CHAPTER IX

The Securitized Products Market

1. What Is a Securitized Product?

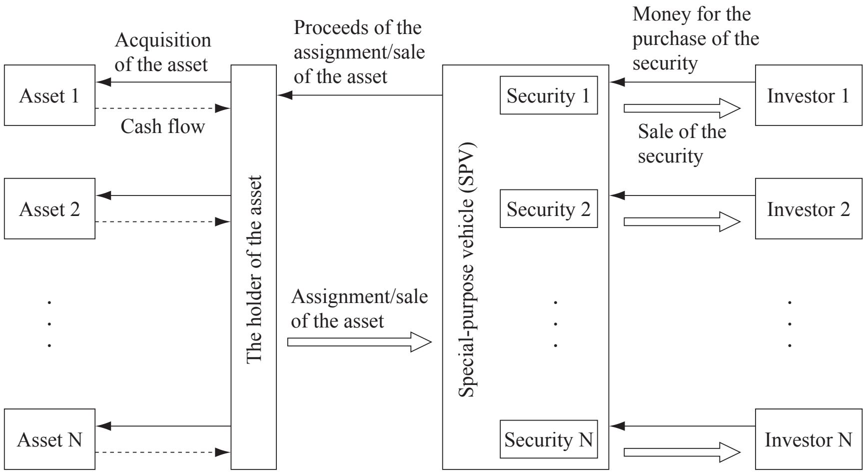
A company pool the income-generating assets separately from its balance sheet into a special-purpose vehicle (SPV), and the SPV issues a security backed by the cash flow to be generated by such assets and sells the security to investors. This method is called "securitization." The security issued through such a process is generally called a "securitized product." Business enterprises use their assets—such as auto loans, mortgage loans, leases receivable, business loans and such claims as loans to corporations, and commercial real estate—as collateral to back up their securitized products. As defined by the Act on Securitization of Assets, intellectual property (such as copyrights and patents) also can be securitized.

When viewed from the standpoint of asset holders, securitization of assets has the advantage of enabling them to use the proceeds of the assignment or sale of such assets that they obtain at the time of issue in exchange for cash flows that may be generated by the assets over a future period of years. In other words, asset holders can monetize uncertain future cash flows into current income. In addition, in case any holder of a piece of less-liquid commercial real estate wants to issue a security by putting up such real estate as collateral, such asset holder may easily sell the security by issuing it in small denominations to attract a larger number of small investors, thereby increasing liquidity.

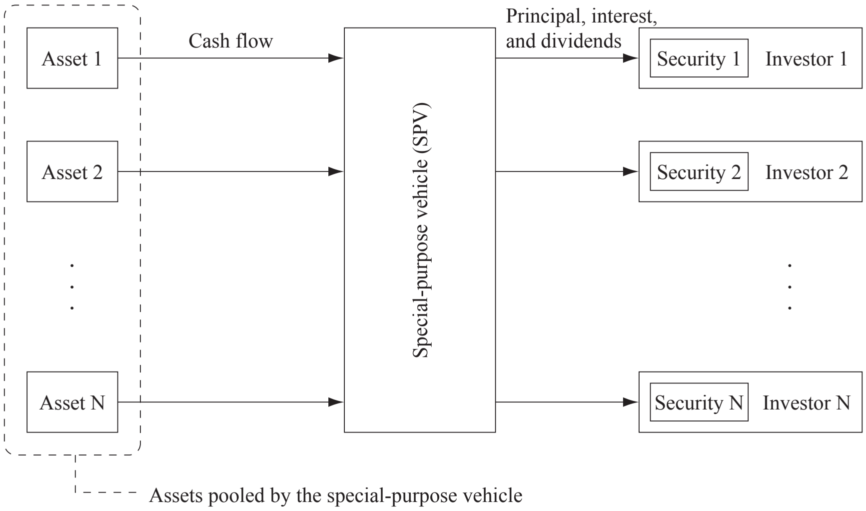
When viewed from the standpoint of investors, securitized products give them an additional choice of investments with new characteristics. More specifically, a security backed by a piece of real estate gives them an opportunity to invest in real estate that otherwise they cannot afford to buy outright with a small sum of money. Second, as asset holders can issue different classes, or tranches, of securities (for example, "senior/subordinated structure") at one and the same time with varying levels of credit risks, they offer investors the opportunity to purchase a security that meets their needs. The issuers of asset-backed securities — Security 1 to Security N in Chart IX-1 — simply tailor their terms of issue to best suit the needs of Investor 1 to Investor N, in-

Chart IX-1. Conceptual Chart of Securitized Products

At the time a securitized product is issued



After the securitized product has been issued



stead of making them uniform. For instance, by issuing securities with different characteristics — differentiation of the order of priority for the payment of interest and redemption of principal or addition of conditions to improve creditworthiness (such as credit enhancement) — the scope of choice for investors can be enlarged. With these additions investors can restructure their portfolios into more efficient ones.

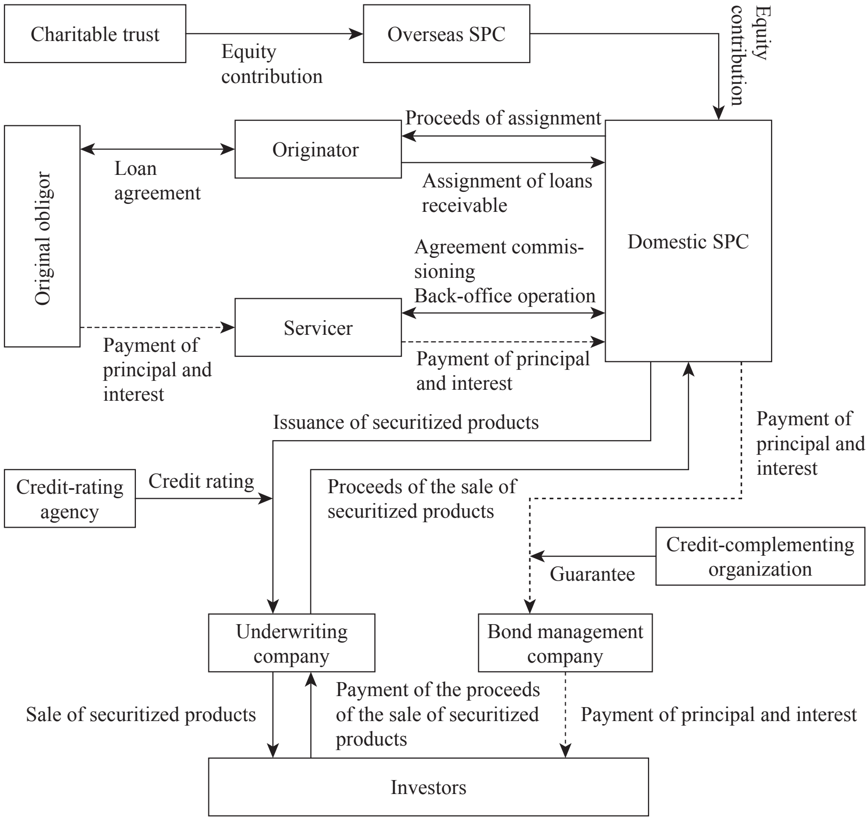
2. Basic Mechanism of Issuing Securitized Products

Generally, many of the securitized products are issued through the mechanism described below. First, the holder ("originator") of assets such as mortgage loans and accounts receivable that are to be securitized assigns them to a SPV. By doing so, such assets are separated from the balance sheet of the originator and become assets of the SPV, which becomes the holder of the assets. An SPV may take the form of a partnership, a trust, or a special-purpose company (SPC). An SPC established under the Act on Securitization of Assets is called *tokutei mokuteki kaisha* (TMK, or a specific-purpose company). To ensure bankruptcy remoteness (no impact even if the company, etc., held by the SPC goes bankrupt), an overseas SPC is generally set up as a subsidiary through what are called charitable trusts under U.S. and U.K. laws using what is termed a "declaration of trust," and the domestic SPC established as a subsidiary of the overseas SPC. In terms of originators, the entity responsible for the debt is called the original obligor.

