

# The Digital Opportunity of Brexit – A Blockchain Economy in the UK

The economic impact of Brexit has been much explored (and debated). The OECD and UK Treasury have put forward analysis suggesting that Brexit could negatively impact the country's GDP by 3% until 2020, while the Bank of England has made occasional statements about other dire scenarios of crashing house prices, spiralling interest rates, loan defaults, asset outflows, and negative returns on equity. Some might call this Project Fear 2.0.

Irrespective of one's views on the actual economic impact of Brexit, surprisingly little public discourse has centred on the opportunities presented by the ability for the UK to pursue a relatively more free industrial strategy. The early 19th century thinkers Ricardo and List have much to say about understanding and developing the comparative economic advantages of a nation, with a view towards establishing greater relative growth on a global stage. The UK has an incredible opportunity to support an innovation economy centred on its relative strengths, namely with London as a leading international financial centre and, increasingly, as a technology hub with significant international investment. Apple, Google, and others have all recently increased their presence in London, and there has also been the emergence of several home grown technology firms ("unicorns") with valuations over \$1 billion such as Revolut, among others.

Blockchain, or distributed ledger technology ("DLT"), is increasingly seen as a path towards delivering a new industrial revolution, by providing a means of trusted communication and exchange which can be publicly verified. The logic behind blockchain is one that we consider to be as revolutionary as the Internet, and much work and investment is ongoing to

develop transformational "use cases" for deployment not only in the most developed areas of financial services, but also in any sector where information is stored and transferred, including healthcare, and real estate, among others. According to Gartner (a leading technology research and advisory company) "by 2030, the business value added by Blockchain will grow to \$3.1 trillion."

Surely the UK, with its inherent strengths in finance and technology, is well placed to take a leading position in building this innovation economy. DAG Global has recently published a report with the UK Parliament APPG on Blockchain, together with the Big Innovation Centre and Deep Knowledge Ventures, which outlines the current state of blockchain investment in the UK as well as the considerable ecosystem that has emerged (with 225 blockchain companies across sectors referenced) – largely without a supportive UK industrial strategy. Countries such as Switzerland and Malta have publicly gone forward to actively promote their relative strengths in fostering blockchain innovation, with both countries recently putting forward specific financial services regulation setting out permissions for blockchain companies.

# The Digital Opportunity of Brexit

## – A Blockchain Economy in the UK



Malta now has comprehensive DLT legislation and regulatory guidance and in Switzerland the Swiss Financial Market Supervisory Authority (FINMA) has issued guidelines for Initial Coin Offerings (“ICOs”) with the latter recently authorising its first blockchain asset management company in Crypto Fund AG. This has sent an important statement to the market that these countries are open for business, and considerable blockchain-related investment has flowed into these countries including Binance, a leading crypto exchange which has moved its Global HQ to Malta. Nevertheless, the UK is better positioned to adopt blockchain and implement the necessary regulations post Brexit compared to other EU nations, as Malta having to deal with the EU as it seeks to introduce overarching blockchain regulations will be a big speed bump, priming the UK to be in a better position in the long run.

Still, in the UK, many existing banks will not service blockchain businesses (let alone anything connected to cryptocurrency!) due to fears of reputational and regulatory risk in facilitating money laundering. These fears are not by any means baseless, although recent developments in what has been termed as “blockchain analysis” help to track every single transaction on the reputable public blockchains, such that flows of funds can be clearly sourced through to origination. In this respect, checking flows in blockchain-based digital instruments is more robust than in traditional fiat currency-based transactions, where often it is only possible to trace source of funds only from the immediate prior institution from which funds were sent. The UK Treasury Select Committee put out in September 2018 a comprehensive report, citing: “Regulation needed for “Wild West” crypto-asset market”. The report outlined that the country was tentatively positive on accepting such novel blockchain-based instruments, but much work remains to develop the regulatory frameworks and standards of governance to promote general acceptance.

According to in depth joint research and analysis conducted by GMEX Group and DAG Global, Britain's exit from the European Union will result in a loss of 150,000 jobs over 5 years, with 0.41 percent annualised negative GDP growth over a 15 year period. However, 250,000 jobs will be created over 5 years and an annualised GDP growth of 3.82 percent will ensue as a result of nurturing the digital economy in the UK. Therefore, the net result of focussing on digital innovation is 100,000 jobs created over 5 years and 3.41 percent of annualised GDP growth thus acting as a positive counter measure to Brexit.

