The Global Economy

June 2014

Prospects for growth and assessing the UK's position

Introduction

Please note: this Paper is a write-up of research and issues arising from a Market Consultation and a series of roundtables taking place under the Chatham House rule. It does not necessarily reflect the views of participants in these proceedings or the views of Policy Exchange. We have asked a number of these people to contribute essays to this report. The views of these authors are varied and wide-ranging. As such, Policy Exchange would not endorse all of the policies that are put forward. However, it is the spirit of debate that is important.

Our Approach

We conducted a Market Consultation exercise to support our research, and identified three key areas of interest. These topics were discussed in a series of roundtable events with leading academics, senior leaders in global and domestic UK firms, policymakers, trade associations, representatives of sovereign wealth funds and other stakeholders to explore the future prospects of the global economy. In addition, several essays on the subject of global growth were solicited from prominent voices in the worlds of finance, industry, and politics, which are published in this report.

The three subjects and underlying questions discussed at the roundtables were:

The developed world and rising economics: a stock take

- What are the global trends in innovation, growth and consumption that are likely to shape the world economy in years to come?

- As emerging economies develop, how might rising labour costs and exchange rates impact on business activity?
- Where do developed economies stand today and how is this likely to change?
- What can be learnt from the history of economic development in advanced economies?
- How can developed economies and the UK best adapt to these emerging trends?

Making the most of growing economies: accessing and building new markets

- What barriers are there for global businesses to enter emerging markets?
- What changes to government policy might best facilitate the growth of goods and services exports in new markets? Trade, regulatory policy, trade missions – or something else?
- How can firms build on existing markets and take advantage of their growth?
- What role do issues with the protection of intellectual property and corruption play?
- Do developed economies such as the UK have comparative advantages in emerging economies with historic connections (English as the language of business, legal practices, for example) and how can this best be capitalised on?

Fostering inward investment: competing in the new global economy

- How can developed economies ensure they are well placed to attract more inward investment from emerging economies?
- Are there opportunities to 're-shore' parts of businesses that have moved abroad in recent years? What policies are needed to encourage this?
- What new policies are needed to ensure 'foot loose' global companies continue to see the UK as a good place to locate?
- What role might clusters and innovation hubs play? How can developed countries make the best use of their research excellence?

Focus

The long-term projections for global economic growth remain strong, despite the slowdown since the financial crisis. However, adverse conditions in the developed world have ensured much of the political debate about the future of the global economy has focused on short-term issues, such as quarterly growth statistics, banking regulation and the problems within the Eurozone. But relatively little attention has been paid to the long-term challenges. By 2050, global output is projected to treble, with two-thirds of growth coming from emerging economies. These countries will have overtaken the developed world as a share of global GDP, with 19 of the largest 30 economies being those we currently describe as 'emerging'. Almost three billion more people in these countries will reach middle class levels of consumption, opening up vast new consumer markets.

The developed world will have to change radically if it is to adapt to this new environment successfully. Some countries are better placed to do this than others. For example, exports to emerging markets in Germany account for over 10% of GDP, more than double the proportion of the UK and USA. This is both a challenge and opportunity. As emerging countries grow they will undoubtedly demand more of the services and governance structures that have already been developed in places like the UK, US and Australia. As labour costs rise in growing economies, opportunities for "re-shoring" may also open up. However, it is also clear that the concentration and comparative advantage that the developed world has in high-value goods and services will face ever more intense competition as emerging economies catch up in these sectors.

Managing this economic transformation will present national and international policymakers with unprecedented challenges. To realise the opportunities of the next four decades successfully – for the developing world to adapt to dramatic social and economic changes, and for the developed world to face its structural, fiscal and demographic challenges and 'pay its way' in the years ahead, it is vital that these long-term issues are addressed.

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The Developed World and Rising Economies – a Stock Take

The emergence of Britain as the world's first industrial economy in the late eighteenth century marked the beginning of over two hundred years of rapid economic transformation, with the associated commercial, legal and social innovations. Today, rising economies are undergoing similar changes, transforming global trade patterns and presenting challenges as well as opportunities to developed economies.

The key conclusions to emerge from the evidence gathering exercise and roundtable discussions were:

- Despite the developing world achieving significant economic growth in recent decades, it remains to be seen how sustainable this growth is. While emerging economies will inevitably take a bigger share of global output in the future, they will face increasingly difficult public policy decisions after the "easy wins" of early economic development have been implemented.
- The Eurozone is still in a precarious position, and remains reliant on Germany as the driver of economic growth. The UK is currently performing well, but has to overcome structural issues, such as public opposition to large infrastructure projects, if it is to thrive in the future.
- The fall-out from the financial crisis, and increasing global interconnectedness means that robust economic governance structures and strong institutions, both at a national and international level, are a necessary requirement for sustainable economic growth.

The following sections summarise the topics discussed at the first roundtable event.

History and the long-term view

Before the industrial revolution, the gap between the richest and the poorest country was very small – perhaps 2 or 3 times, with shares of GDP driven by shares of population, and Asian countries having a much greater share as a consequence. Today, per capita income for the USA is now 50 times that of the poorest economies. If this ratio narrows, we should expect an increasing share of economic activity to be taken by Asia again as was the case before the 18th century.

The distinction between GDP overall and GDP per capita has been lost in the debate. Western economies may have less impact, but that is not the same thing as an equalisation of GDP per capita. Many developing economies have started down the road to 'catching up' with living standards in the developed world, but have failed ultimately to achieve parity. Changes of leadership in terms of GDP per capita are relatively rare. There are only a handful of historic examples, moving from China to the north Italian city states during the Renaissance, to the Dutch Republic in the 17th Century, to Great Britain in the 19th Century and to the United States in the 20th Century.

BRICs and escaping the 'middle income trap'

In fact, despite rapid rates of growth, the 'BRIC' nations remain a long way behind on the per capita GDP measure. As a percentage of U.S. per capita GDP, Russia and Brazil are at 30%, China at 20% and India at just 10%. None of these are likely to catch-up or overtake developed economies in the foreseeable future. While emerging markets will continue to grow faster than the developed world, presenting significant new business opportunities for firms, the analysis of the BRICs may have been exaggerated. As of 2013, there is actually a 'pendulum shift', with the contribution of the developed world to global output actually rising to about a third. Three years ago India's projected economic growth was 10%, but has been revised back to just 4.5% today. Brazil's growth has been volatile, while Russia has struggled to grow at more than around 2.5% per year. China, while having grown at some 10 to 11% a year over the last 12 years, is now seeing a slowdown to around 7.5%, with a sustainable growth rate as low as 5%. The reasons for this vary by country – Brazil may have been over-reliant on consumption and China on investment, for example. However, the overall tone of the debate has changed. One can see an overall slowdown of EM growth rates, and existing high rates such as China's are arguably less sustainable than previous thought.

Patterns of GDP per capita growth going back to the 14th century show 'bursts' of growth followed by reversals. This points to a large distinction between economies which begin to grow and those able to sustain it. The evidence suggests that countries are poor today not because they did not have growth, but because it was followed by growth reversals. These were often based on booms via particular commodities such as wool in medieval times, followed by reversal back to trend. Rich countries are characterised by a relative lack of such growth reversals.

Some developing economies could be going through such a boom which cannot be sustained. For example, many African countries have had strong growth for the last decade, but it is far from clear that they will continue growing if there is a terms of trade reversal. In particular, emerging economies may struggle to sustain expansion once the 'easy wins' of growth have been completed in the transition from low development to middle income countries. Some boosts to economic growth are temporary and can only be completed once: for example, joining the World Trade Organisation, bringing labour out of agricultural sector, developing comprehensive secondary school education and creating basic infrastructure such as harbours and airports. Such development has already been done by many middle income countries – others (such as India and Africa) still have potential to catch up in these areas and may suffer from problems with governance, corruption and poor attitudes to private sector initiative.

China

The emerging economic powerhouse of China represents challenges and opportunities to global businesses. Consideration of still robust growth rates and a growing middle class must be counterbalanced by awareness of high and rapidly accumulating debt (hidden particularly in the 'shadow' banking system). While this has undoubtedly had high multipliers in the past, it is not clear this will continue. For example, Japan's efforts since the 1990s to reignite growth are a useful example of when this assumption is taken too far. Its massive government borrowing to finance infrastructure projects resulted in derelict airports and 'bridges to nowhere,' which added nothing to growth (or at best only notionally added to GDP while having no effect on the real economy).

In addition, weakening demographics through the long-term effects of the 'one-child policy', a property bubble and potential institutional weaknesses all add to questions about China's future. Some have suggested greater opportunities exist in other developing countries with fewer issues, such as Vietnam, Indonesia and Mexico.[1]

The public policy changes emerging from the Communist Central Party committee's plenum last year, may have significant implications for new opportunities in China. At the time of writing, significant reforms to the role of finance, the monetary system, urbanisation, State Owned Enterprises (SOEs) and the role of government are being fleshed out.[2]

However, it is less clear that significant reforms will take place where there is political opposition – in particular, on the dominance of central and local government, the role of firms and innovation, and special privileges afforded to SOEs. China is becoming increasingly sophisticated socially and economically and it far from clear its institutions and legal constructs will be able to cope with these changes without significant changes to its political economy, which could promote still more unrest and uncertainty.

Deng Xiaoping, Jiang Zemin and the Chinese leadership arguably enjoyed significant successes in building a socialist market economy, but the conditions for this success are very different to those evident today. Developments such as weibo.com, internet access, a rapidly aging population, emerging middle class has created new challenges and political sensitivities. The role of government in nurturing innovation and a more vibrant private sector may not be compatible with the existing political system.