The next step is to formulate the terms of issue of the securitized product to be issued by the SPV. If the originator opts for the trust method, it issues beneficiary certificates like those of a trust company. If it chooses the SPC method, it issues the kinds of securities decided upon by the SPC to provide securitized products to investors, but it does not have to issue them on one and the same terms of issue. In short, it can design each type (tranche) of security with a different character by differentiating the order of priority with respect to the payment of interest and redemption of principal, by varying maturities, or by offering the guarantee of a property and casualty insurance company. By adding such variation, the originator can issue securities that meet the diverse needs of investors. In the order of priority for payment, such securities are called "senior securities," "mezzanine securities," or "subordinated securities."

When the originator plans to sell its securitized products to an unspecified large number of investors, it should make them readily acceptable to investors by offering them objective and simple indicators (credit ratings) for independently measuring the risks involved. In addition, there are other players involved in different processes of securitized products, such as servicers, who

Chart IX-2. Example of General Working Mechanism for Issuing Securitized Products



manage assets that have been assigned to an SPV and securitized and also recover funds under commission from the SPV, and bond management companies, which administer the securitized products (corporate bonds) purchased by investors. Firms that propose such a mechanism for securitizing assets and that coordinate the issuing and the sale of such products are called "arrangers," and securities companies and banks often act as arrangers.

3. Description of Major Securitized Products

Securitized products are divided into several groups according to the types of assets offered as collateral and the characters of the securities issued. Those belonging to the group of products that are backed by real estate and the

Table IX-1. Classification of SPVs

Types	SPVs established under basic laws	SPVs established under special laws
Corporation type	Special-purpose company (SPC) Domestic: − Corporation (Companies Act) Overseas: − SPC (foreign governing law)	Specific-purpose company–TMK (Act on Securitization of Assets) Investment corporation (Act on Investment Trusts and Investment Corporations)
Trust type	General trust (Trust Act and Trust Business Act)	Specific-purpose trust (SPT) (Act on Securitization of Assets) Investment trust (Act on Investment Trusts and Investment Corporations)
Partnership type	Silent partnership (Commercial Code), general partnership (Civil Code)	Silent partnership, general partnership (Act on Specified Joint Real Estate Ventures)

Source: Prepared by the author from various materials.

claims collateralized by it are residential mortgage-backed securities (RMBS), commercial mortgage-backed securities (CMBS), and real estate investment trusts (REIT). RMBSs are issued in retail denominations against a portfolio that pools home mortgage loans. The first securitized product based on residential mortgage loans was the residential mortgage loan trust launched in 1973. However, this product failed to attract the attention of both issuers and investors because of too much limitation. Nevertheless, as the scheme based on SPC became available thereafter, thanks to the enforcement of the SPC Law, the volume of this type of issue has increased since 1999. Although bonds backed by housing loans that have been issued by the Japan Housing Finance Agency since 2001 were not issued through an SPC, they may be included among the RMBSs. CMBSs are backed by loans given against the collateral of commercial real estate (office buildings, etc.). The mechanism of issuing them is almost the same as that for RMBSs. The REIT that became available by virtue of enforcement of the Act on Investment Trust and Investment Corporation in May 2000 is an investment trust in that it can only invest in assets backed by real estate.

Another group consists of asset-backed securities (ABS, narrowly defined), such as accounts receivable, leases receivable, credits, auto loans, and consumer loans, etc. Sales of these products began to increase in the latter half of 1990s following the enforcement of the Specified Claims Law in June 1993. As these collateralized assets are a collection of relatively small assets and can be dispersed, they are highly suitable for securitization. What is more, as the laws governing the products have since been developed, they are securitized more extensively than the real-estate-backed group.

Table IX-2. Description of Major Securitized Products

Underlying claims	Securities issued	Originator	Governing laws	Basic scheme
Housing loans receivable	Residential mortgage-backed securities	Banks Other banking institutions	Act on Securitization of Assets, Trust Act, Trust Business Act, Financial Instruments and Exchange Act	A banking institution that holds mortgage credits assigns them to an SPC; the SPC, in turn, issues a bond backed by such credits or entrusts them to a trust bank, which, in turn, issues beneficiary certificates backed by them.
	Japan Housing Finance Agency bonds backed by housing loans receivable (RMBS)	Japan Housing Finance Agency	Act on the Japan Housing Finance Agency, Independent Administrative Agency Financial Instruments and Exchange Act	Housing loans receivable held by the Japan Housing Finance Agency are given in trust to a trust bank, and a specified corporate bond backed by the beneficiary certificates of a trust is issued at that time through an SPC.
Commercial mortgage credits and rental revenues	Commercial mortgage-backed securities (CMBS)	Business corporations, Banks Other banking institutions	Act on Securitization of Assets, Trust Act, Trust Business Act, Financial Instruments and Exchange Act	The originator assigns the commercial mortgage credits and rental revenues, etc., to an SPC, the SPC, in turn, issues a bond backed by such credits or entrusts them to a trust bank, which, in turn, issues beneficiary certificates backed by them.
Real estate	Real estate-specific joint venture products	Authorized or registered firms	Act on Specified Joint Real Estate Ventures	An equity contribution is invited from a large number of retail investors, and the funds thus pooled are jointly invested in real estate by taking advantage of the scheme of a voluntary association, an anonymous association, or a real estate investment trust.
	Real estate investment trusts (REIT)	Owners of property purchased by an investment trust	Act on Investment Trusts and Investment Corporations Financial Instruments and Exchange Act	An investment corporation issues units of investment and purchases a piece of real estate and real estate loan claims with the proceeds of such units in accordance with instructions given by a management company.
Mortgage loans receivable created on land, buildings, and superficies	Mortgage securities	Mortgage securities companies	Mortgage Securities Act Financial Instruments and Exchange Act	Mortgage securities are issued by registering mortgage loan receivables of the mortgage securities company, and jointly held equity in mortgage securities is sold to investors.
Fiscal Loan Fund loan receivables	Fiscal Loan Fund loan-backed securities	Government	Act on Securitization of Assets, Financial Instruments and Exchange Act	The government entrusts the loan receivables from its Fiscal Loan Fund to a trust company. Beneficiary certificates issued on the loans are then sold to an SPC, which issues securities with the loans as the underlying assets.
Leases receivable, credit card receivables, and installment credit accounts and notes receivable	Asset-backed securities (ABS, ABCP)	Business corporations	Act on Securitization of Assets, Trust Act, Trust Business Act, Financial Instruments and Exchange Act	A business corporation that holds lease credits assigns them to an SPC; the SPC, in turn, issues a bond backed by such credits or entrusts them to a trust bank, which, in turn, issues beneficiary certificates backed by them.
General loans	Collateralized loan obligations (CLO)	Banks	Act on Securitization of Assets, Trust Act, Trust Business Act, Financial Instruments and Exchange Act	A banking institution that holds general loans assigns them to an SPC; the SPC, in turn, issues a bond backed by such loans or entrusts them to a trust bank, which, in turn, issues beneficiary certificates backed by them.
Bonds	Collateralized bond obligations (CBO)	Banks and other bondholders	Act on Securitization of Assets, Trust Act, Trust Business Act, Financial Instruments and Exchange Act	The banks and other bondholders that hold a number of bonds assign them to an SPC; the SPC, in turn, issues a bond backed by such credits or entrusts them to a trust bank, which, in turn, issues beneficiary certificates backed by them.

