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Financial Risk of Airlines in Indonesia Case Study of Kualanamo (Medan) to Soekarno-Hatta (Cengkareng) Flight Route

Edward Sirait
Universitas Kristen Indonesia, Indonesia
Email: 2304198003@ms.uki.ac.id
Correspondence: 2304198003@ms.uki.ac.id*

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Rupiah Exchange Rate; Avtur Price; Airfare Determination and Financial Performance

ABSTRACT
This reseach aims to identify and analyze the financial risks faced by airlines in Indonesia, with a particular focus on the Kualanamo (Medan) to Soekarno-Hatta (Cengkareng) flight route. Using a case study approach, the study evaluated a range of factors influencing financial risk, including fluctuations in fuel prices, currency exchange rate volatility, market competition, and regulatory changes. Data was collected through interviews with airline financial managers, analysis of financial statements, and review of related literature. The results showed that fluctuations in fuel prices and exchange rates are the main factors contributing to financial risk. In addition, intense competition and regulatory changes have also had a significant impact on the airline's financial stability. This research provides recommendations for risk mitigation strategies that airlines can implement to improve their financial resilience. The implications of these findings are expected to assist financial managers and policymakers in designing more effective policies to manage financial risks in the aviation industry.

1. Introduction

Indonesia really needs air transportation services or air transportation, so the industry needs to be assured to survive and grow well. Indonesia is an archipelagic country consisting of more than 17,000 islands, so one of the modes of transportation that is needed in connecting between regions or between islands is air transportation (Aunurrofik, 2018). The national air freight industry has experienced tremendous development and growth since 2000. This growth is marked by changes in the air transport industry in the world, such as the introduction of low cost carriers. This type of service is also in great demand in Indonesia, which also encourages the establishment of new aviation companies. These changes encourage the government, in this case the Ministry of Transportation, to organize and regulate the national air transportation industry.

Related to this, this industry is regulated and supervised by the government through the Ministry of Transportation. The legal basis for regulating and supervising this industry uses Law No.

1 of 2009 concerning Aviation. This law also mandates that the Minister of Transportation can issue and enact implementing regulations. The laws and regulations created aim to maintain the survival of lighting companies and also protect the interests of consumers (Indonesia, 2009).

Related to this, the Ministry of Transportation has also issued technical regulations to regulate the national undara transportation industry, including:

1. Regulation of the Minister of Transportation No. 35 of 2021 concerning the Implementation of Air Transport (This regulation is a replacement for the Decree of the Minister of KM No. 25 of 2008 concerning the implementation of air transportation).

In the third part of this regulation, scheduled Commercial Air Transport Tariffs are regulated in Article 54, which reads :

a. Paragraph 1, Commercial Air Transport Business Entities carrying out Domestic Scheduled Commercial Air Transport activities must determine the economy class passenger rates of Domestic Scheduled Commercial Air Transport with the upper limit rates set by the Minister.
b. Paragraph 2, Provisions regarding economy class passenger fares for Domestic Scheduled Commercial Air Transport shall be carried out in accordance with the provisions of laws and regulations in the field of passenger fares for economy class services of domestic scheduled commercial air transportation.

Based on this regulation, it can be concluded that the Minister of Transportation will determine the domestic scheduled commercial transportation rates.

2. The Decree of the Minister of Transportation KM No. 25 of 2008 also says the same thing related to the determination of domestic scheduled commercial air transportation rates, so that the Ministry of Transportation has issued Minister of Transportation Regulation No. 20 of 2019 regulating the procedures and formulation of the calculation of the upper limit fare for economy class passengers of domestic scheduled commercial air transportation.

The calculation pattern as stated in the annex to PM No. 20 of 2019 states that there are 16 (sixteen) characteristic items used as the basis for determining tariffs. However, the characteristics that greatly affect tariff setting and cannot be controlled are the rupiah exchange rate and avtur fuel prices. The tariff calculation uses the assumption of the rupiah exchange rate and the price of avtur fuel (Permenhub, 2019).

The calculation of air freight rates is carried out by the Ministry of Transportation as regulated in PM No. 20 of 2019 in article 10 and article 11 together with airline companies and the Association of Airline Companies or INACA (Indonesia National Air Carier Association). The calculation is carried out using agreed operating costs for each type of aircraft and for each flight route using assumptions, especially the price of avtur and the exchange rate of rupiah against the United States dollar (US) (Kementerian Perhubungan, 2021).

Chapter V of the Regulation of the Minister of Transportation No. 20 of 2019 regulates the implementation of the Evaluation of Passenger Fares for Economy Class Services of Domestic Scheduled Commercial Air Transportation, especially article 23:

1. Verse 1. The Director General evaluates the amount of tariffs that have been determined with the following conditions: :
    a. Conducted periodically every 3 (three) months and or,
    b. At any time in the event of significant changes that affect the continuity of the activities of air transport business entities.

2. Significant changes as referred to in paragraph 1 letter b are changes that cause an increase in total aircraft operating costs to at least 10% (ten percent) due to changes :
   a. Avtur price
   b. Rupiah exchange rate,
   c. Pricing of other cost components.

