Non-Proliferation and Foreign Direct Investment Reviews
Implications for Reform in the UK

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Executive Summary

- The United Kingdom is currently reforming its Foreign Direct Investment (FDI) review system.
- The Green Paper “National Security and Infrastructure Investment Review” proposes short-term and long-term reforms in order to quickly and sustainably counter increased foreign (especially Chinese) investments into UK infrastructure and critical technology sectors.
- It does not specifically address the role that an FDI review on national security grounds will take in enhancing the export control and non-proliferation regimes of the country.
- Non-proliferation of Weapons of Mass Destruction (WMDs) should be a primary concern for an FDI review system:
  - Investing into financially struggling Western companies that hold technology or produce goods that can contribute to WMD programs has been a highly successful strategy employed by rogue regimes such as Saddam Hussein’s Iraq and Iran.
  - Three cases highlight this issue: Matrix Churchill (UK) and H+H Metalform (GER), two companies that were purchased by an Iraqi proliferation network in the late 1980s, and MCS Technologies (GER), a company secretly bought by Iran in 2003.
  - In all three cases, strong FDI review systems taking into account the non-proliferation obligations of the respective countries could have prevented severe technological advances in Iraq’s and Iran’s WMD programmes.
- The United States and Germany have both set up FDI review procedures that include non-proliferation in the range of national security concerns these reviews address. Both countries have made this possible by directly incorporating the countries’ export control lists and non-proliferation commitments into their FDI review systems.
- Neither the United States nor Germany have experienced adverse effects on FDI or the development of a bureaucratic overburden through their tightened FDI review systems.
- A reform of the UK’s FDI review procedures should therefore:
  - Make non-proliferation a clearly stated function of the reformed FDI review system while not dismissing other key functions such as protecting critical infrastructure;
  - Base a mandatory notification regime for mergers and tightened rules on the Strategic Export Control Lists and companies who manufacture goods on those;
  - Refrain from excluding smaller companies from falling under the scope of an FDI review system as those companies are also increasingly holding proliferation-relevant technologies.
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1. Introduction

This Policy Paper considers the proposals set out by Her Majesty’s Government (HMG) of the United Kingdom (UK) to review and potentially block Foreign Direct Investment (FDI) into the UK on grounds of national security. The Paper argues that while FDI review mechanisms established in other industrialised economies usually followed a logic of protecting national infrastructure at their point of introduction, they were subsequently adapted to fill legal loopholes in their respective countries’ non-proliferation and export control regimes. In this light, HMG’s proposals are still failing to account for export control and non-proliferation enforcement as a function of the proposed FDI review mechanism. The main concern of this Policy Paper is therefore to demonstrate the relevance of the inclusion of non-proliferation as a key function of any FDI review system and to make recommendations as to how this could be achieved.

The Paper will proceed in four steps: First, the concerns driving HMG for moving towards the establishment of an FDI review mechanism on national security grounds will be examined. Second, the lack of non-proliferation as a concern with FDI will be criticised through the analysis of three cases in which foreign investments into Western businesses led to the proliferation of nuclear weapons: Matrix Churchill, a UK company that was bought by an Iraqi proliferation network; H+H Metalform, a German company acquired by the same Iraqi actors; and MCS Technologies, another German firm that was acquired by investors with ties to Iran’s alleged nuclear weapons programme. Third, two FDI review mechanisms that include non-proliferation as key concerns for those reviews will be examined: The United States’ CFIUS and the German procedure. Fourth, the implications of those systems and cases will be included in an assessment of the short-term and long-term proposals HMG has set out in the recently published Green Paper.

The Policy Paper concludes with a recommendation to establish a combination of a voluntary and a mandatory notification regime similar to the one seen in the German system. Furthermore, it urgently calls for Her Majesty’s Government to include non-proliferation as a key concern and function of the UK’s FDI review mechanism.
2. The UK Green Paper and the Debate over Chinese Investments

In October 2017, Her Majesty’s Government of the United Kingdom (HMG) issued a Green Paper entitled “National Security and Infrastructure Investment Review” [hereafter the Green Paper] in which it outlined its proposals for a reform of the country’s practices scrutinising Foreign Direct Investment (FDI) into the United Kingdom.\(^1\) The creation of the Green Paper followed a nation-wide debate over the impact of increased Chinese investment into the United Kingdom. While the country is proud of its open investment climate, national security concerns tied to investments of Chinese companies into British infrastructure have grown. Faced with limited powers to review and potentially block FDI transactions under the Enterprise Act of 2002 as well as the controversial debate over Chinese involvement into the Hinkley Point C project\(^2\), the newly elected Prime Minister Theresa May set out to reform the British FDI regime and to increase the government’s capabilities to scrutinise foreign investments.

This debate over how to deal with a surge in FDI from China is, however, not limited to the United Kingdom. Many Western economies have introduced or reformed their respective FDI review mechanisms or are planning to do so in order to counter concerns over the vulnerability of critical economic sectors to Chinese FDI. In 2014, for example, France extended its veto powers to a total of 17 ‘sensitive’ sectors in which the Ministry of Finance must grant prior authorisation for a transaction;\(^3\) in 2017, Germany reformed its FDI review mechanism by extending review timelines and introducing a mandatory notification regime for specific sectors of the economy;\(^4\) and, in the United States, a bi-partisan bill – the Foreign Investment Risk Review Modernization Act (FIRRMA) – was introduced to Congress in November 2017, aiming to close loopholes in the current FDI review mechanism concerning early-stage technologies and types of transactions not covered thus far.\(^5\) All of these developments in legislation have been attributed to enhanced fear over the national security risks posed by some Chinese investments.

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2 Hinkley Point is a nuclear power plant in Somerset, South England. A British-French expansion plan for the site ran into funding problems which led to the inclusion of China General Nuclear (CGN) and China National Nuclear Corporation (CNNC) in the consortium, tied to the promise that the Chinese firms could later build their own reactor in Bradwell. The deal was questioned for various reasons, with one strong criticism emphasizing the problematique of Chinese government-tied companies controlling critical infrastructure assets in the UK. Furthermore, the extent to which this large investment allowed Chinese diplomats and business officials to gain access to high-level officials in the UK government also raised critique.


The arguments put forward calling for greater scrutiny of Chinese FDI tie into deeper conflict lines between China and its Western business partners. In order to evaluate accurately what objectives a national security-focused FDI review mechanism should have, and which regulatory loopholes ought to be closed, it is important to dissect those arguments. In general, they can be separated into two categories:

- **Unfair Market Access**: The last decades have seen a surge in FDI particularly from China. This apparent “sell-off” of multiple companies in Western Countries to China has sparked widespread criticism of a lacking reciprocity in openness to investment. Advocates of this line of argument are calling for FDI reviews as a protectionist counter to the growing influence of the state-controlled Chinese economy over the Western economies.  
  This line of argument is, however, separate from FDI reviews that specifically counter national security risks, such as the one proposed by HMG. FDI review mechanisms that are designed to regulate market access as well as national security risk mitigation can be found in Australia and Canada – two systems HMG references in its Green Paper.

- **National Security**: Accompanying the same surge in FDI from China, concerns over the sale of companies that would impact the national security of the target countries of an investment arose. These can be subsumed under two categories:
  
  o **Critical Infrastructure**: Concerns over Critical Infrastructure can be directly found in the Green Paper. It clearly states: When it comes to foreign ownership, government is most concerned about the area of critical infrastructure. The Green Paper hereby justifies the Government’s viewpoint by directly referencing the UK National Security Risk Assessment 2015 that identifies four major threats to the UK: terrorism, extremism and instability; resurgence of state-based threats and competition; impact of technology, cyber threats and the wider technological developments; and the erosion of the rules-based international order.
  
  o **Proliferation of Technology**: FDI in certain companies can constitute the exploitation of certain loopholes in national Export Control Regimes. It could, for example, lead to the proliferation of technologies and goods that are usually subject to export licensing obligations, as multiple cases discussed in Section III show.

