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Supply chain finance (SCF) for economic security and green transformation (GX)

Tokyo's Role as Asia's Financial Hub

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1. Purpose

The purpose of this white paper is to identify the structural weakness of today's global supply chain and discuss how the financial sector can contribute to strengthening and visualizing supply chains. The first chapter provides an overview of the international environment surrounding Japan, the status of finances and the economy as well as sustainable finance, while indicating the visualization and resilience of the supply chain that have become focal points as policy issues. Based on this, we explain the issues addressed in this White Paper that contributes to containing the various issues in the supply chain through finance.

1-1. Background

- Demands to strengthen the supply chain in Japan from the perspective of securing essential materials and strengthening the robustness of critical infrastructure have recently increased in response to US-China frictions, the pandemic, the war in Ukraine and the consequent economic sanctions, etc.（Figure1）

- Visualization of the supply chain and compliance are also becoming increasingly important from the perspective of ESG / sustainability.

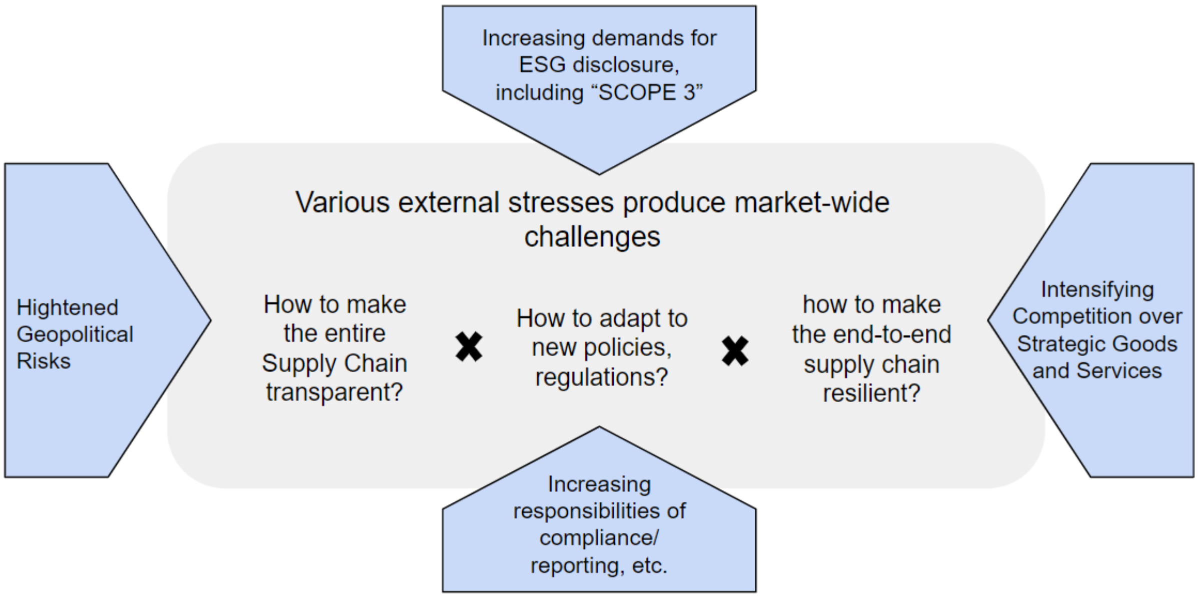
- In light of this, contributing to the reinforcement of supply chain finance (SCF), including SMEs, has been a pillar of business in the Organization of Global Financial City Tokyo (a.k.a., FinCity.Tokyo, hereinafter "FCT") Medium-Term Business Plan since April 2021.

- The Ministry of Economy, Trade and Industry already identified that improving efficiency while digitizing the supply chain is a policy issue in its White Paper on International Economy and Trade and its White Paper on Manufacturing Industries

(Monodzukuri[1]). It has also established forums such as “the Study Group on Advancing Global Supply Chains in the Digital Age” to consider such issues since the beginning of this year. In addition, the Japan Financial Services Agency is also requiring banks to provide credit to SMEs through the efficient use of corporate information by promoting the “evaluation of business potential” to invigorate regional companies.

- Recently, the implementation of smart contracts that utilize digital currencies using Blockchain technology as a method of payment between private businesses (FinTech companies and general trading companies, etc.) in Japan and financial authorities in Asia have resulted in seeking out ways to test digitalization of the supply chain from the finance side.

(Figure 1) Supply chain-related issues



1-2. Setting the topics

This paper considers the following questions concerning the contribution of a Global Financial City to the resilience of the supply chain and proposes policies that apply to Japan/ Tokyo and as an Asian financial hub.

1. What types of characteristics are required for SCF to contribute to the demand for visualization and resilience of the supply chain from a finance perspective?
2. How should digitalization of SCF be promoted?
3. How can the supply chain and the investment chain be fused?
4. What functions does the Global Financial City Tokyo require to become an SCF hub in Asia?

[1] craftsmanship culture in Japan

2. Current situation

This Chapter provides an overview of the current situation in the supply chain and SCF, while highlighting the prevailing issues.

2-1. Current situation in SCF

2-1-1. Structural Financial Constraints for SME suppliers

Financially, there are various structural constraints for SMEs, which are the typical suppliers, in a supply chain that is focused on large corporations.

- Major financial institutions generally provide back finance for parent/ subsidiary loans and issue letters of credit (L/Cs) for trade credit to their large corporate customers (buyers) in Japan as finance for the cross border supply chain.

