1	Short Research Article
2	Growth of Non-Bank Trade Finance
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5	Abstract
6 7	The rise of non-bank trade finance has been especially noticeable in the last decade. Many commodity and e-commerce companies are rapidly entering this arena as sovereign
8	guarantees and collaterals take a backseat making it harder for banks to apply traditional
9	models while lending to businesses. Non-banks which are more nimble occupy space vacated
10	by banks. Increasingly, though, banks have begun to collaborate with non-banks,
11	particularly fintech companies for rapid processing of transactions. Besides, trade finance
12	field is itself developing its own specialised areas such as commodity finance, power
13	generation and financial services. Growth in each field depends on the extent of specialised
14	knowledge, developments in capital markets, innovations by technological service providers
15	permitting new collaborations and a dynamic regulatory framework including self-regulation
16	for assessing and disclosing emerging risks.
17	Keywords: Non-Bank Trade Financiers, Financial Supply Chains, SME financing, Peer-to-
18	Peer Lending, Trade Finance Risk Assessment and Disclosure
19	
20	Introduction
21	
22	The landscape of trade financing has altered rapidly with non-bank institutions and even open
23	account dealings between trading firms coming to the fore since the turn of the century.
24	Earlier, with instruments such as Letters of Credit or Bank Discounting of trade receivables,
25	much of the commercial risks were handled by the banking sector. Today, there are
26	institutions, chiefly dealing with supply chain finance which understands specific factors
27 28	affecting value realizations at each stage of supply chain that put them in a position to provide such working capital finance due to advancements in digitization that enable risk-
28 29	sharing and risk transfer much more easily.
30	sharing and fisk transfer inden more easily.
31	The Rise of Financial Supply Chains
32	The Rise of Financial Suppry Chains
33	Although digitization has helped the growth of financial supply chains, the key element has
34	been the growth of specialized institutions that understand specific businesses and pricing
35	factors thereof. Commodity finance, for example, has become the forte of trading companies
36	such as Sumitomo Mitsui which have set up their own banking corporations that have at least
37	three verticals – agriculture, metals & mining and energy. As against simply pre-shipment
38	and post-shipment finance, specific stage financing may, in addition, be inventory finance or
39	receivable finance that may include warehouse receipt finance. Since commodity prices may
40	be highly volatile, institutions may insist on over-collateralization or increased pricing due to
41	their own need to hedge for risks. The default rates, though, are lower as credit lines are

backed by underlying commodity flows. In all supply chain finance, after the invoices areaccepted, they are put up on the digital platform and there will be financiers ready to finance

44 such invoices without even discounting them. Such digitization, thereby, helps the supplier 45 to receive early finance on easier terms as risk is divided into several components. The client 46 is similarly able to extend credit terms without any impact on credit pricing. E-commerce giants such as Alibaba have also entered the fray providing supplier finance to Chinese 47 48 companies and buyer finance to, for example, British companies purchasing goods from 49 Chinese manufacturers. ICICI Bank in India in 2015 partnered with Alibaba for the launch of 50 the online trade facilitation centre to provide easier finance in terms of rates and discounts to 51 the small and medium enterprises in India who are members of Alibaba.com. Internet giant, Baidu, often referred to as China's Google, has partnered with Citic Bank to launch an online 52 53 bank and take on its rivals – Alibaba and Tencent. Hence, in China, we have online banks 54 such as Baixin Bank, WeBank and MyBank by Baidu, Tencent and Alibaba respectively. 55 Leveraging with other banks gives them the advantage of their reach in terms of geography as well as number of customers. In a short space of time, these online banks have moved into 56 cloud computing and data services apart from online payments. This also shows that supply 57 58 chain finance is successful only when suppliers do not otherwise have ready access to liquidity. Even before the supplier can seek invoice financing, the ordering company 59 60 arranges supplier finance from either a bank or a non-bank institution.

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62 Key Trade Financiers

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League tables put out by www.tradefinanceanalytics.com show the following key trade financiers by deal size in the first quarter of the year 2016. Alibaba is right at the top with a deal size of \$4 billion. Other key non-bank trade finance deals include commodity, shipping and leasing companies. Interestingly, the Omani government and the Panama government have been the other key trade finance borrowers.