**Implications**
The current debate over the potential security risks posed by the surge in Chinese investments is mostly concerned with questions of either market access or, when it is concerned with national security, critical infrastructure. However, it excludes one of the central aspects of FDI review mechanisms: their role in filling regulatory loopholes in the non-proliferation and export control regimes of the respective countries. In the United Kingdom, due to the high-profile cases where Chinese investments were identified as a potential risk to British national security mostly with regard to infrastructure, the non-proliferation and export control aspects

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6 An influential report calling for a national FDI Review Mechanism in the UK was issued by the Henry Jackson Society. Hemmings, *Safeguarding Our Systems*.
7 *Green Paper*, p. 22. Critical infrastructure is hereby defined as “these businesses, and critical parts of their supply chains, where the loss or compromise of a service would give rise to a major detrimental impact on essential services, with severe economic or social consequences or loss of life.”
of FDI reviews will need to gain more attention in order to ensure that the proposed legislation can live up to the full potential of a comprehensive FDI review mechanism.

This report will thus proceed as follows: First, the importance of FDI reviews for national non-proliferation and export control regimes will be demonstrated in three case studies where FDI led to the proliferation of goods and technology to the benefit of Weapons of Mass Destruction (WMD) programmes in states of proliferation concern. Second, two reference systems for FDI review mechanisms that take into account the respective country’s non-proliferation and export control commitments will be presented. Third, the potentials and shortcomings of the proposals laid out in the UK Green Paper will be discussed.
Foreign Direct Investment has in the past been used by countries of proliferation concern to gain access to technology and goods which they would otherwise be unable to obtain due to export control regulations. This issue remains prevalent worldwide. A lack of regulation on this type of FDI has constituted a concerning loophole in the export control regimes of Western countries and has led to the proliferation of technology and goods to the benefit of (alleged) Weapons of Mass Destruction (WMD) programmes of various countries, including Iraq and Iran. Today, gaps in the FDI review schemes of countries with highly-developed industrial sectors can be exploited by rogue regimes and countries of proliferation concern in order to circumvent non-proliferation regimes. The following sub-sections will present three cases in which FDI has been successfully employed as a proliferation strategy by Iraq and Iran.

Matrix Churchill

In 1987, Matrix Churchill was a machine tool manufacturer from Coventry, United Kingdom. Originally named TI Machine Tools, the firm fought bankruptcy in the late 1980s and therefore was excited to receive a purchasing offer by TMG Engineering – a newly formed group that was presented as and publicly perceived as “British”.9 TI Machine Tools and its American subsidiary were thus sold to TMG Engineering for GBP 4 million. The management of the then re-branded Matrix Churchill was however aware of the true nature of TMG Engineering: four of its managers owned 11 per cent of TMG Engineering, with the other 89 per cent belonging to “TDG”, an Iraqi front company whose ownership could ultimately be tied back to the firm “Al-Arabi Trading Company”, a Baghdad-based front company of the Iraqi Ministry of Industry and Military Industrialisation.10 The director of TDG as well as TMG Engineering, Dr. Safa al Habobi, later on became directly involved in the business activities of Matrix Churchill, facilitating many contracts with Iraqi entities and thereby reviving business for the British machine tool manufacturer.11 However, after the role of the company was exposed in the so-called ‘Arms-to-Iraq’ scandal after the Iraqi invasion of Kuwait, payments for the Iraqi orders fell through.12 When damages claims for orders worth £4 million against the UK Government were rejected, the firm had to declare bankruptcy in 1992.13

While the new surge in business with Iraq was publicly portrayed as being due to an effort of the Saddam Hussein regime to transform the country’s civilian industrial base, Matrix

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Churchill “formed an important part of (Iraq’s) nuclear procurement apparatus. It built small, precision-tooled components for Iraq’s prototype centrifuges in its UK factory, and obtained items from other suppliers that were then redirected to Iraq”.\textsuperscript{14} This double role as a supplier and as a front company was particularly useful to Iraq, since it allowed Dr. Habobi to acquire a wide range of goods and technology for Iraq’s military programmes as Matrix Churchill as a British firm – in addition to a lot of valuable contacts – had no trouble with export controls in other Western countries.\textsuperscript{15} In 1989, business with Iraq had turned so important for Matrix Churchill that an extra division, Matrix Projects, was formed.\textsuperscript{16} 

After the Gulf War, several Matrix Churchill machines were designated “key” or “useful” to Iraq’s military programs, in particular its nuclear weapons program, by IAEA inspectors.\textsuperscript{17} This led to a widespread scandal in the United Kingdom, followed by a failed prosecution of two of the executives of Matrix Churchill and the embarrassment of the government due to the revelations made in an independent inquiry led by Sir Richard Scott.\textsuperscript{18} The so-called “Scott Report” details that the British government had been well aware of Iraq’s secret military procurement activities, including the role of Dr. Habobi and the fact that Iraq controlled Matrix Churchill after 1989.\textsuperscript{19} It also showed that UK ministers had actively advised the managers of Matrix Churchill, who were at the time informants of British intelligence services, to continue to bypass export guidelines to Iraq.\textsuperscript{20} This led to the failure of the trial against the managers, who could not be found guilty of violating export control laws as the government had been aware of the true purpose of the exports and had even encouraged them.\textsuperscript{21} 

In the case of the acquisition of Matrix Churchill, the Iraqi investors benefitted from three factors: first of all, there were no coherent investment review procedures on grounds of national security in place in either the United Kingdom or the United States. CFIUS had been operating since 1975, but the date of the takeover of Matrix Churchill in October 1987 falls shortly before Congress granted the President the right to block foreign takeovers, mergers, and acquisitions in the Exon-Florio amendment. Second, the diplomatic climate facilitated turning a blind eye on Iraqi procurement activities in the West. The revelations of the Scott Report show that export controls were actively undermined by senior government officials and ministers in the United Kingdom. Similarly, the U.S. government was reportedly aware of Matrix Churchill’s role in Baghdad’s arms procurement network from 1989 onwards, but continued to allow Matrix Churchill to operate as part of President Bush’s attempt to influence Saddam Hussein through favourable policy on high-tech exports.\textsuperscript{22} Third, Matrix

\textsuperscript{15} ISIS, Matrix Churchill Group. 
\textsuperscript{16} Ibid. 
\textsuperscript{17} Ibid. 
\textsuperscript{18} Ibid. 
\textsuperscript{20} ISIS, Matrix Churchill Group. 
\textsuperscript{21} Ibid.; Scott Report, G18.1-12. 

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Churchill was on the brink of bankruptcy at the point of time when Iraqi officials bought it. Saving a traditional British company and the accompanying jobs led to a welcoming climate for this investment.

**H+H Metalform**

H+H Metalform was a German company which was secretly (partially) purchased by the same Iraqi procurement network as Matrix Churchill in 1987. It “subsequently grew to play an important role in supplying Iraq’s ballistic missile and gas centrifuge programs with equipment, components, and on-site expertise. H+H specialised in the production of vertical flow-forming machines, which make thin-walled, pressure resistant precision tubes . . . [that] have been particularly useful in ballistic missile and gas centrifuge programs”. It went so far that the former head of Iraq’s clandestine centrifuge program, Dr. Mahdi Obeidi, recalls in his memoirs:

“The real keys, however, were the Germans connected to H&H Metalform, which by now turned handsome profits from Iraqi commissions. Dietrich Hinze provided dozens of connections to high tech firms who cooperated because of their long relationship with him and the ample funds we could provide. Walter Busse, the expert in machining centrifuge parts, taught us many of the finder points of working with maraging steel, and both made repeated trips to Iraq to help guide our program.”