The Bank of England put forward some estimates in a July 2016 report that UK GDP could increase by 3% by introducing a Central Bank Digital Currency (CBDC). A comparable effort in Estonia was halted recently by the EU given the imperative of retaining the status of the Euro as the unique regional currency. Perhaps, with vision and some derring-do, the impacts of Brexit need not be so negative after all?

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The authors are currently seeking input to a book they are publishing entitled “Tech Meets Trust: The Case for a Blockchain Economy”, which will further explore the opportunities outlined in this article.

# GMEX Group and DAG Global Supporting research and analysis:

In September 2018, the Bank of England's Governor warned the Cabinet that a chaotic 'no-deal' Brexit could crash house prices and send another financial shock through the economy. Several reports said that the Bank Governor also told the Downing Street meeting that mortgage rates could spiral, the pound could fall and inflation would rise, and countless homeowners could be left in negative equity.

<https://www.independent.co.uk/news/uk/politics/brexit-no-deal-uk-prices-trade-mark-carney-bank-of-england-warning-a8475531.html>

Below we address some of the impacts of capital outflows as a result of Brexit. However, could this be counterbalanced or even enhanced in net GDP terms by the creation of a wider digital economy within the UK attracting foreign investment and creating jobs?

## **Financial services historical overview and forward looking analysis**

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## **Overview of GDP Impacts**

Short-term risks associated with Brexit include the economic effects on exchange rates and investment returns. With the United Kingdom losing its influence over the single market's rules, financial services would lose immediately compared to other sectors. Over the long term, however, negotiating trade deals with emerging markets (iShares MSCI Emerging Markets ETF - EEM) (Vanguard FTSE Emerging Markets ETF - VWO) could help the United Kingdom's financial sector recoup its short- to medium-term losses.

Over the medium to long term, the United Kingdom's GDP stands to be negatively impacted by Brexit. Falling output means a fall in economic activity and production, which means less business income. According to the OECD (Organisation for Economic Co-operation and Development) and the UK Treasury's estimates, Brexit could reduce the United Kingdom's GDP by 3% by 2020. The OECD also estimated before the referendum that Brexit could cost the UK up to 5.1 per cent of GDP over 15 years<sup>1</sup>. A study by the London School of Economics also assessed the likely impact of the UK leaving the European Union, to range between 6.3 per cent and 9.5 per cent in the long run<sup>2</sup>. A new modelling exercise from the IMF also suggests that the EU economy could take a hit of up to 1.5 per cent of GDP over the long term if the UK leaves the EU with no deal, whilst the likely impact of GDP hit for the UK being at 4 per cent over the long term<sup>3</sup>.

**That being said, the economic effects of Brexit stretch beyond just impacting the nation's GDP.**

<sup>1</sup> [www.independent.co.uk/news/business/news/brexit-no-deal-uk-economy-suffer-more-eu-imf-warning-a8454916.html](https://www.independent.co.uk/news/business/news/brexit-no-deal-uk-economy-suffer-more-eu-imf-warning-a8454916.html)

<sup>2</sup> [blogs.lse.ac.uk/politicsandpolicy/how-much-cash-would-you-cough-up-to-leave-the-eu/](https://blogs.lse.ac.uk/politicsandpolicy/how-much-cash-would-you-cough-up-to-leave-the-eu/)

<sup>3</sup> [www.reuters.com/article/us-britain-eu-imf/uk-economy-will-shrink-without-brexit-deal-imf-warns-idUSKCN1LX0T4](https://www.reuters.com/article/us-britain-eu-imf/uk-economy-will-shrink-without-brexit-deal-imf-warns-idUSKCN1LX0T4)