- This is substantially dependent on the external creditworthiness of the parent company and credit judgements. Therefore, apart from the benefits being restricted to comparatively higher order suppliers, there are limits on the bargainingpower of suppliers over buyers, concerning the receipt of finance. The latter point is also a new point, as seen in the criticism of overseas e-commerce business operators (Amazon Prime phenomenon, etc.) when abusing their superior bargaining powers.

- In addition, even from a buyer perspective, being encumbered with both liabilities and assets to maintain trading relationships necessary for business can also be an impediment to improving the efficiency and enhancements to balance sheet management.

- Suppliers also have options to use factoring as an alternative financing method and to supplement their creditworthiness with the use of an external guarantee company, albeit there is also the burden of interest rates and the cost of guarantee fees. Similarly, suppliers located overseas have access to methods such as borrowing from local financial institutions, but they face the problem of high cost due to low credit standing in the local market and foreign currency liquidity risk, etc.

As seen above, today's SCF is mainly provided to large corporations as finished goods/ services providers, and SMEs are unable to adequately or efficiently receive the financial benefits. Furthermore, small and medium-sized suppliers are in disadvantageous positions relative to buyers.

2-1-2. Structural Financial Constraints for Financial Institutions

Banks, which are the main supporters of SCF, are being disincentivized to play their part in visualizing and strengthening supply chains.

- Particularly in relation to the cross-border supply chain, it also becomes difficult for banks that provide credit to the parent company (buyer) since multilayered suppliers transact with different banks, and it is inherently difficult to understand the issues of the entire supply chain and to immediately respond from a finance perspective.

- Many aspects of the payments and settlements for cross border transactions still rely on “correspondent banking,” which is inefficient in terms of both cost and time for both the banks and the client companies as well as the transaction and administrative burden of multiple banks in relevant countries. Reforming this requires the cooperation of many relevant parties, so voluntary initiatives are difficult to advance (Figure 2).

- In addition to stronger banking regulations (including Basel III, developed by the Basel Committee on Banking Supervision), loan-deposit margins have also declined under the worldwide low interest rate environment, resulting in further declines in incentive for major banks around the world to provide credit to SMEs, including SCF (Figure 3).

- From a long-term perspective, the sustainability of providing SCF using foreign currency could become an issue even for major banks. This is not simply from the point of view of the upside for higher returns on asset holdings but could also become important in terms of managing foreign currency liquidity risk and dealing with the volatility of foreign currency funding costs.

- The use of finance focused on the value of goods and services that flow in the supply chain or the value of infrastructure that supports the supply chain can be considered a finance method for dealing with such problems. However, momentum for SCF reform has stalled in the financial industry as a whole, in part, because of the Greensill scandal.[2] which was an arrangement to contain SCF issues through asset-based finance.

- In addition, the credit sections of banks, which have to date been in charge of SCF, have not yet accumulated adequate knowledge and experience to evaluate the value of such assets nor the methods to liquidate such assets as required.

- In addition, while such expertise and functions also exist within major financial groups, their ability to flexibly mobilize the information and knowledge necessary for SCF is hampered by their organizational structures that are matrixed by product and customer segment.

- Furthermore, the digitalization of business and transactions also needs to be advanced at small and medium-sized suppliers to deal with the SCF problem from an

[2] Greensill was a financial services firm established by Lex Greensill to provide accounts receivable based financing. The company became rapidly successful, culminating in the appointment of Lex Greensill to Advisor to then UK PM David Cameron and attracted investors including Softbank Vision Fund. However, due to its over exposure to steel magnate Sanjeev Gupta's stable of companies, termination of insurance underwriting by its insurers and Credit Suisse's freeze on its investment to Greensill, the company became insolvent.

information perspective, as well as to shift the flow of both goods and funds to Straight Through Processing (STP). However, it is difficult for banks to be the sole bearers of the role of supporting the overall modernization of SMEs (See 2-1-3 below).

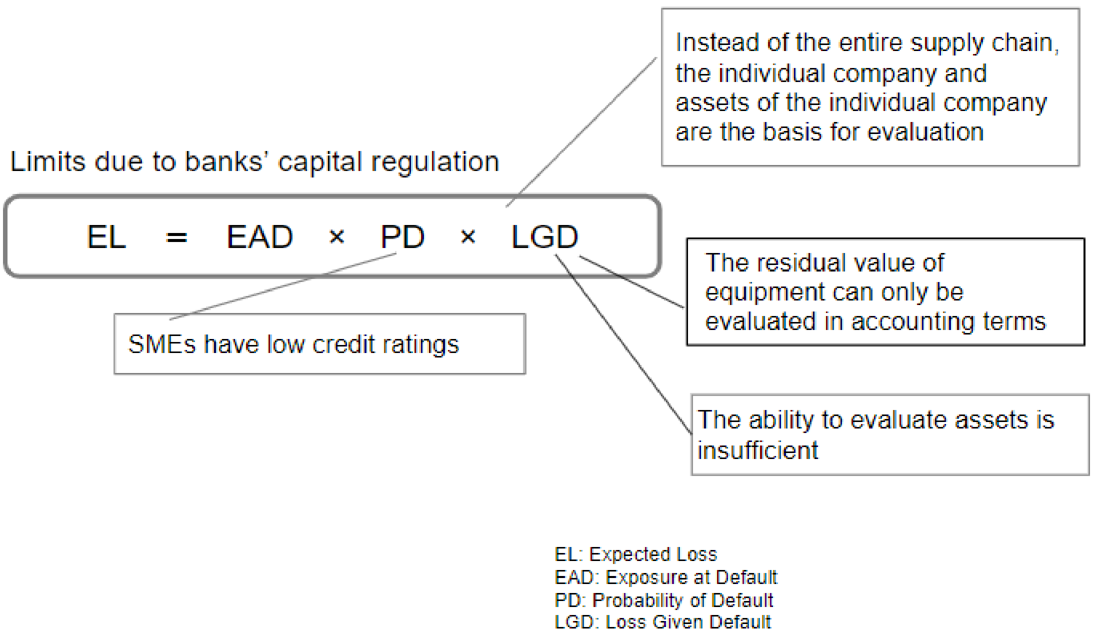
- This problem has been exacerbated with the growing demand for stronger verification and confirmation of counterparties (Know Your Customer, hereinafter "KYC") in transactions between companies in light of anti-money laundering (AML) and economic security requirements. That is, from a bank's perspective, there has been further reduction in the motivation to provide SCF that also extends to small and medium-sized suppliers, which has resulted in small and medium-sized suppliers finding it difficult to benefit from SCF.

