

May and August 2021 Strategic Case Study

2019 CIMA Professional Qualification

Full post exam support materials

Below is the full post-exam supporting material for the strategic case study exam.

Pre-seen material

May and August 2021 strategic case study pre-seen can be found [here](#)

Examiner's report (available from 29 October)

The May and August 2021 examiner's report can be found [here](#)

Exam variants

- Variant 1 can be accessed [here](#)
- Variant 2 can be accessed [here](#)
- Variant 3 can be accessed [here](#)
- Variant 4 can be accessed [here](#)
- Variant 5 can be accessed [here](#)
- Variant 6 can be accessed [here](#)

Suggested solutions

- Suggested solutions for variant 1 can be accessed [here](#)
- Suggested solutions for variant 2 can be accessed [here](#)
- Suggested solutions for variant 3 can be accessed [here](#)
- Suggested solutions for variant 4 can be accessed [here](#)
- Suggested solutions for variant 5 can be accessed [here](#)
- Suggested solutions for variant 6 can be accessed [here](#)

Marking Guidance (available from 29 October)

- Marking guidance for variant 1 can be accessed [here](#)
- Marking guidance for variant 2 can be accessed [here](#)
- Marking guidance for variant 3 can be accessed [here](#)
- Marking guidance for variant 4 can be accessed [here](#)
- Marking guidance for variant 5 can be accessed [here](#)
- Marking guidance for variant 6 can be accessed [here](#)

If you need any further information, we would recommend you use our [Live Chat](#) function or contact [your local office](#).

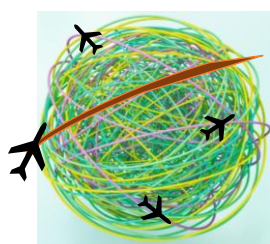


May and August 2021 Strategic Case Study Examination
Pre-seen material

COVID-19 Statement

This pre-seen and the case study in general (while aiming to reflect real life), are set in a context where the COVID-19 pandemic has not had an impact.

Remember, marks in the exam will be awarded for valid arguments that are relevant to the question asked. Answers that make relevant references to the pandemic or social distancing will, of course, be marked on their merits. In most cases, however, candidates may find it helpful to assume that there are no restrictions to the movement of people, goods or services in place.



ARRFIELD
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Arrfield pre-seen

Arrfield is a quoted company that owns and operates six major airports, four in its home country and two overseas.

You are a senior manager in Arrfield's finance function. You report directly to the Board and advise on special projects and strategic matters.

Arrfield is based in Norland, a developed country that has an active and well-regulated stock exchange. Norland's currency is the N\$. Norland requires companies to prepare their financial statements in accordance with International Financial Reporting Standards (IFRS).

Norland is a large country that is surrounded by sea.

Airports and air travel

Airports provide the necessary facilities to enable commercial air travel by passengers and the transportation of freight. They generally occupy large sites that include:

Runway	Commercial airliners and freight planes require a stable runway that is long enough for planes to accelerate to flying speed when taking off and decelerate to a safe stop when landing. Runways are usually paved with concrete to ensure that they are sufficiently strong and stable to permit take-offs and landings.
Taxiways and aprons	Once on the ground, planes require paved roadways to enable them to taxi to and from the runway and also aprons on which they can park. Taxiways are effectively roadways that are wide enough to permit aircraft to taxi safely. Aprons are areas of flat ground that allow for freedom of movement and for aircraft parking. Both are usually paved with concrete.
Passenger terminals	Airport terminals provide all of the facilities required to process departing passengers and their baggage, ensuring that they get to their planes on time for departure. Terminals also include the facilities required by arriving passengers, in between disembarking from the aircraft to leaving the airport.
Freight terminals	Most airports offer the facilities required to handle air freight. Some aircraft are designed to carry only cargo. Passenger airlines often carry freight alongside passenger baggage in the holds of their aircraft.
Hangars and maintenance facilities	Aircraft require repairs and routine maintenance in order to ensure they fly safely. Most airports have hangars, which are essentially buildings that are large enough to accommodate an aircraft so engineers can work on it without being exposed to the weather. Airlines often rent hangars for their own exclusive use, particularly at larger airports. That makes it easier to deal with any technical problems quickly, in order to minimise the risk of delaying a departure. Areas of apron may also be set aside so that smaller repairs can be carried out without blocking the movement of other aircraft.

There are two main categories of commercial airport:

- A **hub airport** is a main base for one or more airlines. That makes it easier to offer connecting flights, which makes it possible for airlines to offer cheaper and more efficient long-haul routes, filling larger aircraft to carry passengers between hubs.

For example, NorFly is a major international airline that has a main base at Capital City International Airport. The airline offers return flights between Capital City and many smaller airports, including Crossline Airport in the country of Seeland. A passenger wishing to fly from Crossline to an airport in the country of Farland could take a short-haul NorFly flight to Capital City, connecting to a long-haul flight to Farland International Airport. If necessary, the passenger could connect to a final destination by taking a further short-haul flight from Farland International.

Airlines often collaborate with one another using so-called “codeshare agreements”. Essentially, these enable passengers to book all of the flights required for a particular journey through a single airline’s website, even though one or more of the flights making

up that journey will be provided by a different airline. For example, a booking from Crossline Airport to Farland Greentown might involve NorFly flights to Capital City International and Farland International Airport, followed by an Air Farland flight from Farland International to Greentown. NorFly and Air Farland have a codeshare agreement and so this whole journey could be booked in a single transaction through either airline's website.

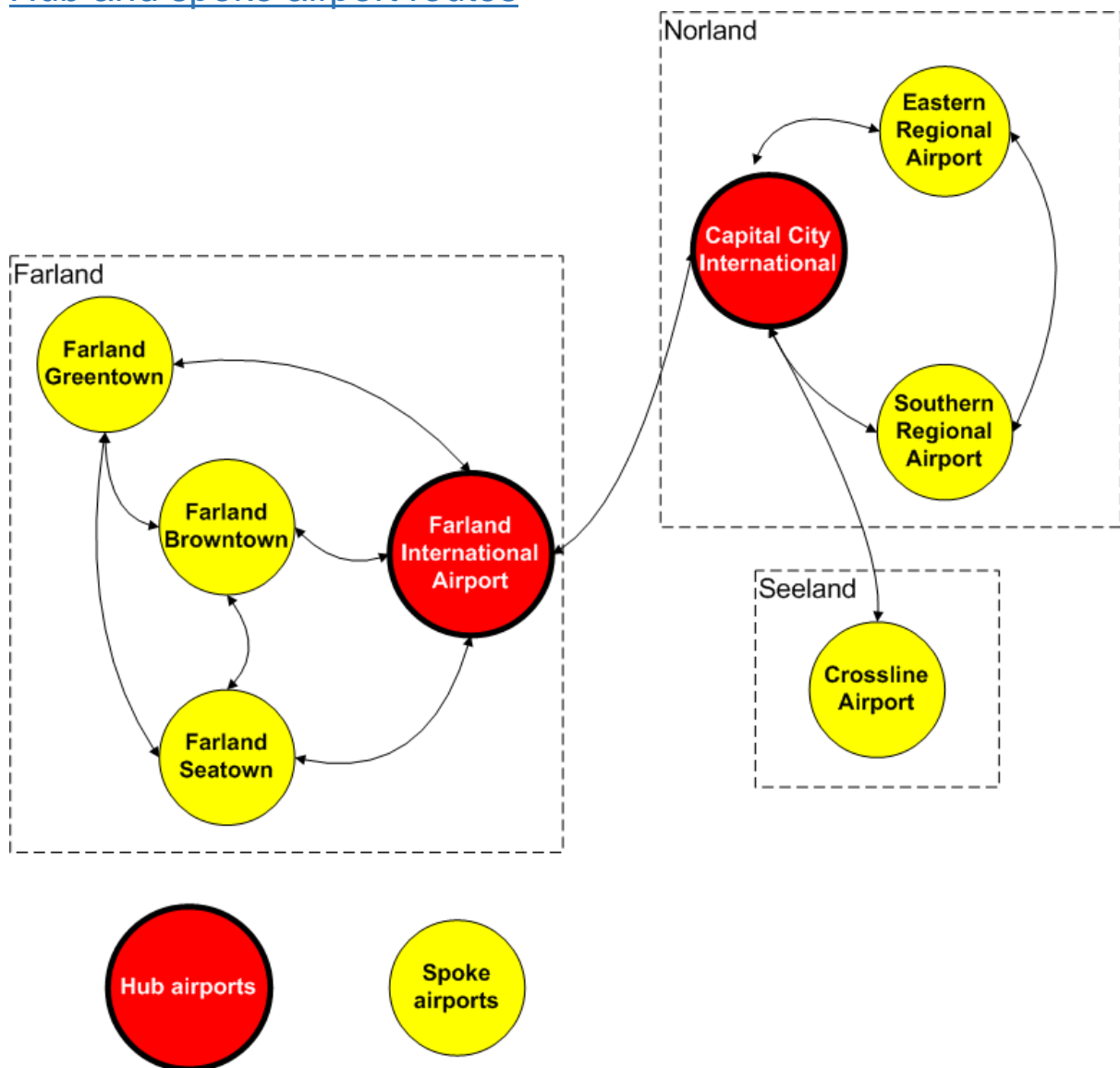
Codeshare arrangements are important to airports because they give passengers a much wider range of potential destinations.

- A **non-hub** or **spoke airport** will generally offer short-haul flights to and from hub airports and will also serve airlines that offer direct flights to short-haul destinations.

For example, business travellers who live close to Eastern Regional Airport can fly to Southern Regional Airport or Capital City International for meetings. There are no long-haul services from Eastern Regional Airport, but passengers can connect from there to hub airports, including Capital City International.

Non-hub airports generally offer short-haul flights of up to roughly 2,000 kilometres. Hub airports offer a mixture of both short-haul and long-haul flights. Passengers often use hub airports for relatively short journeys. For example, business travellers and tourists frequently fly from Eastern Regional Airport to Capital City International for meetings or leisure.

Hub and spoke airport routes



Flight operations

An airport's design will affect the number of flights that it can handle and its ability to deal with passengers and freight.

