



## **Public Relations and Economic Development Sub (Policy & Resources) Committee**

**Date:** WEDNESDAY, 14 NOVEMBER 2018  
**Time:** 11.00 am  
**Venue:** COMMITTEE ROOM 3 - 2ND FLOOR WEST WING, GUILDHALL

### **5. EDO MONTHLY UPDATE**


Appendices:

1. London RMB Business Quarterly Report
2. Building an Investment and Financing System for the Belt and Road Initiative
3. UK-India Insurtech Landscape Report
4. IRSG Report
5. Global investment: driving UK jobs and growth in financial services

**For Information**  
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**John Barradell**  
**Town Clerk and Chief Executive**

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The background of the cover features a large circular image on the left showing the London skyline at dusk, with the Gherkin and other skyscrapers reflected in the water. On the right, there is a circular inset showing a close-up of a 100 RMB banknote, featuring the portrait of Mao Zedong and the text '中国人民银行' (People's Bank of China) and '100 壹佰圆'.

# London RMB Business Quarterly

Issue 1  
September 2018

## With thanks to

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Jin Mei, Chief Representative, Representative Office for Europe, The People's Bank of China

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## Foreword



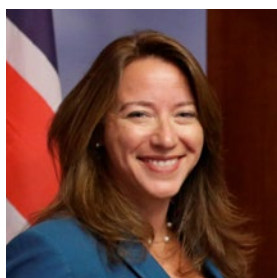
### Catherine McGuinness

Chairman of Policy and Resources  
City of London Corporation

China is a market of immense value to the UK and there exists a deep and meaningful relationship between the two countries across many sectors, in particular foreign exchange. Back in 2012 the City of London Corporation was at the forefront of helping make London the number one offshore renminbi clearing centre outside of Asia, and through these new quarterly reports I hope we can further increase awareness of the currency and its role in London's financial ecosystem.

This year the City Corporation is celebrating the 10th anniversary of our representative offices in Shanghai and Beijing. Over the next decade I look forward to building on the already strong foundations of the relationship between London and China.





## **Sherry Madera**

**Special Adviser for Asia  
City of London Corporation**

At the City, our global future includes a growing link with China. The City is the home to over 30 Chinese financial services firms which have joined the London market to build their international presence.

London's position as a leading international financial centre perfectly complements the growth and opening-up of China's markets, as well as the efforts of the Chinese government to internationalise the renminbi. We are committed to maintain London as the largest renminbi offshore clearing centre outside of Greater China through working closely with our international partners.

2018 marks the 40<sup>th</sup> anniversary of China's reforms and opening-up is an important time to look ahead to the future. The usage of RMB as a trade settlement currency has risen to 5<sup>th</sup> globally and its inclusion in the IMF SDR basket recognises its current and future importance. It is an excellent time for us to be working closely with the PBoC on this report and considering how London can expand further RMB products, volumes and innovation.



## **Jin Mei**

**Chief Representative, Representative Office  
for Europe, The People's Bank of China**

The London RMB Business Quarterly presents a concise overview of developments in the London offshore RMB market, including the London RMB foreign-exchange market, bond market, credit market, payment and clearing market, as well as cross-border use of the RMB between China and the UK. This quarterly report serves two purposes. First, it contributes to an understanding of the London offshore RMB market by providing the most recent data, the latest policies, and related commentaries by market participants. Second, it promotes the healthy and sustainable development of the London offshore RMB market by continuously monitoring and providing feedback to regulatory bodies in both countries for the purpose of policies improvement.

In recent years, London has made great strides in becoming a leading Western hub for the RMB. By far, London ranks first for offshore RMB foreign-exchange transactions; it receives the largest share of RMB payments outside of greater China; and it maintains the biggest offshore RMB clearing center out of Asia. China's further opening-up will create more trade, investment, and finance business opportunities. In the future, London will likely play a vital role in supporting global use of the RMB and facilitating international access to China's domestic capital market.



# Market Overview

**In Q2 of 2018, the offshore RMB market in London remained stable and the overall trend of offshore FX and interest was moving in line with the onshore rate.**

## **London RMB Foreign Exchange Market**

About 37% of all CNH spot trading on EBS took place during EMEA trading hours in June, 2% down from March.

## **London RMB Bond Market**

Seven Dim Sum bonds were newly listed on the London Stock Exchange, with the total size of RMB3.59 billion and the average coupon rate of 4.85%.

## **London RMB Credit Market**

The outstanding amount of RMB deposits registered a decline of 11% QoQ, while the outstanding RMB loan increased of 10.63% from the previous quarter.

## **London RMB Clearing**

Total cumulative clearing volume was RMB4.79 trillion in the first half year of 2018, up 34.6% YoY. The daily average volume was RMB38.8 billion.

## **RMB Cross-Border Settlement between China and UK**

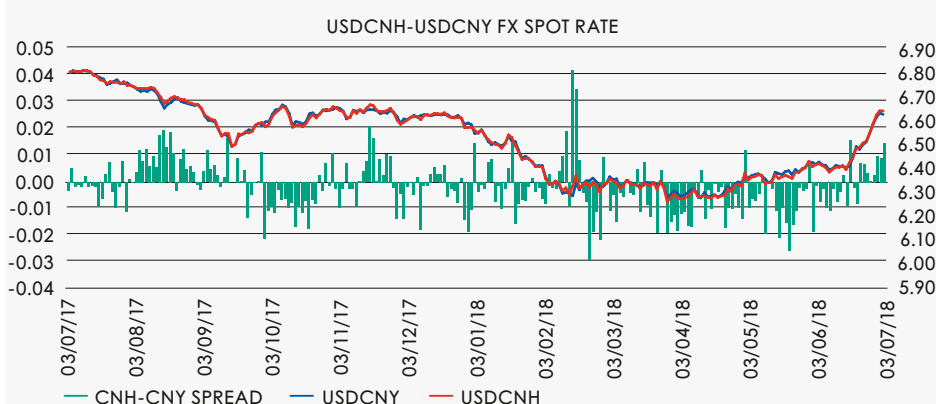
By the end of June 2018, the total actual cross-border RMB settlement between China and the UK amounted to RMB176.2 billion, an increase of 143% YoY.

## **UK's Rank as Offshore RMB Centre**

The SWIFT report showed UK remains the country with the largest share of RMB payments outside of greater China. The London's share of total global RMB cleared volume edged up to 5.94% in Q1 2018 from 5.91% in Q1 2017.

## RMB Exchange Rate

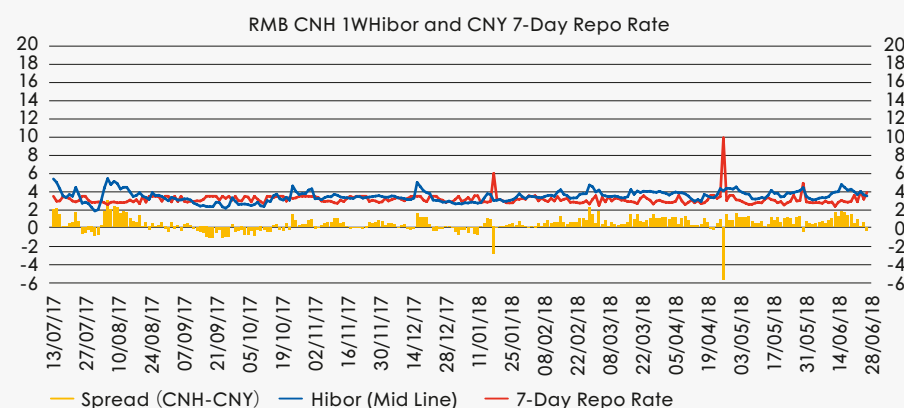
### The Onshore-Offshore Exchange Rate Differential



Source: Bloomberg, ABC

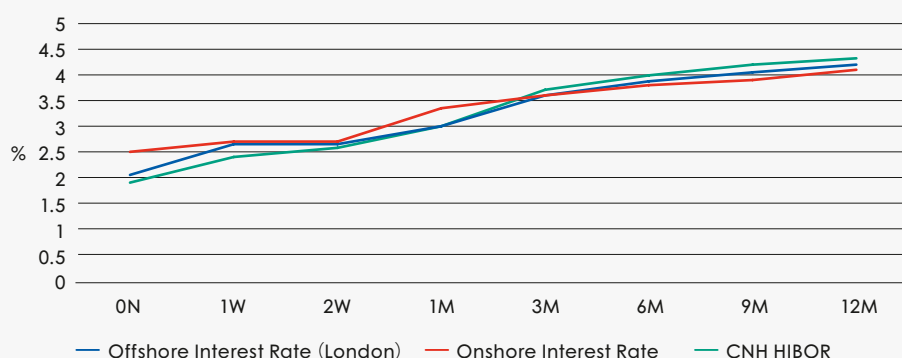
## RMB Interest Rate

### The Onshore-Offshore Interest Rate Spreads



Source: Bloomberg, CCB

### The Term Structure of RMB Offshore and Onshore Interest Rate in June



Source: CCB

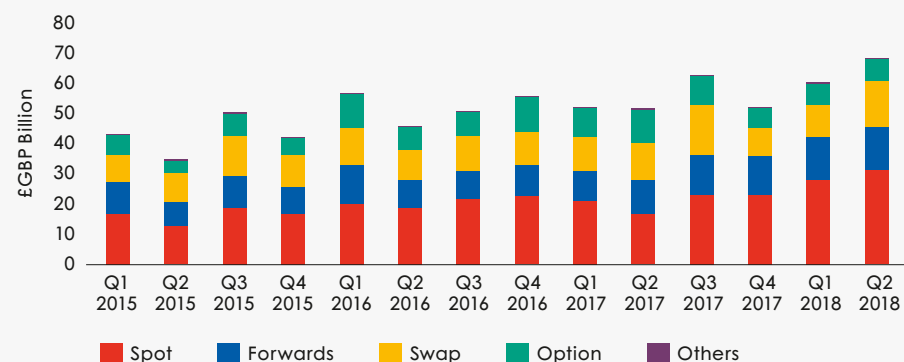
In Q2 2018, the average USD/RMB spot exchange rate in the offshore market was 6.3685 compared to the onshore rate of 6.3726. The spread was -41 basis points as compared to the Q1 2018 spread of -32 basis points. The offshore market has shown slightly higher volatility than the onshore market attributable to the differences in opening times between the offshore and onshore markets (offshore operates 21/24 hours per day with the 3 closed hours being between 3am and 7am Beijing time, compared to the 9.30am-11.30pm onshore market opening times). RMB in the offshore market was marginally stronger than the onshore market during this period.

In Q2 2018, the overall trend of offshore rate was moving in line with onshore rate and quite stable in general. The onshore market offers much better liquidity; therefore, the offshore rate is often slightly higher than the onshore rate (see graph).

At the beginning of the quarter, spreads fell. This coincides with PBoC raising the 7-day repo rate by a further 5 basis points at the end of March following on from the latest FOMC 25 basis point hike.

## London RMB Foreign Exchange Market

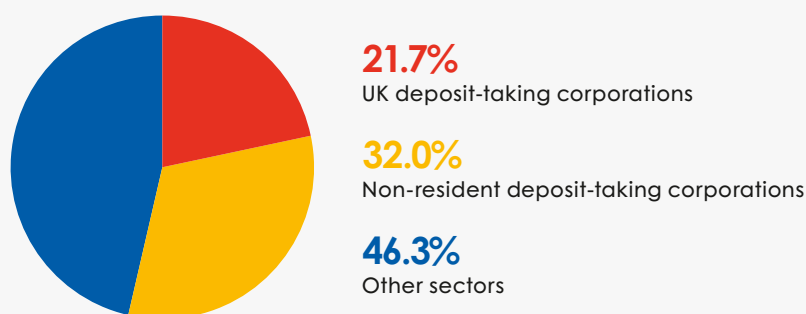
### Average Daily Turnover of RMB FX in London



Source: Bank of England (BoE)

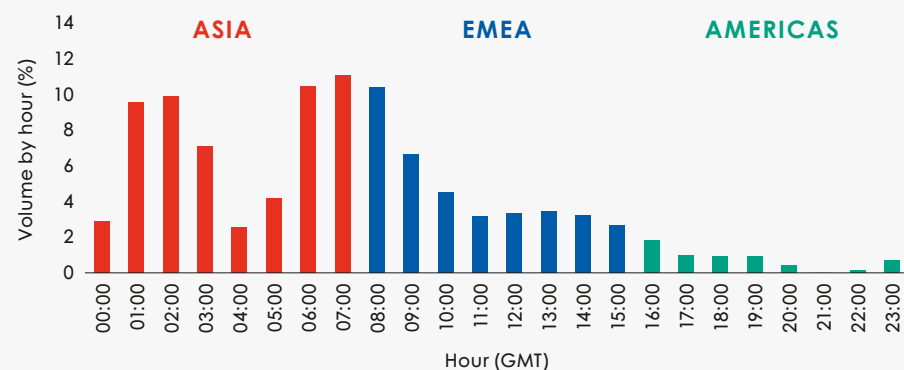
In Q2 2018, the RMB foreign exchange market transactions increased significantly. The daily CNH trading volume in London averaged GBP69 billion, up 13.54% QoQ and 32.85% YoY respectively, of which: British banks 21.7%, non-British banks 32.0%, other financial institutions 46.3%.

### RMB FX Turnover by Counterpart Sector



Source: BoE

### Spot CNH Volume Distributions by Hour on EBS



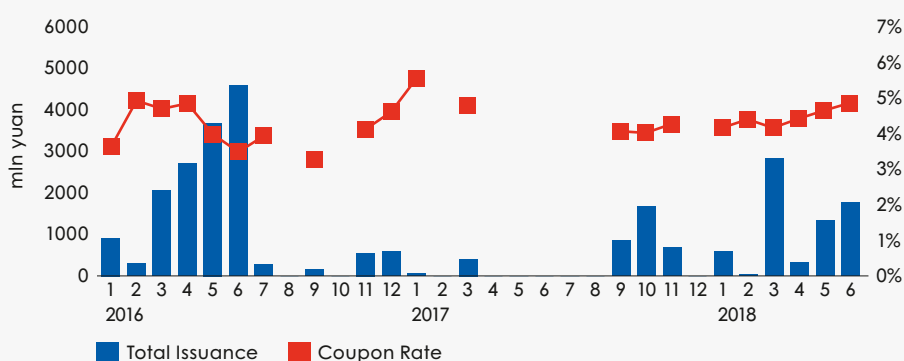
Source: EBS

In June, the proportion of the offshore RMB FX trading in the London market decreased by 2% from March 2018. Trading data from EBS revealed that Asia, EMEA and America trading hours registered 57%, 37% and 6% respectively of total CNH spot trading volumes, compared with the distribution of 52%, 39% and 9% in March 2018, and 58%, 34% and 8% for the month of March 2017.



## London RMB Bond Market

### Dim Sum Bond Issuance and Coupon Rate

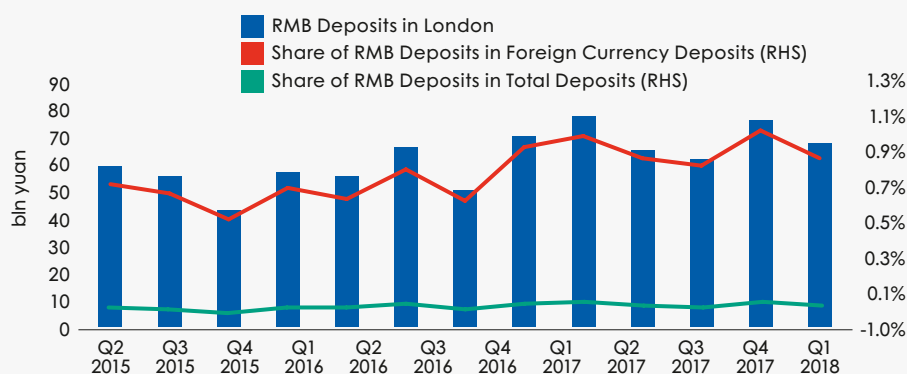


Source: LSE

In Q2 2018, seven Dim Sum bonds were newly listed on the London Stock Exchange, with the total size of RMB3.59 billion and the average coupon rate of 4.85%. Three of them were issued by QNB Finance Ltd, with the total scale of RMB2.8 billion, accounting for 78% of the total new issuance in Q2. As of Q2 2018, there are 102 Dim Sum bonds listed on the London Stock Exchange with a total size of RMB31.11 billion, the average coupon rate is 4.50%.

## London RMB Credit Market

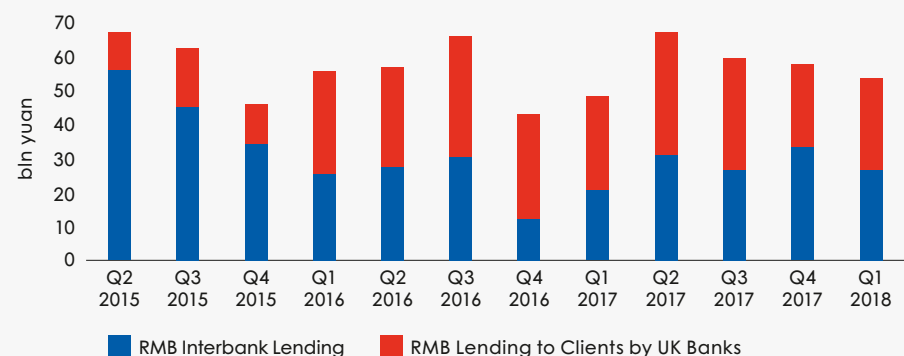
### RMB Deposits in London



Source: BoE

By the end of Q2 2018, the balance of RMB deposits in London totalled RMB68.7 billion, a decline of 11% QoQ and 12.75% YoY.

### RMB Lending in London

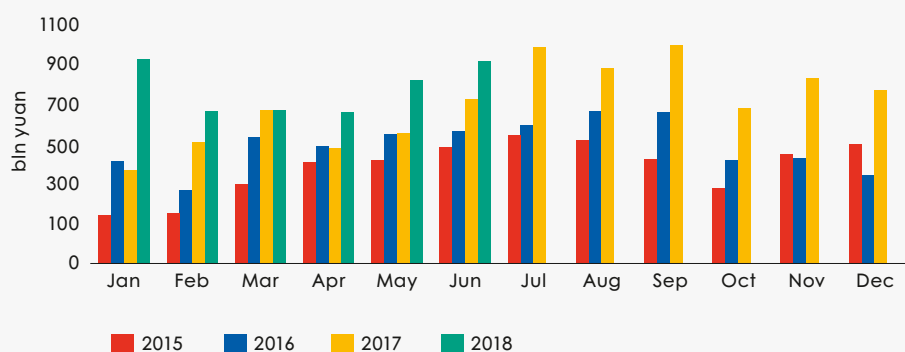


Source: BoE

By the end of Q2 2018, the outstanding RMB loans in the London offshore market were RMB58.93 billion, an increase of 10.63% from the previous quarter, but a decrease of 11.42% YoY.

## London RMB Clearing

### Clearing Volume of UK Clearing Bank

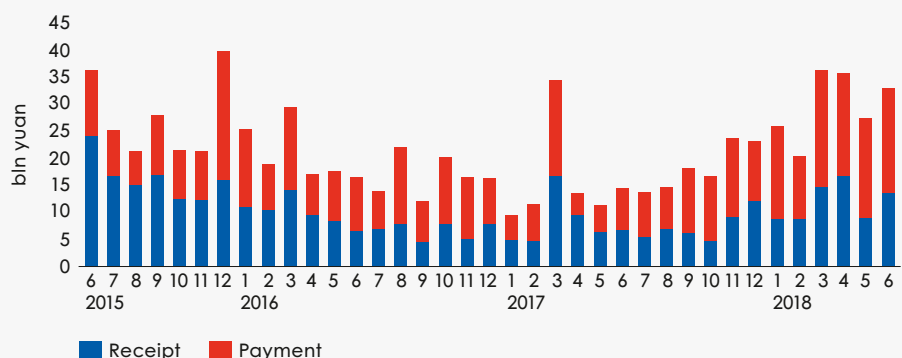


Source: CCB London Branch

In June, the total clearing volume was RMB925.48 billion, up 23.43% YoY. The daily average volume was RMB46.27 billion, and an accumulated transaction count was 4,856 with an average straight through processing rate of 90.00%. **Total cumulative clearing volume was RMB4.79 trillion in the first half year of 2018, up 34.6% YoY,** and China Construction Bank, London Branch remained the largest clearing bank outside of Asia.

## China-UK RMB Cross-Border Settlement

### China-UK Cross-Border RMB Payment and Receipt

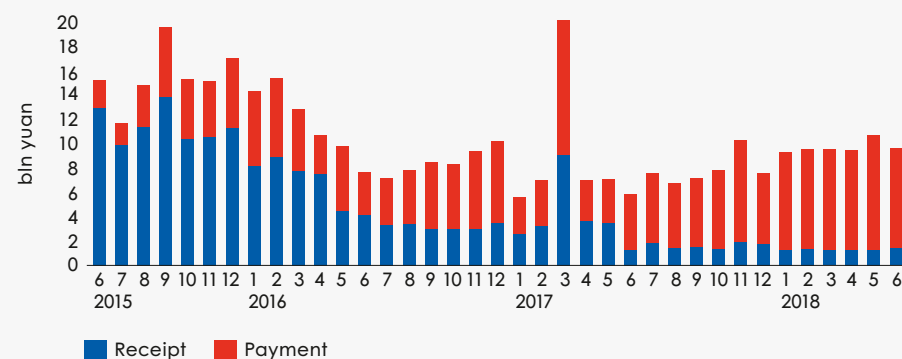


Source: PBoC

In June, the total actual RMB payments and receipts between China and the UK amounted to RMB32.5 billion, down 9.2% from March, and also represented an increase of 129% YoY.

By June 2018, the total actual cross-border RMB settlement between China and the UK amounted to RMB176.2 billion, an increase of 143% YoY. Within the cross-border RMB settlement, payments were higher than receipts, with total receipts standing at approximately RMB69.8 billion and total payments at approximately RMB106.4 billion.

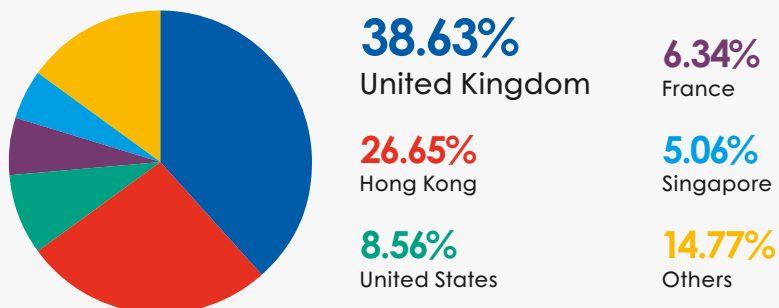
### China-UK Cross-Border RMB Payment and Receipt Under Merchandise Trade



Source: PBoC

By the end of June, the cross-border RMB settlement under merchandise trade was RMB57.3 billion, accounting for 32.5% of total settlement volume, and 24.7% of total import and export volume between China and UK in the same period.

## Top Countries (Regions) FX Transaction in RMB



Source: SWIFT

SWIFT data shows that London has retained its position as the largest RMB clearing center outside of Greater China. The share acquired by London in total global RMB cleared volume edged up to 5.94% in Q1 2018 from 5.91% in Q1 2017. The SWIFT report also shows that London was the largest FX trading center worldwide, with its share reaching 36.8% of the daily transaction volume (approximately USD2 trillion). The offshore RMB FX trading conducted with London accounted for 38.63% of all global RMB FX trading volume.



## Industry Update – Standard Chartered Bank Plc, RMB Solutions Europe

### Bond Connect First Year Anniversary

Bond Connect celebrated its successful first year anniversary on 3 July 2018. Bond Connect is a mutual access scheme that allows institutional investors in both mainland China and overseas to trade in each other's bond markets through China and HK based infrastructure institutions. In the first phase of implementation, foreign investors can invest into the China Interbank Bond Market (CIBM) in what is called 'northbound' trading. 'Southbound' trading where mainland Chinese investors invest abroad, is yet to be implemented. Eligible foreign investors may trade in both the primary and secondary markets. To date, eligible foreign investors have subscribed for a number of primary issuances under the Bond Connect scheme. Bond Connect complements QFII (Qualified Foreign Institutional Investor), RQFII (RMB Qualified Foreign Institutional Investor), and CIBM (China Interbank Bond Market) Direct access schemes as another step towards further opening China's capital markets to overseas investors.

The launch of Bond Connect is a welcomed development for foreign investors. **Notable benefits of Bond Connect over other access schemes include: streamlined application, quicker approval, no quota restrictions, and access to both onshore/ offshore FX markets and the availability of electronic trading platform via Tradeweb\*.** Investors domiciled in Europe, the US and Japan who wish to hedge their bond portfolio using over-the-counter (OTC) derivatives will also need to consider Margin Rules\*\* in their choice of China access program. Application of Margin Rules is straightforward under Bond Connect because Hong Kong is a netting jurisdiction. In contrast, as China is a non-netting jurisdiction, foreign investors who invest and hedge directly in China may face complexities in complying with Margin Rules. In practice, Bond Connect investors are primarily using the offshore CNH market, like London, for conversion and hedging as many global custodians are not ready to support access to onshore FX conversions and monitoring onshore/ offshore RMB FX positions can be complicated under the 'one-account' structure offered by local and/or global custodians. Nevertheless, **we expect more investors to be more active in tapping the onshore FX market as bond trading volume goes up.**

China's bond market is now the third largest in the world, behind the US and Japan. China's bond market is currently valued at RMB78 trillion (USD11.5 trillion) but foreign ownership remains low at 2%, compared to 11% in Japan and 30% in the US. **As at June 2018, foreign investment in CIBM reached RMB403 billion, exceeding the 2017 full year inflow CNY +346bn.** Overall, foreign investments in CIBM soared 70% from levels seen before Bond Connect was launched a year ago.

Index inclusion will speed up growth in foreign ownership in CIBM via Bond Connect. **On 23 March 2018, Bloomberg Barclays announced that China government bonds (CGBs) and policy financial bonds (PFBs) will be added into their Global Aggregate Index over 20-month period, starting April 2019.** However, three technical "enhancements" on Bond Connect are required for index inclusion to happen:

#### 1. Elimination of settlement risk

Currently, settlement with China Central Depository Company (CCDC) is not on true Delivery vs Payment (DvP) basis. Majority of the UCITS funds are awaiting approval from CSSF in Luxembourg and CBI in Ireland to adopt Bond Connect access, which are conditional on the availability of DvP issue.

#### 2. Enable Block Trade allocation on Tradeweb

#### 3. Clarification on Tax collection mechanism for foreign investors

\*Tradeweb – the only official bond trading platform on Bond Connect.

\*\*Margin Rules – Investors who trade in certain over-the-counter derivatives, such as FX forward and option, are required to post initial and variation margins.

At the recent Bond Connect Summit, deputy governor of PBoC, Pan Gong Sheng, revealed exciting development plans for Bond Connect and they include the following:

1. DvP settlement for CCDS expected to be ready by August
2. Block trade allocation on Tradeweb will be ready in July
3. Tax collection arrangement to be clarified by PBoC very soon
4. Repo and derivatives products will be made available to foreign investors
5. Reduction in transaction fees by 50%
6. Additional (international) trading platforms will be introduced
7. Increase the number of bond market makers from 24 to 34

Inclusion of CGB and PFBs, valued at USD3 trillion, into Bloomberg Barclays Global Aggregate bond index will be a milestone for CIBM as it is one of the most widely tracked bond indices. **Standard Chartered Bank estimates that foreign ownership in China onshore bonds will be 4-7% by end-2020.**

**As of June, there were 225 entities have signed up for Bond Connect and 112 are foreign entities.** Majority of these investors have Asia background due to proximity and familiarity with the China Bond market. **There are 11 leading investors from the UK, accounting for 5% of the total number.** Schrodgers and Symmetry are among the pioneers under the Bond Connect access scheme from UK perspective.

Although Bond Connect is only one year old and still in infancy stage, it has already made a significant impact in helping overseas investors to access CIBM under a simpler, more efficient, and transparent cost framework. **We welcome future developments in Bond connect, which will allow UK and global institutional investors to achieve improved returns and diversification benefits.** And we also look forward to the future development of Bond Connect to link up investors from London and China in a closer manner.

“The launch of Bond Connect is a welcomed development for foreign investors. Notable benefits of Bond Connect over other access schemes include: streamlined application, quicker approval, no quota restrictions, and access to both onshore/offshore FX markets and the availability of electronic trading platform via Tradeweb. Investors domiciled in Europe, the US and Japan who wish to hedge their bond portfolio using over-the-counter (OTC) derivatives will also need to consider Margin Rules.”

Standard Chartered Bank Plc, RMB Solutions Europe

## Industry Update – Steven Sun, Head of Research, HSBC Qianhai Securities

### MSCI A Share Inclusion to Bring Over USD600 billion into China's Stock Market, Opportunities for London

By the end of August, the two-step inclusion of more than 230 large-cap A-shares in MSCI's equity indexes will be completed. MSCI is implementing an initial inclusion factor of 5% and a weighting of 0.78% in its Emerging Markets Index (EMI), which is currently tracked by around USD1.94 trillion of assets under management globally.

The list excludes mid-caps, shares which cannot be traded through Stock Connect schemes, and stocks with over 50 days of trading suspension in the most recent 12 months or any record of suspension during the index review period. We believe this is only the start. **Future steps towards further inclusion will be marked by much higher inclusion factors and may include mid-cap A-shares as well.**

The Chinese government also promises to open its financial markets wider with more liberalization policies. Its financial system is running smoothly as the RMB exchange rate stabilizes and forex reserves start to rebound. Restrictions on investments via the Qualified Foreign Institutional Investor (QFII) and Renminbi Qualified Foreign Institutional Investor (RQFII) schemes have been lifted. Foreign ownership caps on the financial sector have been eased. **All the signs indicate that China's financial system and capital markets are prepared to open up further and allow more foreign ownership, which bodes well for the acceleration of A-share internationalisation.**

The Shanghai-London Stock Connect Scheme is scheduled to be rolled out in 2018, part of continuing efforts to liberalise access to China's capital markets. Fang Xinghai, Vice-Chairman of the China Securities Regulatory Commission, told a forum in Shanghai at the end of May: "We are taking the first step in connecting the largest emerging market in the world with the oldest mature international market."

The inclusion of A-shares in MSCI EM has clear implications for the UK as a global asset management and capital markets centre. London is the biggest offshore Renminbi clearing centre other than Hong Kong, while trade and investment links between the UK and China are thriving: Chinese foreign direct investment into Britain more than doubled year-on-year in 2017.<sup>1&2</sup> Furthermore, the UK is the second biggest asset management centre worldwide after the US, with GBP2.6 trillion managed in the UK on behalf of overseas investors.

**There is plenty of room for foreign investment in A shares to grow.** Although foreign holdings in A-shares exceeded RMB1 trillion at the end of 2017, they still represent only around 2% of China's total market capitalisation, far below the average level of foreign ownership in other emerging markets (25%) and that of the US stock market (15%). The opening up of the financial sector should usher in a new era for domestic capital markets and strengthen inter-connections through the launch of securities, funds and fixed income connect schemes.

Based on the experience of the Korean and Taiwan markets, **we expect the weightings of A-shares to increase in the emerging markets indices of MSCI and FTSE to c20% in the next five to 10 years, under the scenario of full MSCI inclusion.** Considering assets benchmarked to emerging markets indices published by MSCI and other index providers such as FTSE, **we expect foreign fund inflows of over USD600 billion to go into the A-share market in the next five to 10 years.**

However, this amounts to only around 1% of the current total investments made by the world's largest 500 institutional investors and only 2% of their equity investments. We attribute the low weighting of A-shares in global stock market indices to two technical reasons: the 30% cap on foreign ownership and the emerging market classification and its limitations on China. A more open financial sector should allow these technical limitations to be removed and attract larger foreign fund inflows.

<sup>1</sup> <https://www.swift.com/our-solutions/compliance-and-shared-services/business-intelligence/renminbi/rmb-tracker/document-centre>

<sup>2</sup> <http://europe.chinadaily.com.cn/a/201801/17/WS5a5f671da310e4ebf433e600.html>

In the short term, foreign fund inflows will not inevitably lead to a rising A-share market. But, **in the medium and long term, what we see is a change in trading strategy.** A less volatile A-share market with greater institutional participation will require a more diversified investment strategy and a more rational and fundamental-based investment style.

This will become apparent as institutional investors raise their offshore A-share holdings to as much as 10% of total A-share market capitalization over the next five to 10 years. It also means that, sooner or later, offshore investors will need to have access to a wider range of investment options. For example, they will want to have the opportunity to make profits when the A-share market turns bearish.

For this to happen, **regulators in mainland China and Hong Kong may need to further ease controls on stock borrowing and lending schemes in the Shanghai and Shenzhen Hong Kong Stock Connect programmes.**

We believe this would provide a number of benefits, including: discouraging non-transparent short-selling activities; avoiding unwanted short open positions or loss of control over trading volumes; and enhancing overall control by the regulator. For example, it could forbid short-selling activities in extreme market conditions, as happened in the US, UK and EU during the global financial crisis.

**The expansion of derivatives trading is another option.** A series of MSCI index-linked futures contracts already exist in major global exchanges such as the Eurex Exchange and Intercontinental Exchange. Short-selling these futures contracts – beyond the control of domestic regulators – could create a short-selling market in the onshore A-share market.

The Chinese regulator is considering whether to encourage the listing and trading of MSCI China A-share futures in markets like Hong Kong. In our view, this would be the ideal choice as the Hong Kong market offers many advantages, including the ability to attract futures transactions from other offshore markets and being able to ensure effective control, regulatory supervision and greater transparency.

Meanwhile, **we expect the Hong Kong Stock Exchange to launch new futures contracts linked to A-share indices, including SSE A50, CSI 300, SME Composite and ChiNext.** This would help offshore investors diversify their A-share investment portfolio, minimise investment risks and increase their exposure to the A-share market.

“The inclusion of A-shares in MSCI EM has clear implications for the UK as a global asset management and capital markets centre. London is the biggest offshore Renminbi clearing centre other than Hong Kong, while trade and investment links between the UK and China are thriving: Chinese foreign direct investment into Britain more than doubled year-on-year in 2017.<sup>1&2</sup> Furthermore, the UK is the second biggest asset management centre worldwide after the US, with GBP2.6 trillion managed in the UK on behalf of overseas investors. ”

Steven Sun, Head of Research, HSBC Qianhai



# Latest Policies and Major Events



- On 5 January, the People's Bank of China (PBoC) **improved policies for cross-border RMB business**. Major policies included: 1) encouraging enterprises to settle cross-border trade deals in the RMB; 2) supporting foreigners' use of the RMB for direct investments in the country; 3) encouraging foreign investors to participate in carbon emission trading in China with the RMB; 4) authorizing Chinese firms to transfer RMB funds raised through issuing bonds or equities overseas back home; 5) allowing individuals to remit funds from overseas, and vice versa.
- On 23 March, **Bloomberg announced that it will add Chinese RMB-denominated government and policy bank securities to the Bloomberg Barclays Global Aggregate Index**. The addition of these securities will be phased in over a 20-month period starting April 2019. Meanwhile, several planned operational enhancements will be implemented by the PBoC and the Ministry of Finance.
- On 26 March, **China's crude oil futures was listed on the Shanghai International Energy Exchange**. **The futures contract is denominated in the RMB** with trading unit of 1,000 barrels per contract. It would be available to foreign investors, exchanges and petroleum companies.
- On 11 April, Yi Gang, the Governor of the PBoC, made an announcement in the Boao Forum for Asia Annual Conference that the **PBoC will implement the following measures in the next few months to further open financial sector**: 1) remove the foreign ownership cap for banks and asset management companies; 2) lift the foreign ownership cap to 51% for securities companies, fund managers, futures companies, and life insurers, and remove the cap in three years; 3) abolish the requirement for joint-venture securities firms to have at least one local security firm as a shareholder; 4) the daily quotas under Stock Connect increased by four times.

- On 24 April, the **State Administration of Foreign Exchange (SAFE) announced that quotas for Qualified Domestic Limited Partnership (QDLP) program in Shanghai and Qualified Domestic Investment Enterprise (QDIE) program in Shenzhen would be expanded** to USD5 billion respectively. In order to support domestic enterprises to make outbound investments, SAFE introduced QDLP program in Shanghai in October 2013 and QDIE program in Shenzhen in December 2014.
- On 18 May, PBoC further improved cross-border fund flow management. Major measures covered: 1) the existing policy framework under which offshore RMB business clearing banks and participating banks can tap RMB liquidity from the onshore market to support offshore RMB business development; 2) duly implementing Hong Kong Monetary Authority's bilateral currency swap agreements; 3) adjusting the required reserve ratio of RMB deposits placed by Hong Kong's RMB business clearing bank in the settlement account in the PBoC's Shenzhen sub-branch to zero percent; 4) further enhancing the currency conversion mechanism for the Shanghai-Hong Kong Stock Connect and Shenzhen-Hong Kong Stock Connect.
- On 1 June, **234 A-shares are included in the MSCI indexes**. In the first step of inclusion, there would be 234 A-shares added at 2.5% of Foreign Inclusion Factor (FIF)-adjusted market capitalization, representing aggregate weights of 1.26% and 0.39%, respectively, in the MSCI China Index and the MSCI Emerging Market Index.
- On 12 June, **State Administration of Foreign Exchange eased restrictions on QFII**. Major policies included: 1) Lifting 20% cap on the funds that investors have been allowed to take out of China; 2) removing lockup periods for investment principal; 3) allowing investors under QFII and RQFII schemes to make foreign exchange hedging on their investments onshore.
- On 12 June, in order to prevent macro financial risks, **the PBoC decided to raise reserve requirement on foreign exchange forwards trading to 20% from 6 August**. The PBoC introduced a 20% reserve requirement on foreign exchange trading in September 2015. It was once removed in September 2017 following market conditions had stabilized.
- On 24 August, **the PBoC reintroduced the counter-cyclical factor in RMB fixing mechanism** which is expected to effectively mitigate the pro-cyclical market behaviors and stabilize market expectation. Counter-cyclical factor will play active role in keeping yuan exchange rate stable.
- On 31 August, **China Securities Regulatory Commission (CSRC) publicly solicited opinions on the "Rules for Regulation of the Depositary Receipt Business for the Market Connectivity of Shanghai Stock Exchange and London Stock Exchange"**, indicating that the Shanghai-London Stock Connect program will be implemented soon, and the preparations have entered the last stage before the official launch. Shanghai-London Stock Connect will see Shanghai-traded Chinese companies issuing Global Depositary Receipts (GDR) in London, while reciprocally allowing London-traded firms to issue Chinese Depositary Receipts(CDR) to go public in Shanghai. The "Rules for Regulation (Draft for Comment)" provides important principles on the eastbound and westbound businesses of the Shanghai-London Stock Connect, including issuance and listing, cross-border conversion, continuous regulatory requirements, regulatory enforcement, investor protection and other matters.

