Evolution of Supply Chain Finance in Japan

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FINTECH ASSOCIATION OF JAPAN

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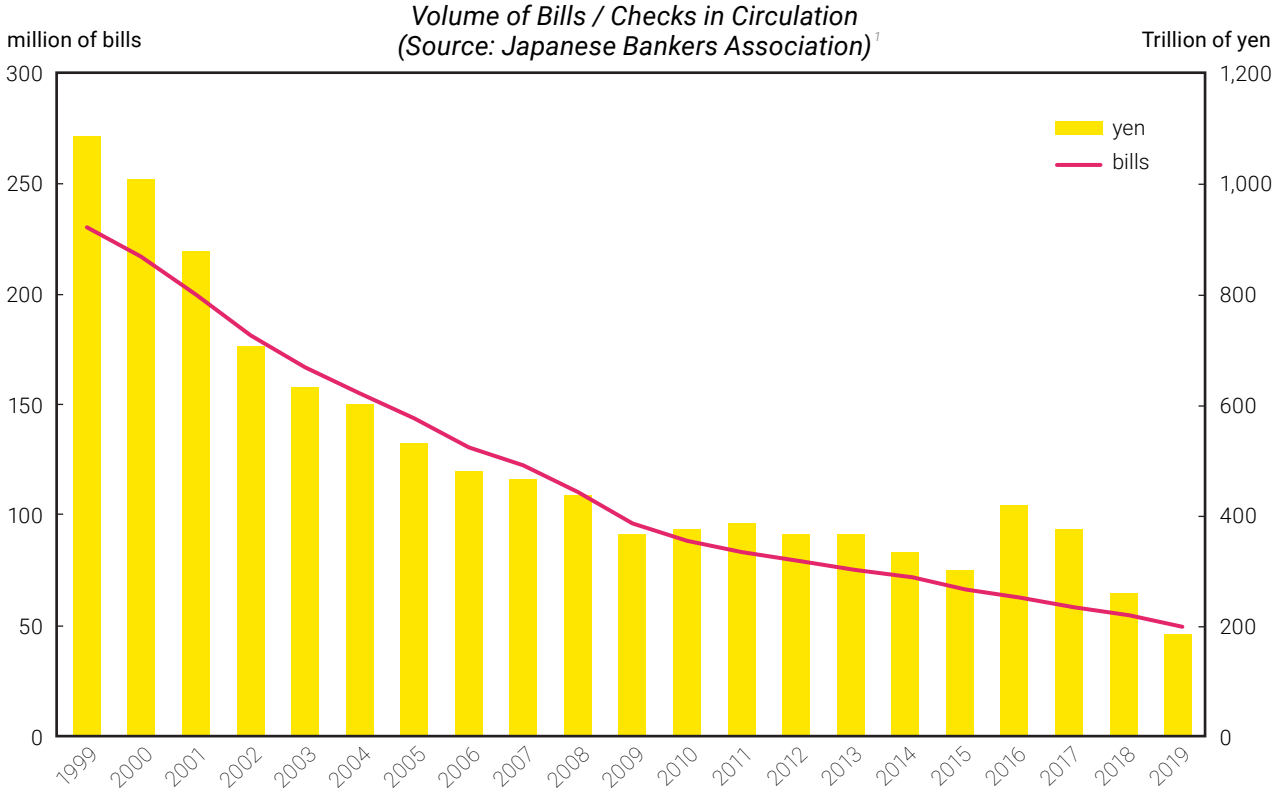
01 SUPPLY CHAIN FINANCE IN JAPAN

1. Current lending practice in Japan

Traditionally, real estate secured loans and trade credits (checks and bills) have been the main form of financing for companies in Japan. However, the use of bills has traced a downward trend due to the costs of creation, delivery and storage, as well as the risk of their loss or theft. Also, several constraints are serving as bottlenecks to small and medium enterprises (SMEs) in accessing finance from banks, including the practice of requiring real estate collateral.

In this context, factoring and assignment of receivables are also being used. The market for factoring and assignment of receivables has been developed, but they are used as minor importance due to the higher cost of financing, reflecting the risk involved. Purchasing receivables has become more popular in recent years. More companies are buying them, and interest rates have gone down.

Volume of Bills / Checks in Circulation
(Source: Japanese Bankers Association)[1]



[1] https://www.zenginkyo.or.jp/stats/year1-01/2019/

2.

Electronically Recorded Monetary Claims (ERMC)

In order to facilitate financing by SMEs, the ERMC was introduced in 2008.

ERMC is a monetary claim that is electronically recorded in the database of an electronic monetary claim recording institution. Its accrual, assignment, and other transaction become valid and enforceable by the electrical record. The title over the receivable is affected by the record in the database of an electronic monetary claim recording institution.

The use of ERMC is not spreading as expected. According to the survey in 2019, ERMC is less used by small domestic companies. (Table 2)

Percentage of Densai users (Source: Japanese Bankers Association)[2]

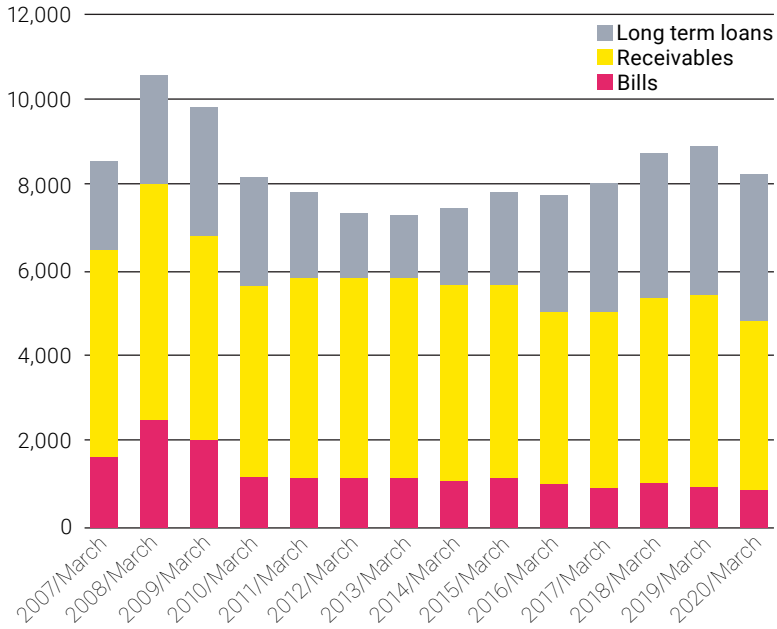
Size of companies	Number of Densai users(a)	Number of companie(b)	(a)/(b)
Large	3,488	5,784	60.30%
Medium	11,983	22,711	52.80%
Small	408,687	1,547,869	26.40%

3.

