

Japan Expressway Holding and Debt Repayment Agency (Incorporated Administrative Agency)

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1. Summary of operations implemented using FILP funds

- Holding of expressway assets and their lending to expressway companies (East Nippon Expressway Company Limited, Central Nippon Expressway Company Limited, West Nippon Expressway Company Limited, Metropolitan Expressway Company Limited, Hanshin Expressway Company Limited and Honshu-Shikoku Bridge Expressway Company Limited)
- Speedy and sure repayment of debts inherited from the four former Japan Highway Public Corporations as well as the ones related to such operations as construction and reconstruction of expressways
- Supporting smooth operations related to expressways by the expressway companies

2. Amount of lending under FILP

(Unit: billion yen)

FY2023 FILP	Estimated outstanding amount of FILP lending at the end of FY2022
1,253.0	17,382.5

3. Estimated policy cost analysis of the project

(1) Policy cost (Unit: billion yen)

Category	FY2022	FY2023	Fluctuation
1. Government expenditure (subsidies, etc.)	43.1	42.6	-0.5
2. Government revenue (payments to the government, etc.)*	-	-	-
3. Opportunity cost of capital investments, etc.	899.6	1,690.4	+790.7
Total (1+2+3=policy cost(A))	942.8	1,733.0	+790.2
Analysis period (years)	37 years	36 years	-1 year

(2) Breakdown of policy cost by the time of the provision of funds (Unit: billion yen)

Category	FY2022	FY2023	Fluctuation
(A) Policy cost (previously cited)	942.8	1,733.0	+790.2
1) Opportunity cost of capital investments, etc. provided before the beginning of the analysis period	899.1	1,689.4	+790.3
2) Policy cost expected to be newly accrued during the analysis period	43.7	43.6	-0.1
Government expenditure (subsidies, etc.)	43.1	42.6	-0.5
Government revenue (payments to the government, etc.)*	-	-	-
Opportunity cost of surplus, etc.	-	-	-
Opportunity cost of capital investments, etc.	0.5	0.9	+0.4

(4) Sensitivity analysis (cases where assumptions change)

(Unit: billion yen)

(A) Policy cost (previously cited)	Case of assumed interest rate + 1%	Fluctuation			
			1. Government expenditure (subsidies, etc.)	2. Government revenue (payments to the government, etc.)*	3. Opportunity cost of capital investments, etc.
1,733.0	2,558.5	+825.5	-1.0	-	+826.6

(A) Policy cost (previously cited)	Case of a 1% decrease in operating revenues	Fluctuation			
			1. Government expenditure (subsidies, etc.)	2. Government revenue (payments to the government, etc.)*	3. Opportunity cost of capital investments, etc.
1,733.0	1,806.4	+73.4	-	-	+73.4

(Note) Components in each column may not add up to the total because of rounding.

* Government revenue (payments to the government, etc.) is booked as a negative amount. Example: -10 b. yen for 10 b. yen in payments to government, etc.

(3) Year-to-Year comparison analysis

(Computing any fluctuation from previous year)

(Unit: billion yen)

Policy cost		FY2022	FY2023	Simple fluctuation
		Simple comparison (before adjustment)	942.8	1,733.0
Past year comparison (after adjustment)	1) Adjusting initial years (Analysis results after adjusting initial year to that for FY2023 analysis)		2) Adjusting assumed interest rates (Analysis results of re-estimation using assumed interest rate for FY2022)	Real fluctuation (2-1)
		933.4	918.3	-15.1

[Real fluctuation factor analysis]

○Factors behind policy cost increase

- Increase in subsidies, etc. due to implementation of new operations, etc. (+9.0 billion yen)
- Increase in opportunity cost due to review of timing for returns on capital investments (+2.3 billion yen)

○Factors behind policy cost decrease

- Decrease in opportunity cost due to decrease in capital investment (-26.4 billion yen)

4. Outline of estimation and project prospect employed in the analysis

Estimates in the analysis and future operations are based on agreements signed with the expressway companies.