## Appendix I List of Dim Sum Bond (RMB Bond) Issuance in London

Issuer	Amount Issued (yuan)	Coupon (%)	Issue Date	Maturity
QNB Finance Ltd	1,250,000,000	5.25	21/06/2018	21/06/2021
QNB Finance Ltd	600,000,000	5.2	07/06/2018	07/06/2021
First Abu Dhabi Bank PJSC	1,100,000	4.8	01/06/2018	01/06/2021
Westpac Banking Corp	200,000,000	4.77	30/05/2018	30/05/2023
Credit Agricole Corporate & Investment Bank SA	200,000,000	4.72	29/05/2018	29/05/2023
QNB Finance Ltd	1,000,000,000	5.1	14/05/2018	14/05/2021
Commonwealth Bank of Australia	340,000,000	4.615	26/04/2018	26/04/2023
Westpac Banking Corp	400,000,000	4.35	29/03/2018	29/03/2019
First Abu Dhabi Bank PJSC	900,000,000	4.8	29/03/2018	29/03/2021
QNB Finance Ltd	200,000,000	5.5	20/03/2018	20/03/2021
Hitachi Capital UK PLC	80,000,000	4.78	16/03/2018	16/03/2021
Commonwealth Bank of Australia	500,000,000	4.375	13/03/2018	13/03/2019
QNB Finance Ltd	130,000,000	5.465	09/03/2019	09/03/2020
QNB Finance Ltd	750,000,000	5.1	08/03/2018	08/03/2021
Hitachi Capital UK PLC	50,000,000	4.6	27/02/2018	22/02/2022
Commonwealth Bank of Australia	64,000,000	4.39	30/01/2018	30/01/2021
Credit Agricole Corporate & Investment Bank SA	50,000,000	4.55	29/01/2018	29/01/2021
Westpac Banking Corp	500,000,000	4.35	19/01/2018	19/01/2021
First Abu Dhabi Bank PJSC	110,000,000	4.6	30/11/2017	30/11/2020
International Finance Corp	47,000,000	3.92	13/11/2017	13/11/2019
International Finance Corp	19,000,000	3.9	13/11/2017	13/11/2020
International Finance Corp	47,000,000	3.77	13/11/2017	13/11/2018
Hitachi Capital UK PLC	500,000,000	4.5	09/11/2017	09/10/2020
Commonwealth Bank of Australia	1,500,000,000	4.2	26/10/2017	26/10/2020
Hitachi Capital UK PLC	184,000,000	4.4	13/10/2017	13/10/2020
International Finance Corp	75,000,000	3.91	11/10/2017	11/10/2022
Royal Bank of Canada	900,000,000	4.25	29/09/2017	29/09/2020
Lloyds Bank PLC	30,000,000	5.23	31/03/2017	31/03/2022
Commonwealth Bank of Australia	70,000,000	5.81	18/01/2017	18/01/2022
Hitachi Capital UK PLC	300,000,000	4.67	19/12/2016	19/12/2019
QNB Finance Ltd	130,000,000	5.33	15/12/2016	15/12/2019
Westpac Banking Corp	65,000,000	4.8	15/12/2016	15/05/2020
Commonwealth Bank of Australia	120,000,000	4.65	07/12/2016	07/12/2021
Commonwealth Bank of Australia	70,000,000	4.41	29/11/2016	29/11/2019
Australia & New Zealand Banking Gro	130,000,000	4.35	23/11/2016	23/11/2021
QNB Finance Ltd	130,000,000	4.4	18/11/2016	18/11/2019
QNB Finance Ltd	160,000,000	4.3	17/11/2016	17/11/2019
Commonwealth Bank of Australia	90,000,000	4.06	02/11/2016	02/11/2021
Commonwealth Bank of Australia	25,000,000	3.3	09/09/2016	12/10/2018
Commonwealth Bank of Australia	100,000,000	3.85	27/07/2016	27/07/2020
Credit Agricole SA	60,000,000	4	22/07/2016	22/07/2019



Issuer	Amount Issued (yuan)	Coupon (%)	Issue Date	Maturity
QNB Finance Ltd	130,000,000	4.35	21/07/2016	21/07/2019
Australia & New Zealand Banking Gro	206,000,000	3.62	28/06/2016	28/06/2018
Australia & New Zealand Banking Gro	280,000,000	4.35	08/06/2016	08/06/2019
Australia & New Zealand Banking Gro	140,000,000	4.31	07/06/2016	07/06/2019
First Gulf Bank PJSC	516,000,000	4.55	03/06/2016	03/06/2019
China Government Bond	3,000,000,000	3.28	02/06/2016	02/06/2019
Australia & New Zealand Banking Gro	410,000,000	4.15	27/05/2016	27/05/2019
Australia & New Zealand Banking Gro	330,000,000	4.293	27/05/2016	27/05/2019
Australia & New Zealand Banking Gro	215,000,000	4.07	24/05/2016	24/05/2019
First Gulf Bank PJSC	65,000,000	4.6	12/05/2016	13/05/2019
Westpac Banking Corp	130,000,000	4.19	12/05/2016	12/05/2021
Royal Bank of Canada	150,000,000	4	06/05/2016	06/05/2019
Royal Bank of Canada/Toronto	200,000,000	4.12	29/04/2016	29/04/2019
Commonwealth Bank of Australia	100,000,000	4.15	28/04/2016	28/04/2019
Hungary Government International B	1,000,000,000	6.25	25/04/2016	25/04/2019
Commonwealth Bank of Australia	100,000,000	4.25	21/04/2016	21/04/2019
Royal Bank of Canada	130,000,000	4.23	21/04/2016	21/04/2019
Westpac Banking Corp	190,000,000	4.39	20/04/2016	20/04/2020
Commonwealth Bank of Australia	90,000,000	4.23	19/04/2016	19/04/2019
Standard Chartered Bank	432,000,000	4.52	15/04/2016	15/04/2019
Standard Chartered Bank	470,000,000	4.56	15/04/2016	15/04/2019
Westpac Banking Corp	135,000,000	4.8	29/03/2016	29/03/2019
Westpac Banking Corp	130,000,000	4.75	22/03/2016	22/03/2019
Commonwealth Bank of Australia	150,000,000	4.685	21/03/2016	21/03/2019
Royal Bank of Canada	150,000,000	5	18/03/2016	18/03/2019
Westpac Banking Corp	131,000,000	5.02	18/03/2016	18/03/2019
First Abu Dhabi Bank PJSC	130,000,000	4.75	15/03/2016	15/03/2019
Commonwealth Bank of Australia	131,000,000	4.85	14/03/2016	14/03/2019
Royal Bank of Canada	230,000,000	4.85	11/03/2016	11/03/2019
Commonwealth Bank of Australia	100,000,000	4.85	11/03/2016	11/03/2019
Commonwealth Bank of Australia	135,000,000	4.95	10/03/2016	10/03/2019
Commonwealth Bank of Australia	180,000,000	5.07	07/03/2016	07/03/2021
Royal Bank of Canada	200,000,000	5.08	04/03/2016	04/03/2019
Commonwealth Bank of Australia	65,000,000	5.08	04/03/2016	04/03/2019
Commonwealth Bank of Australia	150,000,000	5.095	02/03/2016	02/03/2019
Commonwealth Bank of Australia	310,000,000	5.15	25/02/2016	25/02/2019
Royal Bank of Canada	195,000,000	5.15	25/01/2016	25/01/2019
Australia & New Zealand Banking Gro	200,000,000	5.1	25/01/2016	25/01/2019
Australia & New Zealand Banking Gro	65,000,000	4.96	22/01/2016	22/01/2019
Commonwealth Bank of Australia	210,000,000	4.5	12/01/2016	12/01/2019
Australia & New Zealand Banking Gro	260,000,000	4.4	24/12/2015	24/12/2018

Issuer	Amount Issued (yuan)	Coupon (%)	Issue Date	Maturity
Westpac Banking Corp	130,000,000	4.2	16/12/2015	16/12/2018
Commonwealth Bank of Australia	80,000,000	4	27/11/2015	27/11/2018
First Gulf Bank PJSC	230,000,000	4.5	18/08/2015	18/08/2018
Credit Agricole Corporate & Investment	50,000,000	4.2	05/08/2015	05/08/2020
Australia & New Zealand Banking Gro	405,000,000	4	28/07/2015	28/07/2020
Lloyds Bank PLC	100,000,000	4.4	24/07/2015	24/07/2020
Lloyds Bank PLC	54,000,000	4.53	24/07/2015	24/07/2025
Credit Agricole Corporate & Investment	125,000,000	4.1	23/07/2015	23/07/2020
First Abu Dhabi Bank PJSC	200,000,000	4.79	17/03/2015	17/03/2020
International Finance Corp	1,550,000,000	3.1	24/09/2014	24/09/2019
China Development Bank Corp	500,000,000	3.6	19/09/2014	19/09/2019
China Development Bank Corp	900,000,000	4.35	19/09/2014	19/09/2024
BP Capital Markets PLC	1,000,000,000	3.65	28/02/2014	28/02/2019
Lloyds Bank PLC	200,000,000	4.62	17/01/2014	17/01/2024
BP Capital Markets PLC	1,200,000,000	3.95	08/10/2013	08/10/2018
Lloyds Bank PLC	100,000,000	4.61	24/09/2012	24/09/2022

Source: London Stock Exchange

## Appendix II Summary of Bond Issuance by Oversea Issuers in China Interbank Bond Market

Type of issuer	Registration Amount (bn, yuan)	Issued Amount (bn, yuan)	Outstanding Amount (bn, yuan)	Issue Number
International Development Organisation	7	7	4	5
Governments	28.46	14.46	14.46	7
Financial Institutions	55.5	22.5	19	10
Non-financial Enterprises	342.75	120.5	95.4	60
Total (RMB Bond)	433.71	164.46	132.86	82
International Bank for Reconstruction and Development (IBRD)	18.63	4.65	4.65	1
	2bn SDR	(0.5bn SDR)	(0.5bn SDR)	
Standard Chartered HK	0.93	0.93	0	1
	0.1bn SDR	(0.1bn SDR)	(0.1bn SDR)	
Total (RMB Equivalent)	453.27	170.04	137.51	84

Source: National Association of Financial Market Institutional Investors

## Appendix III Agreements on RMB Business Between China and the UK

### Currency swap between China and the UK

In June 2013, the PBoC and the BoE signed a bilateral local currency swap agreement of RMB200 billion/GBP20 billion. In October 2015, the PBoC and the BoE renewed the swap agreement and increased the size to RMB350 billion/GBP35 billion, effective for three years.

### Clearing bank

In March 2014, the PBoC and the BoE signed a Memorandum of Understanding to establish RMB clearing arrangements in London. In June 2014, the PBoC authorized China Construction Bank (London) to serve as the RMB clearing bank in London. In July 2016 the PBoC approved the transfer of clearing functions from China Construction Bank (London) to China Construction Bank, London Branch. By July 2018, CIPS had 807 indirect participating banks, seven more than the previous month. Among them, 11 indirect participating banks were from the UK, accounting for 1.36% of the total.

### RQFII

In October 2013 China announced the RQFII program for UK with a quota of RMB80 billion.







# Building an Investment and Financing System for the Belt and Road Initiative

-How London and other global financial centres can support

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This report is jointly produced by the People's bank of China and the city of London corporation. The City of London Corporation is the governing body of the Square Mile dedicated to a vibrant and thriving City, supporting a diverse and sustainable London within a globally-successful UK.

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# Abstract

**The Belt and Road Initiative (BRI) is internationally recognised for its principles of co-negotiation, co-building and co-sharing.** The BRI drew inspiration from the concept of Silk Road Economic Belt and the 21st-century Maritime Silk Road which is a development strategy adopted by the Chinese government in 2013. The 'belt' refers to the overland interconnecting infrastructure corridors; the Silk Road Economic Belt (SREB) component. The 'road' refers to the sea route corridors; the 21st Century Maritime Silk Road (MSR) component. The initiative focuses on connectivity and cooperation on maritime routes and land infrastructure connecting China with Asia, Africa and Europe, boosting trade and economic growth. When Chinese President Xi Jinping proposed the BRI in autumn 2013, it generated tremendous international interest and enthusiasm across the globe. Since then, China has achieved remarkable results as it continuously expands collaboration with countries along the BRI and actively promotes the implementation of the initiative. Financing plays a critical part in the development and implementation of the BRI and requires the joint effort of China and all participating countries in building a fit for purpose investment and financing system. In his key address at a symposium promoting the development of the BRI in August 2016, President Xi observed that the development of the BRI should be seized as an opportunity to innovate an internationalised financing model and intensify international financial sector collaboration. President Xi also recognised the opportunity that BRI facilitates to create a multi-tiered financial platform and build a financial security system that is long term, stable and sustainable with manageable risks to support the BRI.

**Financial support is critical to the implementation of the BRI.** The countries along the BRI are mostly developing countries whose key projects, including infrastructure projects, are plagued by issues such as a lack of construction capability and funding. Therefore, these countries have greater demands for mid to long-term financing. The international finance community has previously offered concessional financing, including preferential loans, to these countries, which inevitably required financial subsidies and governmental support. This translated into greater limitations and a lack of sustainability, which would hardly satisfy the demands of the construction projects as part of the BRI, as these projects require substantial funds over a long period of time. It is therefore necessary to mobilise countries along the BRI to build a BRI investment and financing system that is market-oriented, sustainable and mutually beneficial. This paper will explore in detail the rationale for a BRI investment and financing system to comprise the following five features in order to expedite the building of a network of financial institutions and services:

- (i) Longer investment period;
- (ii) The establishment of a reasonable cost of funds;
- (iii) The use of development financing as a driver to attract in commercial financing over time;
- (iv) The encouragement of local currencies to play an active role and;
- (v) The stimulation of international collaboration in investment and financing

Main commercialised bodies and market-oriented behaviour should be key components of the BRI investment and financing system. The principal objective of the BRI investment and financing system is that financial institutions and enterprises, based on the principle of

“equal participation with shared interests and risks”, should jointly build a diverse investment and financing system that is long-term, stable and sustainable with manageable risks. More specifically, main financing bodies at different levels of a financing structure adopt different financing models. Different financial models have all demonstrated success. For instance, foreign investors often participate in project finance by establishing a multilateral/bilateral funding or investment agency through joint financing with international multilateral financial institutions such as World Bank, Asian Development Bank and Asian Infrastructure Investment Bank. The joint ventures carry out debt financing of local currencies and offshore renminbi (RMB) in the BRI region and offer financial information, services and cross-border RMB products related to the BRI. They also offer multidimensional one-stop general financial services, including investment, financing, financing guarantees and insurance.

To ensure finance can better support the strategic deployment of the BRI, the financial market should be fortified to supplement the institutional arrangements of financial collaboration in the BRI. The collaboration between development and commercial financing must be promoted, while the bond market must open further and we must innovate cross-border RMB-related business, for example through the introduction of Silk Bond. The advantages of international and regional financial centres must be optimised to establish a regional framework in the BRI investment and financing system, and multinational financial collaboration must be improved to strengthen the political framework of a successful BRI investment and financing system.

#### Key highlights:

- This report examines the building of a fit-for-purpose BRI investment and financing system, considering in detail the status quo, characteristics, future development, and system and mechanism guarantee of an investment and financing system.
- Currently, the main investment and financing bodies in countries along the BRI are primarily banking institutions, accounting for over 90% of the funding with over 80 branches in 24 countries.
- It is suggested in this report that the proposed BRI investment and financing system should have the following key features:

	Feature	Objective
1	Longer investment period	To effectively ensure the sustainability of projects
2	Reasonable cost of funds	To attract active participation of financial institutions and ensure there are reasonable returns on invested funds
3	Development financing	To attract private capital into participation of BRI gradually to allow the idea of 'support first, profit later' to be practised and to gradually drive commercial and private financing
4	Use of local currencies	To ease mobilising local savings and global funds as well as to support the development of capital markets denominated in local currencies and diversify investment tools and risk management means
5	International collaboration	To expedite the building of a network of financial institutions and services

- This report also demonstrates specific models and cases for BRI project finance, featuring examples from World Bank, Asia Development Bank and Asian Infrastructure Investment Bank. The report also showcases examples of multilateral or bilateral funds or investment companies such as the Silk Road Fund, UAE-China Joint Investment Fund, Sino-French (Midcap) Fund, etc.
- This report highlights the importance of commercial banks in China as well as foreign commercial banks to offer debt financing to countries along the BRI. It is well-noted that London, as a global financial hub, has played an active role in offering financing support to BRI projects. Case studies featuring HSBC and Standard Chartered are illustrated in this report.
- This report also focuses on illustrating financial institutions that offer cross-border RMB products and information services, featuring a case study on Bank of China and its 'Bank of China BOC OBOR RMB Index'.
- The importance of multiple financing channels offering integrated financial services are highlighted in this report. Case studies from UK Export Finance, Linklaters, Clifford Chance, etc. are featured in this report to explain how UK institutions have provided multiple financing channels to BRI projects.
- Fintech solutions are mentioned in this report to explain how inclusive digital finance is significant for BRI countries. Technologies such as e-wallet and cross-border e-payment are cited here to show how firms like Alipay, Ant Financial and JD Finance have provided relevant expertise on BRI project financing.
- It is reckoned in this report that innovative development and opening-up of financial markets help to build a diverse and inclusive BRI investment and financing system. The key initiatives suggested by this report include:
  - I. Development finance institutions should continue to lead and offer support;
  - II. Encourage different main bodies to set up equity funds to invest in projects related to the BRI;
  - III. Issue Silk Bonds to diversify the financing channels of the BRI financial products;
  - IV. Encourage domestic and foreign capital to participate in BRI projects financing through means such as public-private partnership (PPP) and;
  - V. Promote derivatives for diversification and hedging.
- This report also highlights the importance of promoting the internationalisation of RMB and the innovation of cross-border RMB business to build a local currency-based BRI investment and financing system. It is suggested here that global institutional investors should optimise the advantage of international and regional financial centres to establish a regional framework for BRI investment and financing system.
- The report emphasizes that multinational financial collaboration is important to reinforce the political framework for BRI investment and financing system. A top-down system design is recommended for long-term planning for regional collaboration for BRI

countries. The development of multilateral financial institutions is recommended as well as the collaboration on financial regulation and risk mitigation mechanism for BRI countries, integrated with policy coordination.

- This report concludes that multinational financial collaboration from both governments and commercial players is important to form a successful BRI investment and financing system. It reiterates the importance of utilising international and regional financial centres to establish a regional framework in the BRI investment and financing system. This report suggests that the ideal BRI investment and financial system should have long financing period, reasonable cost of funds, the use of development financing as a driver to attract commercial financing over time, the use of local currencies and, the stimulation of international collaboration.

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# Preface



**Guofeng Sun**

Director General  
Research Institute of  
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China

In the fall of 2013, President Xi Jinping put forward the joint effort motion in the Silk Road Economic Belt and the 21st Century Maritime Silk Road, also known as the Belt and Road (B&R) Initiative. The past five years have seen the B&R winning enthusiastic responses and support from over 100 countries and organizations around the globe, and the B&R has come to fruition as concept has turned to action and vision to reality. The policy communication continues to deepen, interconnectivity of facilities also continues to strengthen, trade is growing, capital flow has continued to widen and consensus between societies has been built up. Its fruitful outcomes corroborate the bright future of the Belt and Road Initiative (BRI) that goes along the tide of history, on the right track of progressive development and to the benefit of people across the world.

Finance is the cornerstone of the B&R. We are going to set up a stable, sustainable and risk-controllable financial support system, innovate on investment and financing models, promote public-private capital partnerships, develop diverse financing systems, a multi-level capital market and inclusive financial system, and refine the network of financial services. In the meantime, finance also serves as a strong and key area for the opening up of the Chinese economy to the international market. The financial management authorities should take active steps in stepping up cooperation with countries along the B&R in financial infrastructure, striking deals of bilateral currency swap and clearing agreements. Various examples are created under the proactive roles of financial institutions in exploiting new markets, prudential assessment and elaborate managing style of the Silk Road Fund, together with leading functions of the development financing. The financial sector is eyeing the long term, while in the meantime it is down to brass tacks in championing the B&R.

The BRI originates from China but the opportunities and benefits are global. China welcomes and hopes to have international participation and joint efforts in establishing the B&R and its benefits shared globally in a community of shared interest. At present we are working with the Asian Infrastructure Investment Bank, the BRICS New Development Bank, the World Bank and other multilateral development agencies on supporting the B&R projects and framing the financing guidelines for the B&R. Looking to the future, China will be more open-minded in collaborating with countries along the B&R, in mobilizing resources, bolstering the cooperation and specialization of the public and private sectors, ensuring sustainability in investment & financing for the international investment & financing cooperation on a global scale supporting the B&R.

London boasts an investment community of great diversity and foresight as an important international financial center. London's capital market is highly international and employs some of the most cutting-edge innovative models in financing. China and Britain's cooperation in investment & financing for the B&R offers broad support and services for the sustainable financing for the B&R projects and new opportunities and ways for financial institutions and investors in the two countries to work together. This cooperation report presents the studies in some of the aspects covering the current status, characteristics, direction of future development, institutional mechanisms, security of the investment & financing systems for the B&R, aiming at boosting international cooperation in the B&R, while financing and incentivizing more global financial institutions to take part in the B&R, jointly promoting sustainable growth of global economy via the forging of an inter-connected financial market and institution and extending the global reach of investment & financing for the B&R.





**Sherry Madera**

City of London Special  
Advisor for Asia

The Belt and Road Initiative (BRI) is an ambitious project calling on trillions of global capitals to be deployed over decades. Touching at least 65 countries, 64% of the world's population and 29% of the world's GDP, the BRI stands to transform global connectivity and trade, but still requires widespread international support and innovation to ensure it is a long-term success, particularly in relation to financing.

The UK has a long history of working with many economies on the Belt and Road (B&R), including those in Southeast Asia, Central Asia, the Middle East and Africa. London, as leading global financial services centre, is the natural Western end of the BRI. London is home to world-leading international expertise and can support the initiative as a hub for international infrastructure investment and provide innovative financing products to ensure financial sustainability.

The City of London Corporation is committed to supporting BRI activity that draws on London's experience as a leading global financial centre. With our longstanding representative offices in China, we are in a unique position to support BRI activity at both ends of the map, and the expertise in London's ecosystem is already working on BRI projects across the globe. The City of London Corporation can be a strong partner for the China-led initiative by working together with all BRI countries to share London's knowledge and experience in Infrastructure Financing, Green Finance, Foreign Exchange and Rule of Law.

The UK government through HM Treasury have established the office of the BRI Special Envoy to explore BRI opportunities for the UK, and have also formed a BRI Expert Board, which calls upon representatives from UK, Chinese and foreign headquartered firms, to bring together infrastructure financing and market expertise for BRI projects. At the Corporation, we are delighted to support this strategic direction and will continue to contribute through this and other platforms to ensure the successful and sustainable delivery of the BRI.

Our collaboration with the People's Bank of China in co-publishing this report is a milestone that highlights the importance of a sound international financial system for the BRI. Working together with our partners at the People's Bank of China and our international ecosystem here in the City, we are confident that London can lead the way as an innovative financial hub for BRI financing. The report illustrates comprehensively opportunities and challenges on BRI financing as well as recommendations for both the government and industry to consider as they approach BRI related activities. The case studies featured in the report are practical examples of how London based firms have already played an important role in supporting on the financing mechanism for BRI, and we look forward to their continued contributions.

As a fellow Ambassador for building UK-Asian bilateral relationships, I am pleased to be part of this effort for London to deepen our relationship and links with China and all other international partners to build strong and ongoing success for the BRI.

# 01

## Status Quo and Characteristics of the BRI Investment and Financing System

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- I. Concept of the BRI investment and financing system
- II. Background and Status quo of the BRI investment and financing system
- III. Characteristics of the BRI investment and financing system

# **Status Quo and Characteristics of the BRI Investment and Financing System**

## **I. Concept of the BRI Investment and Financing System**

The BRI investment and financing system refers to a financial services system that finances the development of the BRI. In other words, financial departments should support the development of the initiative through reasonably introducing financial resources to promote the sustainable development of national economies along the BRI.

## **II. Background and Status quo of the BRI Investment and Financing System**

The BRI construction is a long run, complex global ambition that requires comprehensive global cooperation at a deep level. The countries along the BRI are mostly developing countries. Despite their strong desire to promote socioeconomic development they continually encounter issues such as the lack of construction capability and access to funds when implementing key projects, including infrastructure projects. There is a high demand from these countries for financing and a great need for support from the international community.

Throughout the years investment and financing from the international community into developing countries has always revolved around concessional financing, including instance concession on interest rates, maturities and grace periods. Though the conditions of concessional financing are more attractive than business capital they inevitably require financial subsidies and governmental support. The financial resources of a country are, after all, limited and restricted by domestic laws. As a result, most countries do not have sufficient financial resources to offer concessional financing to external parties on a large scale over an extensive period of time.

Concessional financing may also trigger risks and problems. Firstly, concessional financing can create a moral hazard which could lead to supported countries losing the motivation to fully discover their resources and capacity for economic development. Competition and comparison may also arise among countries vying for funds. Secondly, concessional financing can lead to great dependency, whereby countries can lose interest in balanced and mutually beneficial collaboration. Lastly, it may also lead to market distortion and limitation on the efficient allocation of resources, which would restrict the development of developing countries.

Since the BRI was proposed, a large range of projects have been rolled out in regions along the BRI, and critical parts of the IFS include the public sector, development finance institutions, policy-oriented financial institutions and the private sector. By 18 May 2018, a total of 2392 domestic projects amounting to RMB13.01602 trillion and 1,485 foreign projects amounting to over USD837.41 billion (c.GBP636.08 billion) have been launched.

By June 2017, the accumulated stock investment in countries along the BRI exceeded USD250 billion (c.GBP189.90 billion), a 30% growth compared to 2014 but was lower than the growth in accumulated foreign investment at over 40%. The main investment and financing bodies in countries along the BRI are primarily banking institutions, accounting for over 90% of the funding with over 80 branches in 24 countries. The recipients of investment and financing are primarily non-financial institutions. Three-quarters of the funds have been allocated to Asian countries, half of which are in the Southeast, while less than a quarter has been allocated to Europe. Although the use of RMB takes up a relatively low percentage, more and more financial institutions are opting to invest and loan directly using the currency. The total cross-border RMB settlement (both inflow and outflow), with countries along the BRI in 2016 tripled in comparison to 2014. The actual cross-border trading volume with countries along the BRI hit RMB778.6 billion, amounting to 13.9% of total bilateral trade, increased by 4.3% from the end of 2012.

Financial collaboration between countries along the BRI and China has gradually intensified. Chinese banks have been actively expanding overseas and have established branches in nearly half of the countries along the BRI. By May 2018, 86 countries along the BRI have become members of the Asian Infrastructure Investment Bank, and 21 countries have signed bilateral currency-swap agreements with China (see appendix1). Furthermore, direct currency trading between China and eight countries and direct regional trading of currencies with two countries, respectively, have been made possible. This has effectively lowered exchange risk and facilitated trade and investment. Offshore RMB clearing banks have also been established in seven countries (see appendix 2). China UnionPay now covers 41 countries along the BRI, which allows the use of RMB to continue to grow in these countries. The RMB Qualified Foreign Institute Investor (RQFII) pilot program provides a convenient gateway to investing in Chinese RMB denominated financial products for five countries along the BRI. It also delivers on agreements with eight countries on local currency settlement for cross-border trade or general trade (and investment). Meanwhile, the successful launch of phase I of China's Cross-border Interbank Payment System (CIPS) has boosted RMB settlement efficiency by satisfying the cross-border use of RMB. To date CIPS covers over 50% of the countries along the BRI. The first direct participating overseas bank in the CIPS, Bank of China (Hong Kong), leads activity for adopting the CIPS among participating banks from the BRI countries. In terms of financial regulation, by the end of 2017, China has signed memoranda of understanding (MoU) or agreements with financial regulatory authorities from 31 countries along the BRI to continuously improve financial services in these countries and regions.

During the Leaders Roundtable of the Belt and Road Forum for International Cooperation in May 2017, President Xi pledged to increase capital support by China for the BRI, including newly added capital of RMB100 billion which was injected into the Silk Road Fund. This capital was intended to encourage financial institutions to expand overseas RMB fund businesses, which are projected to grow to the size of roughly RMB300 billion. China Development Bank and Export-Import Bank of China will earmark RMB250 billion and RMB130 billion of special loans, respectively, to support BRI infrastructure construction

and cooperation in productivity and finance. China will have a more critical and active role to play in cultivating the BRI investment & financing system and driving global cooperation for the financing and capital support for the BRI.

### **III. Characteristics of the BRI Investment and Financing System**

The BRI investment and financing system should demonstrate the following characteristics:

- (i) Longer investment period;
- (ii) The establishment of reasonable cost of capital;
- (iii) The use of development financing as a driver to attract private capital into participation of BRI gradually;
- (iv) The encouragement of local currencies to play an active role and;
- (v) The stimulation of international collaboration in investment and financing, aiming to expedite the building of a network of financial institutions and services.

#### **1. Longer investment period**

The development of the BRI involves a tremendous amount of infrastructure construction and industrial collaboration, which demands equally large amount of funds and longer project spans. When investment and financing is not sustainable, the interruption would not only affect the progress and economic benefits of the project but may also create adverse political effects. Therefore, one of the critical characteristics of a BRI investment and financing system is to have longer investment periods, which helps to effectively ensure the sustainability of projects. As China chronically runs a current-account surplus, it needs to continuously export capital to maintain its balance of international payments that will subsequently equip the country with an objective basis to provide funds for BRI projects.

#### **2. Establishment of reasonable cost of funds**

The countries along the BRI are mostly developing nations that have strong desire to promote socioeconomic development but continually struggle to access funds. In addition, infrastructure construction projects do not generate profits immediately and thus, the cost of funding during initial stages should not be set too high. Furthermore, BRI projects span over extensive periods and demand a large amount of funds. Governments alone cannot provide sufficient funds and need to mobilise market force. In order to do so, the cost of funds should therefore be reasonable in order to attract active participation of financial institutions and ensure sustainability of investment. In short, the BRI investment and financing system must be based on economic benefits to ensure reasonable returns on invested funds. On the basis of guaranteeing financial support for the project, the initiative of market institutions and private capital should be played to the full.

#### **3. Use development financing as a driver to attract private capital into participation of BRI gradually**

Development financing refers to a financial model that complements national strategies.

It relies on credit support, receiving no government subsidies. It is market-oriented and operates independently, focusing on long-term investment and generating small profits, aiming to protect the funds and remain financially sustainable. Development financing is between concessional and commercial financing but leans more towards the latter.

As the beneficiaries of the BRI investment and financing system are primarily infrastructure construction along the BRI countries such as cross-border road construction, power & telecommunications construction and energy-resource development, the following issues must be considered: longer periods of investment and financing, uncertain future income, large funding demands and long payback periods.

Furthermore, a considerable number of participating countries have poor market circumstances and regulations. Therefore, the idea of "support first, profit later" must be practiced, with development financing as a driver to gradually attract commercial and private financing. On one hand, BRI projects are large in scale and span over long periods. This means that existing markets may fail, making full private sector participation unrealistic. On the other hand, BRI projects may generate profits in the future. Allowing grant for these projects will then lead to extreme high profit and cause unfair competition to commercial financing, which is seen as government failure. It is therefore inappropriate to fully adopt means such as grant (aid gratis) or policy-based finance.

This shows that the characteristics of the BRI match precisely with the logics of development finance. It is important to take advantage of governmental support and optimise the strengths of development finance to overcome the span cycles and generate profits in the mid and long term.

#### **4. Encourage local currencies to play an active role**

Under the prevailing global currency framework, it would be unsustainable and a major risk for the BRI to rely solely on the U.S. dollar or other international currencies for funding. Thus, the push for RMB dominated local currency financial cooperation is crucial to strengthen the currency stability and credibility system in BRI regions. The use of local currencies in investment and financing offers many advantages in developing the BRI.

Firstly, the use of local currency helps to mobilise local savings and global funds. The BRI must fully exploit local and global resources. Using local currency for foreign investment and financing helps to mobilise local saving resources, which will form demonstration effects through reasonable returns. Tapping into more local savings and international capital will create positive feedback for the BRI.

Secondly, the use of local currencies lowers the cost of currency-exchange. Fund recipients may use foreign currencies directly to purchase products from those countries and thus, save on exchange costs. As fund recipients and sponsors become more engaged with one another and more income is generated from local currencies, fund sponsors may be paid directly in their own currencies to save on exchange costs.



Thirdly, the use of local currencies offers financial stability. The increased use of local currencies will boost confidence in the local currency. This could help to support the development of capital markets denominated in local currencies and diversify investment tools and risk management means. Furthermore, the use of local currencies will reduce dependence on main currencies such as the U.S. dollar, which in return, lower the risks triggered by fluctuations in exchange rates.

Examples of the use of local currencies in investment and financing in promoting the BRI are widely available, and China has also carried out some meaningful attempts to encourage this initiative. The use of local currencies in investment and financing must be further explored in the building of the BRI investment and financing system to better satisfy the needs of markets and economic development.

#### **5. Active international collaboration in investment and financing to expedite the building of a network of financial institutions and services**

The BRI requires an enormous amount of funds that are beyond the means of participating countries individually. It is certainly not a “one-man show” of a specific country and instead requires all countries along the BRI to join forces. This explains why co-negotiation, co-building and co-sharing have been emphasised since the very beginning of the initiative.

Previously, countries along the BRI primarily relied on financial services and funds from banks and financial institutions in developed countries. However, due to problems such as a lack of motivation from financial institutions and the international financial crisis, developed countries are unable to provide sufficient funds for the full development of the initiative. Additionally, the operation, business ideas and financing conditions of financial institutions in developed countries do not fully correspond to the needs of all countries along the BRI. Active international collaboration in investment and financing in the building of the BRI investment and financing system is therefore essential to develop an interconnected collaborative network with shared communication, benefits and risks. This network can be created through the establishment of reciprocal institutes, connected financial services, interlinked capital markets and financial infrastructure, active international financial centres and communication and collaboration between financial regulators. Subsequently, the joint forces of the countries along the BRI can be optimised to effectively mobilise national and international resources to make the provision of long term and reliable financial support to the initiative possible.

In summary, the BRI investment and financing system provides critical support to the initiative. The investment and financing system require extensive mobilisation of resources including efforts from public and private sectors and countries along the BRI and significant international capital. The sustainability of investments and financing can be ensured through tactful use of development finance, establishing a network of financial institutions and services and increased use of local currencies. This will allow for the concept of collaboration in terms of co-negotiation, co-building and co-sharing to be successfully implemented.

# 02

## Basic Principles and Actual Forms of the Development of the BRI Investment and Financing System

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- I. Basic principles of the development of the BRI investment and financing system
- II. Actual forms of the development of the BRI investment and financing system

# Basic Principles and Actual Forms of the Development of the BRI Investment and Financing System

## I. Basic principles of the development of the BRI Investment and Financing System

To advance financing for the BRI, the Ministries of Finance from 26 countries have joined China in signing up to the Guiding Principles for Financing the BRI (see appendix 3) following the proposal and promotion from China. These 26 countries are Argentina, Belarus, Cambodia, Chile, the Czech Republic, Ethiopia, Fiji, Georgia, Greece, Hungary, Indonesia, Iran, Kenya, Laos, Malaysia, Mongolia, Myanmar, Pakistan, Qatar, Russia, Serbia, Sudan, Switzerland, Thailand, Turkey and the U.K.

The basic principles for the BRI investment and financing system should conform to the Guiding Principles on Financing the Development of Belt and Road. To promote a diversified financing system that is long term, stable and sustainable with manageable risks, Chinese Premier Li Keqiang has set the objective of “market-oriented operations revolving around businesses for mutual benefits” based on the principle of equal participation with shared benefits and risks.

## II. Actual forms of the development of the BRI Investment and Financing System

### 1. Main Participants

The BRI investment and financing system is divided into five levels according to sources of the funds:

**The first level** is development financial institutions as represented by the policy banks, which include China Development Bank and Export-Import Bank of China. The former is the largest outbound-investment-and-financing bank in China. In addition to offering traditional credit business, both banks have set up Sino-foreign cooperation funds. **The second level** is emerging multilateral development financial institutions such as the BRI customised Silk Road Fund created according to international standards. The Silk Road Fund primarily focuses on equity investment. **The third level** is commercial banks in China, which comprise primarily the four major state-owned commercial banks. With their overseas branches and mature diversified financing service system, Bank of China and Industrial and Commercial Bank of China (ICBC) own a large market share in the financing of the BRI. **The fourth level** is traditional international multilateral financial institutions such as World Bank and Asian Development Bank, which are closely connected to the BRI. **The fifth level** is ancillary institutions as represented by import-export credit insurance companies.

Main participants from different levels have different financing models. Commercial banks

in China have many branches overseas and offer a comprehensive range of lending products with the main models being bank credit (both on and off-balance sheet), syndicated loans, domestic and foreign bonds and cross-border general financial services. The strengths of domestic policy-based banks include low-rate and long-term loans such as concessional loans, preferential export buyers' credit and special-purpose loans alongside strategic equity investment through multilateral or bilateral funds. Emerging multilateral development financial institutions such as the Asian Infrastructure Investment Bank and Silk Road Fund stand out with their focus on the BRI. These institutions offer diverse and innovative lending models based on international standards, and are offered in the following forms: credit, bonds, equity investment and insurance. Meanwhile, traditional multilateral financial institutions around the globe primarily offer loans with favourable rates and terms to BRI projects. Joint investment and financing between these institutions and policy-based and commercial banks in China and Silk Road Fund are also possible. Other principal ancillary financing institutions including export credit insurance companies, law firms and accounting firms who provide services such as overseas investment guarantees and export credit insurance, investment and financing consultancy.

## **2. Specific models and cases of BRI project finance**

**(1) Joint cooperation among international multilateral financial institutions.** The key international multilateral financial institutions which offer credit financing to the BRI initiative are World Bank, Asia Development Bank and Asia Infrastructure Investment bank.

### **a. World Bank**

The International Bank for Reconstruction and Development (IBRD) is the World Bank's lending institution to the BRI.

World Bank is a key source of funding and technical support to developing countries around the world. The World Bank Group consists of five institutions, namely International Bank for Reconstruction and Development (IBRD), International Development Association (IDA), International Finance Corporation (IFC), Multilateral Investment Guarantee Agency (MIGA) and International Centre for Settlement of Investment Disputes (ICSID). The IBRD offers loans to middle and low-income countries with sound credit records. It is the principal channel of financing for the BRI. Investment by the Asian Infrastructure Investment Bank, Silk Road Fund and domestic policy banks into the BRI regions is largely done in collaboration with World Bank.

World Bank has more than 130 representative offices globally. During the 2016 financial year, it offered its members and private businesses more than USD64.2 billion (c. GBP 48.77 billion) in loans, grants, equity investment and guarantees. Funds from the IBRD primarily went to East Asia and the Pacific, Latin America and the Caribbean, and the Middle East and North Africa, while the IDA primarily supported Africa and South Asia.

The BRI takes up approximately 60% of the World Bank's funds. The distribution of these funds are: East Asia and the Pacific occupies 18% (USD 6.4 billion, or c. GBP 4.86 billion)); Europe and Central Asia occupies 15% (USD 5.5 billion, or c. GBP 4.18 billion); the Middle

East and North Africa occupies 13% (USD 4.4 billion, or c.GBP 3.34 billion); and South Asia occupies 17% (USD 6 billion, or c.GBP 4.56 billion ). Further details on the flow of these funds are shown in the table below.

**Table 1. Flow of World Bank Funds in 2016 Financial Year (by area)**

<b>Amount paid in 2016 financial year (unit: million USD) /Area</b>	<b>IBRD</b>	<b>IDA</b>	<b>IBRD+IDA</b>	<b>Percentage out of IBRD+IDA total</b>
Africa	874	6813	7687	21%
East Asia and the Pacific	5205	1204	6409	18%
Europe and Central Asia	5167	365	5532	15%
Latin America and the Caribbean	5236	303	5539	16%
The Middle East and North Africa	4427	44	4471	13%
South Asia	1623	4462	6085	17%
<b>Total</b>	<b>22532</b>	<b>13191</b>	<b>35723</b>	<b>100%</b>

Source: World Bank

#### **b. Asian Development Bank**

The Asian Development Bank, an institute established by the United Nations Economic and Social Commission for Asia and the Pacific, mainly promotes socioeconomic development of developing member countries from Asia and the Pacific. 48 out of its 68 members are from the Asia-Pacific region. Headquartered in the Philippine capital Manila, it enjoys a distinct regional advantage.

The bank supports its members in areas such as infrastructure, energy, environmental protection, education and public health through loans, joint loan guarantees, technical support and grants. Its loans are divided into project loans, planning loans, public/ private-sector loans, development-finance-institution loans, and execution-and-support loans for special projects. Southeast Asia stands out as the region where the BRI has made the most progress. Financing in Southeast Asia for the BRI can be operated in collaboration with the Asian Development Bank.

As a regional development institution, the Asian Development Bank is open to collaborating with foreign financial institutions in joint-guarantee financing, which will enhance credit and reduce the cost of financing.

### c. Asian Infrastructure Investment Bank (AIIB)

The AIIB, a multilateral international financial institution, was founded in 2015 by China. To date, it has 86 member countries. The bank is committed to developing infrastructure and production facilities in Asia. Loans from the AIIB are granted to projects based on three fixed criteria: positive financial sustainability, environmentally friendly and local social acceptance.

The strengths of the AIIB are: (i) the BRI complementary relationship with the Asian Development Bank and the World Bank in co-promoting investment in infrastructure in Asia and; (ii) it may collaborate with emerging multilateral financial institutions such as the Silk Road Fund to maximise the potential and effects of lending through financial innovation, including credit, bonds issuance, concept stocks, public offering, insurance, aid and asset backed securitisation.

As at the end of September 2016, the AIIB has announced its investments into six projects in two batches. A total of USD829 million (c.GBP 629.70 million) in loans were committed to fields such as energy, transport and urban development in five countries, namely Bangladesh, Indonesia, Pakistan, Tajikistan and Myanmar. Apart from the upgrade and expansion of power transmission in Bangladesh, which is solely funded by the AIIB, the other five projects are being co-financed with the World Bank, Asian Development Bank, European Bank for Reconstruction and Development and other multilateral development banks and commercial banks.

**Table 2. Projects in which AIIB has invested, current at September 2016**

	Loan Quota (in USD million)	Financing model
Upgrade and expansion of power-transmission system in Bangladesh	165	Independent loan from AIIB
Slum transformation and upgrade in Indonesia	216	Joint lending with World Bank
Shorkot-Khanewal stretch of M-4 Motorway in Pakistan	100	Joint lending with Asian Development Bank and UK Department for International Development
Improvement of Dushanbe-Uzbekistan border road in Tajikistan	27.5	Joint lending with European Bank for Reconstruction and Development
Expansion of hydroelectric power station in Pakistan	300	Joint lending with World Bank
225MW combined-cycle gas-turbine power plant in Myanmar	20	Joint lending with other multilateral development banks and commercial banks

Source: AIIB



## (2) Establishment of multilateral or bilateral funds or investment companies

Global investors may participate in investment in the BRI through the establishment of multilateral or bilateral funds or investment companies. For example, **China Development Bank Capital** and foreign investors from the U.A.E, Portugal and France have jointly set up funds such as UAE-China Joint Investment Fund, China Portuguese Speaking Countries Cooperation and Development Fund and Sino French (Midcap) Fund. These funds directly invest in businesses or projects through ordinary shares acquired via equity investment. They also they invest in foreign project objects through quasi-equity investment, preference shares, convertible bonds and hybrid instruments.

**The Silk Road Fund** is also jointly set up by international investment institutions, namely Export-Import Bank of China and China Development Bank Capital. It focuses on mid to long-term development investment funds and provides financial support to the multilateral and bilateral communication. The Silk Road Fund also supports the connectivity of the BRI through diversified investment and loans, including equity investment, debt investment, loans and funds. The fund may also set up sub-funds based on regions, industries or project types for foreign investors to participate. At June 2017, the Silk Road Fund has invested in 16 BRI projects through equity investment, debt investment and sub-funds which introduced over USD6 billion (c.GBP 4.56 billion) in capital.

**Table 3: Funds co-established by China Development Bank Capital and foreign investors**

Fund	Contents
<b>UAE-China Joint Investment Fund</b>	This fund was founded in December 2015 with a sum of USD10 billion (c.GBP 7.6 billion) and an equal investment of USD4 billion (c. GBP 3.04 billion) from each side during the initial stage. <b>It is co-managed by Mubadala Development Company of Abu Dhabi, China Development Bank Capital and the State Administration of Foreign Exchange of the People's Republic of China.</b> The fund's operation is guided by commercial principles and it invests in traditional energy, infrastructure building and high-end manufacturing, clean energy and other high-growth industries mainly in China, the U.A.E and other high-growth countries and regions.