Air operations are dictated by the size and number of runways. Larger aircraft require longer runways to give them room to accelerate when taking off and to decelerate when landing. Ideally, runways will be oriented so that the prevailing wind blows along them. That increases the airflow over aircraft wings and so makes it easier for aircraft to take off and land.

Airports can have more than one runway. In that case, they may be parallel to one another so that aircraft can use both without crossing one another's flight paths. The runways may also be offset at angles that give the air traffic controllers the ability to vary flight paths in response to weather conditions and also to manage the noise pollution caused by flight operations.



Passenger facilities

The terminal building will also reflect the types of aircraft and the number of passengers that can be processed. For example, larger aircraft can carry more passengers and so efficient boarding and disembarkation becomes a priority. Many airport terminals have gates that are

equipped with bridges that permit passengers to enter or leave the aircraft by walking along a moveable ramp that connects the terminal building to the aircraft doors.

The alternative to these bridges is to tow mobile stairs to the aircraft so that passengers can board or disembark by walking to or from ground level. Passengers may be able to walk to or from the terminal if the aircraft is parked nearby, otherwise, they will have to be transported on buses. In either case, this arrangement is much less efficient than the use of these bridges.

Arriving and departing passengers enter and leave the terminal building using entrances and exits that are referred to as “gates”.



Terminals are designed to encourage the safe, secure and efficient flow of passengers. Departing passengers must carry a boarding pass in order to proceed through airport security and also so that they can board their aircraft. Boarding passes can often be downloaded to mobile phones by app before arriving at the airport, but most airlines offer either staffed or automated check-in facilities to assist passengers with checking in when they arrive at the airport.

If passengers have suitcases or other large items of baggage, then they will check those in when they arrive at the airport. Airline tickets usually specify the weight of baggage that passengers are permitted. Cases are weighed on arrival at the airport and accepted into the baggage handling system if they weigh less than the permitted maximum. If they weigh too much, then passengers will either have to reduce the amount they are carrying or pay an excess baggage fee.

Once passengers are checked in and have deposited their hold baggage, they must proceed through airport security. That ensures that the passengers are not carrying weapons or objects that could otherwise endanger the aircraft, its crew and its passengers.

The areas of the terminal that are open to the public are known as “landside”. These include check-in areas and other facilities for departing passengers. They also include spaces for those accompanying departing passengers and meeting arriving passengers.

Passengers are advised to arrive at the airport well before their flight and so most airports provide retail and catering facilities both to occupy passengers and to generate revenue. Airports usually rent retail and catering spaces to third parties. In many countries, tax laws permit retail sales to passengers who are travelling to foreign destinations to be “dutyfree”, which means that they are exempt from sales taxes. Retailers can then pass on some or all of the benefit of those tax reductions to passengers in order to stimulate sales.

Airport terminals must also cater for the needs of arriving passengers. In order to be permitted to offer international flights, airports must provide adequate facilities for border control checks. These include passport and immigration checks to ensure that arriving passengers are entitled to enter the country and have any visas that are required. Baggage must also be checked by customs and other government agencies to ensure that it does not contain any prohibited items or that any import taxes are paid.

Hub airports must cater for the needs of transit passengers who are waiting for their onward flight. That usually involves elaborate retail and catering facilities because passengers may face waits of several hours between flights and can also include the provision of lounges and other leisure facilities where passengers can relax.

Boarding passes and identification



The areas after security are known as “airside”. Public access to airside is restricted to passengers who have valid boarding passes. Each boarding pass has a barcode that can be scanned optically. Boarding passes are checked at security to confirm that the holders are eligible to travel. They are also scanned at retailers’ points of sale to ensure that sales tax is charged to passengers taking domestic flights and also to collect data that can be used for marketing purposes, such as identifying frequent travellers and tracking their buying habits. Finally, boarding passes are scanned when boarding to confirm that the passengers are on the correct flights and to create a definitive list of the passengers who are actually on the aircraft.



Airport employees and staff employed by retailers and others who work airside must also pass through security and must wear identity badges issued by airport security. Security badges have radio-frequency identification (RFID) chips embedded in them that can be read by electronic scanners built into door locks. Locks are programmed to restrict access to authorised badge holders only.

Transport infrastructure

Airports require extensive transport links. Passengers and their baggage will arrive and depart throughout the day. Airports and their associates also have large numbers of employees, many of whom have shifts that start or finish at unsociable times.

Most airports have good road access and large car parks. These are often major sources of revenue, with many passengers driving to the airport and paying to park in an adjacent car park for the duration of their trips. Airports often charge premium prices to park close to the terminal, with less expensive parking offered in more distant locations that are serviced by shuttle buses.

Airports also offer other forms of ground transport, such as taxi ranks, bus stations and railway stations. These generally offer services to the nearest major towns and cities. Some airports have major bus and rail stations that enable long distance journeys on national public transport networks.

Airports also require significant road links to carry goods. These include fuel and other consumables to replenish aircraft and cargo that is to be carried as air freight. The airport itself also requires goods, including inventory for the duty-free shops and materials required for airport operations. Most of this material arrives by road, with designated access points for different types of delivery.

Logistics

Airports require extensive and sophisticated logistical support in several key areas.

Flight operations require that airports are equipped to refuel and resupply aircraft before they take off. Apart from fuel, lubricants and other consumables required for flight, most long-haul flights require stocks of food and beverages to keep passengers fed and hydrated.



Airports must be equipped to meet these requirements in an efficient and cost-effective manner. For example, most large hub airports have underground pipes that carry fuel to aircraft stands, thereby avoiding the need for fuel to be carried from storage tanks by tanker, with the associated congestion that would be created by tankers having to be refilled. Technicians can use mobile pumps to draw fuel from the pipelines and pump it directly into aircraft fuel tanks.



Hub airports that operate long-haul flights usually have industrial kitchens that can mass produce hot meals for inflight services. These are generally leased to specialist third party catering companies and so offer a further source of revenue. These kitchens must prepare meals in accordance with each airline's menus. The food has to be ready to be loaded before take-off, otherwise hundreds of passengers may be left unfed for the duration of the flight. The meals must also be prepared so that they meet strict hygiene requirements and will also remain appetising after being stored for several hours in

the aircraft galley.

Passenger baggage requires sophisticated arrangements to ensure that each bag is loaded onto the correct aircraft for collection by its owner upon arrival at the final destination. Baggage must be unloaded from arriving aircraft and transported to the appropriate arrivals hall so that passengers can collect their property and leave the airport as quickly as possible in order to minimise congestion.



Baggage from arriving aircraft creates a further complication because transit passengers will be connecting to a later flight from that airport and so their baggage will have to be identified and transferred to the correct aircraft for its onward journey.

Items of baggage are tracked using standardised labels that are attached during the check-in or baggage-drop processes when passengers arrive at the airport for the first stage of their journeys. The barcodes on the labels conform to international standards, which means that they can be scanned optically by the equipment used at any airport. The barcodes identify the owners and also the flight numbers from the point of origin until the final

destination. Scanners help baggage handlers to sort items of baggage to ensure that it is directed correctly, either to the arrivals hall or the next flight.



In addition to passenger baggage, most airports provide air freight facilities. Large airports often have warehouses that can be used to expedite the shipment of loads. Air freight is often used to transport high value items, partly because of enhanced security and partly to avoid tying cash up in expensive inventory while it is transported by land or sea. Perishable goods, such as seafood and exotic fruit, may also be transported by air to get them to market while they remain fresh. There are also specialist shippers, such as companies who

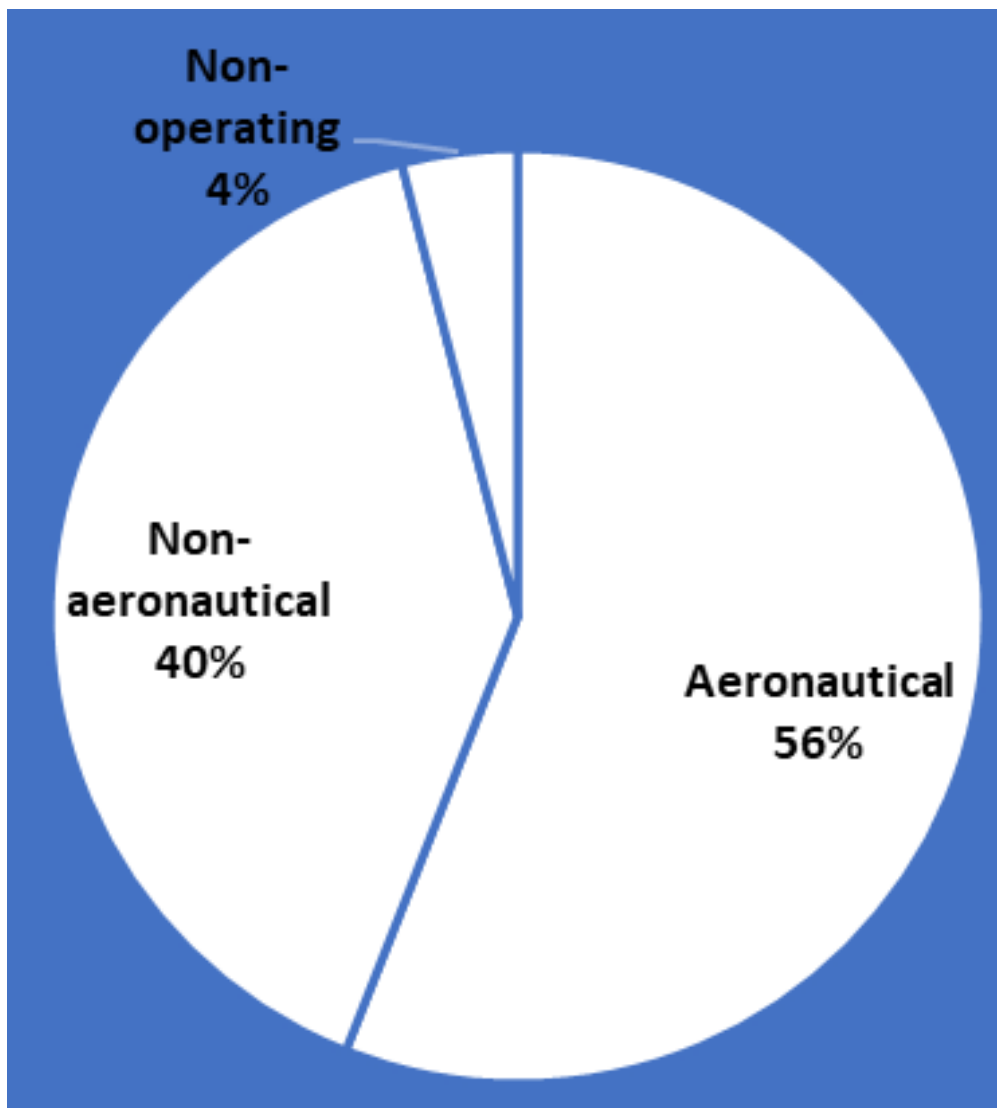
transport valuable livestock, including racehorses, by air.