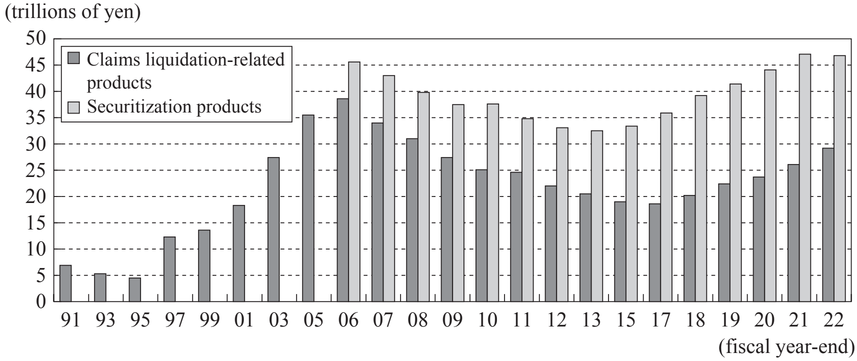
Other securitized products are called collateralized debt obligations (CDO), which are securities issued against the collateral of general loans, corporate bonds, and credit risks of loans that are held by banking institutions. For instance, loans to small and medium-sized business enterprises that are securitized may be considered CDOs. And CDOs are subdivided into collateralized loan obligations (CLO) and collateralized bond obligations (CBO). Moreover, since the eligibility requirements for issuing commercial paper (CP) were abolished in 1996, an increasing number of business corporations have come to use asset-backed commercial paper (ABCP) as a form of securitized product.

4. The Size of the Market

In 2011, the Bank of Japan started to publish the outstanding balance of securitized products, tracing back to data as of the end of fiscal 2006. Until then, a part of the outstanding balance of securitized products had been disclosed as "credit liquidation-related products." According to these statistics, the balance of securitized products outstanding as of the end of fiscal 2022, stood close to ¥47 trillion. When compared with that of stocks and beneficiary certificates of investment trusts (¥1,658 trillion), loans by private financial institutions to corporations and government entities (¥1,035 trillion) and industrial bonds (¥99 trillion), their share of private sector financing as a whole is still not very large. In contrast, a similar balance (of ABS and mortgage-related combined) in the United States, which is considered the most advanced nation in securitizing claims, stood at about ¥2,000 trillion at the end of fiscal 2022. The total issuance amount came to ¥350 trillion, reflecting the extraordinary size of the market compared to the Japanese one.

The scale of the securitized products market that stood at a mere ¥400 billion at the end of fiscal 1989 increased sharply thanks to the enforcement of the Specified Claims Law in 1993 (repealed in 2004), the Special Purpose Companies Law in 1998 and the Act on Securitization of Assets, which is a revised version of the Special Purpose Companies Law, in 2000. This also suggests that assets that can be used as collateral have diversified and that asset securitization has found a growing number of applications. Looking back, the issuance of securities backed by installment credits, which was made possible by the enactment of the Specified Claims Law, was the engine of growth of the market. As these assets have short maturities and can be readily pooled for diversification, they carry relatively low risks and can be easily securitized, and such attributes have been a factor in expanding the scale of the market for them. Since 2000, the securitization of mortgage loans, as well as of loans to business corporations and the government, has expanded dra-

Chart IX-3. The Balance of Securitized and Claims Liquidation-Related Products



FY	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06
Asset-liquidation products	6.9	5.9	5.3	5	4.5	5.3	12.3	14.2	13.6	14.8	18.3	24.2	27.4	30.1	35.5	38.6
Securitized Products	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	45.6
FY	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22
Asset-liquidation products	34	31	27.4	25.1	24.6	22	20.5	20	19	18	18.6	20.2	22.4	23.7	26.1	29.2
Securitized Products	43	39.8	37.5	37.6	34.8	33.1	32.8	32.5	32	33.4	35.9	39.2	41.4	44.1	47.1	46.8

Source: Complied on the basis of the data drawn from *Nichigin shikin junkan-tokei* (Flow-of-Funds Statement of the Bank of Japan).

Table IX-3. Changes in Composition of Collateralized Assets, etc.

(trillions of yen)

	2008	2010	2012	2014	2016	2018	2020	2022	Ratio to net operating income
Asset backed bonds (ABB)	13.8	13.9	14.1	14.1	14.9	16.5	18.8	19.8	42.0
MBS issued by JHFA	7.6	9	10.6	11	12.1	13.6	15.1	15	31.8
ABB backed by real estate properties	4.4	3.4	2.2	1.7	1.8	2.2	2.5	3	6.4
Other ABB	1.8	1.4	1.3	1.3	1	0.8	1.2	1.9	4.0
ABCP	3.9	2.4	2.3	1.8	1.7	1.5	1.8	2.2	4.7
Trust beneficiary rights	25.4	21.2	18.4	16.9	15.4	17.9	20.8	25.1	53.3
Of which backed by housing loans	9.7	8.6	7.7	7.7	7.6	9.5	11.3	13.4	28.5
Of which backed by loans to companies and governments	3.7	2.7	1.9	1.7	1.7	1.5	2.2	3.5	7.4
Of which backed by accounts receivable	5.2	5.4	5.1	3.6	1.7	1.2	0.7	0.7	1.5
Of which backed by lease and consumer credits	5.6	3.8	2.8	2.9	3.6	4.5	5.1	5.7	12.1
Total	43	37.5	34.8	32.8	32	35.9	41.4	47.1	100.0

Source: Complied based on the data from *Nichigin shikin junkan-tokei* (Flow-of-Funds Statement of the Bank of Japan).

matically. This may be explained by the fact that, pressed by the need to raise the capital adequacy ratio in compliance with the Basel Accords, banks have sought to unload loan assets from their balance sheets. After reaching a peak in fiscal 2006, the volume of securitized products fell back as the economy weakened in the wake of the global financial crisis. Volumes have recovered subsequently and exceeded pre-crisis levels in fiscal 2021.

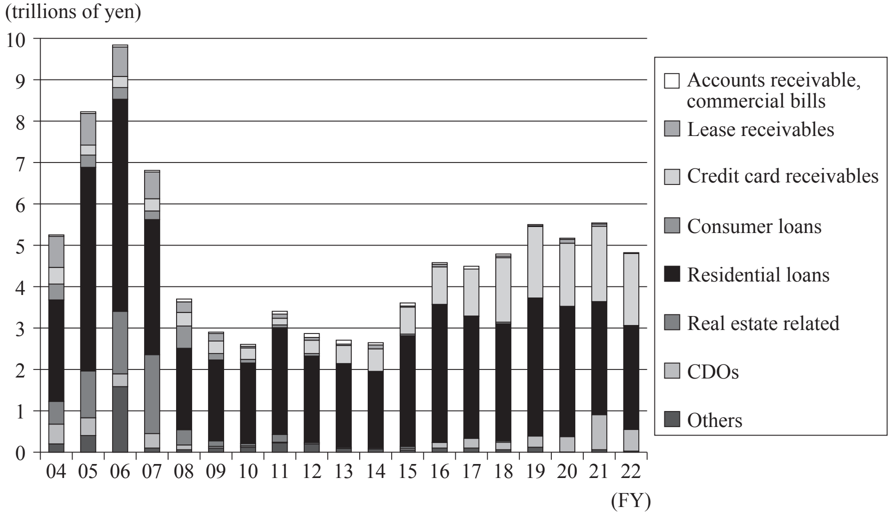
"Securitized products" are defined as the total of asset-backed securities, asset-backed commercial paper (ABCP) and trust beneficiary interests. Residential mortgage-backed securities (RMBS) issued by the Japan Housing Finance Agency (JHF; formerly, Housing Loan Corporation) account for 80% of asset-backed securities. Looking at the underlying assets of trust beneficiary interests that account for nearly half of the total outstanding balance, nearly 50% are mortgage loans while almost 25% are leases & credit receivables.

