Getting to Yes:
Making the U.S.-EU Trade and Technology Council Effective

Summary Brief

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The United States and the European Union (EU) have recently launched various initiatives to manage their competition and enhance their cooperation on trade and technology issues. The Transatlantic Leadership Network's Trade and Technology Working Group addresses these topics, including recommendations for more effective action. Companion policy briefs discuss these issues in greater detail. This summary brief draws on those insights to spotlight ways the two parties can use the U.S.-EU Trade and Technology Council (TTC) to advance an affirmative U.S.-EU agenda. I thank Working Group participants for their contributions, from which I have profited. All products from the TLN Working Group are at https://www.transatlantic.org/transatlantic-technology-and-trade-working-group/.

Introduction

In 2021, the United States and the European Union (EU) worked to reboot their partnership after years of transatlantic turbulence. They accelerated efforts to expand global vaccine access. They agreed to rewrite global tax rules. They joined forces to tackle climate change, including through the Global Methane Pledge. They suspended for five years mutual tariffs related to the ongoing Boeing-Airbus dispute, as they seek an ultimate resolution to the matter. They lifted U.S. tariffs on European steel and aluminum and countervailing European tariffs on U.S. goods. They set up a Joint Technology Competition Policy Dialogue to develop common approaches and strengthen transatlantic cooperation on competition policy and its enforcement in the tech sectors. They came together more closely on how to deal with China. They have forged a united response to Russia's war against Ukraine. And they created a U.S.-EU Trade and Technology Council (TTC) to grow the bilateral trade, investment, and technology relationship.

The TTC has a wide-ranging agenda, with working groups in ten areas: technology standards in emerging technologies; climate and clean tech; secure and resilient supply chains; security and competitiveness of information and communication technologies (ICT); data governance and technology platforms; the misuse of technology threatening security and human rights; export controls; investment screening; promoting access to and use of digital technologies by small and medium-sized enterprises (SMEs); and global trade challenges.

Until now, the two parties have been careful to define the Council more in terms of what it isn't rather than what it could be. First, both sides were quick to state that the work of the Council would not intrude on the regulatory autonomy of each party. Second, they declared that it was not a lighter version of the highly ambitious Transatlantic Trade and Investment Partnership (TTIP), which was nearly completed at the end of the Obama administration but then put in the deep freeze. By doing so, they effectively shelved contentious debates over investor-state dispute settlement, agricultural subsidies and market access, sanitary and phyto-sanitary concerns, and government procurement. They view the TTC as a means to generate a stream of discrete deliverables, rather than as a grandiose effort to harmonize U.S. and EU practices, regulations and legislation. Third, they do not want to characterize the TTC as an anti-China

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initiative, and dare not speak its name in official TTC documents, even though many TTC issues will affect each party's relations with Beijing. And fourth, they have signaled that the TTC is not the vehicle for negotiations to address bilateral trade irritants or ongoing differences over data protection arrangements.[1]

These four "nos" are an effort to lower expectations about what the TTC might accomplish. They are an understandable reaction to past battles over trade and regulatory issues and earlier failures to make the U.S-EU partnership strategic. Nonetheless, if the two parties are truly to harness the potential of their partnership and win domestic constituencies to their cause, they need to offer a more proactive, affirmative agenda. Instead of saying four times "no," they need to say four times "yes," by forging a norm-defining, values-based, innovative and resilient partnership. Russia's war on Ukraine has added additional urgency to U.S.-EU efforts to affirm a positive bilateral agenda and to demonstrate unity and cohesion in the face of Putin's efforts to upend the international order. Western sanctions on Russia have been impressive, but together with the destruction of the war they will generate shocks and surprises along regional and global supply chains. The United States and the EU can use the TTC to anticipate and mitigate those disruptions where possible, while underscoring the tremendous resilience of the transatlantic partnership.

Getting to Yes

The TTC and related initiatives are an opportunity for the United States and the European Union to position themselves for a world of greater competition, more diffuse power, and ongoing disruption. First, aligned action through TTC working groups on technology standards, trade norms, and data governance procedures can and ensure that the two parties remain global rule-makers, rather than become rule-takers. Second, closer cooperation to address the misuse of technology and to establish norms that respect democracy, human rights, the rule of law, non-discrimination and mutual consultation can underscore the values-based foundations of transatlantic partnership. Third, common efforts through TTC working groups on facilitating SME digitalization, clean technology innovation and ICT competitiveness can reinforce each party's role as leading innovation economies. And fourth, TTC work on export controls, investment screening and supply chain security can ensure that the United States and the EU are vigilant and resilient in the face of growing competitive and disruptive challenges.