As seen above, incentives for individual banks, including major financial groups, to strengthen SCF and invest in the visualization and resilience of the supply chain have declined. In that context, both a policy response and solutions are required.

(Figure 2) Issues of correspondent banking

Cost	The fees for both the sender and the recipient are high - This can be prohibitively high if remitting small sums
Time	Remittances require a number of days to complete - Remittances to developing countries take even longer
Lack of transparency	Transparency in relation to fees and the remittance process is low - Elicits user concerns and distrust

(Figure 3) Issues concerning bank loans to SMEs



2-1-3. Structural Financial Constraints for Suppliers' DX

Suppliers, including SMEs, also have issues with the use and application of information.

- The typical supply chain comprises various economic entities, namely large corporations (finished goods/ services providers) and multilayered suppliers including SMEs. Furthermore, a supply chain also comprises the flow of goods and services and the supporting infrastructure (including know-how and technologies not only facilities and equipment).

- As already seen, it is hard to implement SCF according to the value of each economic entity, particularly for comparatively lower order suppliers. In fact, credit is provided based on the credit of large corporations (finished goods/services providers) such as with parent/subsidiary loans and letters of credit.

- However, undertaking SCF according to the goods and services that flow in the supply chain or the value of the infrastructure requires knowledge and information for the appropriate evaluation of their value (residual value) or a market for liquidation, as necessary.

- On this point, leasing and trading company finance already play a major role for the infrastructure supporting the supply chain e.g., machine tools and transportation equipment (aircraft and ships), etc. Similarly, in Japan, the financial authorities have been promoting "evaluation of business potential" by banks and gradual progress has been made in the collateralization of moveable property, including intangible assets such as technology and know-how. This trend is likely to advance further with policy inducements.

- Even so, despite the progress in overall asset-based SCF, the evaluation of the value of goods and services and infrastructure remains an obstacle. Nevertheless, another issue is that suppliers themselves, who should have the deepest knowledge of this problem, have not shown any objectivity in such evaluation. A particular problem for lower order suppliers is that technology is not separated from management and they do not have methods for evaluating value (Figure 4).

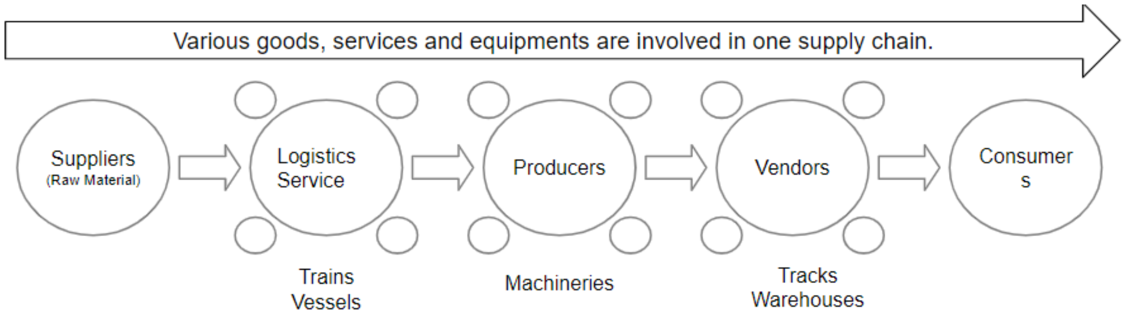
- As has already become evident, even among SMEs, the digitalization of business has been substantially delayed for lower order suppliers, with orders given/received in hard copy and by fax, etc.

- To date, it has been possible to maintain business using the current methods and the incentive for digitalization has been low due to the tendency for the costs to be borne upfront. Furthermore, despite various government support for digitalization, companies have lacked expertise, which has raised concerns about ongoing maintenance and management.

- However, without the ability to digitally manage the flow of goods and services and funds, there will not only be a lack of progress in improving the efficiency of business by shifting the supply chain to STP, but it will also be difficult to respond to demands for visualization and resilience of the supply chain. The COVID-19 pandemic has provided a clear lesson on this point.

- In addition, not only will suppliers that have delayed digitalization be unable to deal with the use of blockchain/smart contracts, but there are concerns that large corporations (buyers) could remove suppliers that are facing such problems from the supply chain in order to manage and improve the efficiency of transactions.

(Figure 4) Issues for evaluation through the supply chain



2-2. Current state of ESG investment / Sustainable Finance

2-2-1. Fragmented ESG disclosure

Major companies only provide ESG disclosure on an individual company basis and ESG disclosure has not spread to SMEs, leaving ESG disclosure fragmented.

- In recent years, there has been a global shared awareness of ESG and measures to address climate change (E) have led the way with progress made by various international organizations and industry groups to standardize corporate disclosures. At the same time, cooperation between international financial authorities has made the requirement for financial institutions to disclose the implementation of sustainable finance and its risk in terms of regulation and supervision become the norm.

