

Written evidence submitted by the Foreign, Commonwealth and Development Office (TFP0015)

Introduction

1. The following submission of evidence by the Foreign, Commonwealth and Development Office (FCDO) to the House of Commons Foreign Affairs Committee's inquiry into Tech and the future of UK foreign policy provides answers in response to the Terms of Reference outlined by the Committee.

The impact of new technologies

2. Critical and emerging technologies are being developed and adopted more rapidly than ever before. Developments in Science and Technology (S&T) will transform many aspects of our lives over the coming decades, fundamentally reshaping our economy, society and the geopolitical landscape.
3. These technological shifts will have far-reaching effects on our societies, security and prosperity. Emerging technologies have enormous potential to help us tackle the biggest global challenges, such as climate change, global health threats and poverty, unlocking previously inconceivable improvements in well-being and prosperity. However, they will have similarly profound effects on our security, given the dual-use nature of many technologies, the blurring of boundaries between the use of military and civilian technology, and the fact that technological breakthroughs such as in quantum computing will create new vulnerabilities to hostile activity and attack.
4. The Integrated Review of Security, Defence, Development and Foreign Policy (Integrated Review) recently set out that the ability to advance and exploit S&T will be an increasingly important metric of global power in the coming decade, conferring economic, political and military advantage to leading nations. S&T is increasing in importance as an arena of systemic competition; 'tech superpowers' such as the US and China are investing to maintain their lead, and many other countries have announced significant investment in emerging technologies as part of their post-pandemic recovery planning. Additionally, technology companies are now important global stakeholders, who will drive and be a significant funder of Research and Development (R&D) in the future.
5. The emerging technologies which are likely to create the most significant shifts in power internationally over the coming decades include: Artificial Intelligence (AI), robotics, quantum computing, augmented and virtual reality (AR/VR), internet of things, 5G/6G, distributed ledgers, green energy technologies and biotechnology. The development of general-purpose technologies that are able to interact and combine in their applications and effects will have extensive, complex and wide-ranging impacts on societies, economies, and the global landscape. Each of these technologies provide significant potential opportunity to promote prosperity and tackle global challenges, while also posing possible risks to UK values and interests.

6. Technologies to tackle global health challenges is an area where the UK has significant strengths. Our broad R&D base and life sciences sector provide a strong base to demonstrate global influence as a force for good. Through FCDO ODA investments, the UK has been at the forefront of protecting Global Health Security, including supporting the development of the first internationally approved vaccine for the prevention of Ebola. Our technological developments have been critical to the global response to Covid 19, enabling and accelerating equitable access to rapid testing, diagnostics and vaccines. UK support to organisations like the Coalition for Epidemic Preparedness Innovations (CEPI) has already led to one of the first effective and affordable COVID-19 vaccines and we are supporting the Foundation for Innovative New Diagnostics (FIND) which is developing affordable rapid diagnostic tests for use in developing countries. UK genomics expertise and capacity has been offered worldwide to find new variants of SARS-CoV-2 virus that causes COVID-19. This vital work will combat the spread of coronavirus by identifying more Covid-19 variants around the world to keep the global community one step ahead of any mutations.
7. As an example, developments in biotechnology will have transformative impacts over the coming decades in a variety of fields – including healthcare, energy, agriculture, and security. The greatest impact will be achieved when the UK's world-leading life sciences research and innovation sectors are strongly connected with key international partners. Scientific progress is most rapidly achieved through collaboration with leading and emerging science nations who have complementary capabilities and investment. International collaboration can also support the global development of scientific capability, and help ensure alignment with our values and scientific standards. However, there will be increasing ethical, environmental, security and socioeconomic risks as these technologies are further developed and implemented. The UK will lead the global debate in developing legal, ethical and policy frameworks around this and other advanced technologies.
8. From an international development perspective, emerging technologies have significant potential to improve people's lives and reduce poverty. But they also have the potential to impact negatively on development objectives, including through unintended second and third order effects. They have the potential to create fairer distributions of power within society, or to fuel conflict and inequality, and leave behind poor and vulnerable communities. The UK has a vital role to play in helping to realise the benefits and mitigate the risks of these technologies through its leadership in development, diplomacy, science and technology.
9. Given the wide-ranging implications and the rapid pace of development of emerging technologies, the UK and allies will need to be prepared for future emerging unintended or unpredicted consequences to technological developments. Many of these technologies are highly complex and forecasting potential risks is challenging. Sophisticated, agile and scientifically literate horizon-scanning capabilities will be necessary to protect citizens and their interests over the coming years. The FCDO recognises the need to remain agile to respond to new technologies.