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Transaction Name Borrower Date Reported Transaction Country Transaction Region Alibaba/\$4 billion/0316 Alibaba Group 16/03/2016 China Asia & Pacific Oman government/\$2 billion/0416 Oman Government 27/04/2016 Oman Africa & Middle East CMDT/XOF32.92 million/0416 Compagnie malie... 27/04/2016 Mali Africa & Middle Eas 26/04/2016 Chile Telefonica Moviles Chile/€2.5 billion/0416 Telefonica Moviles... Americas Navig8 Product Tankers/\$130.3 million/0416 Navig8 Product Ta... 26/04/2016 United Kingdom Europe Antofagasta/\$500 million/0416 Antofagasta 26/04/2016 Chile Americas Waypoint Leasing/\$100 million/0416 Waypoint Leasing 25/04/2016 United Kingdom Europe Subsea 7/\$750 million/0416 Subsea 7 25/04/2016 United Kingdom Europe CSSC (Hong Kong) Shipping Company/\$24.. CSSC (HK) Shippi. 26/04/2016 Hong Kong Asia & Pacific Aela Energia/\$400 million/0416 Aela Energia 25/04/2016 Chile Americas Panama Government/\$2.6 billion/0416 Panama Governm.. 22/04/2016 Panama Americas Olam/\$175 million/0416 OLAM Group 21/04/2016 India, Nigeria Africa & Middle Ea. Molino Canuelas/\$80 million/0416 Molino Canuelas 21/04/2016 Argentina Americas Alkane Resources/\$600 million/0416 Alkane Resources 21/04/2016 Australia Asia & Pacific Central Africa Building Society/\$25 million/0... Central Africa Buil. 26/04/2016 Zimbabwe Africa & Middle East Zesco/\$122 million/0416 Zesco 20/04/2016 Zambia Africa & Middle Eas Chorus/NZ\$675 million/0416 Chorus 20/04/2016 New Zealand Asia & Pacific Russian Copper Company/\$100 million/0416 Russian Copper 25/04/2016 Russia Europe Yokoyama Kogyo/THB110 million/0416 Yokoyama kogyo 18/04/2016 Thailand Asia & Pacific Sembcorp&MMID Utilities/\$250 million/0416 Sembcorp Industri.. 15/04/2016 Myanmar Asia & Pacific Rosewood Shipping/\$190 million/0416 Rosewood Shipping 15/04/2016 Singapore Asia & Pacific Ocean Yield/\$202.5 million/0416 Ocean Yield 14/04/2016 Norway Europe

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72 Source: tradefinanceanalytics.com

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As is seen from the list of commercial lenders below, it is seen that while Sumitomo Mitsui Financial Group is the top commercial lender globally, its reach is highest in the Asia-Pacific and the Middle East regions. Deutsche Bank, HSBC and Credit Agricole are the top lenders in Africa. Bank of China, on the other hand, has emerged as the top lender in Europe followed by UniCredit, Societe Generale and ING Group. TD Bank, Bank of America Merrill Lynch and Scotiabank are the most prominent lenders in North America and JP Morgan Chase & Co is at the top spot in South America.

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<u>Table 2</u> Global Commercial Lenders by Region and Rank

Rank	Global	Europe	Africa	APAC	N. America	S. America	Middle East
1	Sumitomo Mitsui Financial Group	<u>Bank of</u> <u>China</u>	<u>Deutsche</u> <u>Bank</u>	Sumitomo Mitsui Financial Group	<u>TD Bank</u>	JPMorgan Chase & Co	<u>Citigroup</u>
2	Mitsubishi UFJ Financial Group	<u>UniCredit</u>	HSBC	Mizuho Financial Group	Bank of America Merrill Lynch	Natixis	Mitsubishi UFJ Financial Group
3	HSBC	<u>Societe</u> <u>Generale</u>	<u>Credit</u> <u>Agricole</u>	Mitsubishi UFJ Financial Group	Scotiabank	BBVA	<u>Sumitomo</u> <u>Mitsui</u> <u>Financial</u> <u>Group</u>