- Even in Japan, there has been a pronounced increase in the number of corporate entities issuing disclosures in accordance with the TCFD recommendations, which has become the international de-facto standard, and even among financial institutions, the trend for disclosure is spreading to some regional financial institutions.

- In contrast, the spread of such initiatives to SMEs has been comparatively delayed. This is because, in addition to the fundamental problem that SMEs face in needing to respond to important management issues than ESG e.g., their day-to-day funding positions), there is a lack of professional knowledge and personnel for measuring greenhouse gas emissions and the risk, and they do not have the capacity to withstand the cost.

2-2-2. How to combat cross-border Greenwashing in a supply chain.

To combat globally festering greenwashing, ESG evaluation must be enhanced in a holistic and interoperable manner that incorporates cross border supply chains.

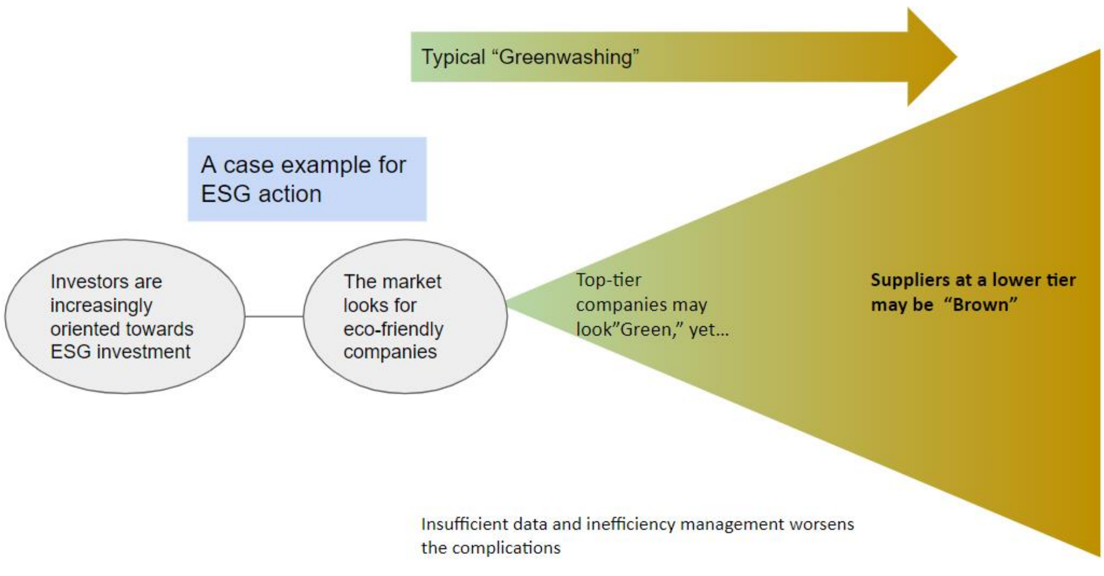
- In the typical cross border supply chain, there is a pattern of large corporations headquartered in advanced countries receiving goods and services from suppliers that are multilayered SMEs located in emerging and developing countries.

- In this case, even if there are growing demands for ESG in advanced countries, particularly to address climate change (E) and for corporate disclosure requirements, large corporations, as buyers, have incentive to effectively transfer the burden of addressing climate change (E) to SME suppliers in emerging and developing countries, where there is comparatively weak policy demands and relevant parties lack awareness. This is a type of regulatory arbitrage.

- This is embodied in the physical response to shift production processes that have a large burden in terms of climate change to emerging and developing countries and to utilize the differences in ESG disclosure standards and interpretations with large corporations in advanced countries shifting the burden off their balance sheets (Figure 5).

- As a result of such cross border greenwashing, progress is not being made towards climate-change focused ESG/sustainability for the supply chain as a whole. From the outset, addressing climate change requires progress by the world as a whole, which is why there are growing moves amongst international organizations to require an ESG response through the entire supply chain (in terms of greenhouse gas emissions, the Corporate Value Chain Standard in the Greenhouse Gas Protocol, so-called Scope 3) as well moves in the opposite direction.

(Figure 5) Issues of Greenwashing through the supply chain



2-2-3. “Transitioning Asia”

To effectively curb climate change in Asia, which is the world’s factory, the notion of “transition” is important, despite many issues being faced.

- For Asian countries, where there is accumulation of global manufacturers playing an important role in each country’s economic activity, it is unrealistic, when responding to ESG (particularly to climate change), to take a binary approach which splits economic activities into “Green” and “Brown” based on such standards as greenhouse gas emissions and aims to reduce the latter activity within a short period of time.

- Instead, after indicating the ultimate long-term targets and the realistic pathways, a phased response towards such targets needs to be achieved by each country’s government and private businesses. In fact, such an approach has been clarified by the relevant authorities in Japan and there are moves to indicate targets for phased reductions in greenhouse gas emissions for major industries.

- It is essential to promote such initiatives in a harmonic manner with Asian countries. This is because a large, crowded supply chain has been built within the region, which can be used not only to curb existing cross border greenwashing but be complementary to excellent technologies and initiatives for reducing and absorbing greenhouse gas emissions.

- There are currently high hurdles to achieving this. Despite the large impact that Asia has on global climate change in terms of greenhouse gas emissions, etc. there remain differences in the levels of awareness of and policy response towards climate change at each country within the region.

- In addition, Asian countries require foreign investment from European and American investors for “pump priming” at least, to raise the vast amounts of funds needed for research and development and facilities investment to address climate change. However, indicating the approach and evaluation criteria for corporate disclosures from the importance of transition is not easily done in a reliably objective format.