Conventional ABL (Asset-based Lending)

In 2013, the JFSA published "Active Use of ABL"[3] and clarified the requirements for general collateral for movable and receivables. Thanks in part to these and other government initiatives, the accounts receivable securitization market has developed to a certain extent. (Table 3) The securitization of accounts receivable is considered an effective way for large corporates and less creditworthy borrowers to increase financing by separating accounts receivable from the original borrowers.

Amount of securitization by securitized assets (Source: Securitization Forum of Japan) [4]



[2] *https://www.keidanren.or.jp/policy/2020/079_honbun.pdf*
[3] *https://www.fsa.go.jp/news/24/ginkou/20130205-1.html*
[4] *http://www.sfj.gr.jp/info/index.html*

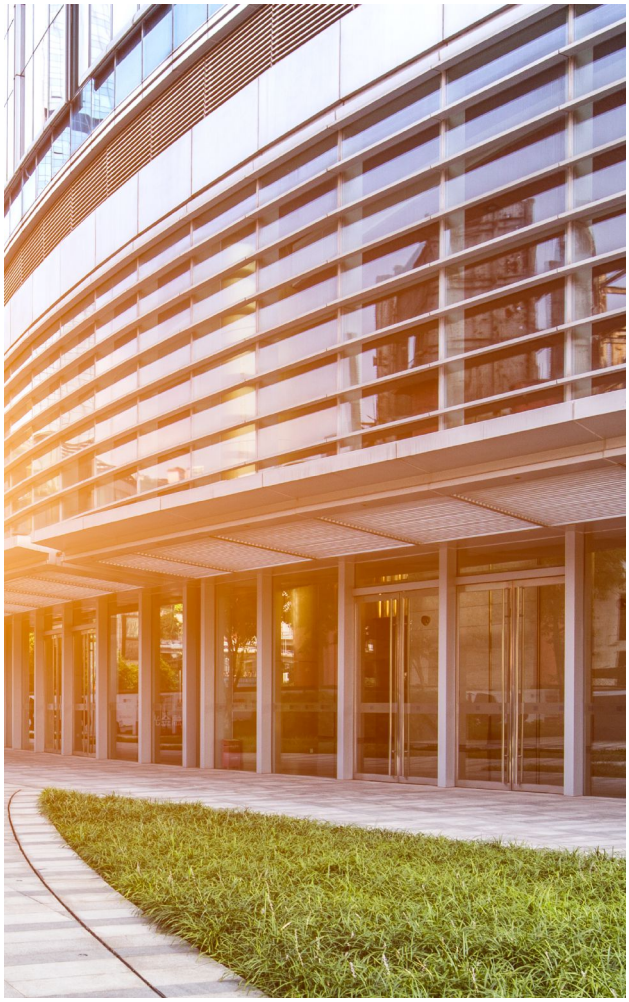
4.

New technology-based funding methods

In addition to the conventional financial statement-based credit assessment and real estate-secured loans, the wider use of a scheme that allows SMEs to receive loans at the stage of order receipt, delivery, and inspection will help meet the diverse financing needs of SMEs.

Some companies have been effectively using ERMC to facilitate factoring and receivables financing in areas that were not often covered in the past. There are some services introduced which allow customers (borrowers) to obtain financing at the time of order placement/receipt of an order. Under this scheme, ERMC is created based on a purchase order.[5]

Some companies facilitate lending to SMEs by using data to gain visibility into the credit of those companies. Companies' transaction data is aggregated and algorithms are used for this solution. By linking payers' account data, payees' account data and commercial transaction data, it becomes possible to monitor the account activities in nearly real-time, including sales and transactions. The system also utilizes data from social networking sites and blogs, as well as word-of-mouth reviews on those sites, making it a more dynamic data source than traditional screening methods.



[5] *https://www.chusho.meti.go.jp/koukai/kenkyukai/smartsme/2019/190424smartsme06.pdf*

5.

Enhanced electronic data interchange (EDI)

The development of data to support supply chain finance is in progress.

There are several initiatives to develop the Common EDI for SMEs (hereinafter referred to as “Common EDI”) using UN/CEFACT common (EDI) vocabulary. [6] In addition, the Zengin EDI System (ZEDI) has replaced B2B bulk transfer messages with the international standard XML messages (ISO 20022), allowing greater flexibility in the format of EDI information (e.g. transaction information such as invoice number and product name, which is necessary for identifying and writing off accounts receivable) that can be attached to transfer messages. [7] Systems are being built to improve and significantly expand the amount of data to be processed. The Financial EDI Information Standard has been developed for the distribution, construction, and petrochemical sectors. The S-ZEDI, a general-purpose financial EDI information standard, has been developed for the Japanese Banks’ Payment Clearing Network (Zengin Net). [8]

However, as a result of the introduction of different EDI standards, vendors are forced to deal with different transaction screens for each ordering company, and the adoption of EDI has not progressed as expected. [9]