The two owners of H+H Metalform, Dietrich Hinze and Peter Huetten, were former employees of Leifeld and Co, a German company specialised in horizontal flow-forming machines. They left Leifeld in 1980 and 1985 respectively and started to market their vertical flow-forming machines to customers of their former employer. Their first model is said to have been used in the Brazilian centrifuge program. Hinze and Huetten had their first contact with the Iraqi procurement network in Europe when they met Anes Mansour Wadi, the head of the British-based company Meed International Ltd, a direct subsidiary of the Al-Arabi Trading Company, in early May 1987 at the headquarters of another Iraqi front company in Italy. They negotiated the preparation of a detailed quotation for the supply of machine tools for flow-forming machines for parts of Nassr General Establishment, a state-owned Iraqi arms manufacturer. TI Machine Tools, soon to be renamed Matrix Churchill, was also involved in the deal. The deal was sealed in July 1987 and H+H agreed to deliver 9 flow-forming machines to Nassr.

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25 ISIS, *H+H Metalform*.
26 ibid.
27 ibid.
28 ibid.
29 ibid.
This deal also led to the secret 50% ownership of H+H Metalform by the Al-Arabi Trading Company. Hinze and Huetten had originally planned to finance the production of the promised machines with a bank loan, which was however declined by German banks.\textsuperscript{30} Al Arabi, represented by Dr. Habobi, offered to lend H+H DM 5.5 Million – in return for 50 per cent ownership of the company over the course of the 10 years it took to repay the loan.\textsuperscript{31} Accepting the offer, Hinze and Huetten entered a trust relationship with Dr. Habobi. They split each of their shares in the company in two parts, sold half of them to Al-Arabi, but nominally kept ownership of the company. Dr. Habobi, representing Al Arabi, thus became a silent partner in H+H Metalform.\textsuperscript{32} The relationship between Hinze and Huetten with their Iraqi counterparts intensified over the years and led to numerous deals amounting to an estimated total of DM 48 Million by August 1990, plus DM 16 Million in commissions for the two business partners.\textsuperscript{33} Their relationship to the Saddam regime was so close that the German company even sponsored a 74m-wide and 34m-high monument composed of two giant swords in Baghdad at whose opening ceremony the dictator himself rode through the arch on horseback.\textsuperscript{34}

Contrary to the Matrix Churchill case, the supply of goods and technology to Iraq by H+H Metalform led to the prosecution of both its managers, Hinze and Huetten. Over a three-year period, they applied for about 20 export licenses with the Bundesamt für Wirtschaft (BAW), the German Federal Office for Trade and Industry, in which they always stated a strictly civilian use for their products.\textsuperscript{35} Following the discovery of documents included in a shipment of aluminium parts declared for civilian use that implied a military end-use at Frankfurt Airport, H+H came under investigation by German authorities.\textsuperscript{36} This led German courts to find Hinze and Huetten guilty of violating export control laws, and both served two years in prison.\textsuperscript{37} The revelations following the investigation as well as the court proceedings led to a dramatic strengthening of German export control laws and the re-organising of the BAW into the new Federal Export Authority (Bundesamt für Ausfuhrkontrolle, BAFA).\textsuperscript{38}

In their acquisition of H+H Metalform, the Iraqi procurement agents again benefitted from welcoming circumstances: On the one hand, Germany’s laws and procedures on export controls were extremely lax, with the BAW merely screening the information provided on end-users by the applicants for licenses, even informing them how to bypass certain rules that would have made the procedure more time consuming.\textsuperscript{39} Furthermore, Germany also did not yet have any investment reviewing procedures in place. A mandatory notification regime for investments from Iraq might have prevented a notary from documenting the secret
trusteeship agreement between Hinze, Huetten, Habobi and Al-Arabi. On the other hand, as with Matrix Churchill, H+H Metalform had been struggling financially before it was contacted by Iraqi procurement agents who offered vast amounts of money for the creative interpretation of export control rules. The Iraqi investors were thus met with open arms.

**MCS Technologies**

MCS Technologies GmbH is a former German company with a factory near Dinslaken in the industrial Ruhrgebiet area, producing a wide range of containers and storage units. Founded in 1897, it went through a series of acquisitions and mergers until it was renamed Mannesmann Cylinder Systems in 1998. After the Mannesmann corporate group was dissolved and later declared bankruptcy under new investors, its assets were bought by an Iranian-owned company, Reyco GmbH in 2003 who renamed the firm MCS International. Reyco was the German subsidiary of the Iranian investment firm Rey Investment Company, itself a subsidiary of the what Foreign Policy calls “inconveniently-named” Tosee Eqtesad Ayandehsazan Company (TEACO), one of the two primary subsidiaries of the Execution of Imam Khomeini’s Order, “the organisation the Iranian leadership uses to hide its worldwide investments and business holdings”. According to the U.S. Treasury which added all involved companies including MCS Technologies to its sanctions list in 2013, the nominal owner MCS was even appointed by Tehran.

This made MCS Technologies an important part of Iran’s attempts to build up a similar international procurement network as operated by Iraq in the previous decades. The Iranians were, however, not as discrete in their efforts to transfer the technology acquired with MCS International to their homeland: Ever since the company was taken over in 2003, “its managers seemed uninterested in making a profit. Potential investors were turned away”. Instead, in 2004, shortly after the takeover, the new owners started to build a sister-company of MCS Technologies in Esfahan, Iran, named Pars MCS, and started to manufacture the high-pressure gas tanks that were the signature product of the German company there. Despite this development, the German company remained in active pursuit of dual-use materials and machinery such as carbon fibre and a flow-forming machine – both necessary or able to produce components for centrifuges and missiles. Both products were closely

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40 Fitzgerald, Nuclear Black Markets, p. 47.
43 Ibid.
44 Foreign Policy, ‘Inside the Treasury Department’s War’.
46 Project Alpha, The Case of MCS Technologies.
48 Project Alpha, The Case of MCS Technologies.
watched by Western intelligence agencies, who were actively following Iran’s attempts to get hold of carbon fibre as well as the flow-forming machines in question.\textsuperscript{50} Due to these efforts, export licences for the machine as well as 2,600 pounds of carbon fibre – enough for the production of 550 modern centrifuges – were denied by German authorities.\textsuperscript{51} This happened despite a final change in ownership of MCS International in 2011, before the company declared bankruptcy in 2013: After the Canadian government placed MCS Technologies and Reyco on its sanctions list in 2010, MCS International declared bankruptcy and was purchased by the Canadian citizen Eshagh Hajizadeh who renamed the firm MCS Technologies.\textsuperscript{52} Even though Hajizadeh insisted that by 2011, all ties to Reyco and Pars MCS had been severed, MCS Technologies engineers were reported to have travelled to Iraq as late as December 2011, and Hajizadeh officially remained a manager of Reyco until at least 2013.\textsuperscript{53}

As in the cases of Matrix Churchill and H+H Metalform, the acquisition of Mannesmann Cylinder Systems (later MCS Technologies) by Iranian-connected companies profited from two conditions: the absence of investment review procedures at the time of the takeover and the desperation of investors of a bankrupt company to sell its remaining assets. It furthermore shows the importance of FDI review mechanisms as addition to export control laws and functioning procedures: the supply of flow-forming machines from Germany to Iran might have been prevented due to the intervention of German intelligence and the denial of export licenses, but the concerning technology transfer through the establishment of a sister company in Iran was made possible through the acquisition of MCS Technologies. A thorough review of the Iranian investment and a vetting of the ties of the investor to the country’s government could have prevented this from happening.

**Key Findings**

Combined, the three cases offer key insights into the proliferation nature of FDI:

- All three companies were highly-specialised producers of certain dual-use technologies;
- They were all financially struggling, which made them highly vulnerable to foreign investment offers;
- In all three cases, weak or politically-weakened export controls were exploited; core technology transfers could, however, have happened despite tighter export controls and are thus a direct result of the uncontrolled acquisition of the three companies.

