defence initiatives.

"Language in both the EDF and PESCO documents, including language related to intellectual property rights and export controls, would effectively preclude participation by third parties in EDF and PESCO projects," the US Department of Defense's Lt.-Col. Mike Andrews said. The impact would not be confined to a single project. "It will be cumulative. Over time, this will produce duplication that diminishes the technological cooperation or our defence industrial bases and the interoperability of our armed forces."

A letter by the under-secretaries of defence and state warned that the EU initiatives, unless modified, "represent a dramatic reversal of the last three decades of increased integration in the transatlantic defence sector".

The way the EU had framed the rules would introduce "poison pills" against US participation and "produce duplication, non-interoperable military systems, diversion of scarce defence resources and unnecessary competition between NATO and the EU", American officials Ellen Lord and Andrea Thompson wrote.⁽¹⁸⁾

They were particularly angered by stipulations that hardware, services and technology may not be "subject to control by a non-associated third country or by a non-associated third country entity". This means no ITAR-controlled technology could be used in an EDF-supported project.

EU officials say the US complaints are massively overblown. They note that Washington recognises that the 2009 EU defence directives do not discriminate against US companies, and neither PESCO nor the EDF alters European procurement law. Hence, the European market remains just as open as before for US exports and nothing in the EDF or PESCO legislation requires member states to purchase European rather than US equipment.

The European Parliament member in charge of steering the EDF legislation, Zdzisław Krasnodębski, a Pole from Warsaw's ruling pro-American nationalist Law and Justice (PiS) party, called the US criticism exaggerated, "especially as we know that the defence sector in the US is very well protected against outsiders". Even with the EDF rules in place, the European market would remain very open compared to the American market, he said.⁽¹⁹⁾

As an EU official put it, "third party participation will remain exceptional, but not exceptionally difficult".⁽²⁰⁾

(18) https://int.nyt.com/data/documenthelper/1073-19-5-1-02-letter-to-hrvp-moghe/6cdebd319d226b532785/optimized/full.pdf
(19) Telephone interview with the author, Oct 1, 2019
(20) Interview with the author, Brussels, Sept 10, 2019

A market or a partner

Some US officials do not acknowledge the EU as a player in defence at all, seeing it essentially as an economic organisation. In line with a long US diplomatic tradition, they think only in terms of NATO and of bilateral relations with the nation states of Europe. Until recently, the EU representation in Washington was not authorised to have official contact with the Department of Defense (DoD) because the EU was a civilian body that did not "do defence".

A senior European diplomat who served in Washington during the late Obama and early Trump era said there were divergent attitudes towards the EU and European defence within the US establishment under both administrations.

The military and many career defence officials welcomed anything that would increase European capabilities and supported the quest for rationalisation, pooling and sharing. They understood the need to work with allies and were willing to consider the EU as a constructive player, even if many were sceptical about its ability to generate serious additional capabilities, he said.⁽²¹⁾

"There is also a more brutal commercial side that simply sees massive money to be made and thinks Europeans should buy more US equipment because it's the best and it would help fix the trade deficit," the diplomat said. "Eisenhower's 'military industrial complex' is alive and kicking."

"This (Trump) White House actively sees the EU not as a beacon of hope but as a rival and a threat. There is an obsession with the nation state. Trump sees dealing with the EU collectively as much tougher than bullying individual countries, even Germany," he said.

Not all US policy experts are negative about the EDF. Some understand that it is easier to persuade west Europeans to accept additional spending on defence if it is draped in the European flag rather than as a response to NATO or US pressure.

E.J. Herold, a private defence consultant who is a 20-year veteran of military and diplomatic posts in Europe including time in the NATO secretariat and the Pentagon, says that while the EDF will probably not be a game-changer, given the limited money involved, it could lead to a worthwhile consolidation of European defence industry.

"European governments have supported national champions for fear of losing sovereignty. I used to tell my European interlocutors that the quest for sovereignty is myopic. If they gave up some shipyards and went down to two or three instead of seven or eight, if they reduced the number of producers of armoured personnel carriers from 15 to between three and five, they could still maintain national sovereignty through increasing their purchasing power," he said.⁽²²⁾

US companies operating in Europe say they have no objection in principle to the EDF but they want to avoid it being set up in a way that effectively excludes their European subsidiaries from competing for contracts. While they acknowledge that the United States also restricts the export by European companies of intellectual property resulting from US defence projects on which they work, they say the planned EU regulations would go further and force US and (after Brexit) UK companies to surrender so-called "background IP rights", developed prior to the collaboration.