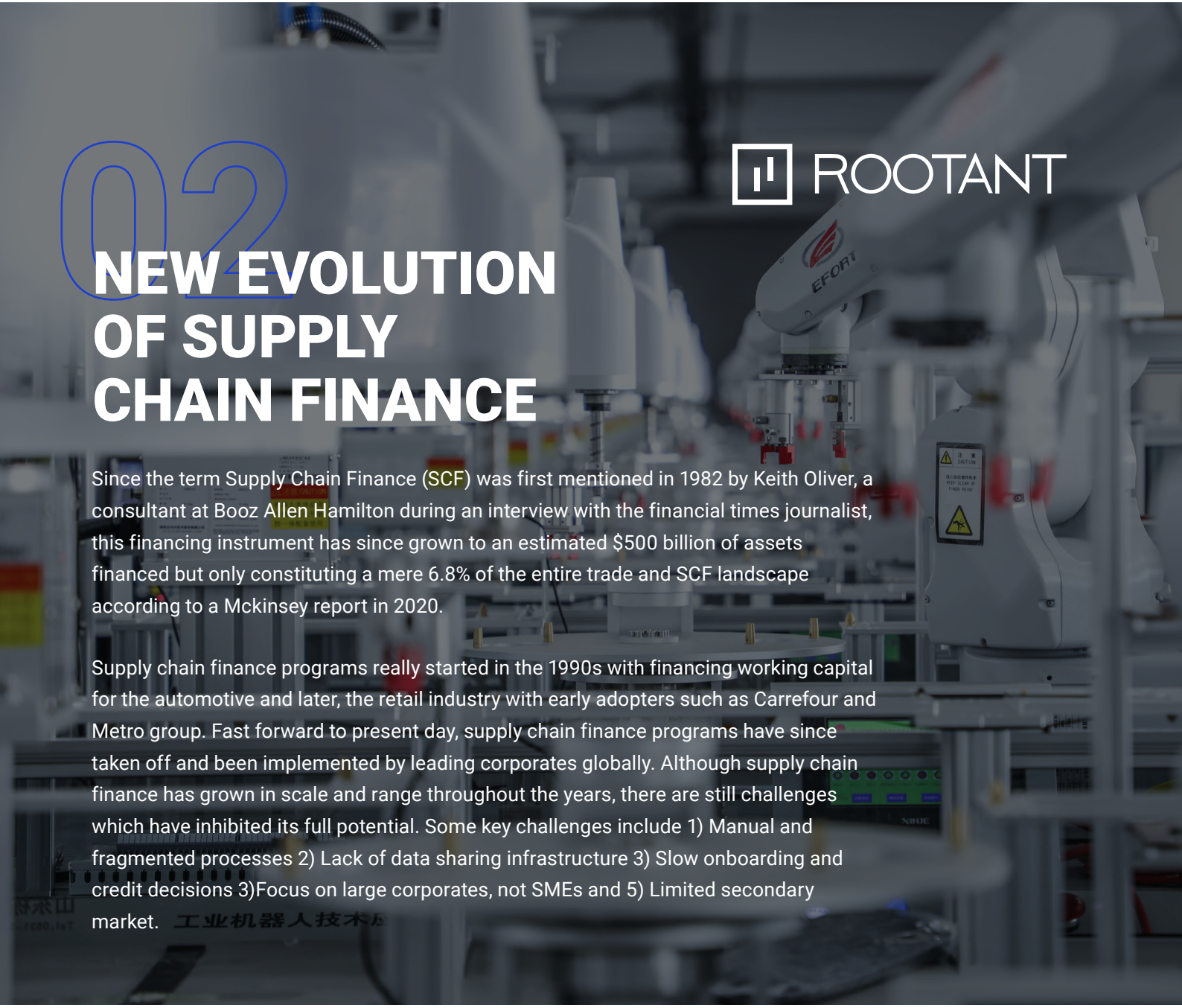
6.

Deep-tier finance in Japan

There is an initiative to implement a deep-tier/multi-tier financing model in Japan.

A blockchain-based approach to supply chain finance, known as deep-tier finance, will make finacing available to companies in a supply chain. In deep-tier finance, a manufacturer of final products in the supply chain issues a divisible accounts receivable token. Financial institutions provide an application and manage the accounts receivable tokens. The digitized accounts receivable tokens can be converted to cash when presented to the bank on the application or be used directly to make payments to other companies in the same supply chain. [10]

[6] *https://www.chusho.meti.go.jp/keiei/gijut/edi.htm*
[7] *https://www.zenginkyo.or.jp/abstract/efforts/smooth/xml/*
[8] *https://www.zengin-net.jp/zedi/pdf/standard-edi.pdf*
[9] *https://www.keidanren.or.jp/policy/2020/079_honbun.pdf*
[10] *https://medium.com/corda-japan/deep-tier-financing-1a7598805455*



02

NEW EVOLUTION OF SUPPLY CHAIN FINANCE

Since the term Supply Chain Finance (SCF) was first mentioned in 1982 by Keith Oliver, a consultant at Booz Allen Hamilton during an interview with the financial times journalist, this financing instrument has since grown to an estimated $500 billion of assets financed but only constituting a mere 6.8% of the entire trade and SCF landscape according to a Mckinsey report in 2020.

Supply chain finance programs really started in the 1990s with financing working capital for the automotive and later, the retail industry with early adopters such as Carrefour and Metro group. Fast forward to present day, supply chain finance programs have since taken off and been implemented by leading corporates globally. Although supply chain finance has grown in scale and range throughout the years, there are still challenges which have inhibited its full potential. Some key challenges include 1) Manual and fragmented processes 2) Lack of data sharing infrastructure 3) Slow onboarding and credit decisions 3)Focus on large corporates, not SMEs and 5) Limited secondary market.

Supply Chain Finance 4.0 - Promise fulfilled finally?

Supply Chain Finance was deemed to be the solution that would solve the working capital gap for trade activities. It allows buyers to secure inventory through extending payment terms while improving the cash flow of the suppliers. Banks and other financiers would finance short term, recurring and comparatively lower risks assets. If executed properly, Supply Chain Finance would benefit entire ecosystems. Unfortunately, due to the challenges as above, the promise has not been fulfilled.

In recent years, we have seen a renewed interest in Supply Chain Finance by the financiers, fintechs, core enterprises and Investors. This market is set to be disrupted with the introduction of new financial products which are scenario based, more inclusive (not just large corporates), more cost effective and embedded into the industries or ecosystems.

Increasing uncertainties in the global supply chain which the recent COVID-19 pandemic have shown, have made the task of optimisation of working capital and implementing measures to strengthen supply chain top priorities for core enterprises. Core