Over past decades the United States and the EU have allowed bilateral squabbles to define their relationship. Being less defensive about the TTC, and framing it as part of an ambitious, affirmative U.S.-EU agenda, does not mean ignoring those challenges. Rather, it would embed them within a broader narrative of what unites, rather than what divides, the two sides of the North Atlantic. It is more likely to win domestic constituencies to solve problems than is a negatively-defined agenda that has tended to pit constituencies against each other.

Rule-Makers, Not Rule-Takers

The first way the two parties can get to "yes" is to use the TTC to signal that the United States and the EU are determined to remain global rule-makers. For decades Europeans and American have been the stewards of the existing international rules-based order. Yet in a new era of diffuse power and disruptive challenges, they now face the prospect of becoming rule-takers – unless they manage their competition within a more effective frame of cooperation and coordination.

Standards in New and Emerging Technologies

International technical standards define the technological frontier. Those who determine the standards are those who shape the competition. Technical standard-setting in critical and emerging technologies also have direct bearing on key U.S. and EU foreign policy goals, such as the protection of human rights and

democracy, and on their foreign economic and trade policies.[2] In this context, the TTC takes on strategic importance.

The China challenge renders TTC efforts particularly urgent. While China is a relative latecomer to standard-setting compared to the United States and the EU, it invests heavily in advanced technologies, has boosted its presence in international standards development organizations (SDOs), especially in fields corresponding to its overall industrial policy strategy. It is acting to export its standards through its investments in countries participating in its Belt and Road Initiative (BRI), and has been clear that it intends to deploy considerable state funding to become a "global standards-setting power."[3]

In the past, the United States and the EU have indulged themselves in never-ending debates over whose standards are best, or in often-fruitless efforts to align over conventional products and technologies. They have squandered energy, and their combined potential, as China in particular has risen to challenge them. The TTC represents an effort by both sides to break out of this cycle by focusing their energies on mutually critical sectors and on emerging technologies for which standards are largely yet to be devised, such as artificial intelligence (AI) and the Internet of Things. If the two parties can coordinate and cooperate more effectively in these areas, they have the opportunity to remain global standard-makers. They could

- develop coordination mechanisms for early information sharing in international standards activities for critical and emerging technologies, and bolster their participation in international standards-setting bodies, coordinating and voting together where possible;
- allocate funding to support joint investigations of standardization developments in strategic sectors such as AI, of China's technical standardization efforts in critical and emerging technologies, and of China's efforts to export technical standardization through Chinese-financed BRI projects;
- work together to encourage adoption of international standards in connectivity initiatives, such as the EU's Global Gateway initiative and the U.S. Blue Dot Network;
- prioritize interoperability to lower costs and risks from divergences in standards;
- devise sandboxes for standards development; and
- coordinate strategically with like-minded partners.

More ambitiously, they might consider the creation of a North Atlantic Standards Approval Council (NASAC). These proposals are explored in greater detail in a companion paper.[4]

Artificial intelligence

McKinsey estimates that widespread adoption of AI could grow European economic activity by almost 20% by 2030. However, even though the EU has more specialized AI researchers than the United States or China, it lags both in AI investments, adoption and R&D spending. The EU's fragmented market hampers the scale-up of small- and-medium sized AI and blockchain enterprises, and constrains the access of such firms to creation of large, cross-country pools of data for building and testing their algorithms, limiting their ability to compete globally.[5]

When it comes to AI, the European Commission has prioritized risk management and trust. It has introduced draft legislation for a new regulatory framework through the Artificial Intelligence Act (AIA), which is the first effort to create a comprehensive AI law, and another example of EU efforts to lead the world in making rules to govern the digital economy, which tracks with parallel efforts to regulate online content, competition in digital markets, and other areas. While a final law is only likely to emerge after several years, the current draft would apply to any company selling an AI product or service in the EU, so would be extraterritorial in nature, and thus could become a flashpoint between Washington and Brussels.[6]

Despite potential transatlantic challenges, U.S. policymakers share the EU's interest in mitigating risks associated with AI. U.S. National Security Advisor Jake Sullivan welcomed the European Commission's

AI draft, indicating the Biden administration's potential interest in fostering "trustworthy AI."[7] The White House Office of Science and Technology Policy is working with stakeholders to develop an "AI bill of rights" that would guarantee protection from biased or inaccurate algorithms, ensure transparency, and safeguard citizens from pervasive or discriminatory surveillance.[8] In addition, even though the United States is the world's AI leader, with the largest share of private investment, the most start-ups, and strengths in AI talent, R&D, data, hardware and commercialization of innovation, U.S. public and private leaders are concerned about the country's ability to maintain this position, particularly in light of rising Chinese competition. Here, too, there is potential for greater transatlantic cooperation.[9]