Jeffrey Bialos, a Washington lawyer and defence industry expert who served in senior positions in the State and Defense departments in the Clinton administration, believes the EDF is a useful tool to help European countries develop their industrial and technological base and turn research into additional military capability. "Governments spend money at home and the EU needs to have a strong European Defence Technological and Industrial Base," he said in an interview. "In my view it does make sense to have autonomous EU capabilities in support of NATO goals."⁽²³⁾

The hard sell

That view has been deeply out of fashion since the advent of the Trump administration. US diplomats and military personnel abroad have been instructed to promote military sales abroad much more forcefully, especially in Europe on the back of the president's crusade for countries to meet the NATO 2% defence spending goal.

In a 2018 presidential memorandum, Trump outlined defence trade reforms to integrate early planning for export, known as exportability, into DoD requirements and acquisition systems. "Improving DoD planning for exportability will increase US industry competitiveness, strengthen the US defence industrial base and lower unit costs for the US national defence," Lt.-Col. Mike Andrews said, adding it would also provide more opportunities for cooperation with foreign partners, "enhance coalition interoperability and increase partner combat capability solutions to help fulfil US national security objectives".⁽²⁴⁾

US embassies have two departments that deal with defence – the office of the defence attaché, which typically deals with policy and militaryto-military relations, and the office of defence cooperation, which deals with governmentto-government foreign military sales. Under Trump, defence attachés too are required to spend their time pushing foreign military sales. "Trump is keeping a score on whether foreign governments are buying American defence goods," said a person who recently served in a US embassy in Europe. "Poland is buying favour big time. Romania is also making really big purchases. Anyone on the east European side is in a better position with the Trump administration."⁽²⁵⁾

To help business along and re-equip new or future NATO allies, the US State Department created an initial \$190mn programme in 2018 to wean east European countries off legacy Soviet equipment and onto US kit. The European Recapitalization Incentive Program (ERIP) targets Albania, Bosnia, Croatia, Greece, North Macedonia and Slovakia. The condition is that they must match the money provided by Washington to buy US helicopters and infantry fighting vehicles.⁽²⁶⁾

It is ironic that the US is complaining about the possibility of its companies being shut out of EU-funded defence research programmes at the same time that it is subsidising poor European NATO allies to buy US equipment in markets where European manufacturers are competing.

(24) Email interview with the author, Oct-Nov 2019; (25) Telephone interview with the author, Sept 20, 2019

⁽²⁶⁾ https://www.defensenews.com/global/europe/2019/05/29/inside-americas-multimillion-dollar-plan-to-get-allies-off-russian-equipment/



Air war

Bulgaria, the poorest country per capita in the European Union, offers a textbook case study of the hard sell. Washington invested months of industry lobbying, political and media pressure and even a billboard campaign to persuade the government to buy F-16s rather than Swedish Gripen fighters or reconditioned Eurofighters from Italy to replace its Soviet-era planes. A previous interim government had selected the Gripen in 2017, but its successor launched a new competition. This time too, Gripen manufacturer Saab put in the cheapest offer with the largest number of aircraft and topped the initial ranking before the US campaign got airborne in late 2018.

Secretary of State Mike Pompeo and his deputy, John Sullivan, both met their Bulgarian counterparts and Pompeo telephoned Prime Minister Boyko Borisov about the deal, according to Bulgarian media reports, an unprecedented degree of solicitude for the Black Sea state. General Philip Breedlove, a former NATO supreme allied commander Europe and an adviser to F-16 manufacturer Lockheed Martin, was dispatched to Sofia to vaunt the merits of the plane in the media. He was widely quoted as saying he would give his right leg to fly the F-16 model being offered to Bulgaria. Fortunately, that sacrifice wasn't necessary.

The US embassy in Sofia declared the deal would be a big step forward in strategic partnership between the United States and Bulgaria. Bulgarians were bemused to find billboards advertising the F-16 where once German automobiles had beamed enticingly down on them. Wags joked that Bulgarians' purchasing power must really have taken off if the F-16 had replaced the Opel saloon.

The government finally signed off on the \$1.67bn deal, the biggest since the fall of communism, in July 2019 despite opposition accusations of corruption and a last-minute attempt by Bulgarian President Rumen Radev, a former air force commander, to veto the bill.

The reward was a red-carpet Oval Office reception for Borisov in November 2019 at which Trump publicly praised Bulgaria for buying US weapons (he mistakenly said Sofia had ordered F-35s) and said Borisov could teach Germany some lessons on defence spending.