5. Primary Market for Securitized Products

As the bulk of securitized products are issued in private placement transactions between the parties concerned, it is difficult to accurately grasp the size of the primary market of securitized products. However, the Japan Securities Dealers Association (JSDA) currently compiles and publishes the "Securitization Market Trends Survey" conducted jointly with the Japanese Bankers Association based on information on issuance trends of securitized products received voluntarily from arrangers of securitized products and others. According to the Securitization Market Trends Survey, securitized products issued in Japan in fiscal 2022 were just under ¥5 trillion. Although securitized product issuance reached a peak of ¥9.8 trillion in fiscal 2006, it went through a period of decline reflecting the impact of the weakening economy precipitated by the global financial crisis. However, issuance has recovered over the last few years and remains at around ¥5 trillion.

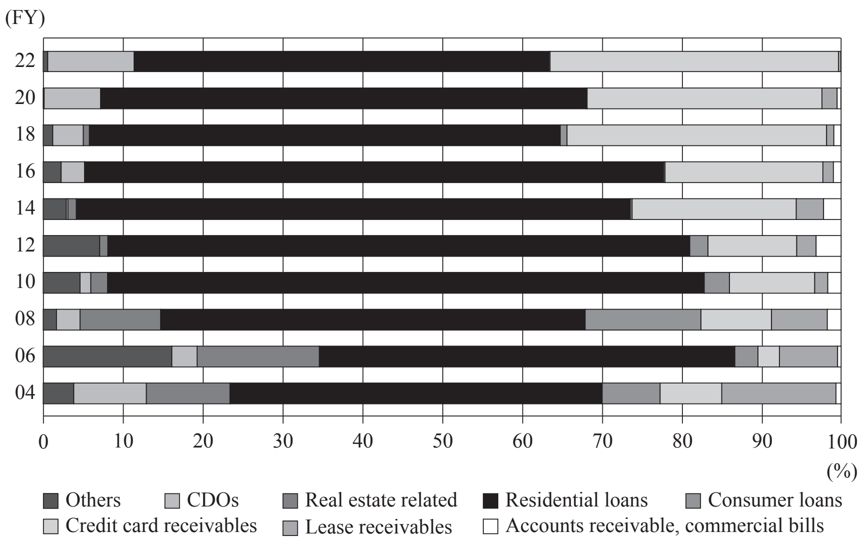
Looking at the trend by the type of asset pledged as collateral, while residential mortgage loans and shopping credits have exhibited a recovery trend, other assets have declined—a result that reflects the differences in the types of underlying assets. Residential mortgage loans account for an increasing percentage of the underlying assets used as collateral, a trend that has not changed over the past few years. This trend reflects that lending banks are actively securitizing mortgage loans of their own origination and that the issuance of RMBS by the Japan Housing Finance Agency has remained at a high level. Shopping credit saw a steep rise between fiscal 2012 to 2022 to jump almost fivefold, now accounting for 35% of the total issuance of underlying assets.

Chart IX-4. Securitized Products Issuance



Source: Compiled from "Securitization Market Trends Survey Report" by the Japan Securities Dealers Association.

Chart IX-5. Breakdown of Collateralized Assets



Source: Compiled from "Securitization Market Trends Survey Report" by the Japan Securities Dealers Association.

According to the data on issuance compiled by the JSDA, the total value of publicly offered asset-backed corporate bonds had steadily increased since 1997, the year in which the association started tracking the data. After hitting a peak of ¥0.52 trillion in fiscal 2002, however, the total declined, falling to ¥50 billion in fiscal 2019, with no bonds issued at all from 2020 onward. The popularity of privately placed asset-backed corporate bonds is thought to be the result of considerations with regard to investor protection framework, taxes, and disclosure costs.

Now turning to other characteristics of securitized products issued, pass-through repayments accounted for 85% or more of the overall repayment methods, followed by installment and lump-sum repayments.

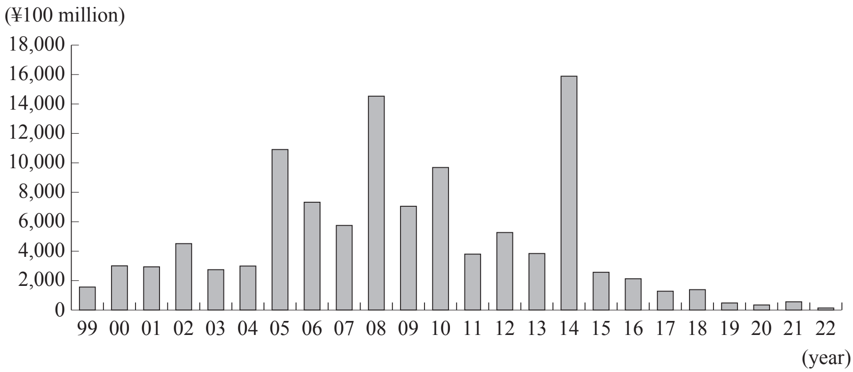
In terms of ratings, just under 80% is rated AAA. The remaining portion consists of long- or short-term AA-, A-, and a few BBB-rated instruments. No issuance below BB can be seen since 2017.

6. Secondary Market for Securitized Products

With the exception of beneficiary certificates of real estate investment trusts (REITs) and infrastructure funds to be discussed later, trading in securitized products is not concentrated in stock exchanges. As is the case with the secondary market for bonds, securitized products and their transactions are too complex and varied to lend themselves to exchange trading. Hence this has led to the dependence on an over-the-counter interdealer market as the secondary market for their trading. In this section, we will overview the present state of the interdealer market of securitized products by using primarily the data on “TMK bonds” (which are publicly offered corporate bonds issued by a corporation established based on the Act on Securitization of Assets. And asset-backed bonds, which is an item for statistics for the primary market, includes the portion of the issuer established for funds raising purposes based on the Companies Act.) published by the JSDA, which is in a position to obtain data on interdealer transactions.

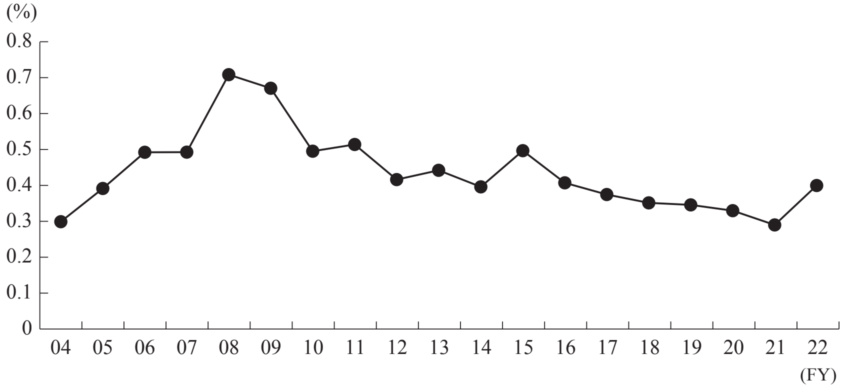
Data on the trading amounts of TMK bonds compiled by the JSDA on the basis of reports from member securities companies for the years prior to 1998 are not available. According to these reports, the trading amount of TMK bonds peaked in 2014, but is on an overall declining trend albeit with frequent fluctuations. A comparison of TMK trading amounts with those of other bonds in 2022 shows that TMK bond trading amounted to nearly ¥15 billion, and those of corporate straight bonds and utility bonds stood at ¥11.5 trillion and ¥3.0 trillion, respectively. Although these issues constitute only a part of the whole universe of securitized products, it is evident that the trading amounts remain quite limited. The number of securities companies that

Chart IX-6. The Amount of TMK Bonds Traded



Source: Compiled from "Trading Volume of Over-the-Counter (OTC) Bonds" by the Japan Securities Dealers Association.

