FINANCIAL ANALYSIS

A. Introduction

1. **Overview.** Uzbekistan's 4,669-kilometer (km) railway network is operated and managed by the state-owned joint stock company O'zbekiston Temir Yo'llari (UTY). As UTY transports about 30%–40% of Uzbekistan's total freight and 3%–4% of intercity passengers, it is one of the major service providers in the country for the industrial and services sectors. The volume of freight transported by rail increased by 2.7% annually from 42.4 million tons in 2000 to 70.1 million tons in 2019, and about one-third of the freight traffic carried by the railways consists of international movements (mostly bulk commodities). The number of passengers increased by 2.4% annually from 14.6 million in 2000 to 22.9 million in 2019. Uzbekistan's economy grew by 6.6% during 2009–2019, but the growing demand increases pressure on the railway network; investments in the railway network's capacity and efficiency are consequently required to continue strengthening domestic and international trade.

2. **Project.** Challenging geography, long transport times, and limited capacity hamper the economic development of the Fergana Valley, Uzbekistan's easternmost region, which in turn suppresses domestic and regional trade. To alleviate connectivity constraints and avoid high transboundary fees, a railway tunnel was constructed in 2016 to connect the railway network of the Fergana valley to Tashkent through Angren and Pap.[1] In 2017, the Asian Development Bank (ADB) approved a loan to finance the electrification of 145.1 km of tracks linking the cities of Pap, Namangan, and Andijan.[2] The additional financing project aims to improve the capacity, efficiency, safety, and reliability of the regional railway network in the Fergana Valley by completing its modernization. It will (i) install signaling and telecommunications on the Angren–Pap–Kokand–Andijan line for 441 km of tracks, including four branch lines; (ii) construct or upgrade four traction substations to relieve the shortage of electric power, and install external power supply and control systems; (iii) commission maintenance equipment and upgrade the Kokand depot; and (iv) upgrade the central train control center in Tashkent.

3. The project's executing agency is UTY, to which the sovereign loan will be onlent. The analysis assessed the government's fiscal position, prepared a forecast of UTY's financial situation, and assessed the financial viability and sustainability of the project.[3]

1. Fiscal Position of the Government

4. **Macroeconomic situation.** Uzbekistan's gross domestic product (GDP) grew by 5.6% in 2019, and its economy is expected to be comparatively resilient to the impact of the coronavirus disease (COVID-19): GDP is forecast to grow by 1.5% in 2020 and 6.5% in 2021.[4] However, the unemployment rate is projected to increase from 9.4% in 2019 to 16.5% in 2020, and the widening of the fiscal deficit to 5.6% of GDP in 2020 has increased short-term financing needs. Foreign investments and development assistance are expected to continue to be provided to assist socioeconomic development in Uzbekistan, with transport infrastructure serving as a backbone

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[1] The $1.9 billion project resulted in a 19.2 km, single-track, electrified tunnel that began operating in September 2016. Before its opening, freight traffic from the rest of Uzbekistan was brought to Angren by rail and transshipped onto road vehicles to continue to the final destinations in the Fergana Valley. World Bank. Pap–Angren Railway.

[2] ADB. Uzbekistan: Central Asia Regional Economic Cooperation Corridor 2 (Pap−Namangan−Andijan) Railway Electrification Project.

[3] ADB. 2005. *Guidelines on the Financial Management and Analysis of Projects*. Manila.

[4] ADB. 2020. *Asian Development Outlook Supplement, June 2020: Lockdown, Loosening, and Asia's Growth Prospects*. Manila.

to the development of high value-addition export supply chains, and to mitigate the negative economic and financial impacts of COVID-19.

5. **External debt monitoring.** In 2019, Uzbekistan's external debt was $23.4 billion or 43.5% of GDP, with $4.5 billion outstanding to ADB. The government has pursued a prudent debt policy with low public and external debt; and the significant gross official reserves, totaling $29.2 billion in 2019 or about 11.5 months of imports, provide a buffer against potential distress concerns. While the public debt–GDP ratio is projected to increase from 23.3% in 2019 to 33.3% by 2021, it will remain below the required threshold of 70% for low debt stress and will not impair debt sustainability. The International Monetary Fund also confirmed the low risk of debt stress, with most risks associated with significantly lower exports and lower remittances.[5]

2. Financial Situation of O'zbekiston Temir Yo'llari

6. **Overview.** UTY operates a profitable business, mainly because of its freight revenues, and has maintained an enviable status as one of the few financially self-sustaining railway entities in the world. UTY has also benefited from Uzbekistan's strong economic growth since 2000, which averaged 6.7% annually during 2000–2019 and reflects (i) the continuous importance of rail transport in Uzbekistan's economy; and (ii) growing international trade, particularly among the countries of the Central Asia Regional Economic Cooperation (CAREC) program. At the heart of the designated railway corridor 2 linking East Asia to Eastern Europe and Mediterranean countries, the project is expected to continue strengthening the role of Uzbekistan as a transit hub and strengthen UTY's financial position by increasing domestic and international trade.