- On this point, future ESG investment could also become an issue in the realms of “S (Social)” and “G (Governance).” This is particularly the case as it spreads to “S” due to concerns about a delayed response. This is because E, S and G are not matters to be achieved independently, and require a consistent approach as a whole.

2-3. Demands from economic security

2-3-1. Visualizing and strengthening supply chain: an economic security concern.

Visualization and resilience of the supply chain have been raised as issues from the perspective of economic security, where finance has a role to play.

- Prompted by the US-China confrontation in recent years, there is now a shared international understanding of the importance of procuring strategic resources such as food supply and semiconductors and of curbing their costs. Such understanding has been reinforced by the uneven international distribution of medical supplies and equipment throughout the pandemic, concerns about food and energy supplies caused by the war in Ukraine and embargoes by Western countries on industrial goods.

- These trends not only clarify the necessity for resilience in the supply chain to secure key goods necessary to maintain economic activities in each country, but suggest that visualization of the supply chain is vital to appropriately identify the location of risk as well as to comply with economic sanctions.

- At the same time, the financial sanctions imposed by Western countries, including Japan due to the war in Ukraine, have once again highlighted the impact that SCF methods have on the financial and economic activities of each country.

- In particular, Russia’s exclusion from the international payment clearing network by Western countries has conversely resulted in Russia and other countries expanding their own payment clearing network. For Japan, which has a strong reliance on foreign currency for SCF, this not only leads to a simple decline in the efficiency of funds and increase in administrative burden, but is also considered to exacerbate Japan’s vulnerability in maintaining SCF.

- As seen above, it goes without saying that the finance sector has a role to play in strengthening supply chains and catering to growing demand for transparency. Yet Structurally the involvement of the financial sector in this area has been relatively limited, highlighting the need for policy measures.

2-3-2. Implementing Economic National Security: broad actions needed.

The Japanese government has enacted the Economic Security Promotion Act, targeting a broad range of industries, and is now shifting towards implementation

- In light of this changing external environment, the Japanese government has recently enacted the Economic Security Promotion Act. This bill includes two pillars that have major impacts for management of Japan’s supply chains (Figure 6).

- The first pillar is the move towards securing essential materials, which aims to promote the transfer. This is mainly related to essential materials necessary for industrial production. To enhance the appeal and return to domestic production and the transfer of control for procurement to friendly countries, primarily with consideration to essential. Needless to say, this initiative not only enhances the resilience of the supply chain, but also requires visualization of the supply chain to comply with the legislation.

- The second pillar is the move towards strengthening the infrastructure. To steadily procure goods and services necessary to maintain and enhance the infrastructure, targeting finance in addition to energy and communications, while aiming to mitigate cyber risk, etc. Much of the designated infrastructure relies on overseas supply of resources and technologies, so this pillar also requires resilience and visualization of the supply chain.

- Such policy responses are also being reinforced in Western countries other than Japan against a background of US-China antagonism and the war in Ukraine. Therefore, large Japanese corporations engaged in cross border supply chains are likely to see increased legal risks not only in Japan but in their relationships with overseas authorities. Investors in Japan and overseas will also become increasingly focused on such risks in their investment activities.

(Figure 6) Outline of the Economic Security Promotion Act (extract)

Summary of Economic Security Promotion Bill
(Bill for the Promotion of Ensuring National Security through Integrated Implementation of Economic Measures)

Purpose of the Bill

With the increasing complexity of the global landscape and changes in the world's socio-economic structure, and in light of the growing importance of preventing economic activities that cause harm to the security of the nation and its citizens, the Act stipulates that the Government formulates a basic policy on extensively and effectively promoting economic measures in order to ensure security, as well as introduce necessary systems for national security.

2. Framework for Ensuring Stable Supply of Key Materials (Chapter 2)

To ensure the stable supply of key materials are vital factors for lives or significant factors for living conditions and economic activities, the act introduces designation of specified key materials, plan approval and support for the private sectors, and supplementary government initiatives.

Designation of specified key materials

- Designates key materials are vital for lives, or on which living conditions and economic activities depend, and of which steady supply is particularly necessary

Plan Certification and Support Measures for the Private Sector

- Private companies may apply plans to secure supply of specified key materials, etc., and they are certified by the minister in charge
- For certified companies, grants are provided through stable supply support corporations, and are supported by two-step loans, and others

Government initiatives

- Stockpiling and other necessary measures will be taken by the minister in charge when it becomes necessary to take such supplementary measures

Other

- Surveys of companies by the minister in charge

3. System on Ensuring the Stable Provision of Essential Infrastructure Services (Chapter 3)

In order to prevent key facilities of essential infrastructures from being misused by foreign entities to disrupt the stable supply of services, the act takes measures to conduct pre-screening and to make recommendations/orders related to the installation of key facilities or outsourcing of maintenance/management of such facilities.

Scope of application

- Applicable infrastructure businesses: outer boundary of business sectors (e.g., electric power business) are indicated in the Act, and the specific business sectors to be identified by government ordinances
- Applicable business entities: among entities which conduct applicable businesses, the individual business entities which meet the criteria, stipulated by ministerial ordinances of the competent ministries, will be designated

Prior notification and screening

- Requires prior notification of plan on installation and outsourcing of maintenance/ management of key facilities
- Duration for screening: 30 days, in principle (may be shortened or extended)

Recommendations and orders

- Based on screening results, the government makes recommendations or orders to the business entities on necessary measures to prevent disruptions (e.g., change, cancellation, etc. on the plan of key facility installation or outsourcing of maintenance/ management of such facilities)

2-3-3. Achilles' heel: SMEs as a focal point for policy measures.

