

1. Points of the FY2025 policy cost analysis

○ The main institutions with high policy costs are:

[A] Japan International Cooperation Agency (JICA), Japan Expressway Holding and Debt Repayment Agency (JEHDRA), and Japan Finance Corporation (JFC) are not expected to generate profits exceeding the opportunity cost of capital investment (equivalent amount of government bond interest).

[B] Japan Railway Construction, Transport and Technology Agency (JRRT) is not expected to generate profits exceeding subsidies.

On the other hand, the main institution that will incur negative policy costs is:

[C] Development Bank of Japan, which is expected to generate profits exceeding the opportunity cost of capital investment.

○ At institutions such as [A] and [B], when looking at the social and economic benefits estimated arbitrarily by each institution, the benefits exceeded the policy costs in JRRT. Even JICA, JEHDRA, and JFC, where quantitative evaluation is difficult, are making a certain level of contributions to the nation, society, and the economy.

<Policy costs and socio-economic benefits of major institutions>

Institutions	Policy Cost (Billion Yen)	Project outcomes, and social and economic benefits
Total of 25 institutions	8,539.7	
Japan International Cooperation Agency (Incorporated Administrative Agency) (Finance and Investment Account)	A 3,104.5	The balance of loans at the end of FY2023 was 17.0 trillion yen. These investments and loans contribute to the establishment and maintenance of good diplomatic relationships with developing countries, as well as to their economic and social development, poverty reduction, and environmental conservation.
Japan Expressway Holding and Debt Repayment Agency (Incorporated Administrative Agency)	2,850.3	By ensuring the early and reliable repayment of debts by the agency, it contributes to the continued provision of safe, convenient, and reasonably priced expressway services, while reducing the burden on citizens.
Japan Finance Corporation (Individual, SME, Agriculture, Forestry and Fishery, Crisis Response, Specific Business Promotion)	1,690.4	The outstanding balance of loans at the end of FY2023 was approximately 26.1 trillion yen. Through these loans, JFC supports the financing needs of micro, small, and medium-sized enterprises affected by the COVID-19 pandemic, rising prices, and the Noto Peninsula earthquake. It also contributes to the support of other areas such as entrepreneurial ventures and business succession.
Japan Railway Construction, Transport and Technology Agency (Incorporated Administrative Agency) (Construction, Maritime Affairs, Local Public Transportation)	B 550.3	The development effects (user benefits, supplier benefits, and environmental improvement benefits) of the Hokkaido Shinkansen (between Shin-Hakodate-Hokuto and Sapporo), the Hokuriku Shinkansen (between Kanazawa and Tsuruga), and the Kyushu Shinkansen (between Takeo-Onsen and Nagasaki), which are scheduled to commence operations from FY2025 onward, were estimated to be 3.1 trillion yen .
Development Bank of Japan Inc.	C △ 961.3	The balance of loans at the end of FY2023 was 17.3 trillion yen. These loans contribute to addressing social issues through the formation of sustainable infrastructure (such as transitions towards decarbonization), industrial technological innovation and restructuring, and regional revitalization.
Other	1,305.5	

[Reference] In addition to the aggregation targets in the table, the opportunity cost from the national capital investment in Japan Science and Technology Agency (JST) is 713.6 billion yen (an increase of 159.1 billion yen from last year).