The Eurozone and Germany

The Eurozone has had a very challenging economic period after the financial crisis, with six quarters of overall contraction and now three quarters of growth to the end of 2013, whose sustainability is unclear. Overall, for 2013, there was a 0.4% decline in GDP. Growth in 2014 will perhaps be below 1%, nonetheless heavily driven by Germany.

One of the key stories of the Eurozone has been the transformation of Germany from the 'sick man of Europe' to a reliant engine of growth. In particular, labour law changes, the 'Hartz's' reforms, made a big difference to dealing with its unions, reduced collective bargaining and improve wage restraints. However, Germany has also been fortunate in the circumstances over the last decade. Specifically:

- Germany entered the Euro with a relatively low exchange rate, while the Euro has been kept weak, boosting its exports.
- China's rapid growth and rising demand for capital goods of the sort that Germany produces further augmented this effect.
- Intra-Eurozone trade grew rapidly, increasing Germany's capacity to profit from cheap lending.

While this lending was in the medium-term of benefit to Germany (and to a lesser extent other countries such as France) and its debtor nations (i.e. German exports could be purchased with this credit), in the long-term this gave rise to other systemic risks. Implicitly, Germany was responsible for the economic health of the Eurozone and would have to assist if it went wrong.

However, this system led to the rise of 'moral hazard' in the debtor nations. With the balance of payment constraint removed, the need for structural changes in the economies of other Eurozone countries was also reduced. This clearly affected public policy decisions in the years leading up the financial crisis.

The overall picture remains challenging, with no real recovery in rates of investment, heavy cuts to research and development spending, significant issues in the banking system (including doubts over the ability of some institutions to pass stress testing) and little ability for companies or households to increase their spending. Overall balance of payments improvements have been achieved because countries are not spending, rather than because they are improving their productivity. The lack of an obvious base for sustainable Eurozone growth is a significant problem for the UK.

Successful economic models – what works?

Successful modern economies are based on strong institutions which are not easy to replicate. Going through this period of change can be difficult and lead to unintended consequences. For example, an industrial focused economic policy may cause an economy to struggle further into the development process as the service sector becomes more important to further growth.

The 'fashion' of economic models in policy terms tends to fluctuate over time. For much of the post-war period, the 'German' model of interventionist institutions, apprenticeships and centralised unions was much admired, while the U.S. model was unfashionable. However, the growing importance of the service industry in the 1990s and 2000s reversed this trend, with Germany's institutions looking more like an impediment to growth, while the U.S. model became more popular. This trend was reversed again post-2008.

Emerging market prospects

The outlook for emerging markets in the long-view is still intact, however. The broad picture remains one of a steadily growing share of the world economy (if only due to demographic factors), but with significantly more volatility and differentials in growth rates than thought before, alongside lower overall growth. While EMs may not be the overwhelmingly dominant driver of world growth as previously thought, it will still be significant, with projections for countries such as China still expanding at around 5% for the next decade. There is no reason the developed world should be 'poorer' overall as a consequence of these changes – merely that there will be an adjustment in the relative position.

Changes to the world economy after the financial crisis are likely to mean that there are structurally greater risks to emerging markets. This means resilience will take on higher importance, such as the role of finance. This has been crucial to the growth of several developing economies, with credit growth continuing to be very high across several EMs, perhaps unsustainably so. For example, IMF research has found that countries which see a sustained expansion of credit growth of 3% a year or more for a sustained period are at risk of a banking crisis.[3] In contrast, credit in the Chinese economy has ballooned to some 200% of GDP from around 130% before the financial crisis. This is an obvious cause for concern.[4]

With the 'old' drivers of economic growth less apparent in EMs, a key issue for these countries are their institutions and their governance procedures – and these requirements can be radically different depending on the stage of economic growth. Institutions that are needed at the beginning of the catch-up process may be a hindrance towards later stages, with innovation at the frontier very different from that in the early stages of economic 'catch up'.

For example, the Soviet Union was 'catching up' relatively rapidly during the Stalinist era. Projections by prominent economists such as Paul Samuelson in the 1960s were that the Soviet Union could overtake the United States by the 1980s. However, his subsequent publications continuously put back this date – first to the 1990s before dropping it entirely. It is therefore apparent that countries may need different institutions at different stages of development.

In effect, there is now a global competition in what constitutes good governance, and it is far from clear that established developed world practices will prove to be superior to others as was assumed thirty years ago.

Future competition will depend on which governance model is best, and which can adjust more rapidly from its present phase and be most flexible – an area where the developed world may still hold an advantage. Building robust institutions means having a capacity to 'reboot' when things go wrong. Some countries – such as Brazil and Malaysia – may be able to get over the 'brick wall' and break out into higher-income countries, but other countries like China may not be able to due to the political regime.

Prospects for the UK

Despite significant fluctuations, UK growth has been relatively consistent over the last 40 to 50 years at around 2 or 3% per year, despite frequent policy changes. The effects of, for example, a 'German' interventionist model, Anglo-Saxon model, exchange rate or labour market policy may therefore be exaggerated.

Debate in the aftermath of the financial crisis has largely focused on reforms to the financial sector and the pace, duration and composition of fiscal austerity. Some policy focus in this area was arguably needed and, in certain aspects, augmented – for example, removing bureaucratic constraints around public sector commissioning, and exploiting the macroeconomic strategic impact of the government as a procurer of services. However, there has been relatively little debate for long-term growth questions on labour markets, the role of an independent central bank, inflation targeting, capital accounts and skills or exchange rate policy, for example. Cross-cutting public policy on infrastructure and skills for example – has arguably taken a back seat to immediate fiscal priorities, such as raising tuition fees for higher education, freezing science spending in nominal terms and reducing (and subsequently reversing) capital spending with significant multiplier effects.

The UK has an excellent record of doing world class research but a relatively poor record at applying it to commercial purposes. Reports from the OECD, EU Commission and World Bank have all warned that UK skills and education policies have not done enough over recent decades to keep up with emerging market competitors. Productivity blockages – such as the need to replace 100,000 retiring engineers each year, reluctance to pursue critical infrastructure projects and limited productivity gains through industrial relations cooperation – remain significant.

There are significant structural issues to consider in doing this, however. The political economy of, for example, building new railway lines, nuclear power stations or runways has been difficult, with supporters of the status quo arguably having the upper hand. For example, the debate about the expansion of Heathrow airport has been ongoing for decades. Proposals to build a new airport to the East of London – such as at the Maplin Sands – have been ongoing since the 1960s. International headquarters which were building along the M4/3 corridor in the 1980s and 1990s are now built in Paris – arguably due to lack of additional infrastructure development meaning that the connectivity and economic zones such projects bring have not developed. Terminal 2 at Heathrow has created 30,000 jobs, for example. A World Economic Forum competitiveness survey of 148 countries ranked the UK's ground-transport system below Barbados, and its road network below Chile's.

There is also significant work to be done restoring output and GDP per capita and addressing structural issues relating to innovation and productivity. Some small policy changes – such as consideration of the dynamic macroeconomic effect of Airport Passenger Duty or visa rules which may prevent foreign companies getting key staff into the UK or Chinese tourists entering the UK (not least through lack of joint visas to the Schengen area), both of which help facilitate growth multiplying activity – may be of assistance. But creating institutions which respond to the large barriers to economic growth – reforms to skills, the market economy, industry policy and the social security system – have further to go. The UK's unique selling proposition – what makes it 'special' – may prove of increasing importance. In the long-term, the issue of demographic and public policy adjustments required to addressing an aging population pose very significant challenges.

An important structural issue for the UK is ensuring efficient market access to capital to seed, sustain and grow businesses. Other countries have alternative means of providing such financing, while debt remains the predominant driver in the UK, even for capital intensive, high start-up cost activity for which it may not be appropriate, such as R&D. Equity financing remains rare at this level, while institutions such as 3i that used to fill this space no longer do. Frequently, small businesses are still asked for personal and household mortgage liability to securing lending. While there have been some changes to government policy – such as the creating of a UK Business Bank and efforts to coordinate various government schemes and foster challenger banks - the scale of change is arguably little in contrast to the scale of this issue.

What growth do we want

It is far from clear that existing metrics of economic activity are adequate. For example, GDP per capita may not be the only measure of success in an advanced stage of an economy – with other measures such as happiness arguably undervalued. As Robert Kennedy, the United States Attorney General, put it:

> *"Our Gross National Product, now, is over $800 billion dollars a year, but that Gross National Product – if we judge the United States of America by that – that Gross National Product counts air pollution and cigarette advertising, and ambulances to clear our highways of carnage.*
>
> *"It counts special locks for our doors and the jails for the people who break them. It counts the destruction of the redwood and the loss of our natural wonder in chaotic sprawl."*[5]

There may be significant methodological problems with statisticians 'catching up' with the digital economy.[6] Economic activity which is difficult to quantify financially may be undervalued or discounted entirely. Changes in the composition of developed economies make this a significant and ongoing issue, with an 'information society' and 'knowledge economy' becoming a reality in the developed world.[7] Other intangibles – such as UK or US investment in human capital and tertiary education may be very effective, but undercounted in existing measures. The U.S. Bureau of Economic Analysis are uniquely attempting to revise US national income accounts to allow for R&D and IP products' impact on the investment sector, for example. More broadly defined IP, patents, trademarks, industrial worker training, copyrights, are being quantified in their own right rather than through physical capital. While these reforms are still at an early stage, this activity is potentially a large area of growth potential for developed economies.