The role of the FCDO

10. Securing a strategic advantage in critical and emerging technologies will be crucial to enabling UK global leadership and our continuing ability to shape the future international order for the years to come. The UK has significant S&T strengths. We have a deep and broad research base and are one of the world leaders in applied innovation and transformative tech, ranking fourth on the Global Innovation Index. The FCDO, with its combined diplomatic and development strengths, has the opportunity to play a leading role internationally: ensuring we realise the commercial, development and soft power benefits of technology and ensuring that technologies are used as a force for good.
11. The Integrated Review is clear that in an increasingly competitive space, the UK must take a more active approach to building and sustaining strategic advantage through S&T to maintain our global influence. As technologies develop, those countries which back the full spectrum of interventions through finance, commercialisation, and policy will have the ability to establish global norms and standards. The UK will need to deliver technological solutions at scale in order to generate profit through R&D, increase reach and develop strategic influence. We will also work with relevant UK bodies to influence in key standards setting organisations. By investing time and resources now, the UK increases its chances to embed our values and inject our 'secure by design' ethos to ensure future governance supports our values, prosperity and national security.
12. Enabling S&T advantage requires a co-ordinated approach across Government. The FCDO plays a leading role in developing and coordinating the UK's approach to emerging technologies internationally. We work closely with the Cabinet Office, DCMS, BEIS, MOD, NCSC, Home Office and other Government departments to ensure a unified and coherent approach to engaging on critical and emerging technologies. The FCDO also works closely with BEIS, DHSC, DEFRA, Go-Science, and major R&D funders such as Wellcome and Bill and Melinda Gates Foundation, to shape future tech and innovation investments in Net Zero, Global Health, Zoonosis risk, and has a leading role in ensuring coherence in future ODA R&D investments.
13. The FCDO is working to deepen bilateral S&T partnerships with existing partners and build new partnerships with emerging science powers and knowledge economies, to ensure that we can collaborate with and access areas of critical S&T in future. We will shape international norms and standards through multilateral (UN, OECD, WTO, G20, G7 etc.), bilateral and strategic security partnerships (5-eyes, NATO), to protect democratic values and reduce risks associated with misuse of technology by state and non-state actors (e.g. use of AI to undermine rights and freedoms). Through our development programmes and 'Tech for Good' agenda we will support developing economies to realise the benefits of innovation, technological change and digital transformation that is inclusive and responsible, contributing to stronger UK partnerships and greater mutual prosperity and security.

Engagement with private technology companies

14. The growing influence of private companies will be an important factor in the international landscape in the coming decades. Many of these companies have significant influence over citizens' lives, hold greater financial resources than many states, and drive much emerging technology development. Engagement with leading technology companies is an essential part of the UK's international approach. We engage regularly with industry to ensure the responsible, safe and secure development and deployment of technologies.
15. The FCDO has strategic partnerships with a number of private sector companies, including through the Global System for Mobile Communications (GSMA) Association (which has over 800 members) and others including Unilever, Microsoft and Shell F. We work closely with the Department for Digital, Culture, Media and Sport (DCMS) which has a programme of engagement with key tech companies such as Google, Apple, Facebook, Amazon and Microsoft. We also work alongside the Home Office and the national security community, who engage with the industry on a range of issues, from curtailing terrorist and child sexual abuse material online to investment security and supply chain resilience.
16. Last year, we appointed Joe White, an entrepreneur with 20 years' experience in the digital sector, as Consul-General San Francisco and Technology Envoy to the United States, in a combined diplomatic role for the UK Government. The creation of the Tech Envoy role and the appointment of an experienced tech entrepreneur into it recognises the importance of the US digital technology sector, largely centred on the West Coast, and of the role played by the US Government and regulators in Washington DC. The role is designed to enable the UK to deepen our engagement with key US business and political contacts across the entire spectrum of the UK's proactive and defensive tech interests – whether public safety, prosperity, investment, national security, or science and innovation.
17. Through our global network of posts, and in particular through the Science & Innovation Network, Regulatory Diplomacy Network, Cyber Attachés, and the Asia Pacific Digital Trade Network we work with tech communities around the world to build collaborations and influence the responsible development of technology. As part of the UK G7 Presidency, the Government will be launching a new Future Tech Forum that will establish a government-industry dialogue to build consensus around technology's role in support of open societies for the digital and data-driven age.
18. In addition, the FCDO is supporting the vision set out in the National Data Strategy (NDS), published in 2020, to drive UK values and position the UK as a global champion of data internationally. Working closely with DCMS, we are championing data availability internationally, supporting countries to take a more open approach to their data and continuing to play a leadership role on the open data agenda. We are also working with DCMS to influence the development and adoption of international data transfer tools, which maintain and extend the UK's high standards on data protection and privacy. In the US context, this includes working with the EU and US to support the development of an alternative to