It is the obligation of the Ministry of Transportation to evalauate if there has been an increase in total aircraft operating costs of more than 10% (ten percent) from the date of the tariff stipulation.

The determination of the assumption of the Rupiah exchange rate against the USD is very important because the component of aircraft operational costs is strongly influenced by the rupiah exchange rate against the USD. The component of aircraft operating costs of approximately 85% will be affected by changes in the rupiah exchange rate against the USD. The costs are such as aircraft rental, spare parts, aircraft maintenance, insurance and avtur fuel.

3. Following up on the implementation of calculations, the Ministry of Transportation issued Minister of Transportation Regulation No. 106 Year (2019) which stipulates the upper limit fare for passengers of economy class services for domestic scheduled commercial air transportation.

Tariffs set in the Regulation of the Minister of Transportation PM. No. 106 of 2019 (2019) using the assumption of the rupiah exchange rate against 1 USD worth Rp. 14,100 and in the last 15 (fifteen) months the rupiah exchange rate (selling) against the dollar prevailing at Bank Indonesia as data in the following table

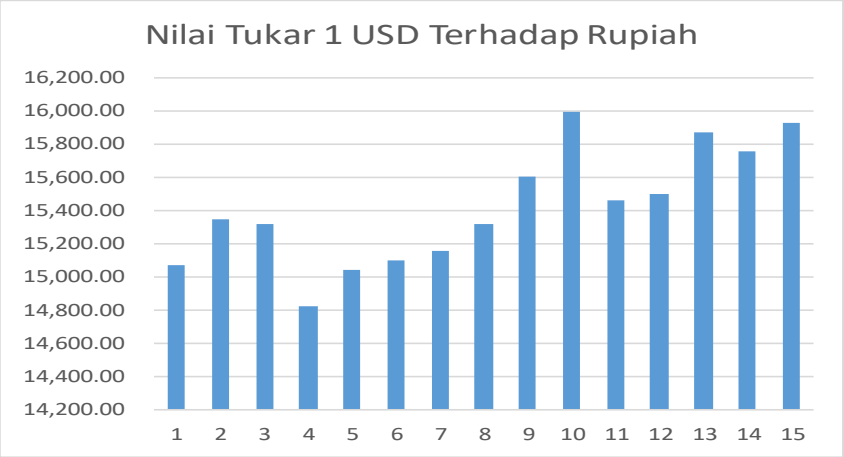
Table 1

The **Exchange Rate of 1 USD to Indonesian Rupiah**

No.	Moon		Value	Assumption	Deviase	
					Value	%
1	Januari 2023	Rp.	15,066.96	14,100.00	966.96	6.86%
2	Februari 2023	Rp.	15,350.37	14,100.00	1,250.37	8.87%
3	Maret 2023	Rp.	15,317.31	14,100.00	1,217.31	8.63%
4	April 2023	Rp.	14,824.75	14,100.00	724.75	5.14%
5	Mei 2023	Rp.	15,043.84	14,100.00	943.84	6.69%
6	Juni 2023	Rp.	15,101.13	14,100.00	1,001.13	7.10%
7	Juli 2023	Rp.	15,158.42	14,100.00	1,058.42	7.51%
8	Agustus 2023	Rp.	15,315.19	14,100.00	1,215.19	8.62%
9	September 2023	Rp.	15,603.63	14,100.00	1,503.63	10.66%
10	Oktober 2023	Rp.	15,995.58	14,100.00	1,895.58	13.44%
11	Nopember 2023	Rp.	15,460.92	14,100.00	1,360.92	9.65%
12	Desember 2023	Rp.	15,493.88	14,100.00	1,393.88	9.89%
13	Januari 2024	Rp.	15,874.98	14,100.00	1,774.98	12.59%
14	Februari 2024	Rp.	15,751.36	14,100.00	1,651.36	11.71%
15	Maret 2024	Rp.	15,932.26	14,100.00	1,832.26	12.99%

Source : Bank Indonesia Exchange Rate and processed by the author

Taking into account the table above the realization of the rupiah exchange rate against the USD, for the last 15 (fifteen) months the average has been above 8% (eight percent) of the assumption used to calculate the upper limit tariff as stipulated in PM No. 106 of 2019 as shown in the following garfik:



Graphs 1 Exchange Rate 1 USD to Indonesian Rupiah

The price of avtur used in determining tariffs in Ministerial Regulation No. 106 of 2019 per liter on average is Rp. 10,850. The following are the applicable avtur prices at Kualanamo Airport (Medan) for the last 15 (fifteen) months as shown in the following table:

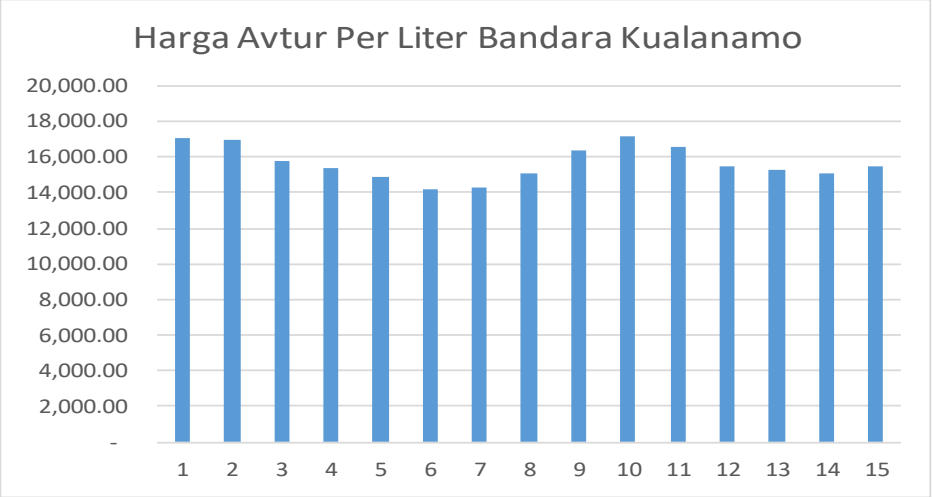
Table 2

Avtur Price Per Liter at Kualanamo Airport

No.	Month		Value	Asumsi	Deviase	
					Value	%
1	January 2023	Rp.	17,040.03	10,850.00	6,190.03	57.05%
2	February 2023	Rp.	16,939.86	10,850.00	6,089.86	56.13%
3	March 2023	Rp.	15,782.34	10,850.00	4,932.34	45.46%
4	April 2023	Rp.	15,403.92	10,850.00	4,553.92	41.97%
5	May 2023	Rp.	14,847.42	10,850.00	3,997.42	36.84%
6	June 2023	Rp.	14,201.88	10,850.00	3,351.88	30.89%
7	July 2023	Rp.	14,335.44	10,850.00	3,485.44	32.12%
8	August 2023	Rp.	15,114.54	10,850.00	4,264.54	39.30%
9	September 2023	Rp.	16,338.84	10,850.00	5,488.84	50.59%
10	October 2023	Rp.	17,206.98	10,850.00	6,356.98	58.59%
11	November 2023	Rp.	16,539.18	10,850.00	5,689.18	52.43%
12	December 2023	Rp.	15,526.35	10,850.00	4,676.35	43.10%
13	January 2024	Rp.	15,270.36	10,850.00	4,420.36	40.74%
14	February 2024	Rp.	15,047.76	10,850.00	4,197.76	38.69%
15	March 2024	Rp.	15,492.96	10,850.00	4,642.96	42.79%

Source : Pertamina One Solution and processed by the author

The table data above shows that from 2023 until March 2024, the prevailing avtur price per liter in Kualanamo city will average 40% (forty percent) above the benchmark price in the calculation of the upper limit tariff for domestic scheduled commercial transportation as shown in the following graph:



Graphs 2 Avtur Price Per Liter Kualanamo Airport

The current tariff in domestic scheduled commercial air transportation for economy class is as annexed to the Minister of Transportation Regulation PM No. 106 of 2019 stated that the upper limit flight fare for the route from Kualanamo (Medan) to Soekarno-Hatta (Cengkareng) one-way is Rp. 1,799,000 excluding tax. These fares apply to full-service flights.

As stipulated in Article 4 Paragraph 3 of the Regulation of the Minister of Transportation No. 20 of 2019 says that the amount of tariffs based on service groups for Scheduled Commercial Air Transport business entities as referred to in paragraph 2 (two) consists of:

a. Determination of 100% (one hundred percent) of the maximum tariff that provides services with maximum standards
b. Determination of tariffs as high as 90% (ninety percent) of the maximum tariff for medium service
c. Tariff determination as high as 85% (eighty-five percent) of the maximum tariff for Peleyanan with minimum standards (no frilss service)

So that the upper limit fare for economy passengers for domestic scheduled commercial air transportation flight routes from Kualanamo (Medan) to Soekarno-Hatta (Cengkareng) with minimum standard flights is Rp. 1,529,150,-

Currently, the Rupiah is weakening and is very far from the assumptions used, as well as the price of avtur which is already much more expensive than the assumed price. So that airline companies, will experience losses in every flight operation.

There are many national domestic flight routes and the types of aircraft operated are also diverse. Exploring the problems and risks faced, one flight route from Kualanamo (Medan) to Soekarno-Hatta (Cengkareng) will be analyzed using an Air Bus A-320 aircraft.

The risk faced by airlines, is Financial Risk where airlines if operating with the amount of costs at the current avtur price and rupiah exchange rate, will experience very large losses. On the other hand, airlines also cannot adjust fares or selling prices beyond those set by the Ministry of Transportation.

2. Materials and Methods

This research was conducted using quantitative descriptive methods. A descriptive approach that aims to describe a certain condition or phenomenon, without trying to reveal and not sorting out or looking for certain factors or variables that should be suspected to be the cause of the emergence of phenomena or linking variables in research. A quantitative approach is used to calculate costs and revenues as well as profit and loss predictions of airlines.