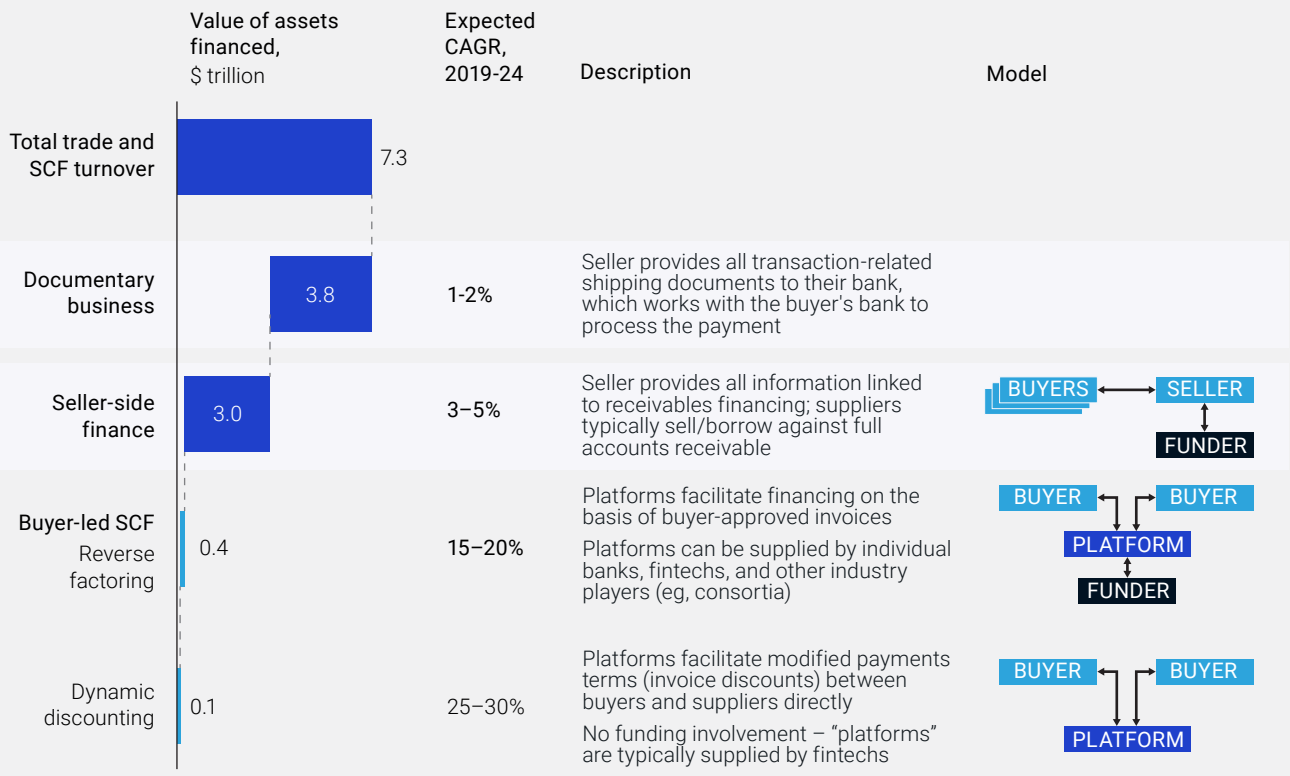
enterprises have been busy reevaluating their supply chain to minimise their reliance on China and diversifying their supply chain. With more companies relocating, it would cause a structural shift in the supply chain and the need for more holistic SCF solutions to support this. Mckinsey report estimated that $4.6 trillion of global exports could be relocated in the next 5 years.

According to a 2019 IBM global C-suite study, 84% of chief supply chain officers stated that lack of visibility across the supply chain was the biggest challenge they face. The accelerated digitisation of the supply chain and the use of advanced technologies would inevitably accelerate the growth of SCF programs in the next few years. In particular, distributed ledger technology (Blockchain) has shown great promise, in creating a global network that is more transparent, trustable and real time visibility of the supply chain.

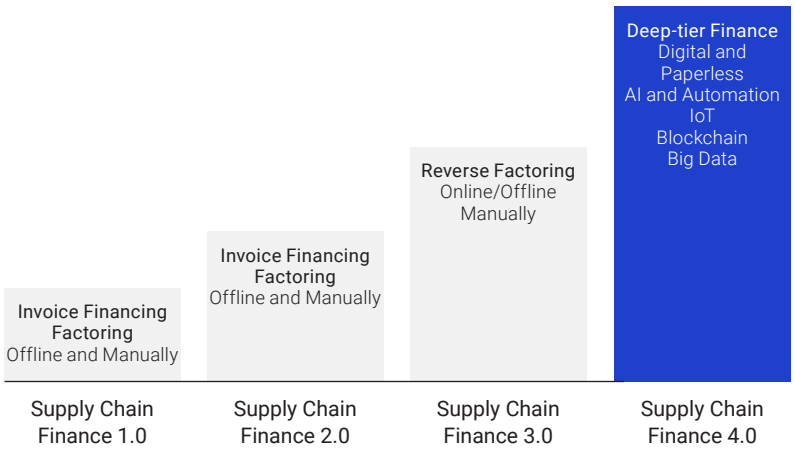
Over the last few years, Fintechs firms have emerged to challenge different aspects of the traditional banks' businesses including trade financing, by offering innovative and more customers' centric working capital solutions, changing the competitive landscape. As mentioned above, increasing globalisation and uncertainties in the supply chain, digitalisation of the supply chain and need for more visibility to minimise risks meant the banks' customers now require a more holistic SCF solutions which would force the banks to evolve.

In fact it was estimated that **Buyer-side financing (SCF)** such as reverse factoring and dynamic discounting, is expected to witness explosive growth of 15-30% in the next 5 years compared to conventional seller-side finance like Factoring & Invoice Finance (3-5%) and Documentary business (1-2%) which have reached its saturation point.

Buyer-led solutions are the fastest-growing part of the $7 trillion trade and supply-chain finance landscape.



“Supply Chain Finance 4.0” is the approach to fill the Financing Gaps



Supply Chain Finance 4.0 is an ecosystem-approached Deep-tier supply chain finance model. Financial institutions or anchor corporates (large buyers) launch a financing platform for their entire ecosystems of suppliers, distributors, leveraging on the financial strength and credibility of the anchor corporate, to improve working capital of suppliers with cheaper costs, easier access and faster processing for a more stable and sustainable value chain ecosystem.

SCF 4.0 - Deep-Tier Supply Chain Finance Platform

Deep-Tier Supply Chain Finance is an innovative financial instrument, to unlock the working capital and business relationship, make financing accessible for every supplier in the ecosystem, not limited to just tier 1 suppliers. This meant that Banks and lenders would access the risks not with a specific borrower (supplier) but with an entire ecosystem, going all the way up to the established

