

IFC Satellite Seminar on "Sustainability data issues and central banks' experience"

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Pilot compilation results for climate finance debt securities

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Pilot Compilation Results for Climate finance debt securities

「G20 Data Gaps Initiatives 3(DGI-3)」 Climate Finance(#4)

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BANK OF KOREA

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- **The G20 DGI has selected “Climate Finance” as a new task under DGI-3.**
 - Monitoring the transition to a low-carbon economy.
 - Tracking the growth trend of climate finance.
 - Expanding internationally comparable statistics.
- **The G20 WGSD decided to compile statistics for climate finance debt securities as part of this initiative.**
- **Compilation results(issuance, holding, and interconnectedness) are to be submitted to BIS and ECB.**
- ⇒ **The BOK prepares implementation plan for the climate finance debt securities task and sharing of pilot compilation results.**

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- **Scope of Climate finance debt securities**
 - **Green debt securities** : use of proceeds restricted to financing/refinancing activities that improve the the **environment**.
 - **Sustainability debt securities** : use of proceeds restricted to financing/refinancing activities that improve the **environment and society**.
 - **Sustainability-linked debt securities** : debt securities whose financial terms(e.g., cash payments) are linked to achieving environmental or social objectives.

- **Based on Handbook on Securities Statistics(HSS)**
 - By bond type, stock/net transaction amounts, valuation method, currency, maturity, market of issuance.
- **Timeline**
 - Core data: 2025-2027
 - Advanced ambitions data: end of 2027

DGI-3 Scope¹⁾ and Timeline

No	Data	Timeline
①	(Green bond) Issues(Stock) ▪ Valuation / Currency / Maturity	end-2025
②	(Green bond) Issues(Net Transaction) ▪ Valuation / Currency / Maturity	end-2027
③	(Sustainability-Sustainability-linked) Issues(Stock) ▪ Valuation / Currency / Maturity	end-2027 (priority)
④	(Total) Holdings(Stock and Net Transactions) ▪ Valuation / Currency / Maturity / Domestic-Foreigner	
⑤	(Total) Issues(Stock and Net Transactions) ▪ Maturity / Interest rate / Market of issuance	end-2027
⑥	(Total) Holdings(Stock and Net Transactions) ▪ Maturity / Interest rate / Market of issuance	
⑦	Interconnectedness	

Note: 1) Depending on priorities and the feasibility of data aggregation, data are classified into core data and advanced ambitions data. The shaded areas indicate core data.

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- Source Data

- (Issues) KRX 「ESG Bond Information Platform」

ESG¹⁾ Bond Information Platform(example)

Issuer	ISIN	ESG Type	Bond Name	Date of Issue	Maturity date	Coupon rate	Nominal (million won)	Bond type
AAbank	KR123456G125	Green	AAbank123-1(G)	06/05/2021	06/05/2031	2.58%	400,000	Corporate
BBcorp	KR876543G210	Sustainability	BBcorp456(S)	30/03/2022	30/03/2027	3.16%	50,000	Special

Note : 1) Includes green, social, sustainability, sustainability-linked bonds.

- (Issue/Holdings) BOK-BOMIS 「Bond Market Information System」

Depository Status by Investor Type(example)

Depositor	Depositor Group	Bond name	Nominal (million won)	ISIN	Market value (mil won)	Interest rate ³⁾
CCbank	Domestic bank	AAbank123-1(G)	50,000	KR123456G125	45,971	Fixed
National Pension	Government	"	200,000	"	183,888	Fixed
EEsecurities (customer)	Securities company	"	150,000	"	137,916	Fixed
FFbank	Domestic bank	BBcorp456(S)	20,000	KR876543G210	18,317	Fixed
GGbank(foreigner)	Foreign Bank	"	30,000	"	27,476	Fixed

- Methodology

- Match ISIN codes between KRX and BOK-BOMIS.
- Use microdata instead of survey aggregation.