Privacy Shield. We are further collaborating with DIT and technology sector companies to ensure a unified approach towards shaping norms and standards for global trade.

19. Regarding the FCDO's approach towards social media companies, we will promote the UK's approach to keep their UK users safe online regardless of where in the world a company is based. This is detailed in the Full Government Response to the Online Harms White Paper consultation, which sets out new expectations on companies, including social media companies. This provides a basis for the UK to lead new, global approach to online safety, which supports democratic values and promotes a free, open and secure internet. The UK's approach will defend freedom of expression and the invaluable role of a free press online, protecting people's rights to participate in society and engage in robust debate online.
20. The UK believes technology companies who deliver services which are not designed with public safety in mind, such as those which provide blanket end-to-end encryption for all users or communications regardless of risk, enable and exacerbate other harms, online and offline. The UK supports strong encryption, and we want to work with service providers to fulfil a collective responsibility to protect people from terrorists and those who commit serious crimes, including child sexual exploitation and abuse, while allowing providers to protect user privacy.
21. The FCDO with the Home Office and DCMS has led international efforts which resulted last October in seven countries - the UK, US, Australia, Canada, New Zealand, India and Japan - signing an international statement on end-to-end encryption and public safety. The FCDO is building on the success of the international statement to develop further global consensus among like-minded countries, to encourage tech companies to work with governments to embed the safety of the public in their system designs, and to reinforce the principle that major changes affecting public safety should not be made unilaterally by technology firms, but in partnership with representatives of democratically elected governments.
22. The FCDO will deepen engagement with international partners to share experience and increase understanding of the UK approach, as well as seek enhanced alignment in support of broader, global responses to tackling online harms. We will build on existing work with overseas partners on the joint development of Voluntary Principles, providing a framework for companies to combat online child sexual abuse. Through our overseas network, we will call on more companies to endorse and implement the Principles, and work with industry, international and civil society partners to drive collective action.
23. Across the FCDO, senior diplomatic staff and overseas missions also use digital networks to build positive relationships with a wide range of networks that support HMG objectives. Our Ambassadors and Posts actively cultivate new networks and engage in two-way democratic, open communication to increase HMG influence. The FCDO encourages all staff to make full use of the opportunities offered by social media to help deliver FCDO objectives.