Due to the deal, Bulgaria suddenly vaulted into second place in NATO's annual defence spending table, boasting outlays of 3.25% of GDP in 2019, up from 1.4% the previous year. Moreover, it now tops the league table for the proportion of the defence budget spent on equipment at a staggering 59% (the NATO target is 20%), after being close to nil in 2014.⁽²⁷⁾ Similarly, Slovakia catapulted to third place in the equipment table with 41.7% after it signed an \$800mn deal to buy F-16s to replace its legacy Soviet MiG-29s.

Borisov observed wistfully at the NATO leaders' meeting in London that when big countries increase their military spending, it benefits domestic industry, but when poorer, small countries buy big-ticket items, it merely swells imports and boosts some big nation's industrial exports.

Partnership model

While such outright sales still occur, an executive with one of the US Big Five said American contractors understood that they needed to partner with European companies in multinational cooperation from the outset in future to work in the EU defence market.

"Of course there will still be sales campaigns in European countries to buy things off the shelf, but it will slow down and the need for multinational cooperative projects will have to ramp up," he said.⁽²⁸⁾

Lockheed Martin see themselves as pathfinders in such transatlantic cooperative programmes. The F-35 was deliberately conceived as an international project from its inception as the Joint Strike Fighter. The UK was the first partner to join, followed by Canada, Italy, the Netherlands and Australia. The UK boasts that 15% of every F-35 is British-made, including the vertical lift fan that enables the navy version to land on an aircraft carrier. Belgium says it gets 5% from each sale because of composite materials produced by Solvay. But the programme has been dogged by delays and cost overruns, prompting some allies to reduce and delay their purchases. The initial production run cost an eye-watering \$100mn per fighter. While the unit costs have fallen now to below \$85mn, European air forces fear high recurring costs for maintenance and upgrades.

The United States long relied on the UK, its closest European ally, to prevent the EU from adopting policies it disliked, including in the defence field. A senior US official interviewed for this report lamented: "The worst thing about this is that the country we used to rely on to stop it ain't going to be there anymore."⁽²⁹⁾

Former deputy assistant secretary of defence Jim Townsend recalled: "I used to go to the UK and say, hey, could you guys do X, Y or Z in the EU, and they'd do it - not necessarily to curry favour with us. They did it because they agreed with us." He compared the British position with that of graphite rods at the centre of an atomic reactor that slow the nuclear reaction. "Now there are no graphite rods anymore."⁽³⁰⁾

Perhaps the most telling criticism of the EU approach comes from a European. Tomáš Valášek, the former Slovakian NATO ambassador, said that while it was legitimate for Europe to want to strengthen its defence industrial base, this was only a means to an end, not the end in itself.

"My main qualm with the European Commission approach is that we've defined the strength and vitality of the European defence industry as a strategic goal, rather than having a very capable set of European militaries to meet any threat," he said.⁽³¹⁾

⁽²⁸⁾ Telephone interview with the author, Oct 24, 2019; (29) Interview with the author, Washington DC, Sept 23, 2019 (30) Interview with the author, Washington DC, Sept 25, 2019; (31) Telephone interview with the author, Sept 18, 2019

⁽³⁰⁾ Interview with the author, washington DC, Sept 25, 2019; (31) Telephone interview with the author, Sept 18, 2019

tching a fly-past at the July 2018 NATO summit in Brussels

CHAPTER 4

Preparing for the day after Conclusions and recommendations

No fortresses

While there are some signs that the United States and Europe are growing apart, both strategically and in their defence industries, there are also plenty of examples of them working together and plenty of reasons why they should continue to do so. Despite mutual complaints of protectionism and discrimination, a more nuanced picture emerges from detailed study on both sides of the Atlantic.

Strictly speaking, there is no such thing as Fortress America or Fortress Europe when it comes to defence. Contrary to what is sometimes asserted, both markets are open, to differing degrees and with varying conditions.

A transatlantic market exists, though there are few new large joint projects. Transatlantic Defence Technological and Industrial Cooperation (TADIC) "is in much better shape than people would have us believe on either side of the Atlantic. Industry knows how to cooperate and does so very well," said Robert Draper, a veteran Brussels defence consultant and former Boeing regional vice president for the defence sector in Europe.

The F-35 programme embodies the preferred US model of cooperation from drawing board to runway, harvesting the best of European and other allies' technology in a US airframe under American leadership. To critics, it also illustrates the limits and frustrations of that model: no full sharing of the most sensitive US technologies, escalating costs over which partners have scant control, a higher unit price for countries that order early than for those that join later, and the risk of suddenly being shut out for political reasons, as has happened with Turkey after it bought a Russian S-400 air defence system.