<b>Sino-French (Midcap) Fund</b>	<p><b>This fund was co-founded by China Development Bank Capital, Bpifrance and Cathay Capital</b> in March 2014 to promote the international development and growth of medium-sized enterprises in China, France and Europe. The target scale of the fund is EUR500 million. As cornerstone investors, China Development Bank Capital and Bpifrance have each committed EUR100 million to the fund. Cathy manages the fund based on the success of the private-equity fund Sino-French SME Fund, which was set up by China Development Bank Capital and Bpifrance in 2012. Sino-French (Midcap) Fund will focus on medium-sized enterprises in China and France but also extends to some European countries, particularly Germany. <b>The main means of investment will be controlling-share purchase (leveraged buyout) and key private-equity minority investments.</b> The fund aims to facilitate the development of medium-sized enterprises in the above-mentioned areas and accelerate Sino-French and -European collaboration, while playing a critical role in boosting economic growth and employment.</p>
<b>China-Portuguese Speaking Countries Cooperation and Development Fund</b>	<p>The private equity is committed to investment within the eight Portuguese-speaking member countries, namely China (including Macau), Angola, Brazil, Cape Verde, Guinea-Bissau, Mozambique, Portugal and East Timor. The fund has a total of USD1 billion, or c.GBP 0.76 billion). A sum of USD125 million (c.GBP 94.95 million) was received from <b>China Development Bank and Industrial and Commercial Development Fund of Macau</b> during the initial stage.</p>
<b>Silk Road Fund</b>	<p>The fund, a special fund complementing the BRI, was formally funded and established by the Chinese government in November 2014. <b>Its corporate shareholders include the Export-Import Bank of China, China Development Bank Capital, Seres Investment Co., Ltd. and Buttonwood Investment Holding Co., Ltd.</b> The fund has a total capital of USD40 billion. The initial capital of USD10 billion (c. GBP 7.6 billion) was committed by the State Administration of Foreign Exchange (USD6.5 billion, or c.GBP 4.94 billion), China Investment Corporation (USD1.5 billion, or c.GBP 1.14 billion), the Export-Import Bank of China (USD1.5 billion, or c.GBP 1.14) and China Development Bank (USD500 million, or c.GBP 379.79 million ). Sub-funds may be set up according to regions, industries or project types. <b>The fund focuses on mid to long-term development investment and offers financing support to the multilateral and bilateral communication &amp; connectivity of the BRI initiative through diversified lending means including equity investment, debt investment, loans and funds.</b></p>

Source: China Development Bank Capital

The types of overseas investments by bilateral / multilateral funds include common equity investments and mezzanine investments. The common equity investment covers major pre-IPO projects, strategic growth companies with significant valuation advantages and growth potential in the future, IPO cornerstone/ anchor projects of key strategic clients and long-term assets conforming to policy support. The latter mainly applies to overseas investment and mergers and acquisitions (M&As) of domestic businesses, refinancing of businesses listed abroad, privatisation and delisting financing and bridge financing. It simultaneously offers fixed income and returns from equity appreciation.

### **(3) Debt financing in local currencies of countries along the BRI and offshore RMB**

To avoid foreign-exchange risk and large-scale cross-border capital flows, businesses are more inclined to have assets and liabilities in the same currency, which leads to a strong demand for debt financing in offshore RMB and local currencies of countries along the BRI. As a result, different financing models have been created including debt-equity combination financing and onshore guarantees for offshore loans alongside traditional bank loans and bond issuance.

Domestic developmental financial institutes and commercial banks in China now are actively offering offshore debt financing to Chinese-funded businesses along the BRI. International investment institutions that have been operating globally for many years or are already operating in countries along the BRI for years should leverage on their extensive experience and seek opportunities in this field.

#### **1) The BRI capital and loans businesses of domestic developmental financial institutes**

The China Development Bank actively broadens its overseas network to raise funds and channel foreign capital into BRI projects as it implements its global collaboration push for the BRI.

#### **A first example is the debt-equity combination financing of the Jakarta-Bandung high-speed rail in Indonesia.**

Capital for the Jakarta-Bandung high-speed rail project came from Kereta Cepat Indonesia China (KCIC), a Sino-Indonesian joint venture. China Development Bank provided commercial loans with a 50-year period plus grace period at an interest rate of 2%. The Indonesian government has not provided its government budget or sovereign guarantee for the project.

**Table 4. Jakarta-Bandung high-speed rail in Indonesia  
(China's first high-speed rail project abroad)**

<b>Project duration</b>	Construction began in January 2016 and is expected to last for three years. A construction permit for the entire line was obtained in July 2017.
<b>Project costs</b>	A total cost of approximately USD5.5 billion (c.GBP 4.18 billion), which was subsequently adjusted to USD5.135 billion (c.GBP 3.9 billion).
<b>Financing means</b>	<b>China Development Bank offered 75% of the commercial loans with a 50-year period plus grace period at an interest rate of 2%, while the remaining 25% came from KCIC, a Sino-Indonesian joint venture. The Indonesian government has not provided its government budget or sovereign guarantee for the project.</b>
<b>Project description</b>	The rail spans about 150 kilometres in its entirety, connecting the Indonesian capital Jakarta and its fourth-largest city Bandung, and its highest design speed is 350 kilometres per hour. KCIC, a Sino-Indonesian joint venture consisting of Chinese (40%) and Indonesian (60%) state-owned enterprises brought together by China Railway and PT Wijaya Karya (Persero) Tbk respectively, is responsible for the construction and operations. The company has been granted 50-year franchising valid from 31 May 2019.
<b>Project impact</b>	The first high-speed rail in Indonesia. Once completed it will reduce the journey from Jakarta to Bandung from over three hours to just 40 minutes.

Source: China Development Bank

**A second example is the successful issuance of the quasi-sovereign green bond in the international bond market in a bid to pave the green Silk Road.**

On 9 November 2017, China Development Bank successfully issued the first quasi-sovereign international green bond including USD500 million (c.GBP 379.79 million) bonds and EUR1 billion bonds. The issue, which adopted a single debt rating and both coupons achieved negative premium issuance and ultra-high subscription, set a new model for the development of the international green bond market. The bond, which is executed strictly in compliance with the Green Bond Principles (GBP) and was awarded Climate Bond Certification by Climate Bonds Initiative (CBI), is listed on the Hong Kong Stock Exchange and the China Europe International Exchange. The funds raised are largely used to support green industrial projects along the BRI including the three major green areas of clean transportation, renewable energy and water resources protection. The funds provide strong financing support for the implementation of sustainable development and greening the Silk Road. This move reflects the positive development of China's development financing institutions to implement and take the lead in responding to the BRI and continue to

promote the interconnection of domestic and overseas markets. By integrating the concept of green finance into BRI construction, using various financial instruments including green bonds to guide resources, the funds support BRI cooperation and sustainable development. The ecological environment along the road can be improved while promoting economic development to support sustainable development and win-win results.

**A third example is the joint effort with the Hong Kong market in the successful issuance of the BRI designated bond supporting the BRI.**

On 20 December 2017, China Development Bank successfully issued the first "Belt and Road" themed special bond in Hong Kong that was worth USD350 million (c.GBP 265.85million) with a five-year fixed-rate through private placement. The bond was listed in Hong Kong to raise funds to support bookkeeping projects along the BRI for China Development Bank's Hong Kong branch. This bond is the first "Belt and Road" special bond issued by the bank, which is of great significance. This move proved that China Development Bank is the leader in guiding global capital crowded for BRI projects which achieved positive publicity. The move also meets the need for cooperation between financial institutions and monetary authorities in issuing quasi-sovereign BRI special bonds.

On 22 December 2017, the Export-Import Bank of China with the assistance of Bank of China, issued the first phase of "bond connect" green bond of 2017, with an amount of RMB2 billion and a maturity of three years. The interest rate is at 4.68% and a full-court subscription multiple of 3.46 times. The raised fund aims to invest in key green BRI projects through the specific capital arrangement and qualified credit project reserves of the Export-Import Bank of China. It offers foreign investors direct access to invest in greening the BRI.

**2) Commercial banks in China offer debt financing to countries along the BRI**

**The Agricultural Bank of China** continued to issue and underwrite RMB bonds in offshore markets in Hong Kong and Singapore when it became the first Chinese institution to issue RMB bonds in the Middle East in 2014. While funds were being raised for the BRI projects, the activity also supported the development of international bond markets in BRI areas and offshore RMB.

The 21st Century Maritime Silk Road Bonds, an offshore RMB bond issued by **China Construction Bank** for the first time in the world, was listed on the Kuala Lumpur Stock Exchange in 2015. Moody's Investors Service assigned an A2 rating to the bonds, which have a two-year period and an issuing interest rate of 4%. They were worth 1 billion yuan and the raised funds were committed to financing BRI projects to help Chinese enterprises enter the global market, particularly those related to the construction of key projects as part of the 21st-century Maritime Silk Road.

Since the first BRI themed bond was issued in the international bond market in June 2015, the Bank of China has so far rolled out four bundles of bonds amounting to USD10.8 billion (c.GBP 8.2 billion). BRI bonds were issued simultaneously by multiple issuers in multiple currencies and with multiple types. The issuance was implemented by 12 overseas

branches of the issuer within the BRI countries and extended regions. The offering, which was denominated in six currencies including the RMB, USD and EUR, making the best use of Bank of China's credibility in raising stable and cheap capital for BRI projects. Bank of China has repeatedly included BRI bonds in RMB denominated bonds to provide the market with investment tools denominated in RMB, aiming to promote RMB's internationalisation by spurring offshore RMB recycling. It is worth noting that the first offshore RMB bond in the African market was issued by Bank of China Johannesburg branch, setting a precedent for the following RMB bond issuance.

As the lead underwriter, Bank of China has assisted Poland, Hungary, Sharjah, The Philippines and other countries along the BRI in issuing RMB denominated bonds (i.e. Panda bond). The initiative has ushered these countries into the RMB bond market. As the co-lead underwriter and book runner, Bank of China helped Poland issue an RMB dominated bond worth RMB3 billion with a coupon rate of 3.40% on 25 August 2016. The bond received more than 5.9 billion in subscription. Bank of China has also assisted Hungary in issuing a three-year RMB dominated bond which was worth RMB1 billion in China's interbank bond market and completed the associated RMB1 billion currency swap business on 26 July 2017. On 1 February 2018, the bank assisted the Emirate of Sharjah in the United Arab Emirates on the issuance of a three-year RMB dominated bond worth RMB2 billion in the interbank bond market of China with a coupon rate of 5.8%. Bank of China has also assisted the Philippines in issuing a three-year RMB dominated bond worth RMB1.46 billion in the Chinese interbank bond market with a coupon rate of 5% on 20 March 2018.

### **3) BRI Foreign commercial banks offer debt financing to BRI projects**

**HSBC** has acted as a Joint Global Coordinator and Joint Structuring Advisor for Industrial and Commercial Bank of China's inaugural Belt and Road Climate Bond. This is the first green bond where the green bond framework is aligned with both International Capital Market Association's (ICMA) Green Bond Principles and The People's Bank of China's (PBoC) Green Bond Categories by a Chinese financial institution. This bond also marks the first issuance dedicated to green projects following the BRI initiative. It will support projects in China's domestic provinces and in foreign countries key to the BRI initiative. The raised proceeds will finance, and refinance projects linked to renewable energy and low carbon emission transportation along the BRI, low carbon and low emission transportation. The ICBC's Green Bond Framework also includes energy efficiency as well as sustainable water and wastewater management.

**Standard Chartered** has a deep and long-standing presence in 45 of the markets along the proposed BRI routes to promote sustainable social and economic development. Over the course of 2017, they were involved in over 50 BRI related deals worth over USD10 billion (c.GBP 7.6 billion) across a range of products and services. To mark the ninth UK-China Economic and Financial Dialogue in Beijing, Standard Chartered announced on 15 December 2017 a further commitment to support the BRI by facilitating financing to the value of at least USD20 billion (c.GBP 15.19 billion) by 2020. On 31 January 2018, China Development Bank and Standard Chartered signed a MoU to formalise a strategic



partnership that aims to facilitate trade and investment related to China's BRI initiative. The MoU will enable China Development Bank to offer up to RMB10 billion in aggregate in the next five years to Standard Chartered to facilitate BRI projects.

#### **(4) Financial institutions offer cross-border RMB products and information services**

Financial institutions may offer BRI associated financing information services and cross-border RMB products leveraging on their expertise. Relevant initiatives have been attempted by some Chinese funded banks and their overseas branches.

**Bank of China** has added new currencies and products to its product line and offered its customers hedging and risk aversion solutions, aiming to reduce the currency risk facing companies exploring international market following the BRI initiative. It also compiled the BRI RMB exchange rate index to help customers identify risks.

#### **1) Increase currencies of the emerging markets to enrich product line of financial hedging tools**

The Bank of China's currency services currently covers 62 currencies among which 51 of them are from emerging markets and 28 are from countries along the BRI. Bank of China's diverse product line also encompasses an array of hedging tools including the spot/forward settlement and sale of foreign exchange, spot/forward foreign exchange trading, foreign exchange swap, currency swap, non-deliverable forward and option. The Bank of China leverages its international financial market experience and expertise to help clients identify trends and trading opportunities. The bank uses a mixture portfolio of hedging tools to customise risk management solutions for projects to help a great number of companies going global hedge and avert risks. The total amount of transactions over the last five years has reached USD470 billion, or c.GBP 357 billion (among which transactions in HKD hit USD359 billion, or c.GBP 272.69 billion).

#### **2) Compile the “Bank of China BOC OBOR RMB Index”**

Bank of China published the “BOC OBOR RMB Index”<sup>1</sup> in December 2015. The index, which is an arithmetic-weighted average of a selection of 64 BRI countries' trading volume with China, serves as a comprehensive and unbiased reflection of the trend of the exchange rates between RMB and currencies of the BRI countries. Apart from the BRI general index, Bank of China has compiled a sub-index<sup>2</sup> by grouping countries with similar economic characteristics and currency exchange systems, taking into account the economy and exchange rate changes across different regions and countries. The indices have real-time quotes on Thomson Reuters Eikon and Bank of China have been publishing this periodic professional analytical report for the last two years.

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<sup>1</sup> BOCOBORI on Thomson Reuters Eikon quotes.

<sup>2</sup> The three sub-indices are: OBOR RMB exchange rate Southeast Asia, OBORASIA on Thomson Reuters Eikon quotes. OBOR RMB exchange rate EMEA countries, OBOREMEA on Thomson Reuters Eikon quotes. OBOR RMB exchange rate developed countries, OBORACTI on Thomson Reuters Eikon quotes.

**Figure 1: Bank of China BOC OBOR RMB Index**



### **3) Compile “CFETS-BOC traded bond indices”**

The “CFETS-BOC traded bond indices” are the first traded bonds indices for the inter-bank market jointly published by Bank of China and China Foreign Exchange Trade System in Shanghai on 14 June 2018. The indices are a basket covering the “CFETS-BOC traded treasury bond index”, “CFETS-BOC traded policy financial bond index”, “CFETS-BOC traded high credit rating bond index” and “CFETS-BOC traded high credit rating negotiable certificates of deposit (NDC) index”. The indices are compiled based on trading factors including the trading features, volumes and the number of market makers that quote the bond, as well a selection of a moderate number of actively traded bonds as the samples. The indices, which provide local and foreign investors accurate and useful performance benchmarks, help to boost liquidity in the secondary bond market and reduce costs of bond issuance in the primary market. The indices are published 18:00 every trading day on [www.chinamoney.com](http://www.chinamoney.com) and Bank of China's official website.

**The Singapore branch of Bank of China** has launched RMB products, which are collaborative efforts between the bank and Singapore Exchange Limited including futures and a dual-currency bankcard with RMB and the Singapore dollar. It also offers cross-border M&As financing, bond underwriting and distribution, debt financing, guaranteed bonds, structured commodity finance and financial consultation. The **Industrial and Commercial Bank of China** has built a global information platform and set up a country-risk research team, global-economy research team and industry research centre. These teams share research results regularly with over 100 enterprises each year to allow them to understand global market trends and reduce the cost of information acquisitions. The bank also introduced cross-border offshore RMB release, cross-border RMB loans, cross-border two-way RMB capital pool, finance lease and factoring.

## **(5) Multiple financing channels offering integrated financial services**

**UK Export Finance (UKEF)** is the UK government's export credit agency (ECA), which supports long-term economic growth and competitiveness by complementing the private market with insurance for exporters, loan guarantees to banks, and providing support for and provision of loans to overseas buyers of UK goods and services. UKEF has supported exports across a wide range of sectors including aerospace, construction, energy, oil and gas, mining and metals, petrochemicals, telecommunications, and transport. For instance, UKEF has provided EUR270 million to an African government to help financing the construction of a new international airport in the Kabaale region of Uganda. Serving as an ECA, the organisation works towards identifying and supporting international projects that use UK goods and services through providing long-term financing support with a repayment term of up to 18 years. UKEF has risk capacity of GBP25 billion to support buyers in over 198 countries and over 60 different currencies including RMB.

In March 2016, UKEF and the China Export & Credit Insurance Corporation (SINOSURE) signed an agreement to co-operate in supporting contracts in third countries involving both UK and Chinese exports. The move is designed to enhance the two ECAs' ability to support exports by increasing their risk capacity for projects sourcing goods and services from the UK and China. These projects cover infrastructure development including the building of airports, railways, roads, etc.

**HSBC** acted as an exclusive financial adviser to a China Resources Group-led consortium in its acquisition of a 30% stake in the 402MW Dudgeon offshore wind farm in the UK from Statkraft AS, with a purchase consideration of c.GBP 555 million. The deal was announced on 19 December 2017 and completed on 7 March 2018.

This is a landmark transaction for China Resources Group, representing its debut international investment in the renewable energy sector as part of its 'Go Global' strategy. This also represents the inaugural sale of A Contract-for-Difference ("CfD") based offshore wind project in the UK which allows access to a flagship offshore wind asset with prime wind resources, latest technology with Siemens highest 15-year CfD (space) strike price available in the market (at the time) and opportunity to partner with industry leaders, i.e. Statoil and Masdarm, as shareholders.

**Linklaters** advised the sponsors, led by British Petroleum (BP) and including CNOOC amongst others, on the USD8.7billion (c.GBP 6.61 billion) Tangguh LNG Train 3 Expansion Project, located in the Papua Barat province of Indonesia. This is one of the largest and most high-profile projects ever to close in Indonesia. Separate financing tranches (amounting to USD3.7billion in total, or c.GBP 2.81 billion) were provided by (i) a group of commercial banks from China, Japan, Germany, South Korea, France, Singapore; (ii) Asian Development Bank; (iii) Japan Bank for international Cooperation and; (iv) Indonesian banks and financial institutions.

Linklaters assisted the sponsors in navigating changes in the policies of international banks and multi-lateral financial institutions by modifying the New York law trustee borrowing

scheme traditionally used in Indonesian upstream oil and gas financings and drafted and successfully negotiated financing documents incorporating the revised structure with the new Indonesian upstream oil and gas regulator and the lender group to achieve a 'bankable' solution acceptable to all the stakeholder.

The London and Beijing offices of **Clifford Chance**, the global law firm and one of London's elite Magic Circle of law firms, advised Bank of China (London branch) and Industrial and Commercial Bank of China on the USD1.582 billion (c.GBP 1.2 billion) limited recourse project financing of a 540megawatt oil shale fired mine-mouth power plant at Attarat Um Ghudran in Jordan for which Sinosure provided buyer's credit export insurance. This was the largest foreign direct investment in Jordan at the time, the first limited-recourse financing of an oil-shale mine-mouth project and helps the country reduce its reliance on oil imports by the use of domestic reserves.

#### **(6) Fintech companies promote digital inclusive finance in BRI countries**

Many countries along the BRI are confronted with a lack of fundamental financial services, diverse payment methods and inefficiencies in financial services and as such are in urgent need of fintech. The deployment of fintech will create more effective, broader and convenient financial products and services fulfilling the present and future market demands and improving the standard of living.

**Ant Financial** has rolled out the regional versions of "Alipay" in nine countries and regions covering India, Thailand, Malaysia, and Indonesia. Ant Financial's Overseas Travel and Global Transaction businesses have expanded into dozens of the BRI countries and regions. At present, Ant Financial's three key international businesses have benefited over 300 million customers along the BRI through the offering of convenient, safe and reliable financial services.

#### **1) Unveil regional e-wallet in overseas markets to fulfill the residents' digital life needs**

In February 2015, Ant Financial partnered up with India's e-wallet giant Paytm in a strategic effort to develop its first regional version of "Alipay" in an overseas market. Until now, Ant Financial has rolled out nine local version e-wallets covering more than two billion people in countries and regions along the BRI via partnerships with local businesses. Among these efforts, Indian e-wallet Paytm has seen its customer base exploding from 30 to 250 million, making it the fourth largest e-wallet in the world.

The three outcomes from Ant Financial's successful "technology export" are:

- (i) to help local partners to break through development bottleneck and achieve leapfrog development through technical empowerment;
- (ii) providing convenience to the local residents from payment to smart lives, cultivating the development concept and mature business models in these countries with the continual export of digital inclusive financial models and;
- (iii) to explore a localised model that is based on mutual trust and works best for the region as well as to teach them 'how to fish'.

**Table 5: Ant Financial's Nine "regional wallets" along the BRI**

Country & region	Partnership start date	Name of wallet	Partners	Covered population
India	Feb 2015	Paytm	E-wallet Paytm	1.324 billion
Thailand	Nov 2016	Turemoney	Payment company Ascend Money	69 million
South Korea	Feb 2017	Kakao Pay	Instant messaging company Kakao	51.25 million
The Philippines	Feb 2017	GCash	Digital finance company Mynt	103 million
Indonesia	Apr 2017	DANA	Internet enterprise EMTEK	261 million
Hong Kong SAR	May 2017	AlipayHK	CK Hutchison Holdings Limited	7.41 million
Malaysia	Jul 2017	Touch'n Go	Financial enterprise CIMB	31.18 million
Pakistan	Mar 2018	Easy paisa	Small and micro financial bank TMB	193 million
Bangladesh	Apr 2018	bKash	Mobile payment company bKash	163 million

Source: Ant Financial

## **2) Extend the reach of Alipay and continue pushing for Alipay's Global Transaction services**

To rise to the challenge of fulfilling the strong demand from millions of Chinese tourists shopping in overseas countries Ant Financial has been continuing to push in recent years for its cross-border offline payment businesses in popular tourist destinations, with a focus on offering Chinese tourists mobile payment services and linkages to surrounding entertainment and travel services. Alipay has extended its reach into over 100,000 stores, 56 major international airports in 40 countries and regions, supported Uber and Grab in more than 70 countries and provided tax refund services in 24 countries. The above said services have all targeted the countries and regions along the BRI.

Furthermore, to meet the cross-border online shopping demands of customers in China and countries along the BRI, Alipay has partnered with over 250 financial institutions across more than 200 countries in providing its Global Transaction service which supports 27 major currencies and effectively interconnected online payments across the world.

Of the counties and regions covered by its services, more than a quarter is along the BRI. Today, online shoppers can complete payment with their local payment methods on any e-commerce site, whether it is a Chinese or international platform in Alibaba's system or an overseas third-party site. This serves as an important pillar to eWTP. The services mentioned above enabled not just Chinese customers to shop through Tmall and AliExpress in the BRI countries' stores but also customers in these countries to purchase from Chinese merchants.

**Jingdong Finance** has actively responded to the BRI by introducing digital inclusive financial services into countries along the BRI. In September 2017, Jingdong Group and Jingdong Finance teamed up with Central Group – Thailand's largest retail business and Provident Capital in starting two joint ventures with a total investment of USD500 million (c. GBP 379.79 million) . The two joint ventures are going to be providers of e-commerce and fintech services, respectively, bringing convenience and inclusive digital financial services to the Thai people and digitalising the Thai society with the import of Jingdong's fintech capabilities. On the technical abilities front, Jingdong has developed and used in financial applications a vast range of cutting-edge application model systems such as a risk quantification model system, precision marketing model system, intelligent investment consultancy model system and user analytics model system. These systems are built through deploying new technologies such as artificial intelligence, biometrics, cloud computing and blockchain and replying on the myriad of supply of e-commerce data, financial data and other various types of third-party data from its hundreds of millions of customers and business partners. On the digital inclusive finance front, Jingdong Finance reduces the financing cost for the vast small and medium enterprises (SMEs) and rural population and provides them with convenient financing through its consumer finance, supply chain finance and rural area finance businesses. Many of these business practices of digital inclusive finance have won recognition from various international organisations. For example, the "Digital Agricultural Loan" which provides rural financial services based on quantitative model of agricultural production has acquired RMB400 million RMB long-term loans from International Finance Corporation (IFC) – a member organisation of the World Bank Group.

By exploiting these technical capabilities and experiences, and in conjunction with Central Group's vast offline shopping scenarios, Jingdong Finance has broken into the mobile payment business. This breakthrough offers Central Group's consumers a shopping experience of better convenience and prompting Thailand to leapfrog towards a digital society. In addition, this development paves the way for the upcoming digital inclusive finance businesses by accumulating massive payment data and client resources. Another joint venture formed by Jindong and Central Group is helping Central Group to migrate its offline retail businesses online to optimise local e-commerce and the financial environment. The two ventures are taking the steps to build an online to offline (O2O) ecosystem through combining the core competencies of Jingdong Group, Jingdong Finance and Central Group. This ecosystem is poised to extend its reach into insurance, asset management and other affiliated financial services as it continues to expand its operations in digital inclusive financial services such as consumer finances, supply chain finance and rural area finance with its rich collection of diverse scenarios.



# 03

## The System and Mechanism that Drive the BRI Investment and Financing System

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- I. Innovative development and opening-up of financial markets, while building a diverse and inclusive BRI investment and financing system
- II. Promote the internationalisation of RMB and the innovation of cross-border RMB business to build a local currency-based BRI investment and financing system
- III. Optimise the advantage of international and regional financial centres to establish a regional framework for the BRI investment and financing system
- IV. Perfect multinational financial collaboration to reinforce the political framework of the BRI investment and financing system

## The System and Mechanism that Drive the BRI Investment and Financing System

The building of a fit-for-purpose BRI investment and financing system requires the integration of national strategic goals. Institutional support for the development of the investment and financing system should also be provided. The following systems and mechanisms are actively promoted within the framework of multilateral and bilateral collaboration including capital market and financial infrastructure connectivity, gross settlement, financial-security network and collaboration among regulatory authorities.

### I. Innovative development and the opening-up of financial markets, while building a diverse and inclusive BRI investment and financing system

An estimation by the BRI Facilities Interconnection Research Group under the Development Research Center of the State Council predicted that the collective infrastructure investment requirement by countries along the BRI amounts to at least USD10.6 trillion (c.GBP 8.05 trillion) during the period from 2016 to 2020. The Asian Development Bank predicted the infrastructure investment requirement in Asia would reach USD26 trillion (c.GBP 19.75 trillion) by 2030. A large gap between the supply and demand for financing will arise if we continue to rely solely on multilateral collaborative financial institutions. To address this issue, fund-raising channels and quantities of BRI projects must diversify. Capital markets should gradually open up while the building and development of financial markets related to the BRI initiative should be more inclusive in order to create a BRI equity-and-debt investment market that is multi-tiered, multi-dimensional, multi-body and multi-currency.

#### 1. Development finance institutions must continue to lead and offer support

In recent years, China Development Bank and Export-Import Bank of China have launched a range of projects along the BRI. They have generated a certain amount of returns and maintained financial sustainability without financial subsidies, which may serve as an example of development financing and a reference for the building of the BRI investment and financing system. **Firstly**, China can share its experiences in development financing with other countries along the BRI to promote it in these countries. **Secondly**, strengthening collaboration among development finance institutions from countries along the BRI is a priority. **Thirdly**, it is also important to establish collaboration between development and commercial financing to allow the former to play a leading role during the initial stage until profits set in, and then it may transfer some of the lending to the latter. The newly available sum may then be used for other development-finance projects to achieve a positive capital turnover. **Fourthly**, it is crucial to have continuous exploration of the best international practice of development financing. The key features of development financing should be based on the principle of “minimal standard, maximal practice” to allow information to be gathered and converted into international experience that can be duplicated and promoted, including planning and piloting, economies of scale and agglomeration and policy support.

## **2. Encourage different main bodies to set up equity funds to invest in projects related to the BRI**

On a national level, China has set up the Silk Road Fund to invest primarily in the infrastructure and energy sectors in countries along the BRI. Other main bodies of the capital markets including banks, trusts, insurance companies and social-security funds should also be motivated to carry out equity investment in BRI projects. On 24 June 2015, China CITIC Bank announced the establishment of the BRI Fund, with investments going to projects covering urban infrastructure, urban rail transit, general urban development, mergers and restructuring, industrial investment and projects related to the “go out” strategy. BRI equity-investment funds set up by different capital have also mushroomed across Chinese provinces, whose foundation during the initial stage of the BRI initiative should be encouraged, supported and guided by the government. It is also necessary to regulate their operations according to laws and regulations.

## **3. Issue Silk Bonds to diversify the financing channels of the BRI initiative**

Silk Road bonds, which have been issued to finance cross-border and foreign BRI projects, may also help development finance institutions (Asian Development Bank and Silk Road Fund) to raise capital and thus diversify their channels of capital increment.

The bonds can be issued both at domestic and overseas markets and price fixing in RMB, foreign currency or Special Drawing Rights (SDR). It is recommended that assets and liabilities should be in the same currency. The use of RMB is encouraged in issuing and pricing. The bonds can be issued through public offering or private placement, but the issuing conditions and targets must meet national legal requirements and market rules of the places where they are issued. Capital raised from the issuance of bonds can only be used for the construction, operation and equipment procurement of specific projects. The capital, however, cannot be used to replace the existing capital of any project or to pay off any debt related to the projects. The internal rate of return of the invested projects should, in principle, be greater than 8%. The percentage, however, can be reduced accordingly but in general should still be no lower than 6% for projects spanning over 20 years. Credit rating should also comply with the requirements of individual markets. For offering in China, qualified credit-rating agencies must be sought to conduct debt and corporate-credit ratings and regular follow-up ratings.

The Silk Bond should satisfy the principles of adequate cost, reasonable rate, longer period and manageable risks. The cost and income of a project should balance out based on the rate of return of national debt issued with the same maturity in the market. The benchmark should generally not exceed 200. The bond maturity should match that of project asset terms and not shorter than five years, while the maturity of RMB-denominated bonds should not be shorter than 10 years. Currency mismatch is inevitable in offshore investment. In the case of investment currency other than RMB, it is recommended to fully utilize foreign exchange forwards, options, swaps and other derivatives to control exchange rate risk exposure.

Due to the disparity in global interest rates and the increasingly internationalised channels of debt financing, financing bodies may choose whatever that suits them whether it is Chinese-funded enterprises with foreign debt or foreign-funded enterprises with Chinese

debt. On the policy front, the mechanism of the bond market in China needs to be perfected and the market needs to open up to attract foreign enterprises to issue bonds denominated in RMB. Meanwhile, Chinese-funded enterprises issuing bonds abroad must be regulated and supervised.

#### **4. Encourage domestic and foreign capital to participate in BRI initiative financing through means such as public-private partnership (PPP)**

The BRI involves a large number of infrastructure-construction projects, which makes PPP a practical model due to its distinctive public feature. However, as BRI projects span over extensive time periods, private sectors may lack motivation to invest their capital. The adoption of a PPP creates a partnership between governments and social capital, which will actively mobilise private capital from both foreign and domestic destinations, to help bring stakeholders closer due to mutual benefits generated from collaborating with foreign enterprises.

#### **5. Promote derivatives for diversification and hedging**

Promoting the development of derivatives can help enterprises and financial institutions to fend off risk by taking advantage of them. Apart from funding gaps, the BRI faces a range of risks and challenges in the financial area, including uncertain infrastructure investment, potential country risk, geopolitical conflict risks and pronounced local credit risks. These risks and challenges can be avoided and hedged through derivatives such as interest rates and exchange rates. However, the scale and openness of the derivative market in China is currently lagging far behind. The offshore RMB still has large room for improvement and, the number of professional macro hedge funds in China is relatively low. The development of derivatives should be comprehensive to expand both scale and diversity. A sound market mechanism should be in place and enterprises and financial institutions should be encouraged to avoid and spread risk through derivatives.

## **II. Promote the internationalisation of RMB and the innovation of cross-border RMB business to build a local currency-based BRI investment and financing system**

China has gradually lifted restrictions on the use of RMB in cross-border transactions since 2009. The rapid growth in the cross-border use of RMB has seen distinctive progress in international trade, investment and financial transactions. Currently, RMB is the third-largest trade-finance currency and the fifth-largest payment and most-traded currency globally. The active promotion of the internationalisation of RMB and its cross-border use is a critical premise for the development of the BRI as well as a key foundation to build a fit for purpose BRI investment and financing system. More specifically, it will encourage departments in China and motivate countries along the BRI to participate in the BRI, which will expand the scale of related trade and investment. Allowing settlement to be done in RMB will prevent exchange gains and losses of commodities due to fluctuations in the US dollar and thus, protect the income of countries along the BRI at maximum level.

**1) It is important to continue deepening currency cooperation with countries along the BRI.** The scale and scope of currency exchange between China and countries along the BRI must be expanded and the mechanisms for this must be improved. The building of the

CIPS needs to be expedited while pilot agencies for cross-border RMB trade settlement should be expanded. The second phase of the CIPS should be swiftly launched based on the success of the first in order to boost the use of RMB in international payments.

**2) It is crucial to uphold current account convertibility, and actively explore the feasibility of capital account convertibility.** The support and promotion of the use of RMB in trade investment in countries along the BRI for cross border payment and settlement will continue to elevate RMB usage. It is also important to continue to exercise the functions of the RMB clearing banks in marketing, RMB products R&D, foreign exchange risk management and promoting overseas usage of RMB. China's opening up of the capital account should serve the BRI construction with equal focus on the capital inflow and outflow, deepening the dual-way investment cooperation, spurring the free movement of capital and other factors and, promoting the integration of the global markets.

**3) Broadening the use of RMB in pricing and settling for the BRI transactions is necessary.** Other initiatives include endorsing the use of RMB in pricing contract, loans, support financing, etc. for the BRI key construction projects as well as promoting the use of RMB in pricing staple commodities. It is important too to explore the opening up of the futures market of RMB denominated staple commodities and to exploit our edge in the staple commodities to elevate China's clout in the international staple commodities market. It is also necessary to support financial institutes' efforts towards a win-win or multi-win outcome for all parties via completing financial service network, push for the use of RMB in exporting to China from the countries running projects, and accumulate RMB funds for the payment of Chinese construction.

**4) It is crucial to broaden the RMB's functions in investment & financing and asset allocation for the BRI construction projects.** Supporting domestic financial institutes' initiation of cooperation in RMB with countries along the BRI, encouraging these institutions to launch into RMB overseas funding businesses is recommended. It is important to bolster cooperation with international and multilateral financial institutes and to support all efforts to raise RMB capital and carry out RMB loans, etc. By setting up financial infrastructure construction, connections between Chinese and foreign financial markets are strengthened and the movement towards the direct transaction in RMB with the targeted countries is enhanced.

**5) It is necessary to incentivise innovation in financial products denominated in RMB.** The innovation of offshore RMB-related business may be powered by taking full advantage of free-trade areas and pilot comprehensive financial-reform border areas. To encourage innovation in cross-border RMB business, every means available should be utilize, for example through the free trade zones, border financial comprehensive reform pilot zone, etc. It is important to have drivers for trade, investment and financial product innovation in order to advance the internationalisation of RMB. Through encouraging financial institutions to play a more active role in inventing widely-accepted RMB denominated funds, it helps to meet the demand for RMB globally. A multi-discipline system of cross-border RMB products should be built to cover the retail of RMB and foreign currencies, bankcards and online-banking services as well to offer ordinary investors and consumers different means to bring back their offshore RMB.

### **III. Optimise the advantage of international and regional financial centres to establish a regional framework for the BRI Investment and Financing System**

Global institutional investors control over USD100 trillion (c.GBP 75.96 trillion)-worth of assets and hold tremendous investment potential for BRI projects. Regional and international financial centres in countries and regions along the BRI, such as London and Hong Kong, not only have a sizeable number of institutional investors but also connect them globally, thus making them critical channels to finance BRI projects. International financial centres are also home to major global financial and professional service firms, e.g. accounting and auditing firms, which are able to offer BRI projects professional services such as financing and risk management, in order to effectively manage financial, legal, environmental and market risks. While taking advantage of international financial centres in areas along the BRI will propel the development of regional financial markets, the optimisation of the BRI investment and financing system will also be positively supported.

**First of all**, the building of offshore RMB markets by international financial centres must be augmented. With the advantage of regional agglomeration and international financial centre's professional agglomeration, we can further deepen the construction of offshore RMB market to support its functions of investment & financing including the RMB operations. This will help BRI projects in terms of fund raising, as well as to provide professional services such as project financing, accountancy, audit, risk management, etc. to these projects. Through offering investment and financing and financial hedging products that meet the need for BRI projects, this will help to drive more market resources towards investing in these financial products. The promotion of offshore bonds denominated in RMB must be stepped up with a key emphasis on countries along the BRI.

**Secondly**, the development of an offshore non-deliverable forward (NDF) market and its related foreign-exchange derivatives in international financial centres will facilitate foreign institutional investors to manage currency risk. The BRI involves over five-dozen countries some of which will become key economic and trade partners for China. However, challenges such as tight foreign-exchange control and a lack of market depth may arise. Consequently, the offshore development of foreign-exchange derivatives, such as NDF products with RMB and local currencies as the reference currencies, in international financial centres may help investors from countries along the BRI manage currency risk.

**Thirdly**, actively research and explore financial collaboration and communication between onshore and offshore RMB markets, whereby the interconnectivity with onshore Chinese market is actively sought and the interactivity between onshore and offshore RMB markets perfected. The starting points are as following: inflow/outflow channels for onshore and offshore, taxation in onshore and offshore markets and accounting rules.

As the world's leading financial centre, London plays an important role in supporting the BRI project financing. Green Investment Group, a specialist in green infrastructure principal investment, project delivery and the management of portfolio assets, and related services, has been actively engaging with Chinese stakeholders in order to explore how the Group can best support green infrastructure development along the Belt and Road. Utilising London as a global financial hub the Group has already invested in



Belt and Road countries in Africa and is now expanding its activities in Eastern Europe and South East Asia to supporting the growth of the global green economy.

London provides an ideal hub for global cooperation in all of the six key areas of opportunities for BRI implementation identified by PwC: as investors, as suppliers, as partners in EPC, as experts in international project management, as operators of new facilities and managers of the newly constructed infrastructure and as sellers of assets. With its diversified and forward-looking investor base, one of the most internationalised capital markets, and new innovative financing models, London has much to offer to China in finding appropriate ways to build sustainable finance for Belt and Road projects in the years to come. London also offers rich and unparalleled expertise in insurance, legal, regulatory support, project assurance, project management, post project integration, and many more other specialist areas. It would provide a natural home to set up global hubs to cover various aspects of the support and services required by Belt and Road projects.

#### **IV. Perfect multinational financial collaboration to reinforce the political framework of the BRI Investment and Financing System**

The overall concept of the building of the BRI investment and financing system is to plan and integrate financial resources, continuously innovate finance and facilitate the economic development of countries along the BRI and the real economies. To consistently implement the overall strategic deployment of the system, it is necessary that policy support from countries along the BRI come into full play, while policy communication and planning coordination must be enhanced. Additionally, cross-border financial collaboration and joint financial regulation must be augmented to form a joint force of development.

**Firstly, intensify planning and top-down system design.** Government departments must strengthen window guidance to ensure financial institutions properly arrange investment and financing scales and structures. Meanwhile, large foreign investment of businesses in infrastructure must be coordinated to avoid destructive competition and enhance overall compatibility and efficiency in the investment. Furthermore, top-down design for the long-term planning of regional collaboration among countries along the BRI must be coordinated, while complementary regulations and measures must be introduced and detailed rules and regulations for execution formulated to ensure sustainable development.

**Secondly, develop multilateral financial institutions and intensify cross-border financial collaboration.** It is essential that central banks and financial regulatory departments of countries along the BRI build mechanisms of financial coordination and collaboration, so that multilateral events may be regularly held to discuss financial issues arising from the building of the BRI investment and financing system, including interest adjustment, conflict resolution and the provision of financial support. The key mechanisms primarily include a coordination-and-collaboration mechanism for finance and law, a financial information sharing mechanism and a coordination-and-collaboration mechanism for financial risk management, which will see resources more extensively allocated, thus satisfying the development demands of regional economies. Furthermore, multilateral financial institutions must be actively developed

to strengthen trust and ties in the financial field among countries along the BRI.

**Thirdly, intensify collaboration in financial regulation and build pre-warning systems for regional financial risk.** Financial regulators should step up communication of information to effectively aid mutual understanding and trust, including local macroeconomic and financial-market development, financial regulatory principles and regulations, investment opportunities and risk, local operations of major banks and risks. They also need to communicate precisely and thoroughly on local market access while understanding and handling their relationships, so as to remove any unreasonable obstacles and limitations to access and offer regulated environments that are open, fair and orderly. Additionally, to fend off risks and better maintain confidence and stability of regional financial markets and systems, the regulatory authorities must augment collaboration in areas such as the handling and crisis management of cross-border institutions, anti-money laundering and macro prudential regulation. The signing of memoranda of understanding on bilateral regulation collaboration should be promoted, so as to gradually build a highly efficient regulatory and coordination mechanism in regions.

**Fourth, strengthen policy communication and coordination to increase global collaboration.** In the face of unbalanced socioeconomic development in countries along the BRI, China should strengthen policy communication and coordination with other countries to eliminate concerns and resolve disputes, particularly in political instability, religious conflicts, economic inequality, underdeveloped law systems, unequal collaboration standards, pre-existing misunderstandings and conflicts of interest.

## Conclusion

This report concludes that multinational financial collaboration from both governments and commercial players is important to form a successful BRI investment and financing system. It reiterates the importance of utilising international and regional financial centres to establish a regional framework in the BRI investment and financing system. This report suggests that the ideal BRI investment and financial system should have long financing period, reasonable cost of funds, the use of development financing as a driver to attract commercial financing over time, the use of local currencies and, the stimulation of international collaboration.

