



Executive summary

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ADY at a glance

Azerbaijan Railways CJSC (ADY) is a nationwide provider of passenger and freight transportation services. Its only shareholder is the Government of the Azerbaijan Republic

During 2016, ADY demonstrated a downward trend due to the economic recession and outdated infrastructure. The total transported freight volume declined from 17.1 million tonnes in 2015 to 15.3 million tonnes in 2016. However, the total passenger volume experienced considerable increase due to the introduction of Baku-Sumgayit line over the same period

ADY's comparative advantage

- ADY is a monopoly in the Azerbaijan railroad market. It has competitive advantages on longer distances compared to other transport modes
- ADY has also established long-standing relationships with customers and suppliers and demonstrates strong commitment to clients
- The GoA plans to increase ADY's operational efficiency and make it a commercially feasible company in the long run

Growing trade potential between neighbouring countries and Azerbaijan

- Strong political cooperation with neighbouring countries will lead to growth in cross-border trade
- The opening of the North-South corridor connecting Russia, Iran, and India will lead to an increase in cross-border trade and attract additional freight volumes
- Rehabilitation of the railway infrastructure of the East-West corridor and BTK will allow ADY to attract new customers from Turkey, Georgia, and Central Asia in the long run

Potential to increase tariff base

- ADY has the potential to increase tariffs for the transportation of crude oil and oil products by 20%, and 10% for the transportation of grain and wood products
- Passenger tariffs cannot be raised significantly, mainly due to the social implications

 ADY mainly generates revenue from freight transportation (72%) and passenger transport (4%):



Projects

ADY has **four large infrastructure modernisation projects** requiring Capex:

1 Renovation of the East-West corridor

2 Renovation of the North South Corridor

3 Renovation of secondary lines

ADY currently implements large-scale infrastructure rehabilitation programmes that will reduce costs and increase speed, thus making ADY more competitive. ADY has also signed long-term contracts to procure new locomotives and passenger coaches to renew its traction and non-traction rolling stock. ADY has already purchased over 3,000 freight wagons to provide necessary transportation services to clients

ADY is keen to implement the Consultant's recommendations to increase operational efficiency

State support

The GoA supports ADY through:

- Financing its large-scale projects, due to their strategic importance (such as the North-South Corridor and BTK)
- Plans to create a free-trade zone at the Alyat port
- Providing an equity injection to repay ADY's state-guaranteed debts

Key issues and recommendations

Issue	Current situation	Key recommendations:	Ranking
Infrastructure	<ul style="list-style-type: none"> — Outdated infrastructure and low average speeds: over 40% of railroads are categorized as unsatisfactory or have speed limit restrictions — Lack of any significant investment in the railway infrastructure between 1985 and 2011. During this period no strategic decisions were made regarding the maintenance and development of railway infrastructure — Lack of prediction in relation to state funding/support, which impacts the planning and budgeting process 	<ul style="list-style-type: none"> — Reassess the Capex programme — Eliminate freight cargo stations with low volumes or use them as connecting stations — Continue the rehabilitation of the East-West and North-South corridors — Modernise signalling (installing MPC turnouts and EBILOCK systems) and electrification (switch to 25 kV) in the East-West and North-South corridors — Create a mid- and long-term development plan for the public railway infrastructure — Consider introducing PSOs, MACs or alternative regulatory models 	
Rolling stock and operations	<ul style="list-style-type: none"> — Traction and non-traction rolling stock needs to be renewed, since most of it has already exceeded its envisioned life cycle. ADY's fleet is old compared to its useful life of 32 years. Around 40% of freight wagons are over-utilised. The majority of remaining wagons are approaching the end of their useful lives. Despite recent refurbishments, most coaches need further rehabilitation — The freight department does not use timetables for freight transportation, which results in lower operational efficiency and unpredictable transport times. Also, ADY has short traction districts that require frequent changes of locomotive crews. This results in low transport speeds and long dwelling times for freight trains 	<ul style="list-style-type: none"> — Continue with the rolling stock renewal programme — Introduce regular timetables for freight trains to achieve reliable transport times and regular operational processes in freight transport — Reduced locomotive and crew changes will result in higher average transport speeds and a better relationship between the running and dwelling times of locomotives and trains. This can result in shorter roundtrip times and fewer necessary shunting manoeuvres 	
Maintenance workshops	<ul style="list-style-type: none"> — The facilities are generally over-aged and in need of rehabilitation and modernisation. None of the current facilities can provide the necessary services for modern traction rolling stock — Rolling stock maintenance is performed for a rather large number of facilities that are often very specialised in particular works or types of rolling stock. This results in inefficiency 	<ul style="list-style-type: none"> — Reduce the number of the workshops and reorganise works in remaining ones 	