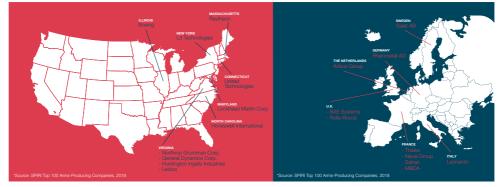
The European market is wide open and the United States has a substantial share of it. There is no Buy European Act, and defence procurement remains a purely national competence. US industry is the number one external supplier to most European militaries, ahead of other European countries. NATO Europe is the second largest export market for the US defence sector after Asia/Pacific and, perhaps surprisingly, just ahead of the Middle East.

Even France, the most prickly European nation about self-reliance, buys US transport planes, tactical early warning aircraft and drones. While the US is dominant in Europe in combat aircraft, drones and missiles, the Europeans tend to build their own land systems, naval platforms, artillery, guns and helicopters.

The US defence market is open in a different way, provided European companies agree to operate separate ring-fenced American subsidiaries with proxy boards of US citizens, special security agreements with the Pentagon and a strict information firewall with their foreign parent.

While Airbus' notorious loss of the US Air Force tanker contract that it had won is emblematic of the unlevel playing field, that cause celebre masks many smaller successes. Airbus itself, for example supplies light utility helicopters to the US army, manufactured at a plant in Mississippi under a \$3bn contract. European firms have many opportunities down the US supply chain. The recent successes of Saab and Leonardo in selling to the DoD in partnership with Boeing show that the model of partnering with a US prime contractor can pay off, even for European airframe makers. The downside is that Saab has had to grit its teeth and watch the US outmuscle its bids to sell Gripen fighters in central Europe.

Headquarters of top 10 arms-producing and military services companies in the U.S. and Europe*



A bigger cake for all

The sustained increase in European defence spending and the launch of EU programmes designed to provide incentives for cross-border collaboration to fill key capability gaps ought to provide a basis for a more constructive dialogue with the United States - if not with the current administration, then perhaps after the 2020 presidential election.

When the cake is getting bigger, the debate about how to slice it ought to be easier. Even if more intra-European cooperation were to result in a smaller US percentage market share, US defence companies could still end up earning more money in Europe.

EU member states are keen to preserve close defence ties with the United States, and many European companies will continue to prefer working with US partners to playing second fiddle to dominant French or Franco-German players. Or at least, like Italy's Leonardo, they will continue to hedge their bets on both sides of the Atlantic and of the Channel.

If the EDF and PESCO achieve a successful start and member states respond to the Pavlovian stimulus to spend their scarce defence resources more efficiently together, they may lay the ground for a more balanced and productive transatlantic dialogue about regulatory and technological reciprocity. By strengthening themselves, EU countries will become more credible security providers and be able to strengthen cooperation with their closest allies.

Both the EU and the United States will have to make difficult choices.

The US will have to accept that if European taxpayers are to spend consistently more on defence, they will expect to see much of that money go to European industry to keep Europe at the cutting edge of civilian/military technology. Washington will need to consider how much more reciprocal access it is willing to give in order to gain or sustain market share in Europe. And it will need to rethink how much cooperative technology transfer with European allies it is prepared to grant.

There is a trade-off between 'America First' and transatlantic cooperation.

The accelerating pace of innovation, the commercial tech sector's widening lead over the defence industries in key areas such as quantum computing, artificial intelligence, big data and communications technology, and the reluctance of many in Silicon Valley to work with the DoD should be drivers for reform of sclerotic



Boeing/Saab T-7 Red Hawk advanced jet-trainer aircraft

US procurement processes, technology transfer and export control regulations. The United States cannot afford to cut itself off from the best of domestic or European technology if it wants to maintain its technological edge over adversaries. Nor can it afford to continue lumbering 25 years over procuring major weapons systems when commercial innovation is running at a 90-day time to market.

While it is legitimate to seek to keep advanced military know-how out of the hands of adversaries, the US would benefit from treating European allies equally rather than discriminating between the privileged circle of Five Eyes nations and other partners. A more internationalist administration that gave strategic objectives precedence over trade policy might be able to mobilise the pro-NATO majority in Congress in support of such an agenda.