**Brexit in terms of asset outflows expected from the UK**

The UK's will to leave the European Union is clearly stated through the results of the Brexit referendum on 23 June 2016. The outcome will discontinue the closely-collaborative relationship between the UK and the EU since 1973. The Brexit process has been divided in two steps, divorce agreement and future relationship, which is expected to complete by March 2019. Although the outcome of the Brexit process is a huge unknown, the key Brexit scenarios are likely to be 'soft Brexit', 'Tailor-made Relationship' and 'Hard Brexit'. A crash out of the EU would mean the exchange of goods and services between UK and EU could face high customs tariffs and high customs duties, which would hamper the UK economy significantly, whilst the UK had a negative trade balance of 95 billion pounds with the EEA in 2014 significantly on the goods dimension. Additionally, the free movement of people between the UK and the EU would end. A visa would be required in order to travel between the UK and the EU. This would hamper the UK's travel market which in 2016 had around 23 million visitors, and created revenue of around 10 billion pounds, according to the UK's national tourism agency. Official forecasts<sup>4</sup> suggest that economies throughout the UK will be hit. They suggest that England, the North East and West Midlands would see the biggest slowdown in growth. In each scenario in the forecasts, growth would be lower, by 2%, 5% and 8% respectively, than currently forecast over a 15-year period. In Northeast England growth would be 3% lower if the UK stayed in the single market, 11% under a trade deal and 16% with no trade deal compared with staying in the EU, the forecast says. The research suggests that London – which backed Remain – would fare the best, with reductions of 1%, 2% and 2.5% in each of the three scenarios. Scotland's estimated hit would be 2.5%, 6% and 9%. Wales would see reductions of 1.5%, 5.5% and 9.5%. Patrick Minford, of the Economists for Free Trade group, said: "The continued leaks from Whitehall sources about the results of civil servants' latest modelling attempts is, sadly, a continuation of Project Fear's effort to paint Brexit as a damage limitation exercise. The group has produced its own forecasts, based on "proper, independent free trade policy," which predicts that the UK economy would grow by 4% in the long term after Brexit. The research suggests that the option of staying in the single market and customs union, which has been rejected by Ministers, would be the least damaging but would still see growth across different parts of the country between 1% and 3% lower than current forecasts. In the event of a

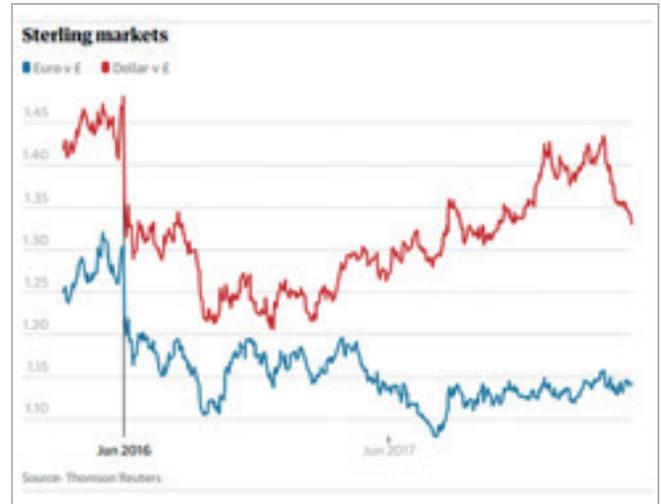
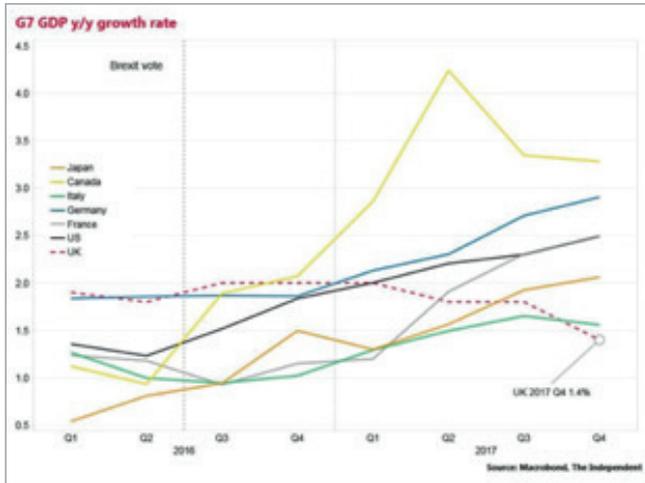
limited free trade deal being negotiated, projected growth would be 8% lower in the West Midlands, North West England and Northern Ireland, by 6% in Scotland and 5.5% in Wales. Should the UK leave the EU in March 2019 without any kind of deal, it suggests four parts of the UK would see a double digit slowdown in GDP growth.