\textsuperscript{50} Washington Post, ‘A Mysterious Iranian-Run Factory in Germany’.
\textsuperscript{51} Ibid.
\textsuperscript{52} Project Alpha, *The Case of MCS Technologies*.
\textsuperscript{53} Ibid.
Over the last few decades, many countries have reacted to concerns over foreign ownership of critical infrastructure and introduced FDI review mechanisms. The UK Green Paper, as well as many policy papers and recommendations make frequent reference to FDI reviews in the United States, Australia, Canada, or France. When seeking insights into how the design and legislation of FDI review mechanisms can include non-proliferation as one of its key functions, two systems offer the most valuable insights: The United States and Germany. In both countries, the respective non-proliferation commitments have been codified as key elements of their FDI review bodies. And furthermore, both countries have shown the effectiveness of their systems in preventing proliferation relevant technology from spreading over the last years. The next section will introduce these two systems and focus on the aspects relevant for the British proposals: the scope of transactions covered as well as the incorporation of non-proliferation enforcements as function of the FDI review procedures.

The United States

The United States was the first Western country to introduce a FDI review mechanism: Its Committee for Foreign Investment in the United States (CFIUS) was established in 1975 by the Ford administration. It is an inter-departmental committee composed inter alia of the Departments of Justice, Homeland Security, Defence, Commerce, State and Energy, as well as agencies such as the National Security Council and the National Economic Council. In 1988, the Exon-Florio Amendment to the Defense Production Act granted the President the power to block a merger or transaction on grounds of national security concerns if other legislation is not sufficient to mitigate those concerns.

Today, the legislative basis of the foreign investment review procedures of the United States rests on the Financial Investment and National Security Act of 2007 (FINSA). It provides for an investment review based on national security in certain sectors (such as critical infrastructure, defence technology, or energy), but not based on economic security concerns (except if the investing company is a foreign government-controlled entity). In combination, the Exon-Florio Amendment as well as FINSA give the President the power to block any “takeover, merger, or acquisition” following an investigation by CFIUS.

CFIUS investigations can have three phases. The first, a national security review is triggered either by a voluntary notice about a pending investment submitted by the transaction partners, or by a decision of CFIUS to review a transaction of interest. The national security

57 Cooley and Lacika, ‘United States,’ p. 244.
review can take up to 30 days. During those, the Director of National Intelligence (DNI) – a non-voting observing member of CFIUS – is required to conduct an assessment of the transaction, incorporating questions of all other participating departments. If the committee has reasonable concerns after the initial review period, the second phase is launched: A 45-days national security investigation. During the entire process, CFIUS may negotiate with the parties to the transaction to enact mitigation measures that could resolve the national security concerns voiced by the Committee.58 In the end of the 45 day period, CFIUS may refer the matter to the President for determination.59 If the President then comes to the conclusion that CFIUS accumulated “credible evidence” that the foreign investment will impair the national security of the U.S. and that no other laws apply to this situation, he or she can block the transaction or order the investor to divest itself from certain parts of the acquired business.60 Figure one illustrates this process.

![Diagram of FDI Review Procedure](Image)

**Figure 1: The FDI Review Procedure of the United States**

This formal process has adapted itself to the circumstances encountered by FDI review in general. Over time, it has evolved to include an informal stage of unspecified length of time that consists of an unofficial CFIUS determination prior to a formal filing with CFIUS. This type

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58 Cooley and Laciak, ‘United States,’ p. 244.
59 Ibid.
60 Jackson, CFIUS, pp. 13-14.
of informal review likely developed because it serves the interests of both CFIUS and the firms that are involved in an investment transaction. According to Treasury Department officials, this informal contact enables “CFIUS staff to identify potential issues before the review process formally begins”.61

Scope

CFIUS is obliged by law to investigate any “covered” transactions which fulfil one of three criteria: posing a potential threat to national security; if the purchasing party is controlled by a foreign government; or if it would lead to critical infrastructure falling under foreign control.62 A covered foreign investment transaction is defined as any merger, acquisition, or takeover which results in “foreign control of any person engaged in interstate commerce in the United States”.63 Investment transactions are hereby not considered to be covered by FINSA. They are defined as those (1) in which the transaction does not involve owning more than 10% of the voting securities of the firm; or (2) those investments that are directly undertaken by a bank, trust company, insurance company, or similar arrangements “in the ordinary course of business for its own account”.64

When determining whether to review an investment, CFIUS does not apply a numerical definition of “control”, but rather a functional one.65 According to the U.S. Treasury, “control” hereby means the “power, direct or indirect, whether or not exercised, and whether or not exercised or exercisable through the ownership of a majority or a dominant minority of the total outstanding voting securities of an issuer (...) to determine, direct or decide matters affecting an entity; (...))”.66 Furthermore, CFIUS can draw onto 12 factors for presidential determination that function as guidelines for the evaluation of an investment, which can however be amended at will by the Committee or the President. These points touch upon the potential effects of a transaction on the defence requirements of the United States, on the technological leadership of the US, on security-related effects on US critical infrastructure and energy assets, on the United States’ non-proliferation commitment as well as whether a US business could fall under the control of a foreign government or someone acting on behalf of a foreign government.67

Under the Exon-Florio Provision and its amended version through FINSA, only four transactions have so far been blocked by U.S. Presidents (more on this matter in the subsection below). This is due to the fact that often times national security concerns are resolved through mitigation or applications are withdrawn before a transaction is put forward to the President for determination.68 In 2015, the latest year for which data is available, 143 notices

61 Jackson, CFIUS, pp. 11-12.
62 Ibid., p. 14;
63 Ibid.
64 Ibid., p. 15.
65 Ibid., p. 17.
66 Ibid.
68 Jackson, CFIUS, p. 22.
were filed with CFIUS, of which 66 led to a 45-day investigation. Of those, 11 were suspended after mitigation measures had been adopted, 13 others were withdrawn. Only one was rejected. In the period between 2008 and 2015, out of a total of 925 notices, 41 were withdrawn during review, 333 led to an investigation of which then 62 were successively withdrawn, and only two were put forward for Presidential determination.

**CFIUS and Non-Proliferation**

In the U.S. FDI review system, ensuring the functioning of non-proliferation commitments is one of the key prerogatives of CFIUS. Three of the current factors that CFIUS can consider when deciding to review a transaction make direct reference to non-proliferation issues. CFIUS should consider:

- “The potential effects of the transaction on the sales of military goods, equipment, or technology to countries that present concerns related to terrorism; missile proliferation; chemical, biological, or nuclear weapons proliferation; or regional military threats.
- The potential that the transaction presents for trans-shipment or diversion of technologies with military applications, including the relevant country’s export control system.
- The relevant foreign country’s record of adherence to non-proliferation control regimes and record of cooperating with U.S. counterterrorism efforts.”

Furthermore, it has to consider “the potential national security-related effects on U.S. critical technologies.” The definition of critical technologies is hereby directly linked to the U.S. export control regulations, “as they were determined to be the most reliable and accurate means of identifying critical technologies”. Thus, a direct legal link is established between the commitments of the U.S. in international non-proliferation regimes and the kinds of reviews CFIUS will undertake.

This is reflected in three of the five cases in which Presidents have so far intervened and prohibited a merger or demanded divestment of certain assets in order for clearance to be granted. In 1990, President Bush prohibited the acquisition of aerospace parts manufacturer MAMCO by the Chinese state-owned import-export corporation CATIC on grounds that MAMCO was producing parts that were subject to U.S. export controls; in 2016, President Obama blocked the Chinese company Fujan Grand Chip Investment Fund from acquiring the U.S. subsidiary of the German-based semiconductor firm Aixtron SE. Semiconductors in general fall under the category of ‘critical technology’, and the blocking of the transaction was

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70 Ibid.