Some freight is carried on specialised cargo aircraft. These can carry large loads and relatively bulky items, but do not have seats for passengers. Freight is also carried in the baggage holds of airliners, alongside passenger baggage.

Couriers and postal delivery companies also use both passenger and cargo aircraft to carry packets and documents.

Revenues

Airports classify their revenues into three main categories, typically weighted as follows:



Aeronautical fees comprise:

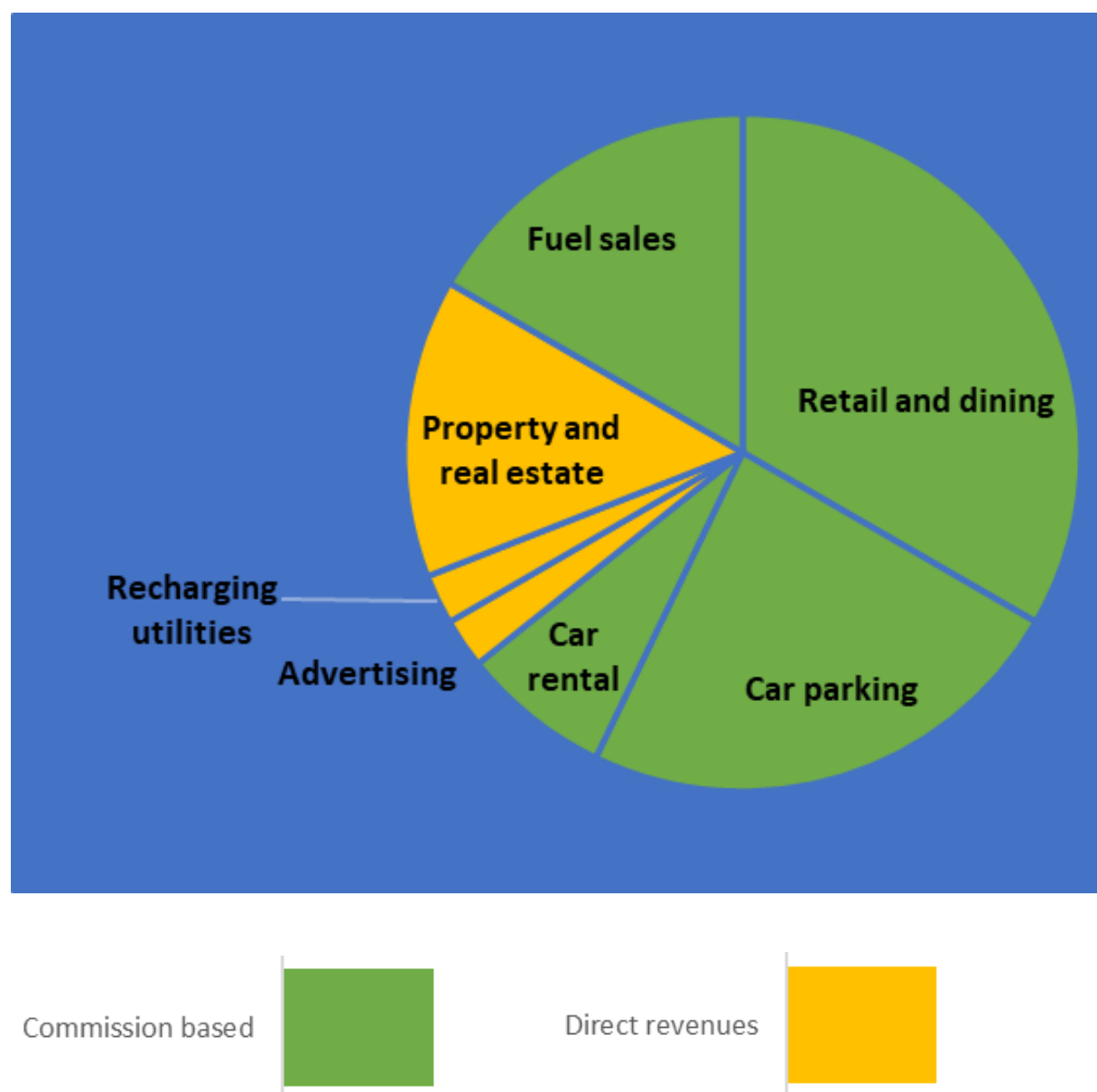
- **Landing fees** – a charge is made every time an aircraft lands or takes off at the airport. Landing charges are affected by the size of the aircraft, the time that it will spend on the ground and the facilities that it will use. For example, it costs more to park at a gate equipped with a bridge than to park at a remote stand and transport passengers to and from the terminal by bus.
- **Passenger charges** – airlines must make a payment for every passenger who arrives or departs on one of their aircraft. That charge is usually combined with the landing fee.
- **Terminal fees** – airlines must pay for the use of terminal facilities to board and disembark passengers. The basis for charging depends on the relationship with the airline and its presence at the airport. Some major hub airports have more than one terminal, one of which may be leased in its entirety to a single airline. That enables the terminal to be branded in that airline's colours and makes it easier for transit passengers who are continuing with the same airline to change planes. Airlines with a smaller presence might

have a lease that grants sole use of one or more departure lounges and their gates within a terminal. Again, that allows for branding and may be cost-effective if the airline has several daily flights from that airport. Finally, an airline might simply pay an hourly rate for the use of a gate for the duration of the time spent on the ground.

Airports typically charge these aeronautical fees in their home currencies.

Typically, revenues from aeronautical fees are insufficient to cover operating costs in their entirety. Most airports rely on non-aeronautical revenues to take them into profit.

Non-aeronautical revenues typically comprise:



Non-aeronautical revenues often take the form of commissions paid by third parties for the right to operate at the airport. For example, retailers pay airports a commission calculated as a percentage of their gross revenues in return for retail space.

Non-operating revenues include interest on bank deposits, government grants and subsidies. They are not usually a significant source of revenue.

Landing slots

Each airport's operating capacity is constrained by the number of landings and take-offs that its runways and their surrounding airspace can accommodate. Even in ideal conditions, the runway itself cannot be used constantly because the airflow from departing aircraft creates turbulence that must settle before the next aircraft can be permitted to touch down or to take off. That can be a particular problem when a small aircraft is following behind a larger one. Also, air traffic control regulations require a safe separation of aircraft, both vertically and laterally. That restricts the number of aircraft that can be lined up to land on any given runway at any one time or that can be vectored into the same area when taking off.

The number of aircraft movements that can be scheduled for any one day must also be restricted to allow for contingencies, such as adverse weather requiring an increase in aircraft separation, delayed aircraft disrupting flight schedules and inflight emergencies that may require priority over scheduled landings. Also, the runway itself may have to be closed temporarily to check for debris that could damage aircraft or because of local weather conditions such as high winds blowing across the runway, making it dangerous to land.

Finally, some airports are unable to operate for 24 hours a day because of the noise pollution that they create for residents who live under the flight path. That is a particular problem when aircraft are taking off. Local regulations may mean that aircraft cannot be permitted to take off or land between the hours of, say, 22.00hrs and 06.00hrs.

Some airports have sufficient capacity to accommodate all of the flights that airlines wish to operate from them and so these constraints do not really matter. It may be that airlines have to collaborate over scheduled arrival and departure times to avoid congestion at busy times of day.

Popular airports often cannot accommodate all the flights that airlines wish to operate from them and so they have to restrict availability using a system of granting "slots". A slot is essentially the right to operate a flight from a particular airport at a particular time and on a particular day of the week. This approach to restricting flights at busy airports operates globally, although each country has its own detailed regulations governing the use and ownership of slots.

If an airline wishes to start a new passenger or cargo service from a busy airport then it can apply to the airport for a slot. If the airport has a suitable slot available then it can grant it to the airline.

Once granted, the slot belongs to the airline and not to the airport. Airlines exchange slots with one another when it is mutually convenient to do so. They also buy and sell slots. The slots themselves can become very valuable, with individual slots being sold for millions of N\$.

If airlines do not use their slots then they can be withdrawn and reallocated by the airport. If an airline has no further use for a slot then it makes sense to sell it before it can be withdrawn.

Air traffic control



Flights through controlled airspace are managed by air traffic control systems. These combine radars, computers and human operators to monitor aircraft movements. Commercial aircraft are fitted with transponders, which are radio beacons that signal the aircraft's radio callsign and navigational data such as the aircraft's altitude and direction of travel. That information is tracked by air traffic control computers and is displayed on screens that are monitored by air traffic controllers.

Safety regulations restrict the number of aircraft that can be in the same block of airspace at any one time. Air traffic control ensures that aircraft flightpaths do not create collision risks. The need to maintain safe distances can cause disruption at busy airports, especially those serving large cities that have more than one airport and so have large numbers of aircraft in the same vicinity at any one time. Any disruption can quickly become cumulative. For example, incoming long-haul flights that are delayed by bad weather will have priority because they are already in the air and must be allowed to land while they still have sufficient fuel to reach the runway safely. Air traffic control might then be forced to delay short-haul flights from taking off in order to prevent congestion while the delayed long-haul flights are in the landing pattern.

Air traffic control is managed by national governments. The Norland Air Traffic Control Service is responsible for managing the airspace over the whole of Norland and in the skies up to 100 kilometres from Norland's coast.