Data and information collection is carried out by direct interview methods with resource persons to obtain primary data while literature studies are carried out to obtain secondary data. The acquisition of primary data is directly interviewed with the Ministry of Transportation and with airline companies, while the acquisition of secondary data is taken from publications of the Ministry of Transportation, publications of airline companies and mass media.

3. Results and Discussions

The government through the Ministry of Transportation has issued Regulation of the Minister of Transportation with No. 106 of 2019 concerning the upper limit of passenger passenger economy class services for domestic scheduled commercial air transportation. Rates set using assumptions:

1. Rupiah Exchange Rate 1 USD = Rp. 14.100
2. Avtur price per liter = Rp. 10.850

This study will analyze flight routes from Kualanamo (Medan) to Soekarno-Hatta (Cengkareng) with :

1. Pesawat yang digunakan Air Bus A-320
2. Kapasitas tempat duduk 185 kursi
3. Lama Penerbangan adalah 2 jam dan 20 menit
4. Janis layanan adalan minimal pelayanan (low cost carrier)
5. Tarif tertinggi yang ditetapkan Kemenhub = Rp. 1.529.150,- (PM 106 Tahun 2019)

Based on data from the end of March 2024 :

1. Rupiah exchange rate 1 USD = Rp. 15,932.26 (And at the beginning of April 2024 it has reached Rp.16,183.45, (Bank Indonesia)
2. Avtur price per liter at Kuala Namo Airport = Rp. 15.459.57 (Pertamina)

Cost

The operational cost of the Air Bus A-321 aircraft, if flying from Kualanamo to Soekarno-Hatta airport will reduce the total cost of Rp. 225.37 million if 1 (one) USD equals Rp. 14,100 and the price of avtur per liter is Rp. 10,850,-

In fact, at the beginning of March 2024, 1 (one) USD is equal to Rp. 15,932.26 and the price of avtur per liter at Kualanamo airport (Medan) is Rp. 15,492.96. Thus, the average operating cost per hour of Air Bus A-320 aircraft if flying from Kualanamo airport to Soekarno-Hata airport is Rp. 304.11 million. The amount of costs incurred by national airlines today if flying from Kualanamo airport to Soekarno-Hatta airport has increased by 35% when compared to the amount of costs used in the determination

of the upper limit tariff for economy class passengers of domestic scheduled commercial air transportation by the Ministry of Transportation.

The following table will provide an overview of the total cost of flights from Kualanamo airport to Soekarno-Hatta airport for various rupiah exchange rates against USD with avtur prices of Rp.15,492.96 per liter as follows:

Table 3
Total Operating Costs of Kualanamo to Soekarno-Hatta Flights
(in thousands of rupiah)

		Value Change $1			Deviasi	
No.	Types of Fees	14,100.00	15,932.26	16,200.00		
		A	B	C	(B/A-1)	(C/A-1)
1	Fixed Direct Operating Costs	64,223.83	71,603.79	72,682.19	11.49%	13.17%
2	Non-Fixed Direct Operating Costs	145,124.76	216,483.50	222,869.72	49.17%	53.57%
3	Non-Fixed Direct Operating Costs	16,022.07	16,022.07	16,022.07	0.00%	0.00%
	Amount of Fees	225,370.66	304,109.35	311,573.98	34.94%	38.25%

Source: Processed by Author

The weakening of the rupiah exchange rate against the USD and the increase in the price of avtur as shown in the table, if 1 USD equals Rp. 16,200 and the price of avtur per liter Rp. 15,429.96 per liter then the total operational costs of flights from Kualanamo airport to Soekarno-Hatta will increase by 38.25%.

Thus, airlines serving flights from Kualanamo airport to Soekarno-Hatta airport are currently operating at a cost far above the amount of costs used to calculate the Upper Limit Tariff for Economy Passengers of Domestic Commercial Air Transport.

Income

The Ministry of Transportation through the Minister of Transportation Regulation No. 106 of 2019 has set the domestic scheduled commercial air transportation economy passenger fare for the Kualanamo Airport route to Soekarno-Hatta airport at IDR 1,799,000 one way. The study was conducted on flights with minimum standards (no frills service) then the upper limit fare is 85% of the fare or equal to Rp. 1,529,150,-.

Various levels of achievement of flight revenue derived from passengers for the Kualanamo airport flight route to Soekarno-Hatta airport with various prices and fill levels (Pax L / F) as in the following table: (Petty et al., 2015)

Table 4
Income
Kualanamo to Soekarno-Hatta Flight Route
(in thousands of rupiah)

No.	Pax L/F	Tariff	Income
1	70%	1,529,150.00	198,024,925.00
2	90%	1,529,150.00	254,603,475.00
3	100%	1,529,150.00	282,892,750.00
4	70%	1,400,000.00	181,300,000.00
5	90%	1,400,000.00	233,100,000.00
6	100%	1,400,000.00	259,000,000.00
7	70%	1,250,000.00	161,875,000.00
8	90%	1,250,000.00	208,125,000.00
9	100%	1,250,000.00	231,250,000.00
10	70%	1,000,000.00	129,500,000.00
11	90%	1,000,000.00	166,500,000.00
12	100%	1,000,000.00	185,000,000.00