Table 1		
All Lenders – Quarter	1,	2016

4	Mizuho Financial Group	<u>ING</u> <u>Group</u>	<u>BNP</u> <u>Paribas</u>	Citigroup	<u>BMO</u> <u>Financial</u> <u>Group</u>	Societe Generale	<u>AlAhli</u> <u>Bank</u>
5	Deutsche Bank	<u>Lloyds</u>	<u>Cassa</u> Depositi e <u>Prestiti</u>	Standard Chartered	<u>Mitsubishi</u> <u>UFJ</u> <u>Financial</u> <u>Group</u>	Itau Unibanco	<u>BNP</u> Paribas
6	UniCredit	<u>Rabobank</u>	<u>Mizuho</u> <u>Financial</u> <u>Group</u>	BNP Paribas	<u>Royal</u> <u>Bank of</u> <u>Canada</u>	Deutsche Bank	<u>SMTB</u>
7	BNP Paribas	<u>Royal</u> <u>Bank of</u> <u>Scotland</u>	<u>Nedbank</u>	HSBC	<u>Mizuho</u> <u>Financial</u> <u>Group</u>	Citigroup	<u>Sompo</u> Japan Nipponkoa Insurance
8	Societe Generale	JBIC	<u>Societe</u> <u>Generale</u>	Axis Bank	Wells Fargo	Sumitomo Mitsui Financial Group	<u>Natixis</u>
9	Citigroup	<u>Mizuho</u> <u>Financial</u> <u>Group</u>	DZ Bank	JPMorgan Chase & Co	<u>HSBC</u>	Banco Bradesco	<u>ING</u> <u>Group</u>
10	ING Group	Bank of America Merrill Lynch	<u>Sumitomo</u> <u>Mitsui</u> <u>Financial</u> <u>Group</u>	Mega Bank	<u>Canadian</u> <u>Imperial</u> <u>Bank of</u> <u>Commerce</u>	Mizuho Financial Group	<u>Emirates</u> <u>NBD</u>

84 Source: Compilation from tradefinanceanalytics.com

Chase & Co have emerged as major trade financiers.

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As is seen in Table 2, all trade financiers have a specialized field of expertise as all financing 86 87 requires specialised understanding of the market of the product/service. Thus, while the top lender Sumitomo Mitsui Financial Group focuses on energy, HSBC focuses on 88 manufacturing and power generation and ING Group has metals financing as its main 89 90 division. Mizuho, another big actor in trade finance focuses on financial services sector and Deutsche Bank on power generation. The importance to understanding the specifics of each 91 market is, thus, the key to selecting the area of trade finance. The table also shows that non-92 bank entities like Sumitomo Mitsui Financial Group, Mizuho Financial Group and JPMorgan 93

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Table 3

Global Commercial Lenders by Sector

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Rank	Energy	Finance	Mfg	Power Gen	Soft	Metals	Infra
1	Sumitomo	Mizuho	JPMorgan	Deutsche	Mitsubishi	ING Group	Mitsubishi
	Mitsui	Financial	Chase &	Bank	UFJ		UFJ Financial
	Financial	Group	Co		Financial		Group
	Group				<u>Group</u>		
2	Societe	Bank of	HSBC	HSBC	<u>Sumitomo</u>	UniCredit	Royal Bank
	Generale	America			Mitsui		of Canada
		Merrill			Financial		
		Lynch			<u>Group</u>		
3	Mizuho	UniCredit	Societe	Sumitomo	TD Bank	Rabobank	Scotiabank
	Financial		Generale	Mitsui			
	Group			Financial			
				Group			