Air traffic control is responsible for all inflight safety matters. Airports cannot direct aircraft that are airborne and cannot instruct aircraft to take off or land without clearance from air traffic control. Airports do, however, require constant updates from air traffic control in order to manage operations on the ground. For example, an incoming flight might be expected to land 40 minutes behind schedule, which could disrupt the airport's plans for parking and unloading that aircraft. Similarly, air traffic control might decide to delay the departure of a particular aircraft because of bad weather affecting part of its route. That could create a number of

operational issues, including the need to disembark passengers back into the departure gate area during the delay.

Airports can receive air traffic control data, but cannot transmit data to air traffic control. For security reasons, air traffic control requires pilots to update them about the status of their aircraft, such as a need to delay take-off because of technical problems.

Arrfield

Arrfield was founded in 1980 when Norland's government privatised its airports. Previously, the government had owned all large airports in the country. The company initially acquired Capital City International Airport (CCI), which was already one of the world's largest airports for both passenger numbers and cargo handling. CCI grew steadily under Arrfield's management. In 2005, the airport built a fourth terminal building to supplement the three existing terminals. The new terminal was leased in its entirety to NorFly, Norland's largest airline.

Capital City is Norland's capital and is a major population centre. It is an important financial centre and is home to many multinational corporations and banks. It is also a popular tourist destination. There is strong demand for flights to Capital City.

CCI reached its limits in terms of operating capacity in 2002. It issued slots to enable airlines to continue their existing services. No new slots have been available since then. Airlines wishing to create new flights from CCI must either reallocate their existing slots or buy additional slots on the open market.

Arrfield has also expanded through the acquisition of existing airports. The largest of these is Capital City Max (CCM), which was acquired in 1994. That was a controversial acquisition because CCI and CCM are the only major hub airports serving Capital City. There are other airports that serve the city, but they are non-hub airports and are in less convenient locations for travellers.

Arrfield is Norland's largest airport company, when measured in terms of revenue and also total number of flights. It is the only company serving Capital City with hub airport services.

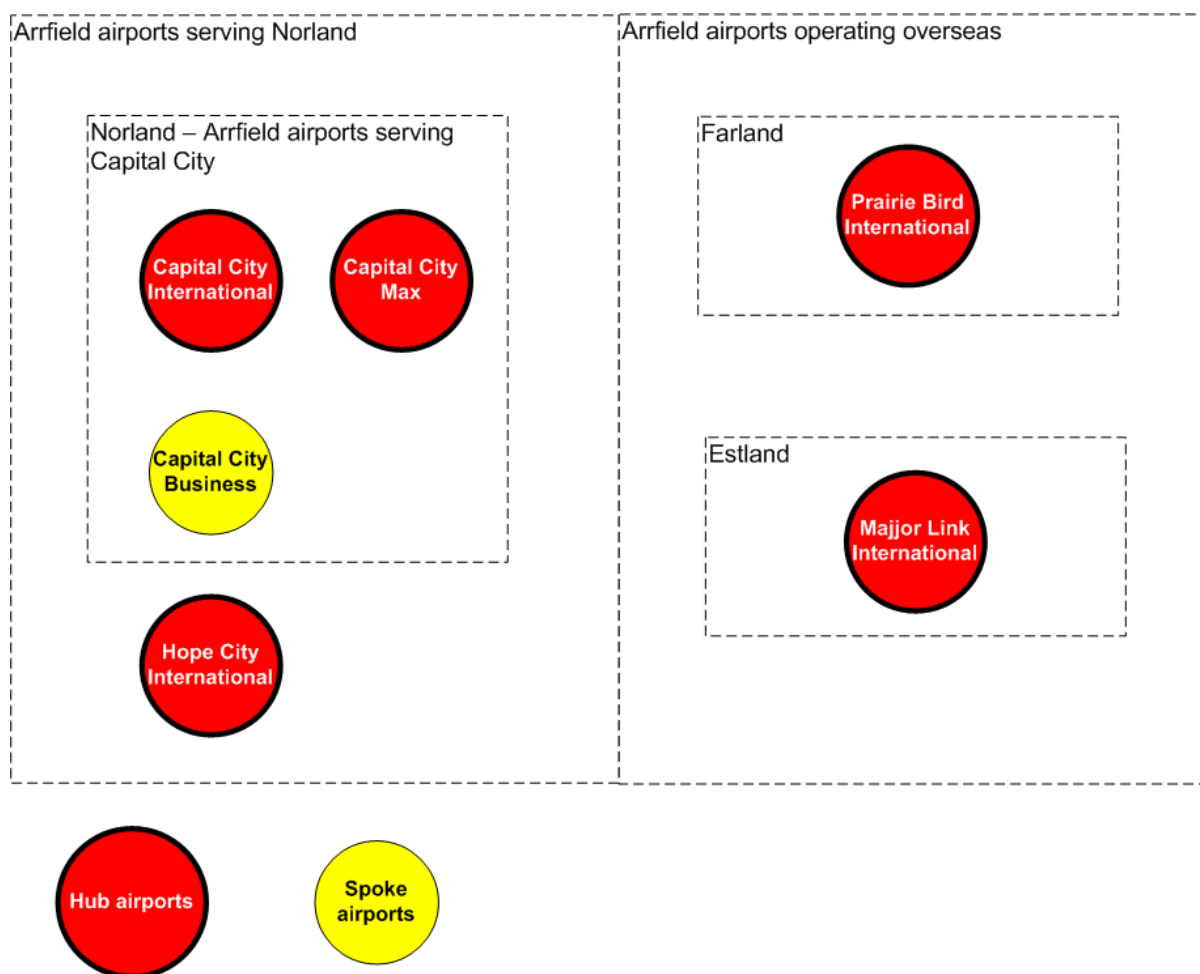
Arrfield's closest competitor is Skylaine, which owns Skylaine Capital City Airport, a non-hub airport 80 kilometres from Capital City, and two hub airports in other parts of Norland.

Arrfield now owns and operates a total of six airports:

Hub airports serving Capital City in Norland	
Capital City International (CCI) [Norland]	<p>Located 50 kilometres to the north east of Capital City, Norland's largest city.</p> <p>CCI has two runways and four passenger terminals.</p> <p>The airport is a hub for NorFly, which leases the whole of CCI's Terminal 4. A total of 70 airlines fly from CCI.</p> <p>CCI is one of the five largest airports in the world, when measured by passenger numbers. It is also one of the world's largest cargo airports when measured in terms of tonnage shipped.</p>
Capital City Max (CCM) [Norland]	<p>Located 60 kilometres to the south of Capital City.</p> <p>CCM has two runways and two passenger terminals.</p> <p>The airport is a hub for NorFly and for the airline Air Farland. A total of 58 airlines fly from CCM.</p> <p>CCM is smaller than CCI, but it is also one of the world's ten largest airports by passenger numbers and by tonnage of freight.</p>

Non-hub airport serving Capital City in Norland	
Capital City Business (CCB) [Norland]	<p>Located 9 kilometres from Capital City's Business District, on the city outskirts.</p> <p>CCB has one runway and one passenger terminal.</p> <p>A total of 37 airlines fly from CCB.</p> <p>CCB is a relatively small airport, with a short runway and apron facilities that can accommodate small business jets with a capacity of up to 100 passengers. It provides short-haul services to several major hub airports.</p> <p>The size of the airport and its proximity to the business centre of Capital City make it popular with business travellers. Journey times to and from their offices are short and the small terminal allows them to arrive at the airport only 40 minutes before boarding and still catch their flights.</p> <p>CCB's cargo handling facilities are designed to support courier operations.</p>
Hub airports serving other parts of Norland	
Hope City International (HCI) [Norland]	<p>Located 40 kilometres from the centre of Hope City, Norland's second largest city. Hope City is 800 kilometres from Capital City.</p> <p>HCI has two runways and two passenger terminals.</p> <p>The airport is a hub for NorFly and also for the airline Air Estworld. A total of 52 airlines fly from HCI.</p> <p>HCI is one of the 20 largest airports in the world in terms of both passenger numbers and tonnage of freight shipped.</p>

Hub airports outside of Norland	
Majjor Link International (MLI) [Estland]	<p>Located close to Majjor City, the capital of Estland, approximately 1,800 kilometres from Capital City and on the other side of the Norland Sea.</p> <p>Estland is a country that went through a period of economic and political transformation in the 1990s. During that period, a number of multinational companies made significant investments in the country in order to benefit from its growing economy and increasing political stability. Arrfield purchased MLI in 1998. MLI has three runways and three passenger terminals. It is slightly larger than CCI in terms of capacity.</p> <p>MLI is a main base for Air Estworld, which operates a frequent service to HCI, in addition to its global network of flights.</p>
Prairie Bird International (PBI) [Farland]	<p>Located on the outskirts of Farland's Prairie Bird City, approximately 6,000 kilometres from Capital City. PBI is one of the largest airports in Farland.</p> <p>PBI has two runways and two passenger terminals.</p> <p>PBI is a major passenger and freight hub serving intercontinental services to and from Farland.</p> <p>PBI is a main base for Cappan Air, which offers flights across Farland and to the other countries in the Farlandian continent.</p> <p>Cappan Air, NorFly and Air Farland all offer regular flights between CCM and PBI.</p>



Arrfield's Board operates out of a Head Office that is located in a building on the perimeter of CCI. Each airport has its own management team that is responsible for all operational matters.

The airports are all heavily dependent on their IT systems. Apart from the usual corporate requirements, such as financial record keeping, the IT systems support a host of operational activities including:

- managing passenger baggage;
- scheduling gates so that arriving and departing aircraft can disembark and embark their passengers without delays;
- managing the electronic locks on all lockable doors – for example, a sales assistant at an airport retailer might be permitted to enter the retailer's storeroom but would be denied access to an exterior door.

Airport managers aim to maintain good relations with the airlines that they serve and that may require cooperation between different airport management teams. For example, the management teams of both CCM and PBI will work together to assist NorFly if it encounters a delay or other problem in a flight between the two airports.