U.S. and EU policymakers are aligned around two core themes for AI policy: (1) enabling innovation and competition, and (2) ensuring trust and accountability. But there are important differences in these policy approaches. Washington tends to focus on the importance of innovation and growth, greater R&D funding, and light-touch regulation, whereas Brussels tends to focus on risk management and trust. The TTC could play a role by exploring to what extent these approaches can be aligned behind a US-EU effort to enable safe and responsible AI innovation and adoption globally. Whether the two parties can avoid costly divergence in the regulation of AI in the future will become apparent as discussions move to legal definitions and metrics for risk management requirements. The task is to seek common or complementary positions that balance AI risks against the risks inherent in slowing technological innovation. As Nigel Corey of ITIF warns, the United States and the EU should seek common principles, norms and regulations, "but they should not expect to achieve complete convergence."[10] This topic is explored in greater detail in a companion paper.[11]

Data Governance

Cross-border digital flows are redefining globalization. Because these flows are novel, traditional rules geared to analog economies often don't apply. New approaches are needed. Since most cross-border data flows between North America and Europe, and both parties have an interest in ensuring that data governance is rooted in democratic values and respect for the rule of law and human rights, the United States and the EU are at the forefront of defining the digital frontier.[12]

The most urgent U.S.-EU data governance issues, however, are not within the remit of the TTC. Those include a possible successor agreement to the U.S.-EU Privacy Shield arrangement, which was invalidated by the European Court of Justice; competition policy issues, particularly with regard to platform companies; and legislative initiatives, such as the EU's Digital Services Act (DSA) and Digital Markets Act (DMA). While these areas are likely to remain contentious across the Atlantic, the decision to address them in other fora gives the two parties space to use the TTC to explore a more affirmative agenda on data governance rules and principles, perhaps even thinking of the Council, in Paul Timmers' words, as "an embryonic strategic alliance" on data governance and technology platform governance.[13]

The TTC would be ill-advised to seek to harmonize U.S. and EU regulations, given past failures and different regulatory regimes. Carbon-copy regulations are also not necessary; two-thirds of global trade takes place between jurisdictions with different data governance models, most of it across the Atlantic. The two parties can, however, use the TTC to strengthen common norms and common principles such as non-discrimination, due process, and draw on good practices to build trust.[14]

Building trust through strong common norms and practices might seem mundane, but it is likely to play a key role beyond the TTC. The TTC's wide ranging agenda, which is largely defined in a reactive manner, will hardly be able to produce successful outcomes if they are not embedded in a broader sense of trust and common understanding. In fact, even the decision of not dealing with urgent issues like the Privacy Shield, DMA and DSA, requires the TTC to present a strong bill of health when it comes to norms and principles. This way the TTC could advance debates within its own agenda as well as beyond.

It is critical that the Council's work on data governance issues be anchored strongly in multi-stakeholder platforms, given the extensive societal consequences and U.S. and European concerns about each side's reliability. Open platforms grounded in democratic values and human rights can not only inform government actions in this space, they are more likely to accord greater legitimacy to public decisions and better weather any shifting political winds that may affect either side of the Atlantic.

Should a Privacy Shield successor be enacted and prove to be sustainable, the TTC could explore the development of other data transfer mechanisms, such as codes of conduct and certification schemes for health, clinical research, market research and other "data spaces," which could be accessed by U.S. and EU researchers. These would provide a broader, flexible set of legal tools for firms from different sectors to manage data reasonably and responsibly while complying with each jurisdiction's data protection regulations.[15] Additional objectives might include 1) supporting development of reporting standards and related benchmarking; 2) comparing practices in corporate oversight, without undermining regulatory efforts; 3) establishing a risk assessment framework; 4) taking steps to incentivize the use of privacy preserving technologies; 5) comparing and benchmarking national strategies to data and tech platform governance, perhaps drawing on the experience of the Center for AI and Digital Policy with regard to artificial intelligence; 5) defining a joint work program of research for technological support and of standardization, addressing transparency, accountability and information obligations; handling systemic risks, detecting violation of fundamental rights etc.; and 6) considering the formation of an Open Partnership for Transparency and Accountability, based on democratic values, and open to participation by additional like-minded actors.[16]

The TTC is an appropriate forum to consider how the sometimes-competing rights to privacy, protection of personal data, consumer protection and security be balanced to the benefit of consumers and businesses.[17] In particular, the two parties could devise common or complementary approaches to 'trusted data flows' that protect the free flow of data while ensuring that data flows are subject to robust, and not self-serving, privacy and security standards and are consistent with democratic values. They should advance the OECD workstream on Trusted Government Access to Data held by the Private Sector, which can help to generate a broader consensus on law enforcement, privacy, and security issues, and work with like-minded partners to incorporate these approaches in trade agreements and other multilateral arrangements, including the WTO. Finally, the two parties can use the TTC to develop principles for assessing data flows with countries that do not adhere to democratic norms on data governance. Many of these proposals are elaborated in companion papers.[18]

Trade Rules

The two parties have been careful to circumscribe the mandate of the TTC working group on global trade challenges so that it is not bogged down by long-standing bilateral trade disputes. Indeed, the U.S.-EU agreements to address the Boeing-Airbus case and to lift mutual trade tariffs were finalized outside of the TTC framework. This will enable the two parties to address market-distorting policies and practices by non-market economies and to avoid new and unnecessary technical barriers in products and services using emerging technologies. They have also agreed to look at ways they can promote and protect labor rights and decent work.