4	<u>Mitsubishi</u> <u>UFJ</u> <u>Financial</u> <u>Group</u>	Standard Chartered	Credit Agricole	Mizuho Financial Group	<u>Royal Bank</u> of Canada	Royal Bank of Scotland	Bank of America Merrill Lynch
5	ING Group	Citigroup	ING Group	Mitsubishi UFJ Financial Group	<u>Scotiabank</u>	Societe Generale	Citigroup
6	<u>UniCredit</u>	JPMorgan Chase & Co	UniCredit	AlAhli Bank	<u>Morgan</u> <u>Stanley</u>	Lloyds	Mizuho Financial Group
7	<u>Citigroup</u>	Mitsubishi UFJ Financial Group	Sumitomo Mitsui Financial Group	Alinma Bank	Bank of America Merrill Lynch	BNP Paribas	Sumitomo Mitsui Financial Group
8	Lloyds	Goldman Sachs	Bank of America Merrill Lynch	Banque Saudi Fransi	<u>BMO</u> <u>Financial</u> <u>Group</u>	Natixis	HSBC
9	<u>Rabobank</u>	BNP Paribas	Mitsubishi UFJ Financial Group	Samba Financial Group	<u>Canadian</u> Imperial Bank of Commerce	Citigroup	Credit Suisse
10	<u>Royal</u> <u>Bank of</u> <u>Scotland</u>	Wells Fargo	BNP Paribas	Sumitomo Mitsui Trust Holdings	<u>Rabobank</u>	Abu Dhabi Commercial Bank	Barclays

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100 Source: Compilation from tradefinanceanalytics.com

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D2 <u>Non-Bank Trade Financiers and SMEs</u>

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104 Access to bank finance has been somewhat of a challenge for small and medium firms, 105 particularly for those that are unable to provide the requisite collateral. As per the WTO 106 report on 'Trade Finance and SMEs' published in 2016, over half of trade finance requests 107 globally made by SMEs are rejected against just 7 per cent for multinational companies. 108 Further, as per the Bank for International Settlements, reduced trade finance could have accounted 109 for as much as two-fifths of the fall in export volumes between the 2008 financial crash and 2014. In 110 developing countries, the challenge is even bigger with the gap in developing Asia estimated 111 at US\$ 700 billion and in Africa at US\$ 120 billion which is approximately one-third of the continent's trade finance market. A number of steps including training of bank officials, 112 monitoring of trade finance provisions and maintaining dialogue with the authorities to 113 114 ensure that trade and development remain top priorities have been suggested by this report. 115 Nonetheless, SMEs are now turning to non-bank institutions which are more agile and have 116 developed solutions to meet the needs of SMEs. Companies such as General Electric Ltd had 117 floated their own finance subsidiaries which specialised in providing finance to their suppliers and customers. Of course, institutions that were using leveraged funds for trade 118 119 finance began experiencing difficulties post the 2008 crisis and some such as GE Capital Ltd had to be closed down. Earlier, in Tables 1 and 2, it was seen that Mitsubishi and Mizuho 120 Several hedge funds, too, have entered the 121 Financial Groups are top commercial lenders. fray viewing trade finance as a profitable venture for increasing shareholder wealth. 122 123 Although margins in trade finance are shrinking rapidly, hedge funds have a size and 124 diversity of business advantage due to which they have been able to structure low-cost 125 solutions for SMEs. Others like UPS Capital also make use of their network around the world to provide finance to buyers of US goods and services. The latest player in this field 126 that lends to individuals and SMEs, including start-ups, is Incred which is backed by 127 Deutsche Bank's former co-CEO Anshu Jain. As per a survey commisioned by ACI 128 129 Worldwide and conducted by IDC Financial Insights in 2015, online payment services are 130 accounting for 72.4% of total payments in Asia Pacific, followed by smartphone wallets 131 (32.8%) and mobile money (13.3%) – Digital News Asia, September 29, 2015. As per the 132 survey, the top reason consumers use online payment services is to enjoy faster and more 133 efficient payments (47%), followed by trust in online payments (21%), and better rates 134 compared with other methods of payment (15%). Own words - The Shared Economy, which 135 is built around the sharing of resources, is a major market driver in Asia Pacific. The top 136 three 'shared economy' services across the region are taxi services, aggregated meal delivery 137 and accommodations. Digital methods of payments are set to grow in tandem with shared 138 economy services in Asia Pacific, especially for transactions where convenience, speed and 139 seamlessness are valued. Examples of these transactions include taxi hire and car sharing 140 services where 10% of respondents in the region are already paying for them via smartphone 141 wallets. The region is rapidly moving toward real-time or immediate payments, driven by customers' demand for faster and more efficient payments. Non-financial services are adding 142 143 to the dynamic competition, extending payments from online and mobile ecosystems into 144 peer-to-peer payments within social apps such as WeChat and Line.