Key issues and recommendations

Issue	Current situation	Key recommendations:	Ranking
Marketing	<ul style="list-style-type: none"> — Rail transportation has a weak position among other modes of transport. In freight transportation, over the past three years ADY has lost out to road transportation — Competition from other modes of transport also limits the possibility to increase passenger tariffs, and results in a Passenger Department that is currently loss-making 	<ul style="list-style-type: none"> — Keep the total cost lower than for road transport and eliminate “additional charges” — Provide door-to-door transportation and tracking & tracing services — Establish the ADY brand and improve its market position — Increase tariffs for oil and oil products, wood and wood products and grain. Decrease tariffs for mineral construction materials, iron steel and ore, and containerised products — Offer new services to passengers and moderately raise tariffs when new services are offered 	
Human resources	<ul style="list-style-type: none"> — The number of ADY staff rose in 2016 and currently stands at 2,994 — Around 15% of staff are at retirement age. There is a lack of young specialists (only 13% of staff are under 30 years of age) — The existing remuneration system at ADY is not competitive compared to other companies in the transportation industry in Azerbaijan — ADY has no HR policies in place to regulate HR processes in the company, such as recruitment, rewards, performance management, and learning and development 	<ul style="list-style-type: none"> — Develop the HR policy: recruitment, assessment, training, development, compensation — Dismiss temporary staff — Implement a programme to encourage the retirement of employees that 1) are at retirement age, 2) are close to retirement age 3) work in units that the company planned to close under the new operational model to retire — Develop the company’s HR brand as well as programmes to attract and retain young specialists — Improve the compensation strategy — Tie remuneration to KPIs — Create an induction training programme and a continuous education system for technical engineers / managers — Assess personnel on a regular basis 	
Organisational structure	<ul style="list-style-type: none"> — ADY does not have a structural approach to the management model, which also lacks a clear strategy. Existing strategies are not aligned with each other. Some important units are lacking in the management model (i.e. change and risk management) 	<ul style="list-style-type: none"> — Develop a clear management model for ADY — Develop a detailed organisational structure — Develop a system of KPIs across ADY — Conduct a cost-benefit analysis of the potential for automation and introduce related IT-systems 	

Timeline of recommendations

Issue	Recommendation	More information	2017	2018	2019	2020	2021	2022
Infrastructure	Eliminate freight cargo stations with low volumes	Slide 77-79: Infrastructure development plan						
	Renovate the East-West and North-South corridors	Slide 80-81: Infrastructure development plan						
	Modernise signalling and electrification	Slide 80-81: Infrastructure development plan						
	Introduce PSOs, MACs or alternative regulatory models	Slide 99: Corporate restructuring						
Rolling stock and operations	Continue with the rolling stock renewal programme	Slide 89-91: Operational optimisation strategy						
	Introduce regular timetables and reduce locomotive and crew changes	Slide 94: Operational optimisation strategy						
	Reduce the number of workshops and reorganise work in remaining ones	Slide 93: Operational optimisation strategy						
Organisational structure	Develop a clear management model and organisational structure for ADY	Slide 100: Organisational structure						
	Develop a system of KPIs across ADY	Slide 100: Organisational structure						
	Conduct a cost-benefit analysis of the potential for automation and introduce related IT-systems	Slide 100: Organisational structure						

Timeline of recommendations

Issue	Recommendation	More information	2017	2018	2019	2020	2021	2022
Human resources	Develop the HR policy: recruitment, assessment, training, development, compensation	Slide 109: HR strategy						
	Develop ADY's HR brand as well as programmes to attract young specialists	Slide 109: HR strategy						
Commercial aspects	Keep total costs lower than for road transport and eliminate "additional charges"	Slide 65: Sales and marketing strategy						
	Provide door-to-door transportation and tracking & tracing services	Slide 65: Sales and marketing strategy						
	Establish the ADY brand and improve ADY's market position	Slide 65: Sales and marketing strategy						
	Increase tariffs for oil and oil products, wood and wood products and grain. Decrease tariffs for mineral construction materials, iron steel and ore, and containerised products	Slide 65: Sales and marketing strategy						
Financial issues	Immediately begin negotiations with the lenders to restructure debt repayments	Slide 134-140: Financing						
	Continue to involve the GoA in the restructuring process	Slide 134-140: Financing						
	Conduct impairment tests of fixed assets. In this case, ADY should consider the impact on financial covenants	Slide 134-140: Financing						
	Optimise operational costs (staff, maintenance, electricity and fuel, and SG&A)	Slide 122-126: OPEX						

Category	Recommendation	KPI	Measure	Direction	2017	2022
Commercial aspects	<ul style="list-style-type: none"> — Keep total costs lower than for road transport and eliminate “additional charges” — Provide door-to-door transportation and tracking & tracing services — Establish the ADY brand and improve its market position — Increase tariffs for oil and oil products, wood and wood products and grain. Decrease tariffs for mineral construction materials, iron steel and ore, and containerised products 	Modal split of rail freight transportation	based on tonnes	▲	8%	15%
		Modal split of rail passenger transportation	based on passengers	▲	0.1%	2.0%
		Modal split of rail passenger transportation	based on pkm	▲	2%	10%
		Average yield per thousand tonne-km	revenue per produced '000 tonne-km	▲	30 USD	40 USD
		Volume share of successful tenders	gained volume/potential	▲	n/a	20%
		Revenue and load volume	per freight segment	▲	n/a	20%
		Revenue and load volume	per customer	▲	n/a	10%
		Forecast Quality ^(a)	historic/actual data	◆	n/a	n/a
		# of International passengers per segment	000'passengers	▲	146	228
		# of passengers (around Baku) per segment	000'passengers	▲	855	3,323
		# of domestic passengers per segment	000'passengers	▲	977	1,504
		# of domestic passengers per segment	000'passengers	▲	977	1,504
		Freight service punctuality	75% = 4 hours	▲	n/a	75% ^(b)
		Passenger service punctuality	80% = 5 min	▲	n/a	80% ^(b)
Revenue per tkm	AZN/tkm	▲	63.6	81.5		
Operational expenditure per tkm	AZN/tkm	▼	35.2	33.9		
Capital expenditure per tkm	AZN/tkm	▲	78.9	138.8		