Source: Processed by the author

There are four average price levels used as analysis material in this study:

1. All are sold at a rate of Rp. 1,529,150, then calculated the level of depreciation for different filling levels, namely 70%, 90%, and 100 %
2. Sold with various tariffs but on average will produce a passenger fare of Rp. 1,400,000, then calculated the level of debate for different levels of stuffing, namely 70%, 90% and 100 %.
3. Sold with various tariffs but on average will produce a passenger fare of Rp. 1,250,000, then calculated the depreciation rate for different filling levels of 70%, 90%, and 100%,
4. Sold with various tariffs but on average will produce a passenger fare of Rp. 1,000,000, then calculated the depreciation rate for different filling levels of 70%, 90%, and 100%.

The selection of the stuffing rate (Pax Load Factor) for the levels of 70%, 90%, and 100%, because the average level of stuffing flights from Kualanamo airport to Soekarno-Hatta airport has been realized so far is indeed above 70% and in the calculation of the upper limit passenger fare by the Ministry of Transportation also uses the assumption of a stuffing rate of 70%.

Operating Profit/Loss

Financial performance, in the form of profit / loss of national airlines in recent years, especially in 2023 and 2024 has been very heavy or can be said to always experience losses for each flight. Based on the data obtained, various possible profit/loss calculations will occur if the airline company flies on the Kualanamo airport route to Soekarno-Hatta airport as shown in the following table: (Liana & Yusrizal, 2022; O.Gill & Chatton, 2008)

Table 5

Estimated Operating Profit/Loss
Flights from Kualanamo Airport to Soekarno Hatta
In various exchange rates of rupiah to USD
(in thousands of rupiah)

No.	Rate By Pax	Pax L/F	Income	Amount of fees (Exchange rate 1 USD)			Operating Profit/Loss		
				14,100.00	15,932.26	16,200.00	14,100.00	15,932.26	16,200.00
1	1,529.15	70%	198,024.93	225,370.66	304,109.35	311,573.98	(27,345.74)	(106,084.43)	(113,549.06)
2	1,529.15	90%	254,603.48	225,370.66	304,109.35	311,573.98	29,232.81	(49,505.88)	(56,970.51)
3	1,529.15	100%	282,892.75	225,370.66	304,109.35	311,573.98	57,522.09	(21,216.60)	(28,681.23)
4	1,400.00	70%	181,300.00	225,370.66	304,109.35	311,573.98	(44,070.66)	(122,809.35)	(130,273.98)
5	1,400.00	90%	233,100.00	225,370.66	304,109.35	311,573.98	7,729.34	(71,009.35)	(78,473.98)
6	1,400.00	100%	259,000.00	225,370.66	304,109.35	311,573.98	33,629.34	(45,109.35)	(52,573.98)
7	1,250.00	70%	161,875.00	225,370.66	304,109.35	311,573.98	(63,495.66)	(142,234.35)	(149,698.98)
8	1,250.00	90%	208,125.00	225,370.66	304,109.35	311,573.98	(17,245.66)	(95,984.35)	(103,448.98)
9	1,250.00	100%	231,250.00	225,370.66	304,109.35	311,573.98	5,879.34	(72,859.35)	(80,323.98)
10	1,000.00	70%	129,500.00	225,370.66	304,109.35	311,573.98	(95,870.66)	(174,609.35)	(182,073.98)
11	1,000.00	90%	166,500.00	225,370.66	304,109.35	311,573.98	(58,870.66)	(137,609.35)	(145,073.98)
12	1,000.00	100%	185,000.00	225,370.66	304,109.35	311,573.98	(40,370.66)	(119,109.35)	(126,573.98)

Source : Processed by the author

Flights from Kualanamo airport to Soekarno-Hatta will only experience operational profits with an exchange rate of IDR 1 USD IDR 14,100 and the price of avtur per liter IDR 10,850 if;
Ticket fares are sold at a price of Rp. 1,529,150 with an average Pax Load Factor above 90%.

1. Ticket fares are sold at a price of Rp. 1,400,000 with an average Pax Load Factor above 90% or all seats sold,
2. Ticket fare is sold at Rp. 1.250.00 with Pax Load Factor 100% or all seats sold.

If the rupiah weakens or in other words 1 USD becomes higher exchange rate than Rp. 14,100, then flights from Kualanamo airport to Soekarno-Hatta airport, even though sold at the highest price of Rp. 1,529,150 per passenger, the flight will still lose money.

At the end of March 2024, the exchange rate of 1 USD is equal to Rp. 15,932.26 and the price of avtur at Kualanamo airport per liter is Rp. 15,459.57, so each flight will experience a loss even though the fill rate reaches 100%. What if one airline company flies 5 (five) frequencies per day or equal to flying 10 times round trip, how much loss is experienced.