Similarly, in the UK and other places, 'peer-to-peer' lending has picked up whereby firms, 145 146 instead of lending themselves, create market places to enable the coming together of 147 borrowers and lenders (savers). Some market places may be for purely debt, others for both 148 debt and equity, particularly in start-ups and others may just enable the purchase and sale of receivables. MarketInvoice, Zopa, Prosper etc. were among the first few firms to get into this 149 150 space and enabled large volumes of transactions on their sites. Unlike USA where banks 151 fund not more than 25%-30% of credit requirements, in Europe and other places, the picture 152 is reverse; hence, the fear has been that even with non-bank finance companies coming in, the 153 gap may just be too wide to be filled by them. Capital markets are another source of funding 154 and banks are only too happy advising on and arranging the raising of capital. However, for 155 smaller firms, the minimum volumes and the transaction costs of entering the capital markets 156 Securitisation markets are an answer to this problem wherein the may be too high. 157 receivables of a group of firms are pooled and securities issued against them to investors. During the financial crisis years, securitisation markets were seen as part of the problem and 158 159 hence this non-bank money had stopped flowing to the SMEs. Though large firms find it 160 relatively easy to enter capital markets, infrastructure companies though have a problem as their funding needs stretch over multiple decades for which bond investors have very little 161 162 appetite. Pension funds and insurance companies may be the only saviours for infrastructure 163 companies but their investment in non-corporate or private debt may be restricted. Besides, 164 their expertise in dealing with less credit-worthy investors may have been dwarfed by bank 165 dominance. In India, non-bank finance companies (NBFCs) have scripted a very successful story under the guidelines framed by the central bank. However, their foray into international 166 167 trade finance is still limited. Chinese e-commerce companies have moved very fast to 168 occupy prime positions in the international trade finance arena. Such companies are also getting the required support from the government which has the goal of boosting 169

170 consumption through digital finance. Below is a graph showing the top e-commerce companies in the business of moving money: 171

Moving Money

Number of retail customers in 2014, in millions

	e-com	merce co	mpai	ny		
WeChat (Tencent social media app)						549
ICBC					465	
Agricultural Bank of China					456	
China Construction Bank				314		
Alipay			2	70		
Yu'e Bao		149				
Bank of Communications	63					
China Merchants Bank	56					
China CITIC Bank	45					

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Source: Citigroup 173

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174 China is said to be moving faster than the mobile phone companies such as Apple, Samsung and Android. A survey released by the Federal Reserve in March 2016 (Consumers and 175 Mobile Financial Services) revealed that only about 25% of smartphone users in the US had 176 177 used their device to make payments in the last one year.

178 Similarly, PayPal Holdings Ltd, a US company holds more customer money than many 179 leading banks in the US. Such money does not earn any interest and is not insured. It is 180 ready-to-spend money and PayPal has tied up with several retailers where customers can 181 shop without any cash payment or use of any debit/credit card. Money gets directly 182 transferred from PayPal account to the retailer's account. And PayPal has also partnered with 183 lenders to offer services such as remittance transfer, small business loans and debit/credit 184 cards. The Xoom international transfer service which it acquired in 2015 permits bill 185 payments to flow directly from the consumer to utilities or mobile-phone operators. This has further brought convergence between banking and fintech. Below is a picture of demand 186 187 deposits with some non-banks vis a vis banks:

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190		US demand deposits as of Q1, 2016 (billion dollars)
191	Bank of America Corp	427.19
192	J.P Morgan Chase & Co	383.28
193		
194	US Bancorp	80.27
195	Bank of New York Mellon Corp	71.09
196	Wells Fargo & Co	67.81
197	Citigroup	61.22
198	HSBC North America Holdings Ltd	29.42
199	Deutsche Bank Trust Corp	20.71
200	CapitalOne Financial Corp	15.70
201	PayPal	13.02
202		
203	Source: Asian Wall Street Journal	