Making the Most of Growing Economies – Accessing and Building New Markets

Emerging markets' share of global consumption is forecast to rise from one-third today to almost two-thirds by 2050. Countries like India, the Philippines, Nigeria and Brazil are predicted to have incomes up to nine times higher than they are today.

How businesses take advantage of these emerging markets and how government can support this through better trade networks and regulation will be a key issue in shaping long-term economic growth in developed economies and the UK.

The key conclusions to emerge from the evidence gathering exercise and roundtable discussions were:

- While there have been some improvements to trade promotion initiatives in the UK, the Government can and should go much further to enhance opportunities for current and potential exporters.
- The UK's provision of trade services is weak by international standards, and there is evidence to suggest that large swathes of the business community are not even aware of the services on offer. This is true of both export and inward investment promotion.
- The potential to exploit overseas markets could also be enhanced through better links between universities and the UK's exporting base, in particular through Government support for R&D. It is not clear that the UK is building on its comparative advantages and its reputation for quality.

The following sections summarise the topics discussed at the second roundtable event.

Trade promotion

One frequent criticism of Britain's foreign policy – and an issue of primary importance in the policy changes introduced by the Foreign Secretary William Hague – has been the relative weakness of its trade promotion. While the UK foreign policy 'arc' has concentrated on career diplomats, protection and security issues, other countries such as Turkey have put commercial prosperity as the principal goal. Radical options – such as introducing business people who value and understand trade missions in place of career diplomats in emerging markets – have been considered. Such external help from diplomatic and trade association cooperation can be crucial in aiding UK companies to build exports in overseas markets. For example, doing business in Brazil demands an understanding of its very complex regulatory and tax system, which requires significant expertise. The UK's Ambassador to Brazil is stationed in the capital Brazilia rather than in other big cities where deals are made, such as Sao Paulo.

Efforts to get UK SMEs to travel abroad are crucial to building export markets. This makes efforts such as the Prime Minister's recent trade missions to China and India, alongside large and small UK firms, welcome.[8] Other efforts – such as that of the telecommunications company Huawei to take UK SMEs out to China to introduce them to potential Chinese partners and purchasers with UK government cooperation – have been part of this significant policy shift. However, the overall effort is arguably undermined by the relative paucity of emphasis and resources allocated to this area. It has been noted that the UKTI runs around 15 trade missions a year, whereas it used to be around 25. Personal contact is often needed to facilitate export promotion for small firms, but can be lacking.

The UKTI's level of funding is relatively low by international standards – around half the budget of the French inward investment agency, for example. In contrast to the UK, Germany has had an export centre in Beijing for 20 years, business councils in all leading export markets and makes membership of its firms in a chambers of commerce compulsory by law. In contrast, UK Consulates are still often perceived as unhelpful, charging businesses for public appearances and meeting space, for example.

Target market segments

A key target for the UK's future growth must be fostering growth in those sectors able to supply 'middle class' goods to rapidly emerging consumer markets in developing economies. It is not necessarily evident that the UK is building on its comparative advantages in order to do this. For example, the revolutionary substance graphene – invented by scientists in Manchester – has had 8 patents applied to it in the UK compared with around 160 in South Korea, and 200 in China.[9] This invention – which began with government funding – is part of a consistent pattern of failure to commercialise UK innovations with other countries taking the lead.

Other institutions may be lacking in UK innovation and entrepreneurship business chains. 'Catapult centres' to foster inward investment such as the St. John's Innovation Centre in Cambridge[10], Germany's 'living laboratories', fostering joint ventures, and effective links between Overseas Export

Market firms (OEMs) and universities (spearheaded by the 'Lambert toolkit'[11]) can all play a significant role in this, but are arguably inadequate in the UK. Other recent changes – the EU-US trade deal and greater IP collaboration within the EU (including the prospect of reducing the number of defensive or 'zombie' patents which prevent others using them and limiting public sector IP 'theft'), for example, is an opportunity for the UK to capitalise on its successes, but this may not be enough in the absence of integrated supply chains and support for export-enhancing activity. In particular, the relative weakness of government support for R&D in comparison to successful exporter nations such as Germany and Japan, is often seen as a key issue.

This makes the UK government's target to double exports by 2020 announced by the Chancellor George Osborne in 2012, all the more difficult to reach. As he put it at the British Chambers of Commerce International Trade Conference this year:

> *"The task is heroic. Exports will need to increase at 9pc compound year on year, every year… We need to make sure that enterprises, not just large businesses, have access to finance, to grow and fulfil orders, not least from overseas. We need the vital infrastructure to move goods, to do business and to communicate – roads and railways; hub airport connectivity and seaports."*[12]

Some feel that greater small firm involvement is a matter of profile, and emphasise being vocal about success stories, such as the EEF's Export Growth Award.[13] Other effects – such as depreciation in the exchange rate for Sterling to boost exports – may have little impact (because UK exports are heavily dependent on imported services and components, for example).

UK barriers to exporting

Evidence from Business Lobby Groups suggest that the barriers to exporting for businesses are many and varied, with the largest barriers to exporting being finance related, such as a lack of sufficient cashflow, payment risk, and access to funds.[14] State sponsored initiatives through UK Export Finance are regarded as important, but will only be able to grow if knowledge of its products and services are known to those businesses that may benefit from using them, something that is not currently evident.[15] Other ideas to support UK exporters have been touted, such as specialised tax credits for first-time exporters and reviewing the practical impact of the Bribery Act.[16]

Fostering Inward Investment – Competing in the New Global Economy

Despite intensifying international competition, the UK remains Europe's top destination for foreign direct investment. But intra-developed world investment remains the norm while inward investment from emerging markets remains limited: flows from the Netherlands to the UK are higher than those from India; China's investment is less than half that of Germany, for example. In an environment of ever more global trade and capital flows, corporations will be able to pick and choose where they locate new business very easily. Ensuring developed economies are able to be a competitive destination for inward investment will be a key challenge for their future growth.

As emerging markets develop and their real wages and currencies appreciate, there are also questions about whether we may see more global firms relocating production closer to major consumer markets (Japanese car manufacturers opening factories in the United States and Western Europe, for example) and 're-shoring' core functions for even lower value added jobs back or nearer to firms' country of origin. Responding to these shifting global trade patterns presents challenges and opportunities for developed economies.

The key conclusions to emerge from the evidence gathering exercise and roundtable discussions were:

- The rapid and significant changes in the global economy, and subsequent changes to how trade is conducted, mean that it is increasingly difficult to understand how supply chains are evolving. This presents a challenge for public policy, given disparate methods of production and the intangible value-add of the services sector.
- Supply-side constraints impact on FDI decisions; not least the decision making process around infrastructure planning, and the use of land. The UK's strong record of inward investment has been built on stable governance twinned with a flexible economy.
- But in an increasingly mobile world, companies will increasingly make investment decisions on a case-by-case basis, adding an extra dimension to policy decisions to promote FDI. While regional and city-specific policies could improve FDI prospects in a globalised world, the UK's centralised approach to policy making potentially acts as a barrier to this.

The following sections summarise the topics discussed at the second roundtable event.

The history of FDI and economic development

There have been two great periods of economic 'unbundling'. The first was late nineteenth century globalisation, which saw a significant widening of distance between where commodities were produced and consumed, but with much of the production chain still co-located. The second, most recent, unbundling has witnessed the production and value chain becoming much more dispersed as technological progress – communication costs coming down and offshoring becoming more practical – has facilitated radically different trade patterns. Trade is becoming vertically specialised across borders, with elements in a supply chain often stretching across several countries, often with both servicing and manufacturing components, pre and post-manufacture. Analysis must therefore focus around where competitive advantage can occur in different stages of production. Many big manufacturers make the majority of their profits from service fees rather than the actual fabrication. Intangible value-add has increasingly made assessing value chain quantification more difficult.

This has significant implications for the collection and evaluation of statistics – simply, existing data is no longer adequate to accurately assess the value of supply chains. For example, the Government Office for Science inquiry on the Future of Manufacturing[17] has found that we are not collecting the right metrics to see how these value chains are operating.

While future trends of comparative advantage are not clear, change over time is undoubtedly very significant. The UK's textile industry has largely disappeared, its engineering sector downsized, but its service sector dramatically expanded. However, some public policy responses may be standing in the way of historic economic progress. The UK has relatively poor land use planning, limiting the size of its cities. Cities successful in the new growth areas are not expanding as fast as those enjoying comparative advantages in previous periods – Cambridge has grown very slowly in the last 50 years compared to the boom towns of Preston and Blackburn in the nineteenth century, for example. Land with planning permission as well as office space are very expensive in the UK by international standards.

By expanding cities to create successful conglomerations, this can lead to significant comparative advantage and taxable capacity. These can easily outweigh wages competitive disadvantages – such as the successful conglomerations in 19th century Lancashire, despite very high relative wages. Addressing these barriers requires a public policy to allow successful conglomerations to expand, with areas such as transport infrastructure, and land use planning key. UK rent projections, accounting for population increases and supply constraints, look to continue to increase rapidly. Highly skilled workers struggle to locate in economic hubs (new graduates coming to London, for example). Significant inelasticity of supply of land (particularly in London and the South East) through community opposition to building has significant second round effects. Incentives for local people to support such expansion – community land auctions for example – could be one way to resolve this dilemma.