The airport management teams must also work closely with regulators, such as the Norland Air Traffic Control Service. Inefficiency on the ground can lead to delays in taking off, which can disrupt the schedule for the safe and efficient use of airspace.

Arrfield's airports charge for aeronautical and non-aeronautical services, including commissions taken from retailers, in their home countries: N\$ for CCI, CCM, CCB and HCI, E\$ for MLI and F\$ for PBI.

Each of Arrfield's airports is a significant business in its own right and each has its own management team. The Board at Head Office reviews performance reports, but are generally in close contact with the senior managers of the airports.

The airport managers have considerable discretion, including budgets for capital expenditure, although major investments such as an expansion to a terminal building would be discussed and approved by the Board.

At an operational level, the airport managers in middle and even junior positions are expected to deal with problems quickly and efficiently and they are empowered to do so. For example, a terminal duty manager has the discretion to authorise large amounts of staff overtime in order to assist delayed passengers or repair malfunctioning equipment that would disrupt schedules.

Airport ownership

Commercial aviation started to grow as a major industry in the late 1940s and into the 1950s. During that initial growth phase, most countries' governments created and owned the earliest airports, often by repurposing military aerodromes. Air travel and air freight were viewed as important factors in the encouragement of economic development.

By the 1970s, commercial aviation was a significant industry that was regarded as capable of sustaining itself and many governments around the world privatised their airports by selling them to companies. Most countries, including Norland, sold each airport as an independent entity. There has since been a period of consolidation in many countries, with airport operators merging and creating larger organisations. Governments are taking care to ensure that airports must compete with one another in order to ensure that they do not stifle air travel through overpricing.

There are several airport operators in Norland. Arrfield and Skylaine are the largest, with Arrfield owning four airports in the country, including both of the hubs that serve Capital City. Skylaine owns several major airports, including two regional hubs. There are several smaller companies, including some who own single non-hub airports.

Some companies were undergoing a period of economic reconstruction when their airports were privatised. For example, all of Estland's hub airports were purchased by different multinational companies when the country went through a period of economic and political transformation in the 1990s. Arrfield was one of those investors, acquiring Majjor Link International (MLI) airport in 1998. The airport serves Estland's capital.

In some countries, a combination of geography and economics means that some airports remain in government ownership. For example, Farland is a large country that has numerous small airports serving their local towns and cities, as well as many large hub and non-hub airports. Most of the small airports are owned by the cities that they serve and are often operated at losses in order to attract business and leisure travellers. All of Farland's major airports are owned and operated as commercial ventures by a range of different companies, some of which are local and others from overseas. Arrfield owns Farland's Prairie Bird International Airport, which is an important gateway for intercontinental flights to and from Farland.

Extracts from Arrfield's annual report

Arrfield's vision, mission and values

Our vision

Arrfield's vision is to be the world's best airport company.

Our mission

Arrfield's mission is to create sustainable growth in shareholder wealth, while respecting the needs of other stakeholders, particularly our staff, our passengers, our customers and the communities who live and work alongside us.

Our core values

Safety and security	Arrfield's top priority is the safety and security of our staff, our passengers and our customers.
Delivering on promises	Arrfield takes its financial and brand promises seriously. We deliver on the commitments that we make.
Excellence in all things	Arrfield pays close attention to the needs and wishes of our stakeholders and we set high standards in order to maintain their confidence.
Always learning	Arrfield pays close attention to trends and changes in this fast-moving industry. We aim to be at the forefront of innovations in safe, secure and innovative airport operations.
"We can do that"	Arrfield's staff are empowered to deal with problems in a calm and constructive manner. Issues that cannot be resolved immediately must be brought to the attention of more senior managers immediately.

Arrfield's Board of directors

Carmeliata Tante, Non-Executive Chair

Carmeliata had a successful career as a marketing executive, serving as Marketing Director of a major quoted engineering company until she retired in 2015.

She was appointed to Arrfield's Board in 2017.

Markus Jokela, Chief Executive Officer

Markus is an aeronautical engineer by profession. He worked in a senior technical role for an aircraft manufacturer before joining Arrfield's Board as Chief Operating Officer in 2012.

He was promoted to Chief Executive Officer in 2016.

Anna Obalowu Sote, Chief Operating Officer

Anna trained as a commercial pilot. She flew long-haul flights with a major airline for much of her career, before being promoted to chief pilot. She retired from flying in 2009 and joined Arrfield as Chief Operating Officer in 2017.

Romuald Marek, Chief Finance Officer

Romuald trained as an accountant with a major quoted travel company. He had a successful career, including several overseas assignments. He joined Arrfield as Assistant Chief Finance Officer in 2015 before being promoted to his present role in 2018.

Heng Chee Chan, Chief Commercial Officer

Heng's background is in human resource management. She has held several senior positions in human resources during her career. She joined Arrfield as Head of Human Resources in 2013. She was promoted to her present position on 2017.

Martin Harris, Independent Non-Executive Director

Martin has had a successful career in banking. He retired from full-time employment in 2018, joining Arrfield as a non-executive director at that time.

Hesham El-Sayed, Independent Non-Executive Director

Hesham founded a technology company in his early 20s. He has since developed several successful businesses. He sold his business interests in 2016 and was asked to join Arrfield's Board as a non-executive in 2017.

Ana María Doménech Gómez, Independent Non-Executive Director

Ana joined Capital City Council, the organisation responsible for managing the City, after she graduated from university with a degree in economics. She rose steadily through the organisation, reaching the position of Director of Planning, before her retirement in 2018. She was then invited to join Arrfield's Board.

Markus Jokela Chief Executive Officer		
Anna Obalowu Sote Chief Operating Officer	Romuald Marek Chief Finance Officer	Heng Chee Chan Chief Commercial Officer
<ul style="list-style-type: none"> • Building and facilities management • Airfield operations • Airport security • Health and safety • Repairs and maintenance 	<ul style="list-style-type: none"> • Accounting and finance • Information technology 	<ul style="list-style-type: none"> • Marketing • Human resources • Customer relations • Public relations

	Board committees			
	Audit	Risk	Remuneration	Nomination
Carmeliata Tante <i>Non-Executive Chair</i>	♦	♦	♦	♦
Martin Harris <i>Independent Non-Executive Director</i>		♦	♦	♦
Hesham El-Sayed <i>Independent Non-Executive Director</i>	♦	♦		
Ana María Doménech Gómez <i>Independent Non-Executive Director</i>	♦		♦	♦

Arrfield's principal risks

Risk theme	Risk impact	Risk mitigation
Business resilience	Operations from the company's airports can be disrupted in the short term because of a wide range of external factors. For example, adverse weather conditions or equipment malfunctions.	<p>The airports have developed contingency plans that address many external threats to operations.</p> <p>There are back-up systems in place to duplicate the functions of most key equipment.</p>
	Arrfield's operations depend on the work done by third parties. These range from the airside contractors who refuel aircraft and supply meals for inflight catering, to the retailers who operate in the terminal buildings.	<p>Arrfield conducts stringent financial checks on all third parties who wish to operate at the airport.</p> <p>Key contractors whose activities affect flight operations must pass thorough background checks before being awarded a contract.</p> <p>All third parties who operate at Arrfield's airports must maintain a satisfactory standard of performance, otherwise they face the cancellation of their contracts.</p>
	Arrfield is wholly dependent upon the airlines who use its airports for the ongoing provision of its services.	<p>Arrfield works closely with its airline customers to ensure that they are satisfied with the service that they receive.</p> <p>Passenger numbers are monitored closely.</p>
	Arrfield depends heavily on its non-aeronautical revenues to enable it to cover all of its operating costs.	Arrfield generates revenue from a range of both aeronautical and non-aeronautical services and works closely with stakeholders who are interested in major revenue streams.
Environmental	Social concerns about the impact of air travel on the environment are threatening demand for flights.	Arrfield works closely with airlines to encourage the use of economical aircraft and to minimise the environmental impact of the airport's operations.
	Residents who live underneath airport flight paths are affected by aircraft noise.	<p>Arrfield refuses to permit airlines to operate aircraft that create significant noise disturbance.</p> <p>All airports restrict flights between the hours of 22.00hrs and 06.00hrs.</p> <p>Runways are reversed halfway through each day so that residents only suffer take-offs for a few hours at a time.</p>

<p>Health and safety</p>	<p>Airports are inherently dangerous places, with significant hazards due to aircraft and vehicle movements and the operation of heavy equipment.</p>	<p>All staff are required to complete safety training that is appropriate to their duties.</p> <p>Third parties must ensure that staff are fully trained to operate any equipment and are provided with any safety equipment required for their jobs.</p> <p>Passes that permit access to operational areas at Arrfield's airports will only be issued to personnel who are certified as having completed all necessary training.</p>
	<p>Airports are vulnerable to criminal and terrorist activities, including theft of valuable cargo and equipment.</p>	<p>Arrfield's airports have strict controls to restrict access to authorised personnel.</p> <p>Perimeter fences are secure and subject to controls in the form of sensors and closed-circuit television.</p> <p>All staff must always wear photographic identity badges. These restrict access to specific areas related to each person's responsibilities.</p> <p>Staff requiring access to sensitive areas must pass detailed background checks.</p>

The following information has been extracted from Arrfield's financial statements for the year ended 31 December 2020

Arrfield Group

Consolidated statement of profit or loss for the year ended 31 December

	2020	2019
	N\$ million	N\$ million
Revenue	10,395	9,875
Operating costs	(6,195)	(6,009)
Operating profit	4,200	3,866
Finance costs	(2,442)	(2,344)
	1,758	1,522
Tax expense	(293)	(254)
Profit for the year	1,465	1,268

Arrfield Group

Consolidated statement of changes in equity for the year ended 31 December 2020

	Share capital	Retained earnings	Currency reserve	Total
	N\$ million	N\$ million	N\$ million	N\$ million
Opening balance	9,598	36,996	(908)	45,686
Profit for year		1,465		1,465
Dividend		(884)		(884)
Gain on translation			137	137
Closing balance	9,598	37,577	(771)	46,404

Revenues can be analysed as follows:

	2020	2019
	N\$ million	N\$ million
Aeronautical	6,029	6,123
Non-aeronautical		
Retail and dining	1,455	1,086
Car parking	1,040	1,086
Car rental	312	296
Advertising	104	99
Recharging utilities	103	99
Property and real estate	624	395
Fuel sales	728	691
	10,395	9,875

Arrfield Group

Consolidated statement of financial position as at 31 December

	2020	2019
	N\$ million	N\$ million
<u>Assets</u>		
Non-current assets		
Property, plant and equipment	51,570	50,023
Intangible assets	12,046	12,046
	<hr/> 63,616	<hr/> 62,069
Current assets		
Inventories	48	41
Trade receivables	1,110	1,014
Bank	2,167	1,890
	<hr/> 3,325	<hr/> 2,945
Total assets	<hr/> <hr/> 66,941	<hr/> <hr/> 65,014
<u>Equity</u>		
Share capital	9,598	9,598
Currency reserve	(771)	(908)
Retained earnings	37,577	36,996
	<hr/> 46,404	<hr/> 45,686
<u>Liabilities</u>		
Non-current liabilities		
Borrowings	18,667	17,559
Current liabilities		
Trade payables	1,537	1,477
Tax liability	287	271
Provisions	46	21
	<hr/> 1,870	<hr/> 1,769
Total equity and liabilities	<hr/> <hr/> 66,941	<hr/> <hr/> 65,014

Extract from competitor's financial statements

Skylaine Group

Consolidated statement of profit or loss for the year ended 31 December

	2020	2019
	N\$ million	N\$ million
Revenue	3,353	3,185
Operating costs	(1,936)	(1,878)
Operating profit	1,417	1,307
Finance costs	(756)	(726)
	661	581
Tax expense	(110)	(97)
Profit for the year	551	484

Skylaine Group

Consolidated statement of changes in equity for the year ended 31 December 2020

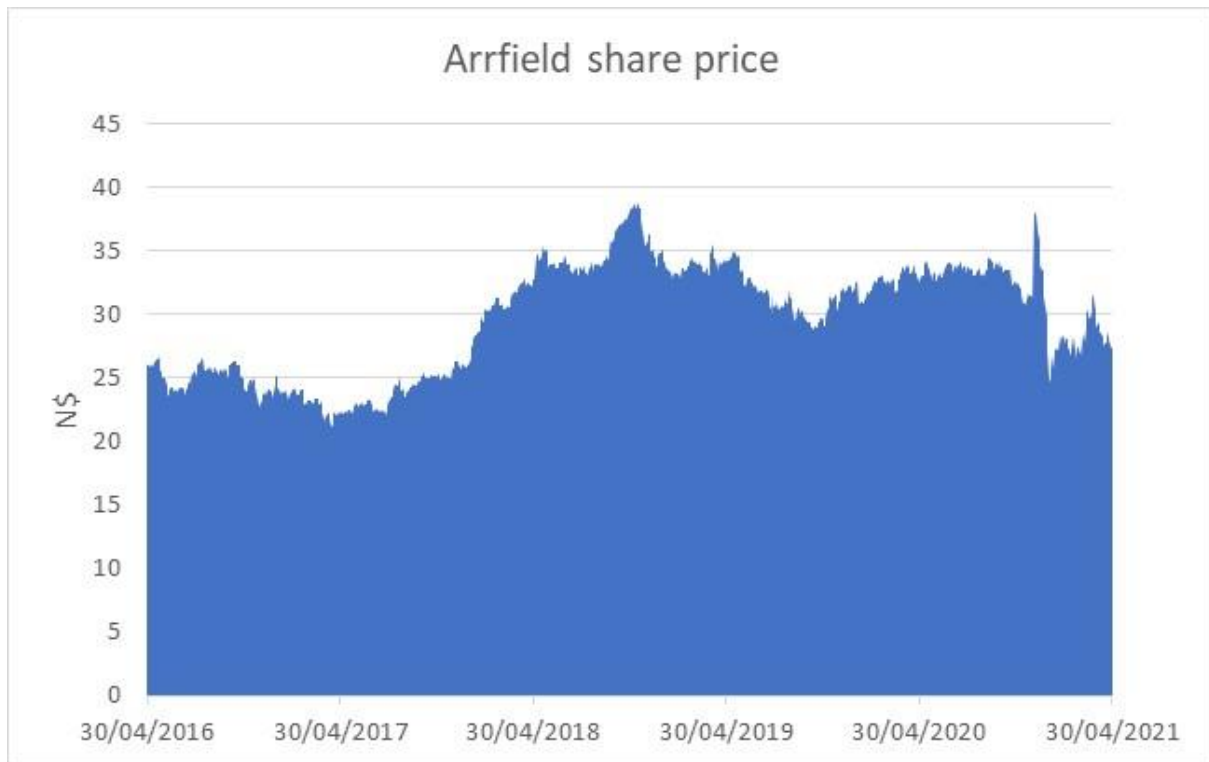
	Share capital	Retained earnings	Total
	N\$ million	N\$ million	N\$ million
Opening balance	2,999	5,831	8,830
Profit for year		551	551
Dividend		(79)	(79)
Closing balance	2,999	6,303	9,302

Skylaine Group

**Consolidated statement of financial position
as at 31 December**

	2020	2019
	N\$ million	N\$ million
<u>Assets</u>		
Non-current assets		
Property, plant and equipment	15,168	14,731
Intangible assets	3,170	3,170
	<hr/> 18,338	<hr/> 17,901
Current assets		
Inventories	13	35
Trade receivables	317	1,008
Bank	699	1,884
	<hr/> 1,029	<hr/> 2,927
Total assets	<hr/> 19,367	<hr/> 20,828
<u>Equity</u>		
Share capital	2,999	2,999
Retained earnings	6,303	5,831
	<hr/> 9,302	<hr/> 8,830
<u>Liabilities</u>		
Non-current liabilities		
Borrowings	9,452	11,431
Current liabilities		
Trade payables	496	462
Tax liability	102	98
Provisions	15	7
	<hr/> 613	<hr/> 567
Total equity and liabilities	<hr/> 19,367	<hr/> 20,828

Share price history



Arrfield's beta is 1.15.

News stories

Happy Comic

Readers' questions

Question: I read a newspaper story that described an airline as a “flag carrier”. What is a flag carrier?

Mina, age 12

Answer: Good question. Sadly, the answer is quite complicated.

When air travel first became a reality, many governments established their own state-owned airlines. For example, the government of Norland established Air Norland, which became one of the largest airlines in the world. Many developed countries had their own state-owned airlines and they became known as “flag-carriers” because their liveries were often based on the colour of their national flags.

Flag carriers differed from purely commercial airlines because they were expected to represent their countries and also take account of national interests. For example, Air Norland maintained several important routes that supported the national interest by attracting foreign investors or by maintaining revenues at Norland’s airports.

Most state-owned airlines have been sold into private ownership and many have changed their names in response. For example, Air Norland was renamed “NorFly” when it was privatised.

Some airlines, including NorFly, are still referred to as flag carriers even though they are no longer owned by the State. In that context, the definition of flag carrier is often unclear, but a flag carrier would generally offer an extensive route network that was centred on its country of origin. It would also market and promote itself in a manner that reflected national values.

Question: When we went to visit my aunt last year, we dropped off our cases when we checked in, and collected them many hours later when we arrived, after making three flights on three different airlines. How is that possible?

Jackie, age 11

Answer: Another good question. The airline industry uses a system called code sharing to enable the computer systems of different airlines to talk to one another. When airlines code share, it means that you can buy just one ticket that lets you travel on connecting flights without worrying which airline will be carrying you. You just walk from one plane to another. It also means that your baggage gets transferred to the correct aircraft as you travel, even if you use different airlines with their own computer systems.

Code sharing makes it easier to travel, provided the airlines have the necessary arrangements in place. Not all airlines share code.

Happy Comic

Readers' questions

Question: What happens to planes when they are broken?

Vishna, age 12

Answer: Every aircraft is checked before it takes off to ensure that everything is in full working order. Sometimes, small faults are detected that can be fixed by an engineer at the gate. Sometimes, the planes have to be towed to a quieter place for repair.



Major repairs are carried out in a hangar. Hangars are huge buildings that can accommodate a whole aircraft and still leave sufficient space to build work platforms and allow major parts such as replacement engines to be brought in.

Even when aircraft are not actually broken, they need to come into the hangar from time to time for routine maintenance. For example, when the tyres on an airliner

become worn, the plane is towed into the hangar and lifted up on jacks to enable new tyres to be fitted.

Most major airports have several hangars. CCI, Norland's largest airport, has ten hangars. Six of those are used exclusively by NorFly, Norland's biggest airline.

Norland Daily News

Don't spend all your holiday money at the airport



Airports often feel like shopping centres that just happen to have runways. Retailers are very conscious of the large numbers of passengers who have both time and money to spend while waiting for their flights. Transit passengers may have hours to wait before their connecting flights and even those who are making a direct flight will have been advised to arrive at the airport at least two or three

hours before their departure time.

Most large airports set aside large spaces in their departure lounges for retail. Most are designed so that the only available route from the security area to the departure gates winds through the duty-free shopping area. These are brightly lit and fully staffed, even in the early hours of the morning or late at night. Prices are often slightly lower than usual because most countries waive sales tax for international passengers and so the goods on sale may be slightly cheaper when compared to their normal retail prices, although some retailers increase their airport prices in order to benefit from a higher margin.

It is possible to buy a wide range of goods at the airport, ranging from inexpensive gifts and souvenirs, to electronics and designer clothing.

The retail opportunities usually continue from airport security all the way to the departure gate, with a mix of shops and catering establishments that capitalise on passengers' needs for a snack or hot drink while waiting for their plane.

Norland Daily News

Fifteen minutes of peace every day



The Bakers are keen gardeners and their children love to play outdoors, but they have to spend their days inside their homes, with their triple-glazed windows shut on even the sunniest of days. This is because their home is roughly a kilometre from the end of runway 2 at Capital City International airport.

An aircraft flies low over their house every few minutes. The resulting

noise varies according to the type of aircraft, but the bigger planes can make their whole house vibrate.