<Reporting Template>

Table 1.1a: Green Bonds Issues by Sector, Currency, Maturity, Interest Rate and Market of Issuance. Stocks at Nominal Value

Orange cells: Core data to be transmitted by end-2025

White cells: Advanced ambitions data to be transmitted by end-2027

Issuer Currency Maturity Interest rate Market of issuance	Residents (S1)												All resident issuers (S1)
	Non-financial corporations (S11)	Financial corporations (S12)						General government (S13)		Memo item: public sector	Households and NPISH (S14+ S15)		
		Central bank (S121)	Other deposit-taking corporations (S122)	Money market funds* (S123)	Other financial corporations (S124 to S127)	Of which: Securitisation corporations (S125A)	Insurance corporations and pension funds (S128, S129)	Of which: Central government (S1311)					
Total													
By domestic currency													
By foreign currency													
Short term at original maturity													
Long term at original maturity													
More than 1 year and up to and including 2 years													
More than 2 years and up to and including 5 years													
More than 5 years and up to and including 10 years													
More than ten years													
Of which: Long term at original maturity, with a remaining maturity up to and including 1 year													
Fixed interest rate													
Variable interest rate													
Inflation-linked													
Interest rate-linked													
Asset price-linked													
Domestic market													
International market													

*) Money market funds do not issue debt securities. 2008 SNA codes are used for sectors and subsectors.

<Reporting Template(example of KOREA)>

Table 1.1a: Green Bonds Issues by Sector, Currency, Maturity, Interest Rate and Market of Issuance. Stocks at Nominal Value

Orange cells: Core data to be transmitted by end-2025

White cells: Advanced ambitions data to be transmitted by end-2027

Currency Maturity Interest rate Market of issuance	Residents (S1)													All resident issuers (S1)
	Non-financial (S11)	corporations	Financial corporations (S12)							General government (S13)		Memo item: public sector	Households and NPISH (S14+ S15)	
			Central bank (S121)	Other deposit-taking corporations (S122)	Money market funds* (S123)	Other financial corporations (S124 to S127)	Of which: Securitisation corporations (S128, S129)	Insurance corporations and pension funds (S128, S129)	Of which: Central government (S1311)					
Total		19,474,641	7,360,767	-	2,760,000		4,600,767	470,767	-	495,100	300,000	7,820,100	-	27,330,508
By domestic currency		19,474,641	7,360,767	-	2,760,000		4,600,767	470,767	-	495,100	300,000	7,820,100	-	27,330,508
By foreign currency		-	-	-	-		-	-	-	-	-	-	-	-
Short term at original maturity		120,000	120,000	-	120,000		-	-	-	-	-	120,000	-	240,000
Long term at original maturity		19,354,641	7,240,767	-	2,640,000		4,600,767	470,767	-	495,100	300,000	7,700,100	-	27,090,508
More than 1 year and up to and including 2 years		1,935,000	1,850,000	-	1,200,000		650,000	-	-	70,000	-	1,035,000	-	3,855,000
More than 2 years and up to and including 5 years		13,149,641	4,100,767	-	650,000		3,450,767	470,767	-	425,100	300,000	3,865,100	-	17,675,508
More than 5 years and up to and including 10 years		2,520,000	1,050,000	-	660,000		390,000	-	-	-	-	1,050,000	-	3,570,000
More than ten years		1,750,000	240,000	-	130,000		110,000	-	-	-	-	1,750,000	-	1,990,000
Of which: Long term at original maturity, with a remaining maturity up to and including 1 year		3,833,000	1,220,000	-	600,000		620,000	-	-	70,000	-	1,620,000	-	5,123,000
Fixed interest rate		19,374,641	6,900,767	-	2,760,000		4,140,767	470,767	-	495,100	300,000	7,820,100	-	26,770,508
Variable interest rate		100,000	460,000	-	-		460,000	-	-	-	-	-	-	560,000
Inflation-linked		-	-	-	-		-	-	-	-	-	-	-	-
Interest rate-linked		100,000	460,000	-	-		460,000	-	-	-	-	-	-	560,000
Asset price-linked														
Domestic market		19,474,641	7,360,767	-	2,760,000		4,600,767	470,767	-	495,100	300,000	7,820,100	-	27,330,508
International market														

*) Money market funds do not issue debt securities. 2008 SNA codes are used for sectors and subsectors.