Leadership in infrastructure commissioning is often necessary but difficult. For example, the decision to build a third runway at Heathrow, taken in 2003 has been a cause of great controversy for the last decade. Opposition to the Northern Line extension of the London Underground has been significant due to temporary disruptions despite arguably significant long-term benefits for the community. Projects that would create jobs such as a low-level waste repository site in West Cumbria are often scrapped due to relatively minor opposition (environmental pressure groups for example). This can directly affect FDI decision making. Rates of effective corporate taxation (though difficult to have very low in a medium-sized economy like the UK), can also have a big impact in certain 'foot loose' sectors, such as finance.

UK as FDI destination

Alongside a large global upswing of capital flows over the past thirty years, the UK stands out as a big success story, obtaining more inward investment than any other European country. The determinants of this record are Britain's relatively strong position in terms of:

- Stability of market access (including EU despite continuing uncertainty over market access);
- IP protection;
- Legal compliance on international ownership;
- Acceptable levels of infrastructure;
- Scale of domestic market;
- Existing strategic long-term customer relationships; and,
- Significant export potential.

However, broader macroeconomic issues have a significant effect on competitiveness in this area. The skills base, cost of training, labour market flexibility and a stable, reasonable tax environment all play a role. The defining characteristic of these factors is 'flexibility' combined with the prerequisite of stability: the rule of law, good institutions, attitudes to regulation and social cohesion. For example, the Chinese investment fund Huawei has taken the strategic view that the UK is the best place in Europe to invest in the long- term. The UK's competitiveness in FDI depends on maintaining these advantages over direct competitors such as France, Germany and Italy.

Why are some countries more successful at obtaining FDI than others?

'Foot loose' global companies will weigh and assess their FDI decisions on a case-by-case basis dependent on the need of their sector – for some, one of these factors will predominate (for example, opportunities to access China's growing domestic market may outweigh other problems of doing business in terms of protection of property rights, etc.). Such companies will move to a particular country quickly and may equally leave quickly if trading conditions are not right (for example, defence contractors downsizing in the UK due to a reduction in defence contracts).

There may also be judgements based on strategic decisions to emphasise certain sectors that create a 'magnetic attraction' (Germany nurturing manufacturing and engineering rather than finance, France specialising in agriculture, energy, and aerospace rather than retail, for example). These public policy choices as to which sectors should be developed are rarely made in the UK. Instead, the UK's success in FDI is arguably due to its comparative advantages (its success in technology FDI and related 'hub' status, for example). Some have argued that the UK needs to concentrate more of its public policy response on areas where it can be competitive to maximise this success.

There is also an arguable lack of public policy emphasis on obtaining FDI in the UK. Indicative of their commitment to obtaining FDI, for example, South Korea's investment agency is located in Investment House, Investment Plaza on Investment Road in a section outside Seoul called 'Investment'. Singapore also has an excellent record. Some have emphasised the importance of promoting a country's brand – France has a dedicated minister for inward investment, for example.

In the words of Adam Smith, 'There is a lot of ruin in a nation', some have argued that while the UK brand is successful and has been 'built up' over a long period of time, it has not been nurtured sufficiently in recent times.

A significant element may be observed in regional and city-specific development. For example, twinning arrangements may be successful if partner cities have similar interests, size, structure and are able to capitalise on historic relationships. It is less clear this works when they are very large disparities – for example, the metropolitan area of Shanghai has a population of 24 million, while its twin, Liverpool, has just half a million. The size and administrative scale of control over cities was considered extensively in the Heseltine Review 'No Stone Unturned'.[18]

Despite rhetoric about improving localism, the UK's centralised public finance and administrative systems arguably leave cities with very little power – relative to other countries and historically – to make their own economic decisions, build strategic relationships or foster clusters to attract FDI, giving much emphasis to statutory duties and fulfilling central government programmes. Giving more power to LAs to build partnerships between, for example, local businesses and universities and colleges to coordinate skills policy is arguably lacking. China, for example, while having designated specialisms and clusters, gives cities a lot of discretion. London despite being more constrained than rival cities, such as Paris, is arguably successful because it is a conurbation which has a single authority responsible for many public policy areas, particularly transport. There are other successful clusters such as Salford's 'tech city' and Chinese investment in the Manchester City Airport Enterprise zone.

Competitive advantage is clearly improved by such clusters. For example, the Heathrow area has become a conglomeration arguably largely because of its global connectivity, with some 200 of the UK's top companies based there. The same effect was seen historically with London's great ports. Some have argued that constraints on these connectivity hubs such as Heathrow are a big threat to the UK's competitiveness and future economic growth. Some have argued for still bolder reforms; the London Finance Commission's called for cities to have more explicit tax and spending powers.[19] This should give cities further flexibility to attract FDI, and it is likely future debates about devolution in Scotland, Wales and Northern Ireland may further catalyse debate in this area. Some have asked – if greater discretion over tax and spending policies is given to these regions, why not cities? If the legal structures for local authorities create disincentives for cities to expand, to create new and better infrastructure and benefit from economic growth, this may be a policy area that warrants further examination.

Winning the argument on FDI

There is a significant public opinion issue with FDI. The public at large are not always convinced of its merits and some have argued for a more robust campaign of persuasion to change this mindset. The academic evidence suggests that as well as bringing in greater capital, innovation and energy to a sector, FDI raises the bar for domestic businesses, improving economic performance of the economy overall. Yet anti-business rhetoric has the potential to undermine FDI. Businesses do not like being somewhere they are unpopular, and this can pose a direct threat to long-term investment decisions (the future of the City of London, for example).

The UK has a relatively good record in this respect, with an absence of, for example, a dirigiste concern to protect certain assets from foreign ownership, such as the US refusal to allow the purchase of major seaports by the state-owned UAE firm DP World.[20] The relative position is however, rather opaque, with 'league table' positions largely dependent on measurement of stock, flows, exclusions, inclusions and the accounting of capital flows across exchanges. Nevertheless, continuing the UK's competitive successes in this regard depends on fostering public understanding that the UK's position in the 'global race' is dependent on international collaboration, including an openness to foreign ownership. While this may cause problems for particular elements of society, the overall effect of this openness and flexibility are arguably very positive. There may be lessons to be learned from UK success stories in this regard: for example, the UK's premier football league is globally very successful, despite the most successful clubs often being foreign owned, and many footballers not originating from the UK. Despite this, the large FDI in this industry has generally not caused public resentment. Similarly, the UK car industry has arguably benefitted from a positive UK decision that foreign ownership is not treated as relevant, improving innovation, FDI and employment. Other sectors such as creative, pharmaceuticals, professional and financial services and defence are all heavily foreign owned, yet they are some of the UK's most globally competitive industries.

The messaging can sometimes be mixed, however. The life sciences industry strategy is benefitting from early stage development R&D tax credits, but is suffering from a five year nominal freeze in the UK drugs budget. It is thus a challenging environment to promote FDI in this sector.

Andrew Peters, Siemens

As we enter a truly globalised era, significant shifts in the movement of capital, labour and goods have the potential to dramatically change the way in which the UK does business, yielding tremendous opportunities for growth, expanding our exports and creating the jobs of the future. The clear opportunity, albeit a long-term one, is the expansion of developing economies and the volume of new consumers – or the new global middle classes.

Take China. At the beginning of the century, recent statistics suggest just 4% of urban households were middle class; by 2012, that share had leapt to over two-thirds. By 2022, China's middle class could reach 630 million – three-quarters of urban Chinese households and 45% of the entire population. The trend is similar in other emerging markets too and just as acute.

Since the fall of the Berlin Wall, the decline of command and control economies and the further liberalisation of Chinese economic policy combined with the rise of the South American bloc, billions of new citizens have entered the global market.

This alone poses unique challenges for this century – one of the main ones being how to have balanced growth not just in the UK but globally. For the last ten years inward investment has poured into developing economies and their exports have increased whilst many have bought up huge amounts of Western debt. Equally the West imported more, increased borrowing, ran trade deficits whilst witnessing a decline in inward investment. Indeed this paradox is what many believe led to the tectonic plates shifting as dramatically as they did in 2008, during the height of the great financial panic.

With the rise of the global middle class driven by the emerging markets the challenge now is how these states stimulate domestic demand, and increase consumer consumption whilst the west seeks an injection of inward investment alongside the development of their industrial sectors following decades of decline.

So how does the UK supply its products in those markets given the rise in demand and the need to fulfil the growth of the new international middle classes?

Barriers

The barriers to accessing new markets can include tariff barriers, taxation barriers, and issues relating to bribery and corruption.

Trade barriers are still very much an issue. There are the traditional tariff barriers – still some highly discriminatory tariffs and taxes – this in spite 50 years of the General Agreement on Tariffs and Trade (GATT), the WTO and nine trade rounds. There are new and significant non-tariff barriers, which are complex as they can sometimes appeal to very legitimate social and cultural concerns, e.g., regulatory issues, labelling, standards, and abuse of intellectual property rights (IPR) alongside subsidies, trade defence, discriminatory pricing, bans and prohibitions. They all need different approaches to be overcome – and international cooperation and agreement is therefore vital.

Tax can present one of the most damaging risks in emerging markets too. It is vital that the key tax risks in each emerging market location are understood, assessed, and effectively managed. Businesses must strategically assess whether the tax regime in the country is stable enough to allow the company to make a fully informed decision on its investment. Conversely, corporate risk teams should determine that any tax minimisation strategies are aligned to the organisation's overall strategy and desired risk profile.