Yvonne Baker told the Norland Daily News: “Early mornings are the worst because we are then at the departure end of the runway and the planes have their engines at full power when they are taking off. Afternoons and evenings are a little better because then planes are landing at our end of the runway and their engines are idling. The only quiet time during the day is the 15 minutes it takes the airport to change the direction of the runways, which creates a pause in operations.”

A spokesperson for Capital City International admitted that aircraft noise can be a serious issue for local residents, but pointed out that the airport takes noise abatement very seriously. Runways are reversed during the day and very noisy aircraft types are banned altogether. The airport also suspends flight operations between 2200 each evening until 0600 next morning.

Noise pollution is starting to become just as contentious an issue for airports as carbon emissions. Airport managers are used to environmentalists complaining about air travel’s impact on the planet, but they are now becoming increasingly aware of the need to work with local residents. A number of airports have been forced to cancel or reduce plans for expansion because of the adverse effect that they would have had on the homes below their flightpaths.

Norland Daily News



Ghost flights damage the environment

Nor Hopper flight 048 lands at Capital City International at 0720 every weekday morning. Flight 048 departs each weekday evening at 18.00. The unusual thing about this flight is that it connects Capital City International with Sobeach Airport, just 70 kilometres away. This is a scheduled flight, but anyone wishing to book a seat through the airline's website will be unable to do so because all seats are listed as sold.

This is a so-called "ghost flight" that is used by Nor Hopper to ensure that a precious slot at Capital City International remains active. The airline was forced to suspend its regular weekday service from Eastern Regional Airport for 2 months because of problems with aircraft availability. The only practical solution was to replace that service temporarily with a scheduled flight that counts as using the slot, even though it never carries any passengers. In practice, an aircraft that would normally be parked at Capital City International overnight is flown to Sobeach Airport and returned next morning so that it can be used for the rest of the day on its normal passenger-carrying duties.

Environmentalists oppose the practice of ghost flights, even when they cover only very short distances, because take-offs use a great deal of fuel and create significant emissions and noise pollution. However, airports insist on cancelling slots that are not kept in near-constant use. Airports lose revenue when airlines are not paying landing fees and their passengers are not spending money in the duty free.

Norland Telegraph



Norfly switches southern hemisphere flights to CCM

NorFly, Norland's largest airline, has announced that it plans to transfer long-haul flights from Capital City to destinations in the Southern Hemisphere to Capital City Max (CCM) Airport. That will free slots at Capital City International (CCI) to increase the frequency of services to destinations in Farland.

A spokesperson for Arrfield, owner of both CCM and CCI, pointed out that Norfly is the largest airline at both airports and that the changes would improve services for passengers. She also pointed out that there are fast and frequent express coach services between CCI and CCM, which enables transit passengers to travel between the two airports without any major inconvenience.

Norland Telegraph



The hub paradox

Norland's Capital City International is one of the busiest airports in the world, with annual passenger numbers in excess of 63 million. Airlines are willing to pay many millions of N\$ for the coveted slots that permit flights to take off and land there. That is despite the fact that many of the passengers who fly into the airport from long-haul international flights are booked onto connecting flights to other countries.

Approximately one third of the passengers arriving at Capital City Airport are transit passengers whose journeys both originate and terminate in countries other than Norland. In principle, long-haul airlines could establish main bases at quieter airports that would offer lower landing charges and would be just as convenient for their passengers.

A spokesperson for Air Farland, which operates four daily flights into Capital City International, admitted that more than 40% of its passengers changed planes to an onward destination outside of Norland. However, Capital City International remains a popular transit stop because passengers are familiar with it and are attracted by the wide range of connecting flights that it offers, both domestically within Norland and to short-haul and long-haul overseas destinations. Paradoxically, customer feedback suggests that passengers prefer to connect through well-known hubs in central locations, even when they fully intend to fly on to a further destination.



Strategic Case Study Exam

Maximum Time Allowed: 3 Hours

Welcome, Candidate Name

If this is not your name, please let your administrator know.




Click **Next** to start the test.

The examination is structured as follows:

Section number	Time for section (minutes)	Number of tasks	Number of sub-task/s	% time to spend on each sub-task
1	60	1	2	(a) 60% (b) 40%
2	60	1	2	(a) 60% (b) 40%
3	60	1	2	(a) 50% (b) 50%

Each section (task) has a number of sub-tasks. An indication of how much of the time available for the section that you should allocate to planning and writing your answer is shown against each sub-task in the text of the question (and summarised in the table above).

This information will be available for you to access during the examination by clicking on the Pre-seen button.

 Scratch Pad  Calculator Reference Material Pre-seen

You have received the following email:

From: Romuald Marek, Chief Finance Officer
To: Senior Finance Manager
Subject: Third hub for Capital City

Hello

I have attached a newspaper article. This announcement has been long-awaited by major airlines. The government has given permission for the construction of a third hub airport to serve Capital City. Arrfield owns and operates both of the existing hub airports that serve the city.

The Board is meeting to discuss whether Arrfield should submit a bid to build and operate the new airport. Before the meeting, I need you to draft a paper for me that covers the following:

Firstly, identify and evaluate the strategic issues that Arrfield should consider when deciding whether to submit a bid to build and operate this new airport.

[sub-task (a) = 60%]

Secondly, explain the relevance to Arrfield's Board of the share price movements following the Minister for Transport's announcement.

[sub-task (b) = 40%]

Thanks

Romuald Marek
Chief Finance Officer
Arrfield

The newspaper article referred to by Romuald can be viewed by clicking the Reference Material button above.

Norland Telegraph

Government approves third Capital City hub



Norland's Minister for Transport announced that the Government had decided to permit the construction of a third hub airport to serve Capital City. The new airport will be on a site 50 kilometres to the west of Capital City. This news was welcomed by major airlines who have campaigned for a new airport to increase capacity.

The Minister stressed that the new airport would be funded by commercial companies, who will be required to submit detailed plans for evaluation by the Northlandian Government. Once the preferred plan has been chosen, legislation will be passed to require the site's owners to sell to the airport's developer at a realistic price.

The share prices of NorFly, Arrfield and Skylaine increased with the announcement and remained higher than their opening prices.

 Reference Material Pre-seen



Write your response to Romuald's requests in the box below.

From: Senior Finance Manager

To: Romuald Marek, Chief Finance Officer

Subject: Re: Third hub for Capital City



 Reference Material Pre-seen

A week later, Romuald Marek stops by your workspace and hands you a document.

"I have brought you an extract from the minutes of yesterday's Board meeting. As you know, we are still considering whether to submit a detailed plan to the government for the development of a third hub airport to serve Capital City.

I need your help with two matters:

Explain how Arrfield could use scenario planning to anticipate and then mitigate strategic risks. Please do this for two issues: firstly, the need for the government to announce and then subsequently give their final approval of the plans, and secondly Skylaine's intention to promote the use of its North Norland hub.

[sub-task (a) = 60%]

Explain why the nature of this project and the need for funds at various times over the life of the project could cause problems when raising the N\$10 billion of funding required."

[sub-task (b) = 40%]

The document from Romuald can be viewed by clicking the Reference Material button above.










**Board minutes extract: proposal to develop third hub airport for Capital City**










Anna Obalowu Sote, Chief Operating Officer, reported on Arrfield's preliminary plans for the construction of a third major hub airport to serve Capital City. The following issues were identified:



- The new airport will increase Arrfield's operating capacity for hub operations in the vicinity of Capital City by 50%.
- The airport site and the construction work will cost approximately N\$10 billion. It will take 2 years of planning and design work that will have to be made public and approved by the government before construction can commence, followed by a further 7 years of building work.
- Skylaine, Arrfield's largest competitor, has announced plans to encourage major airlines to increase the number of connecting flights through its North Norland hub airport, which is less busy than Capital City's hub airports and so it charges lower landing charges and has fewer flight delays.

 Reference Material Pre-seen

Write your response to Romuald's requests in the box below.

       **B** *I* U  x_2 x^2 

Paragraph         

 Reference Material Pre-seen

Two months later, Arrfield has been selected by Norland's Government to develop the new third hub airport to serve Capital City.

You receive the following email:

From: Romuald Marek, Chief Finance Officer
To: Senior Finance Manager
Subject: IT centre

Hello

I have forwarded an email that I received from Anna Obalowu Sote, Arrfield's Chief Operating Officer. Her responsibilities include the logistical activities upon which our airports depend.

Please advise me on the following matters before I respond to Anna:

Firstly, evaluate the cyber risks that will arise from the implementation and operation of the proposed new IT system.

[sub-task (a) = 50%]

Secondly, evaluate the potential advantages and disadvantages of appointing a Chief Information Officer to Arrfield's Board in order to take strategic responsibility for the new IT system. As you know, responsibility for IT is currently part of my duties.

[sub-task (b) = 50%]

Thanks

Romuald Marek
Chief Finance Officer
Arrfield

The email forwarded by Romuald can be viewed by clicking the Reference Material button above.

From: Anna Obalowu Sote, Chief Operating Officer
To: Romuald Marek, Chief Finance Officer
Subject: Proposal for global IT centre



Hi Romuald

I am writing to seek your advice concerning Arrfield's IT facilities. Each of our airports has its own IT system that handles all of the airport's administrative and logistical needs. Some of these IT systems are quite old and it is becoming increasingly difficult to upgrade them to meet their airports' needs for processing and data storage capacity.

Given that we plan to build a new airport anyway, we might consider the construction of a global IT centre that will accommodate a new system that will serve all of Arrfield's requirements. The new centre could be connected to our other sites around the world using a satellite link. We could also use the building that presently houses CCI's system hardware as a hot back-up site.

I realise that you will need some time to think through the implications of my proposal.
Thanks

Anna Obalowu Sote
Chief Operating Officer
Arrfield

 Reference Material Pre-seen

Write your response to Romuald's requests in the box below.

From: Senior Finance Manager

To: Romuald Marek, Chief Finance Officer

Subject: Re: IT centre





Thank you for completing the Strategic Case Study Exam.

Before you leave, don't forget to collect your printed confirmation of attendance.

Please click the End Exam (E) button before leaving the testing room quietly.



Strategic Case Study Exam

Maximum Time Allowed: 3 Hours

Welcome, Candidate Name

If this is not your name, please let your administrator know.