• Operation revenues: Covering rent revenues(*) from expressway companies, etc.

* Gap between toll revenues and planned management expenses calculated by expressway companies based on traffic demand forecasts.

• Agency bonds: Covering government-guaranteed and FILP agency bond amounts out of the required fundraising amount calculated in line with a projected balance sheet for each year, etc.

• Borrowings: Covering borrowings from the private sector and the FILP program as calculated in line with a projected balance sheet for each year, etc.

• Debt repayment expense: Calculated based on agency-held debts (at the end of FY2022) and years for redemption of debts planned to be assumed from expressway companies in or after FY2023.

(Unit: billion yen)

FY	Result				Estimated	Planned	Assumptions for calculation				Total
	2018	2019	2020	2021			2022	2023	2024-2028	2029-2038	
Operational Revenue (lending fees)	2,216.7	2,278.8	2,129.5	1,675.4	1,953.8	1,991.8	10,128.0	21,017.8	19,131.3	12,903.4	65,172.2
Agency bonds	1,430.9	735.0	320.0	320.0	400.0	1,657.0	5,995.7	11,454.9	749.8	-	19,857.4
Borrowings	1,500.0	1,550.0	1,360.0	800.0	200.0	-	0.2	0.3	0.1	-	0.7
Debt repayment expense	3,734.3	3,347.1	3,462.8	3,804.8	4,014.7	3,612.2	15,927.9	31,297.2	15,912.6	10,397.0	77,146.8

(Note) Components in each column may not add up to the total because of rounding.

5. Reasons for granting of subsidies, mechanism and underlying laws

Capital investment: Required for expressway construction or reconstruction for Metropolitan Expressway Company Limited and Hanshin Expressway Company Limited

(Underlying laws and regulations)

Article 6 of the Act on Japan Expressway Holding and Debt Repayment Agency: Capital

1. The Agency's capital shall be a total of investments provided from national and local governments under provisions of Article 15, Paragraph 11 of the Enforcement Act.

2. The Agency may, if necessary, increase its capital upon obtaining the approval from the Minister of Land, Infrastructure, Transport and Tourism.

3. The national government or local governments stipulated by cabinet order may invest in the Agency within the limit specified in the budget when the Agency increases its capital under the above provision.

Subsidies: Required for development of smart interchange systems, post-disaster restoration, etc.

(Underlying laws and regulations)

Article 25 of the Act on Japan Expressway Holding and Debt Repayment Agency: Subsidies

1. The government may subsidize the Agency for the expenses necessary for the operations under the provisions of Article 12, Paragraph 1, Item 5 and 6 within the limit specified in the budget.

2. The local governments specified in Article 12, Paragraph 1, Item 7 may subsidize the Agency for the expenses necessary for the operations under the provisions of the Item within the limit specified in the budget.

The national treasury payment

(Underlying laws and regulations)

Article 31 of the Act on Japan Expressway Holding and Debt Repayment Agency: Dissolution of Agency

1. The Agency shall be dissolved no later than September 30, 2115, as specified separately by an act.

2. The Agency shall complete the repayment of the inherited debt in the road account by the day of its dissolution as provided in the previous paragraph and have residual assets equivalent to at least the capital.

3. The Agency, if dissolved, shall distribute residual assets that involve the road account to investors involved with the road account according to their respective investment amounts.

4. If the Agency has any residual assets consisting of non-road accounts after repaying debt that involves those accounts, it shall distribute the residual assets to investors involved with those accounts according to their respective investment amounts.

6. Special remarks

1) The road assets related to expressways will be opened to public at no charge after the completion of the debt redemption and restored to the national or local governments. However, the policy cost analysis does not consider their residual value.

2) The increase in assets and debts through constructions of expressways by the expressway companies will be inherited by the Agency, and the Agency will lend assets of expressways to the expressway companies, then receive the revenues from road lending fee from the expressway companies. The Agency will return the capital investment to the government by this road lending fee during the redemption period, so the opportunity cost as the capital investment during the period will be the policy cost.