204 Banking Collaborations with FinTech Companies

205 These developments show that banks, for their own survival, may have to tie up with nonbank finance companies or fintech companies. Private sector banks such as RBL Bank, 206 IndusInd Bank and Yes Bank have started giving fintech start-ups access to their Application 207 Programme Interface (APIs) so that their systems could be directly integrated with the 208 systems in the banks ensuring rapid and smooth sharing of data. Historically, banks have not 209 opened up their APIs to other entities but this opening up now enables more retail solutions 210 for the customer as all transactions, particularly relating to money transfer and pre-paid card 211 212 business are processed on behalf of banks by fintech companies. Many banks admit that such tie-ups have facilitated the efficient handling of transactions but are also aware that it exposes 213 214 the bank's platform to malware which could harm the bank's database. Security, therefore, is an important issue for banks opting to tie up with fintech companies. Often, this is handled 215 216 through ensuring that the data is encrypted and obfuscated and also through private secured channel and mutual authentication techniques to establish a right connect with third parties. 217

218 As noted earlier, a slew of startups in the fintech space are disrupting the financial services and banking industry. These firms are developing innovations that include peer-to-peer 219 lending platforms that match borrowers and savers. They are helping banks to detect fraud 220 and money laundering using artificial intelligence and machine learning. Platforms like 221 Paytm and BankBazaar.com are developing apps that quickly transfer money and provide a 222 wide range of financial products to the consumers. Paytmhas also announced to open a 223 payments bank in August 2016 in India and issue debit cards to its account holders. Rather 224 than lose the game, some banks are, therefore, forming collaborations with payments banks. 225 226 E-commerce companies, too, have tied up with payments banks to facilitate payments and 227 refunds. And Paytm is itself an e-commerce player backed by Alibaba which has a 25% stake 228 in it. Trade finance is acquiring a truly different dimension.

229 <u>Regulation of Trade Finance</u>

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231 Trade finance has historically been used as a risk management tool ensuring that cross-border 232 business is not affected by late payments or deliveries, geopolitical instability, currency fluctuations and other known and unknown risk factors. Trade finance providers today not 233 234 only need to manage operational and market risks but also risks related with money-235 laundering activities and terrorism. Trade finance providers, therefore, now need to do behavioural profiling of clients and check minutely all transactions subject to sanctions using 236 complex algorithms as well as verify trading partners' banks as part of KYC (Know Your 237 238 Customer) regulations. Compliance with regulations of different jurisdictions means that 239 business processes must be continually aligned to changes in a bid to mitigate financial 240 crime. But such compliances also means that there is a realization that banks alone may not 241 be able to finance growing trade volumes. Besides, additional capital requirements under 242 Basel III for trade-finance assets, including off-balance-sheet assets has made securitization of trade finance assets a huge possibility. Commodity trade finance by traditional lenders has 243 244 seen a big decline, but the space has quickly been occupied by banks from many emerging economies including Middle-East countries who have tended to partner with an expert 245 246 commodity bank. Syndicated lending by European banks, in particular, are becoming common with such lending directed to mainly regional banks of developing countries wishing 247 248 to get into commodity finance. A number of deals backed by export credit agencies are also coming into the capital markets. Alternative financiers or non-bank trade financiers have, 249 250 therefore, become the new phenomenon in the market. Although these non-banks do not 251 have to comply with Basel III or liquidity requirements, they, in their own interest, are 252 finding it prudent to comply with anti-money laundering and counter-terrorism regulations. But the industry is still afraid of what one may call 'de-globalisation of regulations' with 253 254 regulations varying from jurisdiction to jurisdiction creating an un-level playing field and minimizing risk mitigation opportunities on some deals. In the meanwhile, non-banks or 255 256 alternate trade financiers are discovering the merits of the individuality of trade finance asset 257 class and reaping its benefits.