This calculation also applies to other flight routes, it's just that the difference is the distance traveled and the price of avtur. Especially for eastern Indonesia, the price of avtur is relatively higher, thus national airlines will certainly experience even greater losses.

Based on these calculations, Indonesia's national airlines are certainly facing financial risks stemming from oppressive work that suffers losses. Until how long airlines can survive with this condition and when the Ministry of Transportation will adjust the upper limit fare for economic passengers of domestic scheduled commercial air transportation. Without changes to the upper limit tariff, national airlines will be able to face liquidity difficulties and capital declines (can be negative) and do not rule out the possibility of facing bankruptcy (Djohansaputro, 2013).

Risk Analysis

The results of the analysis carried out the identified financial risks will be faced by airlines in Indonesia, especially airlines serving the Kualanamo airport flight route to Soekarno-Hatta airport using the current Air Bus A-320 type aircraft, including: : (Djohansaputro, 2013; Hanafi, 2016)

1. Liquidity Risk,

Liquidity Risk is a problem for a company when it is unable to fulfill its obligations, or in other words, liquidity risk is detrimental to each company. Companies that experience liquidity risk can result in bankruptcy. Some of the causes of liquidity risk are: :

- The company is not able to manage cash properly,
- The company was unable to obtain financing as a result of late debt repayment and non-compliance with loan terms,
- The company experienced unexpected economic conditions,
- Experiencing a profit crisis that has an impact on falling profits,

Airlines that continue to experience losses during operations will experience liquidity risk, as a result of a profit crisis or operating losses that continue to lose. The analysis was carried out on only one route, in fact one airline company did a lot of domestic flight routes.

KeThe loss experienced by the airline company at this time will also cause the company's cash flow to be negative or in other words the company has and will face liquidity problems. Where the company is unable to pay its short jagka obligations due to loss-making operational performance, including loan payments if any.

Flights from Kualanamo airport to Soekarno-Hatta airport using Air Bus A-320 aircraft based on the calculation results using selling prices with the upper limit tariff for domestic air transport economy passengers set in PM 106 of 2019 will profit if the filling rate is 100% (one hundred percent). In fact, the average filling level is below 100% and the average price sold is below Rp. 1,529,150.

The performance condition of loss-making companies certainly makes companies unfit to apply for loans to financial institutions. Then airlines will also have difficulty getting working capital loans.

Thus, the position of airline companies in Indonesia is currently very heavy and can lead companies to face bankruptcy.

2. Exchange Rate Risk

Exchange rate risk is a risk that must be faced by airlines, because almost 85% (eighty-five percent) of flight operating costs are transacted in foreign currencies. Exchange rate risk or foreign exchange risk is the risk that there is a pattern of relationship between the calculation of the country's currency (rupiah) and foreign currencies as a result of fluctuations in macroeconomic conditions.

Currently, (March 2024), the rupiah continues to weaken against foreign currencies, specifically the United States dollar (USD). The weakening of the rupiah currency will increase flight operational costs. Flight operating costs have now increased by 35% (three to five percent) when compared to the costs used to set the upper limit fare for economy passengers of domestic air transport in 2019.

The weakening of the exchange rate that occurs today causes an increase in operational costs on the other hand tariffs or selling prices still use exchange rates that are far below the current one. Airlines may not sell above the upper limit tariff set by the government, so the company has the potential to experience operational losses for each flight.

3. Capital risk

Capital risk will arise when the company experiences losses so that the company's capital decreases. Losses may occur due to increased sales and/or increased operating costs (Supriyono, 1991).

Flight operations from Kualanamo Airport to Soekarno-Hatta Airport are currently experiencing losses and the same will also happen to other flight routes. The loss occurred due to the increase in operational costs caused by the weakening of the rupiah exchange rate against the USD and the increase in avtur prices and the company could not sell above the upper limit tariff set by the Ministry of Transportation.

If this condition is allowed to continue, it is possible that national airlines will experience a decrease in capital or even negative. Companies with negative capital will be faced with the choice of increasing capital or closing the company. National airlines must immediately take various steps to avoid losses that continue to occur which cause capital to run out even to minus.

4. Procurement Risk,

The risk of procurement of spare parts will be experienced by national airlines related to the procurement of spare parts needed in order to maintain the aircraft operated. Related to this risk arises because airlines are faced with the weakening of the rupiah value and rising avtur prices which cause companies to face unfavorable liquidity conditions (Ikatan Bankir Indonesia, 2017).

The weakening of the rupiah against the USD caused an increase in the price of spare parts in rupiah because almost 100% (one hundred percent) of aircraft parts were still imported from abroad.

Liquidity difficulties cause the process of purchasing spare parts to change as vendors *(suppliers)* ask to be paid upfront because they anticipate the company will experience liquidity difficulties and company performance that may continue to lose money.

Using a matrix to analyze risk by estimating the probability or probability of occurrence with the level of impact that will be caused. Related to the probability or probability of events given a category; It almost certainly happens, it happens infrequently, it may occur, it happens often and almost certainly not happens. The level of impact caused is given a category; very small,small,medium, large and very large (Machfoedz, 1989).