Note: (a) Comparison of historical market analysis and forecast with actual revenue and market development
 (b) 100% = 0 min
 (c) Official list of KPI was published on the website - <https://ady.az/az/content/index/66/42>

Category	Recommendation	KPI	Measure	Direction	2017	2022
Operational efficiency and technical modernisation	<ul style="list-style-type: none"> Eliminate freight cargo stations with low volumes Renovate the East-West and North-South corridors Modernise signalling and electrification Continue with the rolling stock renewal programme Introduce regular timetables and reduce locomotive changes and crew changes Reduce the number of workshops and reorganise work in remaining ones Develop a clear management model and organisational structure for ADY Develop a system of KPIs across ADY Conduct a cost-benefit analysis of the potential for automation and introduce related IT-systems 	Average train speed	Departure to arrival	▲	n/a	50 km/h
		Average transportation speed (Domestic, EXIM)	Loading to unloading station	▲	n/a	25 km/h
		Average transportation speed (Transit)	Loading to unloading station	▲	n/a	45 km/h
		Availability of rolling stock	share,%	▲	n/a	>90%
		Availability of new rolling stock	share,%	▲	n/a	>95%
		Average maintenance cost per unit	locomotive, rolling stock, track-km	▲	n/a	n/a ^(a)
		Cost per produced train-km/route-km	USD	▲	n/a	n/a ^(a)
		Infrastructure maintenance cost per train-km	USD	▲	n/a	n/a ^(a)
		Rolling stock maintenance cost per train-km	USD	▲	n/a	n/a ^(a)
		Financial KPIs	<ul style="list-style-type: none"> Continue negotiations with the lenders to restructure debt repayments Continue to involve the GoA in the restructuring process Conduct impairment tests of fixed assets. In this case, ADY should consider the impact on financial covenants Optimise operational costs (staff, maintenance, electricity and fuel and SG&A) 	Debt/equity	Ratio	▼
Debt/EBITDA	Ratio			▼	18.2	12.1
DEBT/CFADS	Ratio			▲	4.1	6.8
Interest coverage ratio	Ratio			▲	1.1	2.1
DSCR	Ratio			▼	1.2	0.6

Note: (a) Target has to be defined after rehabilitation of infrastructure and installation of new rolling stock based on wagon types and manufacturer manuals
(b) Official list of KPI was published on the website - <https://ady.az/az/content/index/66/42>

Conclusion

Section	ADY's core challenges	Key recommendations	Key target KPIs
1 Infrastructure	Outdated infrastructure, low average speed, lack of investment, & uncertainty of state support regarding investment plans of ADY, improve asset management	Modernisation & rehabilitation of existing infrastructure, eliminate inefficient cargo stations, introduction of PSOs, MACs or other regulatory models	<ul style="list-style-type: none"> 1,717 km track 50 km/h speed
2 Rolling stock & maintenance workshops	Over-aged rolling stock and facilities, unpredictable transportation time, low operational efficiency, & overspecialization of workshops	Renewal of rolling stock, introduction of regular timetables, reduce the locomotive & crew changes	<ul style="list-style-type: none"> Availability of rolling stock >90% Availability of new rolling stock >95%
3 Marketing & Commercial aspects	Weak market position in Freight transportation, high competition in Passenger transportation	Tariff adjustments for some products, eliminate additional charges, provision of door-to-door and tracking services, offer new routes & services (ADY app, city ticket, bus hubs, customer loyalty programme) to passengers	Target EBITDA margin: 48% in 2022
4 Human Resources	Overstaffing, lack of young specialist, low average salary, lack of clear HR policy	Develop HR policy, dismiss temporary staff, attract young specialists, encourage employees to retire, and improve compensation strategy	<ul style="list-style-type: none"> Staff decrease: 6,422 Average salary: AZN 596
5 Organisational structure	Lack of clear management & important units in management model	Develop clear management model and organisational structure, develop system of KPIs and introduce relevant IT-systems	See target organisational structure on slide #100
6 Financing	Insufficient cash flow to service existing debt, lack of financing for CAPEX, need to restructure existing loans	Optimize operational costs, continue restructuring process, negotiate with GoA to attract additional loan and equity for investment programmes	<ul style="list-style-type: none"> Acceptable DSCR: 1-1.2 Acceptable DEBT/EBITDA 2-3