Shaping International standards, regulations and norms

24. Through the Integrated Review the Prime Minister set out his vision for the UK to be at the forefront of global regulation on technology, cyber, digital and data – to protect our own and fellow democracies and to bolster the UK's status as a global services, digital and data hub.
25. Given our significant strengths in diplomacy, regulation, research excellence, and academia, the UK is well placed to influence the global debate, promote democratic norms and shape regulations for emerging technologies. We have developed a distinctive and comparatively sophisticated approach to the governance of emerging sectors, which commands widespread support among policy makers, publics, scientists and industry (e.g. the UK approach towards FinTech regulation).
26. Technology governance needs to reflect the globally interconnected nature of digital technologies, with the success and growth of the UK's digital sector inextricably linked to the wider world. FCDO is committed to a multi-stakeholder approach to build consensus and reduce digital fragmentation, promote growth and innovation, and ensure digital technologies are a force for good internationally. Through the overseas network, the FCDO will engage with industry and key international partners to encourage greater advocacy, building issue-specific coalitions to challenge non-likeminded proposals in contentious areas.
27. The FCDO is leading work on Regulatory Diplomacy to bring together governments, standards bodies and industry to influence international rules, norms and standards so that they align with UK values – particularly in rapidly evolving areas such as Outer Space, cyberspace, emerging technologies and data – and interfaces between these. We will focus on the parts of the international system that sit upstream of countries' domestic law-making, including norms-setting institutions such as the OECD, and build on existing work with standards-development organisations such as the International Organization for Standardisation (ISO), the International Telecommunications Union (ITU), and the International Electrotechnical Commission (IEC).
28. The FCDO plays an active role in shaping the governance of technology and protecting democratic values through international organisations and multilateral fora – including the UN, WTO, G7, G20, OECD and the Commonwealth. We will continue to push for reform and agile approaches to the governance of new technologies that anticipate their exponential development. In November 2020, we became a founding member of Global Partnership for AI (GPAI), the first multilateral, multi stakeholder forum to have a permanent focus on AI. We have proactively engaged with the UN Secretary-General's High-Level Panel on Digital Cooperation, and helped shape the OECD principles on AI – which have since been adopted by the G20 and formed the basis for UNESCO principles on AI.
29. In addition to working through traditional alliances, Regulatory Diplomacy means forming agile, issue-specific, alliances with non-traditional partners to build consensus on the governance of emerging technologies. The FCDO is making

maximum use of its overseas network through issue-specific, time-limited, and outcomes-focused campaigns in areas where there are clear economic or security opportunities and risks for the UK, and where the UK can most add value in shaping global consensus.

30. The UK's G7 Presidency is key to achieving the vision set out in the Integrated Review. The UK Presidency's Digital and Technology Ministerial Track aims to unite governments and stakeholders around a compelling vision of how technology should support open societies in the digital and data-driven age. The G7 Economic Resilience Panel, chaired by Lord Mark Sedwill, will advise G7 Leaders on how to improve the resilience of global supply chains in critical sectors and support open economies and societies in harnessing and retaining the benefits of new technology and innovation.
31. The FCDO has developed and sought endorsement for many global framework initiatives to improve the digital inclusion of underserved populations, as a result of our partnership with the GSMA. This includes the Humanitarian Connectivity Charter which was endorsed by UN agencies, NGOs and mobile network operators, as well as the Connected Woman Commitment initiative which aims to improve access to mobile technologies.
32. The FCDO will also leverage traditional bilateral alliances to ensure our interventions are coordinated and effective. This engagement will focus on leading nations and allies. We will deepen our engagement with the US, building on existing agreements such as the 2017 UK-US Science & Tech Agreement and 2019 AI Statement of Intent, in order to continue to shape the development of, and promote compliance with, international rules and regulations relating to new and emerging technologies.
33. There are mutually beneficial opportunities for closer partnerships with developing countries around technology and innovation. The FCDO has a good foundation to achieve this through its portfolio of technology and innovation programmes.

Own-Collaborate-Access

34. The UK will need a multi-faceted approach in order to meet the PM's vision to become a Science and Technology Superpower by 2030. The Integrated Review set out details of a new 'own-collaborate-access' framework to guide government activity in priority areas of science and tech, such as AI, quantum technologies and engineering biology:
 - Own: where the UK has leadership and ownership of new developments, from discovery to large-scale manufacture and commercialisation. This will always involve elements of collaboration and access.
 - Collaborate: where the UK can provide unique contributions that allow us to collaborate with others to achieve our goals.
 - Access: where the UK will seek to acquire critical S&T from elsewhere, through options, deals and relationships.