71 Jackson, *CFIUS*, p. 22.


73 Ibid.


attributed to the fact that Aixtron was producing gallium nitride, an element capable of increasing accuracy and cutting costs of especially laser-guided weapon systems. Following similar concerns, in 2017, President Trump blocked the acquisition of Lattice Semiconductor Corp. by Canyon Bridge Capital Partners, a Chinese investment firm. On 12 March 2018, President Trump continued this stance by blocking the hostile takeover of Qualcomm Inc. by the Singaporean tech company Broadcom Ltd. on the basis of national security concerns arising from potential Chinese advances in research on 5G-technology.

Germany

Germany introduced its first review procedure for foreign investments in 2004, empowering the Federal Ministry for Economic Affairs and Energy (BMWi) to review and potentially block acquisitions of or participation in firms in the military technology sector by any non-German investor. Only in 2009, this narrow FDI review mechanism was expanded to include other parts of the economy. Germany now has two different FDI review procedures: a “cross-sectoral review” for all parts of the economy as well as a “sectoral review” for entities that are active in areas “sensible to national security”. The latter includes companies from the armaments, IT, specialised engineering as well as document security sectors. The legal provisions on which both systems are based are found in the German Foreign Trade Act (Außenwirtschaftsgesetz, AWG) and Regulation (Außenwirtschaftsverordnung, AWV). Both were reformed in 2017, in a measure widely perceived to be a reaction to a surge in Chinese investments into Germany and other Western countries. Particularly the case of Kuka, a robot manufacturer acquired by the Chinese company Midea in 2016, led legislators to tighten regulation on foreign takeovers of key German companies.

In general, the cross-sectoral review procedure is applied. Two different notification regimes are in place that can trigger this type of review: usually, notification of the BMWi of a pending merger is voluntary, except for cases in which the target to be acquired is the operator of a critical infrastructure as defined by the Federal Office for Information Security.

81 Jan Bonhage and Vera Jungkind, Germany, in Goldman, ed., Foreign Investment Law Review, p 96.
83 Bonhage and Jungkind, Germany, p. 97.
84 BMWi, Investitionsprüfung.
85 BMWi, Investitionsprüfung.
Furthermore, the cross-sectoral review generally only applies to investors from outside the area in which the Treaty of the Functioning of the European Union (TFEU) is applied. An exemption to this rule is triggered when an entity from within the area of application of the TFEU is controlled by an entity, person or government outside of the TFEU area, and the inside entity is clearly set up only for the purpose of the investment concerned or multiple investments.

The procedure under the cross-sectoral review entails a period in which the BMWi can open a review procedure, the review procedure, as well as a possible extension if the BMWi deems an in-depth review necessary. The exact timeline is not as straightforward as in the United States since in Germany, reviews can either be triggered by an application for a clearance certificate, or the BMWi can start a review ex officio, ergo without prior notification. If the partners of an investment endeavour apply for a clearance certificate, the BMWi can take up to two months to open a formal review of the transaction. If it does not take action within this timeframe, its consent to the transaction is deemed implicitly given. If the BMWi decides to formally review a transaction without having received an application, it can do so within three months after the knowledge of the planned transaction became either public or the BMWi became aware of it. Again, if it does not take action within these three months, a transaction is deemed cleared.

If the BMWi decides to open up a formal in-depth investigation within the time limits of two or three months, it first asks the parties to a transaction for further documentation. Only upon receiving full and satisfying documentation of the proposed transaction, a four-month investigation period is started. This period is however suspended if the BMWi negotiates contractual clauses with the parties to a transaction similar to the mitigation agreements of the United States. In total, the review period may thus take up to seven months plus the additional time required for the parties of a transaction to gather the necessary documents and any time in which BMWi and the parties are negotiation mitigation arrangements.

The key differences of the sector-specific FDI review procedure are: (1) a mandatory notification regime for any transaction; (2) that all non-German investors are subject to review; (3) an extended three month period during which the BMWi can open a formal in-depth review; (4) an extended group of institutional actors conducting an in-depth review, including the Foreign and Defence Ministries, (5) as well as a shorter period for the in-depth investigation (three months instead of four).

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86 Bonhage and Jungkind, Germany, p. 98.
87 Ibid.
88 Bonhage and Jungkind, Germany, pp. 105-107.
89 Ibid.
90 Bonhage and Jungkind, Germany, p. 105.
91 Ibid.
92 Ibid.
93 Ibid.
94 Ibid.
95 Bonhage and Jungkind, Germany, p. 107.
96 BMWi, Investitionsprüfung.
Figure 2: The FDI Review System of Germany

Scope

The German FDI review system subjects all transactions that lead to the acquisition of 25 per cent or more of the voting shares of the target of an investment to potential review by the BMWi, irrespective of the target’s industry, economic importance or size.  

Similarly to the United States’ system, the establishment of a new business, creation of a joint venture and acquisitions of non-voting shares are not subject to review. However, it treats companies from strategically-relevant sectors such as critical infrastructure differently. As stated above, the cross-sectoral review – generally based on a voluntary notification regime – has an exception with a mandatory notification regime for companies listed as operators of critical infrastructures under the Act on the Federal Office for Information Security.

The BMWi only conducts reviews on the basis of whether a transaction could impair the public policy or security of Germany and not on the basis of economic consequences. This definition refers to the Articles 36, 52(1) and 65(1) of the TFEU which allow restrictions of the

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97 Bonhage and Jungkind, Germany, p. 97.
99 Ibid.: p. 100.
100 Deutscher Bundestag, BT Drucksache 16/10730: pp. 10-11.
free movement of goods, capital and payments, and the freedom of establishment in the European Union.\textsuperscript{101}

From 2008 until November 2016, the BMWi has issued a total of 338 clearance certificates, 299 of which concerned the cross-sectoral review.\textsuperscript{102} In that period, no application for a clearance certificate had been neglected.\textsuperscript{103} Only one of the reviews was initiated ex officio, in 2009. The first declining of an application for a clearance certificate concerned the chip manufacturer Aixtron SE, whose initially granted clearance certificate was withdrawn after concerns raised by CFIUS over the sale of Aixtron’s U.S. subsidiary.

**German FDI Reviews and Non-Proliferation**

The Aixtron SE case presents an interesting example for the functioning of FDI review systems. While the FDI review mechanisms are national by nature, business structures and also proliferation networks tend not to be constrained to a single legislation. In the case of Aixtron, the BMWi had to review the takeover of the entire company whereas CFIUS was tasked with reviewing the takeover of the U.S. subsidiary Aixtron Inc. Interesting hereby is the different initial outcome of both review processes: While the BMWi initially cleared the takeover, CFIUS objected. After receiving “previously unknown security-related information” from US officials at a meeting in the US embassy in Berlin,\textsuperscript{104} the BMWi re-opened its investigation and brought the takeover plans to a halt.

As in the United States, Germany’s FDI laws make direct reference to the German export control laws and goods lists. In general, the AWG states that restrictions can be imposed on FDI in order to ensure the core security of Germany and to prevent a disruption of the peaceful coexistence of the peoples.\textsuperscript{105} Furthermore, restrictions are possible when they are used to enforce decisions of the Council of the EU and resolutions of the UN Security Council as well as obligations Germany has from international treaties (such as non-proliferation regimes).\textsuperscript{106} This bears relevance especially for the sectors which are subject to the stricter sector-specific review procedure. Legally, this defines as included all companies producing dual-use goods according to the war weapons list (Kriegswaffenliste) as well as goods in relation to mostly electronic, nuclear, and missile technology as specified by certain sections of the export control list.\textsuperscript{107} Similarly to the United States, the German FDI review mechanism is thus directly tied to Germany’s export control laws and lists.

\textsuperscript{101} Bonhage and Jungkind, Germany, p. 100.
\textsuperscript{102} Deutscher Bundestag, BT Drucksache 18/10443, Nr. 4.
\textsuperscript{103} Ibid.
\textsuperscript{105} Außenwirtschaftsgesetz (AWG) Paragraph 4(1).
\textsuperscript{106} AWG Paragraph 4(2).
\textsuperscript{107} Außenwirtschaftsverordnung AWV) Paragraph 60.
Key Findings

- Both the United States and Germany have FDI review systems that rely on a two-stage investigation procedure. This allows businesses to have a clear picture of the timeframes to expect from a review and allows clear accountability and participation of various government departments over the different steps.