The two parties have agreed that they will seek joint positions to advance reform of the World Trade Organization (WTO) and to reinvigorate the multilateral trade negotiation agenda. Frankly, however, reform of the Appellate Body and conclusion of major multilateral trade deals are lower priorities for the United States than for the EU. More rapid progress is likely in other areas, particularly, as the two sides have stated, by "updating the WTO rulebook with more effective disciplines on industrial subsidies, unfair behavior of state-owned enterprises, and other trade and market distorting practices," and by working

together and with others to address the negative effects of non-market, distortive policies and practices in third countries.

As the home and origin of many principles and norms, the TTC's work on trade rules ought to raise a clear flag and seek to demonstrate how both partners adhere to core principles governing international trade. Besides the reasons outlined above, which will benefit the TTC directly and indirectly, a strong agenda on trade principles and norms will also permit the TTC to take leadership in the multilateral context, e.g. the EU's commitment to play a leading role in reforming the WTO.

The two parties have been more tentative on the nexus between trade and environmental issues, even though this area is ripe for them to shape global trade rules.

In this context, the European Commission's proposal that the EU adopt a Carbon Border Adjustment Mechanism (CBAM), which would levy charges on imported goods based on their attributed carbon emissions, could either become yet another bilateral irritant, or an area where the two sides could frame future rules. While the United States would not be particularly hit by the initial phase of CBAM measures and the Biden administration has been sympathetic to the climate considerations that motivated the CBAM proposal, it has raised concerns about the proposed measure's WTO-compatibility, its impact on transatlantic commerce, its counterproductive potential to subvert U.S.-EU efforts to get more countries to elevate their climate ambitions, and its rigid reliance on carbon prices as determined by the EU.

U.S.-EU differences over decarbonization mechanisms – with the EU favoring carbon pricing and the U.S. preferring utility and infrastructure regulations – should not prevent the two parties from devising a workable approach to CBAMs. Instead of igniting a transatlantic trade war over carbon pricing – which has no foreseeable chance of being implemented in the United States — the two parties should use the TTC to explore mutually acceptable alternatives, such as devising a process of mutual recognition of each party's approach to decarbonization. Such an approach would enable the two parties to focus on sectoral approaches to key industries where U.S.-EU cooperation is not just important but also essential for rapid decarbonization. Shaping a Green Steel Deal for the North Atlantic could be a start.[19]

In October 2021 the two parties agreed to shelve their lingering tariff disputes over steel and aluminum through an innovative arrangement that could position them to accelerate the decarbonization of these two industries. They and announced they would negotiate by 2024 what U.S. Trade Representative Katherine Tai has called "the first ever carbon-based arrangement" to encourage low-carbon steel and aluminum production and to deal with overcapacity. By linking the issues of decarbonization and overcapacity, the two parties intend to both advance their climate agendas while devising carbon-based means to restrict access from dirty steel producers and from steel-dumping non-market economies, such as China. U.S.-EU cooperation could mobilize a broader plurilateral coalition of countries behind such an arrangement – and potentially set a precedent for other carbon-based sectoral deals. A U.S.-EU technical working group was initiated as part of the agreement to confer on methodologies for calculating steel and aluminum carbon-intensity, among other issues, and share relevant data. The group's mandate is similar to that of the TTC's Working Group on Climate and Clean Tech. Its work can either be folded into TTC efforts or used as a model for similar technical working groups to develop methodologies for calculating carbon-intensity in other sectors, such as cement, which would have the additional advantage of offering an alternative to the EU's proposed CBAM arrangements.[20]

Climate issues increasingly impinge on the global trade agenda, yet structural reforms of the WTO that could head off collisions between climate and trade are a long-term proposition. The United States and the EU should prioritize shorter-term efforts that could serve as a bridge to a time when WTO rules are updated. For instance, measures to address climate change could be exempted from certain WTO commitments to free trade under the WTO's Article IX, which provides for waivers from WTO in exceptional

circumstances. They could revive and reframe negotiations on an Environmental Goods Agreement, as William Reinsch and Emily Benson explain in a companion paper.[21] They could explore arbitration possibilities in the absence of Appellate Body reform and work to reconcile WTO energy subsidy rules, which still allow fossil fuel subsidies but not fossil-free ones. These proposals are elaborated further in other companion papers.[22]