2. Trends in policy cost for each fiscal year (total)

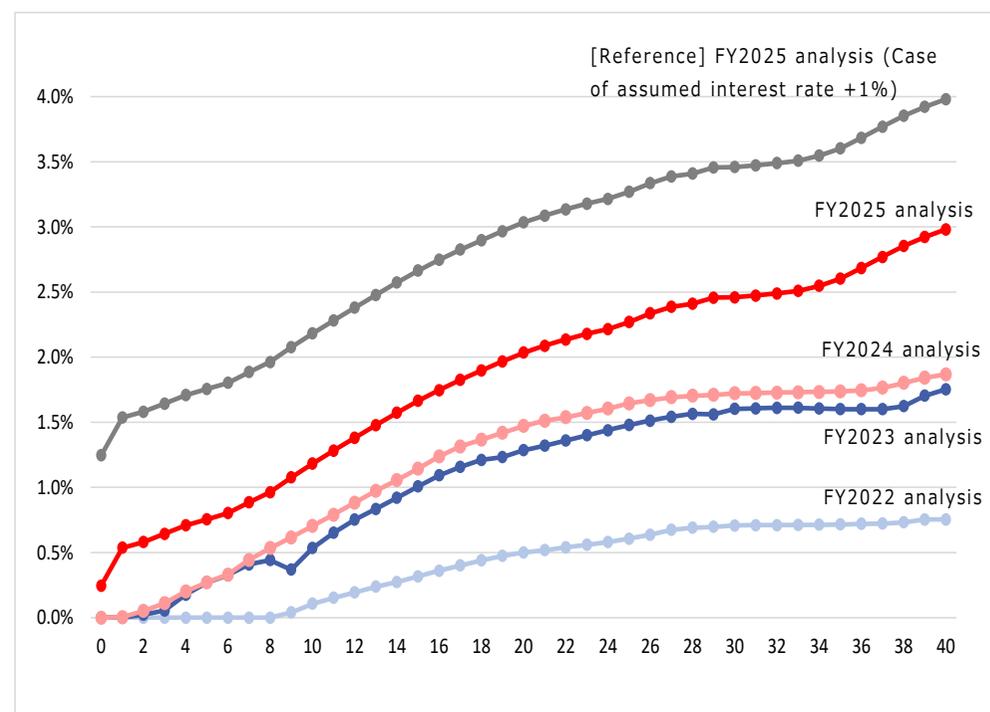
○ When considering the policy cost (total) for each fiscal year, it is important to note that assumed interest rates may vary across years. For reference, the following shows the trend of policy costs for each fiscal year after FY2021.

- (FY2020 to 2021) An increase of 5.1 trillion yen due to capital measures for COVID-19 special loans at JFC (Individual and SME)
- (FY2021 to 2022) A decrease of 2.0 trillion yen due to the fact that the performance of the COVID-19 related operating loss guarantee at JFC (Crisis Response) fell below the budget amount.
- (FY2022 to 2023) An increase of 1.9 trillion yen due to the increase in the opportunity cost of capital investments at each institution accompanying the rise in the assumed interest rate.
- (FY2023 to 2024) An increase of 2.2 trillion yen due to factors such as the interest margin on new loans by JICA, and the increase in provision of allowance for loan losses by JFC (for citizens).
- (FY2024 to 2025) An increase of 2.7 trillion yen due to the increase in the opportunity cost of capital investments at each institution accompanying the rise in the assumed interest rate.

<Trends in policy cost for each fiscal year (FY2021 - FY2025)>

FY	Assumed interest rate (spot rate: 10-Year bonds)	Policy cost (trillions of yen)	Year-on-year change (trillions of yen)
FY2021	0.03%	3.7	+ 5.1
FY2022	0.1%	1.6	△ 2.0
FY2023	0.5%	3.6	+ 1.9
FY2024	0.7%	5.8	+ 2.2
FY2025	1.2%	8.5	+ 2.7

<Trends in assumed interest rates (spot rate)>



3. Points of the FY2025 past year comparison analysis and sensitivity analysis

○ The main results of the past year comparison analysis (identifying factors of fluctuation from the previous fiscal year, excluding those due to differences in assumed interest rates) and sensitivity analysis (assessing the impact of scenarios such as a 1% increase in the assumed interest rate) are listed below. It is necessary to proceed with the formulation of the next Fiscal Investment and Loan Program while paying attention to the trends and risks of such institutions.

Past year comparison analysis

(identifying factors of fluctuation from the previous fiscal year, excluding those due to differences in assumed interest rates)

- At JICA (Finance and Investment Account), policy costs increased by 670.3 billion yen compared to the previous fiscal year. This was due to factors such as the interest rate margin on new loans in FY2025 (JICA's support is generally provided at interest rates lower than its funding costs), and the interest rate margin increasing in recent years due to the expansion of project scale.
- At JFC (Individual), policy costs increased by 134.6 billion yen compared to the previous fiscal year. This was due in part to an increase in the provision of allowance for loan losses based on the financial results of FY2023.
- At Japan Housing Finance Agency (Account for Securitization Support), policy costs increased by 99.4 billion yen compared to the previous fiscal year, due in part to the shrinking scale of operations for fixed-rate housing loans (Flat 35).