- Both the United States and Germany regulate sectors in which national security concerns are to arise more likely different from other sectors. While Germany has a different FDI review procedure with a mandatory notification regime in place for such sectors, the United States resorts to sector-specific regulations. This allows for tight rules where they are necessary and more business-friendly rules in sectors where security concerns are not as likely to arise.

- Both the United States and Germany do not have numerical thresholds in place that exclude transactions involving small companies from being subjected to an FDI review procedure. Through this, these FDI reviews resemble a “catch-all” logic, which is a necessity if the FDI reviews are to be seen as closing a legislative loophole in export control and non-proliferation regimes.

- The role of FDI reviews within both countries’ export control and non-proliferation regimes is clear and well-defined through the linking of sectors that fall under special scrutiny of the FDI reviews to the export control legislation of both countries. This furthermore allows for a flexible legal development in the future, as changes to the export control lists of both countries will automatically be taken up by the FDI review laws. Herby, the enforceability of the work results of international non-proliferation regimes such as the Wassenaar Arrangement, the Australia Group or the Missile Technology Control Regime is also enhanced.

- Differences in the countries’ FDI review procedures are mostly due to the different legal systems and regulatory environments. As with all national legislation, there is no one-size-fits all FDI review procedure, but the same principles and standards must be accustomed to the unique regulatory situation in each country.
Growing concerns over the rise in Chinese investments as well as over the limited tools the UK Government has at hand to counter the former have led to an understanding for the need for reform in UK for a while. The Conservative Party Manifesto for the 2017 general election included a passage on the will to revise old and introduce new laws allowing the Government to review and block mergers and acquisitions.\footnote{Conservative Party Manifesto 2017 (London: 2017), pp. 17-18. \url{https://www.conservatives.com/manifesto}.} With the controversial public debate over the Hinkley Point C project, these concerns and planned undertakings have now gained widespread public attention.

The current powers for the UK Government to intervene in mergers are based on the Enterprise Act 2002. It however only allows the Government to intervene in cases where a clear public interest is raised, thus either in relation to national security, media plurality or financial stability. Furthermore, in order for the Government to intervene, one of two possible scope conditions must be met: The total turnover of the company resulting from the merger or acquisition must be at or over £70 million; or the share of supply or purchases of the resulting company in a given described category and substantial geographical part of the UK must be at or exceed 25%. All mergers and acquisitions not meeting either of the two threshold criteria cannot be reviewed by the Government on national security grounds. Exceptions are currently only made for special cases regarding defence contractors and media businesses. These Special Public Interest Cases however do therefore also not encompass all companies active in the defence industry as not all defence or dual-use industrial firms are defence contractors.\footnote{Ibid.}

In addition to this gap in mergers and acquisitions that the government can review, further gaps have been identified: The current regime does not, for example, cover investments in new projects, the acquisition of “bare assets” such as individual property or machineries, intellectual property or parts of businesses.\footnote{Ibid.} Also, there is no mandatory notification regime in place that would ensure that the Government is made aware of any potential national security risks arising from any M&A activity. In the view of the Government, this is especially concerning with regard to companies active in the defence, dual-use and advanced technology sectors.\footnote{Impact Assessment, p. 7-8.}

In order to address these issues, the Government is taking a two-staged reform approach: In the short term, secondary legislation amending the Enterprise Act 2002 to lower the turnover threshold and amend the share of supply test for mergers in two sectors – the dual-use and military sector as well as parts of the advanced technology sector (such as multi-purpose...
computing hardware and quantum based technology).\textsuperscript{112} Hereby, it proposes to lower the turnover threshold to £1 million and to remove the requirement of the merger to result in an increase in share of supply, while still keeping the 25% threshold.\textsuperscript{113} In the long term, the government considers two major options that it however explicitly sees at not mutually exclusive: On the one hand an expanded version of the “call-in” power functioning within a voluntary notification regime, and on the other hand a mandatory notification regime. The latter could hereby also only be employed in certain sectors of for businesses falling into a pre-defined scope. The Green Paper includes three factors that could define such a scope for a mandatory notification regime: Businesses that undertake a pre-defined essential function critical to ensuring the national security of the UK, businesses where foreign ownership or control could pose a significant risk and where those risks could not be resolved through other means of mitigation, and businesses in sectors where existing regulatory and licensing regimes are inadequate to resolve national security concerns.\textsuperscript{114}

**Non-Proliferation and Lessons from Other Countries**

The proposals of the UK Government include options that would be sufficient to counter the risks associate with FDI in the realm of non-proliferation as identified above, and that have been successfully employed by the two reference systems of this report. Below, the four different short- and long-term proposals will be examined in detail:

### Short-Term Proposals

**Proposal 1: Lower turnover threshold to £1 million per year.**

The reduction of the turnover threshold from £70 million to £1 million for businesses in the military and dual-use sector as well as the advanced technology sector is intended to allow the Government to intervene in transactions concerning smaller businesses in these sectors as well. This is in reaction to the fact that “proliferation and growing importance of technology and advanced engineering know-how means that threats are not necessarily confined to large businesses with high turnover.”\textsuperscript{115} Furthermore, small businesses “which undertake niche activities or produce specialised products in the military and dual-use sector increasingly hold information or items which carry significant national security risks.”\textsuperscript{116} With the lowering of the threshold to “only” £1 million, the Government believes that at least in the short term these concerns can be addressed.

This attempt to broaden the scope of transactions falling under an FDI review would bring the United Kingdom closer to the “catch-all” nature of the US and German scopes. Given that those countries however do not have a numerical threshold in order to be able to intervene in transactions involving small, but highly specialised companies or by now, start-ups that

\textsuperscript{112} Impact Assessment, p. 9.
\textsuperscript{113} Ibid.
\textsuperscript{114} Impact Assessment, p. 10.
\textsuperscript{115} Impact Assessment, p. 5.
\textsuperscript{116} Ibid.
engage in critical technology development, even a turnover threshold of £1 million might seem like a risk. However, given the limits to what quickly to adopt secondary legislation can achieve, lowering the turnover threshold to £1 million is the right step at the right time. It is a good compromise between the expansion of the scope and the need for immediate reform.

An interesting component of the proposal is furthermore the attempted definition of the military and dual-use sector: Here, it is “minded to use some of the Strategic Export Control Lists [SECLs] as the basis for which businesses in this sector will be subject to amended thresholds for intervention in mergers.” While this general concept was welcomed by the wide range of stakeholders who responded to the first round of consultations, debate is still surrounding the details as to how the Strategic Export Control Lists will be applied to defining the scope of the new lowered thresholds. Some concern arose around the issues whether the continuous updates of the SECLs will be automatically extending (or limiting) the scope of lowered thresholds under the reformed Enterprise Act as well. HMG has responded to these concerns by clarifying that its own assessment has found that the proposed format of the short-term reforms does not provide it with the powers to include a ‘dynamic’ inclusion of SECLs as basis for lowered thresholds. Notwithstanding those limits, the linkage of tightened FDI reviewing powers and export control lists brings the UK’s system closer to resembling the non-proliferation functioning of the German and US systems. It should serve as an important step towards the inclusion of non-proliferation as a focus of the proposed long-term reform package.

Proposal 2: Remove requirement of increase in share of supply, but keep the 25% threshold.