Chart IX-7. Changes in launch spread (Average) of Japan Housing Finance Agency MBS (Monthly Bonds)

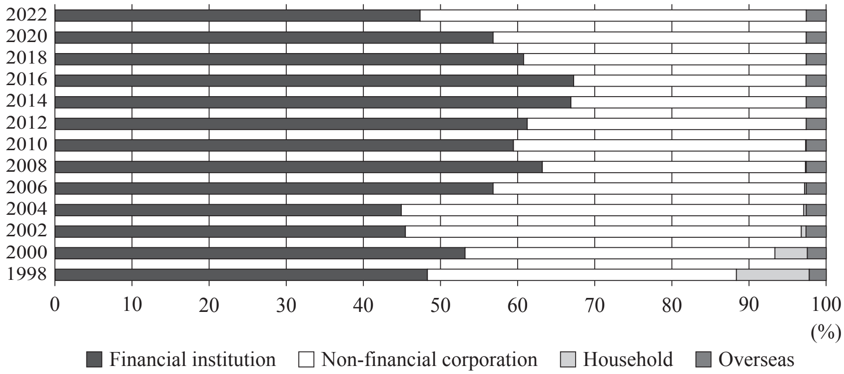


Source: Compiled by the author from data of the JSDA Securitization Market Trends Survey Report.

offer them is quite limited, and their liquidity is considerably low. On the other hand, a large number of securities companies make a market in RMBS issued by the Japan Housing Finance Agency. The bonds are classified as FILP agency bonds for statistical purposes, and their market seems to have a certain degree of liquidity.

As their trading market is yet to attain maturity, it is difficult to precisely measure their secondary market yields, and they have to be substituted with

Chart IX-8. Claims Liquidation-Related Product Holding Ratio



Source: Complied on the basis of the data drawn from *Nichigin shikin junkan-tokei* (Flow-of-Funds Statement of the Bank of Japan).

yields at issue. Measured in terms of yields at issue, the most highly liquid JHF bonds are traded at a higher yield than government-guaranteed bonds. Reinvestment risk occasioned by early mortgage loan repayment in addition to the expected redemption period and the availability of a government guarantee may be a factor behind this. While the spread of these two bonds can slightly widen at times, it is generally stable at around 0.4% in recent years.

According to the balance of financial assets and liabilities of the Flow-of-Funds Accounts of the Bank of Japan, the current holders of credit liquidation-related products (securitized products) are mainly non-financial corporations and financial institutions (in broadly equal proportions). In 1990, households were the primary holders. Since then, however, holdings by households have declined consistently, and currently stand at zero. During this time, financial institutions increased their holdings of securitization-related products and have become the primary holders.

7. Primary and Secondary Markets for the Beneficiary Certificates of Real Estate Investment Trusts

On September 10, 2001, the Japan Building Fund Investment Corporation and the Japan Real Estate Investment Corporation listed their certificates on the Tokyo Stock Exchange and became the first public real estate investment trusts (REITs) in Japan. These real estate investment trusts owe their creation to the amendment of the Securities Investment Trust Act enforced in November 2000, which made it possible to form trust funds through a real estate in-

Table IX-4. The Listing Requirements of the Tokyo Stock Exchange

Item	Listing requirements
Eligibility for becoming an asset management company	The investment trust management company, the trust company for an investment trust without instruction by trustor, or an entity that otherwise manages assets of a REIT applying for listing must be a member of the Investment Trusts Association, Japan.
Ratio of real estate to the total value of assets managed	The ratio of real estate is expected to be 70% or higher.
Ratio of real estate and related assets and liquid assets to the total assets under management	The ratio of real estate is expected to be 95% or higher.
Total net asset value	Expected to increase to ¥1 billion or more by the time of listing.
Total asset value	Expected to increase to ¥5 billion or more by the time of listing.
Auditor's opinion	(a) The securities report for the two immediately preceding terms are fair and accurate and contain no false statements. (b) The audit reports for the two immediately preceding terms contain the remarks "unqualified opinion" or "qualified opinion with an exception."
No. of units listed	Expected to increase to 4,000 or more by the time it is listed.
Major beneficiaries or investors	The total number of units owned by major beneficiaries or investors is expected to be 75% or less of the total units listed.
No. of beneficiaries or investors	Their number (except major beneficiaries or investors) is expected to increase to 1,000 or more at the time of listing.

Source: Compiled on the basis of the data drawn from the website of the Tokyo Stock Exchange.

vestment trust scheme. In addition, the Tokyo Stock Exchange instituted a rule granting a special exception to the securities listing regulations in favor of real estate investment trust certificates and enforced it on March 1, 2001. By March 31, 2022, the number of listed issues had increased to 61.

The basic mechanism of REITs is this: investment corporations or investment managers called investment trust management companies pool funds of investors, invest such funds primarily in real estate, and distribute the investment income (including rent income) to investors. The three types of securities defined in the Act on Investment Trusts and Investment Corporations—beneficiary certificates of investment trusts with instruction by trustor, beneficiary certificates of investment trusts without instruction by trustor, and investment securities of investment corporations—may also be issued by real estate investment trusts. The first type of trust is managed by a trust company that holds the assets in custody in accordance with instructions given by the management company. The second type is managed by a trust bank in accordance with its own judgment. And the third is commissioned to a

Table IX-5. Statistics Relating to REITs Listed on the Tokyo Stock Exchange

Calendar year	No. of issues listed	Capital contribution (¥100 million)	Total net Assets (¥100 million)	Total liabilities (¥100 million)	Total assets (¥100 million)
2009	42	39,624	40,202	40,947	81,514
2010	35	36,239	39,090	41,360	80,842
2011	34	37,925	41,097	44,321	85,636
2012	37	42,444	45,789	47,654	93,679
2013	43	53,762	57,387	57,595	115,252
2014	49	61,521	65,407	64,601	130,328
2015	52	66,287	73,483	70,504	144,336
2016	57	72,797	82,955	77,972	161,431
2017	59	78,199	88,498	82,772	171,889
2018	61	83,928	95,837	89,193	185,544
2019	64	90,001	102,099	94,788	197,499
2020	62	95,595	108,121	101,194	209,891
2022	61	100,032	114,582	107,969	223,148

Source: Compiled from "Statistical data D. Real Estate Investment Trusts" by Investment Trusts Association, Japan.

management company by the investment corporation that holds the assets. All of the certificates of the REITs listed on the Tokyo Stock Exchange are investment securities issued by investment corporations.

One of the advantages investors can derive from REITs is that they are able to invest in real estate with a small amount of money, and they can enjoy liquidity in freely trading their investments in the market. Another is that REITs offer diversification to their investment portfolio. REIT dividends may be expensed provided that a REIT meets certain requirements, including distributing more than 90% of its income to its certificate holders.