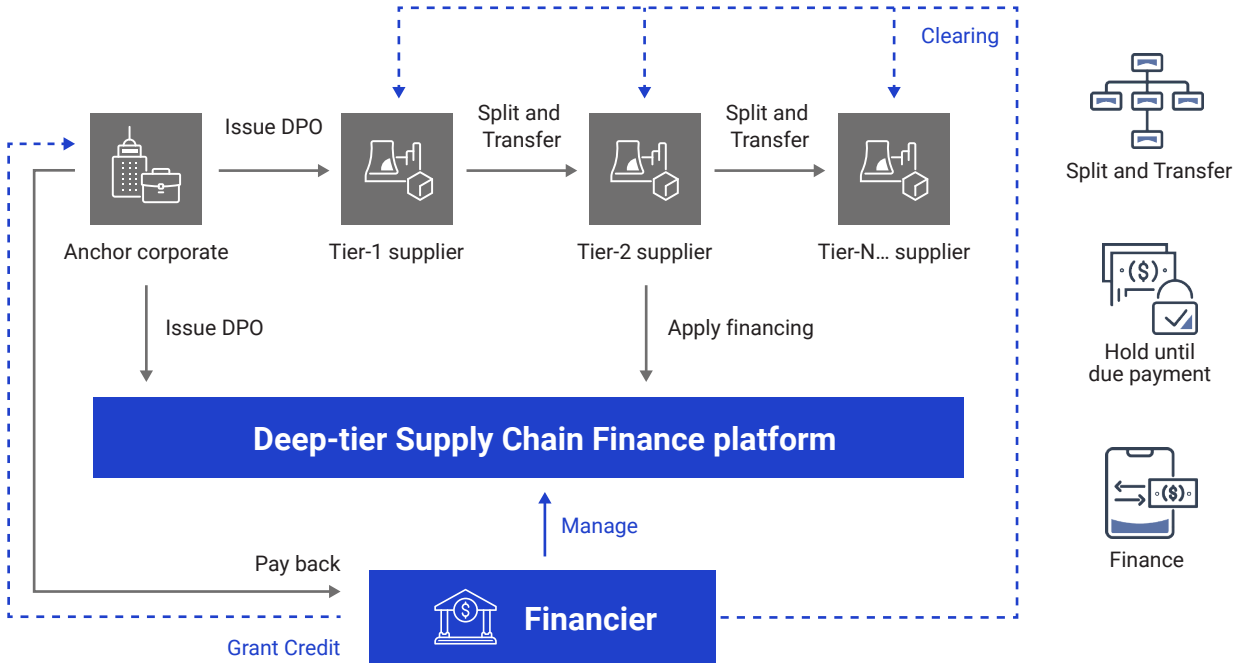


Figure 1. Deep-tier Supply Chain Finance platform model

anchor corporate (buyer).

For simple illustration, imagine a wooden chair supply chain starting from the loggers to the sawmill and to the furniture manufacturer (2 tiers). The loggers would sell the freshly cut trees to the sawmill to be processed into lumber, which would be delivered to the factory to produce the chair. Credit terms would be 90 days for both transactions. Upon delivery of the lumber, the factory would issue a Digital Payment Obligation (DPO) to the sawmill. They can decide to 1) HOLD till the due date and get paid 2) FINANCE DPO on the platform 3) SPLIT & TRANSFER DPO to the logging company, who can then decide on the same actions. This implied that the same DPO issued by the large corporation can reach the deep realms of the ecosystem and financing is available for even the suppliers in the lower tiers.

Everyone Win

Core Enterprises

Amid these uncertain times where business risks are increasingly getting unpredictable, such as the China-US trade wars, COVID-19 pandemic or even natural disasters due to global warming. Supply chains for core enterprises have been disrupted. As mentioned by Yossi Sheffi on the Supply Chain Strategy 2005, “Supply chain resilience now assumes meaning better positioned than your competitors to deal with and even gain advantage from disruptions”. By supporting and helping all suppliers in your ecosystem get access to funding will strengthen relationships with them, and is paramount to the success of the core enterprises in this highly globalised and complex world.

Supply chain finance programs allow core enterprises to optimise their working capital and balance sheet. Suppliers sell their invoices to funders for early payment, the core enterprises only need to pay the funder at expiry date, therefore improving both parties' cash flow position. More importantly, supply chain finance transactions unlike borrowing or factoring occur off-balance sheet and therefore optimising key balance sheet metrics.

Lenders

As competition heats up in the banking sector with new challenger banks, neo banks and FinTechs offering faster, better and easier tech driven solutions customised to the customers, there is an urgency for banks or conventional lenders to innovate and come up with better products which will improve their value propositions with their key clients. Supply chain finance programs could be one and once deployed and live, would be extremely sticky and challenging to move to another competitor.

Supply chain finance opens new markets and new clients i.e SMEs which the banks would normally not serve due to efficient reallocation in resources and prioritisation. As the credit facility is given to the core enterprises and not to individual suppliers in the supply chain, the onboarding process tends to be simplified. Moreover, supply chain finance 4.0 driven by technology offers an end-to-end digital process, making it easier for banks or other lenders to have full visibility and transparency of the supply chain ecosystem, resulting in better risk management and fraud control.

MSMEs

MSMEs have a shorter operating history and are mostly asset-light and would normally not be eligible for financing based on the bank's stringent criteria. Even if approved, they would have to fork

out higher interest rates. Moreover, the majority of SMEs need the cash urgently to keep their business going and the time to approval for banks financing would simply be too long. Participating in the Supply chain finance program of the core enterprises would allow them to leverage on the credit position of the larger entity, to access immediate financing at a much favourable rate.

Information asymmetric problem. Lack of information infrastructure or alternative data for evaluation purposes for MSMEs meant that it is more costly for lenders or banks to evaluate their application and real time monitoring & control. The data generated on transaction history on the supply chain finance platform could potentially be used as alternative data for lenders to evaluate the credit worthiness of the SMEs, mitigating the information asymmetric problem. Going one step further by having the transactions on blockchain eliminates the need for trust and allows data to be shared by multiple parties (I.e banks, fintech, insurance etc) would further help the cause.

One Step Further

Sustainable Supply Chain Finance*

In July 2020, Apple has commited to be 100 percent carbon neutral for its supply chain and products by 2030 as along other core enterprises globally, where sustainability has become a top priority for the management and faces more scrutiny from investors. Therefore, being able to incorporate ESG considerations into the supply chain finance, help reward and incentivise the right sustainability behaviors in the entire supplier ecosystem.

*Supply chain finance practices and techniques that support trade transactions, in a manner that minimises negative impacts and creates environmental, social and economic benefits for all stakeholders involved in bringing products and services to markets.

Islamic Financing

According to the State of the Global Islamic Economy Report 2018/19, the global halal economy will hit $3 trillion in 2023 as the world's roughly 1.8 billion Muslims warm up to halal lifestyle products. With F&B products making up more than 60%. Despite the immense potential, the Islamic finance industry is lagging to traditional financing especially with the SMEs. Incorporating shariah compliant principles into the supply chain finance would provide more visibility and transparency on the origin of the goods and services (halal compliant) and also help halal suppliers get financing.

References:
http://www3.weforum.org/docs/WEF_White_Paper_Trade_Tech_.pdf

https://www.mckinsey.com/business-functions/operations/our-insights/supply-chain-40--the-next-generation-digital-supply-chain#

https://www.mckinsey.com/~/media/mckinsey/industries/financial%20services/our%20insights/accelerating%20winds%20of%20change%20in%20global%20payments/chapter-3-supply-chain-finance-a-case-of-convergent-evolution.pdf

https://hbr.org/2007/08/building-a-resilient-supply-ch%20May%2011

https://quantumfbi.com/blog/supply-chain-finance-stays-off-the-balance-sheet/

https://www.adb.org/sites/default/files/publication/348741/adbi-wp768.pdf

https://www.ibm.com/thought-leadership/institute-business-value/c-suite-study

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03

THE IMPACT OF COVID-19 ON JAPAN'S SUPPLY CHAIN AND CURRENT INITIATIVES

The global pandemic of COVID-19 in 2020 had an enormous impact on Japan's supply chain. According to the Trade White Paper 2020 released by the Ministry of Economy, Trade and Industry[1], industrial production index fell 3.7% month-on-month in March 2020 and 9.1% month-on-month in April 2020 in Japan as a result of the disruption of imports of intermediate goods from Asian countries and the United States, and other variety of factors including production, logistics, and movement of people.