As well as North East England, North West England and Northern Ireland would see a 12% slowdown, while the West Midlands would see a 13% slowdown. Other official estimates suggest the UK car industry's GDP would shrink by 1% if the UK remained in the EU single market but would lose 8% if there was a free trade agreement and 8.5% if the UK left without a deal and went to World Trade Organisation (WTO) rules.

Government assessment of Brexit deals on economic growth over 15 years compared to current forecasts			
Government region	Single market	Free trade	No deal
East Midlands	-1.8%	-5%	-8.5%
Eastern	-1.8%	-5%	-8%
London	-1%	-2%	-3.5%
North-East	-3%	-11%	-16%
North-West	-2.5%	-8%	-12%
South-East	-1.5%	-4.5%	-7.5%
South-West	-1%	-2%	-5%
West Midlands	-2.5%	-8%	-13%
Yorkshire and Humber	-1.5%	-5%	-7%
Northern Ireland	-2.5%	-8%	-12%
Scotland	-2.5%	-6%	-9%
Wales	-1.5%	-5.5%	-9.5%
UK	-2%	-5%	-8%

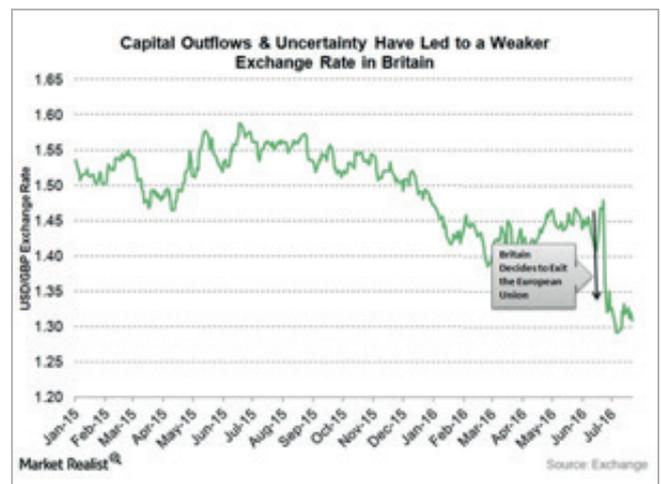
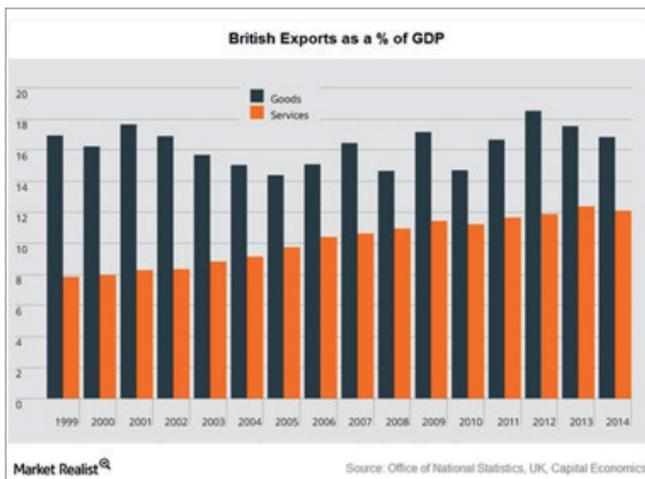
Two years later, economic figures announced for the first quarter of 2018 have shown a deviation from what was forecast prior to the referendum. According to the Governor of the Bank of England, British households are more than £900 worse off since the Brexit vote. Nonetheless, a slowdown in GDP growth to 0.01% in the first quarter of 2018 has been identified by the Office of National Statistics recently, implying that the economy being as much as 2% smaller than forecast before the Brexit vote was, to a certain extent, led by the sluggish consumer spending inflicted by Brexit. Thus, we can see that the UK has not seen any advantage in spite of the strong growth improvement of the Euro Area by 1.4%.