35. Where the UK has competitive advantage, we will seek to leverage our strengths to protect our critical national infrastructure and other assets, as well as to secure economic benefits. Where close allies have the advantage, we want to work with them closely to shape the future of the sector, and access critical capabilities. Building coalitions of like-minded nations around common values, including through our G7 Presidency and the Future Tech Forum, will be central to our response to these challenges.
36. The FCDO will continue to increase our efforts to protect open societies and democratic values where they are threatened, and to seek good governance and create shared rules in frontiers such as cyberspace. We are committed to promoting a free, open, peaceful and secure cyberspace, and we will support countries grappling with digitalisation to build the capacity, capability and confidence to engage with the global debate and to defend themselves.
37. The UK will make use of the existing arms control regimes, treaties and conventions in order to promote compliance with international rules and regulations relating to new and emerging technologies. By engaging through appropriate bilateral and multilateral channels – for example the Wassenaar Arrangement and Convention on Certain Conventional Weapons – the UK will demonstrate leadership and shape the narrative for international rules and regulations for new and emerging technologies.
38. The FCDO, working closely with other government departments, regularly engages allies with comparative strengths in key technologies to exert influence over the standards and policies shaping global standards. We will continue to work closely with them to call state actors to account when international rules and regulations are undermined.

Using technology to achieve diplomatic and development goals

39. Given the continued pace of technological transformation we must make sure that we have the skills and capabilities we need across FCDO to ensure that we can keep pace. Over the past four years our legacy departments (FCO and DFID) have invested in adopting modern, market-leading technologies to create a resilient and ever-evolving platform for our core operations. FCDO, through its Information & Digital Directorate, is continuing this investment in its digital, data and technology foundations; ensuring they are designed to continually evolve in response to changes in FCDO's needs and the world around us.
40. The FCDO recognises that we must keep looking to the horizon to ensure that we are able to adapt and take advantage of emerging technologies – and the change and disruption that they will drive. We have established our first-ever dedicated Digital, Data and Technologies Futures capability within the Information & Digital Directorate. This foresight team will draw on expertise across HMG and beyond to shape our digital, data and technology strategy and it will establish an in-house corporate innovation capability to enable us to experiment with new and emerging technologies; accelerating the development of new ideas into viable solutions to increase the efficiency and effectiveness of the FCDO's delivery and operations globally.

41. We understand the importance and power of data and analytics in shaping foreign policy and development decisions. We are building an integrated data ecosystem that will power FCDO's delivery and ensure our staff have the data sets, analytical tools and skills to fully exploit the wealth of information available to them. This will also enable us to utilise automation technologies in all their forms, from simple robotics through to artificial intelligence and machine learning. We are further growing our in-house expertise by adopting HMG's Digital, Data and Technology Profession.
42. As the Integrated Review set out, the UK will adopt a comprehensive cyber strategy, taking a 'whole-of-cyber' approach that considers the full range of our capabilities and gives greater weight to building advantage in critical cyber technologies, as well as to international action to influence the future of cyberspace. We will build seamless systems to detect and act with industry on cyber threat information at scale and pace. We will also make much more integrated, creative and routine use of the UK's full spectrum of levers – including the new National Cyber Force to impose costs on our adversaries, deny their ability to harm UK interests, and make the UK a more difficult operating environment.
43. The FCDO will continue to develop our cyber-security stance as the technological world and the threats facing FCDO evolve. We take a forward-looking approach to advancing our cyber security capabilities; building upon detailed analysis of global technology and security trends to ensure the continued protection and resilience of our infrastructure and services. We work very closely with the National Cyber Security Centre (NCSC) to continuously improve and enhance our cyber security capabilities and strategy.
44. With regards to the challenges posed by cryptocurrency and Distributed Ledger Technologies (DLTs), the UK's national risk assessment of money laundering and terrorist financing 2020 identified a number of vulnerabilities related to cryptocurrencies and cryptoassets, including their pseudo-anonymous nature, their accessibility online and global reach, and uneven regulatory requirements and regulatory arbitrage. These pose challenges for sanctions implementation.
45. There has been significant work undertaken domestically and internationally to address the money laundering and terrorist financing challenges posed by cryptoassets. This includes updating the UK's Money Laundering and Terrorist Financing Regulations in January 2020 to capture cryptoasset businesses. Changes to international standards set by the Financial Action Task Force (FATF) have sought to address the Money Laundering, Terrorist Financing and Proliferation Financing Risks posed by cryptocurrencies/virtual assets. The UK has played an active role in the design of these international standards and ensuring that they are implemented by all FATF member states.
46. Further, HM Treasury recently consulted on the broader regulatory treatment of cryptoassets, with a focus on cryptoassets known as stablecoins. It also included a call for evidence on the use of DLTs in financial markets. This consultation has now closed. The government is processing responses and will

outline next steps in due course. Any future regulatory regime for cryptoassets set out by the Government in light of this consultation will aim to balance the potential risk to consumers with the ambition to stimulate competition and innovation in the industry.