"There is a strategic dissonance between the America that wants to see Europe stronger in defence and the America that sees Europe as a market. I don't think that dissonance is going to be resolved any time soon," said a Washington-based European diplomat who works on defence issues. "Hopefully, Europe will develop stronger technology and enlightened mutual self-interest will prevail."⁽¹⁾ Europeans, for their part, will have to weigh the trade-off between seeking greater industrial and technological autonomy from the United States and delivering the top-ofthe-range capabilities they require for their defence. They will also have to understand that only substantially increased investment in research and technology will put them on a more equal footing with America.

The risk is that the EDF and PESCO could turn into a European industrial policy for its own sake rather than a means to improving Europe's collective defence and taking more responsibility for its own security.

The EU will need to find creative ways to adapt or bend its own rules after Brexit to ensure that Europe continues to get the benefit of the UK's advanced industry as part of the European defence technological and industrial base rather than push the Brits deeper into American arms. This will be crucial for cross-border companies such as Leonardo, MBDA, Thales and Airbus as well as for BAE Systems and Rolls-Royce.

To that end, the Europeans really need their own long overdue "last supper" to consolidate their bloated and fragmented defence sector after the near miss of the aborted Airbus-BAE Systems merger. That would require a topdown agreement among the main European governments, which in turn presupposes a change of mentality, and perhaps of leadership, in Germany. "It's not for us to determine how many players there should be. That's for the markets and the member states," said a European Commission official involved in the defence initiatives. "But what we know is that there are too many now."⁽²⁾

European leaders will also have to compel their defence ministries and military commanders to harmonise their technical requirements, procurement timetables, testing, evaluation and certification process to pursue common projects. And they will have to take further steps beyond the recent Franco-German agreement to apply compatible arms export rules for jointly developed equipment. This cannot be imposed by Brussels, only agreed to by national governments.

The United States should cheer on efforts to consolidate and strengthen the European defence sector in its own interest and in NATO's instead of trumpeting its objections, provided the market remains as open as it is now.

Disputes at the margins over third-country participation in PESCO and EDF projects are only a small part of the overall transatlantic defence relationship.

A to-do list for transatlantic defence cooperation

It is hard to imagine decisive progress before the 2020 US presidential election, but it is well worth preparing a constructive agenda for the day after.

1) One way would be for an eminent group of veteran practitioners from both sides of the Atlantic to recommend mutual compromises on technology transfer, intellectual property rights, and security of supply and export controls.

2) The EU should press ahead with the EDF and PESCO, ensuring that the projects it funds and promotes are aligned with capability gaps identified by NATO. It should pursue both bottom-up cross-border collaboration on defence research and development projects and a top-down consolidation and rationalisation of the defence sector. Member states must ensure that all EDF funds are additional to existing national defence R&D budgets and not deducted from them.

3) The EU should demonstrate its goodwill by rapidly concluding an administrative agreement between the US and the EDA to facilitate cooperation in identifying priority capability gaps and fixes. France must stop blocking these negotiations.

4) Based on the recommendations of the panel proposed above, the US should hold direct talks with the EU to explore the scope for mutual regulatory disarmament to promote defence industry cooperation. The European Commission should issue implementation guidelines for the EDF regulation delineating the scope of intellectual property controls to exempt pre-existing "background IPR" from EU export restrictions.

5) EU-NATO cooperation on military mobility and cyber security should be given high priority. Strengthening and protecting civilian-military infrastructure in Europe – both physical and cyber – will be more decisive than arms sales in the 21st century threat environment. Both investments should be taken into account in a broader measurement of allied defence efforts.

6) The US (DARPA) and the EU (EDF) should establish a joint challenge fund for companies on both sides of the Atlantic to collaborate on selected defence-related technologies in the areas of artificial intelligence, quantum computing, cyber security, digital communications equipment and space vehicle protection. Such projects would have to benefit from a general, mutual waiver of technology transfer and export restrictions among participating countries. A joint fund would probably require regulatory changes on both sides of the Atlantic.

7) In some areas of technology, Europe may offer an alternative to China or at least an indispensable ally in competing with Beijing. One early field for such cooperation would be in 5G mobile telecommunications infrastructure, where the United States has warned allies against incorporating Chinese Huawei technology for fear of creating a security vulnerability, but lacks an alternative of its own. Technology developed by Ericsson of Sweden and Nokia of Finland offers a possible European solution that NATO and Washington could embrace. That could also give the EU leverage to seek greater market opening in this area of public procurement with security implications in the United States.

8) Both sides should make maximum use of NATO-brokered multinational capability programmes and common funded enablers to promote efficiency and interoperability.