7. **Revenues and expenditures.** In 2019, UTY's operating revenues totaled SUM9.2 billion, and operating expenses reached SUM5.9 billion, for an operating income ratio of 0.14 (Table 1). Freight traffic is the primary contributor to freight revenues, and UTY does not receive budgetary support from the government.

Table 1: Historical Financial Situation of O'zbekiston Temir Yo'llari

Item	Unit	2013	2014	2017	2018	2019
Revenue						
including passengers						
including freight						
Operating expenses						
Gross profit						
Operating income						
Operating income ratio	[This information was deemed confidential according to paragraph 17 (viii) of ADB's Access to Information Policy (2018).]					
Net profit margin						
Return on net assets						
Debt−equity ratio						
Debt service coverage ratio						
Assets						
Equity						
Liabilities						

( ) = negative.
Note: Numbers may not sum precisely because of rounding.
Source: Asian Development Bank estimates.

[5] ADB. 2020. *Report and Recommendation of the President to the Board of Directors: Proposed Countercyclical Support Facility Loan to the Republic of Uzbekistan for the COVID-19 Active Response and Expenditure Support Program*. Debt Sustainability Analysis. Manila; and International Monetary Fund. 2020. *Republic of Uzbekistan: Requests for Disbursement under the Rapid Credit Facility and Rapid Financing Instrument—Debt Sustainability Analysis*. Washington, DC.

8. **Forecasting.** Projected financial statements were prepared in real terms, and based on trends from 2013 to 2019, existing government commitments for 2020–2021, traffic forecasts, and project impacts. A financial model was developed for UTY based on historical information on passenger and freight traffic, as well as average tariff, revenue, and operating expenses, and forecast financial statements.

9. **Analysis.** The analysis indicates that (i) the operating income ratio, which considers depreciation, decreased from 0.33 in 2017 to 0.14 in 2019, but is expected to increase to 0.18 by 2030; (ii) the long-term debt−equity ratio is expected to decrease gradually to 1.21 in 2030; and (iii) the debt service coverage ratio will increase from 2.04 in 2020 to 3.19 by 2030 (Table 2). Overall, the analysis indicates that UTY continues to have a solid financial position, despite a decline in 2018–2020. Supported by freight revenues and a generally resilient domestic economy, UTY is expected to have the financial capacity to implement the project, fund its contribution to the project costs, repay the loan, and make the required payments on its existing debt.

Table 2: Projected Financial Statements of O'zbekiston Temir Yo'llari
(SUM billion)

Year	Unit	2020	2021	2022	2023	2024	2030
Revenues							
including passengers							
including freight							
Operating expenses							
Gross profit							
Operating income							
Operating income ratio							
Net profit margin							
Return on net assets							
Long-term debt−equity ratio							
Debt service coverage ratio							
Assets							
Equity							
Liabilities							

[This information was deemed confidential according to paragraph 17 (viii) of ADB's Access to Information Policy (2018).]

( ) = negative.
Note: Numbers may not sum precisely because of rounding.
Source: Asian Development Bank estimates.

10. **Financial sustainability**. In addition to its financial viability, the project includes loan covenants on (i) the operating income ratio of UTY, defined as the operating income divided by operating revenues, which will be maintained above 0.1 from fiscal year 2021; and (ii) the government passing an official decree to remove other noncore businesses from UTY and avoiding the addition of such businesses to UTY in the future. This demonstrates the commitment of UTY to maintaining healthy financial statements throughout the project implementation.

3. Financial Viability of the Project

11. **Introduction.** The financial analysis assessed the project's financial viability and sustainability in the context of UTY's operating environment. Without the project, (i) railway capacity would remain constrained and would be unable to meet the forecast demand; and (ii) additional traffic over the existing capacity would not be able to use electric traction, considering the limits of the existing power supply systems. The project is revenue-generating; it is expected to increase revenues, mainly from freight, and to reduce operation and maintenance costs. The project's financial viability was assessed following ADB guidelines by comparing the

financial internal rate of return (FIRR) of the net incremental cash flow in the with- and without-project scenarios against the weighted average cost of capital (WACC).

12. **Key financial assumptions.** All financial costs and revenues are expressed in 2020 prices and in real terms. The analysis period includes 4 years of implementation (2020–2023) and 26 years of operation (2024–2049). Residual values were based on the assets' financial life and the straight-line depreciation method.

13. **Weighted average cost of capital.** The project funds comprise a $121.0 million loan from ADB's ordinary capital resources and $43.0 million from the government. The loan's annual interest rate, determined following ADB's London interbank offered rate (LIBOR)-based lending facility, includes an assumed 1.0% onlending fee expected to be charged by the Ministry of Finance to UTY over ADB's LIBOR-based rate. The cost of counterpart funding was based on Uzbekistan's central bank benchmark interest rate of 15.0%, with a risk premium on lending assumed at 5.0%, which reflects the strong financial capacity of UTY compared with other commercial entities. The applicable corporate income tax rate from 2020 is 15%. The WACC was estimated at 1.62% in real terms (Table 3).