47. DLTs like blockchain have the potential to improve data sharing and coordination in a context where a central trusted institution is lacking and centralised databases are therefore unsuitable. FCDO has been actively exploring DLT-based solutions in a range of international development use cases to learn more about how they could solve problems. There is potential for DLT to improve trade facilitation and supply chain resiliency. This in turn could improve supply chain transparency and help enforce sanctions and supply chain standards. There is an opportunity for the UK to lead in the development of these technologies, but this is a competitive space.
48. The FCDO has a number of existing and planned pilots in this space, including: tracking UK aid payments through delivery chains to improve transparency of aid flows and better mitigate risks; tracking humanitarian logistics supplies; proving the authenticity of images to detect human rights abuses and track humanitarian supplies; and exploring ways to share aid worker credentials between employers to tackle sexual exploitation and abuse in the aid sector.

Building resilience

49. The Integrated Review set out the Government's priority to build our national resilience, reducing the impact of acute shocks and longer-term challenges on lives and livelihoods in the UK, alongside strengthening global resilience to ensure we can tackle the most pressing shared challenges.
50. The FCDO will work closely across Government to align with and draw on work to enhance community, sectoral and business resilience across the UK. This will inform FCDO efforts, through our bilateral relationships and across our multilateral platforms, to encourage a 'whole-of-society' approach by other nations. This will demonstrate UK commitment to the principles of the Integrated Review: to consider threats from abuse of new technologies 'in the round' and with an eye to developing the right capabilities and resources to identify and respond to new challenges.
51. In many instances, this will involve working bilaterally with countries where we can share our knowledge, understanding and expertise to strengthen the resilience practices and governance of our partners. Multilaterally, the FCDO will use the convening power it has to work with others to ensure the system is more resilient to the short-term shocks and long-term challenges posed by both malign state and non-state actors.
52. International research collaboration is central to our position as a science and technology superpower and creates wealth and jobs within the UK. In collaboration with the Department for Business, Energy and Industrial Strategy, the FCDO will work closely with universities, funding bodies and industry to protect our higher education and research sector from foreign interference. We

have strengthened protective measures considerably and keep them under review to protect our national security.

53. To help the academic sector to improve security practices, HMG has developed bespoke guidance, 'Trusted Research', and has worked with Universities UK to produce their own guidelines. HMG has expanded the Academic Technology Approval Scheme (ATAS) to cover advanced conventional military technology. We will also be expanding ATAS further on 21 May 2021 to include all researchers in proliferation sensitive areas. The Science and Innovation Network will promote this approach and raise the importance of this issue with our partners and allies.
54. Building resilience involves creating rules, rooted in high standards and democratic values, that are fit for the 21st century. New technologies can and should be a force for good. The benefits of technological innovation must extend to all citizens, and harmful behaviours from governments, industry or individuals cannot be allowed to undermine these – including through the spread of disinformation to influence citizens, or direct cyber hacks on critical national infrastructure.
55. We support a multi-stakeholder approach to enhance responsible development of technology and data sharing that is safe, fair, legal and ethical, through forums such as the Internet Governance Forum. The UK is committed to a free, open, peaceful and secure internet. The FCDO is supporting the NGO Access Now's #KeepItOn campaign, which brings together a coalition of over 100 countries to counter internet shutdowns. The UK also works to defend internet freedom through our membership of the Freedom Online Coalition, a coalition of 32 countries.
56. Through our development programmes and diplomacy, the FCDO will work to influence the principles, norms, regulatory and enabling environments, procurement/trade and capabilities that govern these new technologies across the globe. By strengthening technology governance to align with UK values of democracy, open societies and open economies, the UK can help mitigate the potential misuses and abuses by state and non-state actors.
57. The UK will work with our allies and partners - and wider stakeholders, including industry - to extend the open international order in future frontiers, ensuring effective accountability and oversight but opposing the overreach of state control. The UK is concerned by reports that some governments are increasingly using surveillance tech to monitor, suppress and even persecute their citizens. We are also concerned by tech companies who are willing to supply such surveillance equipment, including facial recognition, to repressive regimes. The UK will continue to make clear that measures taken by States to tackle any national emergency must be necessary, proportionate, time-bound, transparent and regularly reviewed.
58. As technologies like facial recognition technology and enhanced surveillance technology continue to develop in sophistication, we need to ensure that these