Contrary to what one sometimes hears in Washington, interoperability does not mean everyone buying US equipment. It is a responsibility of defence ministries on both sides of the Atlantic to ensure that their forces can operate with allies, from radio frequencies and NATO standards for equipment and ammunition to basics like common refuelling nozzles. The Europeans could eliminate wasteful duplication if they adopted common testing, evaluation and certification based on NATO standards. 9) The EU should aim to tie the UK into the European defence industrial and technological base after Brexit out of strategic self-interest. Specifically, it should permit UK companies to participate in consortiums bidding for EDF projects without requiring a case-by-case invitation, provided the UK government pays pro rata towards project funding and its companies abide by the EU regulations concerning intellectual property rights and export controls. The UK would have to accept the jurisdiction of the European Court of Justice in case of EDF-related disputes.

10) A forum for regular, high-level political consultation on security and defence issues between the EU and the UK should be established separately from NATO.⁽³⁾

End megaphone diplomacy

After the destructive transatlantic megaphone diplomacy of the last three years, both sides should focus on shared values and common objectives, working to reconcile differences through regular consultation in private rather than by tweet or media interview.

EU leaders should avoid aspirational rhetoric and divisive terms such as "strategic autonomy" and a "European army" that worry more Europeans than they inspire. Instead they should talk more practically about strengthening European defence capabilities and giving the EU the means to take responsibility in its own neighbourhood. They should clarify the degree of self-reliance they seek in capabilities such as intelligence, surveillance and reconnaissance, strategic and tactical airlift and unmanned aerial and underwater vehicles. And they should make the most of the EU's broad toolbox, from development aid and institution building to cyber security and multilateral trade agreements, which extends far beyond NATO's defence mandate.

If European defence is to gain credibility both among European citizens and US policymakers, it would make sense for EU leaders to define in broad terms the level of ambition for carrying out military tasks without the participation of the United States. France has begun to do this by seeking European coalitions to work alongside it in the fight against jihadist groups in the Sahel, or in conducting freedom of navigation patrols in the Gulf.

The United States should embrace such practical European efforts as a more meaningful measure of defence burden-sharing than the obsession with the 2% of GDP spending target.



Glossary

AGS - NATO Allied Ground Surveillance project

AWACS - Early Warning, Control and Surveillance

Berry Amendment - 1941 US law mandating domestic procurement

Buy American Act - 1933 US law instructing the government to give preference to domestically produced goods

CARD - Coordinated Annual Review of Defence, part of the EU's defence initiative

CNAD - NATO Conference of National Armaments Directors

- DoD US Department of Defence
- EADS European Aeronautic Defence and Space Company, renamed Airbus in 2014
- EDA European Defence Agency, an intergovernmental EU body
- EDI European Deterrence Initiative US programme to strengthen NATO's eastern flank
- EDF European Defence Fund
- EDIDP European Defence Industrial Development Programme, EU precursor to the EDF
- EDTIB European Defence Technological and Industrial Base
- **EEAS** European External Action Service

ERIP - European Recapitalisation Incentive Programme - US fund to help poorest new or future NATO allies replace legacy Soviet equipment with US weapons systems

FMS - Foreign Military Sales - US government-to-government arms sales program

Galileo/Copernicus - European navigation and earth observation satellite systems

- IPR Intellectual property rights
- **ITAR** International Traffic in Arms Regulations
- JSF Joint Strike Fighter programme that produced the F-35
- MBDA Pan-European missile manufacturer jointly owned by Airbus, Leonardo and BAE Systems
- MoU Memorandum of Understanding

NATO - North Atlantic Treaty Organisation

NIAG - NATO Industrial Advisory Group

NSPA - NATO Support and Procurement Agency

NTIB - US National Technology and Industrial Base - includes by law Canada, UK and Australia

Offsets - Economic, technology or work share benefits offered in exchange for a defence contract

PESCO - Permanent Structured Cooperation in defence among 25 EU member states

Proxy board - Board composed entirely of US citizens required to run subsidiaries of foreign companies handling classified DoD contracts

SSA - Special Security Agreement between a foreign company and the DoD allows both Americans and foreign persons to sit on the board, but companies must be run under American law by US citizens and only US managers may discuss business related to national security

TADIC - Transatlantic Defence Industrial Cooperation

Third Offset Strategy - US policy of seeking to retain global strategic dominance and deter attack by maintaining an asymmetric technological advantage in areas such as artificial intelligence, unmanned systems, big data analytics and cyber security.

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