## Reference

- 【1】 Ministry of Finance of the Government of the People's Republic of China and ministries of finance of 27 other countries, *Guiding Principles for Financing the Development of BRI Initiative*, May 2017
- 【2】 Zhou, Xiaochuan, *Co-negotiation and -building of the Belt-and-Road Initiative Investment-and Financing Cooperation System in China Finance*, Issue 9, 2017
- 【3】 Sun, Guofeng, *Logics of Development Financing in Tsinghua Financial Review*, Issue 7, 2014
- 【4】 Sun, Guofeng, *The Positioning and Key Role of Development Financing in the New Period in Journal of Development-Oriented Finance Research*, Issue 1, 2015
- 【5】 Sun, Guofeng, *Reinforce International Collaboration in Development Financing to Drive the Joint Development of the Belt-and-Road Initiative in Financial Accounting*, Issue 1, 2017
- 【6】 Sun, Guofeng, *Chinese Development Financing is an Organic Component of a Socialist Financial System with Chinese Characters*, Issue 4, 2017
- 【7】 Hu, Huaibang, *Development Financing and the Building of the Belt-and-Road Initiative in China Finance*, Issue 9, 2017
- 【8】 Yi, Huiman, *Take Advantage of Commercial Banks and Execute the Belt-and-Road Initiative in China Finance*, Issue 9, 2017
- 【9】 Wang, Ming; Chai, Shanqing et al, *The Execution of the Belt-and-Road Initiative and the Concept of International Financial-Support Strategies in Intertrade*, Issue 4, 2015
- 【10】 Research Bureau of the People's Bank of China, *Suggestions for Financing Needs and Support of the Belt-and-Road Infrastructure*
- 【11】 National Association of Financial Market Institutional Investors, *Study of Market-oriented Financing Mechanisms for the Building of the Belt-and-Road Initiative – a Perspective from the Opening-up of the Chinese Bond Market*
- 【12】 China Banking Association, *A Report on the Social Responsibility of the Banking Industry 2016*
- 【13】 Bank of China, *A Report on the Social Responsibility of Bank of China 2016*
- 【14】 Industrial and Commercial Bank of China, *A Report on the Social Responsibility of the Industrial and Commercial Bank of China 2016*
- 【15】 Minsheng Securities, *An Overview of the Financing Mechanisms of the Belt-and-Road Initiative*, March 2017

# Attachment 1

## Overview of bilateral currency swap between People's Bank of China and central banks or monetary authorities in BRI countries

(Up to end of July 2017)

No.	Country	Date of agreement signed	Quota of Swap	Period
1	Malaysia	8 February 2009 8 February 2012 (renewed) 17 April 2015 (renewed)	RMB80 billion/MYR40 billion RMB180 billion/MYR90 billion (renewed) RMB180 billion/MYR90 billion (renewed)	3 years
2	Belarus	11 March 2009 10 May 2015 (renewed)	RMB20 billion/BYR8 trillion RMB7 billion/BYR16 trillion (renewed)	3 years
3	Indonesia	23 March 2009 1 October 2013 (renewed) (void)	RMB100 billion/IDR175 trillion RMB100 billion/IDR175 trillion (renewed)	3 years
4	Singapore	23 July 2010 7 March 2013 (renewed) 7 March 2016 (renewed)	RMB150 billion/SGD30 billion RMB300 billion/SGD60 billion (renewed) RMB300 billion/SGD60 billion (renewed)	3 years
5	Uzbekistan	19 April 2011 (void)	RMB700 million/UZS167 billion	3 years
6	Mongolia	6 May 2011 20 March 2012 (expanded) 21 August 2014 (renewed) 6 July 2017 (renewed)	RMB5 billion/MNT1 trillion RMB10 billion/MNT2 trillion (expanded) RMB15 billion/ MNT4.5 trillion (renewed) RMB15 billion/ MNT5.4 trillion (renewed)	3 years
7	Kazakhstan	13 June 2011 14 December 2014 (renewed)	RMB7 billion/KZT150 billion RMB7 billion/KZT200 billion (renewed)	3 years
8	Thailand	22 December 2011 22 December 2014 (renewed)	RMB70 billion/THB320 billion RMB70 billion/THB370 billion (renewed)	3 years
9	Pakistan	23 December 2011 23 December 2014 (renewed)	RMB10 billion/PKR140 billion RMB10 billion/PKR165 billion (renewed)	3 years
10	The U.A.E	17 January 2012 14 December 2015 (renewed)	RMB35 billion/AED20 billion RMB35 billion/AED20 billion (renewed)	3 years

No.	Country	Date of agreement signed	Quota of Swap	Period
11	Turkey	21 February 2012 26 September 2015 (renewed)	RMB10 billion/TRY3 billion RMB12 billion/TRY5 billion (renewed)	3 years
12	Ukraine	26 June 2012 15 May 2015 (renewed)	RMB15 billion/UAH19 billion RMB15 billion/UAH54 billion (renewed)	3 years
13	Hungary	9 September 2013 12 September 2016 (renewed)	RMB10 billion/HUF375 billion RMB10 billion/ HUF416 billion (renewed)	3 years
14	Albania	12 September 2013 (void)	RMB2 billion/ALL35.8 billion	3 years
15	Sri Lanka	16 September 2014	RMB10 billion/LKR225 billion	3 years
16	Russia	13 October 2014	RMB150 billion/RUB815 billion	3 years
17	Qatar	3 November 2014	RMB35 billion/QAR20.8 billion	3 years
18	Armenia	25 March 2015	RMB1 billion/AMD77 billion	3 years
19	Tajikistan	3 September 2015	RMB3 billion/TJS3 billion	3 years
20	Serbia	17 June 2016	RMB1.5 billion/RSD27 billion	3 years
21	Egypt	6 December 2016	RMB18/EGP47 billion	3 years
Sum			RMB982.2 billion (invalid: RMB102.7 billion)	

### Overview of RMB clearing banks in BRI countries

(Up to June 2017)

No.	Country & region	Date	Clearing Bank
1	Singapore	February 2013	Industrial and Commercial Bank of China Limited, Singapore Branch
2	Qatar	November 2014	Industrial and Commercial Bank of China Limited, Doha Branch
3	Malaysia	January 2015	Bank of China (Malaysia) Berhad
4	Thailand	January 2015	Industrial and Commercial Bank of China (Thai) Public Company Limited.
5	Hungary	June 2015	Bank of China Limited Hungarian Branch
6	Russia	September 2016	Industrial and Commercial Bank of China (Moscow)
7	The U.A.E	December 2016	Agricultural Bank of China (ABC) Dubai Branch

# Appendix 1

## **Guiding Principles for Financing the Development of BRI**

The BRI aims to promote policy coordination, facilities connectivity, unimpeded trade, financial integration and people-to-people exchange among the countries along the Belt and Road (hereinafter referred to as "countries involved"), promote orderly and free flows of economic factors, efficient allocation of resources and deep integration of markets, and jointly create an open, inclusive, and balanced regional economic cooperation framework that benefits all. Financial integration is an important underpinning for implementing the BRI. Therefore, we, Finance Ministers of Argentina, Belarus, Cambodia, Chile, China, Czech, Ethiopia, Fiji, Georgia, Greece, Hungary, Indonesia, Iran, Kenya, Laos, Malaysia, Mongolia, Myanmar, Pakistan, Qatar, Russia, Serbia, Sudan, Switzerland, Thailand, Turkey, United Kingdom, call upon the governments, financial institutions and companies from countries involved to follow the principles of equal-footed participation, mutual benefits and risk sharing as they work together to build a long-term, stable, sustainable financing system that is well-placed to manage risks.

1. We recognize that strong support from governments is essential for building an enabling financing system and environment. As such, governments of countries involved should strengthen policy communication, consolidate cooperation intention, and jointly send a positive signal of supporting and financing the development of the Belt and Road.
2. We encourage countries along the routes to establish common platform(s) whereby countries in the region, while forging synergies of their development strategies and investment plans, map out strategies or plans for regional infrastructure development, formulate principles for identifying and prioritizing major projects, coordinate their supporting policies and financing arrangements, and share experiences on implementation.
3. We support channelling of financial resources to serve the real economy of countries and regions involved, with priority given to such areas as infrastructure connectivity, trade and investment, industrial capacity cooperation, energy and energy efficiency, natural resources and SMEs.
4. We reaffirm the important role of infrastructure in sustainable economic and social development. We encourage countries involved to open public service markets as appropriate, while maintaining a sound and stable legal, policy and regulatory framework and develop public-private partnerships to channel funds and improve the efficiency and quality of infrastructure supply. We encourage the interested parties to establish effective information flow between private sector and financial institutions which support sustainable development through financing infrastructure investments.
5. We value the guiding role of public funds in planning and building major projects. We will continue to utilize existing public funding channels such as inter-governmental cooperation funds and foreign assistance funds, and coordinate with other funding channels to support



the development of the Belt and Road, including strengthening cooperation in people's welfare, people-to-people exchange among relevant countries and regions.

6. We encourage policy financial institutions and export credit agencies of countries involved to continue offering policy financial support for the development of the Belt and Road. We also encourage these institutions to strengthen coordination and cooperation, and play their role in financing promotion and risk-sharing through various means such as loan, guaranty, equity investment, co-financing, etc.

7. We call upon development financial institutions to consider providing more financial support and technical assistance for countries involved. We encourage multilateral development banks and national development financial institutions to actively participate in the development of the Belt and Road within their mandates, particularly cross-border infrastructure construction through loan, equity investment, guaranty, co-financing, and other relevant financing channels. We support these institutions in strengthening of coordination and collaboration to provide sustainable financing, institutional know-how and consulting services to countries involved.

8. We recognize the decisive role of the market in financial resources allocation. We envisage all types of commercial financial institutions such as commercial banks, equity funds as well as insurance, leasing, guarantee companies to provide funds and other financial services for the development of the Belt and Road. We welcome proactive participation of long-term institutional investors such as pension funds and sovereign wealth funds, in particular in the area of infrastructure development, as appropriate and subject to their institutional arrangements.

9. We support further development of local and regional financial markets. We welcome the development of local currency bond markets and equity markets in countries involved to diversify long-term financing sources and reduce currency mismatch risks.

10. We support orderly opening-up of local and regional financial markets, while respecting the international obligations of the countries involved, if any. We encourage steady expansion of market access of banking, insurance and securities sectors as appropriate to national circumstances, support financial institutions to set up subsidiaries and/or branches in each other's countries, and further facilitate the application and approval for the establishment of financial institutions, in accordance with domestic law and regulations of host countries.

11. We encourage financial innovation that responds to the needs of funding the development of the Belt and Road and to the needs of countries involved. We support the innovation by financial institutions in terms of financing models, channels, tools and service under the precondition that risks are well managed.

12. We call upon the countries involved to deepen cooperation in financial regulation and strengthen coordination on cross-border supervision, in order to create a fair, efficient and stable regulatory environment for financial institutions, while respecting the international obligations of the countries involved, if any.

13. We advocate for a transparent, friendly, non-discriminatory and predictable financing environment. We support greater openness to FDI as appropriate, speeding up trade and investment facilitation where needed, and opposing trade and investment protectionism of all forms. We advocate for fair, equitable, open and efficient legal systems, as well as mutual-beneficial and investor-friendly taxation regimes. We support the settlement of debt and investment disputes in a fair, lawful and reasonable way to effectively protect the legitimate rights and interests of creditors and investors.

14. We underscore the need to strengthen social and environmental impact assessment and risk management of projects, improve cooperation on energy conservation and environmental protection, fulfil social responsibilities, promote local employment and ensure sustainable economic and social development. We also need to take into account debt sustainability in mobilizing finance.

15. We recognize that financing arrangements for the development of the Belt and Road should benefit all businesses and populations in a way that supports sustainable and inclusive development. Financing should also be provided for enhancing technological capabilities, skills development, job creation particularly for the youth and women. We vigorously support efforts to promote inclusive finance, encourage governments, policy financial institutions, development finance institutions and commercial financial institutions to strengthen cooperation to ensure access to financial information and services for all, and provide proper, stable and affordable financial services for SMEs.

Source: Ministry of Finance







# ***City of London Corporation PwC FinTech series: India–UK InsurTech landscape***







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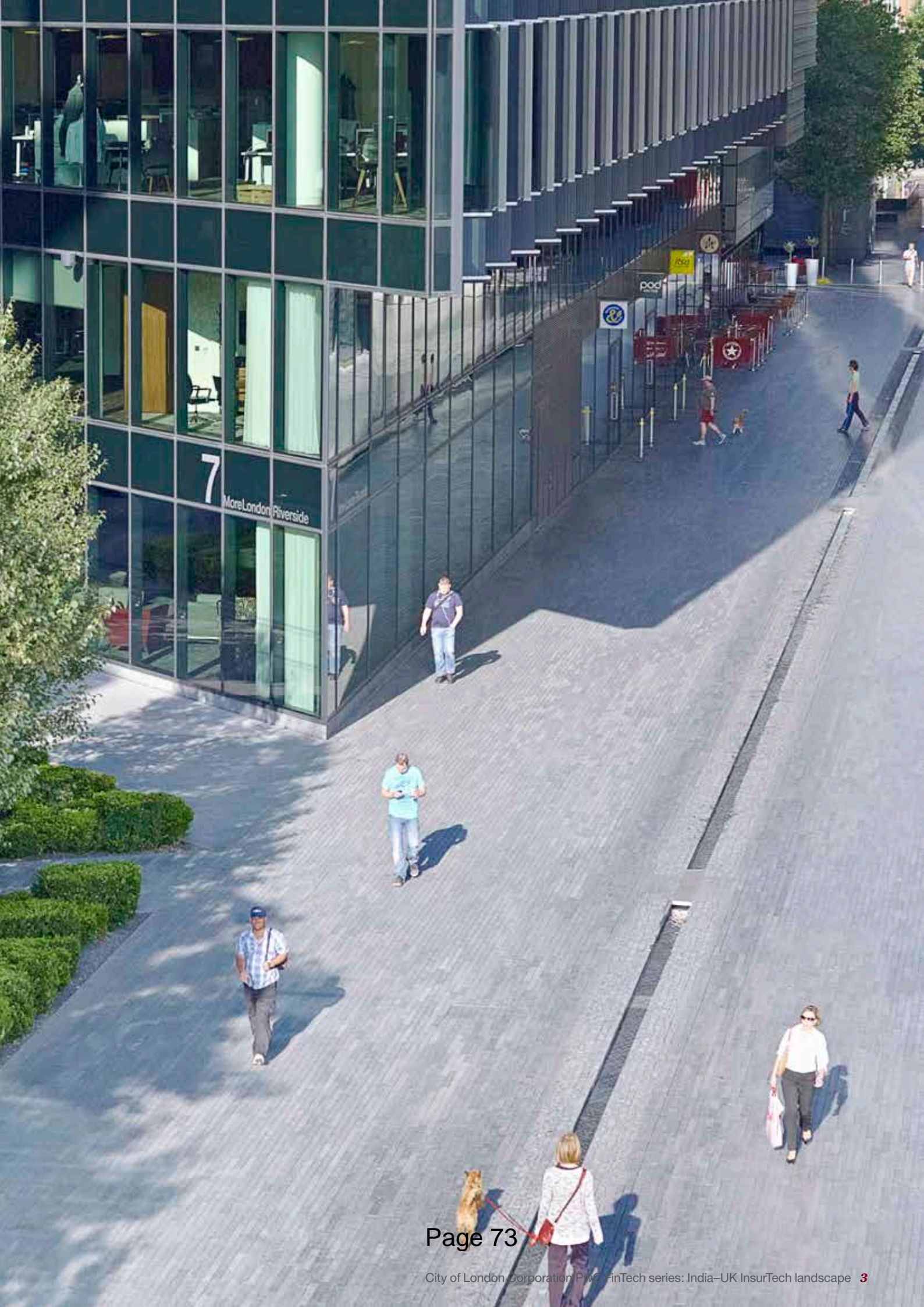
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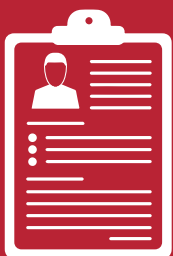
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# Executive summary

# Objectives of this research

Based on the FinTech round-table events organised in India over the past 12–18 months by the City of London Corporation representative office in Mumbai, there is an increasing appetite from both the UK and Indian FinTech players to consider inbound and outbound investments to take advantage of the dynamic markets and scale of opportunities offered by the UK (London in particular) and India. In particular, UK FinTech players are keen to gain an understanding of the challenges faced by their Indian FinTech counterparts in the insurance space and look to leverage their existing solutions to address these problems. The UK players view this as an opportunity to proactively engage with the Indian InsurTech ecosystem. To foster deeper engagement between the UK and Indian insurance sector, the City of London Corporation has commissioned PwC India to develop three FinTech research reports around the governance, risk and compliance over InsurTech and RegTech during 2018–19.

The objective of undertaking this research is to create the required visibility into the opportunities and challenges within the FinTech ecosystem in the UK and India and how the opportunities in India and the UK could be tapped in a seamless manner by UK FinTech firms, as well as Indian FinTechs planning international expansions in London/ the UK. This research paper maps the landscape of the InsurTech scenario as part of the Indian insurance landscape; it also consolidates statistical data, historical information and policy initiatives that suggest the possibility of a major transformation of the Indian insurance sector.

India's economic rise combined with low insurance penetration means future growth is now likely to be rapid. The sector could expand as much as fourfold by 2025, according to McKinsey<sup>1</sup>, reaching 17000 billion INR in annual premium payments and becoming one of the world's largest markets.

A summary of the insurance penetration within the Indian sector will help in understanding the potential of the Indian insurance sector compared to a few other economies.

## Executive summary

The world average for insurance penetration is 6.13%.

In 2016–2017, India's insurance penetration (total premium underwritten as a percentage of Indian GDP) had reached 3.49% from 2.71% in 2001. In comparison, the emerging economies in Asia such as Malaysia (4.77%), Thailand (5.42%) and China (4.77%) have a higher penetration than India. Indian insurance density has increased to 4,060 INR from 782 INR in 2001, with life insurance density of 3,162 INR and general insurance density of 898 INR. This compares to a global average insurance density of 24,004 INR for life and 19,380 INR for non-life<sup>2</sup>.

According to the Swiss Re Sigma report, 'In India, insurance growth was impacted in November 2016 by demonetisation, real estate regulation, and goods and services tax reforms. Consequently, private consumption growth was a little weaker than expected, and private investment was also sluggish, but government investments accelerated in the final quarter of the year, providing momentum into 2018.'<sup>3</sup>

Needless to say, despite the challenges there is huge potential to tap the market through modern and technologically advanced approaches.

InsurTech start-ups have the potential to provide and store data as well as offer risk mitigation to help improve underwriting accuracy and loss predictions. InsurTechs could offer incumbent insurers greater operational efficiencies, lower cost and also enable insurers to better serve their policyholders. Furthermore, the various initiatives by the Indian government and progressive policies<sup>4</sup> will create more opportunities for the InsurTech and Indian insurance sector. These are compelling reasons which make India a unique market for the InsurTech space. However, with opportunities that are opening up, there continue to be challenges that companies will be faced with, within India as well as globally.



1. India Insurance Vision 2025- prepared by CII and McKinsey

2. <https://timesofindia.indiatimes.com/business/india-business/insurance-penetration-in-india-has-risen-to-3-49-economic-survey-says/articleshow/62696220.cms>

3. <https://www.moneycontrol.com/news/business/economy/indias-insurance-penetration-premium-per-person-up-marginally-in-fy18-swiss-re-2681721.html>

4. <https://www.livemint.com/Industry/AjKydVIS6l68IH2Xq4mhDO/lrdal-to-develop-sandbox-approach-for-fintechrelated-prod.html>

## We have highlighted some of the typical challenges relevant from an InsurTech perspective.

Challenges faced by the sector:



### Business environment

The pace and scale of technological and structural change is one of the biggest challenges affecting the global insurance industry over the next few years. Customer expectations have changed over time, markets have also evolved, and traditional insurance business models have been continuously challenged. Due to the advent of technology, different types of products are being created and life insurers are having to think about how to price these products.



### Technology

Another major challenge that has affected the insurance industry has been the advent of technology. Traditional methods, including telephone or letters, are still being used to interact with customers. It is believed that by using technology to strengthen existing internal processes, companies can reduce their administration costs as well. There is also the perception that the use of outdated technologies has given insurers a stale and unfriendly image. Due to this, new entrants have posed a threat to incumbents by introducing lean processes, low costs and high-technology systems that help to offer different services.



### Cyber threats

Cyber threats have also affected all types of insurance in recent years. The biggest challenge for life insurers is the theft of customer personal data or even financial information of the company. The fallout from cyberattacks has been loss of intellectual property as well as high reputational damage for the company. Insurance companies are having to continuously invest in improving their security framework to avoid incidents.



### Competition

The intense competition prevalent in the insurance market is seen as one of the most important ongoing challenges. Competition in the insurance industry comes from new global entrants who are adopting digital platforms and implementing new business models. These companies are entering different global regions and offering low-cost products to customers, which is making the market more competitive.



### Low interest rates

One of the key challenges affecting the global insurance market is the prevalence of low interest rates. Low rates have affected the ability of life insurers to come up with attractive savings products. Due to this, investment returns have reduced, which has ultimately reduced company profitability. It was suggested that due to the low interest rates, there would be a decrease in investment income of around 13, 60,000–27, 20,000 million INR for the year 2017 for the global insurance industry. On the other hand, low interest rates are favourable for insurance companies as this allows for their liabilities to be valued at a lower rate, helping to improve their balance sheet.<sup>5</sup>



# InsurTech landscape in India

**1. Government initiatives:** Strong digital initiatives by the Indian government and regulatory authorities, such as Aadhaar-based identification, eKYC, digital lockers, Unified Payments Interface and, more recently, the mandate for e-insurance accounts, are creating enabling systems for simplification of transactions. The government has provided strong support and taken up various initiatives in order to help the insurance sector in India to grow. They have introduced various schemes in the market such as:

- Pradhan Mantri Bima Yojana (PMBY) – an accidental insurance cover scheme
- Pradhan Mantri Fasal Bima Yojana (PMFBY – special schemes for farmers
- Ayushman Bharat National Health Protection Scheme – Pradhan Mantri Jan Arogya Yojana (PMJAY) – largest government-sponsored healthcare scheme in the world

InsurTechs can help support the government initiatives; for instance, InsurTechs can provide digital platforms that can connect micro-insurers, insurers, policyholders, and intermediaries, and perform automated underwriting within the defined boundary conditions, digital enrolments and enablement of collaboration between various stakeholders. It will also help in integration by aggregating data from various sources for easy access while helping insurers to better assimilate information through technology. Digital technologies can enable efficient platforms and cost-effective channels to expand the scope and coverage of insurance, especially in the field of microinsurance. The above-mentioned government-backed schemes, coupled with innovative technologies that harness the advantages of eKYC and Aadhaar, are allowing companies to reach hitherto untapped customers throughout the country and especially in the hinterlands.

**2. Regulatory initiatives:** Currently, about 780 life insurance and over 1,000 general insurance products are being sold in the Indian market for individuals and groups<sup>6</sup>. As per industry estimates, for every 10 new products that are filed, two fail to make the market at present. To encourage companies to develop and apply new technologies and products to enhance value for customers, increase efficiency, manage risks better, create new opportunities and improve people's lives, the Insurance Regulatory and Development Authority (IRDAI) has recently set up a committee to develop a regulatory sandbox<sup>7</sup> and a working group focused on InsurTech in the context of risk assessment, product design and product pricing in India.

- 3. Accessibility:** The rapid upheavals caused by technology and super-speed Internet have led to an enormous growth in the number of smartphone users in India. The unprecedented demand for smartphones in India has made it the second largest smartphone market in the world. The latest forecast by eMarketer,<sup>8</sup> a US-based market research firm, suggests that more than a quarter of India's population will be using smartphones by the end of 2018. The number of smartphone users in India is expected to grow by 15.6% to reach 337 million in 2018, according to the report. The advent of smartphones is enabling insurers and InsurTechs to reach markets that were not be cost-effective to service earlier.<sup>10</sup>
- 4. Changing customer expectations:** Due to the e-commerce revolution, incumbent insurers are rethinking how best to meet the changing customer needs and how to meet those demands.<sup>9</sup>
- 5. Rising competition:** Margin pressures are pushing traditional Indian insurance companies to look at more efficient ways of doing business. Whether by reducing costs or improving efficiency, this offers an excellent opportunity for InsurTechs.
- 6. Lower barriers to entry:** On the supply side, recent advances in cloud and digital have made technology very easy to create, transfer and adopt. For example, Acko is a young and nimble start-up bringing technology and data-led innovation to the insurance sector to deliver a better insurance experience for customers.<sup>10</sup>
- 7. Funding:** InsurTechs have benefited from an overall interest by investors in the FinTech and start-up landscape in India, the latest being Acko – Amazon has led a 816 Million INR funding round for Acko General Insurance in India.<sup>11</sup>



6. <https://www.moneycontrol.com/news/business/economy/irdai-to-allow-insurers-to-undertake-product-testing-before-launch-2929331.html>

7. <https://www.indiatoday.in/pti-feed/story/irdai-to-develop-sandbox-approach-for-fintech-related-products-1343757-2018-09-19>

8. <https://www.emarketer.com/content/more-than-a-quarter-of-india-s-population-will-be-smartphone-users-this-year>

9. Covered as part of leading Insurtech firms in India

10. <https://www.thenewsminute.com/article/acko-raises-12-million-funding-round-led-amazon-82024>

11. Ibid.



## Opportunities

- **Product design and pricing:** Technology will have an impact on product design, as well as on the participants and their roles in the overall value chain. All these aspects hold great potential and promise for greater insurance penetration by including those who were previously excluded due to the traditional business models. A simple example of achieving the objective through InsurTech would be insurers customising need-based products relating to customer behaviour and past trends and pricing them based on the usage of service/benefit by the policyholder. Fitbits/wearable technology that constantly monitors heart rate, breathing and other parameters related to body functioning will help insurers track the activities of a policyholder and provide him/her with insurance cover while the policyholder goes running, jogging, swimming or undertakes any other form of physical exercise.
- **Claims assessment and settlement challenges:** Accurate loss assessment and its timely reporting are the prerequisites that lead to faster and accurate claim settlement. The time-consuming process across the claim cycle can be brought down and the claim management process can be made more efficient through automation. Automation in claim assessment calculation can help the claim assessment and settlement to be done not just in time but also as per the terms and as per usage (e.g. using data for analysis). From assessing accident spots for insurance claims to assess property loss and claims. A drone can be used similar to health trackers, which can help the insurance companies to reduce their turnaround times (TATs) significantly.
- **Healthcare:** Seamless integration of the healthcare ecosystem is required, which will enable integration of data from various sources for easy access and faster decision making. It is also essential to develop streamlined digital processes which facilitate automated underwriting, digital enrolments and hospital management.
- **Weather forecasting:** In India, which is a 60% agro-based economy, we still rely on old methods of weather forecasting, conducted by using traditional methodologies. Given the increasing level of global changing weather conditions and increasing number of natural calamities in India (floods, tsunamis, earthquakes, it becomes critical for India to have accurate forecasting technologies to safeguard life and property.

- **Assessment of property:** In India, correct valuation as well evaluation of property is a challenge. It is also necessary to acquire real-time data on customers' loss exposure and timely response and early intervention from the insurer at a sign of danger so that the losses will be minimised and reduced to the greatest extent possible.
- **On-demand insurance:** There is a need for design and a full insurance business based on a model with lower premium size and higher risks, which will help bridge the gap between covering everything every time and covering precisely the risks faced at a certain moment. This is called as on-demand insurance. It could also be simply termed as covering only those risks faced at a certain/particular moment. A simple example of how this can be achieved is activation of insurance cover while a person is driving a car and pay-as-you-stay insurance, which only insures while one stays in his/her apartment.

Overall, slowly but surely, an ecosystem is developing in India that is encouraging innovation and in turn inducing insurance companies to leverage the benefits from InsurTech and move forward on technology adoption and process maturity in a big way.

## Implications of InsurTech for insurance incumbents

InsurTech firms and insurance companies can work together in a variety of ways by exploring upcoming opportunities:

- Helping insurers become more customer centric
- As insurance increasingly goes digital, there is a compelling need to simplify product offerings, distribution and processes. Several InsurTechs are currently focused on customer-driven solutions that can help insurance companies understand requirements, engage meaningfully and deliver more relevant services to the customer.





## Benefits across the insurance value chain

InsurTech-led innovations are expected to aid automation in areas such as underwriting, claims management and policy servicing, bringing in significant cost savings to insurance companies.

Robotics, artificial intelligence (AI) and analytics can help improve service TATs by reducing the need for intervention, as well as providing radically different experiences for customers through faster claims settlement, easier on-boarding and renewals, fraud control, etc.

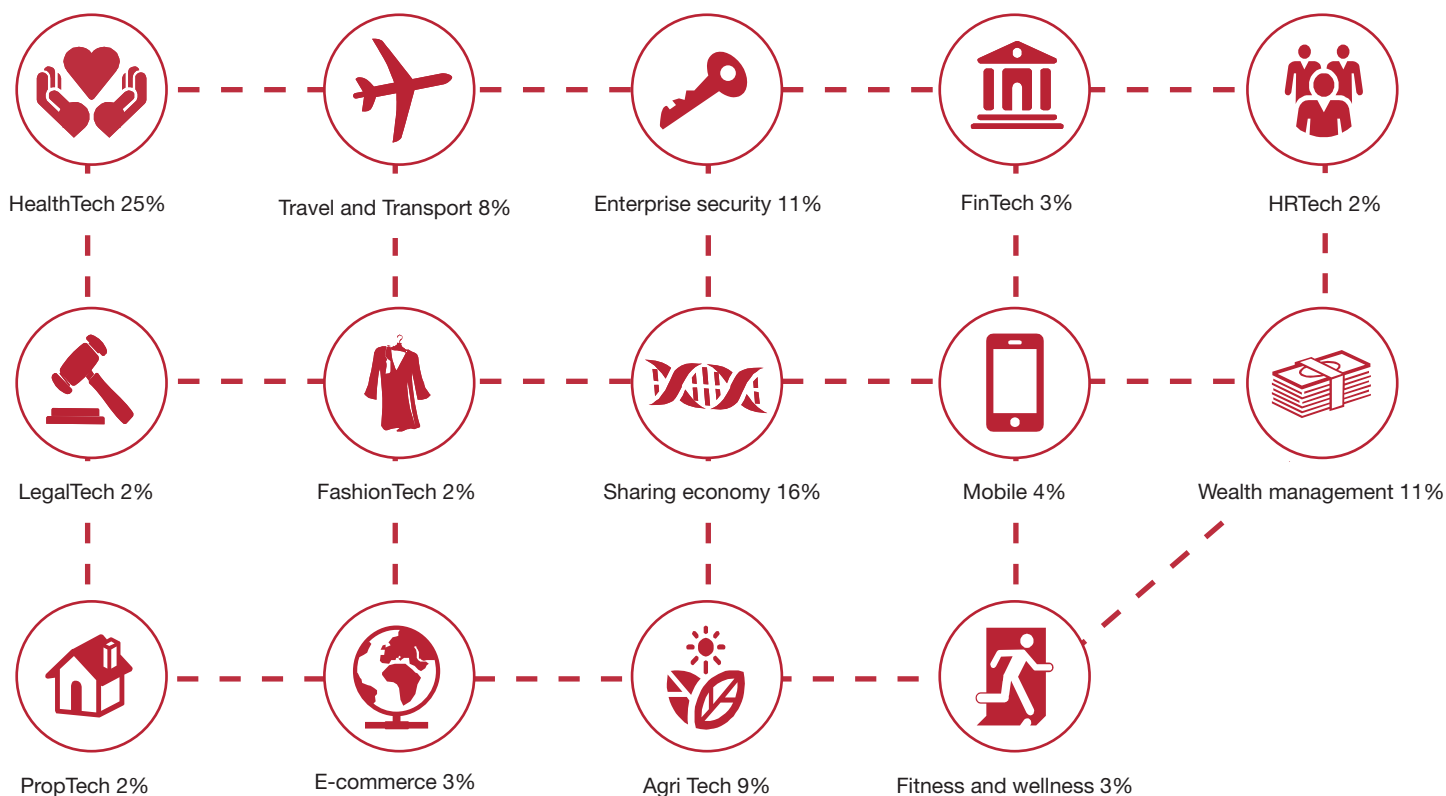
Newer technologies such as telematics, wearables and Internet of things (IoT) are helping insurance companies map large amounts of newly generated data to pricing and risk assessment decisions to the mutual benefit of insurance companies and customers.

The InsurTech value chain is represented below, indicating opportunities for the Indian market to build up the InsurTech ecosystem:<sup>12</sup>

## Speed and agility in technological adoption

Start-ups are bringing in much-needed agility and flexibility to the technology modernisation process for insurers. Cloud and platform-based models are enabling quick adoption of new solutions. In many cases, insurers can plug in and instantly start using systems that earlier took years to build, test and launch, and that too at a fraction of the cost. Moreover, InsurTech provides an ongoing cost-saving opportunity as companies will no longer need to keep aside huge budgets for creating and maintaining IT infrastructure.

The InsurTech ecosystem – startup applications with a focus on adjacent industries



12. <https://www.pwc.co.uk/industries/financial-services/insurtech-startup-bootcamp.html>

## Opportunities for collaborating with UK InsurTech companies

A regulatory sandbox approach can be used to carve out a safe and conducive space to experiment with FinTech solutions—one where the consequences of failure can be contained. The said approach will help look into the key issues that FinTech poses across the insurance value chain as well as leverage the practices prevalent in other industries.

InsurTech is changing the way in which propositions can work by taking a holistic view of the customer. Insurers acknowledge that to expand their existing value chain, they should be offering additional value to clients. As data becomes more real-time and extensive, each risk pool effectively shrinks to one, and value is derived from preventing predictable risks from occurring now. A few distribution models which can help India collaborate with the UK from an InsurTech standpoint are discussed below.

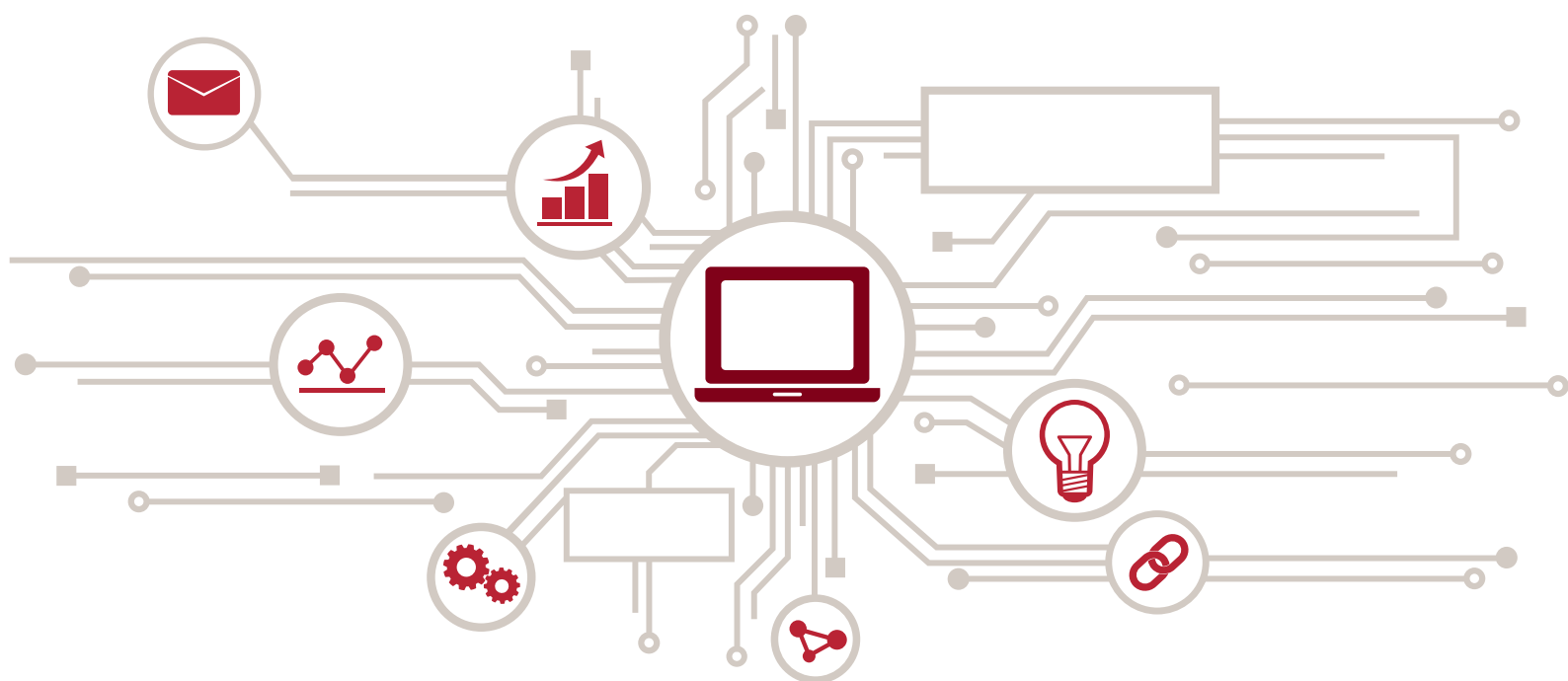
- 1. AgriTech:** The use of drones and satellite technology in agriculture is increasing: Satellite data is helping to predict environmental factors to support farming activities and improve yield, and to help farmers tackle localised issues. For example, this available data offers insurers a means to reduce crop claims with precision agriculture and to extend cover to the uninsured.
- 2. PropTech:** At its most basic, PropTech gives users a remote control for property features such as lights, heating and blinds, but sophistication is growing. For example, the increased use of IoT in property is helping commercial property managers and homeowners to predict and prevent events such as fire from faulty equipment, water leaks or theft.
- 3. HealthTech:** HealthTech tools are harnessing IoT and wearable devices to give individuals access to a wealth of information about their well-being and provide opportunities such as the means to encourage change or manage medication. For insurers, opportunities include the possibility of new value-added services, better prevention and increased risk data.

- 4. Enterprise Security:** PwC's research suggests that just 53% of companies have an overall information security strategy.<sup>13</sup> More start-ups are entering this space to help firms understand and mitigate risk. Cyber insurance has the potential to be the fastest-growing sector of the industry. Insurers are moving beyond offering cover to partner with cyber security experts offering risk management and prevention platforms.

## Key messages for InsurTech players in the UK and India

The true power of InsurTech innovation has still to unfold; however, an ecosystem is gradually developing in India and insurers can no longer distance themselves from this. For InsurTech to truly make an impact and bring value to the conversation, there are a few things that will need to be considered:

- a. Assess:** InsurTech firms should undertake a deep study on the successes of InsurTech initiatives and identify niche areas to create solutions for the Indian market.
- b. Proposition:** Given that this is an upcoming domain, it is important for InsurTech firms to create compelling propositions which can stand the test of time.
- c. Collaborate:** InsurTech firms should leverage the experiences of successful models in the UK and collaborate to bring these learnings into the local market.
- d. Contextualise:** The insurance market in India is different compared to the rest of the world when it comes to customers; however, technology-enabled solutions for customer touchpoints and upgrading efficiencies will reveal its true potential and thereby its acceptability.
- e. Build:** This is a great opportunity for UK firms to invest in creating innovative solutions through their experiences, addressing the concerns faced by the Indian insurance market.



13. <https://www.pwc.co.uk/industries/financial-services/insurtech-startupbootcamp.html>

## The way forward

Thus far, insurers have moved forward cautiously on InsurTech innovation, seeking a clear value proposition and prior experience. InsurTechs, on the other hand, expect a hand-holding approach in the form of a partnership, in which both parties are invested in the success of the engagement.

As InsurTech start-ups evolve and their collaborations with incumbents develop, they will be confronted with new challenges and uncover new opportunities. But while established insurers and start-ups will be affected in different ways as the future unfolds, their ability to embrace opportunities will be enhanced if the ecosystem is able to work together.

Moving forward, here are some areas to look out for:

- 1. Blockchain:** Blockchain technology, a decentralised ledger of all transactions across a peer-to-peer network, is increasingly being considered across financial services as a secure storage and distribution solution. It has undoubted potential to disrupt insurance and financial services, and InsurTechs are eager to exploit this opportunity.<sup>14</sup>
- 2. Analytics:** There is expected to be a massive ramp-up in the possibilities of robotics automation technologies that aggregate AI, data analytics and rapid software development. In the long term, the revolutionary power of analytics won't come from simply improving and automating existing functions or processes, rather from the new roles and innovative business models that analytics may create.

The full potential of India in terms of insurance has not fully been realised. This can be understood by the various statistics presented in the paper and the penetration levels. The UK start-ups with their use of technology in the InsurTech space will help in penetrating the Indian markets to a higher level. This will be beneficial to insurers as well as the people who will be covered under the various policies.

The InsurTech sector can be transformational for the wider insurance industry and we are only just beginning to see the potential applications of new ideas, technologies and processes. Some of the examples detailed in this paper give a flavour of where the future lies, but there are many more to come. Incumbent insurers should welcome these new entrants with open arms. New entrants can help insurers serve existing customers better and reach new customers for the first time. The promise of start-ups does not end there; they will also enable insurers to operate more effectively and efficiently throughout the back office. As InsurTech develops and matures, there will no doubt be more start-ups that aspire to take market share from insurers, and incumbents will need to respond to these. But for now, the bigger challenge will be to respond to the opportunity start-ups offer.

The opportunity exists to improve insurance for the greater good while innovating for commercial gain, but this will require effective collaboration amongst all players across the InsurTech ecosystem.