Thus, non-bank institutions have flourished despite the onset of stricter regulatory 258 frameworks. In India, additional Tier I capital requirements rising to Rs 2 crore in March 259 260 2017 and reduced ability to take public deposits to 1.5 times their minimum capital from 4 times that prevailed earlier are unlikely to dent their onward march. This is despite the fact 261 that many of them with deep linkages to the capital markets have been categorised as 262 systemically important financial institutions (SIFIs) and are being watched very closely by 263 264 the regulator for any risks arising due to counter-party failure or funding and asset concentrations affecting liquidity and solvency. Apart from their nimbleness, new 265 266 technological innovations such as cloud-computing has also served to bring down costs of offering trade finance and increase capacities due to the use of third-party computing 267 268 capability infrastructure which is also continually monitored by them. Smaller players are leveraging on applications like software as a service (SaaS) to host their entire trade finance 269 270 systems on cloud resources. Other applications line infrastructure as a service (IaaS) typically 271 encompassing on-demand memory management, computational power and secondary storage and platform as a service (PaaS) whereby customer portals, trade transactional processing 272 solutions and trade reporting systems can be developed in any programming platform are also 273 increasingly been used to build new capabilities and enter new territories. Of course, quality 274 275 of service delivery and data protection, therefore, now assume a lot of significance. Cloud suppliers must consciously upgrade their capacity to handle technological platforms and exhibit a great sense of responsibility to address critical business issues while providing services such as application hosting, data centre management, virtual databases, virtual server processing capabilities and storage and business support. Further growth in non-bank trade finance will, thus, depend as much on ethical handling of data as the nimbleness of the operating entities.

282 Another development that may have some impact on the growth of non-bank trade finance is 283 the introduction of international financial reporting standards (IFRS) on financial 284 transactions. IFRS 9, applicable from January 2018, requires recognition of anticipated losses over the next one year and over the lifetime for all financial assets and not just incurred 285 286 losses as at present. This may result in reduced capital affecting capital adequacy ratios. 287 Besides additional investments are necessary in risk assessment and evaluation of qualitative data as significant changes in credit risk are to be assessed throughout the lifetime of the 288 289 financial asset. Besides, all assets and liabilities have to be initially recognised at fair value 290 and after that amortised values may be allowed only if the intention to hold the financial 291 instrument to maturity is proven. Fair value, which has the potential to bring in a lot of 292 volatility in income statements, will thus be dominant in financial reporting for both banks 293 and non-banks providing trade finance. All this also requires huge disclosure on capital 294 management strategies, significance of financial instruments and the risks attached. The 295 growth in trade finance assets, thus, depends on establishing a dynamic regulatory framework 296 and the ability of banks and non-banks to invest in new capabilities and incur the necessary 297 costs.

298 <u>Concluding Observations</u>

299 Non-bank players have become prominent for providing solutions for non-standard 300 transactions and this, no doubt, requires specialist credit skills. These players are now able to 301 reach their customers online and are, therefore, not inhibited by the lack of a distribution 302 channel. Besides, Basel III liquidity requirements have made it easier to hold trade finance 303 assets for non-banks. These non-banks have alternative capital structures with equity coming 304 from private sources of funds including hedge funds. Invariably, most of them manage long-305 term risk through multiple contracts such as appointment of collateral managers, escrow 306 account managers and third party certification agents to verify the quality of shipments. 307 These market trends are opening up the returns that were historically only available to banks 308 and institutional investors are now available to private investors via new fund structures. 309 Transportation risks have traditionally been well-handled through insurance contracts; but 310 political risks including export or import bans, border closures or security disruptions have 311 the potential to lead to re-routing and delays increasing the risk of non-acceptance by buyers 312 and disruptions by collateral, escrow and third party certification service providers. Banks 313 have traditionally focussed on balance sheet financing wherein the general credit of the 314 borrower or the purchaser has been a key input in the financing decision. Trade finance is transaction-based and the stronger the documentation which is now moving online, the easier 315 316 and quicker will be the financing of the trade transaction. Non-banks clearly have been able 317 to create a niche for themselves in financing of trade transactions including commodity trade 318 which has gradually gone into the hands of private traders and has become riskier due to the 319 absence of government guarantees or state-backed letters of credit. Technology definitely has 320 aided processing of such riskier transactions and collateral managers and escrow account 321 managers, too, have played a significant role by breaking down the trade financing risks. 322 Due to this, unsecured credit has become a possibility and traders are now able to borrow 323 more than what their physical collateral permits. Yet, the need for regulation, even though, 324 different from jurisdiction to jurisdiction in some cases, remains as large contracts pose systemic risk to the economy and small businesses deserve to be protected just like small 325 depositors who get the needed protection. This regulation includes new laws on data security 326 327 and ethical conduct by technological service providers as well as changing accounting 328 standards meant to give advance information to investors and other users of financial reports. Trade financiers will have to take into account the constantly changing context of trade 329 330 finance to continue to experience growth in this area.

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