Removing the requirement of an increase in share of supply, but keeping the 25% threshold seems to follow the same practical considerations as short-term proposal one. Given the lesson from Matrix Churchill, H+H Metalform as well as MCS Technologies, it can be said that companies getting taken over for proliferation reasons do not necessarily increase their share of supply in their domestic market afterwards. MCS Technologies, for example, even nearly completely stopped supplying the German market and shifted all of its activities to Iran. Matrix Churchill on the other hand might have seen a surge in business activity in Iraq as well as in the UK, but given that it was used as a proliferation hub, acquiring equipment and goods from all over the world, not just the UK, it in principle allows for doubt that a proliferation takeover would lead to an increase even in share of goods procured in a specific geographical region of the UK. Since the turnover threshold test is however simultaneously being lowered to £1 million, it can be neglected that the 25% share of supply remains in place and is thus still targeting companies with a high value for the functioning of the UK economy.

117 Green Paper, p. 34.
119 Government Response, p. 18.
As mentioned above, HMG proposes two options for long-term reform: An extended version of the “call-in” power in a voluntary notification regime; and a mandatory notification regime. However, it puts great emphasis on the fact that it does not view both options as mutually exclusive but could see a legislation incorporating both as a viable option which should be treated here as option 3.

**Proposed Option 1: Extended Version of “Call-In” Power in a Voluntary Notification Regime**

The extended version of the “call-in” power is specified by HMG as follows: it would be similar to the voluntary regime that exists for merges under the Enterprise Act 2002; the scope of companies possibly eligible for a national security-based review would be increased, as well as the threshold rules changed. Here, an option put forward is to limit the threshold to “the acquisition of significant influence or control over any UK business entity by any investor.” This could be defined through the obtaining of particular shares of votes in a company (e.g. 25% or more) of other means of significant influence or control.

With this model, the UK would follow suit to the United States, whose CFIUS does not rely on a mandatory notification regime either, but instead has the right to intervene in mergers and acquisitions where it sees the national security of the United States at risk. In order for an option like this to be viable, the UK would however have to take into consideration what allows the U.S. to have such a strong system relying on the seemingly weak voluntary notification in place. This ultimately breaks down to the interplay of various sectoral protections against FDI as well as export control legislation. In the United States, for example, specific rules for mergers, acquisitions and takeovers are in place in a variety of sectors, including finance, telecommunications, energy, and defence. Under FINSA, the President can only take action (after being referred to by CFIUS), if he deems other legislation insufficient to avert national security risks associated with a transaction. While HMG has recently put in place several sector-specific laws such as for the nuclear energy sector, taking an approach relying on voluntary notification and then sector-specific legislation would take a considerable legislative effort to identify and design the various laws.

With regards to the proliferation concerns associated with FDI, a voluntary notification regime’s effectiveness would greatly rely on its interplay with other parts of the national non-proliferation and export control regime. Specifically, an effective information handling of the reviewing body would have to be ensured in order to “call-in” all mergers that raise proliferation concerns.

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120 *Impact Assessment*, p. 10.
121 Cooley and Laciak, *United States*, p. 239.
Proposed Option 2: Mandatory Notification Regime

A fully mandatory notification regime would only be employed by the government for certain key businesses. These would have to:

- Undertake the essential functions which the Government views as critical to ensuring the national security of the UK;
- Be cases where foreign ownership or control could pose a risk for which there are no other reasonable means of adequately mitigating;
- Be cases where existing licensing or regulatory regimes are insufficient to protect national security.\(^{122}\)

For the moment, the government proposes that this would encompass certain key sectors: energy, civil nuclear, defence, telecommunication, transport and the dual-use and military and advanced technology sectors.\(^{123}\) This, however, deviates from its accounts of critical infrastructure which encompass chemicals, civil nuclear, communications, defence, emergency services, energy, finance, food, government, health, space, transport and water.\(^{124}\) This is due to the fact that it puts an emphasis on companies having an “essential function” for the United Kingdom which not all companies from the critical infrastructure definition have.\(^{125}\) “Essential function” is hereby defined strictly in terms of critical infrastructure and the maintaining of it within the United Kingdom.

This is problematic from a non-proliferation perspective as it reveals the narrow scope of the proposed FDI review mechanism that only relies on national security concerns in regard to critical infrastructure. While the preliminary list of “key sectors” that would be subjected to a new mandatory notification regime includes the dual-use and military sectors as well as the advanced technology sector, from which most proliferation concern triggering mergers and transactions arise, its provisional list of “essential function” in Annex C of the Green Paper makes no reference to these sectors at all.\(^{126}\) Only companies within the defence sector with facilities on List X or that were issued a Security Aspects Letter are included here. This situation bears the risk that if non-proliferation is not recognised as a key function of an FDI review mechanism, this narrow definition of businesses falling under a possible mandatory notification regime would leave smaller businesses within the dual-use and advanced technology sectors vulnerable to un-reviewed mergers and acquisitions from abroad, leaving the loophole posed by FDI for export control and non-proliferation regimes wide open.

Option 3: A Mix of the “Call-In” Power and a Mandatory Notification Regime

The seemingly preferred option of HMG, a mix of an extended version of the call-in power within a voluntary notification regime in general as well as a mandatory notification regime for specific businesses would greatly match the system Germany recently put in place. If put

\(^{122}\) Impact Assessment, p. 10.
\(^{123}\) Impact Assessment, p. 11.
\(^{124}\) Green Paper, p. 23.
\(^{125}\) Green Paper, p. 46.
\(^{126}\) Green Paper, “Annex C”.

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into place properly, it would combine the benefits of both systems while annihilating significant shortcomings of situations in which only one system is put in place.

The most necessary part would here however be that – as stated numerous times above – Her Majesty’s Government includes non-proliferation as a key function and concern of the newly designed FDI review mechanism. The cases of H+H Metalform, MCS Technologies and Matrix Churchill all reveal that it needs to have the power to review investments in financially struggling, highly-specialised companies that operate within the wide realm of the dual use sector. In order to limit the possibilities of evasion as portrayed in the case of H+H Metalform where a secret equity swap led to the foreign ownership of the company, a mandatory notification regime for such transactions would raise the cost for the notaries and banks involved in such covert transactions, making it the preferable option to a voluntary regime. The latter’s reliance on the reviewing body being provided the necessary information by either the intelligence community or via a voluntary notice that could trigger an FDI review procedure seems too easy to evade. Especially bearing in mind the scandals surrounding the Matrix Churchill case, a formalised procedure seems highly preferable.

Furthermore, linking the subjection of businesses to the mandatory notification regime to the production of goods or holding of technologies which are listed on export control lists increases transparency for businesses significantly, which is a major concern HMG is holding with the voluntary notification regime option. Since businesses should usually be aware of them having to apply for an export license for some of their goods or at least can easily find that information, a clear link of listed goods and an obligation to notify the government of a proposed takeover or merger could therefore significantly increase the transparency of FDI review procedures.

Current and Upcoming Issues to Consider

The reform of British FDI review procedures will take some time. It does, however, not happen in isolation. This section will therefore briefly discuss two issues that legislators should consider. One of them is the high-profile privatisation of the European uranium-enrichment consortium URENCO. The other is the all-present issue of Brexit.

URENCO

One proliferation-relevant case that is currently ongoing could inform the UK government greatly insofar as it shows which kind of cases should be subjected to an extensive review under a new FDI review mechanism: URENCO. URENCO is the world’s second largest nuclear enrichment company after Russia’s Telex with a turnover of $1.9 billion in 2017. It was

127 Green Paper, p. 42-44.
founded in 1970 when the governments of the UK, the Netherlands and (West) Germany agreed to cooperate in the field of uranium enrichment in the Treaty of Almelo. It is one of three treaties ensuring proper supervision of the operation and security of information of the company, the others being the Treaties of Washington (1992) and Cardiff (2005). A third of its shares are currently held each by the British Government, the Government of the Netherlands as well as the two German energy companies RWE AG and E.ON SE. For several years, the British and Dutch governments have been willing to sell their stakes in URENCO, and RWE and E.ON have recently joined in as a reaction to the German exit from nuclear energy.