In addition, the results of the National Survey of SME Trends published by the Japan Finance Corporation (JFC)[2] also point out that the diffusion index for business conditions of domestic SMEs, which are expected to play an important role in the restructuring of the supply chain, deteriorated rapidly in April-June 2020, indicating that the situation is extremely difficult.

In response to this situation, Economic Revitalization Minister, Yasutoshi Nishimura, mentioned international collaboration for supply chain resilience and digitalization at a meeting of the Trans-Pacific Partnership Committee in August 2020[3]. He also takes various actions at home and abroad, such as a domestic investment promotion subsidy for supply chain measures in the first supplementary budget.

Under such social and economic backdrop, the Prime minister, Yoshihide Suga, was inaugurated in September 2020 following the resignation of Shinzo Abe, and a new "Digital Agency" was established to promote digital-related policies across ministries and agencies.

In his policy speech the following month, Suga re-emphasized the realization of the digital society, and the government is showing its commitment to promote the transformation of government and industry.

In response to these macro trends, various industries in Japan move toward supply chain restructuring and digital transformation. This white paper focuses on the construction industry and examines the opportunities that supply chain finance can bring.

1 https://www.meti.go.jp/report/tsuhaku2020/2020honbun/index.html
2 https://www.jfc.go.jp/n/findings/pdf/smseach2020_07.pdf
3 https://www.cas.go.jp/jp/tpp/tppinfo/2020/index.html#mexiinkai2020

The Potential of Supply Chain Finance in the Construction Industry

1.The state and challenges of Construction Industry and Building Production System in Japan

A)Low Productivity of the Construction Industry

Due to its business practices and cultural background, the Japanese building production system has the following characteristics;

•Simplified business practices based on mutual trust (oral contracts and tacit agreements),

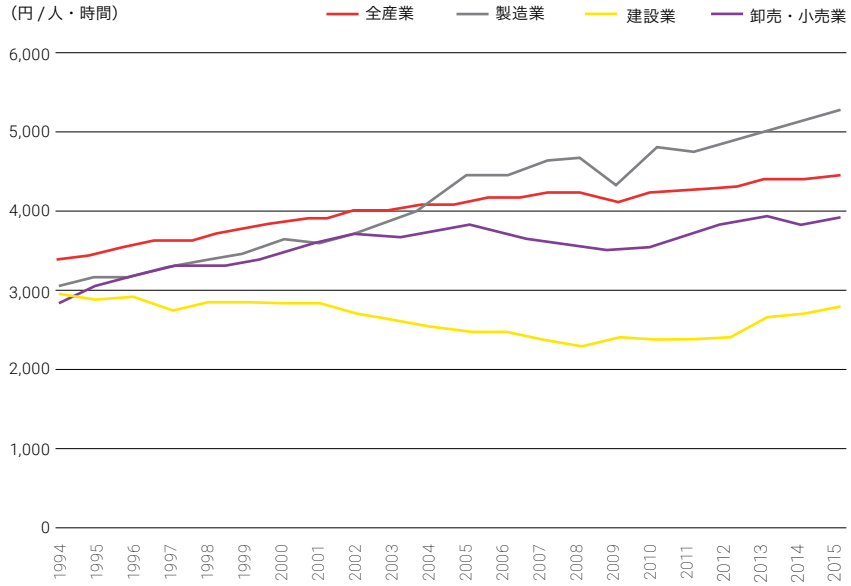
•Requirement levels and processes that are implicitly shared by all stakeholders in the value chain, including prime contractors and subcontractors,

•Dependence on individual skills of expert craftsmen.

As a result, there are more design changes than in the overseas construction industry, and the industry's extreme emphasis on quality tends to result in higher cost.

In terms of labor productivity, according to data cited by the Construction Industry Policy Council of the Ministry of Land, Infrastructure, Transport and Tourism, labor productivity is extremely low compared to other domestic industries, and it is not only that the labor productivity has not improved at all, but that it has been worsening over the past 20 years.

就業者・時間あたりの付加価値労働生産性の推移(実質)



	全産業	製造業	建設業	卸売小売業
1994	3352	2806	2885	2990
1995	3417	3012	2803	3107
1996	3521	3162	2864	3135
1997	3598	3265	2701	3256
1998	3641	3332	2813	3213
1999	3722	3410	2834	3279
2000	3831	3620	2774	3413
2001	3865	3548	2784	3563
2002	3951	3656	2682	3648
2003	3998	3844	2574	3621
2004	4040	4065	2513	3734
2005	4123	4386	2433	3812
2006	4132	4407	2460	3639
2007	4189	4575	2330	3550
2008	4193	4654	2244	3522
2009	4095	4285	2357	3464
2010	4210	4782	2310	3524
2011	4214	4694	2344	3650
2012	4262	4829	2376	3851
2013	4373	4972	2620	3922
2014	4373	5094	2680	3782
2015	4409	5228	2752	3871

出典：内閣府「国民経済計算」をもとに作成(年次)。
付加価値労働生産性＝付加価値(実質GDP)÷(就業者数×労働時間数)