Sensitivity analysis (assessing the impact of a 1% increase in the assumed interest rate)

- At JEHDRA, which requires a long period to recover assets (expressways), policy costs increased by 836.7 billion yen compared to the basic case. This was due to factors such as rising interest expenses on future government guaranteed bonds (refinancing) projected in the estimates.
- At Urban Renaissance Agency, which requires a long period to recover assets (rental housing), policy costs increased by 452.7 billion yen compared to the basic case. This was due to factors such as rising interest expenses on future fiscal loans (refinancing) projected in the estimates.

Sensitivity analysis (assessing the impact of 1% changes in business revenue, etc. (individual assumptions))

- At Urban Renaissance Agency, if rental revenue decreases by 1%, policy costs increase by 71.4 billion yen compared to the basic case.

4. Implementation of policy cost analysis

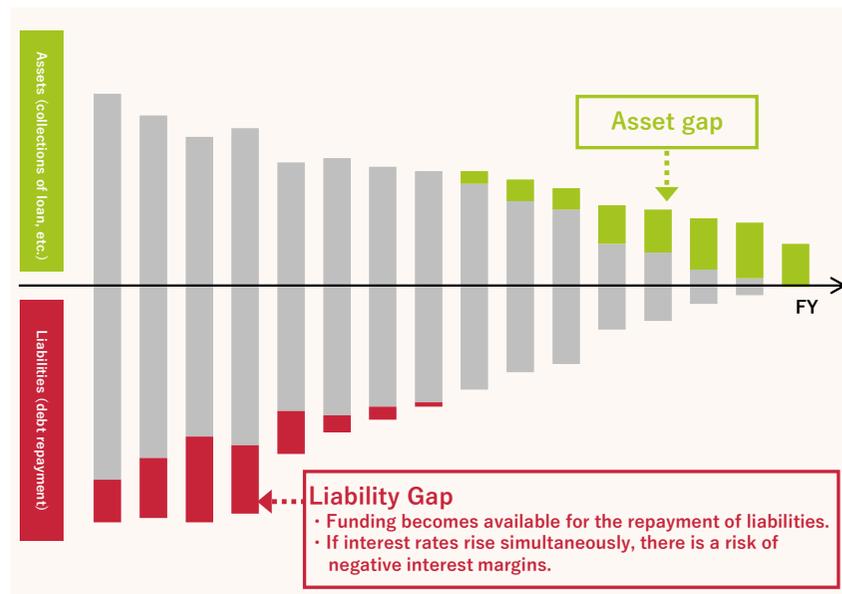
- Sharing the issues that become apparent through past year comparison analysis and sensitivity analysis with the Fiscal Investment and Loan Program (FILP) institutions and the relevant ministries can create opportunities to improve operations, and is extremely significant from the perspective of helping ensure the certainty of fiscal loan repayments.
- In addition, the foundational data for policy cost analysis (i.e., projected financial statements) serves as one of the materials used to assess the future financial condition of FILP institutions.

Specific examples of implementation

- In past year comparison analysis, it is important to check whether any significant changes have occurred in items that could affect the future financial condition of FILP institutions, such as revenue or bad debts.
- Through sensitivity analysis, potential risks inherent in the operations of FILP agencies are identified, such as the impact of rising interest rates or a downturn in revenue.
- After confirming the appropriateness of revenue and bad debt estimates in the basic data (i.e. projected financial statements), verify whether the repayment of fiscal loans is expected to be feasible in the cash flow forecast.
- A maturity ladder (right figure) is created based on cash flow forecast, which arranges the maturity amounts of assets (loan repayments, etc.) and liabilities (debt repayments) in chronological order, allowing the status of the maturity gap (difference between asset and liability maturities of each fiscal year) to be verified.

Maturity gap

- When the maturity amount of liabilities exceeds that of assets (liability gap), funding becomes available for the repayment of liabilities. If, however, interest rates rise simultaneously, there is a risk of negative interest margins. To mitigate such risks, it is important to set the financing terms of fiscal loans (i.e. redemption period and period of deferment) in a way that prevents liability gaps.



5 - 1 . Points of the policy cost analysis

○ In projects eligible for FILP, the repayment of assistance loans is carried out through beneficiary burdens. When it is necessary to reduce the beneficiary's burden in terms of policy, however, subsidies and capital investments are provided from the general account to that project (FILP Agency).