14. <https://www.willistowerswatson.com/en-IN/insights/2018/06/emphasis-blockchain-use-in-insurance-from-theory-to-reality>



# The insurance and InsurTech story in India so far

## Public sector insurance companies and private sector insurance companies of India: Life, general and health insurance

Life and non-life (also called general, which excludes health insurance from a standalone statistical viewpoint, is part of the category) insurance are the categories in India within which private and public sector operate to provide services. Both are governed by the IRDAI. The Indian sector consists of 57 insurance companies. Of these, 24 companies are life insurance providers and 33 are non-life insurers, and seven are public sector companies.<sup>15</sup>

Crop, motor and health insurance boosted general insurance GDP premium growth in FY 2016–17 by 33% YoY to 13,00,000 million INR, the highest growth level since 2000–2001.<sup>16</sup> Life insurance premium grew 14% to 41, 80,000 million INR against 36, 70,000 million INR in the previous fiscal year.<sup>17</sup>

As far as the industry is concerned, LIC, New India, National Insurance, United insurance and Oriental are the only public sector entities that have a high market share within the life and general insurance sector along with their penetration and contribution to the insurance sector in India. There are two specialised insurers, Agriculture Insurance Company Ltd for crop insurance and Export Credit Guarantee of India for credit insurance. The others are private insurers who have entered into joint ventures with foreign insurance companies to start their insurance businesses in India.

### General Insurance Corporation (GIC)

The entire general insurance business in India was nationalised by the General Insurance Business (Nationalization) Act, 1972 (GIBNA). The Government of India, through nationalisation, took over the shares of 55 Indian insurance companies and the undertakings of 52 insurers carrying on general insurance business. General Insurance Corporation of India (GIC) was formed in pursuance of Section 9(1) of GIBNA.

GIC was formed for the purpose of superintending, controlling and carrying on the business of general insurance. As soon as GIC was formed, the Government of India transferred all the shares it held of general insurance companies to GIC. Simultaneously, the nationalised undertakings were transferred to Indian insurance companies.

After mergers among Indian insurance companies, four companies were left as fully owned subsidiary companies of GIC National Insurance Company Limited: the New India Assurance Company Limited, the Oriental Insurance Company Limited and United India Insurance Company Limited.

The next landmark event took place on 19 April 2000, when the Insurance Regulatory and Development Authority Act, 1999 (IRDA), came into force. This act also introduced an amendment to GIBNA and the Insurance Act, 1938. An amendment to GIBNA removed the exclusive privilege of GIC and its subsidiaries from carrying on general insurance in India. In November 2000, GIC was renotified as the Indian reinsurer and through administrative instruction, its supervisory role over the four subsidiaries was ended.

With the General Insurance Business (Nationalization) Amendment Act, 2002, coming into force from 21 March 2003, GIC ceased to be a holding company of its subsidiaries. The ownership of the four erstwhile subsidiary companies and also of GIC was vested with the Government of India.

### Insurance products offered in India

This section discusses the type of insurance products/policies provided in India. What differentiates them is their underwritings and bundle structures. They are parametrically distinct from one another in terms of scope of covering various risks related to life and general insurance. With advances in big data and machine learning, it is possible to see their role in Indian InsurTech.

#### Non-life

A variety of sectoral products and bundles are offered within Indian territory by the above-mentioned named companies, namely household insurance, auto insurance, business insurance, health insurance, travel insurance, education insurance, art insurance, and other such related products. Within these products, competitors offer similar bundles of policies and underwritings between products, differentiated by benefits and premium-costing mechanisms. These are such as Bajaj Allianz's extended warranty, Education package and banker's indemnity policy.<sup>18</sup>

Credit Insurance products are such as Trade Credit insurance provided by Tata AIG<sup>19</sup> and New India Insurance's Business credit shield.<sup>20</sup> These are a few of the vast range of products offered to secure the advent of risks against physical assets, credit and financing activities, and business systems.

With InsurTech, products offering cyber security insurance are symbiotic to the evolution of the industry. Health insurance products offered have underwritings and policies on the basis of India's social, cultural and economic construct with vastly differentiable and somewhat relatively niche products such as Tata AIG's<sup>21</sup> 'Wellsurance Executive', 'Wellsurance Woman', 'Wellsurance Family' and group accidents and Universal Sompo's complete healthcare policies.<sup>22</sup>

15. IRDAI website

16. <https://economictimes.indiatimes.com/industry/banking/finance/insure/crop-motor-health-insurance-sectors-drove-non-life-sector-economic-survey/highest-earners/slideshow/62694802.cms>

17. [http://www.indiainsure.com/pdf/2017-Insurance%20Industry%20Report-OnRegister\\_open.pdf](http://www.indiainsure.com/pdf/2017-Insurance%20Industry%20Report-OnRegister_open.pdf)

18. <https://www.bajajallianz.com/Corp/commercial-insurance/commercial-lines-documents.jsp>

19. [https://www.tataaiginsurance.in/taig/taig/tata\\_aig/corporate/trade\\_credit/index\\_old.html](https://www.tataaiginsurance.in/taig/taig/tata_aig/corporate/trade_credit/index_old.html)

20. <http://insurancejuxtion.blogspot.com/p/business-credit-shield-insurance.html>

21. <https://www.tataaig.com/health-insurance/wellsurance-woman>

22. <https://www.universalsompo.com/products/health/complete-healthcare-insurance>



## Life

Life products are differentiated from non-life products in that they can be categorised into six distinct groups:

**Unit-linked insurance plan (ULIP):** It gives investors both insurance and investment under a single integrated plan.

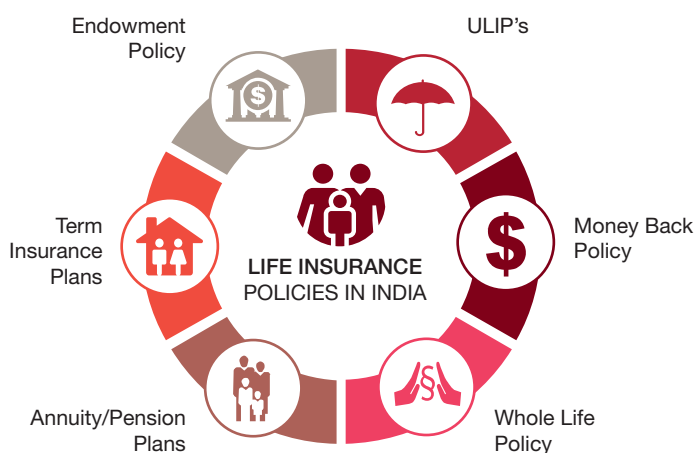
**Endowment policy:** It is a life insurance contract designed to pay a lump sum after a specific term on its maturity. Typical maturities are 10, 15 or 20 years up to a certain age limit. Some policies also pay out in the case of critical illness.

**Annuity/pension plans:** (a) Deferred annuity: A deferred pension scheme allows policyholders to accumulate a corpus through regular premiums or a single premium over a policy term. After the policy term is over, the pension will begin. (b) Immediate annuity: In an immediate annuity scheme, pension begins immediately.

**Whole life policy:** It is guaranteed to remain in force for the insured's entire lifetime, provided required premiums are paid, or to the maturity date.

**Money back policy:** This policy pays the sum assured to the insured party on maturity. It provides certain amounts called survival benefits in addition to the sum assured and a bonus from the insurance company based on its performance.

**Term insurance plan:** It offers a high sum assured at a low premium. The life assured is covered against the risk of an unexpected death.



## Policies and regulations circumventing the InsurTech initiative and a positive way forward for collaboration among UK and Indian companies

This section discusses the regulatory efforts that have been made to provide a landscape for India to strengthen its InsurTech exposure and efforts towards financial inclusion that create parametrically stable economic, social and political conditions for this.

**IRDAI has undertaken initiatives for the development of the insurance sector, including:**

- The IRDAI has put in place the process of registration and operation of insurers and re-insurers in International Financial Services Centre (IFSC) special economic zones (SEZ), in alignment with the objectives of IFSC-SEZ. This opportunity opens the doors for many players, enabling them to avail benefits in terms of custom and excise, ease in licence and approvals, and 100% FDI under the automatic route.
- IRDAI has allowed insurers to invest up to 10% in additional tier 1 (AT1) bonds that are issued by banks to augment their tier 1 capital, in order to expand the pool of eligible investors for banks.<sup>23</sup>

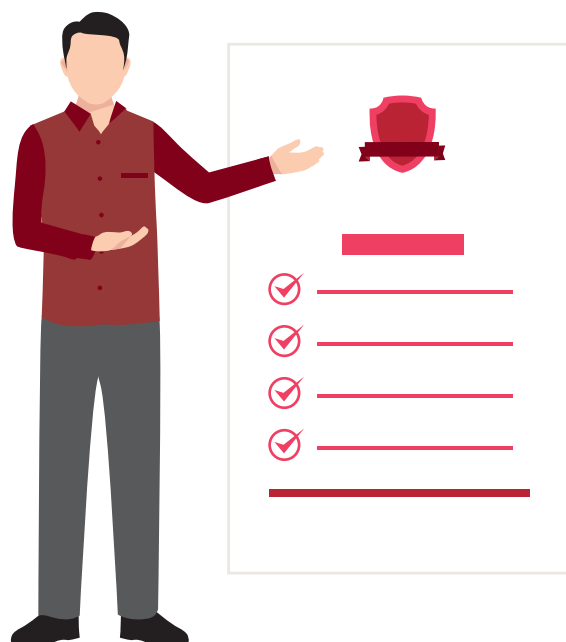
## Role of the regulator within the evolving framework for InsurTech – ensuring the effective transition of technology enablement

The regulators play a vital role in terms of shaping of the sector and at the same time protecting the interests of policyholders. It is imperative for the regulator to maintain a balance between the growing technical and business innovations and deal with increasing digitisation. In many ways, regulators can harness the very trends that have enabled disruption and use them as a means to modernise regulatory practices and increase effectiveness.

**While there have been efforts by the regulator to support the sector, there remain aspects which need to be considered for enabling the future of insurance.**

A few of the challenges that regulators need to be aware of to foster an effective technological environment are discussed below.

- Maintaining the conditions for a fair, safe and stable insurance sector for promoting healthy competition
- Shrinking barriers to the entry of new suppliers
- Commercially viable regulations





## IOT in InsurTech: How corporations can underwrite in India with efficient use of the technology

IoT plays a pivotal role in shifting the proposition for homeowners' carriers and other types of insurance.

- IoT connectivity is surging and the technology's potential to reshape the way homeowners' insurers assess, price, and limit risks is promising. In 2015, 47 million connected smart home devices were shipped globally. The market is projected to broaden at a compound annual growth rate (CAGR) of 60%, reaching 477 million devices in 2020.<sup>24</sup> This also presents a unique opportunity for insurers to transform the insurer/customer dynamic from a defensive to an offensive posture by helping policyholders prevent losses and driving down claims costs.
- Smart home sensors could facilitate an insurance revolution. For example, sensors can monitor indicators of possible problems—such as wall strength, pipe or plumbing fissures, faulty wiring, or even home invaders. Alerts can be sent to homeowners and insurers, as well as trigger automatic shut-off valves and notifications to local service providers who can pre-emptively intervene prior to major incidents. With wider deployment of InsurTech safeguards, carriers may receive fewer and less-severe claims and be able to gather data for more personalised and profitable pricing.
- Control4 is an IoT-utilising mobile app that uses a connection to an IP address to control the functioning of a home as universal remotes. InsurTechs and their inclusiveness of IoT use similar algorithms and data recording measures as Control4.<sup>25</sup> It is a niche segment in India as smart lifestyles, connected homes, buildings and embedded homes are emerging segments. Healthcare and manufacturing are the leading verticals that demand IoT solutions, which may lead to the discontinuation or altered underwriting of current policies.
- Bajaj Allianz General Insurance Company in India provides group personal accident insurance cover for students in school. Bajaj Allianz General Insurance uses IoT through pre-registered school buses having a GPS that tracks the location, and beacons are inserted identity cards of the students.<sup>26</sup> The premium cost is inexpensive and based on the school's decision of coverage. Another prominent IoT-InsurTech, as reported by IRDAI, is fitness wristbands and vehicle sensors beyond the Bajaj Allianz example. These means provide regular streams of data about their policyholders and reduce fraud risk. These IoT devices help insurers develop frameworks through the life cycle of the insured to build attractive product propositions beyond what medical tests and disclosures can provide to the underwriting.

- In the UK, the start-up Neos is combining IoT with home insurance with a focus on prevention rather than payouts. Neos's home insurance product leans on sensor tech and wireless connectivity to reduce home-related risks like fire and water damage, break-ins and burglary, by having customers install a range of largely third-party Internet-connected sensors inside their home, included in the price of the insurance product. It's a smart home via the insured backdoor.<sup>27</sup>

During the first decade of insurance sector liberalisation, the sector has reported a consistent increase in insurance penetration from 2.71% in 2001 to 5.20% in 2009. Since then the level of penetration has been declining. However, there was a slight increase in the years 2015 (3.44%) and in 2016 (3.49%). The level of insurance density reached an apex of 4,379 INR in 2010 from 782 INR in 2001.<sup>28</sup>

This is further explained by trends in premium data and attributed to the problems with the traditional supply and distribution system. InsurTechs' propositional, distribution and operational models are innovative in this aspect on the basis of the value chain. India is yet to adopt propositions within InsurTech such as on-demand insurance, controlling insurance cover through a smartphone app, and a disintermediated customer-oriented experience, to name a few.



24. <https://news.ihsmarkit.com/press-release/technology/rapid-expansion-projected-smart-home-devices-ihs-markit-says>

25. <https://www.control4.com/docs/product/myhome/setup-guide/latest/myhome-setup-guide-rev-b.pdf>

26. <https://www.bajajallianz.com/Corp/content/aboutus/press-release/Press-Release-Bajaj-Allianz-General-Insurance-introduces-IOT-based-Personal-Accident-cover-for-school-children.pdf>

27. <https://techcrunch.com/2017/11/06/neos-launches-iot-powered-home-insurance-uk-wide/>

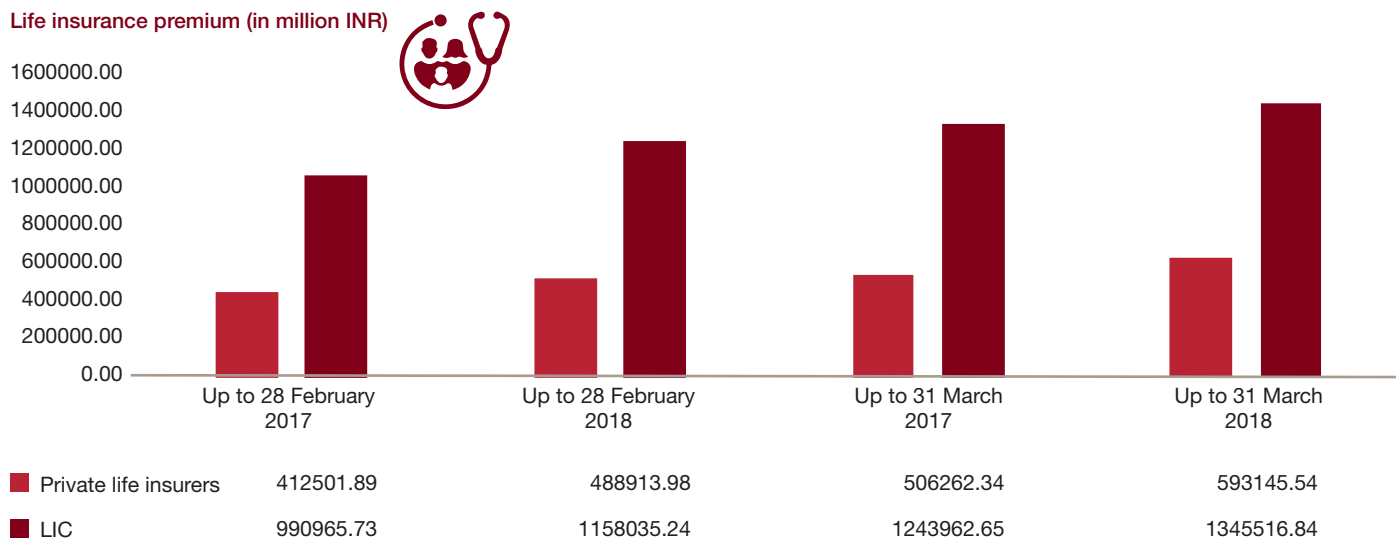
28. [https://www.irdai.gov.in/ADMINCMS/cms/frnGeneral\\_NoYearList.aspx?DI=AR&mid=11.1](https://www.irdai.gov.in/ADMINCMS/cms/frnGeneral_NoYearList.aspx?DI=AR&mid=11.1)

## Overview of the current size of the Indian insurance market

In order to identify the underlying opportunities available for UK InsurTech companies in the Indian Insurance market, it is important to understand the size of the industry in

terms of premium generated YoY and the number of policies issued by insurers in the non-life and life insurance industry and the number of claims received. A summary trend of the performance of the public and private companies is presented for reference.

Life insurance premium (in million INR)

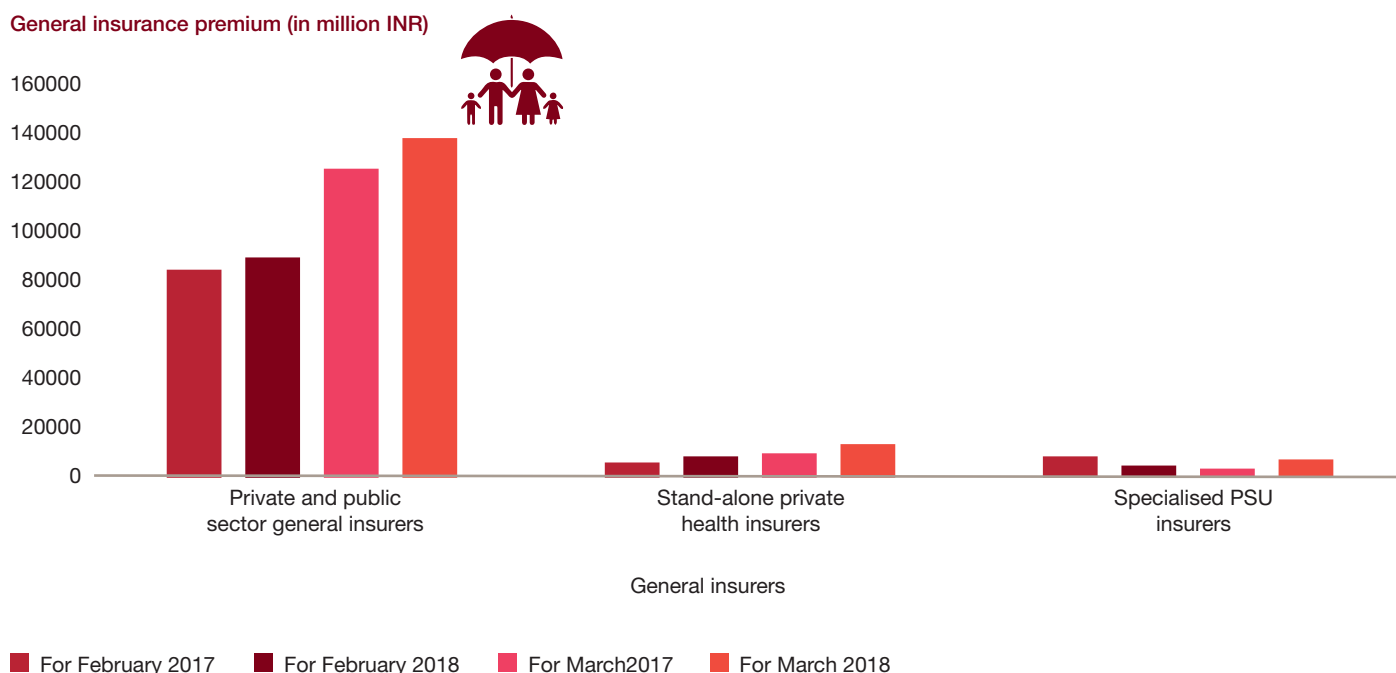


Source: IRDAI monthly new business numbers

The above figure demonstrates the total amount of premium received by the government-owned Life Insurance

Corporation (LIC) as well as other private life insurers over the timeline mentioned.

General insurance premium (in million INR)

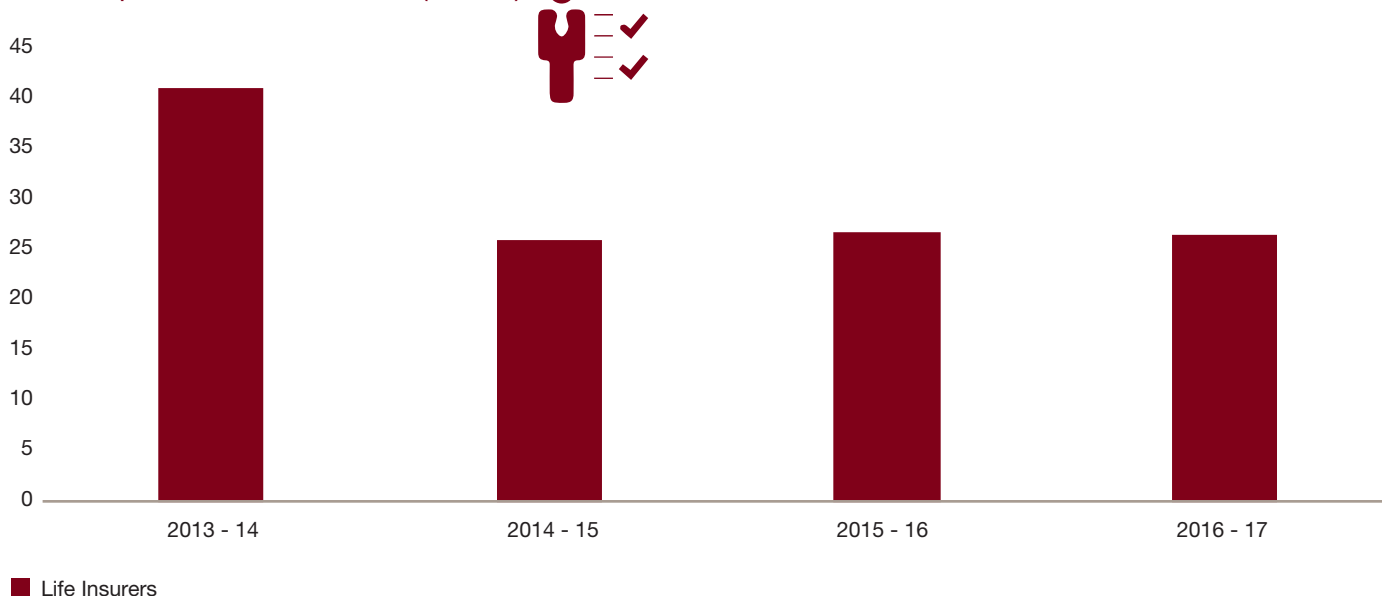


Source: IRDAI monthly new business numbers

The above figure shows the premium received by general insurers over a period of time. Though there have been ups

and downs, it is predicted that the general insurance market will grow at a steady pace.

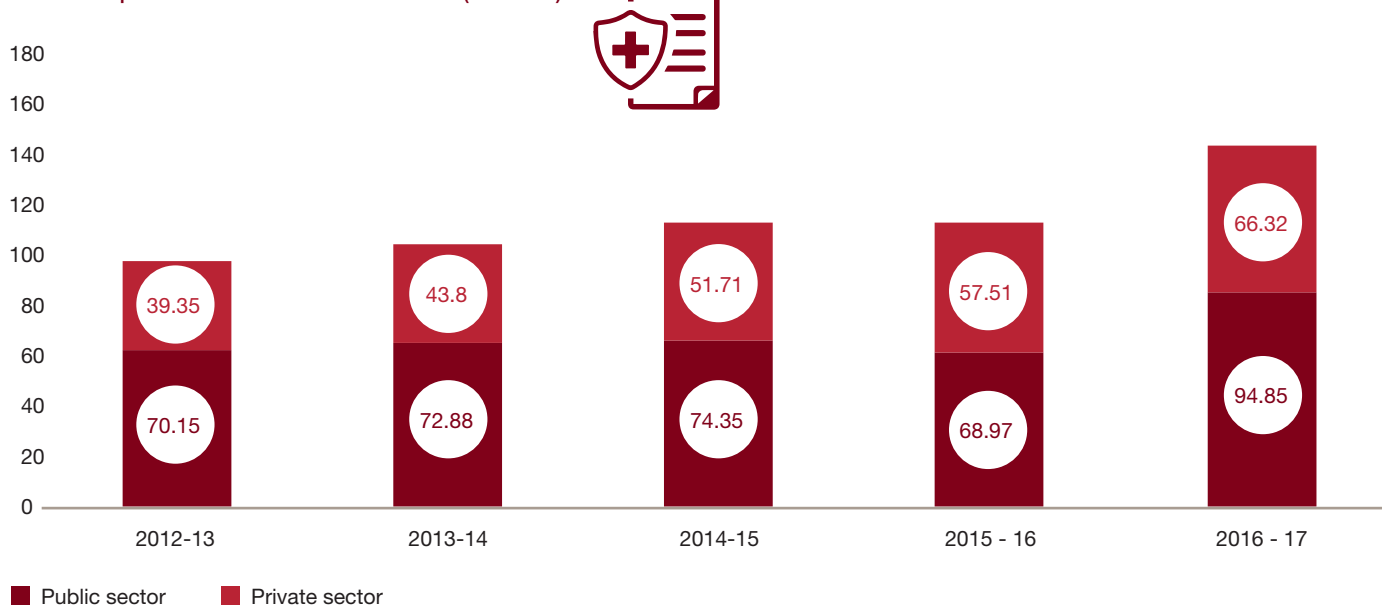
Number of policies issued: Life insurance (in million)



Source: IRDAI

The above graph shows the number of policies/schemes available to the public over a span of 4 years.

Number of policies issued: General insurance (in million)



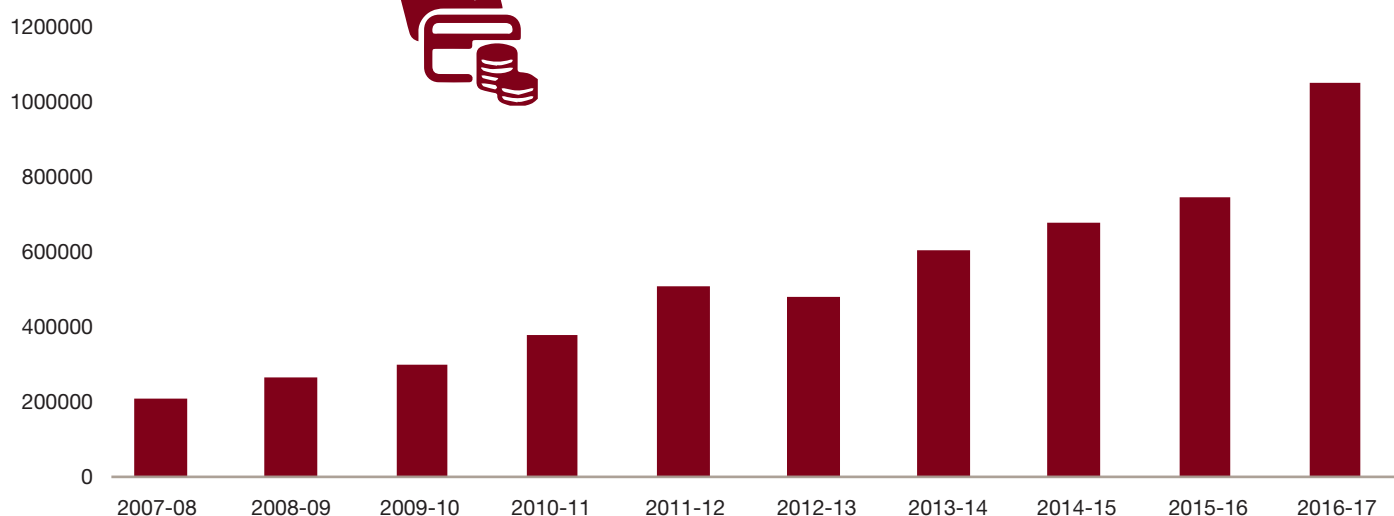
Source: IRDAI

The above figure shows the number of policies issued by general insurers over 5 years. Over the last 5 years, there has been a significant increase in the number of policies issued, with a majority of them being issued by public sector insurers.

The statistics reinforce the potential for growth in the insurance space. This growth is not just in the form of more premiums or policies issued but also in terms of improved profit margins through use of tech-enabled insurance life cycle management.

# Claims history of the Indian insurance sector and potential for InsurTech

Gross insured claims (in million INR)



Source: IRDAI

The above figure shows that over the last 10 years, the gross insured claims in the general insurance sector have risen from 2,20,360 million INR in 2007–08 to 11,23,710 million INR at the end of 2016–17. The CAGR was 19.8% during this period.

## Role of insurance intermediaries and InsurTech in widening financial inclusion in India:

Insurance intermediaries are brokers or agents who represent consumers in insurance transactions. They are contracted with multiple insurance companies so they can focus on matching their clients' needs with the most suitable insurance products. The IRDA Act, 1999, section 21f lists intermediaries as insurance brokers, reinsurance brokers, insurance consultants, surveyors and loss assessors. The significance of brokers lies in how well they are connected in the industry. In InsurTech,

where transactions are seamlessly digitalised, it leads to disruption and thus disintermediation, meaning that the requirement dynamic of brokers will have changed.

Intermediaries include:

- Insurance brokers
- Insurance agents
- Bancassurance
- Microinsurance agents
- Web aggregators
- Referrals
- Direct marketing

Particulars	Amount	2013–14	2014–15	2015–16	2016–17
		FY	FY	FY	FY
Channel-wise new business – amount of premium (individual plus group)					
Individual agents	(Million INR)	488314.5	412467	411757.8	549838.1
Corporate agents – banks		113272	128305.2	152538.3	200492.9
Corporate agents – others		12523.6	14210.1	15820.2	13356
Brokers		12674.2	14510.3	14416.5	17579
Direct selling		574775.9	562183.8	789708.7	964517.4
MI agents			171.9	212.6	202.2
Common service centres (CSCs)			3.2	10	15.4
Web aggregators				0.3	463.6
IMF				0.3	145.2
Online				302.83	418.06
Others (if any)				-11.3	-11.2
Total		1201560.2	1131852	1384756	1747017
Referrals		196.4	79.8	146.1	258.3

Source: IRDAI Insurance Handbook 2016–17

As the above table shows, over the last two years, there has been a drastic increase in the amount of new business premiums collected. For FY 2015–16, the total amount of premium collected through web aggregators was 0.3 million INR. However, by the end of FY 2016–17, the total premium collected through this medium rose to over 460 million INR. One of the key factors highlighting the importance and applicability of web aggregators in India is that they are now permitted to sell low-cost unit-linked insurance plans (ULIPs) with premiums of up to 0.15 million INR.

One of the more popular applications of InsurTech is direct insurance, where technology cuts out intermediaries and incumbents such as brokers by directly linking carriers and customers. This causes disruption and is thus a threat among insurance intermediaries, with fears arising that technology could render them obsolete. Many start-ups are looking at intermediaries to understand the perspective of customer acquisition and experience, ranging from customer intelligence firms to distribution partners. 'In general, many of the entrepreneurs who were trying to disrupt the space have shifted towards enabling the intermediaries,' says Ali Safavi, founder of Plug and Play, an InsurTech accelerator based in Silicon Valley in California.<sup>29</sup>

Disruption is often represented as a harsh shake-up of the market, but it also provides opportunities for incumbents and start-ups to work together. A majority of the insurance companies are new in engaging with start-ups. There is also an interesting shift from looking for only disruptive businesses, especially on personal lines, to a bigger focus on technologies that can improve the processes and reduce back-office cost.

## Blockchain technology and its impact on intermediaries

Blockchain technology is a cryptographically secured form of shared record-keeping of payments between peers. It has the capability to be a transformative force for industries like insurance, which require coordination and cooperation among many different intermediaries with different incentives. Insurance companies and start-ups working with blockchain technology will have to overcome significant regulatory and legal hurdles before anything resembling an industry-wide disruption.

Blockchain technology targets data sharing between multiple parties and has the potential to automate it. This eliminates tasks that used to be part of personnel-controlled consultation and brokerage activities. The insurer is getting closer to the customer through disruptive solutions. Therefore, brokers must think about how their activities and their added value for customers should appear in the future. The impact on the broker is the increasing automation of insurers who can use blockchain technology to build trust between different parties. On the other hand, the customer is becoming more open to this type of automation. This raises the question of what added value the activity of a broker between these two sides can offer. It has proven to be practical to divide the change into two phases: the first being increasing efficiency and the second, disintermediation.

### First phase: Increase in efficiency

Blockchain technology is still nascent. It is decentralised—and there are still questions surrounding the legal framework. Despite this, in recent months especially, more and more prototypes are gaining a status that is no longer far from a production solution.

At this stage, the projects will bring enormous efficiency gains, especially for the distribution of insurance. Through better connecting data sources, back-office processes can be streamlined. Customer data and details for new policies can be exchanged more easily.

An example could be a platform that allows brokers to prevent risks and get pricing from insurers with whom they have not previously signed an agreement. Such a programme can safely make encrypted customer information interchangeable and manage the process through smart contracts until the deal is completed.

### Advantages:

**Fraud reduction:** Blockchain technology makes it almost impossible to receive fake documents or unlawful invoices, as the data is stored in an unchangeable and decentralised manner. The more participants using this system, the more secure it becomes.

**Purchasing policies and underwriting process:** Blockchain can connect data providers and insurers when issuing policies. Thus, new business can be handled with very little effort on the customers' side.

**Managing broker contracts:** Blockchain can be used to review agreements and automate the picking process. For intermediaries, it becomes important to adapt personal consultation and the relationship with the customer to the new digital conditions.





## Second phase: Disintermediation

Intermediaries have to consider what their job and their added value to the customer looks like when this is no longer a part of their job but is carried out through automated processes.

It's not just the discontinuation of this activity, but also the approach of the insurer to the customer, who can build a higher level of trust with the customer through blockchain, in turn leaving less space for the intermediary. If they cannot communicate this surplus value, the threat of disintermediation arises—that is, the elimination of individual stages of the value chain.

For intermediaries, it is therefore very important to adapt personal advice and the relationship with the customer to the new digital conditions and, above all, to take their advantages into the digital world.

The danger of possible disintermediation in the future should by no means discourage the potential efficiency gains of blockchain technology today. As a result, brokers can gain a major advantage in the short term and position themselves in good stead for the future.<sup>30</sup>

### Strong governmental support for InsurTech in India – what can make it happen

PMBY is a scheme introduced by Prime Minister Narendra Modi. It provides one-year accidental insurance cover and is renewed on an annual basis on death. The scheme also includes disability cover on account of an accident for participating savings bank account holders between the age of 18 and 70. The premiums are charged through an auto-debit facility of 12 INR per annum for each individual. Their coverage ranges from 1 lakhs to 2 lakh INR. Pradhan Mantri Jan Dhan Yojana allows for more financial inclusion by creating bank accounts with Aadhaar KYC for the underserved population. Pradhan Mantri Bima Yojana is an insurance scheme which currently has premium pooled by 20% of Indians for accident insurance. The National Health Protection Scheme will be launched under Ayushman Bharat, providing coverage up to 5, 00,000 INR to more than 100 million families at risk. Over 47.9 million farmers were positively impacted by PMFBY in 2017–18.

## Challenges faced by InsurTech in India and potential opportunities for the UK industry

- 1. Cost bearing:** InsurTech can be used in India in a lot of different spaces and the same can be used to reduce human efforts. However, at the initial stage, the cost of using technology in the insurance space will be high and not everyone will be able to bear such a high cost. Technology which is cost-effective and will provide results will be more effective in a market like India. In the initial stage, a technology that will help the insurance sector but will cost more compared to what can be actually spent will act as a challenge as it will be difficult to sell the same in the Indian market.
- 2. Understanding of technology:** Leveraging technology in order to make various processes in insurance easier and efficient is a noteworthy effort. However, the same requires to be properly understood by the person or the company that will be using it so that there is no discrepancy in the work performed and no mistake in the output provided. If there is a disconnect in understanding the nitty-gritty of the technology being used, the entire exercise would be in vain. Understanding the use of the technology in detail, what the technology is being used for, significance of the outputs and use of the outputs is very essential, which can again prove to be a hindrance in the Indian insurance market space.
- 3. Lack of availability of information:** Big data analytics can be used in order to develop a better segmentation of risk profiles. With the availability of correct data in the domain, risk profiles can be developed based on the area of operation, sector of the industry, age bracket of the people, etc. If appropriate statistics are available, then by leveraging technology, products can be designed and developed based on the risk profiles. The products thus developed will contain the required premium, cover and risk coverage for both the insurer as well as the insured, which will bring satisfaction to both parties. However, it is a challenge to obtain the information needed to perform elaborate research and analysis.





# Proposed distributional models of InsurTech for developing economies like India



Source: [https://www.oliverwyman.com/content/dam/oliver-wyman/v2/publications/2017/may/OW-PD-Global\\_InsurTech\\_Report\\_2017-Executive\\_Summary.pdf](https://www.oliverwyman.com/content/dam/oliver-wyman/v2/publications/2017/may/OW-PD-Global_InsurTech_Report_2017-Executive_Summary.pdf)

The figure above demonstrates InsurTech models in three distinct segments: proposition, distribution and operations. The three segments represent hierarchical activities. Coverfox offers vehicle, health and life insurance and was introduced with the goal of taking action against fraudulency. Its operational model is service and administration oriented as that entails 'fraud mitigation' and also holds a B2C online

broker value comparing website distribution model comparing multiple vendors.<sup>31</sup> Each of these groups has distinct market potential and chances of success, so it would be interesting to see how other start-ups incorporate more than one model in their value chain. This model has been discussed in the case studies at the end of the report.

31. <https://www.coverfox.com/life-insurance/term-insurance/>



## InsurTech distributional models

Below is a categorical breakdown of InsurTech distributional models that shed light on which intermediaries are appropriated and disrupted, and how insurance is offered to customers.

**Direct to customer (D2C):** To be the leading go-to website, InsurTechs must stress their cost benefit and develop a unique brand positioning with the customers. Typically, most InsurTechs in India focus on life insurance and retirement saving products. This distributional model is moderately attractive, offering both a medium level of activity and medium potential. The key issue is how to reach customers directly in a cost-efficient way. An example of a D2C model is RenewBuy (based out of Delhi, which is also a price comparison website), a motor and health insurance specialists (emerging InsurTech).<sup>32</sup>

Services they provide:

1. Lowest premiums for motor and health
2. One-click renewal and instant policy
3. Expertise and advice to help you choose the right company and the right insurance type
4. Claim assistance
5. Free insurance reminder service

In the UK, Liss Systems follows a multi-channel distribution, including D2C and B2B distribution (described in the following model). It is a modern life insurance and pensions system for individuals and business groups and their InsurTech intermediary is their software under 'eLissia,' a web front-end system with powerful underwriting to enable a zero-touch model. Liss Systems evidently has differential offerings, indicating why it has scalable success, whereas RenewBuy, designed with a strong backend technology and its integration with leading insurance companies in India, can be perceived as perfectly competitive and thus with a low chance of much success.<sup>33</sup>

32. <https://www.renewbuy.com/about-us/>

33. <http://www.liss.co.uk/company.html>  
<http://www.liss.co.uk/products.html>

34. <https://www.policyx.incom/about-us.php>

35. <https://www.ukinsurancenet.com/about-us/>

## Price comparison websites (PCWs)

App or website-based comparison engines allow customers to compare products and prices in a quick and easy manner. It involves insurance comparisons in multiple insurance lines, along with comparisons of non-insurance products. There exist niche PCWs focused on insurance of distinct segments/asset classes/purposes. In India, PolicyX is an InsurTech using this very distributional model by comparing prices online.<sup>34</sup> In the UK, there is UKInsuranceNET.<sup>35</sup>

**Affiliate integration:** This model makes it simpler for insurers' products to reach customers in the business process of a partner organisation, mainly e-commerce shops. It integrates the sale of insurance with a related product or two complementary products.

The category's overall potential is moderately attractive, and given limited potential premium pools under today's business models, InsurTech's chances of success in this category are good. Another factor in favour of the category is that it sees only low levels of activity at present, leaving entrepreneurs and investors plenty of headroom and entry space.

**Corporate insurance:** It refers to insurance for employees or selling insurance through corporates as part of a larger offering, with HR as the platform carrier. Insurance is sold to employees through a platform in conjunction with another offering, namely wage-tax levy, reducing health and general life benefits, and is paid for by the employee if local tax rules permit. The distributional model here involves the InsurTech delivering free or discounted HR software to employers. The HR software is used as a platform to sell employees benefits and other insurance cover, with more or less active involvement of the employer. It also provides employee benefit platforms. Benefits platforms aim to negotiate group discounts with product and service providers (such as hospitals, clinics and gyms), including insurance companies. Usually, employers make the platform accessible to their employees through their intranet.



There is a high likelihood of success for InsurTech firms that get the model right. This area is particularly attractive in Europe and Asia, where levels of activity are presently much lower than in the Americas. Apollo Munich is an example of corporate health insurance in India.<sup>36</sup>

**B2C online broker/value comparison websites (VCWs):**

They are intended to optimise personal insurance cover. There are online chatbots and call centres offering support for online models of personal insurance management (PIM) applications and websites for client interface. These bots and the interface aim to replace the offline broker, an indication of where InsurTechs cause disruptive disintermediation. The clients are provided with a portfolio that lists their products in a transparent way. B2C model InsurTechs claim to legitimise their client portfolios by advising the most suitable policies rather than the lowest cost.

This is a difficult area in which to build a sustainable business model, so the chances of success for founders and investors are limited to medium. Survivors in this category will include agile brokers, as well as InsurTechs.

**B2B online broker/VCWs:** They are intended for optimising corporate insurance cover. Online brokers of this model target freelancers, traders, start-ups and small and medium enterprises (SMEs) by using VCWs based on proprietary product comparison engines specifically targeted at the less complex B2B needs to provide tailor-made and cost-effective policies sold via a scalable platform. In the UK, SimplyBusiness is an example of one such InsurTech that has expanded globally.<sup>37</sup> Business need to cover themselves in the form of their necessary operations; thus, B2B online brokers have a better positioning than B2C online brokers, especially to SMEs. This platform is used to obtain offers from several insurers through a standardised tendering process without having to worry about committing to an individual insurer before comparing offers. This model has medium potential

but with tough chances of success. Reinsurers can find areas here to expand their digital capabilities. The level of activity is medium so therefore there is further room for investment.