B)Financial status of construction companies and production workers

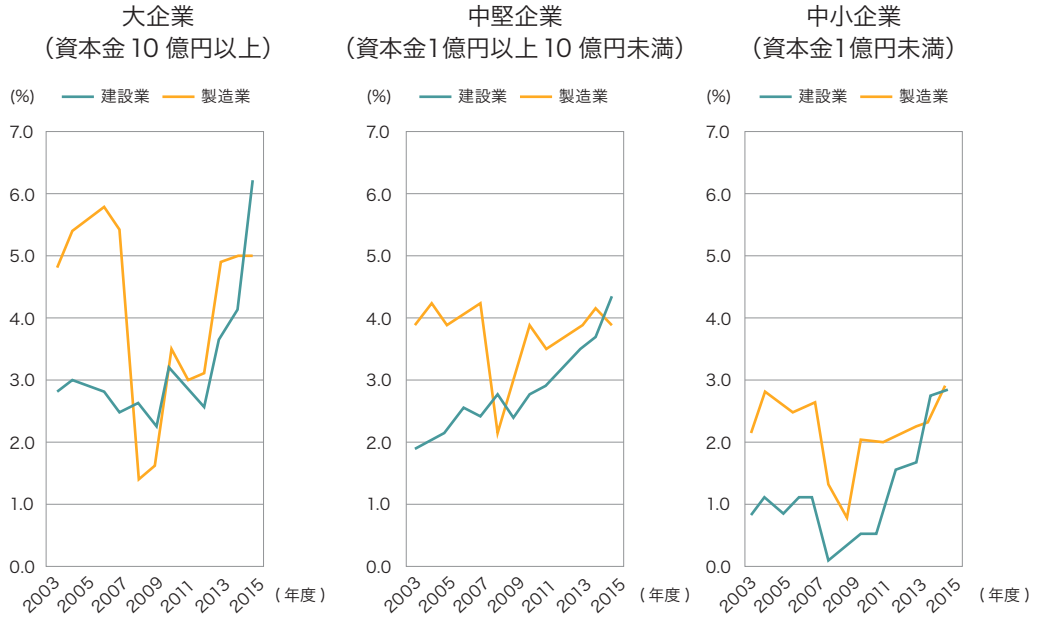
The following graph shows that in the construction industry, the size of a company is generally correlated with its operating profit margin. SMEs supporting the end points of a supply chain have operating margins of less than 3%, which is generally low compared to manufacturing companies of the same size.

The following table shows an analysis of the

financial results of construction companies located in eastern Japan in fiscal year 2019[4]. Capital adequacy ratio by sales scale shows that the dependence on loans tends to be greater for the companies with smaller sales, and for companies with sales less than 100 million yen, the ratio of dependence on loans exceeds 50%. Although the account receivable turnover ratio is not low, business profitability is not high, and financial stability is considered to be very low.

On the other hand, companies with sales of 3 billion yen or more tend to have relatively lower ratio of dependence on loans of about 10%. As of June 2020, Japan Credit Rating Agency (JCR) has rated Taisei (TSE 1801) as AA- Stable, Obayashi (TSE 1802) as AA- Stable, and Shimizu (TSE 1803) as AA- Stable, indicating that there is still room for optimization in the financial structure of the construction industry as a whole.

建設業の営業利益率（企業規模別の推移）



出所：財務省「法人企業統計」

営業利益率＝（売上高－売上原価－一般販売管理費）÷売上高

（※）一般販売管理費：役員や本社職員等の給与、福利厚生費、事務費、広報宣伝費、賃料、償却費、租税公課等

Financial Ratios	Overall	Sales				
		~ JPY100 mil	JPY100 mil ~ JPY500 mil	JPY500 mil ~ JPY1 bil	JPY100 bil ~ JPY3 bil	JPY3 bil ~
Operating Margin	2.72%	-0.06%	3.10%	4.33%	4.69%	4.89%
Ordinary Margin	3.39%	0.93%	3.70%	4.87%	5.24%	5.30%
Accounts Receivable Turnover Ratio	21.31x	21.99x	22.25x	20.97x	18.75x	12.61x
Accounts Payable Turnover Ratio	14.42x	18.11x	15.15x	11.52x	9.04x	6.54x
Capital Adequacy Ratio	37.53%	15.73%	43.01%	48.04%	46.26%	45.95%
Fixed Ratio	105.67%	135.18%	104.98%	91.12%	89.43%	70.95%
Interest-bearing Debt Ratio	30.93%	54.80%	27.03%	18.07%	16.12%	10.98%

[4] https://www.meti.go.jp/press/2020/08/20200805001/20200805001.html

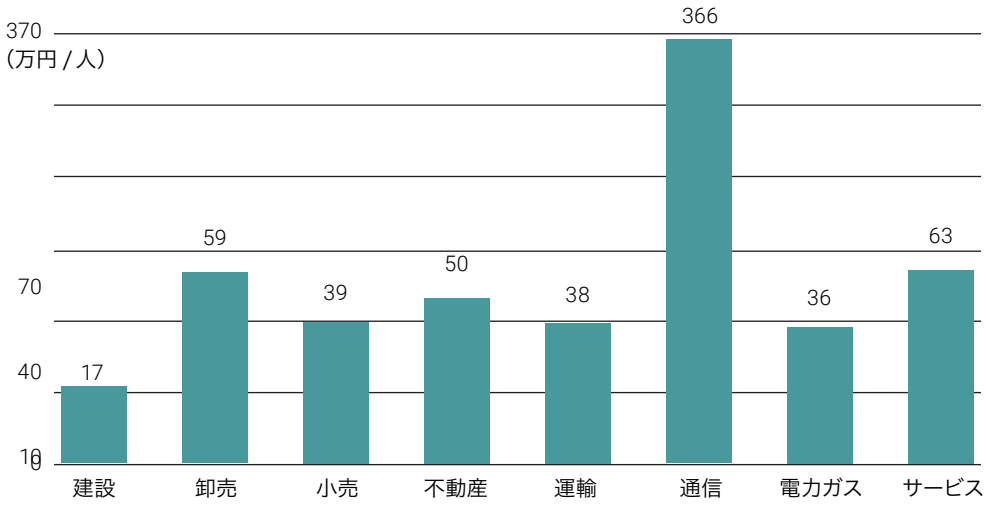
[5] https://www.mlit.go.jp/totikensangyo/const/totikensangyo_const_tk1_000153.html

C)The state of digitization in the construction industry

According to a report published by Mizuho Research Institute[5], software assets per capita in the construction industry are significantly lower than in other industries. This can be attributed to the fact that the construction industry has been less effective at improving productivity through digitalization compared to other industries.

On the other hand, the Digital Transformation Report published by the Ministry of Economy, Trade and Industry in September 2018[6] shows that the construction and civil engineering industries can be seen as having fewer legacy systems remaining than other industries.