○ Policy cost analysis is performed by calculating the extent to which policy cost, such as subsidies and opportunity cost of capital investments, will be incurred until funds are collected for the current year's FILP. This is done based on certain conditions to **better inform the disclosure of information regarding future public burdens**.

*The profit lost by choosing one economic action that would have been gained by choosing another. If the capital investment is not disbursed to the FILP Agency, the amount can be used to suppress the issuance of government bonds and reduce interest payments. This makes it so that "the amount of reduction in interest payments on government bonds that is lost by investing capital" is recognized as an opportunity cost.

Framework of Analysis

Projected financial statements are prepared by FILP institutions, including the estimation of figures ① to ③. These figures are then applied to a calculation formula to estimate the [policy cost].

$$\text{Policy cost} = \text{①Subsidies, etc.} - \text{②National treasury payments} + \text{③Opportunity cost}$$

*The values applied to the calculation formula are all based on present values.

- ① Total amount of **subsidies, etc.** expected to be disbursed by the government in the future.
- ② Total amount of **corporation tax and other payments to the national treasury** expected in the future.
- ③ Amount of **opportunity cost** to the government due to capital investments, etc.

Estimation of policy costs (image)

(Unit: million yen)

Discount rate	FY	Flow (nominal)		Stock (nominal)	
		Subsidies, etc.	National treasury payments, etc.	Beginning of year Investment balance	End of year Investment balance
0.998772	2025	2,100	500	2,300,000	
0.991996	2026	1,900	700		
0.985614	2027	1,800	800		
0.977785	2028	1,600	900		
0.968671	2029	1,500	1,000		
0.959392	2030	1,300	1,100		2,315,000
	Total	10,200	5,000	2,300,000	2,315,000
	Total (after discount)	10,021	4,886	2,297,174	2,220,993
		(a)	(b)	(c)	(d)

① Subsidies, etc.

From the cash flow forecast, the expected future amounts of subsidies, grants, and allowances are transcribed, then converted to their discounted present value and summed up.

② National treasury payments, etc.

From the projected income statement, the expected future amounts of payment to the national treasury, corporate tax, and dividends are transcribed, then converted to their discounted present values and summed up.

③ Opportunity cost of capital investments, etc.

From the projected balance sheet, the expected amounts of capital investments (capital stock, capital surplus, and retained earnings) at the beginning and end of the analysis period are recorded. Based on the premise that the capital investment will be returned to the government by the end of the analysis period, the discounted present value of these amounts is subtracted when calculating the result.

Policy Cost Analysis Results

(Unit: million yen)

① Subsidies, etc.	(a)	10,021
② National treasury payments, etc.	(b)	4,886
③ Opportunity cost of government capital investments, etc.	(c)-(d)	76,181
Total (①-②+③)		81,316

5 - 2 . Points of the policy cost analysis

Target institutions

- **The institutions (excluding public-private funds), for which fiscal loans or government guarantees recorded in the fiscal investment and loan plan for the current year** are subject to analysis. Industrial investment institutions (including public-private funds) are excluded from the analysis due to their high uncertainty of future income and expenditure forecasts (governance will be implemented separately as an investor).

Prerequisites for analysis

[Analysis Period]

- **Under the assumption that no new (business) loans will be made from the next fiscal year onwards**, financial loans and government guaranteed bonds anticipated to be procured after the current fiscal year will be paid off, and the **period until the collection of funds that are commensurate with the receivables or assets acquired through the business will be recovered**.

[Assumed interest rate and discount rate]

- Estimated based on the **yield of government bonds on the date of the Cabinet decision on the government's budget proposal**.

[Future Revenue and Expenses, etc.]

- **Each institution sets its own approach (individual assumptions)**. For example, at financing institutions, interest income is estimated based on the contract conditions of existing loans. In addition, operating expenses (personnel expenses and administrative expenses) are estimated using methods such as reducing the operating expenses in the current fiscal year's business plan in accordance with the future loan balance.

Analysis method

- In addition to the basic analysis (basic case), the government is conducting analyses from a more multifaceted perspective using the following analytical methods:
 - **Past year comparison analysis (real fluctuation analysis)**: After making adjustments, such as **excluding the impact of changes in the assumed interest rate**, by comparing the policy costs of the current year and the previous year, the impact of new (business) loans made in the analyzed fiscal year, as well as the **actual increase or decrease in policy costs and their factors** (due to changes over time such as bad debts and business expenses), can be understood.
 - **Sensitivity analysis: Changing the assumed interest rate level by +1%**, etc., can help estimate how much the policy cost will increase or decrease, as well as understand the degree of impact.