Leading-Edge Innovators

The United States and the EU remain global innovation hubs and primary drivers of global research and development (R&D). Moreover, R&D flows between the two parties are the most intense between any two international partners. While governments and corporations are the main drivers of R&D domestic spending, the European affiliates of U.S. companies, and the U.S. affiliates of European firms, are also in the thick of things. In 2019, the last year of available data, U.S. companies spent $32.5 billion on R&D research and development in Europe, which accounted for roughly 56% of global U.S. R&D. European R&D spending in the United States was roughly equivalent in value, and accounted for two-thirds of all foreign R&D spending in the United States. The complexity of scientific and technological innovation, together with the daunting scale of humanity's challenges, is leading innovators to partner and share costs, find complementary expertise, gain access to different technologies and knowledge quickly, and collaborate as part of "open" innovation networks. The digital economy has become a particularly powerful engine of greater transatlantic R&D.[23]

The importance of more effective U.S.-EU cooperation to advance each party's role as global innovation leader is further underscored by China's ambition to become an "international innovation leader" by 2030 and a "world powerhouse of scientific and technological innovation" by 2050. Beijing is unrelentingly focused on being a global leader in artificial intelligence, quantum computing, space exploration, cyber security, life sciences, electric vehicles, supercomputing, semiconductors and 5G wireless devices. The TTC and other mechanisms offer a number of opportunities for enhanced U.S.-EU innovation cooperation.

ICT and Cloud

U.S. and European goals in the ICT/cloud sectors align in various areas. However, instead of building on dense transatlantic digital interconnections and the shared principles that underpin them, in recent years the two parties have allowed a series of digital disconnects to roil U.S.-EU relations.

If one analyzes the full technology stack, important opportunities emerge. Whereas the EU is relatively underdeveloped compared to the United States in higher technology layers such as AI and platforms, the United States is relatively underdeveloped compared to the EU in key parts of lower technology layers such as 5G. Moreover, after initial transatlantic turmoil generated by U.S. efforts to oust Chinese 5G telecoms from critical networks, not only at home but in Europe and elsewhere, many – but not all – European allies have also acted to marginalize those companies' presence in their networks.

An overall bargain could conceivably be achieved by joint efforts to enhance Open RAN, align on privacy standards, and guard against external and internal security threats and market abuses, coupled with U.S. willingness to grant European firms greater access to its domestic 5G market and European willingness to cooperate more closely on platforms and AI. Since the potential gains and pains from such an overall arrangement would affect particular industry sectors and individual countries differently, opposition to such an overall arrangement could be significant. Yet the pieces are there.

A start could be made via U.S.-EU efforts in the TTC. It would be useful for both parties to reaffirm their joint commitment to core principles, such as non-discrimination, transparency and mutual consultation in legislation and regulation; the independence of regulatory authorities; open networks for consumers to

access and distribute information, applications and services of their choice; the importance of a strong and competitive shared environment for ICT development and use; strong yet flexible intellectual property (IP) laws; interoperable data protection regimes that enable innovation while protecting privacy; agreement that governments should allow foreign participation in their ICT services; affirmative policies in support of digital trade; science and technology cooperation related to digital innovation and research; and robust international cooperation to manage policy differences. In addition, the two parties should foster industry Codes of Conduct for data protection in the cloud, building on efforts currently under way on each side of the Atlantic. If the two sides of the Atlantic prove able to harness their joint potential based on these principles, they could form the core of a wider technology alliance of like-minded democracies that can prove more vibrant than autocratic alternatives.[24] More detail is offered in a companion paper.[25]

Clean Technologies

Each side of the Atlantic is focused on promoting its own clean-tech commercial breakthroughs. Nonetheless, the immense scale of the climate challenge gives the two parties both need and opportunity to harness their respective strengths. EU research and early-stage development of low-carbon technologies continues to be world-beating. Yet the EU is relatively weak when it comes to scaling and commercializing its innovations. The United States, in contrast, accounts for more than 65% of global cleantech growth equity funding and venture capital investments, yet trails in areas of low-carbon research where the EU is strong. Given the deeply integrated nature of the transatlantic innovation economy, both parties stand to gain by harnessing their relative synergies to promote scaled-up demonstration projects that hold promise for commercialization.[26]

Such efforts are not just "nice to do," they take on added urgency when considering that autocratic governments such as China do not necessarily need to rely on purely market-based approaches to deploy the technologies of the future. Beijing directs massive resources to promote its own competitors in many clean-tech areas, based on differing norms than those likely to be found in democracies.