3) The interest rate used in the analysis is set as a common precondition in the analysis and is not the same as the future interest rate used by the Agency and Companies in the preparation of recoupment plans.

(Reference) Outcome and social and economic benefits of operations

(Effects of expressway development)

The construction and/or improvement of expressways generates various social and economic effects, as well as direct effects for road users, including shorter traveling times.

Specific effects include

○enhanced associations and exchanges among regions and local cities

○development or creation of industries

○increased employment opportunities

○increased asset value

○reduced price of products and services

○maintaining of alternative routes in the event of disaster

○improvement of urban environment due to smoother transportation.

Among the beneficial effects of such expressway construction and/or improvement, direct effects of the new services in and after FY2023 can be estimated as follows.

• in the case where the social discount rate is set to 4%; 8.0164 trillion yen

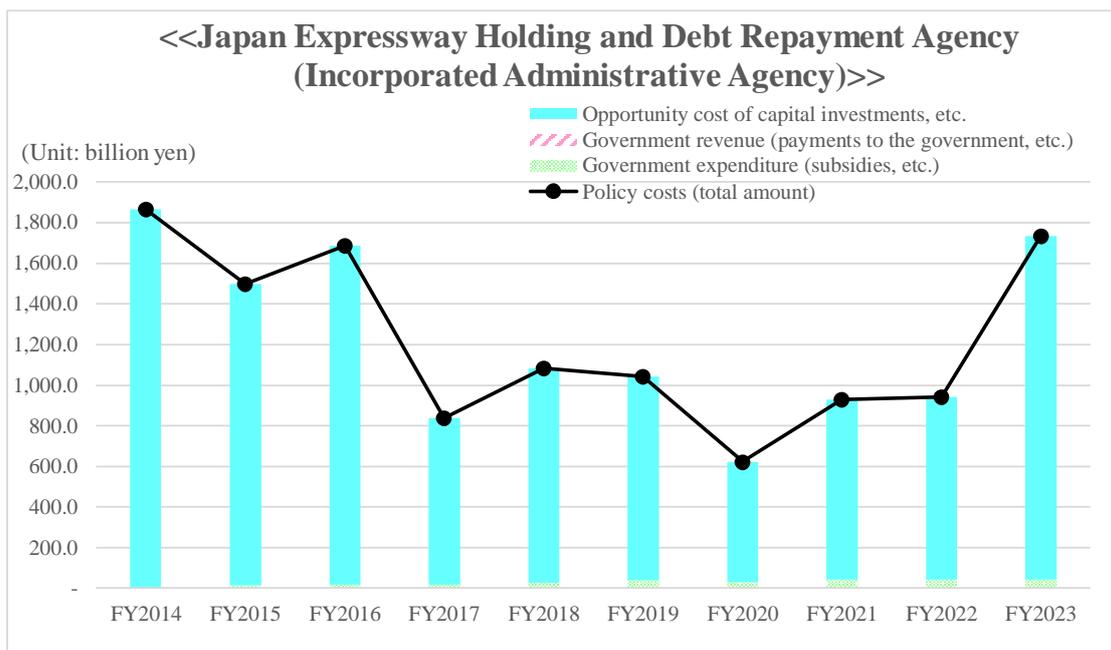
• in the case where the social discount rate is set to that of the policy cost analysis; 12.0335 trillion yen

(Note 1) Quantitative benefits were estimated by each expressway company according to the benefit estimation method and basic unit in the "Cost-Benefit Analysis Manual (February 2022, Road Bureaus and City Bureaus, Ministry of Land, Infrastructure, Transport and Tourism)"

(Note 2) Subject to direct effects are benefits from FY2023.

Overview of policy cost analysis results

[Changes in policy costs]



Note: Policy costs for each fiscal year differ in assumptions including interest rates applied to estimates.