One problem that the managers of REITs have to address is the possibility of a conflict of interests between investors and the manager of a REIT with respect to any investment of its assets commissioned to a third party. In other words, it is feared that the management company may force the REIT to buy a piece of real estate held by its stockholders at a high price. To avoid the occurrence of such a situation, it is desirable to require the REIT to fully disclose information concerning its investments. And investors should consider getting involved in the management of investment corporations through a general meeting of investors.

8. Listed Infrastructure Funds

In April 2015, the Tokyo Stock Exchange (TSE) established an infrastructure fund market for listing funds that invest in infrastructure properties. The infrastructure funds handled on this market hold infrastructure properties and attain a cash flow that arises when lending the assets to operators. It is on the infrastructure fund market that the securities issued as underlying instruments of the cash flow are traded.

The structure of infrastructure funds is basically similar to that of REIT. While the listing rules for the infrastructure fund market are generally based on the framework for the REIT market, there is a key difference in that the policy for selecting operators who borrow and operate the infrastructure properties is included in the rules.

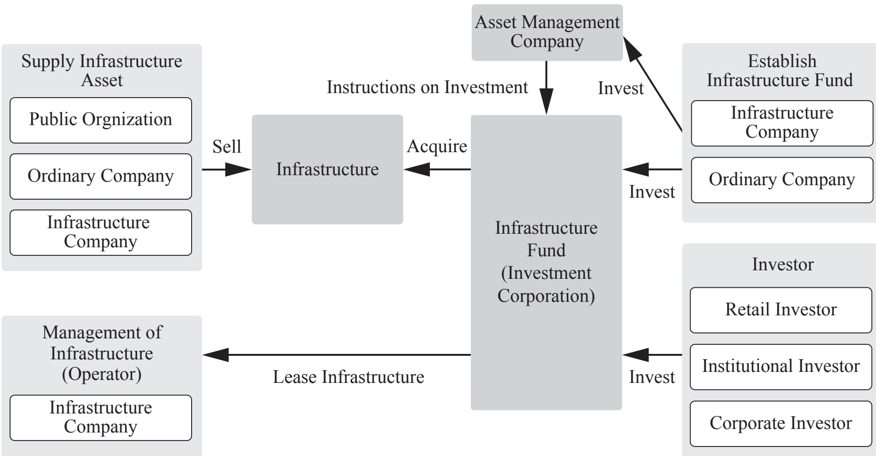
There have been listed only five issues on the infrastructure fund market by March 31, 2022. In addition, all listed issues hold solar power generation facilities as underlying assets and have issued securities. This is likely due to the projection that a solar power plant would be a highly stable source of profits given that power companies buy power at fixed prices following the enforcement of the Act on Special Measures Concerning Procurement of Electricity from Renewable Energy Sources by Electricity Utilities ("Feed-in Tariffs (FIT) Act") in 2011.

Properties that support the livelihoods of people, including electricity and gas facilities, water supply facilities, railroads and roads, can be the underlying assets of infrastructure funds. One of the reasons why infrastructure funds have been drawing attention is because earnings generated by such infrastructure properties are considered to be relatively less vulnerable to economic changes. This makes it possible for infrastructure funds to also maintain stable profits. While currently in Japan all funds pertain to solar power plants, it is anticipated that infrastructure funds that invest in other types of properties will emerge going forward.

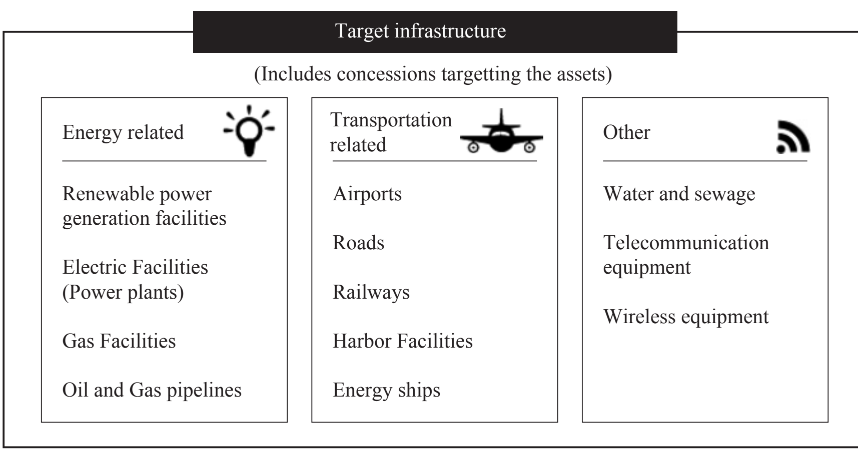
The total number of shares issued for the five issues combined amounted to approximately 1,670,000 shares, with a market capitalization of approximately ¥165 billion as of September 2023. Daily trading volume stood at nearly 2,600 shares from August to September 2023 for the seven issues listed at the time. The trading volume is also on the rise, drawing attention for further developments in the future.

In infrastructure investment, the terms greenfield and brownfield are used. The former signifies a field that has not been touched by human hands, reflecting a type of investment made where nothing exists. Meanwhile, the latter refers to a state in which human intervention has already been made, reflecting an investment in an existing infrastructure facility.

Chart IX-9. Structure of Infrastructure Funds



Source: Website of the Japan Exchange Group, Inc.



* Right to operate public facilities (concession) refers to the right to operate the public facility, which collects charges for usage that can be outsourced to a private business operator while the ownership of the facility remains with the public entity.

Source: **"**Infrastructure Funds**"** Section on the website of the Japan Exchange Group, Inc.

9. Risks and Credit Enhancement of Securitized Products

As the structure of securitized products is complex, credit rating is widely used as a criterion for making an investment decision. And in order to package assets into a securitized product that merits a high credit rating, a device for controlling various risks has to be built into the product. The substance of risks varies depending on the kind of underlying assets and the participants in the scheme, but one thing in common among them is the default risk, or the probability that the issuer may fail to pay its interest or principal promptly when due. The default risk of a securitized product is largely divided into two kinds: the risk of changes occurring in the cash flow generated by the underlying assets (bad debt or arrears) and the risk of bankruptcy of parties involved in the securitization of assets (the debtor, the SPC, or the originator).

The risk involved in the cash flow may be reduced by taking various credit-enhancing measures. Unlike general corporate bonds, whose credit rating is determined by the credit risk of their issuers, the credit rating of a securitized product must be based on the results of examinations of assets underlying each product. The arranger who underwrites and markets the securitized product and the originator negotiate with a credit-rating agency to obtain a high rating. There are various credit-enhancing measures to choose from for different schemes employed for issuing a securitized product, but they may be largely divided into two: an external credit-enhancing measure that utilizes external credit (such as banking institutions) and an internal credit-enhancing measure that gives the structure of the security the function of enhancing its credit. There are two methods of external credit enhancement: indirect and direct. The former complements cash flows from underlying loan assets, and the latter complements that of a securitized product. The indirect method has a drawback in that it cannot eliminate risks associated with a servicer or any other party involved in securitization. As a means of enhancing internal credit, a senior subordinated structure is commonly used. In Japan, however, the subordinated securities are often held by the originator because, among other reasons, there are few investors who are willing to purchase them.

A large part of the risk of changes in cash flows from underlying assets can be covered by credit enhancing measures. However, the risk of bankruptcy of the parties involved in securitization is a serious problem. As assigned claims and receivables of a bankrupt originator are typically subject to bankruptcy proceedings, investors carry the risk of nonpayment of their principal and interest. Therefore, it is important to check whether there is any risk in the business of any party concerned or whether the party is shielded from the risk of other parties concerned. Risks are complexly intertwined, and they are summed up in Table IX-7.