Bribery and corruption has become a significant issue for emerging market participants too. Facilitation fees, inappropriate gratuities, and providing "things of value" to government officials to influence them or obtain/retain a business advantage are just a few of the more common practices. This needs to be wiped out globally, as it distorts markets and is morally wrong. (E&Y 2010)

We should also acknowledge the European Union which has done much to remove barriers both within and outside the EU zone, creating much more favourable trading conditions as well as helping improve access to new markets through continental trade deals, which has helped the UK access global markets in way previously thought impossible. But ultimately the barrier challenges fall into tax, tariffs and the eradication of corruption.

Taxation and competitive incentivisation

It is vital the UK has a competitive tax system, but all too often this debate revolves around reductions in corporation tax or even lowering the rates of income tax. These are important factors when attracting inward investment but there is a policy black hole when considering the depreciation of assets such as plant machinery and equipment – in essence large and intensive capital investments. Whilst this year the capital allowances for investing in energy efficiency technology has increased – this only scratches the surface when considering long-term depreciation for the whole basket of manufacturing assets.

The time it takes for manufactures to recoup their capital investment through the tax system in the US is 3 to 20 years. In Ireland the figure is 5 to 10 years, for Germany 10 to 16 years. In the UK it is an astonishing 30 years at a bare minimum.

UK tax depreciation rates under the UK's capital allowance regime, using the declining balanced method, is only 20% for most machinery and equipment. In the intervening decade, modern machinery has become more productive by increasingly incorporating the latest technologies and software. Empirical and anecdotal evidence suggests that manufacturers are replacing their machinery and equipment, on average, every seven to eight years. Yet the UK's current rate of 20% means that manufacturers are only able to recoup their costs after 30 years, adding a premium to investing in the UK (EEF 2010).

We believe that this is a major disabling factor in encouraging new capital investment and moving away from a 'make do and mend' mentality.

Government policy and its role in facilitating export growth

We have seen great strides in reaching new export markets; indeed at Siemens our award winning facility in Congleton exports 98% of goods across the globe, and the gradual opening of key markets has been critical to our UK growth. We welcome the increases in UK Trade & Investment (UKTI) funding and the increased effort to undertake key trade missions to boost growth – all of which contribute towards the better marketing of Britain – something we have not always leveraged hard enough.

Inward investment into the UK economy created or secured more than 112,000 jobs in 2011 to 2012. And we fully support the plans to increase UK's exports to £1 trillion by 2020 and attract more inward investment in UK infrastructure projects – including the recently announced investment in Manchester Airport, investment secured from China in October 2013. (BIS 2012)

We know how strong our services exports are and it may be fair to argue that emerging markets are seeking mineral and manufacturing equipment that are largely exported from Germany or other countries with a stronger manufacturing sector, hence our relentless campaigning for a stronger industrial sector capable of matching the exports of our services sector, which in fact is in surplus.

UK Export Finance (UKEF) has helped many exporters and reducing corporation taxes has encouraged inward investment. But let's not ignore the scale of the challenge. Sterling has depreciated around 25% since 2008, and last year's trade deficit was £36bn – over 2% of GDP. With such a cheaper trade weighted currency – surely we should be performing better than this?

There are monetary challenges too. Many are rightly concerned that the global tapering of quantitative easing could seriously impact demand and critically liquidity that is much needed for the UK exporters that require stability in their borrowing costs and access to finance – the latter has been a critical barrier to growth, and served to hinder our ability to approach emerging markets confidently. So we urge policy makers to work with industry as much as the city when considering how to manage the winding down of QE and any potential increases to interest rates.

Ultimately the Government could do a number of things that would boost exports to the emerging markets. This may include:

- One would be to allocate high profile trade envoys specifically to key growth economies – a permanent trade presence in the countries themselves as Economic Ambassadors.
- The government should ensure that the EU uses its economic weight to press for robust IP protection provisions in international trade negotiations. This requires active UK engagement on IP initiatives in Europe.
- To support high-growth export champions, the government should introduce a New Markets Incentive – a targeted tax credit to underpin exploratory export activity by SMEs.

Innovation driving global competitiveness

Although we have some of the world's best universities, we have consistently failed to translate that core research and development into commercial added value with new products and solutions. In 2010 the University of Manchester won the Nobel prize in Physics for Graphene, yet China and Japan have over 2000 patents, whilst in the UK there are only eight. The introduction of the government catapult centres has for the first time created an environment where academia and industry can come together to commercialise their R&D technologies. If the export growth opportunity of the future is centered around the world's middle class, then the faster and greater the amount of innovation we can commercialise the more products we can export to satisfy future needs. We also need to engage with many more SMEs to help sustain this.

Interestingly the German government is already supporting industry and academia in terms of developing the digital factories of the future with new technologies and innovation. So we must do more and accelerate the good progress we have made in this area.

World class transport and connectivity

Exploiting new market opportunities necessarily requires the supplier to have fast and consistent access to its customers both in terms of direct transport links from and to the UK to allow customer engagement activities to take place effectively and for the supply of products from the UK to consistently arrive at the customers location on time and at a commercially competitive cost.

Improving airport regional and hub connectivity to these new markets, whilst also addressing APD (Air Passenger Duty) to make the UK competitive against other European airports, will help improve this customer intimacy.

Recognising the importance of building a robust supply chain in the UK will mean more investment in ports in the North of England such as Liverpool and Manchester. British manufacturing, which accounts for 53% of all exports, will be able to achieve globally competitive logistics costs and geographic concentrations of interconnected companies will start to develop around these export points. This is important because we need a transport system capable of delivering export-focused growth – the ability to move goods not just around the country but outside of it too.

Why the UK matters

Whilst there is much more to be done by way of increasing access to emerging markets, especially for SMEs, the UK has natural comparative advantages not just limited to a devalued currency. The UK's historic roots as a trading nation and use of the English language, the language of business and of many emerging nations, points to a positive future outlook. Siemens nonetheless recommends that there are permanent high-profile economic ambassadors across emerging markets.

The UK, utilising its role inside the EU's Single Market, needs to market itself hard as a world beating trading nation. With growth still slow in many traditional markets, a relentless push to tap into emerging markets is vital, whilst working internationally to reduce trade barriers.

Exports across the board have grown and that should be welcomed. Whilst these markets are perceived to be slowing, especially China, that is due to their efforts to rebalance towards consumption, which in fact should be an opportunity not a risk. JLR have recognised this – exporting high end vehicles across emerging markets. It is also desirable for the larger firms to take the supply chain and SMEs with them in the journey to export more where possible.

If this is the case we will make faster progress in these aims and we will be able to address the challenge of growing our supply chains. One of the UK's strengths is of its flexibility and ability to adapt to changing global environments – and that will be at the centre of firms tapping into new markets in South America and the East where global economic power is shifting.

A wave of economic optimism has broken out in the Western world in recent months. The good news is that there is a cyclical recovery going on, and that the pendulum of economic growth is swinging back a little towards advanced economies. For the last several years, the richest countries in the world have only contributed about a quarter of global economic growth, but this proportion is likely to rise to about a third or a little more in the next 12-18 months.

Economists have been busy revising up their economic growth forecasts for 2014 and 2015. Christine Lagarde, the Managing Director of the IMF, was in biblical mood recently when she told an audience in Washington that the deep (economic) freeze was over, and that she was hopeful that 2014 would mark the transition from 'seven weak years to seven strong years'. After a few economic false dawns for economic recovery in the last 2-3 years, and depression-like conditions in Europe in particular, the view from the economic trenches is that this upturn looks like the real thing. From the crow's nest, however, things look much more nuanced, and indeed still worrying. The fabric of globalisation is torn, the foundations of economic recovery are weak, especially in Europe, and the growth dynamic in emerging countries is impaired. The risk of inflation lurks in the latter, while that of deflation looms in developed nations. These apparently opposite perceptions can be stitched together in a global 'tour d'horizon', and by considering the general legacies of the financial crisis, the answers to many of which still go begging.

US leading the charge but still fragile

The US economy is expected to grow by about 3% in 2014 and a little more in 2015, driven by the private sector. US industrial and wage competitiveness indicators have improved, banks are lending again in modest fashion, household debt to income ratios have fallen, and the shale oil and gas revolution is rapidly lowering US net energy imports. Without the headwinds from the automatic spending cuts that substituted last year for broader political agreement over the Federal budget and the Treasury's borrowing authority, the economy should push on.

Against this side of the ledger, however, there is another side. Although the unemployment rate has tumbled to 6.7%, the labour market is structurally weak. The labour force is contracting under the influence of demographic and technological change. A closely followed and broader definition of unemployment that includes discouraged workers, those marginally attached to the work force and those working part-time for economic reasons is over 13%. Real wage and salary growth is weak. Inflation has dropped to about 1%, and further declines would be unwelcome. Cash rich companies are spending a little more on investment but not much more. The risk of disorderly budgetary politics has receded but only for the time being. The budget deficit has fallen from almost 10% of GDP to about 5%, and will halve again by 2015, but the huge task of addressing Medicare programme costs has yet to happen. Last but not least, the Federal Reserve's decision to start unwinding QE, or quantitative easing, is welcome, but poses unpredictable risks to financial stability, not least in emerging countries, many of which are vulnerable to a reflow of capital back to the US and other developed economies.