- Compilation results(summary)

Issues of Climate Finance Debt Securities (as of end-2024)

(stock, market value, trillion won)

	Total	Non-Financial	Financial	Government
■ Total	44.4	22.8	21.1	0.6
< Bond type >				
■ Green	27.4	19.5	7.4	0.5
■ Sustainability	16.6	3.2	13.4	0.1
■ Sustainability-linked	0.4	0.1	0.3	0.0
< Currency >				
■ Domestic(KRW)	44.4	22.8	21.1	0.6
■ Foreign	0.0	0.0	0.0	0.0
< Maturity ¹⁾ >				
■ Short-term(less than 1yr)	0.5	0.1	0.4	0.0
■ Long-term(longer than 1yr)	43.9	22.6	20.7	0.6
- 1y~2y	5.2	2.0	3.2	0.1
- 2y~5y	25.6	16.0	9.1	0.5
- 5y~10y	8.6	2.7	5.9	0.0
- over 10y	4.5	2.0	2.5	0.0
- Remaining mat ≤ 1y	8.7	4.6	4.1	0.1
< Interest rate >				
■ Fixed	43.7	22.5	20.6	0.6
■ Variable	0.7	0.2	0.5	0.0
- Inflation-linked	0.0	0.0	0.0	0.0
- Interest rate-linked	0.7	0.2	0.5	0.0
- Asset price-linked ²⁾	-	-	-	-
< Market of Issuance >				
■ Domestic Market	43.7	22.5	21.1	0.6
■ International Market ²⁾	-	-	-	-

Note: 1) Classified by original maturity

2) Compilation currently not feasible due to lack of source data

Source: KRX, BOK

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● Issuance Statistics (as of end-2024)

KRW 44.4trn

Domestic issues(stock)

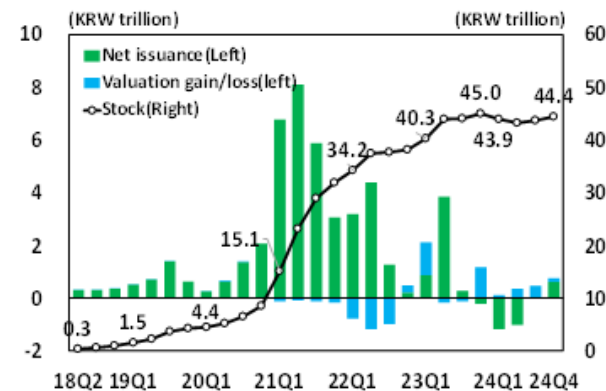
11.8%

Annual growth rate(2021~2024)