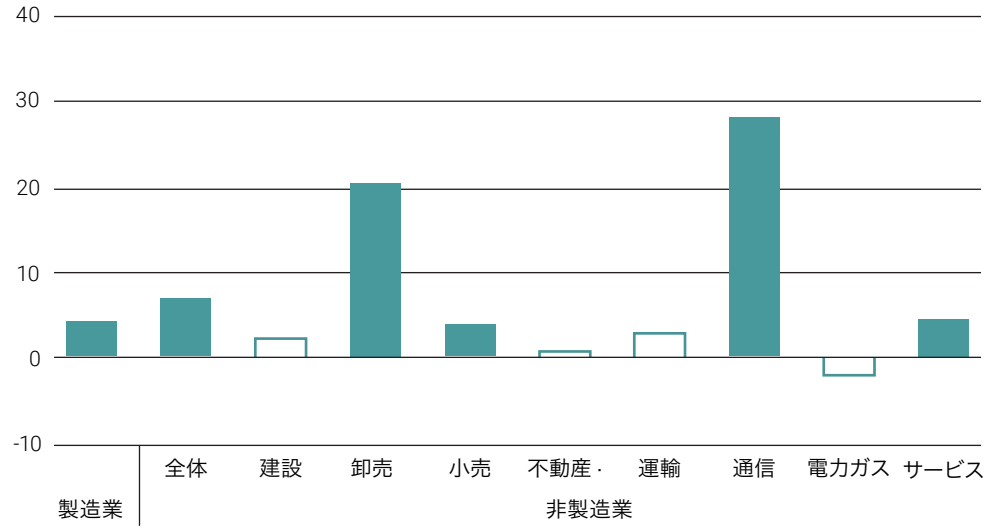
一人当たりソフトウェア資産額（非製造業・業種別）



（注）2000 ～ 2017 年平均。

（資料）日経 Needs Financial Quest より、みずほ総合研究所作成

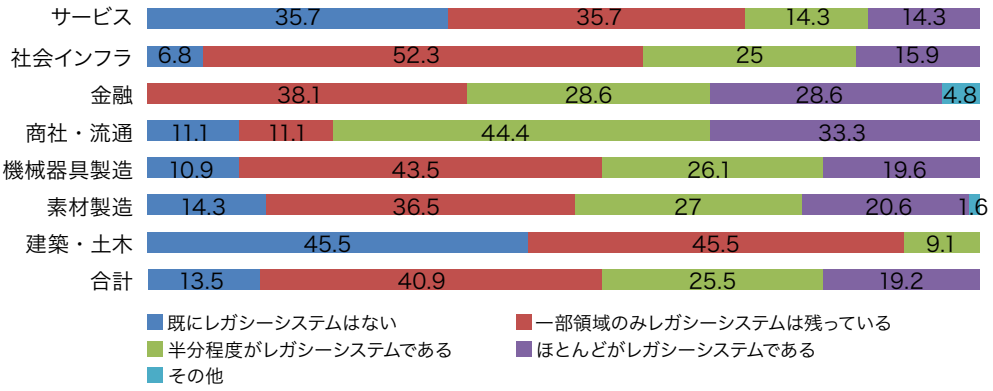
ＩＴ利活用による産業別の生産性改善効果（非製造業、みずほ総研試算）



（注）固定効果モデルによる推計。推計手法は有田（2018）の補論をご参照。10% 有意は青枠・実線、非有意は白枠・点線。農業、水産業、鉱業など推計に必要なサンプル数が確保できない産業については除外。

（資料）日経 Needs Financial Quest などより、みずほ総合研究所作成

約8割の企業がレガシーシステムを抱えている



5 https://www.mizuho-ri.co.jp/publication/research/pdf/insight/jp190513.pdf

6 https://www.meti.go.jp/press/2018/09/20180907010/20180907010-1.pdf

2.Software Usage in Supply Chains of Construction Industry

Building Information Modeling (BIM) is an example of software currently being used in the supply chain of construction industry. BIM supports a modeling before starting the actual construction, integrates the design information with the information needed for production, and then shares the data with the stakeholders for efficient material management and post-construction maintenance. However, the use of BIM is very different between Japan and other countries. In Singapore, for example, the BIM Guideline published by the Building and Construction Authority recognizes the importance to ensure interoperability between BIM platforms, while in Japan, each major construction company has its own stand-alone BIM which is optimized to each company's specifications. This is because the annual construction volume of each major construction company is in the trillions of yen, which is comparable to the amount of investment in construction in Singapore as a whole, and each stand-alone BIM has enough scale. However, considering the Japanese industry as a whole, there is still a great deal of room to increase the productivity of the industry by ensuring interoperability.

In fact, in 2018, the “BIM-EC Consortium” was established, aiming to improve the efficiency of ordering and receiving operations by linking BIM and EC. It is expected that the distribution of data related to construction design and production across industries will progress in the future.

3.Alternative Financing Methods in the Construction Industry: History of Real Estate Securitization Financing

In the construction industry, real estate securitization has been used as an alternative financing method by companies comprising a supply chain.

In Japan, the Real Estate Joint Enterprises Act and the Asset Securitization Act were enacted in the late 1990s, and private REITs began to be established. Also, a market for listed REITs (J-REITs) was established with the revision of the Investment Trust Act in 2000. Over the following 20 years, fund raising through REIT schemes grew steadily, with the total value of real estate holdings in the J-REIT market at 19.8 trillion yen and private funds at 3.8 trillion yen as of September 2020[7].

While this real estate securitization market has developed and matured significantly, its impact is still limited compared to Japan's total real estate assets of 2,562 trillion yen, total construction investment of 62.9 trillion yen in fiscal 2019[8], and total construction investment of 1,055 trillion yen in

the last 20 years[9].

The real estate actually held in J-REITs and private REITs are mainly S- to A-class properties in urban areas, and development projects that do not generate income for a period of time are difficult to hold for J-REITs.

Therefore, real estate securitization is rarely used outside of urban centers, and for small and medium-sized construction projects. Crowdfunding techniques have gradually become popular in Japan since 2014 to fill this funding gap.

4.Future Potentials for the Use of Supply Chain Finance

In summary, the low productivity of the Japanese construction industry is due in large part to the following factors: (1) lagging IT and digitalization, and (2) significant partial optimization of the finances of the companies that make up the supply chain.

Regarding the former, it can also be viewed positively as a legacy system does not exist. Therefore, the construction industry has a great potential to develop a cross-industry data infrastructure in a horizontally integrated architecture, if we can stack layers of digital platform such as BIM-EC, which connect building production data with commercial transaction data, accounting and financing platforms in a way that ensures interoperability across platforms.

Once we develop this digital platform, we can also deploy the multi-tier supply chain financing system that can contribute to total optimization and reduce capital costs, which used to be a major burden for SMEs in particular.

Although construction production covers a wide range of components and related supply chains, it may be a good idea to start a proof-of-concept in areas where it is relatively easy to grasp and manage commercial and data flow, such as steel frames or equipment.

7 https://j-reit.jp/download/info/1020.pdf

8 https://www.mlit.go.jp/common/001242304.pdf

9 https://www.mlit.go.jp/report/press/content/001367223.pdf

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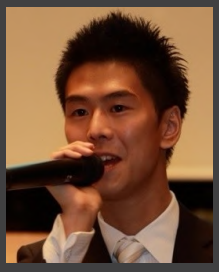

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