Analysis results

- Policy cost analysis is based on hypothetical calculations under certain assumptions and **does not constrain future systems or policies of the FILP Agency**.
- Policy cost is the result that represents the degree of support for the project as a fiscal policy to reduce the burden on beneficiaries.
 - **This does not indicate a problem with the financial soundness of the institution.**
 - It is not appropriate to evaluate the size of the cost on its own. **It should be done comprehensively alongside the project's results and social and economic benefits.**

5-3 . Preparation process of the policy cost analysis

- ① At FILP agencies, individual assumptions specific to each item should be made when estimating the figures in the projected financial statements (balance sheet, profit and loss statement, and cash flow statement).

(Institution: xx institution; xx account)	
Subject	Concept of numerical calculation
Carried-over funds from the previous fiscal year	Cash and deposits at the end of the previous fiscal year's BS
Loan recovery	
Contractual portion	Calculated with consideration of bad debts based on conditions for each loan type
Early redemption portion	Beginning of year loan balance x average early redemption rate over the past 5 years
Loan interest	Recorded based on contractual terms
Government investments	No new investments expected from FY2026 onward
Government borrowings (interest-free)	FY2025 is based on requested amount; zero from FY2025 onward
Fiscal investment and loan program (FILP) borrowings	FY2025 is based on requested amount; from FY2025 onward, half of the shortfall will be covered by borrowings
Government-guaranteed domestic bonds	FY2025 is based on requested amount; from FY2025 onward, one-fourth of the shortfall will be covered
FILP agency bonds	Same as above
Government subsidies	As interest rate differential subsidies, the amount calculated by subtracting loan interest income from interest borrowing on the P&L is recorded
Government grants etc.	Operational grants are recorded based on the medium-term plan until FY2026; stay flat thereafter
Loan disbursements	xx billion yen for FY2025. No new loans will be issued after FY2025
Interest on borrowings	The required amount is appropriated based on the agreement
Bond interest payments	Same as above
Bond issuance costs	The reduction target is calculated based on the requested unit price for FY2025, set at xx
Loan redemption	The required amount is appropriated based on each redemption term
Bond redemption	Same as above
Payments to the national treasury	The amount equivalent to half of the profit generated in the previous term, multiplied by the percentage subject to policy cost analysis (x%), is posted into the calculation table
Funds carried over to the next fiscal year	Adjustments are made to ensure that the appropriated amount does not fall below the requested amount for FY2025

- ④ In addition to basic case ③, past year comparison analyses and sensitivity analyses are conducted. Disclosure materials are prepared based on a close examination of the factors contributing to found increases and decreases.

4. Breakdown of Policy Costs by Cause of Occurrence (Financing Institutions Only)

Classification	FY2024 (A)	FY2025 (B)	Simple Fluctuation (B-A)
① Net interest margin, etc.			
② Prepayments			
③ Loan			
④ Adm			
⑤ Total			

3. Past year comparison analysis (Unit: billion yen)

Classification	Basic case
① Policy cost (FY2025 Decision Basis) - Before Adjustment	
② Policy cost (FY2024 Decision Basis) - Before Adjustment	
③ Simple fluctuation (②-①)	

5. Sensitivity analysis (cases where assumptions change)

(A) Policy cost (previously cited)	Case of assumed interest rate +1%	Fluctuation	Government expenditure (Subsidies, etc.)
-			-

xx Corporation (xx account)

1. Summary of operations (estimated value) FY25

2. Estimated policy cost analysis of the period

3. Breakdown of policy cost by cause of occurrence

4. Breakdown of policy cost by cause of occurrence

5. Sensitivity analysis (cases where assumptions change)

- ② Based on both the individual assumptions mentioned above and common assumptions (assumed interest rates) made, projected financial statements (BS, P&L, and CFS) are prepared.