Leaders at the June 2021 U.S.-EU Summit pledged to "work towards" a Transatlantic Green Technology Alliance. Both parties must use the TTC to make it real. A Green Technology Alliance could help both parties align on technical standards, address regulatory discrepancies, and mobilize public and private investment to rapidly scale up breakthrough technologies in hard-to-abate sectors so they can become more affordable, accessible and attractive than their traditional, higher-carbon counterparts.[27] This will require greater public investment in demonstration projects, which is a major weakness in the clean energy innovation system. Public investments should not and cannot take the place of the far larger resources the private sector can bring to bear, but private investment is currently deterred by the high costs and risks still associated with scaled-up clean tech demonstration projects. Governments can set incentives and market signals to help make clean-tech innovations commercially viable, spurring further investments and paving the way for widespread adoption and deployment by the private sector.[28]

The two parties should channel capital to sectors and technologies with untapped climate impact potential, such as green hydrogen production, food waste technology, precision agriculture, sustainable aviation fuels, low-emission iron and steel, offshore wind, next-generation electricity storage, and technical standards for decarbonizing grids. They could drive the commercialization of new clean energy technologies through streamlining and standardizing licensing requirements and implementing complementary policies that unlock demand for these innovations. Given U.S. and EU dependencies and the accelerating need for such materials as clean technology products and services, the two parties should prioritize technological innovations that reduce their reliance on critical materials. There is opportunity to take advantage of manufacturing advances in clean energy equipment that require radically less inputs such as cobalt (in battery systems) or use equipment that employs recycled minerals. They should work to mitigate the climate and energy consequences of digitalization. They could negotiate a Clean-IT successor to Energy Star, end

EU-USMCA commerce in internal combustion engines by 2035, and prioritize a Green Hydrogen Initiative that includes attention to setting global standards and enhancing infrastructure connectivity. Additional detail is offered in a number of companion papers.[29]

Small- and Medium-sized Enterprises (SMEs)

SMEs account for six of every ten jobs in the EU and four of every ten in the United States. Those that leverage digital tools report 80% better sales and 60% more revenue than those that are uncertain about the use of digital tools.[30] Nonetheless, SMEs lag in adopting digital technologies, in all areas and in all countries.[31] Moreover, while SMEs are engines of job creation and innovation on both sides of the Atlantic, only a small fraction of the 50 million SMEs in the United States and Europe engage in commercial activity across the Atlantic or around the world. There is much untapped potential here.[32]

While much important work to enable SMEs to take advantage of opportunities presented by digital technologies and the transatlantic marketplace begins at home, U.S.-EU cooperation could make a difference, including by assessing jointly or in parallel which barriers SMEs face and gaps that prevent them from currently accessing digital tools. It would also be an opportunity to find a common way to assess trade readiness through a more structured look at the elements needed to export.

First, resolution of the Privacy Shield impasse would be critical, since SMEs are disproportionately affected by restrictions on data transfers. Second, the two parties can build on the draft SME chapter in the U.S.-EU Transatlantic Trade and Investment Partnership (TTIP), which was essentially agreed when TTIP was put in the deep freeze in January 2017.[33] An essential part is to work towards common principles and interoperable frameworks on digital trade and digital regulations to avoid discrimination and ensure that U.S. and EU small businesses can use digital tools and exporting technologies in either jurisdiction to grow and prosper. Third, agreement on legally transferable and enforceable electronic documents and instruments would remove a major bottleneck in for SME digitalization. The two parties might explore tailored regulatory measures tailored to unique SME needs, and consider flexibility or support when it comes to compliance costs associated with AI technologies. A further boost could be provided by partnerships with the private sector to develop U.S.-EU credentialing and apprenticeship programs, cross-border education and training opportunities. An example would be in areas where digital tools exist but usage is low. Another would be to promote specifically digital export tools in underserved areas and communities. These issues are discussed further in a number of companion papers.[34]

Vigilant, Resilient Economies

Semiconductors

The leading supply chains of common interest to the United States and the EU revolve around semiconductors, which the two parties have called "the material basis for integrated circuits that are essential to modern-day life and underpin our economies." In this area, the two parties have acknowledged that they have "some important respective strengths as well as ongoing, significant mutual dependencies, and common external dependencies." Each has announced initiatives to mitigate those dependencies, improve security of supply, and boost their ability to design and manufacture the "most powerful and resource efficient semiconductors."[35]

To understand how the US and the EU could accomplish these goals, it is important to look at the key elements of highly-fragmented, highly-specialized, and global semiconductor production networks. The key stages are design, fabrication, assembly, testing and packaging (ATP), and production of semiconductor manufacturing equipment (SME). While specific companies and countries may be leaders in one or more elements of the overall process, none has a lock on all.[36]

U.S. enterprises are global leaders in SME production and in semiconductor design and associated design tools. European firms also show strength in design and SME production, and in some materials key to the semiconductor manufacturing process. The EU has a strong position in certain sub-segments such as discrete semiconductors (global sales leader), analog integrated circuits, micro-controllers, power electronics, sensors, chip architecture and advanced chip-making equipment. The EU is also well positioned in the 'More than Moore' market (products made up of a mix of semiconductors), as well as in dedicated processors for applications in the automotive and industrial sectors (including machinery), which are all expected to grow significantly in the future.[37] Despite these respective strengths, each party relies heavily on third countries for highest-end chip manufacture, critical materials, and assembly packaging and testing.