UK pick of the European pack

No one predicted this a year ago, but the UK's expected 2.3-2.5% growth won't be bettered by major industrial countries, aside from the US. Unemployment has fallen so quickly that the Bank of England now has a quandary about framing the criteria for keeping policy rates unchanged. It is fashionable to attribute the UK's economic performance to the government's Help to Buy housing programme, but the economic recovery predates the announcement of this scheme. That said, housing policy, mortgage lending and financial services are now unquestionably adding fuel to the economic expansion. As a result, though, we can see that the economy has not rebalanced away from its pre-crisis structure. Moreover, the economic recovery is starting with an unusually large balance of payments deficit of 5% of GDP. In the next 12-18 months, this deficit might grow to levels that end up in a crisis for the Pound Sterling, an untimely rise in interest rates, and another recession. In addition, analysts will doubtless watch closely for any economic effects from a vote for Scottish independence later this year, and from the implications of the 2015 General Election regarding a vote on EU membership in the next parliament.

But for the moment, the UK is doing much better than the Euro Area. Although economic sentiment has improved for countries bordering the Mediterranean, though not for France, the end of the economic contraction is not a demanding benchmark for success. Anaemic and unbalanced growth, and elevated unemployment, debt levels and credit constraints are common. European politics, especially the ascendancy of nationalist or anti-integration parties in the European Parliament elections in May, could mitigate against the likelihood of significant policy changes in the near future. And we should not ignore the risks of political tensions and changes in austerity-weary member states that may yet threaten the integrity of the single currency.

Major economic policy changes, though, are a long shot anyway. Euro Area member countries have not really crossed any major bridges in advancing the cause of better macroeconomic governance, or of a satisfactory banking union. There has been no significant change towards more burden-sharing between creditor and debtor nations. Agreement on banking union, to try and mitigate financial risks, excludes deposit insurance and other joint liability arrangements, for example, as regards bank resolution and recapitalisation. The European Central Bank will almost certainly have to ease monetary policy further via targeted lending or indeed by adopting politically contentious QE. New monetary initiatives could be justified given how close the Euro Area is to deflation, and offer cover and time for governments to persist with labour market and other governance reforms.

Abenomics is struggling

In Japan, the 'Abenomics' experiment, named after Prime Minister Shinzo Abe, succeeded in lifting economic growth to about 4% in the first half of 2013, but the economy's rate of expansion has halved subsequently. With consumption taxes rising over the next two years as part of the fiscal consolidation programme, and growing skepticism about the likelihood of successful implementation of structural reforms, it is quite likely that Japan's growth rate will drop again. As a result, the achievement of positive inflation readings until now is likely to prove fleeting.

The relative ease of expanding QE and introducing fiscal stimulus in 2013 contrasts with the more fractious challenges of social and economic reforms needed to strengthen growth, and guard against the risk of renewed deflation. These span deregulation of product and service markets, raising the participation of women in the workplace, tax and governance changes to spur companies to spend more, and the encouragement of higher wages and salaries. Faced with inertia or resistance to structural reforms, the government will probably lean again on the Bank of Japan to expand QE in 2014, giving rise to further weakening of the Japanese Yen, which in turn could be an additional problem for emerging economies.

Rough ride for emerging markets

A number of emerging markets have had a bit of a rough ride in recent months, experiencing outflows of capital, unstable currency markets, weakening growth, and political or social unrest, for example, in Turkey, Thailand, Ukraine, and Brazil. The World Bank's latest Global Economic Prospects gives a reasonably optimistic assessment of emerging country prospects, but warns that many are especially susceptible to external financing difficulties and balance of payments crises from changes in US monetary policy.

Confidence in emerging markets has frayed anyway because of serial disappointments regarding economic growth. This has affected surplus countries such as China and Russia, as much as deficit countries such as Brazil, Mexico, Turkey, South Africa, India and Indonesia. Corruption and excessive credit creation are common themes. In China, the problem is too much investment. In India and Brazil, it's too little. But for richer and poorer emerging countries alike, economic development in the last 10 to 15 years has been so fast and successful, that the economic models and political institutions, which served them well, now need an overhaul or reboot. Western export markets have become much more subdued, and many successful development strategies can only be accomplished once. Now, more complicated, and politically difficult policies must be implemented to sustain high levels of growth.

China merits, as ever, a particular mention given its role in the global system and in emerging and developing country trade. China's underlying growth has already slowed down from 10-11% to 7.7% in 2013. Even so, this is probably a path towards even slower, sustainable growth of around 5%. China's main structural imbalance is that the investment side of the economy is too big, and the consumption side too small. Rebalancing can only occur in the context of slower growth over time. The leadership is quite open about the need for rebalancing, together with extensive governance changes to change the ways in which central and local governments, state owned enterprises and party institutions work. The Communist Party's Third Plenum late in 2013 announced comprehensive economic reforms but the key is successful implementation. In the absence of political reform, which has been ruled out, the sharpest and most needed economic reforms appear unlikely to proceed as planned, or succeed.

More immediately, though, China's most pressing problem is to tame the pace of credit creation, so as to ensure that financial excess does not end up in a credit and investment bust. The broadest measure of credit creation grew by 18.8% in 2013, down from 20.2% in 2012, but still almost twice as fast as the growth in nominal of around 10%. So long as this continues, the debt to GDP ratio, variously estimated at between 200-230% of GDP, will continue to rise quickly, posing risks to the economy and the banking system.

Legacies of the financial crisis

Taking a big picture view of the global economy also reveals a system that remains a long way from overcoming both new and amplified legacies of the financial crisis. This year, output in OECD countries will still be 3-4% below the pre-crisis trend on average, but for many countries the gap may be 2-3 times as large. It may still take a long time to close it. Fiscal systems have been severely compromised at a time when age-related spending commitments are set to rise sharply. Monetary policy doesn't work as it used to, and credit intermediation is still impaired. Financial globalisation has gone into a steep decline, which may not be a bad thing per se, but might be if it pulled down trade and investment at the same time. The long-term relationship of 2:1 growth in world trade to growth in world GDP has already faltered, and global foreign direct investment is now running at half the rate of 2007-08.

Labour markets are churning and difficult to interpret because of the effects of new technologies and robotics on the one hand, and rapid societal ageing on the other. Extremes of income inequality are now recognised not just as a social problem that saps the strength and cohesion of communities, but also as a corrosive economic problem that restrains income formation and consumption, and adds to deflationary pressures. The cumulative effect of weak or falling investment in physical and human capital, most recent as the public sector has retrenched, is exacting a damaging toll on our ability to restructure economically, keep people at work, and equip them with the skills to match new technologies.

Last but not least, the great growth hopes that were pinned on China and other emerging markets have proven to be not a little naive and largely overdone. Poorer countries should, of course, and will expand at faster rates than richer ones, and the optimism about a rising middle class in emerging countries should bear fruit over time. At the same time, though, the outlook for emerging countries in the next few years is likely to be difficult, as highlighted earlier.

These economic adjustment issues, permeating all parts of a globalised world, emphasise the importance of economic co-ordination and collaboration between nation states and the critical functions of international institutions. The spectre of rising economic nationalism won't appear in global economic forecasts, but if we pander to it, it will affect them in ways we will come to regret.

George Freeman, Member of Parliament for Mid-Norfolk

The UK finds itself at a crossroads. With the economy set to grow at 2.7% this year based on the latest figures, the dark days of crisis might seem to be behind us. Pressure to ease up on fiscal consolidation is growing. But we must face brute economic facts. The welcome return of consumer confidence must not blind us to the long-term challenge of restructuring the UK economy: rebuilding it on the rock of innovation rather than the sand of public spending, an agenda which the Chancellor has rightly embraced. The Great Recession provided a wake-up call to a UK which had started to believe Gordon Brown's claims to have eradicated boom and bust, trusting in a phantom model of growth based on cheap credit and booms in the City and housing.

Though it may be sunny through the boardroom window, there's a fire in the basement. Soothed by a few quarters of economic growth, we can too often miss the bigger picture. I believe the financial crisis was structural, not causing but merely exposing the existing weakness in our economy. The red lights surround us: spiralling healthcare and pension costs; rising debt interest and a sclerotic eurozone as our biggest export market; and a bloated welfare state.

According to the Institute for Fiscal Studies, social security spending alone is set to increase from 28% as a proportion of public spending in 2010-11 to 32% in 2017-18, even with the cuts and reforms underway. In pensions, our current level of spending for 2012-13 is a 59% per cent increase from 1997.

Moreover, the IFS forecasts that, in nominal terms, by 2017-18 debt interest spending will be up by £20bn, benefit spending up £20bn, health spending up £15bn and net public service pension spending up £5bn. Even with the very tough current spending reductions, implemented in the teeth of hysterical opposition from Labour and the unions, we will only return spending to the same proportion of GDP as in the early 2000s.

Put simply: the scale of the very difficult consolidation of the last few years is merely plugging the leak and keeping us afloat. The deep structural problems remain, bringing into focus the two possible futures we face. A debt-ridden economy brought to its knees by a lack of productivity in public services, overwhelmed by the costs of health, social security spending and debt interest and thus eventually losing the faith of financial markets. Or a retooled economy fit for the new century, unlocking a new cycle of growth based on selling our science, innovation and knowledge to help the fastest emerging economies go through the agricultural and industrial revolutions in the next thirty years that we went through in the last three hundred.

George Osborne is right: there is no room for complacency. We are currently borrowing about £3,200 every second. This is no time for fiscal loosening. Having successfully fought the war against the bond vigilantes to keep gilt yields low and begin the work of clearing one of the largest fiscal deficits in the developed world, it is time to embrace innovation, boldly setting the course for the future of the UK economy.