562

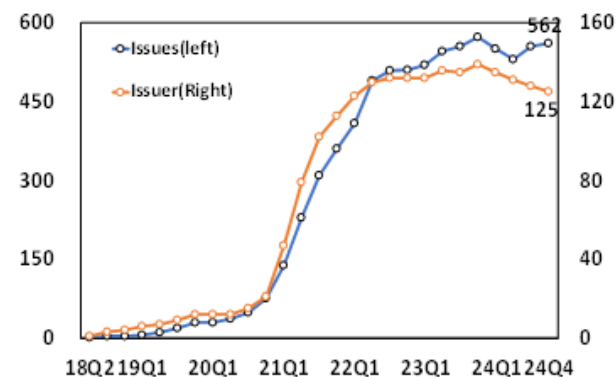
Number of bond issues

Domestic Outstanding Amount of Climate Finance Debt Securities



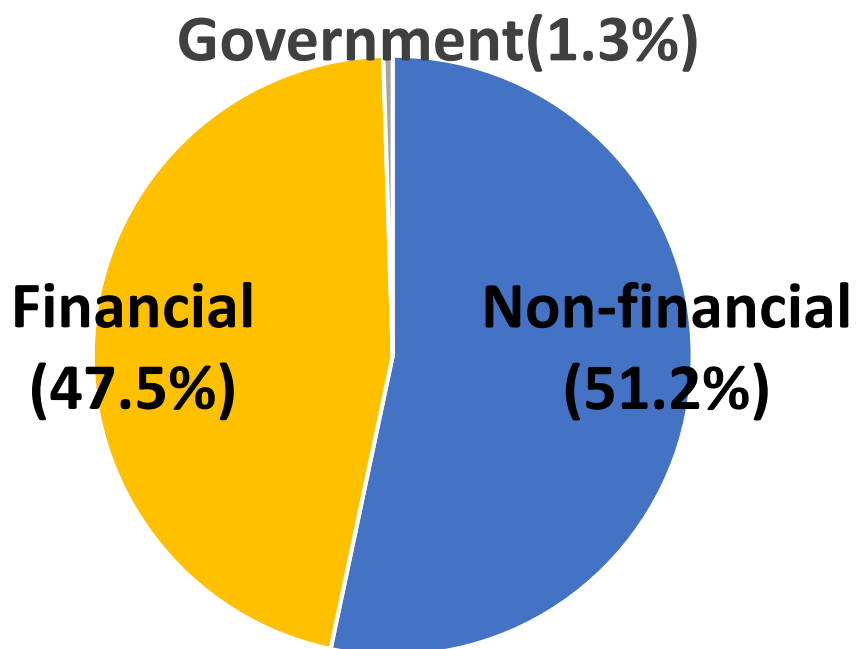
Source: KRX

Number of Issues and Issuers

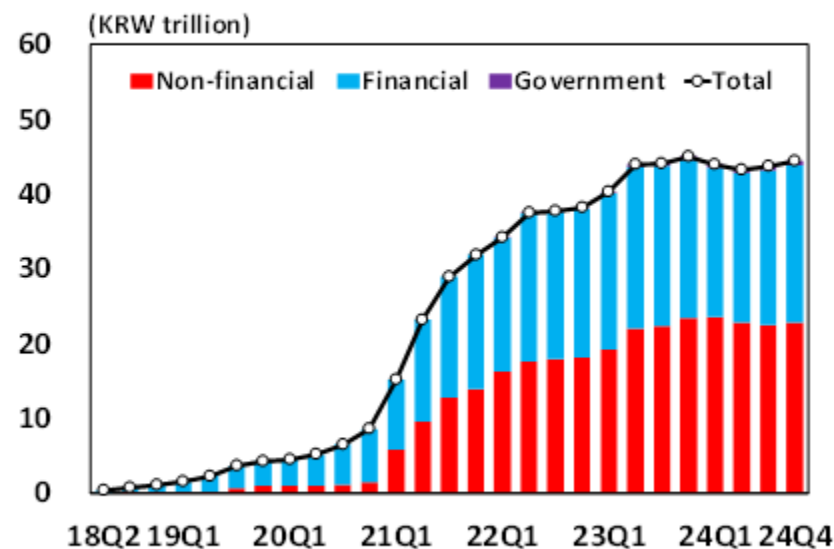


Source: KRX

- **Issuance Statistics** (as of end-2024)