Whereas EU leaders have used "strategic autonomy" to animate their efforts to alleviate semiconductor supply chain dependencies, U.S. leaders speak of "decoupling." The decoupling metaphor is easy to understand, because it evokes a simple image of disconnecting a cable, in this case a worrying link to China. If drawn to their ultimate conclusions, however, both terms would wreak havoc on the U.S., European and global economies. Despite each side's push for self-reliance, achieving fully independent chip supplies is unrealistic, given the highly complicated, specialized and global nature of semiconductor supply chains. Moreover, neither term is an accurate depiction of actual U.S. or EU policies. Neither party is really trying to break free of its interdependencies; each is more intent on redefining the terms of those interdependencies in ways that can enhance its relative security and prosperity. Given each party's relative balance of strengths and weaknesses, the best course for the United States and the EU to enhance security of semiconductor supply is not to "decouple" or become fully "autonomous" from all other semiconductor producers; it is to ensure that other semiconductor producers remain dependent on them, by doubling down on areas of strength.[38]

For the United States, this can mean some efforts to mitigate strategic vulnerabilities such as reliance on foreign semiconductor fabrication, and assembly packaging and testing. It means working with the EU and other like-minded countries to ensure reliability of supplies of critical materials. Most of all, it means reinforcing U.S. strengths in semiconductor design and SME production. For the EU, it means acknowledging that becoming completely autonomous in high-end semiconductor fabrication is just "not doable," as EU competition chief Margrethe Vestager has acknowledged,[39] not only because the EU has neither the incentives or the resources to overtake the world's leading high-end fabricators, but because the EU itself has relatively low demand. As a whole, the EU accounts only for 9% of global semiconductor imports, compared to Asia, which accounts for 83% of exports and 81% of imports. Instead, the EU should focus its resources on areas of strength by fostering semiconductor subsectors upon which other countries, including the semiconductor superpowers, are reliant. Those strengths include R&D projects in chip and software design, SME, and materials innovation for important chip manufacturing inputs, such as chemicals, sensors, power electronics, embedded security solutions and security chips. Furthermore, potential exists for transatlantic complementarities and synergies.

While the TTC's potential regarding semiconductors is currently limited by France's insistence that the focus remain on "short-term supply chain issues" rather than longer-term strategies, it offers a chance for the two parties to harness their respective strengths and mitigate their respective dependencies within semiconductor supply chains. The two parties have already agreed to jointly identify gaps and vulnerabilities, map capacity in the semiconductor value chain, and strengthen domestic semiconductor ecosystems. They could conduct a joint assessment of supply chain vulnerabilities, improve transparency throughout the semiconductor supply chains, build synergies between the U.S. National Science Foundation and the Horizon Europe framework programs, and work to design new microchips that could perform better – and require less energy – than silicon. U.S.-EU cooperation could form the core of a broader semiconductor consortium of like-minded nations, including Japan, Taiwan and South Korea, that could

also consider forging a common innovation base with R&D of next-generation semiconductor designs and materials.[40] These issues are treated in greater detail in a companion paper.[41]

Pharmaceuticals

Pharmaceutical supply chains have entangled countries around the world in a web of asymmetric interdependencies that may limit short-term temptations toward instrumentalizing health in geopolitical competition, even as it sparks longer-term efforts to unwind such dependencies. The United States and the EU have opportunity to use the TTC to improve transparency throughout the pharmaceuticals supply chain, improve quality management, facilitate advanced manufacturing to promote diversification and redundancy, accelerate capacity for on-demand manufacturing capabilities for active pharmaceutical ingredients (APIs) and finished drug products, and cooperate to establish virtual stockpiles of APIs and other critical materials necessary to produce essential medicines. Additional detail is provided in a companion paper.[42]

Export Controls

When it comes to export controls, the two parties have already aligned on common principles for closer collaboration. In an annex to their Joint Statement following the TTC inaugural meeting in September 2021, they emphasized the importance of working closely on emerging technologies and controlling dual use technologies, including those employed to violate human rights. They agreed that multilateral approaches to export controls tend to be the most effective. They voiced shared concerns regarding "technology acquisition strategies, including economic coercive measures, and civil-military fusion policies of certain actors" (that means you, China). They have outlined concrete steps to work more closely on export controls, including conducting technological consultations on compliance and enforcement approaches, third country capacity building efforts, and technological consultations on cooperation. However, it remains to be seen what concrete progress the two parties can make, since export controls are national competencies and therefore not formally within the remit of the European Commission.[43]