Based on the results of the analysis conducted, the following is a matrix of risk assessment results faced by airline companies flying routes from Kualanamo airport to Soekarno-Hatta airport as the following table:

Table 6
Risk Matrix Analysis

FACTOR PROBABILITAS						
	IT ALMOST CERTAINLY HAPPENS	5	10	15	20	Liquidity Risk 25
	FREQUENT OCCURRENCES	4	8	12	16	Exchange Rate Risk 20
	POSSIBLE	3	6	9	Procurement Risk 12	Capital Risk15
	RARE	2	4	6	8	10
	ALMOST DIDN'T happen	1	2	3	4	5
		VERY SMALL	SMALL	KEEP	BIG	VERY LARGE
		IMPACT FACTOR				

13 – 25	High Risk
6 – 12	Medium Risk
1-5	Low Risk

Based on the matrix above, it shows that all risks faced by national airlines serving flights from Kualanamo airport to Soekarno-Hatta airport face risks that are in the red zone or the risks faced are quite large (Salim, 2000; Umar, 2001). The risks in question include liquidity, capital and exchange rate risks. Only commodity risks are in the yellow zone, but can potentially shift to the red zone if the rupiah exchange rate against the USD continues to weaken. Liquidity risk is a risk that must be a priority to obtain risk behavior so that the company can anticipate all things that may occur so that the impact can be calculated and minimized.

Exchange rate risk is also in the red zone which must be managed properly so that steps can be taken to anticipate and minimize possible risks. Capital risk is also in the red zone, this happens because airlines that serve flights with continuous losses will definitely experience a decrease in

capital. So the company must manage financial performance so that this capital risk can be minimized, so that the company is not faced with a bankruptcy position.

The risk of spare parts procurement is in the yellow zone, which means it is also necessary to treat the risk because if the procurement of spare parts is delayed or failed, it will be able to disrupt the company's operations through the availability of aircraft to be operated. This risk is closely related to liquidity risk and exchange rate risk, in other words, if both are not managed properly then commodity risk will also shift to the red zone.

Facing risks, it is estimated that airlines must mitigate well because exchange rate volatility seems to continue and avtur prices also continue to experience turmoil caused by wars in the Middle East.

Here are the steps that can be taken by airlines in dealing with the risks that exist as in the table following: (Umar, 2001)

Table 7

Risk Management

No.	Types of Risks	Tiers	Strategy	Step
1	Liquidity Risk	Weight (red)	Lower Costs	Evaluate all flight routes to reduce frequency or cancel flights
				Evaluate all non-operational expenses and cut them
			Menurunkan pengeluaran kas	Postpone or cancel all investment and development activities
				Renegotiate and reschedule payments of all debts
				Evaluate the company's entire procurement plan
			Increase Revenue	Request the government to change the upper limit fare for economy passengers of domestic air transport
				Opening foreign flight routes whose sales are in Foreign Currency
				Looking for other income outside passengers e.g. cargo, overseas charters, etc.
			Increase the availability of Funds	Looking for a Long-term loan
				Capital deposit from shareholders
2	Exchange Rate Risk	High (red)	Evaluate all purchases or transactions using foreign exchange	Determine the priority scale to maintain the Company's operations
				Evaluate quantity, price and payment method
				Cancel or suspend cooperation with foreign parties that are not related to operations
			Hedging	Convert most sales proceeds into USD.

3	Capital Risk	High (red)	Find new partners / sell shares	Anticipating the need for additional capital
			Reduce losses	Not flying routes that are very loss-making
				Lower company operating costs
				Increase revenue
4	Procurement Risk	Medium (yellow)	Renegotiation of the entire spare parts procurement cooperation contract	Evaluate the quantity and type of orders
			Inventory of the entire inventory of spare parts and matters related to aircraft maintenance	Evaluate how to pay
				Evaluation of delivery plans etc
				Determine the priority scale, quantity, delivery and adjustment of the company's operational plan
			Inventory all procurements in progress	Evaluation to determine which are forwarded, which are postponed, which are reduced and which are canceled

The things presented in the table above are mitigations or things that can be done by airlines in the face of the melting rupiah exchange rate against the USD and rising avtur prices in the country.

4. Conclusion

Indonesia has the opportunity to design a formidable reserve force by taking lessons from the challenges faced by Russia and the strategies implemented by other countries. The first step is to create a well-structured organization, which includes a clear command structure, an efficient hierarchy, and an organized training system. An example of this can be seen in the United States National Guard model, which integrates training and command with active forces effectively.

Furthermore, effective integration between reserve and regular forces should be pursued through joint exercises and standardization of doctrine and operational procedures. The experience of countries such as Israel and the United Kingdom shows that frequent joint exercises and consistent doctrine strengthen interoperability and combat readiness.

Combat-ready reservists also need investment in information technology and virtual training systems to enhance tactical capabilities. The use of this technology, as Singapore did with their ITTC, allows for sophisticated simulation and efficient training.