<sup>4</sup> www.bbc.com/news/uk-politics-42977967



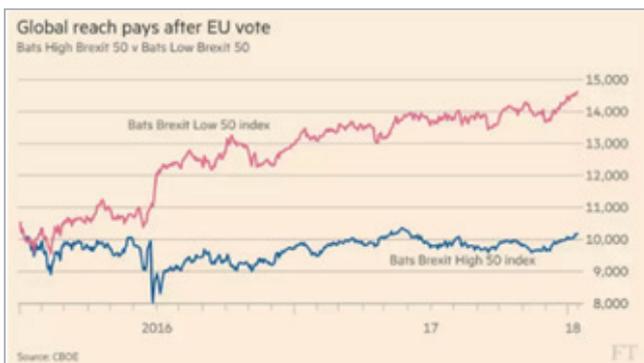
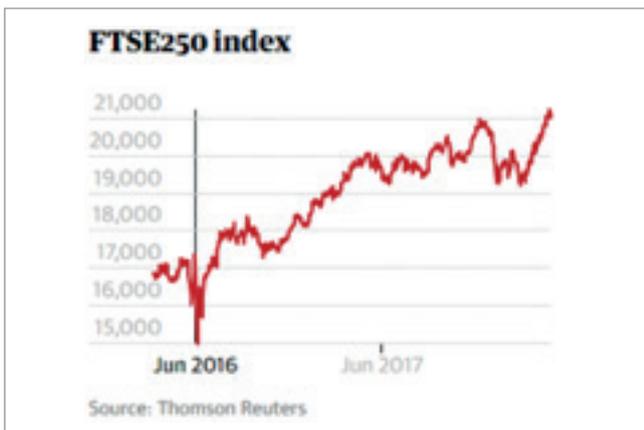
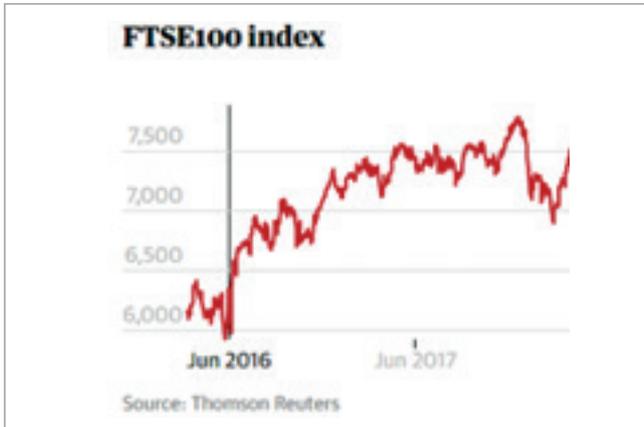
### Service Sector Impact

A quick look at the composition of exports reveals that while services exports as a share of output have been rising, goods exports as a share of output have been broadly stable, fluctuating around an average of 16% since 1999. This shows that service sector companies, such as those belonging to the financial services sector, have been contributing positively to growth in the United Kingdom. Banks such as HSBC, UBS, Royal Bank of Scotland and Barclays have gained in prominence.



The weaker-than-expected performance of the economy in early 2018 compelled the Bank of England to shelve the plan for an interest rate hike. A sharp fall in the value of the pound to the lowest level this year of £1/\$1.30 was hence triggered. While the economy was knocked off course by snow earlier this year, the fading inflationary impact from the fall in the pound straight after the Brexit vote may also have deterred the Bank. (The stock market in the UK still has its charm).

The easing of tensions between China and the US over Donald Trump's proposed trade tariffs, as well as the weaker pound, provided a fillip for the FTSE 100 over the course of the past month. Most of the firms in the index of top UK companies made substantial profits in dollars and export around the globe, meaning a weak pound helps boost their earnings. Meanwhile, the US said it had put "on hold" its proposed tariffs on Chinese imports, although Trump later quelled speculation that a deal between Washington and Beijing had been struck. Fears over the creation of a new Italian government also threatened to unsettle markets. The FTSE 100 has risen almost 5% over the course of the past month. British stocks have outperformed the euro area over the past year, rallying on the assumption of a Soft Brexit. The risk is that they are under-pricing the chances of a messy exit or one that severs the most important economic ties.



This chart illustrates Bats Brexit Low 50 index, which comprises UK companies that mostly operate on a more global scale, outperformed the Bats Brexit High 50, which comprises more UK-focused companies in the FTSE100. The distinction is measured by where the majority of their revenue is generated. As aforementioned, the slump after the referendum and the price of the companies making big profits overseas picked up immediately. For a year or so, there was a clear trend. If the pound was up, global shares in London were down and vice versa.