URENCO could be considered the example of a privatisation in which investments will need careful vetting by governmental bodies with a specific focus on non-proliferation. Producing gas centrifuges for uranium enrichment, the company has been at the heart of proliferation scandals in the past. Most famously, the Pakistani engineer A.Q. Khan – “father” of the Pakistani nuclear bomb – used expertise he gained at and blueprints he stole from URENCO during his time there as an engineer in the 1970s to first construct nuclear weapons for Pakistan and then build up a global proliferation network, supplying dictators such as Gadhafi in Libya, Saddam Hussein in Iraq and the Kim dynasty in North Korea with technology for their nuclear weapons programs. The three governments of the UK, the Netherlands and Germany are thus well aware of the risks associated with URENCO technology. They have vowed to only allow the sale of the company if a legal and organisational construct is found which would allow the three governments to fulfil their obligations under the treaties of Alamo, Washington and Cardiff, by preventing potential investors from gaining access to critical technology and sensitive information.

The enrichment company is however also the example for how FDI review mechanisms need to be carefully placed within the country’s overall non-proliferation and export control regime. In Germany, the legal owner of the German shares of URENCO are the private companies RWE and E.ON which means that any purchase of those by an investor from outside the area of application of the TFEU will have to be reviewed by the BMWi. Because the goods and technology that URENCO manufactures and develops are subject to strict export controls, the sector-specific review procedure applies, meaning that any takeover will have to be notified to the authorities by the current shareholders. In the United Kingdom, on the other hand, the government is the direct owner of the country’s part of the URENCO shares. It therefore holds the veto powers the German government has through its FDI review powers simply because its sale of the shares would constitute a privatisation and the government thus has the full selection choice for a buyer. The UK furthermore has a tool at

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hand that neither the legal systems of the United States nor Germany provide to that extent: a “golden share” arrangement in which HMG retains a symbolic share that however comes with a veto power over key strategic decisions such as a change in ownership or management in the future. HMG is currently holding such shares in various defence companies such as BAE Systems and has already indicated it would insist on such a model in the privatisation of URENCO as well.\footnote{Financial Times, ‘Urenco Privatisation Given Go-Ahead by Dutch Authorities’.} If the UK retains such a “golden share”, it will not have to rely on an FDI review mechanism concerning any change in ownership in URENCO in the future as much as its partner nations will have to. It has an additional legal tool at hand with which it can protect its interests in the largest private companies it deems strategically relevant even after privatisation. One implication could then be that in the UK-specific context, an FDI review mechanism should put even greater emphasis on smaller, financially struggling companies that pose a proliferation risk as its means of controlling those are currently significantly lower than its sway over its large defence contractors.

**Brexit**

The United Kingdom is currently in negotiations with the other 27 member states of the European Union over its leaving the bloc in early 2019. The complex process of disentangling the UK from the legal frameworks governing the EU and its common market and thus also the possibilities HMG has to review Foreign Direct Investment will have some impact on the reform the UK can ultimately decide upon regarding FDI reviews. However, taking into consideration that the UK will have some relation to the European Union after May 2019 and that the basic rules governing FDI are based on global intergovernmental agreements, the impact of Brexit on the UK’s FDI review system reform process should not be overstated for the time being.

It will, however, be worthwhile to keep track of the developments within the European Union which is currently in the process of evaluating the benefits of an EU-wide FDI review mechanism.\footnote{European Commission, State of the Union 2017 - Trade Package: European Commission proposes framework for screening of foreign direct investments, Press Release, (Brussels, 14 Sept. 2016). \url{http://europa.eu/rapid/press-release_IP-17-3183_en.htm}.} Part of the proposal of the European Commission is

> “a European framework for screening of foreign direct investments by Member States on grounds of security or public order, including transparency obligations, the rule of equal treatment among foreign investment of different origin, and the obligation to ensure adequate redress possibilities with regard to decisions adopted under these review mechanisms.”\footnote{Ibid.}

The goal of this European framework is not to standardise or replace national FDI review procedures, but rather to enhance cooperation between national authorities and the European Commission and to increase legal certainty and transparency.\footnote{European Parliament, EU Framework for FDI Screening, Briefing – EU Legislation in Progress, (Brussels, 23 Jan. 2018). \url{http://www.europarl.europa.eu/EPRS/EPRS-Briefing-614667-EU-framework-FDI-screening-FINAL.pdf}.} The proposals...
have, however, been met with hostility in the United Kingdom which would until Brexit is fully enacted remain bound to new European legislation. According to HMG, an additional European FDI review procedure and the proposed mandatory information sharing on ongoing cases between member states would encroach on the Member States’ areas of competence and create a dangerous precedent.\(^{137}\) But even if HMG is opposed to a European FDI review at the moment, negotiations among the other Member States and in the European Parliament are bound to continue. Depending on the outcome of a future deal between the EU and HMG on the future relationship of both parties, the interoperability of a British FDI review mechanism and EU standards might therefore become an issue to consider in the future.

6. Recommendations

The current UK Government started the process to reform the powers it holds to review and potentially block foreign investments on grounds of national security due to its concern over continuously increasing Chinese investment in the UK. It does not stand alone with its concern, as many of the UK’s traditional allies are currently or have recently been reforming and tightening their FDI review procedures. In almost all of these cases, fear over Chinese influence as well as the loss of technological superiority in key sectors can be understood as the main drivers of this development.

Her Majesty's Government is therefore at the trend of the time with its plans to introduce an FDI review procedure specifically designed to mitigate national security risks. Its proposals, however, miss out on mentioning a key function that FDI review fulfil in its partner nations: Ensuring the effectiveness of the country’s export control and non-proliferation regimes by empowering the government to prevent proliferation through FDI. The three case studies of Matrix Churchill, H+H Metalform as well as MCS Technologies outlined in this report show that investing into financially struggling companies that hold technology or produce goods that can contribute to WMD programs has been a highly successful strategy employed by rogue regimes such as Saddam Hussein’s Iraq and Iran. Furthermore, cases such as Aixtron SE where the takeover of a chip manufacturer by a Chinese company was blocked on grounds of suspicion that Aixtron technology could be used to boost Chinese nuclear capabilities show that this concern is still valid today.

In the meantime, other nations such as the United States and Germany have incorporated non-proliferation and export control successfully into the palette of functions of their FDI review mechanisms. Two attributes of their procedures allow them to fill the legislative loophole in their export control and non-proliferation regimes that had previously been exploited by Iranian and Iraqi proliferation networks: First, the “catch-all” character of the scope of transactions that can be scrutinised by CFIUS and the BMWi respectively. And second, the direct linkage of the definition of businesses of concern to the export control lists, allowing for changes in the export control lists and regimes to be automatically incorporated in the FDI review systems of both countries.

While the proposals of the UK Government for short-term and long-term reform set out promising reforms, the Green Paper’s overwhelming emphasis on critical infrastructure is dangerous for the non-proliferation aspects of an FDI review in two regards: First, it might lead to a classification of businesses and sectors as ‘critical’ only if they bear relevance to the UK’s own needs and leave out companies holding technologies or producing goods that would be especially desirable for countries of proliferation concern. Second, it bears the danger of putting too much emphasis on medium-size and large companies. As the industrial landscape is changing through the disruptive effects of digitisation and new production methods, an increasing number of small companies is becoming relevant for non-proliferation and export
control regimes. It is these companies that could also be in need for funding in early stages that should be closely watched if acquired by foreign investors.

In order to accommodate for all these concerns, this policy paper urges the UK Government to implement a combination of the voluntary and mandatory notification regimes as set out in the Green Paper. In defining the scope of the mandatory notification regime, HMG should follow the model of the United States and Germany, both of which link it to the production of goods or technology that is subject to export controls. This interconnection of FDI review and export controls could constitute a transparent and business-friendly mandatory notification-regime which would furthermore prevent legal loopholes through mismatches in FDI review and export control legislation as these would in this case be intertwined. Thus, the UK can take steps towards a comprehensive and well-functioning FDI review legislation.