(Unit: billion yen)

	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
Policy costs (total amount)	1,865.0	1,497.0	1,686.7	838.7	1,084.1	1,042.5	622.7	930.6	942.8	1,733.0
Government expenditure (subsidies, etc.)	-	16.0	19.2	19.1	26.4	40.8	31.6	41.7	43.1	42.6
Government revenue (payments to the government, etc.)	-	-	-	-	-	-	-	-	-	-
Opportunity cost of capital investments, etc.	1,865.0	1,480.9	1,667.5	819.7	1,057.7	1,001.7	591.0	888.9	899.6	1,690.4

【Explanation of policy cost trends】

- Policy cost of the Agency until FY2014 only consisted of opportunity cost of capital investments, etc. from the government, but after FY2015 analysis, cost of subsidies was added due to the acceptance of subsidies, etc. from the government.

- In FY2023, the opportunity cost increases on a rise in the assumed interest rate.

【FILP agency's self-assessment of policy cost analysis results (FY2023)】

- In the basic case, the policy cost in FY2023 came to 1,733.0 billion yen including 42.6 billion yen in subsidies, etc. and 1,690.4 billion yen in the opportunity cost of capital investments, etc. The FY2022 policy cost increased by 790.2 billion yen from 942.8 billion yen for the basic case in FY2022. Given a total of -805.4 billion yen, including -814.7 billion yen from changes in the assumed interest rates and 9.3 billion yen as part of the FY2022 policy cost, is taken into account, however, the policy cost effectively decreased by 15.1 billion yen.

- The main factors behind the substantial decrease of 15.1 billion yen are an increase of 9 billion yen in subsidies due to the implementation of new projects, an increase of 2.3 billion yen in opportunity cost due to the review of timing for returns on capital investments, and a decrease of 26.4 billion yen in opportunity cost due to a decrease in capital investment.

- In the case where the assumed interest rates is 1% future interest rate, the policy cost came to 2,558.5 billion yen, up 825.5 billion yen from the basic case. This is because the interest rate hike led the redemption period for capital investments, etc. to be extended to boost the opportunity cost, greatly affecting financial soundness.

- Under the assumption of a 1% decrease in operating revenues, the policy cost came to 1,806.4 billion yen, an increase of 73.4 billion yen compared with the basic case. This is attributable to an increase in opportunity cost due to the extension of the redemption period for capital investments, etc. caused by a decrease in operating revenues.

(Reference) Financial Statements

Balance Sheet (Road Account)

(Unit: million yen)