### Employment Impact

Given that the UK is more service-oriented, Brexit may have an instant impact, in the event of no-deal. Based on a widely cited report published in 2016 by Oliver Wyman, the job losses in the financial services sector could be as high as 75,000, as banks and other financial institutions may find themselves with no choice but to move large numbers of staff to locations in the E27. Xavier Rolet, the former chief executive of London Stock Exchange estimated job losses of over 200,000 while Sadiq Khan, Mayor of London estimated that a no-deal Brexit could cause the UK to lose half a million jobs by 2030. Lord Mayor of the City of London, Charles Bowman, takes a more optimistic view, with estimates being far lower than what was initially forecast. Charles Bowman said that the analysis estimates that between 5,000-13,000 jobs will have gone by UK's leaving date of March 30, next year. This view is also corroborated by the Bank of England, having estimated Day One job losses of around 10,000 in the case of a hard Brexit.

Based on our analysis of previous studies, we believe that an amount of 150,000 jobs will be lost, as a result of Brexit. This will be reflected into an adverse impact of 0.41 percent on the annualised GDP growth.

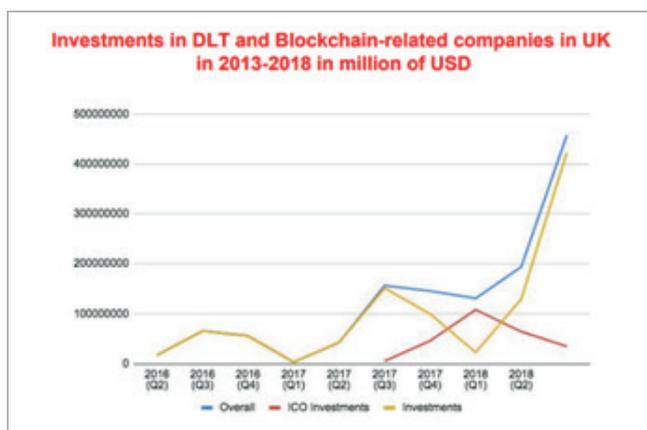
### Potential Inflow from Blockchain Ventures

The crypto Economy is a technological and financial phenomenon that encompasses all activities currently occurring in the areas of blockchain, cryptocurrency and digital assets. We are now emerging into the new sphere of the augmented economy, a state during which we are witnessing the integration of blockchain with AI and other next generation IT solutions, for use cases including LegalTech, InvestTech, RegTech, and GovTech.

(SOURCE: [https://www.cbronline.com/feature/brexit-good-things-uks-fintech-industry#\\_ftn2](https://www.cbronline.com/feature/brexit-good-things-uks-fintech-industry#_ftn2))

London trades nearly twice as much foreign currency as New York, its nearest rival. This trade does not depend on EU markets. Around 60% of the world's Eurobonds are traded in London. The UK fintech scene has the world's biggest financial centre at its disposal. If Brexit threatens to erect barriers that will hinder UK firms trading on the continent, the same is true in reverse. UK fintech firms will enjoy privileged access, in geographical and regulatory terms, to the enormous B2B market that the City of London gives them access to.

With the governmental, technological, and industrial resources, Britain currently has great ambitions to become a leader in the crypto economic ecosystem and a global hub for the development of blockchain technology within the next few years. A new report states that more than £500m in investments was made into British blockchain companies in 2017-2018. Investments in the UK-based blockchain companies covered in this report, including both fiat investment as well as Initial Coin Offerings (ICOs), rose from just over 50M USD in Q3 of 2016 to 150M USD by Q2 of 2018 (with ICO-related investments topping 100M in Q4 of 2017 and fiat investments climbing to over 100M in Q2 of 2018), which amounts to a rise of almost 300%.



According to PwC, "Artificial Intelligence industry can contribute up to \$15.7 trillion to the world economy by 2030. This means that the global GDP will be up to 14% higher as a result of the accelerating development of AI." According to Gartner "by 2030, the business value added by Blockchain will grow to \$3.1 trillion." Artificial intelligence and Blockchain each became priority areas in the UK. In 2018 AI leapt from 8% to 18% as a priority area and Blockchain went from 3% to 6% as an investment priority area in the UK. The Bank of England thinks that it could increase GDP by 3%, by introducing a Central Bank Digital Currency (CBDC). An increase in GDP of almost 3% could be achieved as a result of the reduced interest rates, reduced tax rates and lower transaction costs that implementing a digital currency would bring. For example, a digital currency does not need intermediaries to settle the transaction, rather, money passes directly from one party to another. The digital currency could also contribute to the stabilization of the economy because it would give central banks another means by which to control their currency. This would be particularly effective in times of economic shock, such as Brexit.