Both sides want to update dual-use guidance in Wassenaar Arrangement control lists. They would do well to synchronize their efforts; currently the EU tends to adopt Wassenaar updates only a year after they are adopted by the United States. The two parties should also address lingering differences in interpretation and implementation of Wassenaar control lists. In addition, private sector actors continue to emphasize that EU and U.S. export control rules lack clarity on how those provisions apply to intangible technology and software transfers, which could be addressed by U.S.-EU alignment on such guidelines via the TTC. Significantly, the two parties want to expand the definition of "dual-use" beyond technologies related to military capabilities, not only to include emerging technologies like AI and quantum computing, but also respond to human rights abuses and supply chain disruptions. More ambitious efforts along these lines could render both economies more resilient, yet overly broad definitions could disrupt domestic industries confused about the intent and nature of such guidelines. [44]

Investment Screening

This is another area in which the two parties could register some quick wins. In an annex to their TTC Joint Statement, they declared their readiness to build on existing good-practice exchange to share information on security-related investment trends, origin of investments, and types of transactions, as well as on measures to mitigate risk related to sensitive technologies and related sensitive data. Nonetheless, U.S.-EU coordination is important yet insufficient to effective investment screening, given that EU member states retain competence over this issue, with the European Commission playing largely a coordinating and early warning role. Only 19 of 27 EU member states have updated investment screening mechanisms in place. The United States can engage individual EU member states on specific cases, and with a view to achieve

greater consistency across the Union on investment screening, even as it works with the European Commission on specific issues.[45]

In this regard, they could explore the feasibility of complementary foreign-investment investigative processes in sectors with critical supply chain dependencies. The U.S. Committee on Foreign Investment in the United States (CFIUS) scrutinizes risks to U.S. national security posed by investments of foreign entities. It could serve as a model for reviewing imports that create critical dependencies. The EU has already expressed interest in the CFIUS investigative process, which finds no parallel within the EU and may offer ways to shore up the EU's patchy investment screening process. The two parties might explore the feasibility of complementary CFIUS-style investigative processes in sectors of critical vulnerability, since both parties have already identified such sectors.[46] They should also discuss the security implications of outbound foreign investment in critical areas. For instance, they have agreed to collaborate on outbound investment screening for investments in the Chinese large civil aircraft sector. This should extend such reviews to other critical sectors.[47]

Critical Materials

The International Energy Agency projects that global demand for critical materials generated by the widespread deployment of clean technologies will quadruple by 2040 and increase six-fold by 2050. EU demand is slated to increase 10-fold.[48] The largest reserves of such materials are in developing countries already struggling to raise their populations from poverty even as they commit to low-carbon development. Many developed countries are likely to be as dependent on these critical-materials producers as they have dependent on fossil-fuel suppliers. The issue is particularly sensitive because the United States and the EU are each inordinately dependent on China for many critical materials, potentially opening them to economic coercion. China controls 50-90% of the world's clean energy minerals supply chains and is dominant in their processing and refining. When it comes to rare earths, China accounts for 98% of EU imports and 80% of U.S. imports.[49]

While the United States and the EU are each slowly taking action to wean themselves off their respective dependencies, those efforts will take time and be incomplete. It is in the interest of both parties to work together, with other democratic market economies, and with key critical-materials suppliers, in strategic partnerships that can forge secure and sustainable supply chains and low-carbon development of these critical materials, which will literally provide the raw material for any EU effort at "digital sovereignty." Further details are offered in two companion papers.[50]

A Values-Based Partnership

The United States and the EU have an opportunity to use the TTC to underscore the values-based nature of their partnership and to set forth an affirmative agenda for their work. A dedicated TTC working group is tasked to combat arbitrary or unlawful surveillance, including on social media platforms; address social scoring systems and to collaborate on projects furthering the development of trustworthy AI; explore building an effective mechanism to respond to Internet shutdowns, in conjunction with the G7 and others likeminded countries; work to protect human rights defenders online; and increase transatlantic cooperation to address foreign information manipulation, including disinformation, and interference with democratic processes, while upholding freedom of expression and privacy rights.

These important goals can position both parties as standard-setters with regard to responsible use of technology and an open Internet that respects human rights. They can enhance their cooperation to understand and counter election interference and online influence campaigns by malign actors. They should consider ways to coordinate assistance programs related to technological misuse in emerging democracies. Moreover, a democratic internet requires coordination on regulation, not patchwork legislation affording

users' different democratic rights when they cross borders. Further details are available in our companion papers.[51]

Beyond this dedicated working group, both parties have opportunity to ensure that respect for democratic standards, human rights and the rule of law are inscribed across the TTC's many different issues, from technical standards and global trade rules to supply chain transparency and data governance.

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Notes

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