Item	End of FY2021 (Result)	End of FY2022 (Estimated)	End of FY2023 (Planned)	Item	End of FY2021 (Result)	End of FY2022 (Estimated)	End of FY2023 (Planned)
(Assets)				(Liabilities and net assets)			
Current assets	2,039,535	648,753	358,613	Current liabilities	3,946,015	3,936,630	3,566,478
Cash and bank deposits	755,885	213,412	149,981	Deposited subsidies	3,388	4,136	3,826
Securities	994,216	47,944	49,984	Deposited donations	935	1,760	276
Accounts due for road assets lending fee, etc	252,049	362,523	147,670	Current portion of Japan Expressway Holding and Debt Repayment Agency bonds	3,318,686	3,131,000	3,103,720
Accounts receivable	26,861	11,014	-	Discount on bond (-)	12	1	-2
Short-term loans receivable	7,382	10,794	7,947	Current portion of long-term borrowings	383,742	248,597	273,929
Inventory goods	2,921	2,921	2,921	Accrued payments	184,161	475,637	125,043
Other current assets	221	145	110	Accrued expenses	55,008	75,433	59,620
Fixed assets	41,348,646	41,425,745	41,892,019	Other current liabilities	83	66	66
Tangible fixed assets	40,954,714	41,089,880	41,600,971	Fixed liabilities	24,701,927	22,926,873	23,408,161
Buildings	399,892	421,584	513,547	Contra-accounts for assets	172,643	179,694	177,682
Structures	30,063,926	30,130,991	30,166,220	Long-term deposit of subsidies	2,951	7,140	13,468
Machinery and equipment	909,306	930,398	1,210,696	Long-term contributions received	8,147	6,769	6,494
Vehicles and transportation equipment	1	1	1	Japan Expressway Holding and Debt Repayment Agency bonds	18,395,121	16,631,763	16,977,858
Tools furniture and fixtures	2,579	2,677	3,595	Discount on bond (-)	-57,049	-53,627	-50,202
Land	9,437,942	9,491,206	9,630,689	Long-term borrowings	5,811,725	5,849,408	6,039,211
Construction in progress	141,069	113,023	76,223	Long-term accrued liabilities	349,528	280,303	211,579
Intangible fixed assets	280,242	280,098	280,027	Long-term accrued expenses	18,857	25,417	32,066
Leasehold interests	278,473	278,475	278,475	Provisions			
Other intangible fixed assets	1,769	1,623	1,553	Provision for retirement benefits	6	6	5
Investment and other assets	113,691	55,767	11,021	Provisions based on law			
Investment securities	88,004	49,984	-	Provision for Highway Convenience Improvement Project	504,541	470,902	435,975
Long-term deposits	20,000	-	-	(Total liabilities)	29,152,483	27,334,405	27,410,614
Long-term loans receivable	5,672	5,768	11,006	Capital	5,618,773	5,619,005	5,619,057
Security deposit and guarantee	15	15	15	Government investment	4,087,423	4,087,539	4,087,565
Other assets	0	0	0	Local government investment	1,531,350	1,531,466	1,531,492
Total assets	43,388,181	42,074,498	42,250,632	Capital surplus	848,916	848,916	848,916
				Capital surplus	1,343	1,343	1,343
				Reserves under Article 15 of the Act for Enforcement of Acts Related to Privatization of the Japan Highway Public Corporation, etc	847,573	847,573	847,573
				Retained earnings	7,768,009	8,272,172	8,372,045
				Reserve fund	7,404,672	7,768,009	8,272,172
				Unappropriated income for the current year	363,337	504,163	99,873
				(Of this, gross profit)	(363,337)	(504,163)	(99,873)
				(Total net assets)	14,235,698	14,740,093	14,840,018
				Total liabilities and net assets	43,388,181	42,074,498	42,250,632

Note: Components may not add up to the total because of rounding.

Income Statement (Road Account)

(Unit: million yen)

Item	FY2021 (Result)	FY2022 (Estimated)	FY2023 (Planned)	Item	FY2021 (Result)	FY2022 (Estimated)	FY2023 (Planned)
(Ordinary expenses)				(Ordinary income)			
Ordinary expenses	1,429,177	1,424,709	1,560,999	Ordinary income	1,771,169	1,895,334	1,625,945
Operating expenses of road assets lending	1,111,537	1,118,197	1,217,257	Income from the road assets lending fees	1,747,761	1,872,610	1,610,950
Management effort aid expense	602	594	1,552	Other income	4,682	4,873	4,681
General and administrative expenses	1,877	1,408	1,831	Revenues from subsidies, etc	7,760	7,759	-
Finance expenses	255,699	265,098	244,194	Income from donations	1,345	550	1,760
Expenses related to acquisition of road assets	58,606	39,412	96,165	Reversal of contra-accounts for assets	9,236	9,392	8,479
Miscellaneous losses	856	-	-	Financial revenues	230	146	75
(Temporary losses)				Miscellaneous income	155	4	-
Temporary losses	3,984	106	-	(Temporary profits)			
Provision for Highway Convenience Improvement Project	3,790	-	-	Temporary profits	25,329	33,644	34,927
Loss on sale of fixed assets	194	106	-	Reversal of provision for Highway Convenience Improvement Project	24,004	33,639	34,927
Net profit	363,337	504,163	99,873	Gain on sales of fixed assets	1,312	5	-
Gross profit	363,337	504,163	99,873	Other temporary profits	14	-	-
Total	1,796,499	1,928,978	1,660,872	Total	1,796,499	1,928,978	1,660,872

Note: Components may not add up to the total because of rounding.