When it comes to managing a customs system, in order to deliver a borderless solution, Britain needs to be able to track the final destination of imported goods, and to apply the appropriate EU or British tariff, if it is to pursue the "New Customs Partnership" model proposed in the paper. Blockchain technology could be used to store information about, for instance, a new package of goods imported into Britain but destined for the EU. The data can be accessed immediately by all authorised parties, and include information such as the dimensions and weight of the package, and the origin and destination. This could all be clearly linked to the producer and transporter. Taken all together, the current state of implementation of blockchain within global trade has clear implications for the UK's post-Brexit customs predicament. Not only does the technology not exist yet, there is a good chance that the UK will have had time to leave the EU.

Before regulators will realise how much can be achieved with blockchain, and finally provide the secure legal environment that it needs to thrive, and the support that businesses (and especially SMEs) need to be able to start experimenting with the technology, capital raising will be key. Across the US market, Blockchain firms raised more than \$240m of venture capital money in the first six months of 2017, much of it from banks, including \$107m raised by R3, the New York firm owned by 40 of the world's biggest lenders.

That follows an almost doubling of venture capital investment in blockchain firms last year to \$367m, according to KPMG's Pulse of Fintech Q2 report. And, there are a few areas of banking which stand a chance of being transformed by blockchain and which may proliferate the efficiency of the system.

Trade finance is still mostly based on paper, such as bills of lading or letters of credit, being sent by fax or post around the world, and it seems to many bankers to be crying out for modernisation. Many believe that blockchain is the obvious solution since numerous parties need access to the same information. "It is literally Dickensian, because it is so paper-based," says Mr. Simon Whitehouse at Accenture. "This is a very important element of the supply chain and blockchain can offer a vast amount of elements in this area. For instance, if you are shipping goods from China, as many as 50 people need to access the data." Charley Cooper, Managing Director of R3, says: "Trade finance is an obvious area for blockchain technology. It is so old it's done with fax machines and you need a physical stamp on a piece of paper." Banks will be unable to achieve blockchain benefits, however, if they act alone, experts say. "It could take you a day to ship oil from Singapore to Malaysia and a week to deal with the paperwork," says Vivek Ramachandran, head of innovation for commercial banking at HSBC, the world's largest trade finance provider. "Digitising trade finance is quite a pointless exercise – you need to digitise trade." He says: "You have to include not only the shipping companies, the agents and the freight providers, but also the ports, the customs and the insurers," says Mr Ramachandran. "The moment you need a physical stamp on a document, it can't be digital. This has to be ecosystem driven." There are several start-ups working to digitise the bill of lading process, such as Wave of Israel, EssDocs of Malta and Bolero of the UK. Mr Ramachandran predicts that it will take five years to digitise entire trade ecosystems, such as sugar or energy, but blockchain technology has the potential to be "genuinely game changing".

Clearing and Settlement is not the sexiest area of banking, but the tangled web that records loans and securities costs investment banks billions of dollars to run. Accenture has estimated that the biggest investment banks could save \$10bn by using blockchain technology to improve the efficiency of clearing and settlement. Richard Lumb, head of financial services at the consultancy, says: "The first place we will see it have an impact is clearing houses, such as Deutsche Börse, the Australian Stock Exchange and Depository Trust &

Clearing Corporation [DTCC]." He adds: "Today it is managed through a myriad of messages and manual reconciliation. There is a big opportunity for blockchain to seriously restructure that industry." One of the best-known examples of this restructuring is the Australian Securities Exchange, which aims to shift much of its post-trade clearing and settlement on to a blockchain system. The project is being implemented by Digital Asset Holdings, the company led by Blythe Masters, the former senior executive with JPMorgan Chase. In the US, DTCC is working with IBM, R3 and Axoni to shift post-trade clearing of single-name credit default swaps on to a blockchain system by the end of next year. If this goes well, the plan is to do the same with other derivatives processed by the giant US clearing house. There are many different projects but Stuart Graham, chief executive of financial analysis company Autonomous Research, believes the industry will coalesce around one solution. "Over the next couple of years, as the winning tool becomes clear you will see the whole industry line up behind up it," he says. "It is in none of their interests to keep all the bureaucracy and inefficiencies of the current back-office set-up."