Table IX-6. Main Credit Enhancing Measures

Credit enhancement (external)	Recourse of the originator	The originator owes recourse to a certain part of the assets sold to the SPC. Off-balance sheet accounting may not be authorized depending on the extent to which the originator owes such recourse.
	Credit default swaps	The purchaser of a swap pays a certain amount of money in premium in exchange for a guarantee of credit risk of a specified claim.
	Guarantee, insurance by financial institutions	A property and casualty insurance company provides insurance covering the entire default risk is issued securities.
Credit enhancement (internal)	Spread account	The balance of funds remaining after deducting the amounts paid to the investors and fees from the cash flow of the underlying assets is deposited in a spread account to be used as compensation money in case of default.
	Over collateral	The credit standing of securities is enhanced by selling such part of the underlying assets whose value is in excess of the amount of the securities issued to the special purpose vehicle (SPV).
	Senior/subordinated structure	By designating part of the securities issued as subordinated debt, the credit standing of the rest of the issue is enhanced.

10. The Enactment of Securitization-Related Laws

The existing legal system of Japan is built around business-specific laws, and the regulatory system of financial instruments is vertically divided along the lines of business-specific laws. As these laws contain many provisions regulating or banning business activities outright, it was pointed out that to spur the development of new business, such as the securitization of assets, the existing laws had to be amended, and new laws must be enacted.

As regards the securitization of assets, pioneered by the Mortgage Securities Act introduced in 1931, the Specified Claims Law was enacted as an independent law in 1993. Since the enforcement of this law, the legal infrastructure has been developed steadily. Under and thanks to the Specified Claims Law, the liquidation and securitization of assets classified as specified claims, such as leases receivable and credit card receivables, started. Thereafter, various laws were enacted to help the banking institutions meet the capital adequacy standards imposed by the Basel Committee on Banking Supervision and to encourage the securitization of their assets to deal with the bad loan problem that had become serious since the turn of the decade of the 1990s.

Under the Special-Purpose Company (SPC) Law and the Act on Securiti-

Table IX-7. Typical Risks of ABS

Overall risks of ABS	Outline	Measures necessary to avoid risks
Credit risk	There is a risk of a failure to generate an expected cash flow due to a default of the originator.	A review of credit-enhancing measures is needed. In the case of an underlying asset that consists of many credits, steps must be taken to diversify such underlying assets.
Prepayment risk	If the issuer redeems the security ahead of its maturity, the investors will be exposed to prepayment risks.	It is necessary to develop techniques such as a collateralized mortgage obligation (CMO) and a security with a period of deferment that adjusts the relationship between the underlying assets and the cash flow generated by the security issued thereby.
Liquidity risk	When the funds flow out rapidly from the market, the holder cannot sell the security in a timely manner because the liquidity of the securitized product is not adequate, and the holder is thus exposed to a liquidity crunch.	The development of a secondary market for trading ABSs is a must. Also, the subordinated security shoud be traded widely among the investors.
Risks of the parties concerned	**Outline**	**Measures necessary to avoid risks**
Originator's risk	Once the claims of the originator sold to the SPC are recognized as part of the bankruptcy estate, the investors have the risk of forfeiting their right to receive the payment of the principal and interest of the security.	It is necessary to ensure that the transfer of the claims is not for securing a loan but is their true sale. The assets must be separated from the balance sheet. Transaction must have the conditions necessary for counteracting against a third party.
Servicer risk	The commingling risk: A servicer of receivables that went bankrupt may mingle the funds it had received before it went bankrupt with its own funds without remitting them to the SPV.	The designation of a backup servicer capable of putting up excess collateral is needed. Payment of remittances received from debtors must be made directly into the account of the SPV. Management of a lock-box account must be conducted.
SPC risk	Bankruptcy remoteness must be established so that the SPC of an asset securitization scheme itself will not go bankrupt or will not be affected by the bankruptcy of other companies.	The substance of business must be clearly defined, and an SPC in which the originator has no equity interest must be founded by establishing a charitable trust. The commencement of bankruptcy proceedings must be averted by making the charitable trust its beneficial shareholder.

Table IX-8. Chronology Relating to the Securitization of Assets

Month & Year	Changes implemented
Aug. 1931	The Mortgage Securities Act is enacted.
June 1973	Housing loan companies raise funds by offering beneficiary certificates of housing loan claim trusts.
Sept. 1974	Housing loan companies raise funds by offering mortgage-backed securities.
Jan. 1988	The Law Concerning the Regulation of Mortgage-Backed Securities Business is enforced.
Apr. 1992	The Law Concerning the Regulation of Business Relating to Commodity Investment (the Commodity Fund Law) is enforced.
Apr. 1993	The Securities and Exchange Act designates beneficiary certificates of housing loan claim trusts as securities.
June 1993	The Law Concerning the Regulation of Business Relating to Specified Claims, etc. (the Specified Claims Law) is enforced.
July 1993	The ban on the issuance of CPs by nonbanks is lifted.
Apr. 1995	The Act on Specified Joint Real Estate Ventures is enforced.
Apr. 1996	As a method of liquidizing assets under the Securities and Exchange Act, the issuance of asset-backed securities (ABS and ABCP) is authorized, making it possible to issue them other than under the Securities and Exchange Act.
June 1997	Beneficiary certificates of general loan claim trusts (including loans secured by real estate) are designated as securities under the Securities and Exchange Act.
Feb. 1998	The Securities Investment Trust Act is amended (and the ban on corporation type investment trusts and privately placed investment trusts is lifted).
Apr. 1998	A total plan for the liquidation of land and claims is announced.
Sept. 1998	The Act on Securitization of Specified Assets by Specified Purpose Companies (the SPC Law) is enforced.
Oct. 1998	The Law Concerning Exceptions to Requirements under the Civil Code for the Perfection of Assignment of Receivables and Other Properties (the Perfection Law) is enforced.
Jan. 1999	A statement of opinion on establishing accounting standards for financial instruments is published. (The financial component approach to conditional transfer of financial assets is adopted.)
Feb. 1999	The Act on Special Measures Concerning Claim Management and Collection Business (the Servicer Law) is enforced.
May 1999	Act on Issuance, etc. of Bonds for Financial Corporations' Loan Business (the so-called Nonbank Bond Law) is enforced.
May. 2000	The SPC Law is amended to the Act on Securitization of Assets (Revised SPC Law), the assets subject to liquidation is expanded.
Nov. 2000	The Act on Investment Trusts and Investment Corporations (the revised Securities Investment Trust Act) is enforced, expanding the assets that can be securitized to real estate, etc.
Sept. 2001	The revised Act on Special Measures Concerning Claim Management and Collection Business is enforced.
Dec. 2004	The Trust Business Act is amended, and the system requiring trust companies of the management type to register is launched.
Dec. 2004	The Specified Claims Law is repealed.
Oct. 2005	The Special Provisions of Assignment of Obligations was amended to the Act on Special Provisions, etc. of the Civil Code Concerning the Perfection Requirements for the Assignment of Movables and Claims.
May 2006	The Companies Act is enforced.
Dec. 2006	The Trust Act is amended and provided for business, personal, and purpose trusts.
Oct. 2007	The Financial Instruments and Exchange Act is enforced.
Nov. 2011	Revised Act on Securitization of Assets is enforced.
Apr. 2018	Revised Financial Instruments and Exchange Law is enforced.
May 2020	Revised Financial Instruments and Exchange Act is enforced. Sets out provisions for "Electronically Recorded Transferable Rights to Be Indicated on Securities, etc." (security tokens/digital securities)

zation of Assets enacted as the revised SPC Law, structures incorporating SPVs, including specific-purpose companies (TMK) and specific-purpose trusts (SPT), may be used for securitizing specified assets designated in the provisions of the said laws (real estate, designated money claims, and beneficiary certificates issued against such assets in trust) in the form of asset-backed securities (such as senior subscription certificates, specified corporate bonds, and specified promissory notes, etc.). Under the SPC Law, the system of disclosing an asset liquidation plan and individual liquidation projects was introduced, in addition to the disclosure requirements on the disclosure of information on securities under the Securities and Exchange Act (currently the Financial Instruments and Exchange Act).