In implementing national economic security measures, the response of SMEs will also be a focal point from the economic security perspective.

- In responding to the demands of economic security, there needs to be stricter checks of the lawfulness and appropriateness by business corporations and financial institutions involved in the supply chain concerning the transaction counterparties themselves as well as the production, supply and content of the goods and services. However, this not only requires checks at the start of the transaction, but also needs to be continuously managed throughout the transaction period.

- Furthermore, all of this needs to be regularly reported or disclosed to the relevant authorities and investors. On top of that, as noted above, even as other Western countries advance similar policy responses, the reporting requirements, at least for the foreseeable future, are likely to differ between countries. Similarly, US and European investors could require Japanese companies to provide a security response based on an approach that differs from Japan.

- In responding to such demands in an efficient manner, and with requirements for standardization and digitalization of data throughout the supply chain, the response from SMEs comprised of multilayered suppliers, if not large corporations that are buyers, is being delayed. This also raises concerns that in complying with legislation and responding to the requests of investors, large corporations as buyers will become negative towards continued transactions with SMEs as suppliers that are unable to respond to the improved efficiencies in the supply chain.

- This type of “financial exclusion” is likely to damage Japan’s industrial competitiveness. Therefore, SMEs should be a focal point for policy measures to zero in on.

3. Analysis of current measures and suggestions for the future

This chapter further analyzes the issues confronting ESG investment, particularly in relation to the supply chain and in addressing climate change, in light of the discussion up until the previous chapter, and analyzes the current bottlenecks. This Chapter also evaluates the response to SCF by financial institutions to date and the required response for the future.

3-1. How does finance enhance supply chains?

In addition to generating incentives for coordination between multiple financial institutions, a response through new financial solutions is needed.

- Current SCF is focused on loans by major banks to large corporations that are buyers in the supply chain, with large corporations on-lending (parent/subsidiary loans) to SMEs that are suppliers, as necessary. These benefits are limited to comparatively higher order suppliers.

- By contrast, the direct approach of financial institutions to SMEs(suppliers) is limited by such constraints as insufficient ability for evaluation of finances and assets owned by suppliers and the related costs.

- On this point, such understanding is shared by major banks, as can be seen in the options offered by financial institutions to develop SCF based on the goods and services flowing through the supply chain or the value of the infrastructure that supports the supply chain.

- Having said that, there is a major bottleneck from the lack of professionals and people with the know-how to evaluate the value of the goods and services and the infrastructure to achieve this. In addition, the data that is vital for such initiatives is not available for use and application, due to delays in digitalization by SMEs that comprise the supply chain and the lack of data standardization and interoperability, etc., which is also an impediment.

- In addition, criticism of SCF has been exacerbated by the Greensill scandal, which came to light in 2021, notwithstanding the excellent short-term investment opportunity that could be provided by SCF based on the value of goods and services flowing through the supply chain in that the investment funds can be recovered when the transaction ends.

- On the other hand, expanding the field of vision to major financial groups that include large banks and to general trading companies, etc., some SCF has been underpinned by evaluations of the value of very versatile goods and highly liquid infrastructure, etc. and the market has reached a certain size.

- This suggests there is scope for development of asset-based SCF if there is appropriate information sharing and cooperation that extends beyond product lines within financial groups or the appropriate evaluation of goods and services and infrastructure as well as access to a secondary market (Figure 7).

- Even in relation to the many comparatively high structuring costs, which we have noted are an impediment to the expansion of asset-based SCF, assuming the low interest rate environment continues, the response is thought to be realistic if costs can be curbed through improved efficiency.

(Figure 7) Examples of related services provided by major financial groups

Service	Function	Responsible department (Examples)
Parent/ subsidiary loan	Loans to buyers	Corporate business departments
Trade credit	Loans to suppliers secured by goods as collateral	Overseas business departments/ Overseas branches
Cash management	Cash management support for buyers/suppliers (including foreign currency)	Foreign exchange departments
Factoring	Acquire the accounts receivables of suppliers	Overseas business departments/ Overseas branches
Lease	Lease business assets to suppliers	Affiliates in Japan and overseas

3-2. ESG disclosure plays a meaningful role in enhancing supply chain finance.

It is desired to spread the benefits of SCF throughout supply chains through promotion of ESG disclosures that cover the entire supply chain.

- Current ESG disclosures are generally conducted by large corporations on an individual company basis with the background that the presence of knowledge and professional personnel as well as IR incentives are not accessible to SMEs.

- By contrast, there have recently been moves, particularly by international organizations, for global development of ESG spearheaded by addressing climate change (E) with demands for ESG disclosures throughout the entire supply chain from the perspective of curbing greenwashing and the unfair shifting of the burden by major companies that are buyers in advanced countries on to SMEs that are suppliers in emerging and developing countries.

- In concordance with such moves, policy makers and institutional investors in major countries are also increasing their demands for substantive ESG disclosure.

- The enhancements to ESG disclosure throughout the entire supply chain provides companies dealing with ESG policy targets such as for climate change, with the opportunity for appropriate returns from the perspective of SCF costs, availability and durability.

- Having said that, the resolution of issues that are already evident such as knowledge and professional personnel, the standardization of data and interoperability are required for SMEs comprised of multilayered suppliers to respond to ESG disclosures.

- Furthermore, while in Asia there is a particular need for an approach and framework focused on transition in terms of addressing climate change, there also needs to be a shared understanding of the rationality and validity when attracting funds from European and American investors.

- In light of these points, ESG disclosures that reflect Asian economic characteristics and policy issues need to be introduced, and the evaluation methods and rule-making need to be shared with other global financial centers.