Having come to Parliament as an entrepreneur, fresh from a fifteen-year career starting over ten new companies at the cutting edge of biomedicine, agriculture and cleantech, I see an opportunity emerging from our current crisis to fundamentally rebuild the UK economy so it is able to compete with the likes of China and India in the future. This crisis can be our opportunity to make the UK a global tech and innovation hub, unleashing the force of entrepreneurs to transform the public sector and then export that knowledge to emerging markets.

So if we are to move away from an excess reliance on debt-fuelled consumption and a property price bubble, with QE artificially pumping up asset prices, how do we do it? The first step is obvious: we need to start thinking global.

Thinking global

The Western European nations are all grappling with the same structural weaknesses, and a currency and banking system weighed down by bad debts. We cannot afford to sit and wait for the Eurozone to drive our recovery. We have to go and trade with the faster emerging markets – the BRIC and N11 economies – growing at a rate of 7% annually.

Recent history, however, shows how far we still have to go. According to the CBI, even though the value of total UK exports to the BRICs rose by 42% between 2008 and 2011, they still made up only 7% of total UK exports in 2011, with China comprising just a measly 3%. And, according to their projections, at our current pace exports to emerging markets won't make up the majority of the UK total until 2047. Trying to win the global race through the corridors of European politics is like trying to score a century at Lords with a seven-iron.

As we are currently seeing with jitters as the Fed tapers, there is no point pretending emerging markets are straightforward. The financial press are often fickle in their enthusiasm, no more so than over the case of emerging markets. Having heaped praise on them for more than a decade, a slightly chillier tone has crept in during the last year. Whether it is proclaiming a 'Great Deceleration' (the title of a recent *Economist* cover), or panicked articles about capital outflows, the breathless enthusiasm for the BRICs and N11 economies of recent years is being overtaken by rekindled interest in the US and Europe.

Such a realignment of expectations can be healthy. Western economies boast many virtues – rule of law, world-class university research, plural societies, open markets for foreign investors, absence of corruption – that China, India and Russia often lack. Yet this lack of advanced development and infrastructure is precisely why these emerging economies are such fertile territory for some of our exports. In food, energy and biomedicine, these economies and the wider N11 are eager for the developed technologies of the West. They are due to go through in the next few decades what it took us three hundred years to do. By 2050 the world population is set to double, meaning we will need to produce twice as much food with significantly less land, water and energy. Far from giving up on emerging markets, such needs show why our exports are more sought after than ever. Feeding, fuelling and healing the emerging economies is going to be big business.

Some even suggest the West is destined for a new period of slow – or even no – growth. The recent revival of the 'secular stagnation' thesis by Larry Summers and work from Professor Robert J. Gordon has triggered worries that we could be doomed to a far lower rate of trend growth than we have enjoyed in the last century. In Professor Gordon's thesis, a third industrial revolution – the digital revolution – has propped up trend growth since the sixties, though only creating a 'short-lived growth revival' compared to the second industrial revolution of such necessities as electricity, running water and indoor toilets. As he puts it:

> *"...there was virtually no economic growth before 1750, suggesting that the rapid progress made over the past 250 years could well be a unique episode in human history rather than a guarantee of endless future advance at the same rate."*

Whether Professor Gordon's thesis is right or wrong, the question of time is: where is the next cycle of innovation going to come from, one that can fundamentally transform all of lives? And, once found, which countries will capitalise on it and export their discoveries to the world?

To answer that question I want to touch on three things. Firstly, to offer a candidate for the sort of innovation that can drive a new cycle of growth for us in the UK and the developing economies – namely, Life Sciences. And then to spell out a clutch of supply-side reforms here in the UK which can help entrepreneurs better commercialise that innovation, through rethinking our aid and trade budgets and unlocking innovation in the public sector.

Solutions

One clear example of what this sort of entrepreneurial politics could do is in the field of health. I want to outline a way in which we can rethink how we do health in light of trends in the global economy, and how by embracing those trends we can spur a new cycle of growth for the UK.

The Life Sciences Industrial Strategy announced by the Prime Minister in December 2011 made the UK serious contenders in the medical global race. We have numerous competitive advantages: world-class universities, unique NHS health data and a vibrant venture capital sector. Connections are starting to be made. Our expertise and data – on cancer, diabetes and dementia – are urgently needed by the rising economies of the East. The BRIC and N11 economies are rapidly developing demand for Western food, medicine and energy technology.

We have an opportunity to attract billions of pounds of R&D investment into our life science research sector. Through the Life Science Strategy we have unlocked over £1bn in five new early stage Venture Funds, helped secure AstraZeneca's new £300m global Research Headquarters in Cambridge, and over 50 new medical research projects in the UK.

The UK's life science sector is one of the key engines of economic growth: driving trade and investment through feeding the world, but also modernising our public services by driving innovation inside the NHS, helping solve the productivity problem which threatens to cripple our economy. It helps point the way from rescue to recovery.

The truth is that the old 'Big Pharma' model of Drug Discovery is busted. The pharmaceutical sector is going through major structural change as a result of the explosive pace of discoveries across the board from genomics to e-health with molecular diagnostics, digital devices and healthcare services; rising pressure on western healthcare budgets; the over-reliance on computer and animal models of disease which have not proven to be good predictors of safety and efficacy in patients; and the imminent loss of billions in revenue from the expiry of patent protection on many current drugs.

The growing global appetite for re-integrating medicines discovery more closely with the clinical environment ('translational medicine') instead of in the traditional Discovery and Development facilities of yesteryear creates a huge opportunity for the UK. We are one of the few places in the world with the combination of world class university and clinical science, a centrally organised public healthcare system, a highly respected ethical framework for clinical trials, historic reservoirs of data on disease and drug response, and a well established industry and financing sector.

We can lead the world in this new model of drug discovery, positioning the UK at the forefront of the next wave of 'translational', 'targeted' and 'personalised' biomedicine, to the benefit of UK patients, the NHS and the economy. Britain can become again *the* place in the world to come and establish the clinical value of innovative medicines before launching them commercially in markets around the rest of the world. The industry gets drugs launched more quickly at lower cost. We get earlier access to new medicines at lower cost. We have an opportunity to attract billions of pounds of R&D investment into our medical research sector. Protect our basic science base. Invest in our medical research infrastructure. Incentivise clinicians and scientists to work with industry. And make the NHS more open to innovation.

The last point is crucial. We urgently need to look at using innovative new technologies to transform our NHS. The last Labour Government doubled health spending and achieved a 10% output increase. That's a staggering 90% productivity gap. By 2048, a century after the NHS was founded, the cradle-to-grave service enjoyed by the baby boomers could be little more than ancient history for those picking up the bill unless we embrace innovation in research, diagnosis and treatment to drive up health productivity.

We have three world-beating technological assets waiting to be fully used: the human genome map, the world beating superfast computing and informatics which have driven companies such as ARM from Cambridge start-ups to global corporations and, crucially, the NHS with its unique fifty year data records on drugs and disease. These are extraordinarily powerful assets in global biomedicine. If it ever happens, the failure of the NHS to realise their value in modernising medicine will be of our own making.

Unlocking the full potential of NHS data through the power of technology and through the work of entrepreneurs is what can save the NHS, and cure one of the main causes of the structural deficit. Letting anonymised data from GPs be used in medical research is just the tip of the iceberg. We need to go further and faster to unlock new revenues to invest in 21^{st} century healthcare.

To maximise such potential – in health as elsewhere – we can't be squeamish about using the power of Government. Having co-ordinated the UK Life Science Strategy in 2011 and the UK Agri-Tech Industrial Strategy in 2013, I know from experience that modern industrial strategy can have beneficial effects. These new industrial strategies bear no relation to the discredited corporatism of the Seventies. The last thing we need now is to prop up failing industries, subsidise failing regions and try and run industry from Whitehall. But a new generation of Conservatives, many of us fresh from careers in business, are insisting that there is a role for the state in helping the UK win in the global race, not through the oligopoly cronyism of New Labour but through unleashing a pro-enterprise spirit throughout the public and private sector. There can be no hiding places in the hunt to drive up productivity and trade to stop us becoming just another old and sclerotic European economy dependent on QE.

We are in a hole so deep that every part of our society has a responsibility to be more entrepreneurial. We don't just need a government for business, we need a more businesslike government. We need to unleash the forces of technology and enterprise across the private and public sectors, to break open new markets, drive public service reform and modernisation, and boost productivity and competitiveness, allowing us to thrive in the global economy.

By making the UK a test-bed of innovation, across our public as well as private sector, we can drive up productivity, tackle the causes of our structural deficit, attract inward investment and unlock a new global trading cycle as an exporter of innovation.

Conclusion

We will never build a sustainable long-term recovery and transform our economy with duct tape and string. We need to fashion it on new foundations as part of a long-term economic plan for renewal. To thrive in the 21st century, we need the next James Dyson or Richard Branson to be as at home in the corridors of Whitehall as in the conference rooms of Canary Wharf.

So let's tackle our twin challenges of the structural deficit and sustainable growth by making Britain the crucible of new technologies which can transform our productivity *and* drive new export markets. I call it the 'Innovation Economy'.

This is an ambitious, modern and entrepreneurial vision of a rebalanced economy in which the twin forces of technology and enterprise are unleashed to fuel an 'economic insurgency' of competition, choice, accountability, free markets and entrepreneurialism in every walk of British life, across the public and private sector.

It is increasingly clear that to get out of this economic crisis – a crisis born out of the Left's bankrupt deceit that we could live on a borrowed boom fuelled by public sector spending, cheap credit and cheap labour – we need to use every lever the Government has to break open the cosy corporate cartels too often propped up by Big Government. We need a renaissance of British invention, enterprise and global trade to get this country moving again. To do so we don't need politics as usual, but a new entrepreneurial politics.