In 1998 the Act on Special Provisions, etc. of the Civil Code Concerning the Perfection Requirements for the Assignment of Movables and Claims was enacted as a law prescribing exceptions to requirements under the Civil Code for the perfection of the assignment of receivables and other properties, and it was amended in 2005. The Civil Code provides the legal requirements for the assertion of the assignment of nominative claims (claims with named creditors) against obligors or third parties. Designated claims were transferable, but the provisions of the Civil Code had been a major hurdle standing in the way of securitizing them. And the Perfection Law set forth simple procedures for the perfection of such interests.

The Act on Special Measures Concerning Claim Management and Collection Business, enacted to account for exceptions to the provisions of the Attorney Law, allows accredited corporations to provide the services of administering and collecting debts. Under the Act on Special Measures Concerning Claim Management and Collection Business, a debt collection company may be established to provide a bad debt collection service without conflicts with the Attorney Law. The Act on Issuance, etc. of Bonds for Financial Corporations' Loan Business conditionally lifted the ban imposed on nonbanks on the issuance of corporate bonds and CPs for the purpose of raising capital for lending operations and on ABSs.

As a result of the revision of the Securities and Exchange Act based on the Act on Revision, etc. of Related Acts for the Financial System Reform and the enforcement of the Financial Instruments and Exchange Act, beneficiary certificates of and trust beneficiary interests in assets that are deemed eligible for securitization by the provisions of the Act on Securitization of Assets and mortgage certificates under the Mortgage Securities Act are now legally considered securities. Furthermore, pursuant to the enactment of the Act on Investment Trusts and Investment Corporations as revised, real estate was included in eligible assets, which paved the way for the issuance of REIT securities. Since then, the scope of eligible assets has been expanded, and the infrastructure funds emerged.

11. The Development of Digital Finance

Against the backdrop of advances in IT, various new technologies are being utilized for finance. One such innovation which forms part of the drive towards financial DX is distributed ledger technology (DLT): blockchain is a well-known example of this. The technology has started to be used for transactions of securities and commodities, in addition to payments and remittances using cryptographic assets (virtual currencies) and is likely to be applied to an increasing range of transactions in future.

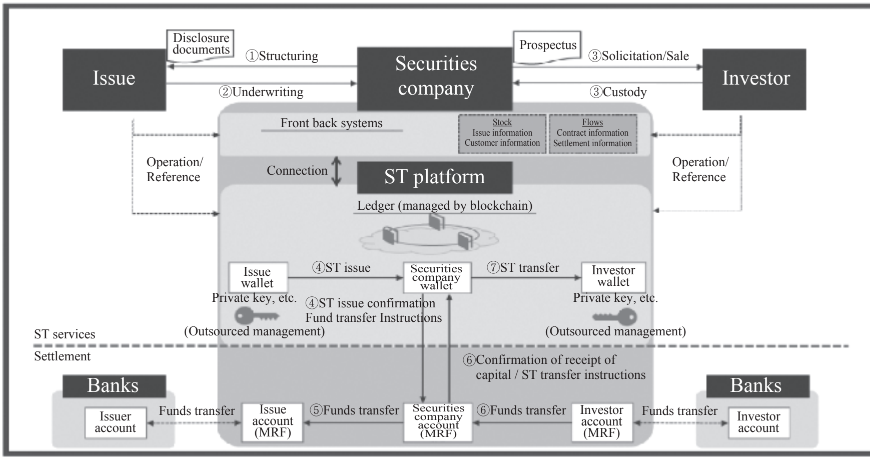
DLT is a technology for the decentralized management of records of transfer and ownership of assets and rights based on ledgers shared over the internet between transaction participants. In the securities market, DLT is expected to be applied as a decentralized infrastructure in areas such as issuance, distribution and settlement of securities. A typical example is fundraising through the issuance of digital tokens. For instance in the US, substantial funds were raised through initial coin offerings (ICOs) between 2017 and 2018.

With regard to digital tokens that have the characteristics of securities, the revised Financial Instruments and Exchange Act came into effect in Japan in May 2020, and the Financial Services Agency (FSA) has established "Electronically Recorded Transferable Rights to Be Indicated on Securities, etc." by Cabinet Office Ordinance for electronically recorded transferable rights and paragraph 1 securities with no face value. This allows a wider range of items to be treated as security tokens (STs, digital tokens as securities).

Securitization through STs using DLT can help reduce the cost of securitization as well as stimulate securitization, for example through reducing the cost of small lots and automating interest payments and redemptions. Kenedix conducted Japan's first real estate securitization through a security token offering (STO) in July 2020. Since then, there have been a number of securitization STOs mainly in the real estate sectors. Increasing securitization activity may offer more opportunities for individual investors to find products that better suit their needs. Up till now, individual investors' access to real estate securitization products has been limited to J-REITs, but real estate securitization STOs have made it possible for individual investors to access securitized products backed by a single real estate asset. In addition to real estate trust beneficiary rights, securitization of aircraft and ship lease receivables, mortgages and other monetary claims, intellectual property rights, and other security tokens are also being considered in the future.

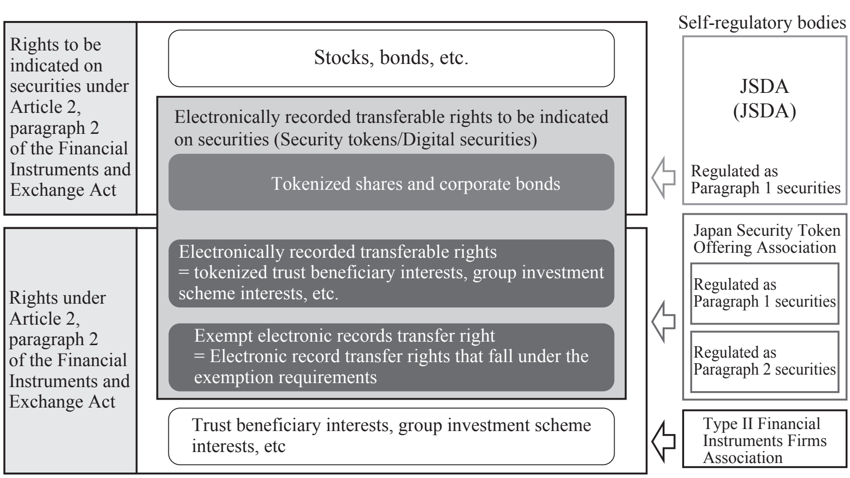
In addition, from the perspective of financial markets operators, the hurdle for securitization will be lowered, and it is likely to become easier to securitize assets that have previously been hard to securitize.

Chart IX-10. Basic scheme for security token transactions



Source: Japan Security Token Offering Association "Current status of security tokens".

Chart IX-11. Digital securities classification and self-regulatory bodies



Source: Japan Security Token Offering Association, "Recommendations for Revitalizing the Secondary Market in Digital Securities".