**Financial partner: Taking care of personal finances**

They provide web or app-based products that give a transparent view of cash, saving deposits, investment funds, pension plans and insurance coverage. Sophisticated approaches aim to help clients to produce most appraisable and feasible investment strategies within their financial conditions, future plans and current risk profile. This service would help private banking services cater to less wealthy clients. These services will also include providing insurance. Bud is an example of one such FinTech in the UK providing insurance.<sup>38</sup> This model is an attractive category with high potential and high chances of success. It involves a fairly high level of activity and is divided into FinTechs and InsurTechs.

**Life digitisers: Eliminates need for heavy paperwork**

In this model, InsurTechs' documents are instantly accessible from the cloud where they are stored. Companies that adopt this model are not pure InsurTechs. Their offer includes digital storage of customer contracts, including insurance contracts. These documents generate a wealth of information about an individual's general life situation. This would allow a player to identify insurance coverage gaps, insurance policies that are too expensive and emerging insurance needs. All three represent immediate opportunities to initiate an insurance sale. Life digitisers are still at an early stage. In America and Europe, however, there are significant levels of activity; however, the current business potential of this category is low. No other judgements are suitable because insurance is not a priority for these firms, but is expected to be on its way to evolution.

36. <http://www.apollomunichinsurance.com/corporate-health-insurance/corporate-health-insurance-index.aspx>

37. <https://www.simplybusiness.co.uk/about-us/>

38. <https://thisisbud.com/about>





## An overview of leading Indian InsurTechs

### 1. Acko General insurance and Ola Cabs<sup>39</sup>

**Introduction:** Acko General Insurance has partnered with Ola to provide in-trip insurance cover for travellers under a customised domestic travel Insurance product for Ola Cabs. Acko has raised 2,040 million INR from venture capital with the aim to make insurance more affordable and accessible to ordinary citizens, representing a solution that the public sector could not. It has a low-cost propositional model, and also expects to see the future two stages and expand offerings and value.

**Objective and goal:** Acko intends to completely disrupt insurance. The system of distribution in India does not provide information on the user at all. 'There's not enough data to underwrite accurately on a real-time basis,' an associate claims. Sales are mostly offline with flat pricing, and insurance firms don't know much about a customer before underwriting him. The Acko CEO believes his firm can offer a 30–40% discount on incumbents by pricing its policies more accurately by gathering information and data online.<sup>40</sup> That's in addition to cost savings by operating without a physical presence. The CEOs is digitalising pregnancy insurance, or policies for ride-sharing companies. Beyond selling on the Acko website, the plan is to collaborate with partners who already have relationships with consumers—for example, an e-commerce store selling baby items, or the ride-sharing firm itself.

Ola, which already offers an insurance programme to its driver partners, will offer an opt-in insurance policy of 0.5 million INR as well as cover for missed flights and loss of baggage. The programme will provide benefits in cases of loss of baggage or laptops, missed flights, accidental medical expense, ambulance transportation cover, among other facilities. The claims can be made through the Ola app as well as the provider's website and call centre. For a 10 premium INR, all of this can be operated through the Ola app.

### 2. Toffee insurance<sup>41</sup>

**Introduction:** Toffee is bite-sized insurance for millennials, offering coverage for everyday moments. Its policies are contextualised and built to fit people's lifestyles. It also understands the unique risks that common people would experience and covers them: nothing more, nothing less. Toffee raised 1.5 million INR from these investors in 2018 in a seed funding round. Since launching in December 2017, the start-up has been in pilot phase, and was released to market in April 2018. One of their main aims is to create simple and small-ticket size insurance products and distribute them in a very contextual way that has huge potential to drive the mass adoption.

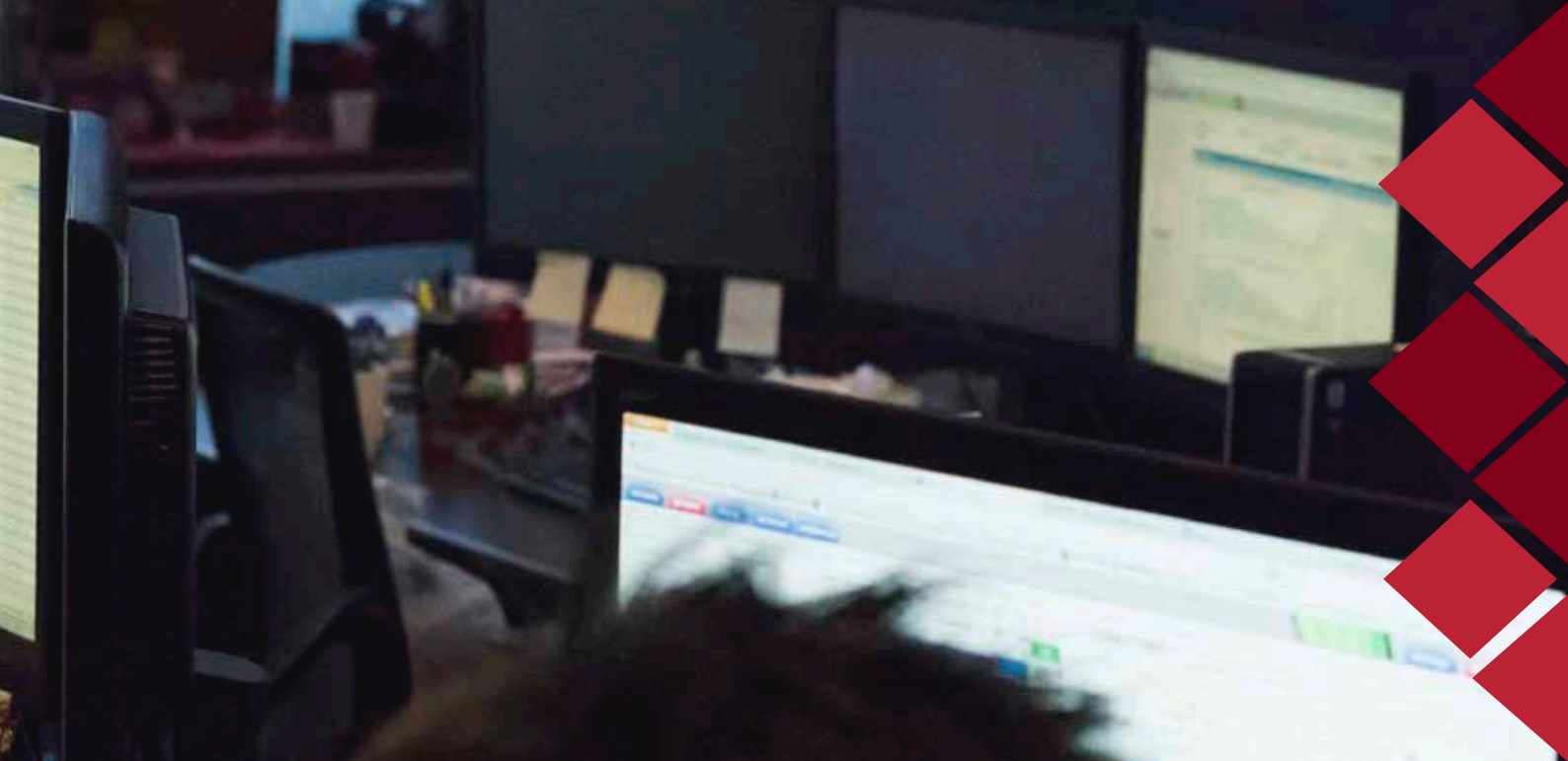
**Objective and goal:** Toffee has tied up with traditional insurance companies to create these products and is essentially setting up a future customer base for these larger companies. It has a licence from IRDA to act as corporate agent, and works with nine major insurance providers and underwriters such as Apollo Munich and Ergo to provide these tailor-made policies. Toffee is also looking to inculcate and make insurance buying a habit for the youth who, when they are older and have more income, will be ready to migrate to larger, more serious plans.

Toffee, which is a corporate agent, currently curates products from general and health insurance companies, mainly from Apollo Munich, HDFC Ergo and Future Generali. The company has already rolled out various offerings, priced between 600 and 1,500 INR. Designed in a fluid web app flow, Toffee claims to reduce purchase time to 90 seconds on average, along with simple claim processing in under two hours.

39. <https://sureclaim.in/ola/ola-launches-in-trip-insurance/>

40. <https://techcrunch.com/2017/05/24/acko-is-an-ambitious-digital-play-to-disrupt-indias-10b-insurance-industry/>

41. <https://www.financialexpress.com/industry/toffee-insurance-for-millennials-know-details/1065089/>  
<https://toffeeinsurance.com/blog/>



### 3. Go Digit<sup>42</sup>

**Introduction:** Go Digit General Insurance Limited provides non-life insurance through its digital platform. The start-up was incorporated in 2016 and is based in Bengaluru, India.

**Objective and goal:** Digit plans to disrupt the traditionally run Indian general insurance sector by introducing new products, services and giving a completely new dimension to various business models. It holds a general insurance licence which allows the company to sell P&C and health insurance products. In a price-sensitive domain, Digit aims to challenge predecessors by disrupting established business processes and by equipping and authorising partners and distributors more on policy issuance, quotes, documentation and claim processing. It employs a user-friendly UX, an average claim approval time of two hours to attract a younger audience, catering to the early-adopter market.

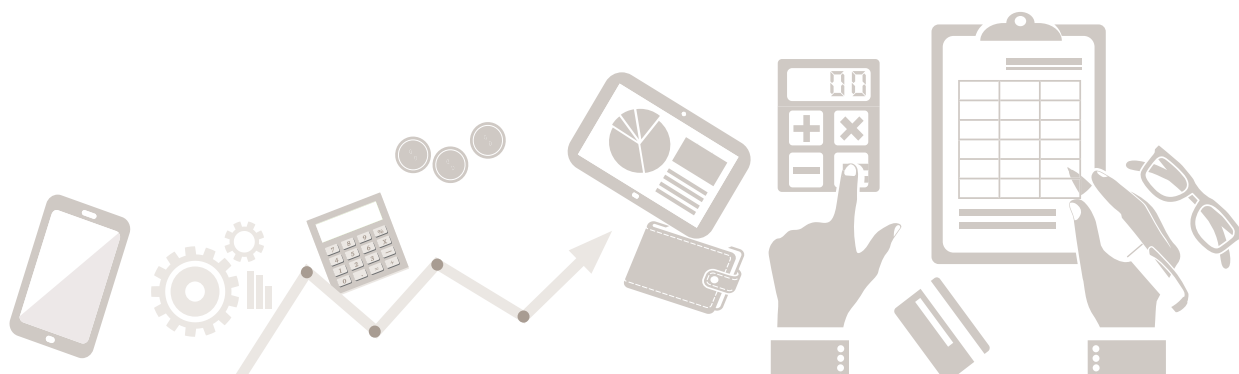
Digit's USP is that it promises an insurance coverage for flight delays starting from 75 minutes and up as opposed to traditional travel insurance companies, covering flights with delays from six hours onwards. Digit also has the technology to auto-detect delayed flights and send policyholders a text message to initiate their claim process. To avail the claim, policyholders need to submit a picture of their boarding pass to Digit.

### 4. Coverfox<sup>43</sup>

**Introduction:** Coverfox is an online insurance aggregator. Founded in 2013, it raised has around 2,720 million INR thus far from investors including IFC (sister organisation of the World Bank Group). Coverfox claims to have integrated with more than 35 insurers, and offers more than 150 policies in motor, life and health insurance. It plans to expand insurance coverage into Tier II and Tier III cities within India, and address women's needs as it tries to diversify its product portfolio. Coverdrive, Coverfox's Android app, helps insurance agents go digital and grow their businesses.

### 5. Policy Bazaar<sup>44</sup>

**Introduction:** This insurance web aggregator became a unicorn when parent company ETechAces Marketing & Consulting Pvt Ltd raised 13,600 million INR. Insurance is cross-leveraged as a subscription to cover OPD costs in hospitals while helping connect individuals to doctors. Once the consumer knows what kind of insurance/policy they need, they need to provide some information. Based on this, the engine will calculate the best quotes suitable for the consumer. A list of the insurers whose insurance/policy can be availed is also made available on the site. In this way, the web aggregators are leveraging technology in their business.



42. <https://www.godigit.com/about>

43. <https://www.vccircle.com/exclusive-aegon-invests-in-online-insurance-aggregator-coverfox/>

44. <https://inc42.com/buzz/softbanks-latest-investment-might-turn-policy-bazaar-into-a-unicorn/>



# UK's InsurTech growth and regulatory landscape



## UK InsurTech's growth so far

The UK hosts the fourth largest insurance market in the world and the largest in Europe, with a total premium volume of just under 1,91,25,000 million INR in 2016.<sup>45</sup> Taking account of population and economy size when comparing the top five insurance markets paints a somewhat different picture. The UK has the second largest market in the top five relative to its population, with premiums per capita in 2016 at just under 2,55,000 INR per person.

Lloyd's, the London-based specialist insurance and reinsurance market, opened its India office in April 2017. Lloyd's is looking to introduce new reinsurance solutions to support the growth of the Indian cedants, especially in the area of specialist reinsurance to complement the local market.<sup>46</sup> Lloyd's recently launched an Innovation Lab,<sup>47</sup> as the market looks to develop advanced technology solutions to meet its rapidly changing needs. The Innovation Lab will allow Lloyd's to test new concepts, design advanced technology solutions to solve market issues and give it a place that can act as a testbed for market modernisation efforts, all with the support and active involvement of market players.

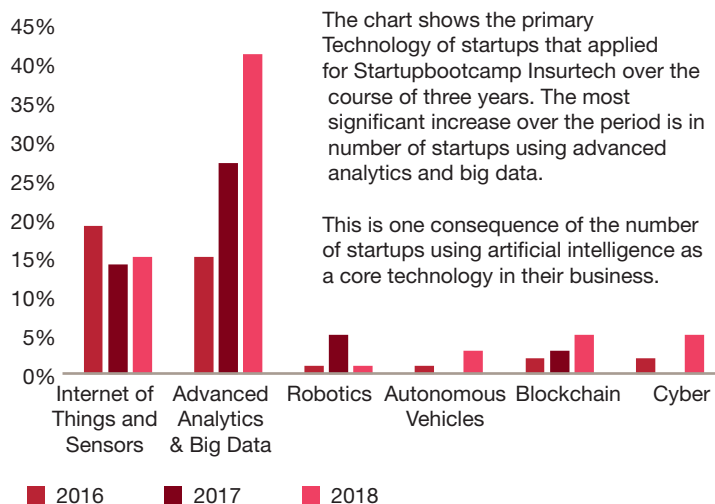
Some of the new technological developments and solutions could prove beneficial to developing markets such as India.

Some interesting facts from the InsurTech story in the UK are listed below:

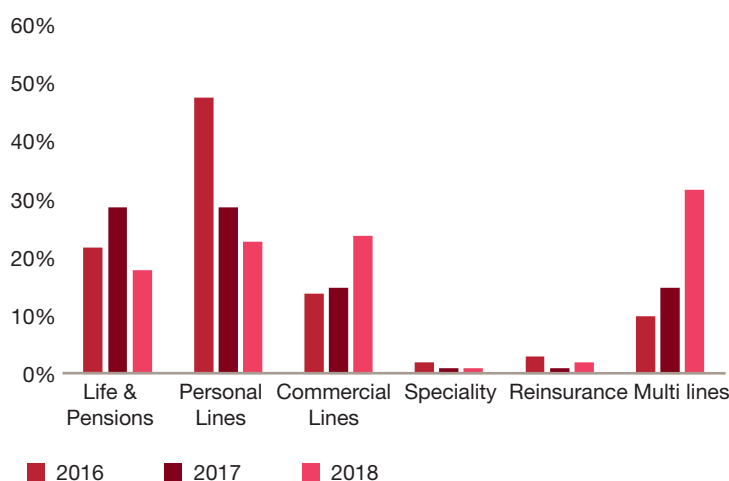
1. 61% of the >1,000 applications to Startupbootcamp come from start-ups outside insurance.
2. AI is the primary technology for 41% of applicants.
3. 84% of surveyed Startupbootcamp partners are interested in creating cyber security offerings. Insurers and start-ups are increasingly looking at new products and services.
4. 5% of applicants are focused on customer interactions and 20% of applicants support operational improvements.
5. InsurTech has brought an influx of technology talent into the industry. This new talent has brought a change in culture, while innovation in insurance is moving from watch and learn towards executing proofs of concept and scaling them in the business.

Various studies have been published in the InsurTech domain and these help in understanding the journey of InsurTech in the UK:

### The Technology focus of applicants



### Startupbootcamp applications by insurance line: startups increasingly looking to solve problems in commercial insurance



Source: PwC report on 'Breaking boundaries'

## The UK regulatory landscape

**The Prudential Regulatory Authority (PRA)**, which is part of the Bank of England, promotes the safety and soundness of insurers, and the protection of policyholders.

**The Financial Conduct Authority (FCA)** regulates how these firms behave as well as, more broadly, the integrity of the UK's financial markets.

Lloyd's is regulated by the UK Financial Conduct Authority (FCA) and the Prudential Regulation Authority (PRA), under the Financial Services and Markets Act 2000.<sup>48</sup>

45. [http://www.chinadaily.com.cn/business/2016top10/2016-10/20/content\\_27114518\\_7.htm](http://www.chinadaily.com.cn/business/2016top10/2016-10/20/content_27114518_7.htm)

46. <https://www.lloyds.com/about-lloyds>

47. <https://www.lloyds.com/news-and-risk-insight/news/lloyds-news/2018/02/lloyds-to-launch-innovation-lab>

48. <https://www.lloyds.com/about-lloyds/regulation-of-lloyds>

## The Sandbox approach<sup>49</sup>

Much has been said about the doom that FinTech is set to spell for traditional financial services. However, this rivalry is now giving way to a more future-first collaborative approach. The simplification of complex processes, bundled with heightened user experience, has made FinTech appealing and has encouraged many players to open their doors to FinTech alliances that will enable the co-creation of solutions to foster a new wave of digital disruption.

Globally, innovative endeavours like the UK's Open Banking Standard—an approach that aims to transform and improve the experiences of customers—is showing promise not only in the UK but also in other countries and markets. The project already works in Germany and is creating an ecosystem of third-party applications for customers. The success of such FinTech initiatives has inspired developed markets to adopt them. Although this approach is most popular among banks, the set-up and its benefits can also be enjoyed by insurance and investment management firms.

### What is a sandbox?

A FinTech sandbox or an application program interface (API) sandbox is an environment that innovators and testers can use to mimic the characteristics exhibited by the production environment on a real-time basis to help simulate responses from all the systems an application interfaces with. This enables FinTech players to experiment with innovative financial products or services within a well-defined space and duration. Moreover, the presence of appropriate safeguards helps in containing the consequences of failure. Essentially, the sandbox allows for the pilot testing of newly developed technologies

### The need for a sandbox

The rising sophistication of FinTech solutions is leading to increasing levels of risks. In circumstances where it is unclear whether a new financial product or service complies with existing standards, some financial institutions may err on the side of caution, thereby hindering innovation. Furthermore, every organisation is trying to do pilots with dozens of FinTechs and managing the process is becoming very complex. We believe that a FinTech sandbox can help innovators overcome these challenges.

A sandbox acts as a layer between company and their innovation initiatives and facilitates smooth collaboration between FinTech companies and incumbents. Additionally, companies are relieved of the stress of dealing with multiple data requests (often the first step to solution development) as the sandbox serves as a ready reservoir of process-related information.

### Benefits of a sandbox

- Piloting a product or business model through a sandbox will help companies manage their regulatory risk during the testing period itself.
- There are no restrictions on transaction size as the sandbox is in a UAT environment.

A sandbox could also facilitate more partnerships between legacy and start-up companies.<sup>50</sup>

FCA initiated Project Innovate in October 2014 and now have a team working across all innovation services. FCA is encouraging innovation in the interest of consumers through, key among initiatives such as Regulatory Sandbox.

Recently, the Financial Conduct Authority (FCA) launched a global fintech regulatory sandbox, after the successful progress of their 2016 release of a UK sandbox that allows for innovative fintech development without requiring a full, strict regulatory process for testing.<sup>51</sup>

## An overview of the leading UK InsurTechs

The UK insurance is the biggest insurance market in Europe and fourth biggest market in the world. The insurance market is a significant source of overseas income in the UK; it has a total of 3, 39,000 employees or 30% of employees in financial services. Insurance in the UK controls about 17% of total investment in the London stock market.

The main types of insurance in the UK are:

- General insurance
- Life and pensions
- Health and protection

**General insurance** companies provide insurance for common purposes. They play a vital role in providing risk-free life cover to insurers by minimising the impact of unexpected and unwelcome risk. General insurance protects individuals and businesses against unexpected future events, and helps them organise their lives and businesses with enhanced conviction. The net claims for general insurance per running day in the UK are about 6,290 million INR.

### Life and pensions

Insurance industries also provide risk-secure cover for personal life and life after employment (i.e. retired people). The insurance industry is also making contributions to the nation's health by supporting the private medical sector. A life insurer offers valuable financial safety in the event of early death of insurers if members of the family are dependent on earnings, as well as a range of ways for saving in future. The net claims for pension and life insurance per running day in the UK are about 19,125 million INR.

### Health and protection

Maximum risk is seen in health issues. Life insurance mainly deals with this category of health-related issues and providing insurance to minimise risk from health hazards. The UK insurance industry provides claim benefits for any kind of injury or illness. It also enables older people to plan and consider various benefit plans to suit their needs.

49. <https://www.pwc.in/consulting/financial-services/fintech/fintech-insights/the-sandbox-approach.html>

50. <https://www.fca.org.uk/>

51. <https://cointelegraph.com/news/uk-financial-regulator-introduces-global-fintech-sandbox-90-success-rate-domestically>

## Recent statistics from the UK insurance market

As per recent statistics, the number of companies operating in the domestic insurance market in the UK is 443 as on 2018. The number of insurance companies saw an overall decrease throughout the period—2004–2018. There were 443 companies in the UK domestic insurance market at the end of 2018, compared to 673 companies in 2004.<sup>52</sup>

The London insurance market continues to be the largest global centre for commercial and speciality insurance risks, controlling more than 59, 15,000 million INR in gross written premiums. 2017 was a very eventful year for the global insurance and reinsurance sector, with the beginning of the year seeing a continuing soft market with average premium rate reductions on renewals compared with 2016.

Political events and uncertainties resulting from them have come to the fore, affecting both the insurance and reinsurance markets, including:

- The UK's triggering of Article 50 of the Treaty on European Union has led to uncertainties around any final Brexit outcomes for the reinsurance market.
- Owing to the potential loss of the insurance 'single market', UK insurers (including Lloyd's itself) are seeking to establish post-Brexit EU subsidiaries to retain some benefit from the single market.
- The ongoing review of, and uncertainty surrounding, the Ogden discount rate (used in the calculation of awards in the UK for serious injuries requiring long-term care) continues to impact premium rates of UK liability insurance as well as motor insurance.
- In 2013, the government implemented wide-ranging reforms to the way the financial services sector—including insurance—is regulated. The body which regulated the UK financial services industry, the Financial Services Authority (FSA), was replaced by two new regulatory bodies. This is known as the 'twin peaks' system of regulation.

## Emergence and growth of InsurTechs in the UK

In the UK InsurTech is speedily enabling the introduction of new business models, applications, processes and products. Innovations in InsurTech come from different sources—there are both demand side and supply side perspectives. The advent of InsurTech in the UK, is enabling the UK Insurers to assess the risk in a far better way.

Various companies and start-ups have come into the picture and are concentrating on InsurTech. Some of these companies are discussed below:

## 1. Wrisk<sup>53</sup>

**Introduction:** Wrisk is a smartphone app for insurance regulated by the Financial Conduct Authority and HM Treasury. It is starting with contents insurance for goods such as iPhone and laptops, and will soon add cover for car, health, home and more. It wants to reinvent insurance for the mobile age, calling it macro insurance. The way Spotify innovated music, Uber innovated the taxi industry, Wrisk is to do the same for personal insurance.

It is working in collaboration with, Munich Re, BMW and Hiscox and acting on their behalf, respected incumbents known to support innovation in their partners. The agency model is known as a managing general agent (MGA), where the insurance liabilities lie with the partners.

### How will Wrisk will make its revenue?

1. Commission per transaction, paid by its insurer partners
2. Profit commission, calculated annually and paid to Wrisk by its insurer partners
3. Licence fees for the use of Wrisk in those territories where an MGA model is not appropriate

**Objective:** It offers transparency to users by generating a Wrisk Score (a proxy rating tool like a credit score), which helps customers understand the different factors that affect their risk, how these impact their price and what they can do to improve things. It bills consumers differently and it is more like a subscription model for something like Netflix. Wrisk ends the hassle of multiple providers and disconnected policies. Wrisk is creating a single seamless experience where 'the whole is more than the sum of its parts'. It is building a single plan that adapts to fit your life, rather than forcing you into the traditional industry's ideas of what should be different products. Eventually, this means you'll never need to purchase separate home, contents, motor, travel or any other kind of insurance.

Wrisk was selected to join 2016 BMW incubator lab, the first-ever FinTech business incubator in the automotive industry. Wrisk will be BMW Group FS UK's provider of motor, travel and home insurance.

### Wrisk working model

Wrisk operates as a B2C and B2B2C distributional model, focusing on a customer orientation to reach the mass market. For the B2B2C model, various commercial partners have signed LOIs, and Wrisk seeks to connect with them where they are already digitally connected to customers. For B2C, Wrisk will track campaign effectiveness beyond acquisition, through underwriting, performance and claims. Better risks can be selected through acquisition channel

52. UK statistics

53. <https://www.raconteur.net/sponsored/startup-wrisk-rethinking-insurance-connected-generation>

## 2. CyStellar (part of start-up boot camp demo)<sup>54</sup>

- **Introduction:** A cloud-based analytics platform for data-driven decision making (big data). It provides such services to AgriTech, FoodTech and InsurTech.
- Found in 2017, using satellite imagery and IoT (collaboration with Sweden for agriculture precision with remote sensing) and drone-based surveillance to integrate information
- The team comprises big data specialists that crunch large amounts of data in order to help data-intensive organizations. Cystellar's platform also provides predictive analytics to sectors such as AgriTech, FoodTech and InsurTech, particularly helping insurers and their clients avoid damaging events.
- Founded by Peter Buns and Serdar Uckun, this company uses AI support tools for predictive maintenance and logistics.

## 3. Brolly<sup>55</sup>

- It is powered by AI, and it tells you when you are over-covered or under-covered. It also tells you whether there are cheaper policies that suit your insurance needs.
- This company leverages AI in the insurance space to give customers a mobile insurance locker, advisor and shop, cutting down on costly renewals and coverage gaps. Lockers store existing and expired policy docs, and the advisor suggests coverage you may need.
- It has a machine algorithm database to help customers find policies they are insured for and where they can reduce and implement cost-benefit.
- The ultimate vision is to totally re-design the user experience of insurance based on data analytics and a centralised approach towards the UI/UX of insurance policies.

## 4. Laka<sup>56</sup>

- **Introduction:** This company provides travel insurance to its consumers. It has built a community-based model for bicycle insurance.
- The monthly maximum is fixed at around 1,530 INR, but that comes down depending on how many claims are filed by the wider community. If there are fewer claims that have occurred, then the premium is lowered for everyone.
- Each policy comes with no excess, 60 days of travel insurance, a new for old replacement policy and roadside support.

## 5. In My Bag<sup>57</sup>

- **Introduction:** InMyBag insures devices like laptops, phones and cameras. It works with Amazon Prime and Apple to guarantee same day replacement of the devices by either fixing them or loaning you a device, wherever you are in the world. InMyBag also recovers your data instead of having to wait weeks for a new device.
- The idea for the start-up came out of some research done by venture capitalist firm Hambro Perks that showed a gap in the insurance market for mobile workers who are reliant on their technology.

Since the process of claims and settlement is the most tedious part in the insurance process, this start-up tries and smoothes it out by giving customers the ability to better self-serve claims.

54. <http://www.mynewsdesk.com/se/iot-sweden/pressreleases/iot-sweden-and-cystellar-join-forces-to-offer-remote-sensing-solutions-for-precision-agriculture-2105748>

55. <https://www.techworld.com/startups/meet-brolly-uk-insurtech-startup-looking-fundamentally-change-insurance-3654651/>  
<https://www.ormlondon.com/insights/6-insurtech-start-ups-disrupting-the-insurance-market/>

56. <https://www.laka.co.uk/>

57. <https://inmybag.co/>









# Way forward

## Key implications of InsurTech for the global insurance industry

There are multiple dimensions to the InsurTech landscape that need to be explored. We have highlighted a few examples of how InsurTech companies have enabled effective delivery of insurance. These present potential areas for India to adopt/leverage emerging and innovative practices to transform the insurance marketplace.

### 1. Meet changing customer needs with new offerings

Customers expect personalised insurance solutions. One size simply does not fit all anymore. Usage-based models are not completely addressing these expectations, but the sharing economy is also challenging more traditional insurance products. New players are able to work from a clean slate and leverage a variety of available resources to fill market gaps.

#### What kinds of insurance implement this value chain driver of InsurTech?

Metromile, a start-up, has developed a customer-centric value proposition for occasional drivers. It offers a low premium and then charges a few cents per mile driven. Metromile also offers an app that provides personalised driving, navigation and diagnostic tips, and can even remind drivers where they parked.

In the peer-to-peer space, Lemonade claims to be the world's first peer-to-peer carrier, but other companies like Guevara and InsPeer have been exploring variations of the same model. Bought by Many, a start-up that uses social platforms in its go-to-market strategy, helps individuals join or even create affinity groups, as well as find insurance solutions for their specific needs across different product lines.<sup>58</sup>

### 2. Enhance interaction and build trusted relationships

Established carriers have to manage increasing customer expectations and provide seamless service despite their large and complex organisations. In contrast, new market entrants are not burdened with large, entrenched bureaucracies and typically can more easily provide a seamless customer experience, often using not just new technology but also new service concepts. For example, self-directed robo-advisors are convenient, 24/7 advisors that provide ready access to information about financial planning and investment management.

### 3. Augment existing capabilities and reach with strategic relationships

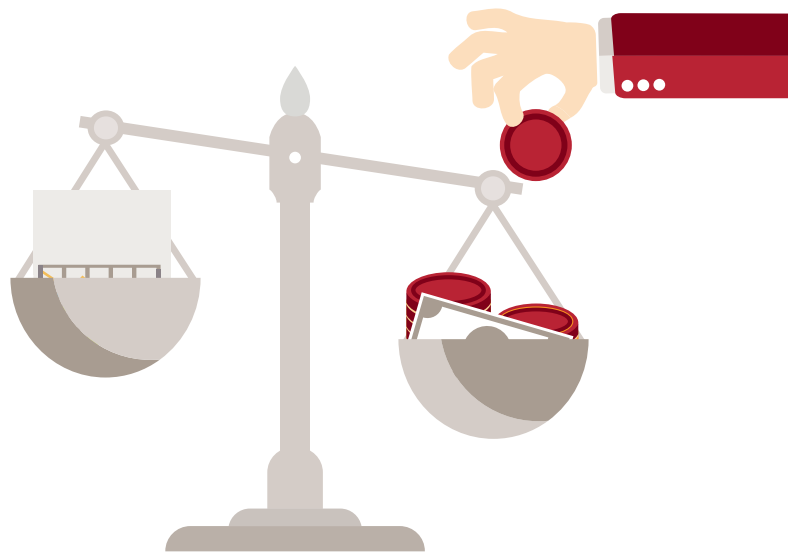
Historically, the insurance industry has included intermediaries, service providers and reinsurers. In most cases, the carrier has led the business relationship because of its retail market position and scale. However, companies are increasingly peers. Accordingly, joint ventures and partnerships are a good way to augment existing capabilities and establish symbiotic relationships. For example, BIMA Mobile has partnered with mobile telecoms companies to provide life insurance solutions to uninsured segments in less developed countries. It offers simple life, personal accident, and hospitalisation insurance products on a pay-as-you-go (PAYG) basis for a set time period (usually just a few months). Policyholders can obtain a pre-paid card and activate and manage their policy from a mobile phone.<sup>59</sup>

### 4. Leverage existing data and analytics to generate risk insights

Established insurers have traditionally had an advantage over prospective newcomers of being able to leverage many years of detailed risk data. However, data—and new types of it—can now be captured in real time and is available from external sources. As a result, there are new market entrants who have the ability to generate meaningful risk insights in very specific areas.

Several Internet of things (IoT) companies, including Mnubo, provide analytics that generate insights from sensor-based data and additional external data sources like telematics and real-time weather observation. The promise of better risk assessment and management through this model is likely to appeal to personal and commercial carriers.

Facilitating this real-time data collection are drone start-ups, including Airphrame and Airware. Drones provide the ability to analyse risk with embedded sensors and image analytics. They also can operate in remote areas that it has traditionally been difficult for humans to reach, thereby saving time and increasing efficiency. In fact, American Family's venture capital arm is investing in drone technology in order to explore new approaches to access and capture risk data.<sup>60</sup>



58. <https://www.pwc.es/es/publicaciones/seguros/top-issues-2016-insurtech-feb-2016.pdf>

59. Ibid.

60. <https://www.pwc.es/es/publicaciones/seguros/top-issues-2016-insurtech-feb-2016.pdf>

## 5. Utilise new approaches to underwriting risk and predicting loss

Protection-based models are shifting to more sophisticated preventive models that facilitate loss mitigation in all insurance segments. Sensors and related data analytics can identify unsafe driving, industrial equipment failure, impending health problems and more. More deterministic models like the ones that now exist for crop insurance are starting to emerge and new entrants are offering both risk prevention (not just loss protection) and a more service-oriented delivery model.<sup>61</sup> For example SatSure, the company uses historical and current satellite imagery, along with local socio-economic and commodity pricing data (a mix of big data, AI and analytics) to reduce the risks associated with weather-based farming, help farmers get agricultural credit and insurance, and improve settlement times.<sup>62</sup>

## 6. Enable the business with sophisticated operational capabilities

Effective core systems enable insurers to operate on a large scale. Because of cost, establishing these systems has typically been a barrier to market entry. However, access to cloud-based core solutions has facilitated scalability and flexibility. Developments like this, combined with new developments like robotics and automation, have provided new market entrants compelling market differentiators.

As just one example, underwriting automation is now available in life and commercial lines (notably for small and medium businesses). Some carriers have adopted simplified processes and 'jet' underwriting, in which they leverage external data sources to expedite approval. This has resulted from the availability of risk insights that support new underwriting approaches. Several companies are offering to optimise and augment processes via improved collaboration, AI and more. For instance: Outside IQ<sup>63</sup> offers artificial intelligence solutions via an as-a-service underwriting and claims workbench that uses big data to address complex risk-based problems. In addition, automating claims can improve efficiency and also effectively assess losses.

Thus far, insurers have moved forward cautiously on InsurTech innovation, seeking a clear value proposition and prior experience. InsurTechs, on the other hand, expect a hand-holding approach in the form of a partnership, in which both parties are invested in the success of the engagement.

As InsurTech start-ups evolve and their collaborations with incumbents develop, they will be confronted by new challenges and uncover new opportunities. But while established insurers and start-ups will be affected in different ways as the future unfolds, their ability to embrace opportunities will be enhanced if the ecosystem is able to work together.

## Moving forward, here are some areas to look out for:

1. **Blockchain:** Blockchain technology, a decentralised ledger of all transactions across a peer-to-peer network, is increasingly being considered across financial services as a secure storage and distribution solution. It has the undoubted potential to disrupt insurance and financial services, and InsurTechs are eager to exploit this opportunity.
2. **Analytics:** There is expected to be a massive ramp-up in the possibilities of robotics automation technologies that aggregate AI, data analytics and rapid software development. In the long term, the revolutionary power of analytics won't come from simply improving and automating existing functions or processes; rather, it will derive from the new roles and innovative business models that analytics may create.

The full potential of India in terms of insurance has not fully been realised. This can be understood from the various statistics presented in the paper and the penetration levels. UK start-ups, with their use of technology in the InsurTech space, will help in penetrating Indian markets to a higher level. This will be beneficial to insurers as well as the people who will be covered under the various policies.

The InsurTech sector can be transformational for the wider insurance industry and we are only just beginning to see potential applications of new ideas, technologies and processes. Some of the examples detailed in this paper give a flavour of the future, but many more developments can be expected. Incumbent insurers should welcome these new entrants with open arms. New entrants can help insurers serve existing customers better and reach new customers for the first time. However, the promise of the start-ups doesn't end there—they will also enable insurers to operate more effectively and efficiently throughout the back office. As InsurTech develops and matures, there is no doubt that more start-ups will aspire to take a piece of the market share from insurers, and incumbents will need to respond to this situation. But for now, the bigger challenge will be to respond to the opportunity start-ups offer.

The opportunity exists to improve insurance for the greater good while innovating for commercial gain, but this will require effective collaboration amongst all players across the InsurTech ecosystem.

61. [https://www.pwc.ru/ru/industries/insurance/FinTech-report\\_InsurTech.pdf](https://www.pwc.ru/ru/industries/insurance/FinTech-report_InsurTech.pdf)

62. <https://insuranceblog.accenture.com/agri-tech-the-opportunities-for-insurance>

63. [https://www.actuariesindia.org/SeminarDocs/HCI/ppt/What\\_is\\_the\\_future\\_of\\_underwriting.pdf](https://www.actuariesindia.org/SeminarDocs/HCI/ppt/What_is_the_future_of_underwriting.pdf)





# Notes

Handwriting practice lines consisting of 20 horizontal dotted lines.



## Notes

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We aim to:

- Contribute to a flourishing society
- Support a thriving economy
- Shape outstanding environments

By strengthening the connections, capacity and character of the City, London and the UK for the benefit of people who live, work and visit here.

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## Assumptions

A rate of 68 INR has been considered for conversion of USD to INR.

A rate of 85 INR has been considered for conversion of GBP to INR.

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# Global regulatory coherence within financial services





## The International Regulatory Strategy Group

**The International Regulatory Strategy Group (IRSG) is a practitioner-led group comprising senior leaders from across the UK-based financial and related professional services industry. It is one of the leading cross-sectoral groups in Europe for the industry to discuss and act upon regulatory developments.**

With an overall goal of promoting sustainable economic growth, the IRSG seeks to identify opportunities for engagement with governments, regulators and European and international institutions to advocate an international framework that will facilitate open and competitive capital markets globally. Its role includes identifying strategic level issues where a cross-sectoral position can add value to existing views.

TheCityUK and the City of London Corporation co-sponsor the IRSG.



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# FOREWORD

**A decade on from financial crisis we take for granted the global framework for financial regulation. The Pittsburgh G20 declaration has shaped much of the new regulation affecting our sector today. Global regulation now goes hand in hand with global businesses. A coherent regulatory framework helps address the risks of market fragmentation, regulatory arbitrage and global financial instability, but also improves efficiencies for firms, benefiting consumers.**

The IRSG has spent much of its time in recent years on the implementation of the global framework through changes to the EU's Single Rulebook. This report marks a refocus of its activities as we seek to increase the sector's influence on the global regulatory agenda. For our members and their customers, growing pressures on the coherence of the global framework heightens risk and potentially increases costs. In part, this is driven by Brexit, but there are other factors behind this with a move away from multilateral co-ordination and diminishing memories of the crisis. If we are to maintain the coherence of global regulation, then the voice of business needs to be heard and the IRSG has to rebalance its work towards the international agenda.

Business has an important role to play in shaping global regulation and making the argument for continued coherence, but we cannot do this in isolation. UK policymakers within government and regulators have played an important role in shaping that framework at both a personal (for example Mark Carney's chairmanship of the FSB) and institutional level. We believe that their role becomes even more important post-Brexit.

Against that backdrop, we recommend that UK Government, regulators and industry re-intensify their engagement at the global level. The IRSG will bring a new focus by establishing a new Standing Committee on Global Regulatory Coherence, which will develop forward looking and industry centric recommendations to help shape the international agenda and support UK engagement. I'm glad to say that this process is well underway, and we look forward to hearing from the new Standing Committee.

Finally, I would like to take this opportunity to personally thank Joanna Cound and Antony Manchester from BlackRock for their leadership of the IRSG workstream that delivered this report and to all the IRSG members and our stakeholders who took an active role in supporting this work and providing input to the report itself, which represents their collective views.



*Mark Hoban*

**Mark Hoban**  
Chair, IRSG Council

## EXECUTIVE SUMMARY

**As the network of global bodies and standard-setters in financial services moves beyond the immediate period following the financial crisis of 2007-08, attention will increasingly focus on its core mission of providing the appropriate backdrop for a safe, secure and innovative global financial services sector that delivers long-term sustainable economic growth.**

It is in the interests of the UK financial services industry, policy makers and regulators to ensure that global regulatory and standard-setting frameworks for financial services can evolve and deliver effective outcomes in the most efficient way over the coming years.

The aim of the report is to make the case for an ongoing industry-led dialogue on the importance of global regulatory coherence.

It looks at why the financial services sector needs to argue for the most effective form of regulatory coherence in global financial markets, to allow the global sector to best serve the real economy.

Given the increasing importance of the global regulatory architecture, it is vital that the financial services industry engages with it effectively. To date, however, engagement has been partial and disjointed.

To rectify this, this report makes two primary recommendations.

The first is for the UK Government, regulators and industry to enhance engagement at the global level; the second is for the International Regulatory Strategy Group (IRSG) to form a standing committee on the global regulatory architecture. These recommendations are supplemented by several secondary observations on the form this should take. In the first instance, these recommendations are aimed at the UK Government, market participants, regulators and the IRSG, with the expectation that outcomes of those recommendations will be of interest to a wider audience of global organisations, standard setters and industry-led international associations.