Table 3: Weighted Average Cost of Capital

	Item	ADB (OCR)	UTY	Total
A	Amount ($ million)	121.00	43.00	164.0
B	Weighting (%)	73.80	26.20	100.0
C	Nominal cost (%)	2.90	20.00	
D	Tax rate (%)	15.00	15.00	
E	Tax-adjusted nominal cost (%) [C x (1-D)]	2.46	17.00	
F	Inflation rate (%)	1.50	13.00	
G	Real cost [(1+E)/(1+F)-1)] (%)	0.95	3.54	
H	Weighted component of WACC [B x G] (%)	0.70	0.93	
Weighted average cost of capital (%)				**1.62**

ADB = Asian Development Bank, OCR = ordinary capital resources, UTY = O'zbekiston Temir Yo'llari, WACC = weighted average cost of capital.
Source: Asian Development Bank estimates.

14. **Project costs and revenues.** Traffic forecasts in the with- and without-project scenarios considered the impact of COVID-19 on (i) the macroeconomic environment, (ii) the project, and (iii) risks connected to UTY operations.[6] Without the project, traffic would be constrained by the outdated signaling and telecommunications systems, and any additional traffic would be required to use diesel locomotives, considering the constraints on the power system. Project capital costs and recurring costs are consistent with the economic analysis, expressed in financial terms. The project's incremental revenues were calculated on a ton-km and passenger-km basis, using existing UTY rates corresponding to about $0.012/ton-km and $0.010/passenger-km. A real tariff increase of 1.5% was assumed after 18 months of operation, reflecting the shorter journey times, increased efficiency, and reliability of the service in the project scenario.

15. **Financial analysis**. Based on the incremental earnings and costs that will accrue to UTY, the FIRR of the project was estimated to be 8.2% on an after-tax basis, which is above the WACC and indicates the project's financial viability (Table 5). Sensitivity tests assessed the project's financial viability to adverse changes in costs or revenues in the following cases: (i) a 10% increase in costs, (ii) a 10% decrease in revenues, (iii) a 10% increase in costs and 10% decrease

[6] Economic Analysis (accessible from the list of linked documents in Appendix 2 of the report and recommendation of the President).

in revenues, and (iv) a 2-year delay in implementation. Overall, the analysis highlights the project's viability and sustainability even under sensitivity tests (Table 4).

16. **Overall project.** The financial analysis of the original project was also reevaluated. During 2017–2019, the average traffic on the Pap–Namangan–Andijan corridor was about 47% higher for freight and 13% higher for passengers than the demand forecast for 2020 at project appraisal. The FIRR of the original project is reestimated at 8.9%, up from 2.2% at appraisal, and the FIRR of the overall project is estimated 8.6%.

Table 4: Financial Analysis of the Additional Financing Project

No.	Scenario	FIRR (%)	NPV ($ million)	Switching Value (%)
	Base Case	8.2	248.5	
(i)	10% increase in capital costs	7.5	233.8	169.3
(ii)	10% reduction in revenues	7.5	215.8	(75.9)
(iii)	10% increase in costs + 10% reduction in revenues	6.8	201.1	52.4
(iv)	2-year delay in implementation	7.5	233.6	

( ) = negative, FIRR = financial internal rate of return, NPV = net present value.
Source: Asian Development Bank estimates.

Table 5: Cash Flow Streams of the Additional Financing Project
($ million)

Year	Costs		Revenues	Net Revenues
	Capital Costs	O&M Costs	Freight and Passenger Charges	
2020	(0.3)	0.0	0.0	(0.3)
2021	(46.6)	0.0	0.0	(46.6)
2022	(56.7)	0.0	0.0	(56.7)
2023	(50.5)	0.0	0.0	(50.5)
2024	0.0	(10.0)	8.4	(1.6)
2025	0.0	(2.0)	7.9	5.9
2026	0.0	(0.7)	9.8	9.1
2027	0.0	0.5	10.0	10.4
2028	0.0	0.8	10.3	11.1
2029	0.0	1.2	10.8	12.0
2030	0.0	1.7	11.3	13.0
2031	0.0	2.1	11.8	14.0
2032	0.0	2.3	12.2	14.5
2033	0.0	2.7	13.2	15.9
2034	0.0	3.5	14.3	17.9
2035	0.0	3.9	15.6	19.5
2036	0.0	4.5	16.9	21.4
2037	0.0	3.7	18.4	22.1
2038	0.0	4.5	19.5	24.0
2039	0.0	5.0	20.6	25.7
2040	0.0	5.6	21.8	27.4
2041	0.0	6.2	23.0	29.2
2042	0.0	6.7	24.1	30.8
2043	0.0	7.2	24.1	31.3
2044	0.0	8.0	24.1	32.1
2045	0.0	8.6	24.1	32.7
2046	0.0	8.5	24.3	32.8
2047	0.0	8.5	24.3	32.9
2048	0.0	8.5	24.3	32.9
2049	1.9	8.5	24.3	34.7
			Net present value at WACC ($ million)	248.5
			Financial internal rate of return (%)	8.2

( ) = negative, O&M = operation and maintenance, WACC = weighted average cost of capital.
Source: Asian Development Bank estimates.