Issuance Trends by Issuer Type

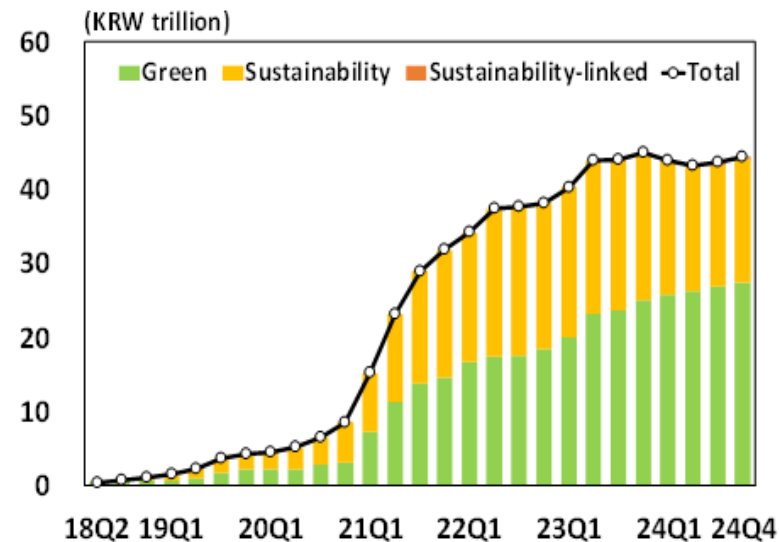


Source: KRX

● Issuance Statistics

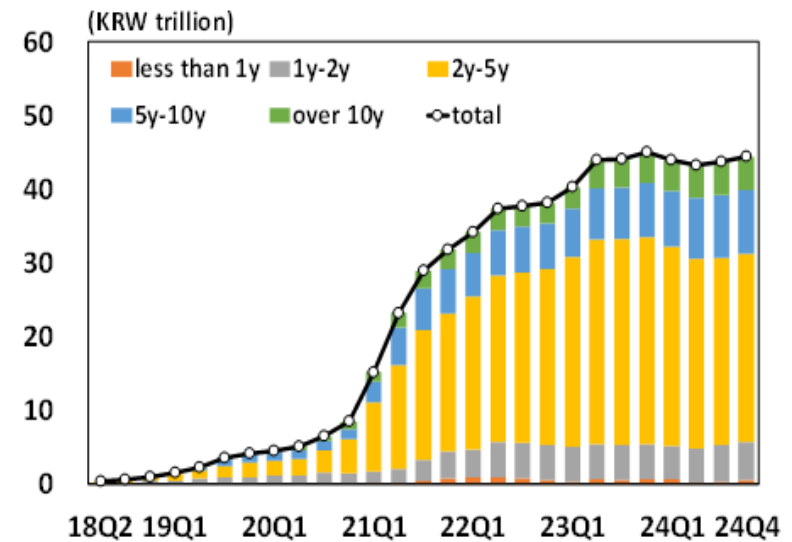
- **(Bond type)** Green > Sust. > Sust.-linked
- **(Maturity)** Long(98.9%) > Short

Issuance Trends by Bond Type



Source: KRX

Issuance Trends by Maturity



Source: KRX

- **(Currency)** 100% KRW
- **(Interest rate)** Fixed(98.4%) > Variable

● Issuance Statistics

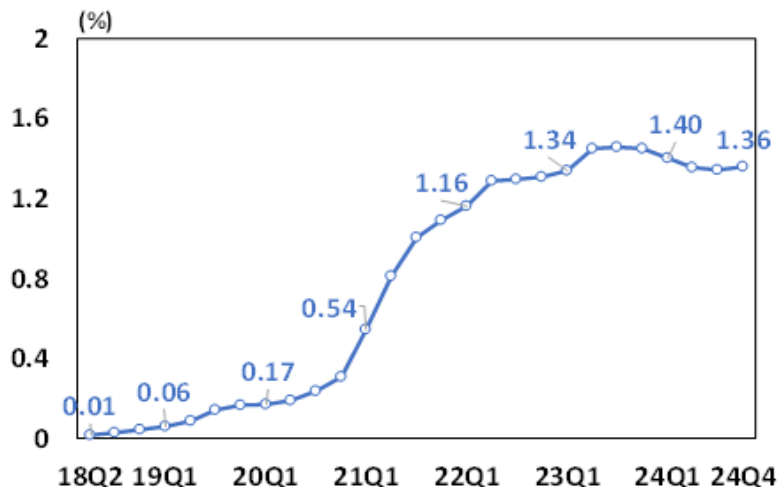
- As 1.36%* of Total Bonds

* Based on domestic issuances by residents.

- As 1.83%** of Global Climate Finance Bonds

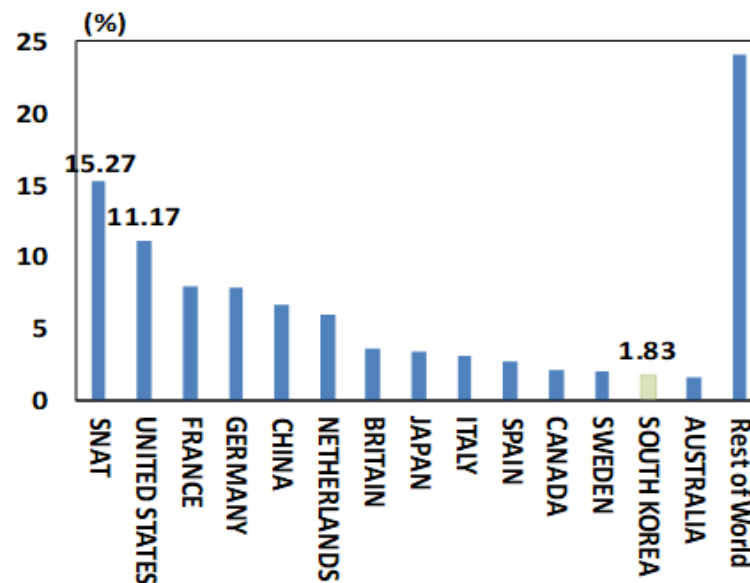
** Includes overseas issuances by residents.
(KRW 68.1tn estimated.)