technologies are not used by authoritarian actors as a tool to help curb human rights such as freedom of expression, freedom of movement and privacy. We must also continue to develop our own understanding of the way in which such technologies can inadvertently amplify biases and disproportionately affect certain sections of society.

59. In cyberspace and online we face a growing struggle to shape the global digital environment between ‘digital freedom’ and ‘digital authoritarianism’. We will promote a free, open, peaceful and secure cyberspace. We will deepen and broaden our international partnerships to advance our shared security, prosperity and values, through stronger cyber resilience and joint action to uphold international norms, holding adversaries to account for breaches. And we will make much more integrated, creative and routine use of the UK’s full spectrum of levers - our diplomatic, military, intelligence, economic, legal and strategic communications tools, and the new National Cyber Force, to impose costs, deny their ability to harm UK interests, and make the UK a more difficult operating environment

Digital currencies

60. Given that digital currencies are a new technology, and their future usage is uncertain, the UK is working with the G7 and other international institutions to analyse the risks associated with digital payments and to determine appropriate policy responses.

61. There has been limited use of cryptocurrencies, such as Bitcoin, for payments. The volatility of many cryptocurrencies has been a significant factor holding back their widespread adoption as a means of exchange. A more recent innovation has been “stablecoins”, private sector digital currencies whose value is typically stabilised by some form of backing asset. In addition, many global central banks are considering an electronic form of central bank money, known as “central bank digital currency” (CBDC). CBDCs have been tested in China and Sweden. Central banks in the UK, US, Japan and Euro Area are exploring the case for CBDCs. The Chancellor recently announced the creation of a new Taskforce, bringing together HM Treasury and the Bank of England, to explore a possible UK CBDC.

62. Under certain circumstances, stablecoins and CBDCs may offer some new benefits to users, such as lower cost of payments. These benefits might encourage households and businesses to adopt a different currency than their own national currency in transactions, particularly in developing economies. This could bring risks, including reducing the ability of national authorities to conduct monetary policy. However, stable coins or foreign CBDCs seem unlikely to upend the strong network effects that maintain “dollar dominance” in international transactions. Around 60% of foreign exchange reserve assets are denominated in dollars¹. Approximately 50% of global trade is invoiced in dollars². Many

¹ IMF, Currency Composition of Official Foreign Exchange Reserves (COFER) (2020)

² BIS (2019)

commodity markets, including the oil and gold markets are principally denominated in dollars.

63. Dislodging the dollar from its dominant position would require several factors: a significant deterioration in US monetary policy credibility, reduced confidence in the dollar's value, and a credible alternative with sufficiently low switching costs. It is uncertain that any currency would be able to do this in the short term and, even more uncertain, whether a digital currencies could spur this switch.
64. The impact of a decline in dollar dominance would depend on what currency replaced it. But there could be three major implications. First, a shift from dollar dominance might increase transaction costs, with negative effects for trade and investment. Second, a shift from dollar dominance could reduce the US's capacity to run fiscal and current account deficits. Conversely, higher uptake of other currencies (e.g. euro, renminbi) could increase their issuers' abilities to borrow. These factors could spill over onto the UK economy. Third, the US has historically imposed sanctions that prohibit individuals and entities from making dollar transactions. The loss of the centrality of the dollar in global payments systems could remove the potency of these sanctions.
65. HM Treasury and the Bank of England continue to maintain the integrity and stability of the UK's monetary system. Along with FCDO, they monitor risks arising from changing international currency patterns.

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