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# THE UK FINANCIAL SERVICES SECTOR AND THE GLOBAL REGULATORY ARCHITECTURE

**The period following the global financial crisis (“the crisis”) of 2007-08 witnessed the creation of a new global regulatory architecture. The establishment of the Financial Stability Board (FSB) in 2009 accompanied by the reform of the roles and work of many other bodies began a renewed period of global regulatory cooperation and standard setting in financial services.**

In the immediate aftermath of the crisis, a global policy consensus arose; the primary objective of the G20 and the FSB was to secure and safeguard the financial system by increasing its resilience to systemic risk. A period of enhanced global regulatory co-ordination followed as global policy makers worked to deliver a reform package that included strengthening recovery and resolution planning; addressing too-big-to-fail and global systemically important financial institutions (GSIFIs); improving bank capital requirements through Basel III; and supporting reforms on over-the-counter (OTC) derivatives and shadow banking<sup>1</sup>.

Much has been achieved through the work of the global bodies and standard setters over the past 10 years. Financial institutions are more resilient and macroprudential policy has moved centre stage as a public policy tool. The robustness of the global financial system is much improved as a result. After an era of repair, the world economy has moved into a period of renewal, with several years of continued, steady global growth. The global financial services sector, which is crucial to serving the needs of consumers and firms, is now in much better shape to perform that role without posing an undue threat to wider economies<sup>2</sup>.



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<sup>1</sup> Speech by Mark Carney, Governor of the Bank of England and Chair of the Financial Stability Board: What a difference a Decade Makes, IIF Internal Finance's Washington Policy Summit, 20 April 2017.

<sup>2</sup> According to the Bank of England, the loss of confidence in private finance that crystallised in the autumn of 2008 could only be arrested by public support over the following year that totalled \$15 trillion in bail-outs, government guarantees of bank liabilities and special central bank liquidity schemes.

Building on these achievements, the focus has now switched to ensuring the timely and effective implementation of these reforms<sup>3</sup>. Work at the global level is still incomplete; to take two prominent examples, much of the final detail of the Basel III rulebooks remains to filter through and a global capital standard for the insurance industry elusive. However, recent political events, as well as general reform fatigue, pose the risk of creating divisions in the post-crisis policy consensus and moving away from a drive towards consistency and coherence of global regulatory approaches and standards.

Ten years on from the crisis, the long-term policy objective must be to create and maintain the conditions for a safe, secure global financial services sector to deliver long-term sustainable economic growth.

Maintaining a drive towards consistency and coherence, where this will deliver benefits, is very important to the UK financial services industry and, as a result, to the economy of the UK.

### **The UK:**

- has the largest financial services trade surplus in the world: \$97bn in 2015;
- is home to the world's largest number of banks, with over 259 foreign firms, and hosts the world's largest commercial insurance market;
- accounts for 40% of both global FX volumes and trades in OTC interest rate derivatives; and two-thirds of trading in international bonds<sup>4</sup>; and
- has the premier global offshore centre for Renminbi (RMB) trading, with over half of the market outside Asia; and is the leading centre for Islamic finance in Europe.

### **The UK-based financial services industry is therefore of vital importance to the wider UK economy, contributing:**

- 11% of the UK's total economic output and 7% of gross value added;
- 1.1 million direct jobs (supporting a wider network of this size again);
- £79 billion of exports; and
- £72.1 billion of UK tax<sup>5</sup>.

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3 See, for instance, A. Domanski, A new era for the FSB: from policy development to dynamic implementation, speech delivered on 26 April 2018.

4 Speech by Mark Carney, Governor of the Bank of England FICC Market Standard Board, "Two years on from the Fair and Effective Markets Review", Bloomberg, London. 29 November 2017.

5 City of London Corporation Research Report, Total tax contribution of UK financial services Tenth Edition, November 2017.

**Despite the current strength of the UK's financial services sector, it is critical that the UK regulatory environment remains connected and competitive within the broader global system, in response to changing global circumstances, for example:**

- the increasing financing needs of the Asian economic powerhouses, including servicing \$26tn of infrastructure financing demand, providing the backing for the Belt and Road initiative and the internationalisation of RMB;
- the transition to a green economy and global shifts to green financing, from green bonds to wider sustainable financing; and
- the emergence of new fintech approaches, including blockchain, big data, artificial intelligence and cloud computing.

There is no inherent reason why these activities must be located in the UK, so the extent to which the UK sits within an appropriate global network of regulation will be a significant determinant, along with access to talent, funding and liquidity, of its ability to seize the full extent of the opportunities they present.

UK industry, policymakers and regulators, therefore, have a huge stake in ensuring that the global regulatory and standard-setting frameworks for financial services can evolve and deliver effective outcomes in the most efficient way over the coming years.

Against this backdrop, this report aims to stimulate and create a structure for an ongoing industry-led dialogue on the importance of global regulatory coherence. It sets out why the financial services sector needs to make the case for the most effective form of regulatory coherence in global financial markets, to allow the global sector to best serve the real economy.

The report sets out a proposal for how the UK financial services sector can best coordinate itself, and support UK policy makers and regulators, to contribute to the development of the global regulatory agenda. It offers recommendations, aimed at HMG and the IRSG as a cross-sectoral, industry-led platform, on how it can organise itself to contribute to a successful global framework.

**“THIS REPORT AIMS TO STIMULATE AND CREATE A STRUCTURE FOR AN ONGOING INDUSTRY-LED DIALOGUE ON THE IMPORTANCE OF GLOBAL REGULATORY COHERENCE.”**

This report follows three previous substantive pieces of work undertaken by the IRSG's Regulatory Coherence workstream, each of which has focused on the most immediate threat to the UK's regulatory coherence with major trading partners: the UK's decision to leave the European Union (EU):

- Third Country Regimes and Alternatives to Passporting (January 2017) concluded that the preferred model for a future relationship between the UK and EU is a bespoke agreement under which mutual rights of access to each other's markets would be allowed.
- Mutual Recognition – A Basis for Market Access after Brexit (April 2017) considered some of the key issues that would need to feature in any bespoke arrangement based on mutual recognition.
- A New Basis for Access to EU/UK Financial Services Post-Brexit (September 2017) set out a blueprint for an ambitious free trade agreement, including financial services, which would provide firms with mutual access to each other's markets without having to obtain a licence in the other market. Respecting stated UK and EU criteria, the report details several key elements that should be included in the free trade agreement, including mutual market access based on regulatory alignment and supervisory co-operation; a forum for regulatory alignment, where the UK and the EU can work together to implement new global and international standards; and a joint dispute resolution body, to determine whether material divergence has taken place and, if so, the impact that should have on market access.

The current report does not aim to explore the future relationship the UK should be seeking with the EU on financial services (and vice versa). Its scope is limited to considering the relationship of the UK financial services industry with the global regulatory architecture. However, there is clearly a shared interest across the two workstrands, as in both cases (albeit from very different starting conditions) regulatory coherence provides the opportunity to avoid unnecessary market fragmentation, cost and inefficiency.

# THE CASE FOR INTERNATIONAL REGULATORY COHERENCE

**The importance of global regulatory coherence was recognised by the G20 Leaders at the Pittsburgh Summit in 2009, where the G20 Leaders' Statements said:**

"We are committed to take action at the national and international level to raise standards together so that our national authorities implement global standards consistently in a way that ensures a level playing field and avoids fragmentation of markets, protectionism, and regulatory arbitrage<sup>6</sup>."

As has been set out by global policy makers<sup>7</sup>, the aims of global standards are to promote regulatory outcomes that are consistent across jurisdictions, avoiding harmful regulatory arbitrage, to ensure the correct setting of minimum standards to enhance financial stability, and to provide a framework for cooperation between regulators and supervisors.

Given the global nature and the inter-connectedness of the industry, it follows that, in many instances, but not necessarily in every case, the global level will be the right one at which to regulate, at least in terms of high level, outcomes-focused principles and frameworks.

Driving regulatory coherence at a global level can, in the right circumstances, have a number of benefits:

**Greater regulatory coherence reduces inefficiencies for firms,** in complying with different standards. The need for firms to comply with multiple regulatory frameworks can create inefficiencies and costs in terms of firms having to keep up to speed with, and act appropriately to comply with, changing regulatory regimes. These include maintaining separate pools of capital and liquidity to meet the requirements of separate national supervisors; tailoring their IT systems and risk management for each jurisdiction; and incurring other compliance costs. Removing these unnecessary burdens implies that efficiencies can be passed on to the real economy via lower prices for financial services, thus supporting broader economic growth.



<sup>6</sup> G20 Leaders Statement: The Pittsburgh Summit. 24-25 September 2009, Pittsburgh.

<sup>7</sup> See letter from Andrew Bailey, Chief Executive, FCA, to Rt Hon Andrew Tyrie PM, Chairman of the Treasury Committee, 13 January 2017.



**Consistency and predictability in regulation can support sustainable growth**, both in the financial services sector and the wider economy. When financial services firms have clarity on what the future regulation affecting them is going to look like – both over time and across geographies – they can have the certainty they need to invest and grow their businesses. This can allow them to expand the amount of business they do, provide a wider range of products and services and/or push into new markets. In turn, this supports the real economy and helps to boost global growth.

On the other hand, there are negative impacts arising from not achieving appropriate global regulatory coherence:

**Unnecessary financial fragmentation is bad for economic growth**; open, resilient financial markets are a positive force for economic growth. Since the crisis, certain pieces of regulation (such as the ring-fencing of capital and liquidity and holding company requirements) may have contributed to the fragmentation of global capital markets<sup>8</sup>.

**A lack of regulatory coherence can undermine financial stability**; when cross-border frictions impact global finance, allocative efficiency is undermined as assets can be stranded in domestic markets. Such restrictions can lead to credit expansion to already overheated markets, unnecessarily generating asset bubbles for regulators to address with national macroprudential rules. The highly interconnected nature of the international financial system and the presence of excessive imbalances in some regions require a more coordinated and adequately resourced global financial safety net and stronger frameworks for the prevention and resolution of a growing debt crisis<sup>9</sup>.

**Deviations dilute the primacy of global standards**; they create inefficiencies as firms are trying to comply with inconsistent rule books across borders; they create complexity and increase the possibility of compliance mistakes; they distort competition through the functioning of un-level regulatory playing fields; and market discipline can be undermined as the comparability of rule books is eroded between jurisdictions.

On this topic, the OECD has observed: “Where financial regulation is developed internationally, coordination in implementation is important since compliance mechanisms and supervisory functions are largely organised at a national level. Any material inconsistencies in implementation could further aggravate the potential problems of regulatory duplication, burden, conflict and barriers, and create opportunities for regulatory arbitrage between countries<sup>10</sup>.”

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8 TheCityUK & PwC, A Vision For A Transformed, World-Leading Industry: UK-based financial and related professional services, July 2017.

9 IMF, 2017 Global Prospects and Policy Challenges: G-20 Finance Ministers and Central Bank Governors’ Meetings, 17-18 March 2017, Baden-Baden, Germany.

10 OECD 2010, Policy Framework for Effective and Efficient Financial Regulation.

A joint international study undertaken by the International Federation of Accountants (IFAC) and Business at OECD (BIAC) on the costs and impacts of regulatory divergence found that regulatory divergence is resulting in material and increasing costs in the financial sector globally, consuming on average between 5% and 10% of annual turnover<sup>11</sup>.

However, the fact that greater global regulatory coherence can result in these benefits does not imply that it is always desirable to seek the greatest possible level of regulatory alignment.

While it is true that the global financial services industry is highly internationalised, this does not imply that the aim ought to be complete uniformity across markets; the political, historical, social and economic context differs significantly across jurisdictions. Fragmentation of markets can come about for many reasons. In some cases, greater uniformity carries costs that would outweigh the countervailing benefits, especially where the level of international consensus on the right approach to regulation is low. Here, increased coherence may only be achievable around a lowest-common-denominator approach.

Across markets, the benefits flowing from regulatory coherence will tend to be strongest in those sectors where we see the most globally integrated markets – for example, OTC derivatives and wholesale finance, bank finance and capital markets (and, secondarily, where there is the most potential for such markets to develop). In other industry sectors, where markets remain more national, and are likely to do so for the foreseeable future, the need for global regulatory coherence is likely to be lower. This is the case with insurance markets, pensions and other retirement products, and mortgages to a certain extent – though these are generally jurisdiction-specific and shaped by many factors, some regulatory (national systems require local authorisation, capital and supervision) and others much broader, reflecting specific features and policy choices (for example, tax and public healthcare provision).

Even where there is consensus on the level of global regulatory coherence that is appropriate in a general sense, across jurisdictions differences in the wider environment may mean that different approaches to how certain aims are achieved are appropriate. For instance, in emerging markets, the short-term implementation of global standards could harm domestic markets, while in the longer term, they create conditions for generating further cross-border capital flows. The role for the global framework is to provide coherence at the appropriate level – for example, in strategic or principle-based terms, which can then be filled in as appropriate at the level of each jurisdiction. Getting this balance right is a delicate exercise, with the optimum point shifting over time.

11 International Federation of Accountants & OECD BIAC, Regulatory Divergence: Costs, Risks and Impacts, February 2018.

A good example of regulatory cooperation at the global level is the global OTC market, where steps have been taken to drive forward international regulatory coherence, as the G20 Leaders agreed at their St Petersburg's Summit in September 2013: "Jurisdictions and regulators should be able to defer to each other when it is justified by the quality of their respective regulatory and enforcement regimes, based on similar outcomes, in a non-discriminatory way, paying due respect to home country regulatory regimes<sup>12</sup>."

To support this work, the OTC Derivatives Regulators' Forum (ODRF) was launched in September 2009 to provide authorities interested in OTC derivatives markets and their supporting infrastructures with a means to cooperate, exchange views, and share information on OTC derivatives central counterparties (CCPs) and trade repositories (TRs). As such it has continued to engage with the practical issues of regulatory and supervisory deference<sup>13</sup>, particularly in the light of the G20 November 2014 Declaration calling on regulatory authorities to make "further concrete progress in swiftly implementing the agreed G20 derivatives reforms<sup>14</sup>."

**"WE ARE COMMITTED TO TAKE ACTION AT THE NATIONAL AND INTERNATIONAL LEVEL TO RAISE STANDARDS TOGETHER SO THAT OUR NATIONAL AUTHORITIES IMPLEMENT GLOBAL STANDARDS CONSISTENTLY IN A WAY THAT ENSURES A LEVEL PLAYING FIELD AND AVOIDS FRAGMENTATION OF MARKETS, PROTECTIONISM, AND REGULATORY ARBITRAGE"**

G20 Leaders Statement

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12 G20 Leaders' Declaration, September 2013, St Petersburg at para. 71. Available at [https://g20.org/wp-content/uploads/2014/12/Saint\\_Petersburg\\_Declaration\\_ENG\\_0.pdf](https://g20.org/wp-content/uploads/2014/12/Saint_Petersburg_Declaration_ENG_0.pdf).

13 Deference has been identified by the G20 Leaders as a tool that authorities may use to help make reforms across jurisdictions interact better and facilitate the meeting of the objectives of the reforms.

14 The G20 Leaders noted in their November 2014 Declaration: "[W]e call on regulatory authorities to make further concrete progress in swiftly implementing the agreed G20 derivatives reforms. We encourage jurisdictions to defer to each other when it is justified, in line with the St Petersburg Declaration." See, G20 Leaders Communiqué, November 2014, Brisbane, available at [https://g20.org/wp-content/uploads/2014/12/brisbane\\_g20\\_leaders\\_summit\\_communique1.pdf](https://g20.org/wp-content/uploads/2014/12/brisbane_g20_leaders_summit_communique1.pdf).

**Example: Global Regulatory Cooperation  
OTC Derivatives Market**

Members of the OTC Derivatives Regulators' Forum ODRF have agreed that a flexible and outcomes-based approach should be the basis for any assessment regarding equivalence and substituted compliance as a means of regulatory deference. Assessments should focus on regulatory outcomes, taking into account different regulatory frameworks, local market practices and characteristics across jurisdictions. An equivalence or substituted compliance assessment should be based on an understanding that similar regulatory outcomes may be achieved through the implementation of detailed rules, or an applicable supervisory framework, or both.

Assessments can be made on a broad category-by-category basis, rather than on the regulatory regime as a whole. Assessment should consider international standards, where appropriate, and include regulatory arbitrage, investor protection, risk importation, prudential and other relevant considerations.

In its Report to G20 Leaders on Cross-Border Implementation Issues (November 2015) the OTC Derivatives Regulators Group (ODRG) noted that deference arrangements were in effect in three key jurisdictions (Australia, Canada and US) and several deference arrangements have been proposed in the EU.

Australia has found the EU to be equivalent with respect to central counterparty (CCP) clearing oversight and Germany, the UK and the US to be equivalent with respect to oversight of trading venues. Australia has also found Germany, Hong Kong, Singapore, the UK and the US equivalent with respect to market participant regulation (which would include OTC derivatives market participants). In June 2014, the Australian Securities and Investments Commission (ASIC) published regulatory guidance that states ASIC considers a number of jurisdictions' trade reporting requirements, including those of the EU, Japan and the US Commodity Futures Trading Commission (CFTC), to be equivalent to the Australian requirements.

In the US, the CFTC has issued eight comparability determinations related to the regulatory frameworks of Australia, Canada, the EU, Hong Kong, Japan and Switzerland.

As the Financial Stability Board (FSB) moves away from design of new policy initiatives towards an agenda focused on the implementation and evaluation of the effects of G20 reforms<sup>15</sup>, two new evaluations are being undertaken during 2018 on infrastructure investment and incentives for market participants to centrally clear OTC derivatives. The results of these reviews will inform decisions on whether and how to adjust the relevant post-crisis regulations.

To support the FSB's increased focus on evaluation, further steps could be taken by other global institutions and standard setters to support more formal mechanisms for the continuous and systematic cross-border dialogue between regulators, thereby improving the coherence in the implementation, interpretation and evaluation of international standards.

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<sup>15</sup> Domanski, op. cit.



# RISKS TO SUSTAINING GLOBAL REGULATORY COHERENCE

While the benefits of an ongoing commitment to global regulatory coherence are clear, and the post-crisis reforms took a significant step towards securing them, we cannot assume that the current level of global regulatory coherence will automatically be enhanced or even sustained. As Mark Carney, Governor of the Bank of England and Chair of the FSB, said in a speech in April 2017: “The global financial system is at a fork in the road. On one path, we can build a more effective, resilient system on the new pillars of responsible financial globalisation. On the other, countries could turn inwards and reduce reliance on each other’s financial systems ... The net result would be less reliable and more expensive financing for households and businesses, and very likely lower growth and higher risks in all our economies<sup>16</sup>.”



Three major areas present themselves as likely sources of risk to ongoing regulatory coherence: stalled evolution of the global framework; reduced commitment to coherence by individual jurisdictions; and lack of broader engagement with the global processes.

**Stalled evolution of the global framework:** As noted above, the task of securing the global recovery in the wake of the crisis provided a significant boost to the cause of regulatory coherence, and the network of institutions that drive this agenda forward. As we move on from the crisis, it is vital that the global framework continues to ensure that the financial system is safer, simpler and more inclusive. It must be well placed to identify the emerging risks and opportunities of the future and avoid replaying the last crisis. A key issue for global bodies and standard setters concerns diversity and inclusion, ensuring that all financial sectors and jurisdictions, in both developed and emerging markets, are involved in the global financial reform process. Further diversity among representatives is also necessary, as there is still a perception of a dominance of central banks and bank regulators across global policy committees of the FSB, with an under-representation of asset management and market conduct regulators, for example.

One approach to ensuring that the global framework continues to develop in the right way would be to support the use of cost-benefit-analysis (CBA) by global standard setters to help regulators to determine if their proposals work to solve the problems they are seeking to address. The application of rigorous CBA not only helps to improve rule making and foster more effective regulation, but these steps also promote good governance and improve the accountability of the standard setters concerned.

<sup>16</sup> Speech by Mark Carney, Governor of the Bank of England, The high road to a responsible, open financial system, Thomson Reuters, Canary Wharf, Friday 7 April 2017.

**Reduced commitment by jurisdictions:** Ten years after the crisis there is the prospect that jurisdictions' enthusiasm for global reform is waning; cohesion is weakening; and political focus drifting. It is important for all stakeholders to re-energise the debate on global regulatory coherence. Brexit could provide the catalyst for international institutions to design a more cooperative and cohesive policy process to reach agreements on consistent regulatory regimes and supervisory practices<sup>17</sup>. This aspiration was behind the approach that the IRSG proposed, a system of mutual regulatory recognition, within the context of an ambitious free trade agreement including financial services. Such an approach could also underpin the scope and processes of both sides' future equivalence decisions.

Several countries, most notably the US<sup>18</sup>, have raised concerns on the operations of the global framework, around the process and openness of the bodies in the global regulatory framework, for instance, in their objective-setting process. It is vital for the cause of regulatory coherence that leading developed and emerging market economies remain engaged with this process. One key element of this will be ensuring that global institutions are appropriately transparent, accessible and accountable, allowing them to secure ongoing buy-in from a range of national governments, reducing the risk that global agreements are undermined when implemented at jurisdiction level.

One positive step in this regard is included in a letter by the FSB Chair to the G20, in which Mark Carney outlines a series of undertakings on how the FSB will work to maximise its effectiveness, including a thorough review by FSB members on how the organisation works. The review will consider FSB transparency, consultation, mechanisms for setting the FSB's strategic agenda, and how to ensure discipline and efficiency across member-led groups charged with analysis and policy development, implementation and evaluation<sup>19</sup>. The same commitment can be found in the FSB workplan for 2018 which has recommendations on improving FSB governance, including an agreement to "a review of the FSB's processes, procedural guidelines and transparency to ensure its effective operation as it enters a new stage focused on the implementation and effects of the G20 financial regulatory reforms<sup>20</sup>".

Additionally, cooperation and information exchange amongst financial supervisors and regulators are essential for effective oversight in an integrated financial system<sup>21</sup>. Financial markets are global in scope and, therefore, weaknesses in international cooperation and information exchange can undermine the efforts of regulatory and supervisory authorities to ensure that laws and regulations are followed and that the global operations of the institutions for which they have responsibility are adequately supervised.

**“ONE KEY ELEMENT OF THIS WILL BE ENSURING THAT GLOBAL INSTITUTIONS ARE APPROPRIATELY TRANSPARENT, ACCESSIBLE AND ACCOUNTABLE, ALLOWING THEM TO SECURE ONGOING BUY-IN FROM A RANGE OF NATIONAL GOVERNMENTS, REDUCING THE RISK THAT GLOBAL AGREEMENTS ARE UNDERMINED WHEN IMPLEMENTED AT JURISDICTION LEVEL.”**

17 GFMA Principles for Achieving Consistent Regulatory Regimes and Supervisory Practices, April 2018.

18 See US Department of the Treasury Reports: A Financial System that Creates Economic Opportunities: Banks and Credit Unions, June 2017 and A Financial System that Creates Economic Opportunities: Capital Markets, October 2017.

19 FSB Chair Letter to G20 Finance Ministers and Central Bank Governors, 13 March 2018.

20 FSB Press Release, 6 October 2017, FSB discusses 2018 workplan and next steps on evaluations of effects of reforms.

21 Financial Stability Board, 19 December 2014, Global adherence to regulatory supervisory standards on international cooperation and information exchange.

**Enhancing broader engagement:** To drive the best possible outcomes, it is vital that the broader stakeholder community remains engaged with the global oversight framework. This is a resource challenge for firms, which are already engaging at the national and European level, as well as for the global bodies, many of which are relatively thinly staffed. While part of the solution is to make sure that adequate resources, including the right skills, are committed by both parties, a key factor will be ensuring that feedback can be sought, offered and received in the most efficient manner possible. This includes global institutions and standard setter bodies clearly identifying and making public the precise mechanisms and timetables for industry engagement and consultation.

It is important for industry, including via the relevant trade bodies and associations, to identify areas of inconsistency, gaps and unintended consequences that might arise from the application of global standards, and seek to provide evidence of the impact of these inconsistencies on markets, consumers and end users alike.

One area where there exists a real danger of market fragmentation is global clearing houses and exchanges. Securities and derivatives trading is centralised in London, with a 39% share of OTC derivatives trading through London and a 37% share of foreign exchange trades<sup>22</sup>. The size and centralisation of clearing in a global financial centre means reduced costs due to netting benefits and the ability to offset risks. If a segment of the euro clearing market were to fragment through onshoring to the EU, it would reduce efficiency and increase costs, as well as fracturing the relationships between UK and European regulators that have built up over many years.

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22 City of London Corporation London as a European Asset, 2017 based on BIS figures.

**Example: Market Fragmentation & Counterparty Clearing Houses (CCPs)**

Following the crisis, there was strong support among national and international regulators to develop consistent regulation and to establish cross-border solutions on financial oversight. The G20 agreed in 2009 and 2011 on a series of reforms to global OTC derivatives markets, in part to mitigate risk and improve transparency. To ensure the reduction in systemic risk in derivatives markets, while avoiding the fragmentation of liquidity and of clearing activity into smaller centres – both factors resulting in increased costs and risks for market participants – the G20 leaders further called in 2014 “on regulatory authorities [...] to defer to each other when it is justified, in line with the St Petersburg Declaration”. (G20 Leaders’ Communiqué Brisbane, 16 November, 2014.)

This is not, however, just a theoretical debate, as the case of Japan demonstrates. The application of location policy for the clearing of Japanese yen-denominated swaps by Japanese firms has led to a difference in price between onshore and offshore lending that tended to be in the region of 1-6 bps – leading to performance drag on savings and investment. Canada and Australia have considered similar measures. In the end, they rejected forced relocation due to the costs for their own players and the risk to global markets.

Similarly, the proposed revisions to the European Market Infrastructure Regulation (EMIR) include provisions to deny EU counterparties access to third-country CCPs by denying these CCPs recognition. If such access for the clearing of transactions involving EU clients were to be denied, it would artificially split the clearing market into the minority share that involves an EU client and the majority of the market, which is likely to remain in London. Costs would very likely go up, liquidity would go down, and all participants, investors and companies would bear the costs of market fragmentation. The strongest impact is likely to materialise in the minority EU market.

# PRIVATE SECTOR ENGAGEMENT

The principle of stakeholder engagement is recognised by global institutions and standard setters, which often seek to consult stakeholders as a matter of good practice. For instance, the FSB issued 13 public consultations during 2017, ranging from technical issues (for example, *Guidance on Continuity of Access to Financial Market Infrastructures (FMIs) for a Firm in Resolution*<sup>23</sup>) to strategic matters (for example, *proposed Framework for Post-Implementation Evaluation of the Effects of the G20 Financial Regulatory Reforms*<sup>24</sup>).

The financial services industry has a great deal to offer in responding to these consultations and it is important for industry to engage with this process and be vocal in the wider public discussion about the risks of fragmentation and what it will mean for markets and ultimately for financing the real economy. As Svein Anderson, the former Secretary General of the FSB, said in a speech in April 2017: “To avoid the potential risk of fragmentation, it is important that the private sector speaks up about this and continues to engage productively and proactively with the authorities and make a clear case for the benefits of effective international standards<sup>25</sup>.”

**Among other things, industry contributions can provide:**

- an assessment of prevailing market conditions;
- an understanding of how proposed approaches are likely to be operationalised by firms; and,
- a sense of the magnitude of the impact of proposed approaches in a particular market, including pointing out potential unintended consequences.



**“THE FINANCIAL SERVICES INDUSTRY HAS A GREAT DEAL TO OFFER IN RESPONDING TO THESE CONSULTATIONS AND IT IS IMPORTANT FOR INDUSTRY TO ENGAGE WITH THIS PROCESS AND BE VOCAL IN THE WIDER PUBLIC DISCUSSION ABOUT THE RISKS OF FRAGMENTATION AND WHAT IT WILL MEAN FOR MARKETS AND ULTIMATELY FOR FINANCING THE REAL ECONOMY.”**

23 FSB, *Guidance on Continuity of Access to Financial Market Infrastructures (FMIs) for a Firm in Resolution*, 6 July 2017.

24 FSB, *Framework for Post-Implementation Evaluation of the Effects of the G20 Financial Regulatory Reforms*, 3 July 2017.

25 Perspectives on Global Financial Regulation, remarks by Svein Andersen, Secretary General, Financial Stability Board, Eurofi, 6 April 2017.



One area where industry has actively engaged in policy development at the international level concerns the FX Global Code and associated adherence mechanisms. The code sets out global principles of good practice in the foreign exchange (FX) market and provides a common set of guidance to the market, helping to restore trust and confidence. Work on the code was the product of a public and private sector partnership involving range of market players – corporates and asset managers, along with trading platforms, non-bank participants and Foreign Exchange Committees. All parts of the market were involved in the drafting of the code, ensuring all perspectives were heard and appropriately reflected<sup>26</sup>.

The Bank of England, the FCA and market participants in the UK have strongly supported the development of the FX Global Code and are playing a leading role in the Global FX Committee<sup>27</sup>.

Similarly, the FICC Market Standards Board was established in 2015 as a result of the Fair and Effective Markets Review<sup>28</sup>. This is a practitioner led body set up to develop more transparent, fair and effective wholesale markets.

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26 Opening remarks by Guy Debelle, Deputy Governor of the Reserve Bank of Australia, at the launch of the FX Global Code, London, 25 May 2017.

27 Chris Salmon was the Chair of the Global FX Committee but stepped down in March 2018 alongside his decision to leave the Bank of England.

28 The Fair and Effective Markets Review (FEMR) was a comprehensive and forward-looking assessment of the way fixed income, currency and commodity (FICC) markets operate. FEMR was led by the Bank of England, and co-chaired by the FCA and HM Treasury. A final report was published on 10 June 2015.

## Examples of Private Sector Engagement

### The FX Global Code of Conduct

Where the financial services sector has engaged with relevant global standard setters, the results have been encouraging, as with the launch of the FX Global Code of Conduct. The FX Global Code of Conduct sets out principles of good practice that are designed to promote the integrity and effective functioning of the wholesale foreign exchange market – developed in partnership between central banks, the private sector and market participant groups, with involvement from the top 16 global FX trading centres. This engagement programme included an extensive outreach to market participants with more than 120 sell-side and buy-side industry associations. The FX Global Code is a tool to rebuild trust in the FX market and reflects the type of partnership working between global regulators and the financial services industry that can help to promote international regulatory cooperation.

The results of the first FX Global Code Survey, undertaken in September 2017, shows that over 150 market participants have already made a Statement of Commitment to the code less than one year after its launch, with 80% of these statements made by private sector market participants<sup>29</sup>.

### The FICC Markets Standards Board (FMSB)

As a wholesale market practitioner-led organisation with active engagement and support from regulators, market participants and advisers, the FMSB has been designed to ensure there is an effective body for expressing views across the entire wholesale FICC market. This creates a dynamic and effective mechanism to develop acceptable practices not provided by existing high-level principles or detailed regulations.

Although the Code does not represent regulation, it does show the impact that industry engagement has to offer. Given the importance and global reach of these consultations, and the positive impact that financial services industry engagement could have on them, however, it is notable that the level of response to the consultations is fairly low. For example, the FSB consultation on FMI access for firms in resolution received just 29 responses from across the globe, of which the majority were from trade bodies.

The FSB does not publish the names of consultation respondents, but anecdotally it is understood that UK financial services firms do not engage with the global bodies to anything like the same extent that they do with UK and relevant EU authorities.

<sup>29</sup> Fair and Effective Markets Review Progress Report, report to the Chancellor of the Exchequer, the Governor of the Bank of England and the Chair of the Financial Conduct Authority, May 2018.

## CONCLUSIONS AND NEXT STEPS

**The ongoing importance of the global regulatory architecture means that it is vital the public sector and the financial services industry engage effectively with global bodies and regulators to ensure that the global regulatory architecture is robust and fit for purpose. To date, however, industry engagement has been partial and disjointed, due in part to the absence of recognised docking points for industry with global institutions and standard setter bodies. Support by HMG and UK regulators has been critical to the development of the post-crisis regulatory framework, and while there has been a great deal of good work to date, a renewed effort underpinned by sufficient resource is called for to maintain the momentum towards open and free financial markets, based on coherent global standards where appropriate.**

This report makes two primary recommendations, one outward facing and one internally focused, both supplemented by several secondary observations on the form that the implementation of those recommendations should take.

### Primary recommendations

First, we call on UK Government, regulators and industry to enhance engagement at the global level building on the significant level of work already undertaken at the International level. The UK should play a leading role in shaping the global regulatory architecture; sharing regulatory insights with other jurisdictions and supporting regulatory exchanges with industry.

Second, the IRSG should form a standing committee on the global regulatory architecture comprised of representatives of the UK-based financial services industry and their trade bodies and accountable to the IRSG Executive and Council. Representatives from the official sector should be invited as observers as appropriate. The goal is to set out an approach that enables financial services firms, complementing the work of trade bodies, to engage in a coordinated and strategic way with global institutions and standard setters to support the creation of the appropriate level of regulatory coherence.

## Secondary observations

- The committee should ‘horizon scan’ existing arrangements for engaging with industry counterparts in other countries – for example, through the IRSG dialogues and TheCityUK’s Market Advisory Groups (MAGs) – and share information and examples of the benefits of global regulatory coherence.
- The committee should monitor the workplans and publications of the global bodies and standard setters, and alert members to opportunities for engagement.
- It should also identify consultations and other engagement opportunities where it is best placed to respond itself, and then seek an industry consensus position where possible and engage appropriately based on this. This should not imply that the committee will have the primary responsibility for responding to all global institution consultations; in many cases, one of the financial sector trade bodies will be better placed to do so. The committee will need to define its own operating model so that it genuinely adds to the work of trade bodies and firms, and secures wide support across the industry.
- It should monitor the overall flow of interactions between the UK-based financial services industry and global bodies and, where appropriate, seek to make this as joined-up as possible.
- It should flag areas of inconsistency in the implementation of global standards and provide evidence on the impact of inconsistency on markets and end-users. The ability to refer any divergences back to global regulators would encourage consistent implementation and adherence to international standards.
- It should act as the focal point for the industry’s communication with the relevant UK authorities, HM Treasury, the Bank of England and the FCA. In particular, it should:
  - write to them at least once a year setting out the industry’s strategic priorities for the global regulatory agenda;
  - seek to brief them on industry views in advance of events (for example, FSB Plenary) and developments; and
  - maintain working level dialogue to further mutual understanding of the authorities’ and industry’s thinking on global regulatory issues.
- It should work openly and in partnership with firms and trade bodies, recognising their expertise and deferring to them where they are best placed to respond to a particular engagement opportunity with the global bodies.

**The initial workplan for the new standing committee could include all or some of the following:**

- A review of the governance, transparency and consultation processes of each of the global standard setters: to include accounting and auditing standard setters, and the standard setters for market infrastructure, such as the Committee on Payments and Market Infrastructures (CPMI).
- A review of the criteria to which international standards could refer when adopting standards, such as the balance between efficiency, which requires identical standards, and freedom to have regulatory flexibility for justified reasons.
- Development of high-level principles to determine the factors that would indicate the appropriate level of regulatory convergence in a particular area.
- Consideration of areas where new international standards might be developed, or existing ones amended, and where frameworks for mutual recognition, equivalence or deference arrangements could deliver significant benefits, and
- A review of the effectiveness of Industry engagement at the global level.

**Next Steps**

The IRSG Executive Board will, with the approval of the Council, agree terms of reference for the new workstream and appoint a Chair. The Chair will, in consultation with the Executive Board, formulate the membership of the committee which will in turn set out its workplan and processes.



**The IRSG wishes to thank the members of the workstream which have overseen the production of the Report. Please note that this Report should not be taken as representing the view of any individual firm which took part in the discussions:**

ABI	Guernsey Finance
AIG	Hogan Lovells
Allen & Overy	HSBC
Allianz Global Investors	ICE
Aviva	Invesco
Bank of America Merrill Lynch	Investment Association
Barclays	JP Morgan
BlackRock	London Stock Exchange
BNP Paribas	Morgan Stanley
BNY Mellon	Nasdaq
BVCA	Nomura
Citi	PIMFA
CME Group	Prudential
Credit-Suisse	PwC
David Green Consulting	Societe Generale
Deutsche Bank	Standard Chartered
DTCC	TheCityUK
FLA	UBS
Goldman Sachs	UK Finance

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# Global investment:

driving UK jobs and growth  
in financial services

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# Foreword

Global investment boosts job creation, capital investment, innovation and productivity, and as a global leader in attracting investment, the UK both benefits from and contributes to the success of international investors locating their operations here.

The UK's innovative financial services sector plays a key role in attracting these investors – accounting for more than double the foreign direct investment of any other UK sector in 2016. The benefits of this investment are spread across the UK, with almost half of jobs linked to inward investment created outside of London.

This report highlights the specialisms of UK regions in attracting inward investment, with the development of centres of expertise across the UK in corporate and investment banking, retail banking, investment management and insurance, and the importance of our links with the US, China, the EU and Switzerland.

As the UK's hub for financial and professional services, London plays a key role in attracting investment from overseas. Across measures of competitiveness in global trade, investment and financial services capability, London ranks top compared with other cities. Through sharing and developing our financial services expertise, the UK can continue to build and strengthen trade and investment links across the world.



Catherine McGuinness



Charles Bowman

A handwritten signature in black ink, appearing to read 'Catherine McGuinness'.

**Catherine McGuinness**  
Chairman of the Policy  
and Resources Committee;  
The City of London Corporation

A handwritten signature in black ink, appearing to read 'Charles Bowman'.

**Charles Bowman**  
The Rt Hon The Lord Mayor



# Global investment: driving UK jobs and growth in financial services

Foreign direct investment (FDI)<sup>1</sup> plays a key role in establishing and developing links between economies, attracting new jobs, encouraging the sharing of technology and innovation between companies, and enables investors to access new markets.<sup>2</sup>

As a global financial centre and cluster of highly-specialised, innovative financial and professional services activities, the UK acts as a magnet for financial services (FS) FDI. Financial services attracted more than double the foreign direct investment than any other sector in the UK in 2016.<sup>3</sup>

Between 2013 and 2017, the UK received 392 inbound FDI projects, with overseas investors investing £8.6 billion<sup>4</sup> and creating an estimated 16,126 jobs. The benefits of FDI are spread across the UK, with almost half (49%) of jobs created outside of London. The share of jobs outside London varies across different kinds of financial services, for example in insurance and retail banking in particular, over 70% of jobs have been created outside London.

Within the UK, London acts as a hub for highly-specialised and highly-productive companies and workers, playing a key role in attracting FS FDI into the UK. Compared to eight other global financial centres, London received the highest volume of FS FDI projects in 2017 and between 2013-2017, emphasising its position as the number one location for FS FDI.

This report looks at the factors underpinning the UK's success as a major FDI destination, sets out who the key investors are, and which areas of FS attract the most investment. The report also explores the role of FDI in attracting jobs and capital across the UK and the relative strengths of UK regions. Finally, the report illustrates the success of London as a magnet for FDI, and explains how London compares to other global financial centres across key dimensions.

Over the past 15 years, the availability of a skilled workforce and the presence of an FS cluster have become increasingly important to foreign firms and investors looking to invest in UK FS. International investors cited access to the UK's FS cluster as relatively more important in their decision to invest compared with any other global FS centre.

The UK's current international investment links are also explored in depth, with the U.S, Sweden and China ranking as the UK's top FS foreign direct investors. Importantly, the UK ranks as the top choice for these three investors, demonstrating the importance of links both within the EU and globally.

The UK continues to offer a highly-skilled workforce, and combined with access to the world's largest FS cluster in London, means that the UK continues to be well-placed in attracting FS FDI across the UK. Understanding the drivers of FDI, and London and the UK's position relative to other global financial centres, will help to ensure that the benefits of FDI, particularly in terms of jobs created and investment into regional economies can continue to grow.

The key findings from each section are supported by analysis of FDI data and quotes from FS companies who have chosen to invest in the UK.

## 1st

compared to eight other global financial centres, London received the highest volume of FS FDI projects in 2017 and between 2013-2017

## 392

Inbound FDI projects

## £8.6bn

Capital investment

## 16,126

Jobs created

1. FDI refers to cross-border investments made by a business or individual from one country to another, and involves the establishment of a lasting investment in that country.

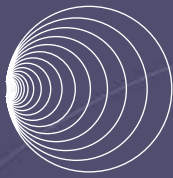
2. ONS, International perspective on FDI (2016).

3. ONS, Inward foreign direct investment involving UK companies (2016).

4. UK investment values in this report have been converted from USD into GBP using an exchange rate of 1 USD=0.77 GBP, as at 12.09.18.