Attention to welfare and incentives for reserve forces are essential to maintaining morale and motivation. Adopting models like Canada or Australia in providing access to health benefits and educational support is an important step towards improving the quality of life and job satisfaction of reserve force members.

Finally, clear regulations and transparent and accountable policies, similar to USERRA in the United States or the Reserve Forces Act in the United Kingdom, should be developed to provide protection and certainty for reserve forces and their families.

By implementing a comprehensive strategy covering aspects of organization, integration, combat readiness, technology, welfare, and regulation, Indonesia's reserve forces will be strengthened. This approach will place reserve forces as a crucial component in a defense system that can respond dynamically and effectively to changing security threats and challenges, securing Indonesia's national sovereignty in the future.

5. References

Aunurrofik, A. (2018). The Effect of Air Transportation on Regional Economic Development: Evidence from Indonesian Regencies. *Signifikan: Jurnal Ilmu Ekonomi*, *7*(1), 45–58. https://doi.org/10.15408/sjie.v7i1.6178

Djohansaputro, B. (2013). *Manajemen Risiko Korporat Terintegrasi, Panduan Penerapan dan Pengembangan*.

Hanafi, M. M. (2016). *Manajemen Risiko*. UPP STIMYKPN.

Ikatan Bankir Indonesia. (2017). *Manajemen Risiko* (Cetakan ketiga). PT. Gramedia Pustaka Utama.

Indonesia, P. P. (2009). *Undang-undang (UU) Nomor 1 Tahun 2009 tentang Penerbangan*. Pemerintah Pusat Indonesia. https://peraturan.bpk.go.id/Details/54656/uu-no-1-tahun-2009

Kemenhub. (2019, May 15). *Keputusan Menteri Perhubungan Republik Indonesia Nomor KM 106 Tahun 2019 Tentang Tarif Batas Atas Penumpang Pelayanan Kelas Ekonomi Angkutan Udara Niaga Berjadwal Dalam Negeri*. Kementerian Perhubungan Republik Indonesia. https://jdih.dephub.go.id/peraturan/detail?data=IZwGppavVod5m08YPzoBRz4OUvfidiug58lzFWpmFmnS8cJzqMy1Rkg8W8sLVDhmBa49ab6qSECsS8LUqBT2JXnj8LRD8B00nAI8W8rfXHA2eO9idMJn5tydhJNU4eK8xGzjJ6rRdrAeFgd24BsK1EZ6ak

Kementerian Perhubungan. (2021, May 18). *Peraturan Menteri Perhubungan Republik Indonesia Nomor PM 35 Tahun 2021 Tentang Penyelenggaraan Angkutan Udara*. Kementerian Perhubungan Republik Indonesia. https://jdih.dephub.go.id/peraturan/detail?data=LWz0Spinen03ODjhzOHIGY4pAv3xmW3U14UvGUMqbRsD8m4Os2N1PTa8glfKzQIKTU8bRcsYHhhR649Xl4uUfDCj8gi0bmwyPfJ8X13UyE5apF6hbCEq3MAv4J5XwJP7WDgQ0XKEUlHiUH53uQVJkYqCvg

Liana, V., & Yusrizal, Y. (2022). Analisis Proses Underwriting pada Produk Kafalah Pembiayaan Surety Bond di PT Penjaminan Jamkrindo Syariah Cabang Medan. *El-Mal: Jurnal Kajian Ekonomi & Bisnis Islam*, *4*(1), 250–259. https://doi.org/10.47467/elmal.v4i2.1390

Machfoedz, M. (1989). Ihtisar Teori dan Soal Jawaban Akuntansi Biaya, edisi Revisi. *BPFE: Yogyakarta*.

O.Gill, J., & Chatton, M. (2008). *Memahami Laporan Keuangan*.

Permenhub. (2019, March 28). *Peraturan Menteri Perhubungan Republik IndonesiaNomor PM 20 Tahun 2019 Tentang Tata Cara dan Formulasi Perhitungan Tarif Batas Atas Penumpang Pelayanan Kelas Ekonomi Angkutan Udara Niaga Berjadwal Dalam Negeri*. Kementerian Perhubungan. https://jdih.dephub.go.id/peraturan/detail?data=LNunvGi1SKR9Q4wKMdSn9d8m6wuYen06C4q9FkAPhBkT4ec0TiNLJYc8m8GyGt9moi8gcqtNyGcdy4eWdiSKsRcr8WzjxZWSXK74q9FUktLHar0mLBkwao7dB75dWBmhEKF40K05yyXZ0Cn5EFOK9JZVy7

Petty, J. W., Titman, S., Keown, A. J., Martin, P., Martin, J. D., & Burrow, M. (2015). *Financial management: Principles and applications*. Pearson Higher Education AU.

Salim, H. A. (2000). *Asuransi dan Manajemen Resiko*. RajaGrafindo Pesada.

Supriyono. (1991). *Akuntasi Manajemen* .

Umar, H. (2001). Manajemen Risiko Bisnis Pendekatan Finansial dan Nonfinansial. *Jakarta: PT. Gramedia Pustaka Utama*.