Share of Climate Finance Debt Securities in Total Bond Outstanding



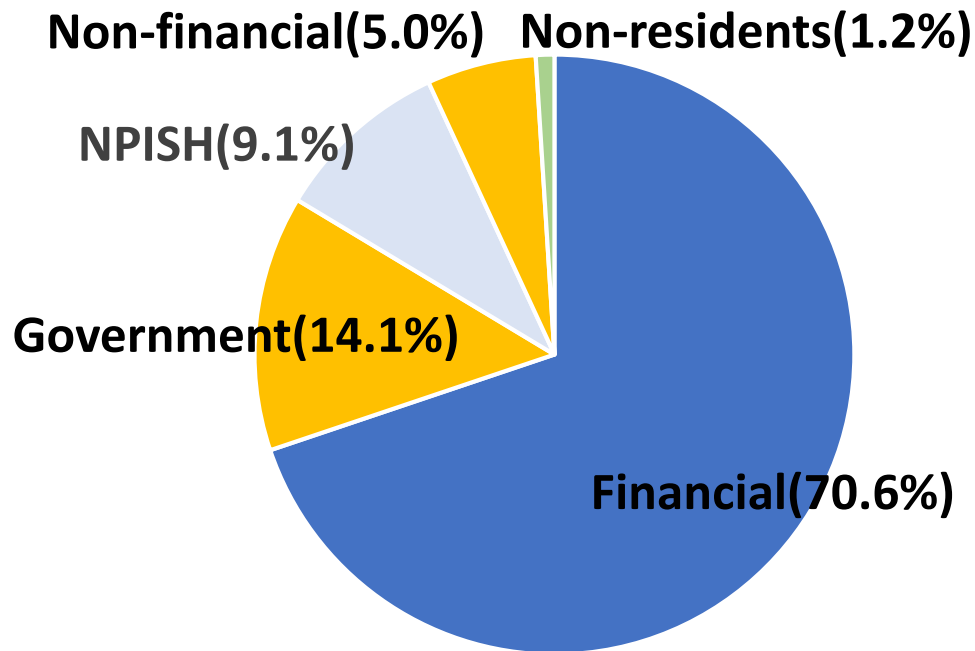
Source: KRX

Global Market Share of Climate Finance Bond Issuance by Country

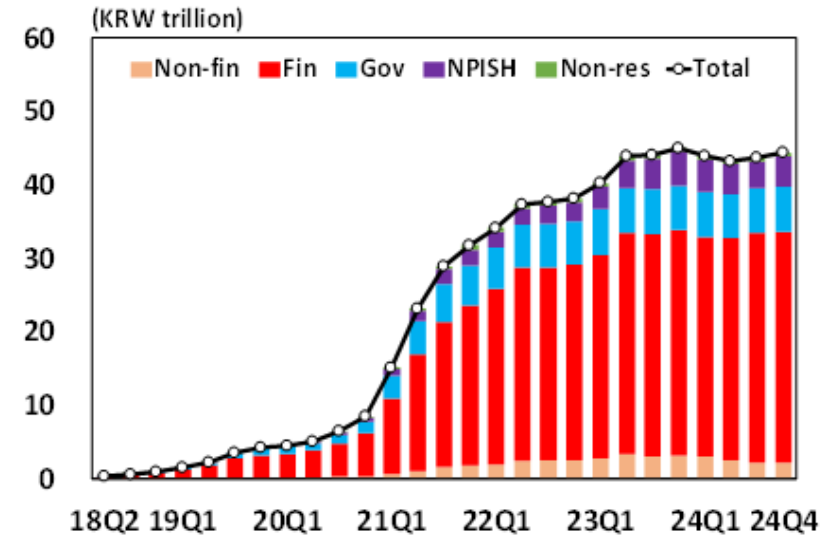


Note: 1) As of 14.01.2025
Source: Bloomberg

● Holding Statistics (As of end-2024)