3-3. What should fill the gap?

The lack of asset management firms (particularly for SMEs that are suppliers) that have strong global CFO personnel and supply chain experience has been an impediment to strengthening SCF.

- As already seen, resolving the problems faced by SMEs that are suppliers has major significance for strengthening SCF.

- Considering the fact that SCF corresponds to the nodal point for supply chains and investment chains, the former being the flow of goods and services and the latter being the flow of funds, it is desirable that SCF should be built and managed by a CFO with a global strategic point of view. In fact, there are already renowned CFOs at some large corporations involved in large supply chains in Japan as well.

- Nonetheless, it is true that there are difficulties for SME, especially lower order suppliers that comprise the supply chain, to recruit CFOs of global standards widely, given the costs and availability.

- Even so, if some of the knowledge and information held by global CFOs could be made available to SMEs that are suppliers, it would help strengthen SCF. For example, contributing to that objective could be made by listing examples of new SCF solutions that are not conventional bank loans and their providers in an easy to read format, as well as indicating the pool of professional personnel.

- At the same time, in expanding asset based SCF, it is useful to increase the knowledge of investors, who are the providers of funds. In that context, there would be benefits in having asset management firms involved in SCF regardless of whether they are in Japan or overseas.

- In expanding SCF through the capital markets, it is important to regularly supply products at a certain size for funds procurement in consideration of investor needs. Even in this sense, the standardization of SCF has important significance and there is also the prospect that asset-based credits will be incorporated into some types of funds.

4. Policy proposals

This Chapter proposes policies that are necessary to resolve the issues that have been outlined and analyzed up until the previous chapter.

4-1. SCF should be strengthened and visualized with new financial solutions and digitalization.

4-1-1. The current solutions in SCF need to be mapped.

To visualize the current solutions in SCF, we propose cataloging a cross-section of the industry and publishing the overall image of the financial services provided by major financial institutions.

- Amid major changes in the international environment, the visualization and resilience of the supply chain, including the perspectives of ESG and economic security, have become urgent and important issues. Strengthening SCF can play an important role in responding to such demands.

- In strengthening SCF, in addition to conventional bank loans, there are benefits in utilizing asset-based financial solutions that focus on the goods and services that flow in the supply chain or the value of the infrastructure that supports the supply chain.

- At present, major financial groups already provide various solutions, but the relationship between each solution and the product and customer segments is not well organized and information is fragmented. Therefore, we propose the promotion of the uninterrupted provision of supply chain finance by cataloging existing solutions.

- To realize this, it will be important for financial institutions to accumulate the knowledge and professional personnel to evaluate the value of assets underlying SCF. On this point, apart from the hopes that moves to utilize movable property as collateral in domestic finance will raise awareness, it will also be useful to coordinate the already scattered management resources linked to various financial services at major financial groups, and the visualization of the example will be very significant.

4-1-2. SCF FinTech solutions should be promoted as a distinct business area.

We propose establishing a business that promotes the introduction of SCF FinTech solutions through such measures as pitch events for SCF FinTech in the context of the reinforcement of SME suppliers.

- SMEs as suppliers not only need enhancement of SCF, but the sharing of knowledge and information concerning specific methods and techniques. Therefore, this requires an environment that provides easy access to advanced or successful examples and providers of new financial solutions.

- At the same time, it is important to digitize the flow of goods and services and funds to support the understanding and management not only to facilitate the introduction of new financial solutions by SMEs but to respond to new requests from a policy aspect for visualization and resilience of the supply chain.

- This type of response should provide an important and effective foundation for the future introduction of digital currencies, which are being tested in demonstrations in Japan and overseas, as well as when upgrading the operations and management of the supply chain utilizing smart contracts, etc.

- Consequently, we propose that the authorities with jurisdiction over supporting the suppliers in the supply chain convene demonstration events for SCF fintech solutions (with the principal audience being Growth and Standard listed companies) and incorporate increased opportunities to introduce solutions.

4-2.Integrating the supply chain and sustainable finance should be through universal and holistic standards for

ESG evaluation.

4-2-1. A conferences for practitioners to discuss holistic ESG evaluation criteria and methods should be established.

In order for sustainable finance to ideally enhance supply chains, a wide debate for ESG evaluation methodologies that reflect actual credit operations is necessary. Conferences should be held with the regulators and practitioners to facilitate debate about ESG evaluation criteria and methods.

- To achieve ESG and, in particular, global targets for climate change, advanced, emerging and developing countries need to cooperate in advancing mutually consistent initiatives.

- Supply chains built to date are typically built with buyers located in advanced countries and SMEs that are suppliers existing in multilayers in emerging and developing countries, so the method of operation and management of the supply chain is key to achieving ESG targets.

- In fact, among international organizations and major investors in Japan and overseas, there are pronounced moves to demand an ESG response throughout the entire supply chain, being pioneered in the response to climate change (Scope 3). That is, the idea of positioning sustainable finance for the entire supply chain is gaining ground.

- For steadily progressing such moves in the supply chain within Asia, it is important to ensure the standardization and interoperability of evaluation methods between related countries through promotion, particularly focused on data items and content aspects of ESG disclosure. Japan should also actively contribute to rule-making as an important hub that supports the supply chain.

4-2-2. Policy measures should prepare an environment for Scope 3 ESG disclosure and expand ESG investment and transition finance.

Further enhancements to the initiatives for transition finance support that also includes help for SME suppliers to improve ESG disclosure systems.

- It will be particularly useful to increase the incentives while reducing the burden on SMEs that comprise the supply chain to increase the momentum for responding to Scope 3.