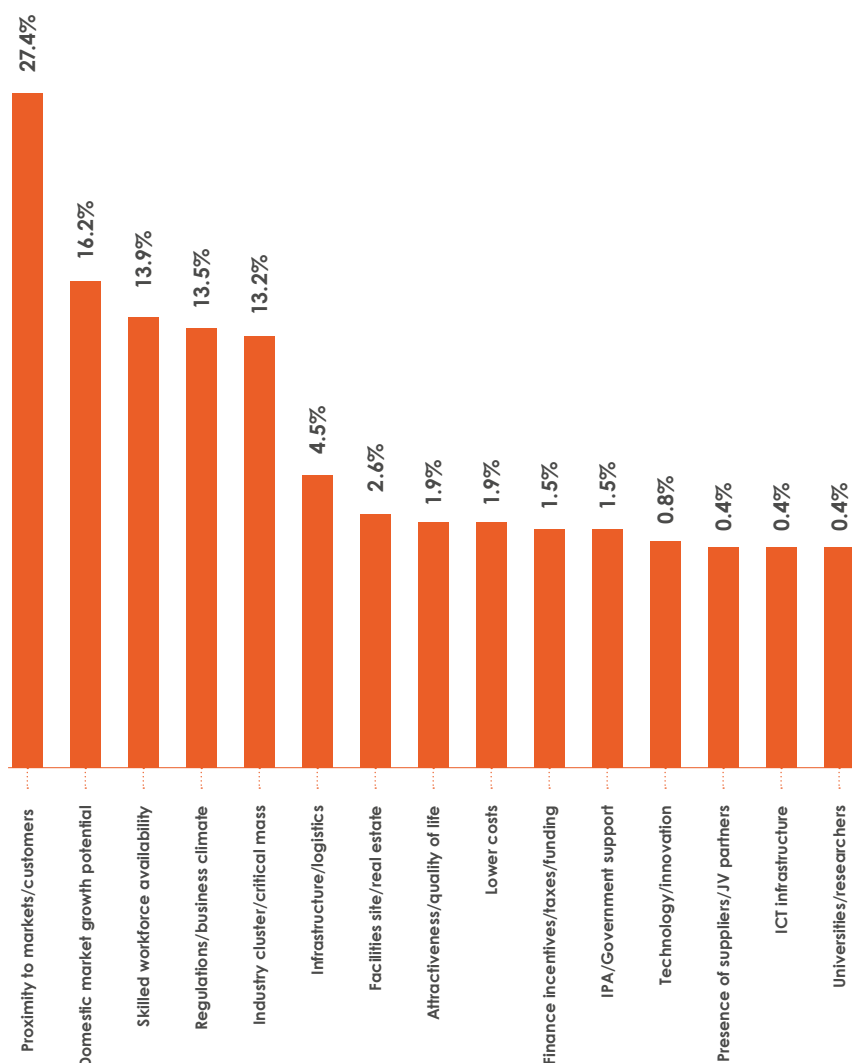
**The factors  
underpinning  
the UK's success  
as an FS FDI  
centre**

# Proximity to markets/customers is the top location determinant and is becoming increasingly important

Foreign companies are establishing FS operations in the UK to be closer to their customers and key markets; to tap into the growing domestic market; to access the local talent and skilled labour that FS companies depend on; to operate within a favourable business climate; and to be part of a financial cluster.

Proximity to markets/customers is the number one motive for firms to invest in both FS and non-FS sectors in the UK, and is becoming relatively more important for FS companies.

**Chart 1: Top 5 motives cited by foreign companies investing in financial services into the UK, 2003-2017**



Source: fDi markets

## RMC Reinsurance: proximity to markets and customers in the UK

In 2017, US-based RMC Reinsurance – a provider of risk management and actuarial consulting services – opened two new offices in London to enable the firm to grow within the UK and Europe. Their European Operations President stated,

*"RMC's presence in the UK provides us with a natural advantage since the UK is home to some of the world's largest insurance providers..."*

## Raymond James Financial: technology and innovation in the UK

US-based Raymond James Financial, a financial services company, opened a new office in London in September 2017. The office will focus on providing M&A advice to local tech companies and investors. The company eventually plans to employ around 30 executives at the branch. The company's European Head of Investment Banking stated,

*"Regardless of Brexit, the UK remains a hub for innovation and there are a number of interesting start-ups in fintech, ag-tech etcetera. For us coming to London is an opportunity to access the UK's strong technology scene and market it to global buyers."*

# Access to talent and a developed industry cluster are relatively more important for UK investment compared with other centres

A skilled workforce and industry cluster are becoming increasingly important as drivers for FS investment into the UK, and more important to investors in the UK than in other global centres (United States, India, China, Germany and Singapore).

**Table 1: FDI motives in financial service FDI, by motive type, selected countries, 2003-2017**

Motive	UK	United States	India	China	Germany	Singapore
Proximity to markets / customers	27.4%	37.3%	13.2%	20.1%	36.6%	24.6%
Domestic market growth potential	16.2%	16.7%	51.1%	45.9%	23.7%	23.6%
Skilled workforce availability	13.9%	14.1%	10.0%	2.9%	1.1%	7.9%
Regulations / business climate	13.5%	8.7%	7.4%	18.4%	17.2%	17.7%
Industry cluster / critical mass	13.2%	6.5%	4.2%	4.9%	7.5%	6.9%

Source: fDi markets

The presence of a developed industry cluster was cited as a key driver for FS investment into the UK more times than in Central and Eastern Europe, Western Europe and Asia-Pacific as well as leading global FS hubs. With the exception of the US, the availability of a skilled workforce was also cited as a driver more times by UK FS investors than investors in the other regions and countries highlighted above.

Deep pools of skills and talent exist across the UK, boosting the productivity and competitiveness of UK financial services hubs.

Scotland, the South East and the South West regions have over 40% of their 25-64 year old population educated to tertiary level, while for other UK regions the proportion ranges between 33% and 40%. UK universities are also global leaders in the teaching of accountancy and finance skills. Of the top 50 global universities for accountancy and finance, 8 are in the UK, higher than any other global centre apart from the US.

Taken together, this suggests investors invest in London and the UK because of its highly skilled workforce and cluster of expertise, and these factors provide London with a key competitive advantage relative to other global centres. The fact that these motives are becoming more important to investors suggests that the UK is deepening its specialism in these areas, which will be beneficial to attracting FDI over the coming years.

## Julius Baer: domestic market growth potential and skilled workforce availability in the UK

In 2017, Switzerland-based private banking group Julius Baer – who have had a presence in London since 2008 – opened new offices in Manchester, Leeds, Glasgow and Belfast. The company's Head of Europe and Member of the Executive Board at Bank Julius Baer & Co. Ltd. said,

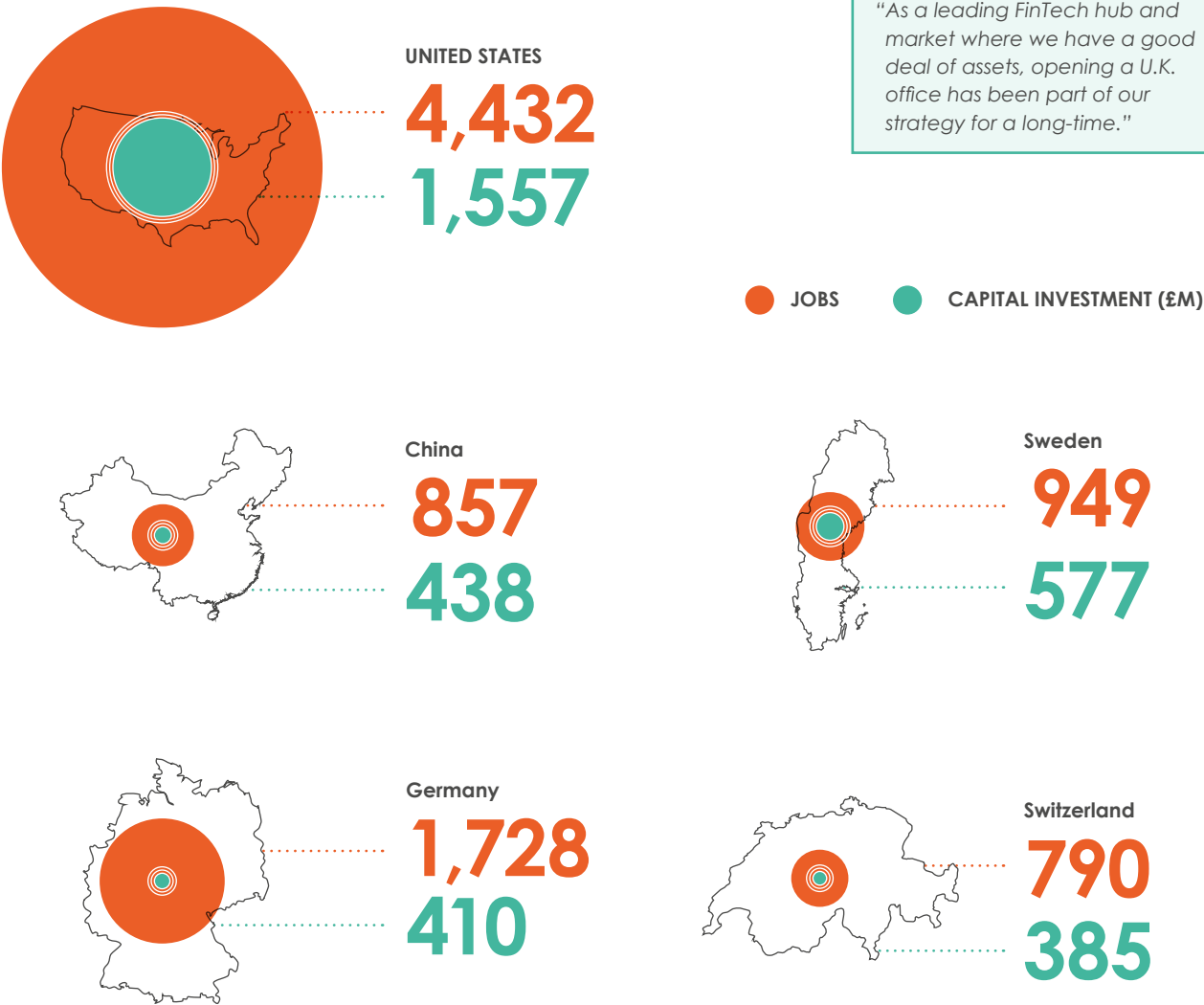
*"The UK, with its deep pool of talent in financial services, is a strategic location for investment and growth. We are committed to building a strong business for the long term and serving clients across the whole country."*

# The UK is the leading destination market for companies from a range of top source markets and sub-sectors

The United States was the leading source market in terms of projects (103 or 26% of total projects), jobs created (almost 4,500 jobs or 27% of total projects) and capital investment (over £1.5bn or 24% of total investment).

Alongside the U.S, Sweden, China, Switzerland and Germany invested the most in the UK in terms of capital investment (£m), and created the most jobs.

Chart 2: Jobs and capital investment (£m) into the UK from the top 5 FS FDI investors, 2013-2017



## Wealth Migrate: industry cluster

US-based Wealth Migrate, an international real estate crowdfunding platform, opened a new office in London in December 2017. It forms part of the company's growth in its global presence in order to meet demand from investors. The company's co-founder stated,

*"As a leading FinTech hub and market where we have a good deal of assets, opening a U.K. office has been part of our strategy for a long-time."*

Source: fDi markets

The UK is the leading destination country for FS FDI projects from the United States, Sweden and China, with the UK accounting for 15%, 47% and 15% of their total global FS FDI projects.

The UK is also the second largest destination market for Switzerland, France and India, and the third largest destination for investment from Spain, Germany, Australia and Canada. Taken together, this means that of the UK's top 10 source markets, the UK accounts for a substantial proportion of those markets' total FS investment globally.

**Table 2: Top FS FDI source countries into the UK, the UK rank and proportion of global projects from the source country, 2013-2017**

Source Country	Rank	Projects into UK	Projects, global	Projects into the UK as a proportion of global projects (%)
United States	1st	103	706	15
Sweden	1st	32	68	47
China	1st	29	192	15
Switzerland	2nd	26	218	12
Spain	3rd	21	171	12
France	2nd	20	270	7
Germany	3rd	14	195	7
Australia	3rd	11	107	10
Canada	3rd	10	158	6
India	2nd	10	81	12

Source: fDi markets

# 1st

**The UK is the leading destination country for FS FDI projects from the United States, Sweden and China**

## Ion Pacific: regulations and business climate in the UK

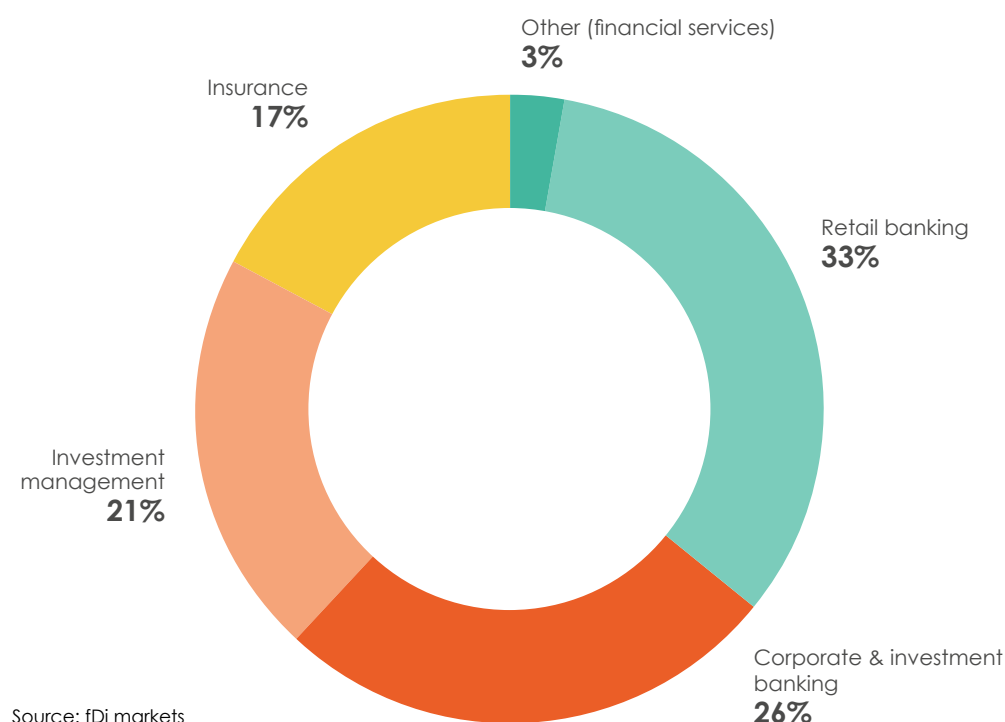
In 2017, Hong Kong-based investment and merchant banking firm Ion Pacific established its European headquarters in London. The new head office opened with a small team, however the company is actively hiring to grow quickly by late 2018. The company's managing director (EMEA) said,

*"London is a global leader in financial markets and business excellence and we believe our presence here will significantly enhance our offering to both our Asian and international client base...London will always be the HQ for Asian investors, especially the Chinese, who see it as a platform for Europe. This is unlikely to change, regardless of how Europe comes to see London in the future."*



# Corporate & investment banking and retail banking are the largest FS subsectors within the UK

Chart 3: Job creation from FS FDI by subsector, 2013-2017



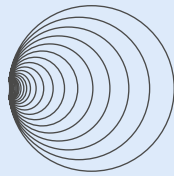
Across the UK, corporate & investment banking was the largest subsector within FS FDI into the UK by project numbers and amount of capital invested; while it ranks second by number of jobs created. Retail banking was the largest job creating subsector; the second largest subsector by capital investment; and the third largest subsector by number of projects created.

While corporate and investment banking is particularly concentrated in London, sectors like retail banking and insurance are more evenly distributed across the UK – with 72% and 71% of jobs created outside London respectively.

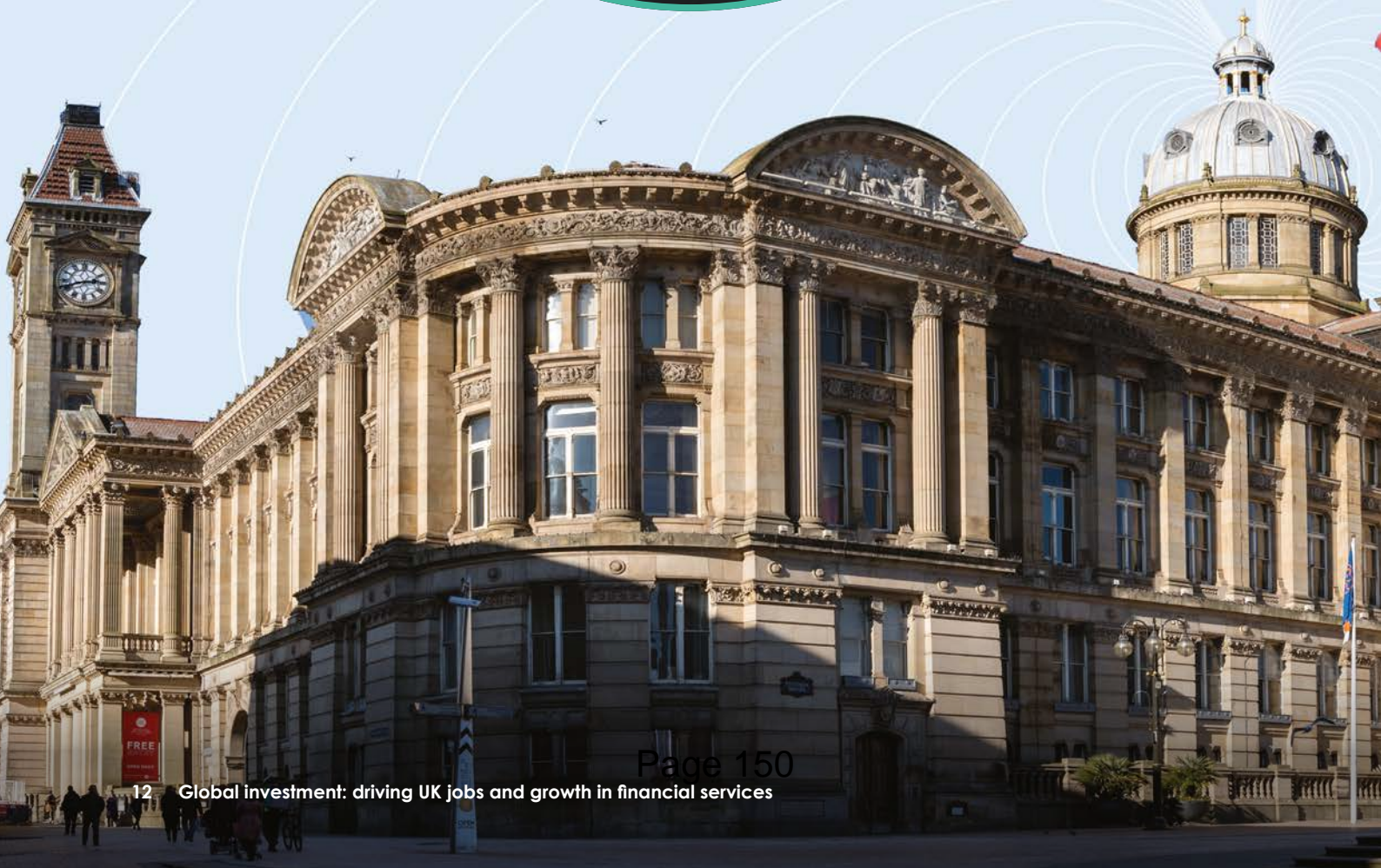
The table below shows top source countries for FDI projects by sub-sector. The US invested in the highest number of projects across all sub-sectors with the exception of retail banking, while China was also a key investor across two sub-sectors, corporate and investment banking and investment management.

Table 3: Top source markets by number of projects and sub-sector, 2013-2017

Corporate and investment banking	Investment management	Retail banking	Insurance
United States (37)	United States (32)	Sweden (31)	United States (23)
China (16)	Switzerland (14)	United States (8)	Australia (6)
Spain (11)	China (7)	India (8)	France (5)



**The spread of FDI  
benefits including  
jobs and capital  
investment across  
the UK**



Between 2013 and 2017,  
regions outside London accounted for:

49%

Almost half (49%) of the estimated number of jobs  
created from inbound financial service FDI projects.

With over 8,200 jobs created, London is the leading UK location, followed by the West Midlands and Scotland, with both regions attracting over 1,700 jobs each.

36%

Over a third (36%) of the estimated  
capital investment in the UK.

London was also the leading UK region in terms of capital investment, attracting almost £4.23 billion. Again, this was followed by Scotland, and the West Midlands as the second and third largest beneficiaries from inward FS FDI in terms of capital investment.

37%

Over a third (37%) of the estimated number  
of projects into the UK.

After London, Scotland and the North West attracted the highest number of projects, with 37 and 21 projects respectively.

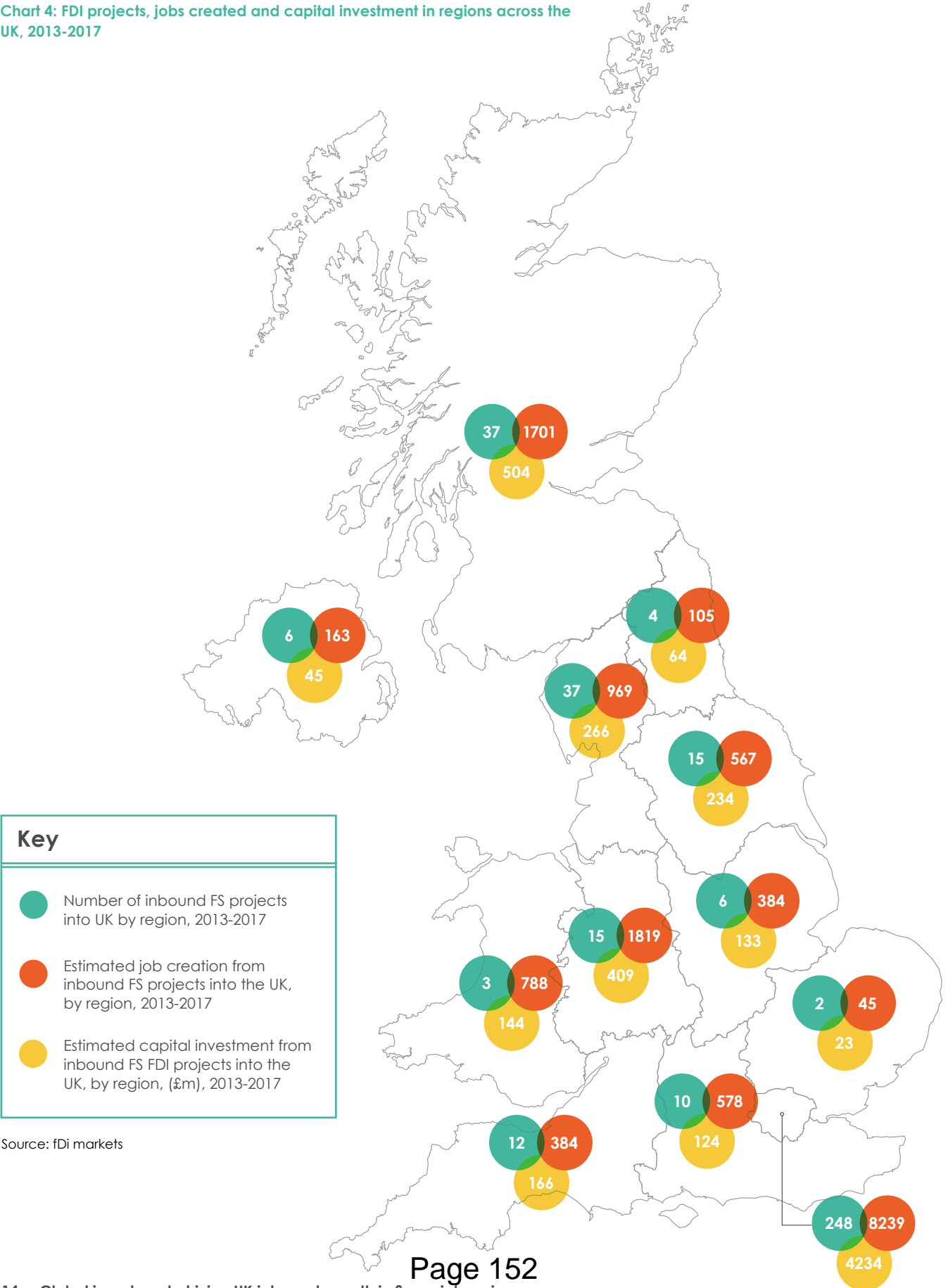






Chart 4 shows the reach of jobs created, capital invested and projects in regions across the UK, while Table 5 looks at the reach of FDI benefits across UK cities.

**Chart 4: FDI projects, jobs created and capital investment in regions across the UK, 2013-2017**



Source: fDi markets

As the cluster effect is important to UK FS investors, it is also important to look at projects, job-creation and the value of investment within UK cities, which act as hubs for specialised FS. This analysis complements recent research on city-level networks and characteristics of FS across the UK.<sup>5</sup>

**Table 5: Top UK destination cities for inbound financial service FDI projects, 2013-2017**

City	Projects	Job creation*	Capital investment (£m)
<b>London</b>	<b>248</b>	<b>8,239</b>	<b>4,234</b>
Manchester	14	543	196
Glasgow	14	590	153
Edinburgh	12	580	206
Birmingham	10	1,325	326
Leeds	7	279	96
Belfast	3	46	28
Bristol	3	113	21
Derry/Londonderry	3	117	25
Aberdeen	3	75	28
Cardiff	1	587	107
Other	77	4,375	1,230
<b>Total</b>	<b>392</b>	<b>16,216</b>	<b>6,605</b>

Source: fDi markets \*Includes estimates

While London is clearly the leading UK region in terms of attracting FDI jobs, capital investment and projects, the spread of job creation across the UK reflects the UK's competitive strengths in financial services as a whole, with clusters of jobs in the West Midlands and Scotland, and substantial benefits for cities and regions across the UK:

- **Economic output** - Almost half (48%) of UK gross value added (GVA) in financial services (or £56 billion) was created outside of London in 2016, with the South East (excluding London), alongside Scotland and the North West each contributing over £7 billion to the UK's FS GVA.<sup>6</sup>
- **Clusters of FS companies** - Just under three-quarters of all financial service companies in the UK are located outside London. By subsector, UK regions (except London) account for two-thirds of both holding & investment offices and insurance companies; 70% of non-depository institutions; just over three-quarters of security & commodity brokers, dealers, exchanges & services companies; 84% of depository institutions; and 83% of insurance agents, brokers & services companies.<sup>7</sup>
- **Pools of talent** - Almost two-thirds of financial services employment in the UK is outside London. Monetary intermediation is the largest subsector, which includes activities linked to banks and building societies, with around 248,000 persons employed in regions outside London (double the number in London). Insurance and activities auxiliary to insurance and pension funding are sectors where there are significant clusters outside of the capital – 79% and 71% (respectively) of employment in these sectors are outside of London.
- **Global competitiveness** - The UK is a global leader in exporting financial services, with a higher trade surplus than any other country. In 2015, 44% of financial exports were derived from UK regions outside of London, while 81% of insurance and pension service exports came from outside the capital. The South East accounted for 25% of UK insurance and pension service exports, with Scotland (10.4%) and the North West (9.7%) other notable contributors.

As the factors above highlight, different patterns and relative regional strengths emerge when looking at different subsectors within financial services. Chart 5 looks at how patterns of job creation differ by region between the four largest subsectors of FS FDI: corporate and investment banking; investment management; retail banking; and, insurance.

For example, while corporate and investment banking, and investment management activity was concentrated in London over 2013-2017, UK regions outside of London accounted for 72% of job creation in retail banking, and 71% of job creation in insurance.

# 48%

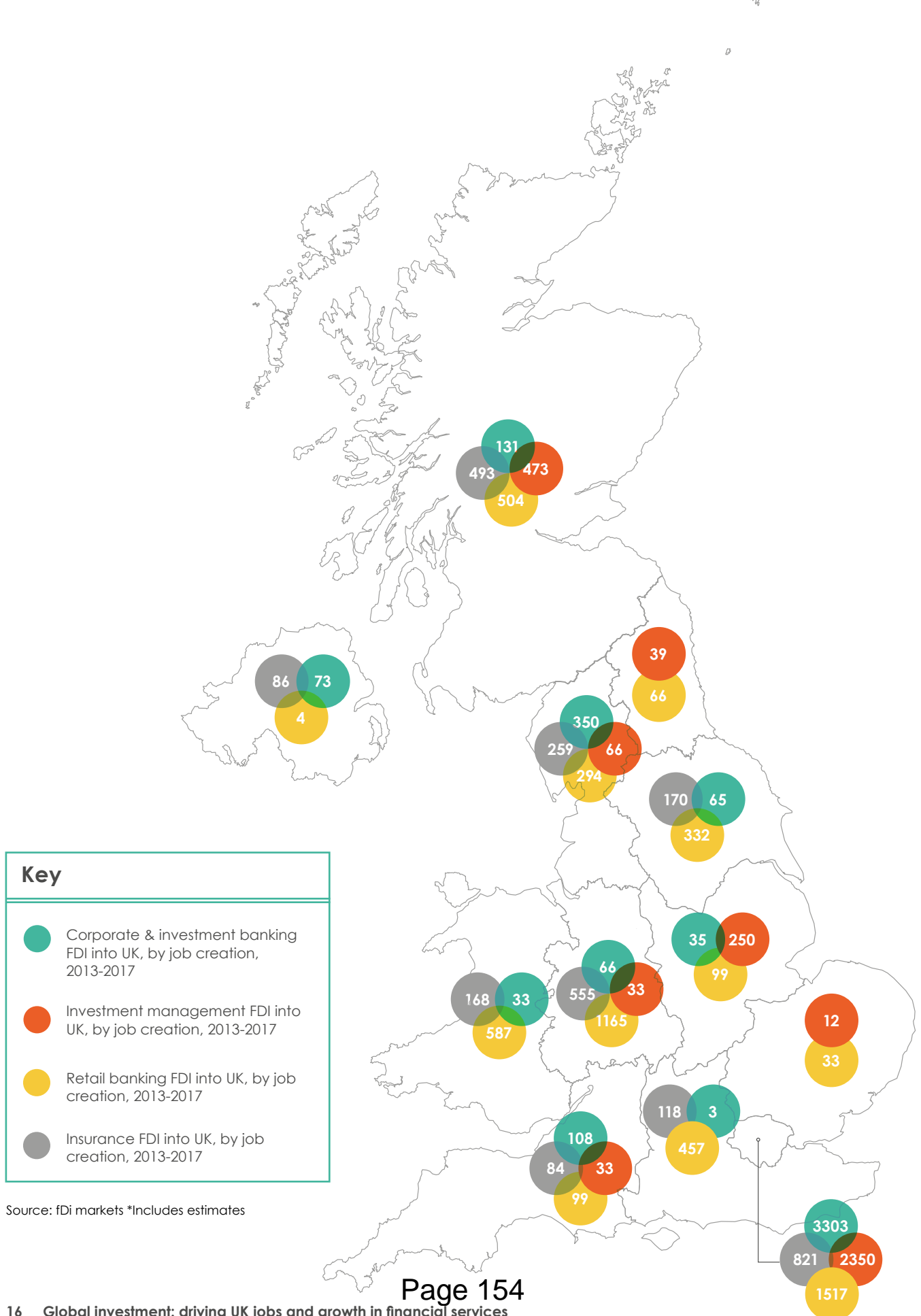
**Almost half of UK gross value added (GVA) in financial services was created outside of London in 2016**

5. Centre for Cities and City of London Corporation (2018), London links: financial services UK wide.

6. ONS, Regional GVA by industry (2016).

7. An insurance broker sells insurance products on behalf of insurance companies, whereas an insurance company provides and underwrites insurance products.

Chart 5: Jobs created by FS subsector in regions across the UK, 2013-2017



Source: fDi markets \*Includes estimates



# 78%

**Corporate & investment banking FDI is particularly concentrated in London – 78% of all new FDI jobs created in UK were in London.**

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However, there are several areas of the UK succeeding in attracting inward investment and creating new jobs, notably the North West, Scotland and the South West.

# 68%

**Just over two-thirds (68%) of FDI job creation in investment management occurred in London – approximately 2,350 jobs have been created in the UK capital.**

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Elsewhere, Scotland and the East Midlands are other important UK regions for investment management FDI.

# 72%

**Job creation from FDI in retail banking is much more widespread throughout the UK, with 72% of jobs created outside London.**

**London is the leading location accounting for around 28% of jobs created (or 1,517 jobs) in the subsector, followed closely by the West Midlands (1,165 jobs).**

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Over 500 jobs have been created in both Wales and Scotland, while 457 were created in the South East. Combined, UK regions outside of London accounted for over 70% of retail banking job creation between 2013 and 2017.

# 70%

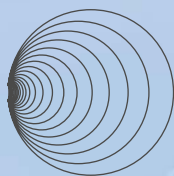
**Like retail banking, insurance FDI is more widespread throughout the UK. Regions outside of London accounted for just over 70% of total jobs created in the subsector.**

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London was the leading region with 821 jobs created, followed by West Midlands (555 jobs), Scotland (493) and the North West (259).



London



# Comparing London to other global financial centres

# London: the world's hub for global investment and trade

As the UK and the world's hub for financial services, London plays a key role in drawing international investment into the UK. Between 2013 and 2017, FS FDI into London created 8,239 jobs, an average of over 1,648 a year. What's more, London continued to attract over 1,800 jobs from FS FDI projects in 2017, suggesting that Brexit-related uncertainty is so far not impacting on foreign investors' appetite for investment in the capital.

Comparing London with eight other global centres; Dublin, Frankfurt, Paris, Luxembourg, New York, Hong Kong and Singapore, London received the most FS FDI (by number of projects) in 2017 and between 2013-2017, emphasising its position as the number one location for FS FDI. In terms of jobs and capital investment, London was ranked second (behind Singapore).

In 2017, London received 55 inbound projects, double the number of projects of Dublin (26), Paris (26), Frankfurt (24) and New York City (20); over triple the number of Hong Kong (18) and Luxembourg (14); and five times the number of Tokyo (11).

Between 2013 and 2017, London was the leading global financial centre, attracting 248 projects. This was over one-quarter (28%) of the total number of financial service projects received by the nine global financial centres. Both 2014 and 2017 were peak years for London, with 55 investments in each year.

## Measures of London's attractiveness

Comparing global financial centres across individual measures, London's success in attracting FS FDI is a result of its cluster of specialised and globally competitive services. London has the world's largest surplus in financial services trade, and the largest FS cluster in the world with 64,000 FS companies. London is also at the forefront of the development of new industries - 16 of the top 50 Fintech companies have a presence in London, more than any other global financial centre, and nine of the top 1,000 world banks are headquartered in the city. It is the base for one-third of all UK holding & investment offices as well as the same proportion of UK insurance companies. Given the importance of the presence of an FS cluster for investors, London is well-positioned to continue to attract FS FDI.

London also ranks top in terms of its share of international financial markets, accounting for the leading share of foreign exchange turnover (37%)<sup>8</sup>, cross-border bank lending (17%)<sup>9</sup>, and international bond issuance (13%)<sup>10</sup>. Combined, these factors mean that London offers deep pools of liquidity alongside a wide range of financial services to suit investors' and companies' risk profiles.

London also offers a wider talent pool for foreign investors - 57% percent of London's 25-64 year old population are educated to tertiary-level, the highest share compared with other global centres. Combined with 60,000 finance-related students studying annually in London-based universities - five of which are in the top 200 rated accountancy and finance universities worldwide - London has an array of talent available for investors.

London is the most connected city globally in terms of air connectivity, with direct access to 335 international destinations, and all global finance centres. London, and more widely the UK, offers an attractive business environment, with relatively low costs and short timeframes for establishing a business as well as a stable regulatory climate- and there is high flexibility in hiring and firing staff. In terms of staff costs, London is cost effective compared with other global centres, with savings between £4,000 and £31,000 for various financial service jobs compared to Paris, Frankfurt and New York City.

### Lohmus Haavel & Viisemann: London's industry cluster

In February 2018, Estonia-based investment banking group - Lohmus Haavel & Viisemann (LHV Pank) - established a new branch in London to develop the bank's financial service providers' business line. The branch will recruit customer service specialists, as well as new employees covering compliance and money laundering prevention. According to the company's CEO,

*"London has become one of the most important financial centres in which financial technology companies from both Europe and the rest of the world are represented. We already have a number of substantial and well-known international payment intermediaries as our clients and more will accrue in the future. We can also provide our payment services to banks, credit intermediaries and other companies..."*

### First Eagle Investment Management: skilled workforce availability in London

In 2017, First Eagle Investment Management - an investment manager, and a subsidiary of US-based Arnold and S. Bleichroeder - opened a new office in London. The office serves institutional clients and their consultants in Europe, the Middle East and Africa. First Eagle Investment Management's president stated,

*"London is a natural location for the office because of its established position as a centre of excellence in global financial services and its depth of resident talent in the investment management industry."*

8. Bank for International Settlements (2016).

9. Bank for International Settlements (2019).

10. Bank for International Settlements (2018).



### ING: London's industry cluster; proximity to markets/customers; Skilled workforce availability

In 2016, Financial services company ING, a subsidiary of Netherlands-based ING Trust, opened a new modern office in London. Group CEO stated,

*"London is undisputedly one of the world's great financial centres. It is important for ING to be here to support and empower our UK-based clients and to be close to this international hub from which we are able to serve wholesale banking clients from all over the world."*

The company also relocated around 60 jobs from Belgium and the Netherlands, including currency, derivatives and interest rate traders, foreign exchange options, rates and fixed income staff. The company's head of financial markets stated,

*"Following the Brexit vote, the intention to move some functions to London might seem countercyclical. However, even after Brexit London has and will continue to have a deep labour talent pool to support our business."*

### DBS Bank: Lower costs and skilled workforce availability in London

In April 2017, DBS Bank, a subsidiary of Singapore-based DBS Group Holdings, has obtained a UK securities licence and is looking to add staff in London as part of growth plans focused on the greater China market. The new licence will allow the bank to quadruple its current London wealth management operation. A company representative noted,

*"It's cheaper to get talent and set up base, and I believe in the long-term prospects of London."*

Location \ data point	Access to customers and markets			International trade and investment		
	Number of direct international destinations served (Destinations) 2018	Net exports of financial services (£ bn) 2017	Finance and insurance GVA as a % of total GVA (%) 2016	FS FDI projects (Projects) 2013-2017	FS FDI capital investment (£ bn) 2013-2017	FS FDI job creation (Jobs) 2013-2017
London	335 (1st)	68 (1st)	7.2 (5th)	248 (1st)	4.23 (2nd)	8,173 (2nd)
Dublin	108	7	6.1	61	1.14	4,892
Frankfurt	251	12	3.9	62	0.45	848
Hong Kong	155	11	17.6	127	3.37	4,691
Luxembourg	39	15	27.2	26	0.46	850
New York City	133	36	7.3	91	0.71	3,478
Paris	269	1	4.1	65	1.0	1,465
Singapore	158	14	13.1	170	4.73	10,611
Tokyo	108	0	4.5	45	1.26	1,664
Level	City	Country	Country	City	City	City

Source: fDi intelligence from the Financial Times based on multiple sources, OAG Flight Guide, UNCTADSTAT, UNdata, fDi markets.



Favourable business climate							
Location \ data point	Regulatory quality (-2.5 to +2.5) 2016	Hiring and firing practices (Rating 1-7) 2017	Days required to register a firm (Days) 2017	Cost of establishing a business (£) 2017	Labour costs - general accounts clerk (£ annual) 2017	Labour costs - financial analyst (£ annual) 2017	Labour costs - senior financial accountant (£ annual) 2017
London	1.76 (4th)	5.1 (4th)	4.5 (4th)	0 (1st)	22,923 (3rd)	49,573 (5th)	84,444 (4th)
Dublin	1.74	4.1	5	75	25,210	44,965	74,475
Frankfurt	1.82	4.6	10.5	593	31,085	61,185	92,966
Hong Kong	2.15	5.8	1.5	340	12,949	30,588	69,254
Luxembourg	1.72	3.7	16.5	931	31,066	57,975	88,843
New York City	1.5	5.4	5.6	441	33,158	71,846	115,503
Paris	1.07	2.4	3.5	195	29,222	62,222	98,070
Singapore	2.18	5.6	2.5	185	14,001	40,907	86,450
Tokyo	1.43	3.2	12.2	2036	22,950	43,373	83,157
Level	Country	Country	Country	Country	City	City	City

Source: fDi intelligence from the Financial Times based on multiple sources, World Governance Indicators database, World Economic Forum: Global Competitiveness Report, World Bank Doing Business, fDi benchmark.

FS industry clustering					
Location \ data point	Number of FS companies (Companies) 2018	Daily foreign exchange turnover (£ bn) Apr-16	Number of top 50 fintech companies (Companies) 2017	Number of Top 1000 World Banks (Banks) 2017	Tier 1 bank capital (£ bn) 2017
London	59,979 (1st)	1853 (1st)	16 (1st)	9 (3rd)	233 (3rd)
Dublin	17,071	2	4	3	17
Frankfurt	6,881	89	0	7	95
Hong Kong	23,441	336	2	5	15
Luxembourg	40,351	28	0	2	3
New York City	33,742	979	10	11	447
Paris	35,772	139	4	5	197
Singapore	27,987	398	4	3	52
Tokyo	32,332	307	3	15	340
Level	City	Country	City	City	City

Source: fDi Intelligence from the Financial Times based on multiple sources, fDi Intelligence based on Dun & Bradstreet Global Reference Solution, Bank for International Settlements, fDi Intelligence based on KPMG & H2 Venture, The Banker.

# Report information

This report was prepared for City of London Corporation by FDI Intelligence, a service from the Financial Times. FDI Intelligence is the largest FDI centre of excellence globally, specialising in all areas relating to FDI, investment promotion and economic development.

All data in this report referring to foreign direct investment (FDI) is greenfield FDI unless otherwise stated. Greenfield FDI is defined as overseas investment in a new physical project or expansion of an existing project which creates new jobs and capital investment and with majority-ownership by the foreign investor. Mergers & acquisitions (M&A) and other equity investments are not included. Data is provided by fDi markets, which collects information on FDI projects, jobs and capital investment. Where there is no data provided for jobs and capital investment, fDi markets estimates these figures using similar projects (projects in the same sector, doing the same business activity) in its database, that do have actual jobs and investment figures, to provide an average within a certain geographic level.

Whilst care has been taken in programming the analysis and presentation of data, abnormalities may occur. The Financial Times Ltd accepts no responsibility for the accuracy or otherwise of the content. All FDI investment project data and information is based on public information on company investment announcements. The Financial Times Ltd accepts no responsibility or otherwise for the accuracy of the data and information, nor does The Financial Times Ltd claim to track all investment projects. Jobs data and capital investment data, if included, are not recorded for all projects and include estimates. The Financial Times Ltd takes no responsibility for the accuracy or otherwise of the jobs and investment data.

## About us

### The City of London Corporation

The City of London Corporation is the governing body of the Square Mile dedicated to a vibrant and thriving City, supporting a diverse and sustainable London within a globally-successful UK.

We aim to:

- Contribute to a flourishing society
- Support a thriving economy
- Shape outstanding environments

By strengthening the connections, capacity and character of the City, London and the UK for the benefit of people who live, work and visit here.