Verification of customers and counterparties is a vital element for banking. Without it, lenders would quickly lose their roles as trusted guardians of people's money. Regulators hold banks responsible for checking that customers are not criminals or illicit actors, and fine them if they get it wrong. Some believe that blockchain could offer a solution because of its cryptographic protection and its ability to share a constantly updated record with many parties. "We think identity could be big," says Mr. Simon Whitehouse at Accenture, which recently worked with the UN and Microsoft on a blockchain identity system for people with no identity papers. "We can easily see how you could move this to the massive area of 'know your client' and anti-money laundering, where the costs are huge for banks and the costs of messing it up are also huge." Dozens of start-ups are working on building blockchain systems for customer identification, including Cambridge Blockchain, Tradle, Credits and Blockstack.

When a US company raises money via a syndicated loan it takes on average 19 days for the transaction to be settled by the banks. When a loan changes hands between banks or where a borrower repays a loan early, much of the communication is still done by fax. Emmanuel Aidoo, head of blockchain at Credit Suisse, says: "This is an area that hasn't had an awful lot of innovation."

Credit Suisse is one of 19 financial institutions that have formed a consortium, working with Synaps to start putting syndicated loans on blockchain systems. "It is the perfect vehicle for managing the lifecycle of loans," says Mr Aidoo, adding that the consortium expects to have put one or two loans on its platform within the next year. He says a key challenge is to find a way for separate blockchains to talk to each other so that changes to a loan's ownership can be quickly reflected across all systems. The new project would involve the different agent banks each providing a "golden source record" of the loans they administer which could then be accessed by other lenders.

In 2016, the Bank of England modelled an economy with a digital currency equal to 30% of GDP with a simulated digital currency that was subject to real world business cycles. The results suggest a 3 per cent annual increase to GDP. An increase of \$80 billion to the UK GDP. One explanation cited was that the Central Bank's digital currency reduces both interest rates and the cost of financial transactions. Payment and record keeping in digital currencies would be decentralised, with blockchain allowing people to bypass traditional transaction brokers, thereby lowering or eliminating fees. Banks could also save transaction fees with analysts predicting a saving of \$20 billion annually by 2020. Based on the above and taking into consideration the latest developments in the digital economy, an internal analysis was made.

The \$80 billion estimated by the Central Bank in 2016 is likely to grow in view of the recent evolution in the digital economy. The market capitalisation of cryptocurrency has been used as a proxy to determine value that the \$80 billion is likely to grow from 2016 till now. Under the assumption that the total contribution towards GDP is a fraction of market capitalisation, the growth rate is adjusted to reflect this.

Given that only spending on final goods and services contribute to GDP, the amount of cryptocurrency that actually end up in goods and services needs to be determined. With a high level of speculators and savers, the total value of transactions would not be considered as normal spending. Hence, transactions for other fiat currencies, other cryptocurrencies, and transactions between wallets held by the same person can obscure true transactions. As per Smith & Crown, the best way to approach this is using monetary velocity.

Hence, by calibrating the growth rate using monetary velocity, the \$80 billion initially estimated is likely to grow by \$224 billion. Nonetheless, in addition to the original estimates, a lag of 2 years has been assumed between capital expenditure and its impact on GDP. This is in line with numerous studies, notably by an economic paper published by the European Commission, whereby Government expenditure and economic growth in the EU; long-run tendencies and short-run tendencies were assessed.

Based on the Akaike Information Criterion, the lag used was 1 and 3. Taking the above into consideration, the likely effect of the digital economy is 7.64% over a period of 2 years. The annualised growth is therefore 3.82% compared to the initial estimates of 3%. With the rise in GDP, and considering the continued rise of UK fintech firms, the digital economy is likely to employ 250,000 people.

250,000 jobs will be created, with an annualised 3.82 percent of positive GDP growth was a result of nurturing a digital economy.