(Institution: xx institution; xx account)		Projected long-term cash flow (unit: million yen)																
Projected long-term cash flow		4	5	6	7	8	9	10	11	12	13	14	15	16	17	Completion FY	Observation FY	Total
Capital investment	Allowance for loan losses																	
Government investment	Cash and deposits																	
Borrowings	Accrued revenue																	
Government interest-free bonds	Accrued loan interest																	
Private-sector borrowings	Accrued commission fees																	
Bond	Fixed assets																	
Government-guaranteed domestic bonds	Others																	
Foreign bonds	Total																	
Fiscal investment and loan program	Borrowings																	
x-year bond	Government interest-free bonds																	
x-year bond	Fiscal investment and loan program																	
x-year bond	Bond																	
Government subsidies	Government-guaranteed domestic bonds																	
Government grants and subsidies	Foreign bonds																	
Total	Total																	
Loan disbursements	Loan disbursements																	
Interest on borrowings	Interest on borrowings																	
Bond interest payments	Bond interest payments																	
Bond issuance costs	Bond issuance costs																	
Loan redemption	Loan redemption																	
	Extraordinary gain																	
	Total																	

- ③ The estimated amounts of subsidies, payments to the national treasury, and investments for each fiscal year calculated in step ② are transferred to the policy cost calculation table (see diagram below) and summed. These amounts are then converted into their discounted present values and summed to calculate the policy cost (basic case).

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Policy Cost Analysis Results (Unit: million yen)

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6. Explanation of terms

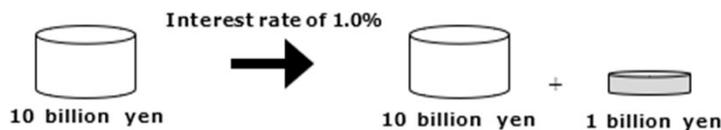
1. Opportunity cost of investment

Opportunity cost is an economic term that refers to the revenue that was lost as a result of engaging in a different economic activity instead. To understand this, let's consider a case where FILP institution A receives a 10 billion yen capital investment from the government to carry out a project, and returns the full 10 billion yen to the government after 10 years.

If the government managed 10 billion yen at an interest rate of 1%, it would grow to 11 billion yen in 10 years. However, if the government invests 10 billion yen in FILP institution A, it will only receive the original 10 billion yen back after 10 years. Therefore, the government can be seen as having lost 1 billion yen in revenue. This 1 billion yen, although not an actual expenditure, is considered a conceptual cost, and represents the opportunity cost associated with the 10 billion yen capital investment.

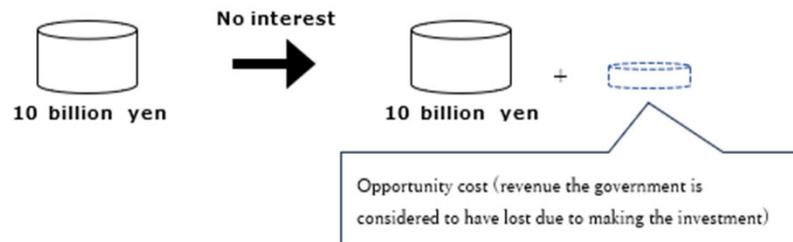
Alternatively, if the government did not invest capital in FILP institution A, it could use that amount to reduce the issuance of government bonds, thereby lowering interest payments. In this case, the reduction in government bond interest payments lost due to capital investment can also be considered an opportunity cost.

● If the government manages 10 billion yen



● If the government invests 10 billion yen

(with the full amount returned to the government upon completion of the invested business)



2. Convert to discounted present value

Is 10 billion yen today equivalent in value to 10 billion yen 10 years from now? For example, if you invest 10 billion yen today at a simple interest rate of 1% for 10 years, it will grow to 11 billion yen, consisting of the original 10 billion yen plus 1 billion yen in interest. Given this, it is inappropriate to regard 10 billion yen today and 10 billion yen in 10 years as equivalent cash flows.

To properly understand cash flows that occur at different points in time, it is necessary to discount the portion corresponding to interest from the future value (= principal + interest) to determine the present value (= principal). This calculation is called "discounting to present value," and the factor used in this conversion is referred to as the "discount rate."

In policy cost analysis, instead of simply summing up the nominal amount of expected subsidies or payments to the national treasury for each future fiscal year, these amounts are first converted into their discounted present value and then summed. This approach allows for an accurate understanding of the policy costs expected from future cash flows at the time of analysis (i.e. in the present).

According to the above example, when an injection of 11 billion yen in subsidies is expected 10 years from now, the amount added as a policy cost is the 10 billion yen obtained by converting the future value into present value.