- This point is also important for helping SMEs understand and manage the flows of goods and services and funds with digitalization. In addition, it will be very useful to support from the perspectives of knowledge and professional personnel to enable appropriate ESG disclosures even by SMEs.

- On the other hand, since there are large groups of manufacturers that are comparatively large emitters of greenhouse gasses in Asian countries, including Japan, the response to climate change requires a gradual progress. Transition finance should be an important element of SCF in relation to the supply chain.

- If such moves take hold, the increase in credibility and interest in ESG investment in Asia, including Japan, will hopefully attract funds and offices of European and American investors. Furthermore, even as the focus of ESG investment shifts to S and G in future, this will provide a foundation for cooperation within the region.

4-3. Reinforcing SCF should be achieved through integrating the supply chain with the investment chain.

4-3-1. The function of CFOs must be updated to match the global standard and talents must be trained to promote the integration.

Global-standard CFO personnels should serve the role of integrating the supply chain and investment chain. The concept of CFO itself needs to be updated and investment in human resources must be directed to that purpose.

- In reinforcing SCF while utilizing the features of Tokyo as a global financial center, it will be vital to integrate the investment chain, which is derived from resources with the extensive domestic financial assets and depth of diverse financial services, with the supply chain, which is derived from resources with internationally competitive industries and the flow of goods and services that supports them.

- When considering the individual business corporations and financial institutions, the presence of a global style CFO with the principal role of integrator at the nodal point of both companies is important. There is not a sufficiently shared understanding of this at present, and there also need to be initiatives for training CFO personnel and cultivating a community as well as from a legal perspective. For example, CFO could be defined and positioned with responsibilities (including SCF) stipulated in the Companies Act and the governance code.

- While there are difficulties in demanding the installation of Western style global CFO in SMEs that comprise the supply chain, it is possible to support management in terms of information and costs to facilitate easy access to the knowledge and information expected of CFO.

- The CFO personnel should be defined in the governance codes formulated by the FSAJ and the Tokyo Stock Exchange, while also including the knowledge of CFO personnel for SMEs in the various support menus at authorities that support SMEs.

4-3-2. FinTech companies and asset managers help streamline the present finance structure of supply chains.

Attracting FinTech companies and asset management firms that specialize in SCF has an enormous advantage in promoting an international financial center. We propose including FinTech companies and asset management firms specializing in supply chains in the activities for promoting foreign direct investment.

- In integrating the investment chain and supply chain in financial solutions, there are benefits in utilizing asset-based finance using the capital markets more widely as noted above.

- On this point, since there are already initiatives among domestic financial institutions to cooperate on sustainable finance and to upgrade inventory finance, it would be useful to promote this while simultaneously identifying and attracting foreign asset management firms and FinTech companies that use advanced investment methods for SCF and utilizing them to stimulate the Tokyo Global Financial Center as a whole.

4-4. A global financial center should also function as a global SCF hub

The future vision of Tokyo as a global financial center must incorporate the role of a supply chain finance hub city for Asia.

- In preparing the functions required for an Asian SCF hub, first from an information perspective, ESG disclosures need to spread to SMEs that comprise the suppliers and realize the visualization of the entire supply chain through the standardization and digitalization of data. Such evaluation will make it possible to seamlessly implement SCF.

- Next in terms of personnel, it is not only the promotion and management of the response to information aspects as noted above and the accumulation of financial personnel with high levels of expertise in areas such as FinTech and asset management that provide SCF based on such response, but the presence of a pool of CFO personnel that can strategically promote SCF to a broad range of business corporations.

- In terms of funds, in addition to accumulating an abundance of financial assets that can be utilized in SCF, in light of the current demands for SCF, there needs to be elements such as skills and high-level understanding concerning the ESG investment and the response for economic security.

- Furthermore, as an Asian hub, information and knowledge concerning the current status and issues for SCF within the region will need to be accumulated, and active debate towards containment of the issues will be required. However, there are benefits in having the power to lead and realize the outcomes of such debate by reinforcing the standardization and interoperability of SCF within the region and having the capacity to share the understanding with European and American global financial centers.

- We hope that Tokyo is not only comparatively close to achieving this, but by having these characteristics, lift its status as a global financial center with the inclusion of functions as an SCF hub.

5. FCT's contribution <Provisional conclusions>

Our proposed contribution based on the above policy proposal could at present conceivably include the following. FCT plans to consolidate these while clarifying the priorities through debate with various stakeholders.

- Map existing solutions and create a rough sketch to promote exchange of opinions between government administrative offices and the industry
- CFO personnel training 2.0: Contribute to having a mature debate, distributing information at forums such as the FinCity Global Forum for training of personnel able to promote the installation of digital solutions to connect the supply chain and the investment chain
- Attract asset management of the supply chain

We aim to achieve the following through these activities.

- Share useful or instructive case examples concerning SCF and articulate the lessons learned from the Greensill scandal, as the SCF's image has been tainted, but the root causes of the Green scandal has little to do with SCF per se, but not well understood.
- Create a Global CFO community and develop a global CFO education programs so that CFOs can better integrate supply chains with investment chains
- Promote industry initiatives that increase the power of judgment for movable property value
- Share knowledge with the world's global financial centers

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The world is changing, so is the role of international financial centers. As has been stressed throughout the discussion above, exacerbating geo-political confrontations and increasing uncertainties made supply chains a focal point for policy measures in order to balance security, prosperity and sustainability.

Accordingly, the financial centers today need to play much larger roles and collaboration among them is increasingly more important. In addition, we cannot stress enough the importance of integrating supply chain and investment chain through the function of finance. That way, international financial centers can assume their new role in contributing to sustainability.