As an entrepreneur in Parliament, I know that the future of the global economy can make or break us as a nation. It is our choice.

At the heart of all the complexity around the rise of the BRICs, MINTs, Next 20 and so on is one very simple and hugely disruptive tectonic shift – more and more countries are joining the interlinked global market, both as customers and producers. Catalysed by technology and girded by international supply chains, previously secluded parts of the world's population are dropping their barriers, hitching up their competitiveness and making the running in the Global Race for trade, jobs and investment.

For global governance and policy groups this is generating fundamental challenges for nations and citizens across a range of strategic, geopolitical, economic and social areas including:

- challenges for global governance, including the makeup of the UN Security Council, G7-to-G20, and balancing the approach to global trade and sustainability negotiations;
- challenges of demographics to the social compact, as the rise of a global middle class, shifts in ageing patterns and increasingly fluid migration increase demand and expectations;
- challenges from the growth of interconnected, systemic risks to financial systems, communications networks and environmental sustainability.

For international companies, the effects are similarly profound and increasingly commonplace. Markets which were once an Edwardian gentlemen's club of Anglo-Saxon, European and Japanese interests now bustle like the Grand Bazaars of Istanbul, with a diverse set of vendors offering colourful wares and exciting opportunities to reach new customers.

So far, this has given the global race a thrilling, spectator-friendly character, with each competitor starting from a different point and taking a different path through the early going.

As attention turns to the latter half of this decade, however, countries' strategies for the next lap are becoming more alike. For emerging and developed economies alike, **generating and sustaining innovation** is recognised as the key to sustainable economic success – in terms of attracting investment, succeeding in exports, building a diverse and robust industrial base and – ultimately – generating the jobs and revenues necessary to raise living standards.

Globally, this is being reflected in national economic and industrial plans. Gone are the days when emerging economies – even those with huge advantages of scale like China, India or Indonesia – were content with an 'export and outsourcing' model. As capital, labour and asset mobility continues to increase, emerging countries face lower barriers to attracting 'hot' flows of innovation, and are increasingly creating bespoke, attractive ecosystems for target sectors and companies which play to their distinct strengths.

As a result, when technology companies with global reach, like Thales, consider where to expand, where to invest and where to build up the skills needed for the future, there is now a wider set of suitor countries than ever before.

Staying ahead in innovation

Success in business across all sectors fundamentally depends on a company's ability to innovate faster, more effectively or more efficiently than competitors. Creating new technologies and intellectual property, making disruptive leaps forward in business models and ways of working, and delivering the right levels of quality and value are the irreducible engines of sustainable and profitable growth.

Investment in innovation, particularly R&D, is increasing apace across both emerging and developed economies. Singapore will triple its investment in R&D between 2010 and 2015, as Brazil did between 2000 and 2008. Finland is spending around 4% of GDP in this area, more than double that in the UK – which lags most major economies in both public and private investment levels. Public R&D spending is at once a useful indicator and a misleading one, but there is no doubt that it figures heavily in many companies' calculations about where to site major new facilities, to undertake product and services development, and to invest in support and service hubs.

Excellence in innovation doesn't, however, exist in a vacuum, and the invention within businesses must be incubated within a supportive public policy and tax environment, with access to capital and targeted investment, with a flexible and high level skills base and fit for purpose infrastructure. Innovation is a cultural and sociological achievement as much as one shaped by raw profit and loss market forces – a nation's sympathy to business aims and objectives, its understanding of the constraints and opportunities of competition, and public support for responsible, credible companies also play intangible roles in supporting innovators.

The old guard of developed nations have long held sizeable leads over developing challengers in many of these areas, and the UK in particular can rightfully be proud of its historic and recent performance as a target for investment and trade and a hub for innovation. Despite the impact of the economic crisis on London's financial sector, the British offer has held up and fared well in recent years – especially when considered in 'near-peer' competition in the developed world. In truth, however, today's rosy picture is more a reflection of decisions and investments made over the last half decade than an omen for the next.

A recent INSEAD study used a wide basket of measures to assess the business environment in different countries in terms of its support for innovation, and ranked the UK third on a global basis – compared to the US in fifth position and France in twentieth. The UK has the highest proportion of research funded from overseas in the OECD group, maintained a top 10 position in the latest World Economic Forum's Global Competitiveness Report, and achieved a 22% rise in inward investment over the last year – bucking the downward global trend. Between 2000 and 2008, innovation contributed between half and two thirds of UK labour productivity growth.

Any business, especially those in the capital intensive high technology or engineering sectors, invests based on its view of potential return over the coming years – new R&D projects, infrastructure investments, production hubs, service centres and even mergers & acquisitions have a medium-term breakeven point in many cases. So whilst in policy and political terms the current UK horizon reaches to May 2015, most companies and many competing nations are considering their innovation investments and plans for 2018 and beyond. Key to those plans is competitiveness.

Sharpening competitiveness

Winning any competition is about relative rather than absolute advantage, and the UK has both strengths and weaknesses when compared to current and prospective competitors.

Hygiene factors, including language, the rule of law, commercial protections and Intellectual Property rights, are all strong positives for the UK, as they are for most of the traditional interlinked economies. Similarly, most (but not all) of the 'mature' developed world shares with the UK supportive underlying social considerations including the technological sophistication and education level of the workforce, and comparatively low levels of industrial discord. More selectively, the UK is one of a fairly small group of countries which combine innovative clusters of SMEs and elite academic institutions, with a private sector adept at technology-driven productivity improvements and a flexible labour market. The UK is, on balance, a relatively competitive offering, which has bounced back from a recession era dip in the rankings on the back of its strengths in sophisticated areas.

On the downside, compared to capital rich emerging economies in Asia, in particular, the relative lack of 'wriggle room' in public finances puts the West at a notable disadvantage in terms of the ability to invest in major infrastructure, R&D programmes and significant public works. Labour and land are comparatively expensive – the latter particularly so – and while the UK is at a relative demographic advantage compared to other mature economies, its ageing workforce will not grow at anywhere near the pace of equivalents in South East Asia, the Middle East and South America.

Where Britain is most acutely vulnerable is in terms of scale – populous nations like Brazil are not only potentially far larger markets in terms of population and capital spending, but they are also typically less saturated and offer growth rates over the next decade which Western markets are extremely unlikely to match. Whether through resource windfalls from extractive industries or endemic trade imbalances, key emerging players like China likewise dwarf the UK in terms of investment funding, which in many cases is being put to use in support of building up key industries and innovation hubs. Across both consumer areas like retail or strategic and business-to-business sectors like energy supply and transport infrastructure, the sheer size of both markets and individual opportunities provides certainty and scale margins for international companies, and can mask relative competitive disadvantages which in a like-for-like comparison would favour countries like the UK.

Playing to strengths

No country, and least of all one with such established characteristics as the UK, should seek to be all things to all sectors, and there are areas of clear differentiation which Britain should lean on.

The UK can, in many sectors, act as an early adopter. Sophisticated companies and customers are able to mainstream innovation relatively quickly, and for the most part to use faster-than-average cycle times to keep improving the quality of products and services. In some ways this stems from the economy's very maturity, which tends to create companies which develop 'horizontal' competences like safety, development and commercial innovation as well as pursuing top line growth. Less positively, early adoption depends on high levels of R&D to keep offerings at the cutting edge, and an agility and flexibility on the part of market authorities and regulators which mature countries sometimes struggle to generate.

Long-term clarity and stability in the business environment is also a key confidence factor for companies, and after a period when public discussion of and support for private enterprise has not been particularly evident, the Government's willingness to develop targeted sector strategies for key areas of future growth is very welcome. The Growth Partnerships around Aerospace, Defence, Cyber Security, the Information Economy and other key sectors are beginning to change the terms of trade for companies by setting out the Government's view and ambition for the development of high tech, high sophistication industries which can succeed in the global market. This is absolutely vital, must be built on over the coming years and, just as crucially, supported by progress on the underlying enablers which cut across all sectors. Many a fine strategy on paper, in both the public and private domain, has foundered when faced with real world decision making, funding and implementation challenges, but there is no time for trepidation and go-slow holding actions if the UK is to compete.

There is no finish line

As public and policy discussions look beyond current initiatives and focus on the second half of this decade, it is seductive to assume that 'current trends will continue' and the UK's existing strengths will keep it in the top tier of global innovators.

This would be an ill-advised moment for complacency, or resting on Britain's admittedly seductive laurels – instead, the UK must recognise how much it has to lose. Policymakers of all stripes should be starting to sweat as they hear the footsteps of hungry, focused and unsentimental competitors coming up around the bend, dedicated to fighting for each pound of innovation investment and each high tech job.

Like Thales, or any other company, Britain needs to recognise and strengthen its distinct 'market position' in the global race, focusing on bolstering innovation and competitiveness. To contend with a set of varying competitive threats, each of whom is pursuing an explicit and aggressive mercantilist national strategy, the UK has to be similarly focused on strengthening its advantages and mitigating its weaknesses.

Doing so isn't about novelty or glamorous brainstorming, it's about getting down to business in some familiar but inconvenient areas – like airports and ground transport infrastructure, skills and labour market flexibility, energy supply, tax and employment costs, sectoral regulation, public R&D investment, industrial strategy and export support. Britain's trade and economic edge for the next period depends on making disruptive, bold improvements which strengthen the UK's offer to global businesses with an expanding field of suitors.

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