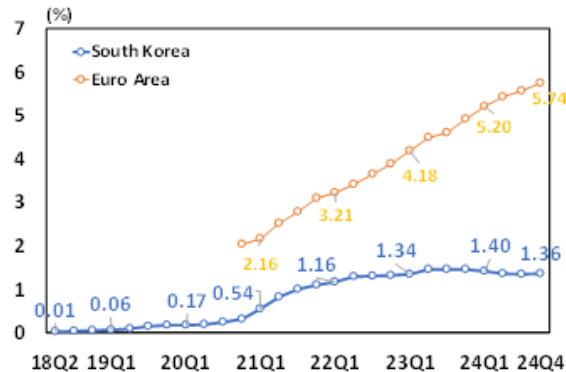
Holding Trends by Investor Type



Source: KRX, KSD

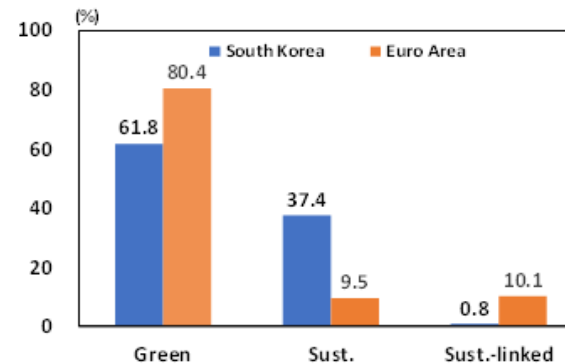
● International Comparison

Share of Climate Finance Debt Securities in Total Bond Outstanding



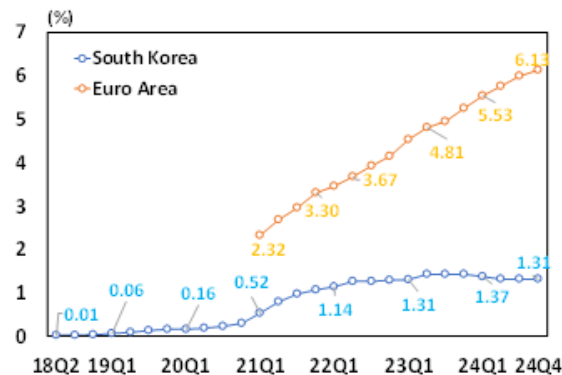
Source: KRX, ECB

Share of Issuance by Bond Type (As of end-2024)



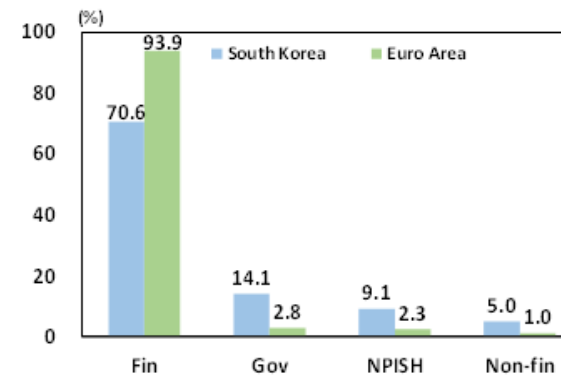
Source: KRX, ECB

Share of Climate Finance Debt Securities within Residents' Bond Holdings



Source: KRX, ECB

Share of Climate Finance Bond Holdings by Investor Type¹⁾ (As of end-2024)



Note: 1) Excluding non-residents.
Source: KRX, ECB

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1. Low Market Share Compared to Euro Area.

- Domestic share is 1.36% vs. 5.74% in the Euro Area.
- Korea's share of Global climate finance bond issuance(1.8%) is similar to GDP share(1.7%).

2. Limited Issuance by High-emission industries.

- Chemical and steel industries have minimal share.
- primarily issued by eco-friendly industries(e.g., EV financing, ESS, Renewable energy).

3. Limited Role of Government Sector.

- Government issuance volume(1.3%) is small.
- The role as a benchmark issuer remains limited.

Statistics for Climate Finance Debt Securities can serve as a foundational Dataset for central banks to design incentive schemes - such as central bank-backed interest subsidies - for institutions contributing to sustainable growth.



Most core and advanced ambitions data can be compiled for residents' domestic issuances in line with the implementation timeline.

- **Securing Additional Basic Data.**

- Collect data on 1. bonds issued abroad by residents.
And 2. bonds issued by non-residents acquired by residents.

→ **Review feasibility of using market data sources**(e.g., Bloomberg, Datastream)

- **Verification and Improvement of Statistics.**

- Reflect finalized international guidelines in classification system.
- Keep monitoring source data quality and prevent distortions in green bond statistics(e.g., green washing).

⇒ **Submit compilation results to BIS&ECB according to timeline.**

Thank you.

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