Click **Next** to start the test.

The examination is structured as follows:

Section number	Time for section (minutes)	Number of tasks	Number of sub-task/s	% time to spend on each sub-task
1	60	1	2	(a) 50% (b) 50%
2	60	1	3	(a) 34% (b) 33% (c) 33%
3	60	1	3	(a) 34% (b) 33% (c) 33%

Each section (task) has a number of sub-tasks. An indication of how much of the time available for the section that you should allocate to planning and writing your answer is shown against each sub-task in the text of the question (and summarised in the table above).

This information will be available for you to access during examination by clicking on the Pre-seen button.

 Reference Material Pre-seen

You have received the following email:

From: Romuald Marek, Chief Finance Officer
To: Senior Finance Manager
Subject: Threatened takeover of NorFly

Hello

I have attached a scanned copy of a letter whose content has caused the Board some concern.

D-Ayrr's acquisition of NorFly will significantly reduce the number of passengers using Capital City International (CCI) and Capital City Max (CCM) airports. NorFly will be using much smaller aircraft to operate short-haul flights to Seeland than it used previously when it flew to Farland. That means we will earn less in terms of passenger fees from NorFly and fewer passengers means less retail revenue through our terminals, which will reduce our commissions.

The Board will be meeting soon to discuss this development. I need you to draft a paper on the following matters to help me prepare:

Firstly, evaluate the argument that Arrfield's Risk Committee should have considered the possibility of D-Ayrr's recent actions and that a contingency plan should have been developed to deal with it.

[sub-task (a) = 50%]

Secondly, evaluate the argument that D-Ayrr's actions might have been motivated by the strength of the N\$.

[sub-task (b) = 50%]

Thanks

Romuald Marek
Chief Finance Officer
Arrfield

The letter referred to by Romuald can be viewed by clicking the Reference Material button above.

NorFly
Norland's Airline

Markus Jokela
Chief Executive Officer
Arrfield

Dear Markus

Acquisition by D-Ayrr

I am writing to you as a courtesy to warn you that D-Ayrr, Seeland's leading airline, will purchase 100% of NorFly's equity tomorrow. This will affect you because D-Ayrr plans to make significant changes to our routes.

NorFly owns many slots at Arrfield's Capital City International (CCI) and Capital City Max (CCM) airports in Norland. We use those slots to operate an extensive daily schedule of intercontinental flights to several major hub airports in Farland. D-Ayrr is keen to acquire us because we own valuable slots at CCI, CCM and also at several of Farland's larger airports.



D-Ayrr plans to use our slots in Farland to increase the number of long-haul flights from Seeland to Farland. Our slots at CCI and CCM will be used to operate short-haul flights to hub airports in Seeland. We will ask passengers who wish to fly with us from Norland to Farland to catch a connecting flight to a hub in Seeland.

We have been in discussion with D-Ayrr for some time, but their Board has brought forward its plans because of the recent strength of the N\$ against many other currencies, including Farland's F\$ and Seeland's S\$. The N\$ has been at a record high for the past 6 months.

Yours sincerely

Joel Kane

Joel Kane
Chief Executive Officer

 Reference Material Pre-seen



Draft your response to Romuald's requests in the box below.

From: Senior Finance Manager

To: Romuald Marek, Chief Finance Officer

Subject: Re: Threatened takeover of NorFly



 Reference Material Pre-seen

A month later, Romuald Marek stops by your workspace and hands you a document.

"I have brought you an extract from the minutes of yesterday's Board meeting. I need your help in deciding how this information affects Arrfield:

Firstly, use the purchase of Calmjet aircraft by D-Ayrr to explain the extent to which changes in technology are drivers of change in Arrfield's ecosystem.

[sub-task (a) = 34%]

Secondly, evaluate the argument that Arrfield should respond to the acquisition of NorFly and the subsequent changes made by D-Ayrr by rationalising its product portfolio and perhaps focussing more on meeting the needs of airlines that offer short-haul flights.

[sub-task (b) = 33%]

Thirdly, explain how Arrfield's Board should interpret the decrease in our share price and also the decreased market capitalisation of D-Ayrr and NorFly."


[sub-task (c) = 33%]

The document from Romuald can be viewed by clicking the Reference Material button above.









**Board minutes extract: discussion of D-Ayrr's purchase of Calmjet aircraft**











The Board received a report that D-Ayrr had ordered 15 Calmjet long-haul aircraft.



- D-Ayrr is the first airline to place an order for this new long-haul aircraft. Calmjet is faster and more economical than rival aircraft. It is also significantly quieter than other large aircraft and so may be quiet enough to be permitted to take off and land at D-Ayrr's main operating hub of Seeland Central Airport at night when the airport is usually closed. D-Ayrr uses Central Airport as its main operating hub in Seeland.
- D-Ayrr now owns NorFly, Arrfield's largest airline customer. D-Ayrr has already replaced NorFly's long-haul flights from Arrfield's Capital City International (CCI) and Capital City Max (CCM) airports to Farland with short-haul flights to Seeland that enable passengers to connect to D-Ayrr's long-haul flights to Farland and other destinations.
- Arrfield's share price had been depressed since D-Ayrr's acquisition of NorFly. It was also noted that the market capitalisation of D-Ayrr was lower than the total values of D-Ayrr and NorFly from before the acquisition.

 Reference Material Pre-seen

Write your response to Romuald's requests in the box below.

       **B** *I* U  x_2 x^2 \int_x

Paragraph ▾  ▾         

 Reference Material Pre-seen

Two months later, you receive the following email:

From: Romuald Marek, Chief Finance Officer
To: Senior Finance Manager
Subject: IT issues

Hello

I have forwarded an email that I received from D-Ayrr's Director of IT.

NorFly pays to maintain its passenger data on our servers. NorFly's access is restricted to wired network connections to terminals at check-in desks, boarding gates and NorFly's offices at Capital City International (CCI) and Capital City Max (CCM). D-Ayrr wishes to have the flexibility to access data from any of the airports to which it flies.

The retailers who operate out of Arrfield's airports will be very upset if we stop providing them with the ultimate points of origin or destination of NorFly passengers. They use that information to predict demand for different products.

Please advise me on the following matters before I report to the Board:

Firstly, identify and evaluate the main cyber risks to Arrfield that will arise if we agree to D-Ayrr's request for online access to NorFly's passenger data stored on our servers.

[sub-task (a) = 34%]

Secondly, recommend the controls that we should implement to mitigate those cyber risks.

[sub-task (b) = 33%]

Thirdly, discuss the need for Arrfield to develop an explicit digital strategy to address issues such as those arising from the email from D-Ayrr.

[sub-task (c) = 33%]

Thanks

Romuald Marek
Chief Finance Officer
Arrfield

The email forwarded by Romuald can be viewed by clicking the Reference Material button above.

From: Bradley Lee, Director of IT, D-Ayrr
To: Romuald Marek, Chief Finance Officer
Subject: IT issues

Hi Romuald

I am writing to clarify some matters of mutual interest concerning IT matters.

As you know, D-Ayrr has taken over NorFly. NorFly will soon stop most of its long-haul flights from your Capital City International (CCI) and Capital City Max (CCM) airports and will replace them with short-haul feeder flights to Seeland Central Airport (SCA), from which passengers can connect to D-Ayrr long-haul flights if they wish.

I am writing to inform you that D-Ayrr will require online access to NorFly's passenger data, which is stored on Arrfield's airport servers. D-Ayrr needs to be able to run queries in order to allocate seats on onward flights from SCA and also track the weight of baggage that has been checked in by those passengers. We may also have to identify particular categories of passengers, such as those whom the check-in staff have identified as having health or mobility problems or the ages of any children who have checked in.

Our terms and conditions require passengers to agree to D-Ayrr having access to such information, so you will not be in breach of any data protection legislation.

I am also writing to inform you that D-Ayrr must decline the request made by Heng Chee Chan, Arrfield's Chief Commercial Officer, for details of the ultimate points of origin or destination of NorFly passengers arriving at or departing from CCI and CCM airports. That data has a commercial value to SCA, who pass it on to retailers at the airport. Our contract with SCA requires that we withhold that data from any other airport.

Kind regards

Bradley Lee
Director of IT
D-Ayrr

 Reference Material Pre-seen

Write your response to Romuald's requests in the box below.

From: Senior Finance Manager

To: Romuald Marek, Chief Finance Officer

Subject: Re: IT issues





Thank you for completing the Strategic Case Study Exam.

Before you leave, don't forget to collect your printed confirmation of attendance.

Please click the End Exam (E) button before leaving the testing room quietly.



Strategic Case Study Exam

Maximum Time Allowed: 3 Hours

Welcome, Candidate Name

If this is not your name, please let your administrator know.



Click **Next** to start the test.

The examination is structured as follows:

Section number	Time for section (minutes)	Number of tasks	Number of sub-task/s	% time to spend on each sub-task
1	60	1	3	(a) 34% (b) 33% (c) 33%
2	60	1	2	(a) 50% (b) 50%
3	60	1	3	(a) 34% (b) 33% (c) 33%

Each section (task) has a number of sub-tasks. An indication of how much of the time available for the section that you should allocate to planning and writing your answer is shown against each sub-task in the text of the question (and summarised in the table above).

This information will be available for you to access during examination by clicking on the Pre-seen button.

 Reference Material Pre-seen

You have received the following email:

From: Romuald Marek, Chief Finance Officer
To: Senior Finance Manager
Subject: Air traffic control

Hello

I have attached an extract from the minutes of yesterday's Board meeting.

I need you to help me prepare to brief the Board:

Firstly, recommend and explain two key issues, other than possible currency movements, that we should include when using scenario planning to assess the opportunities for Arrfield from the proposed upgrade to the Norland's Air Traffic Control Service (NATCS) systems.

[sub-task (a) = 34%]

Secondly, evaluate the relevance of Arrfield's mission statement to our decision concerning investing in response to the NATCS upgrade.

[sub-task (b) = 33%]

Thirdly, the N\$ has been extremely volatile in recent years. Explain the implications of that for our decision whether to proceed with the investment in aircraft parking and upgrading our terminal buildings.

[sub-task (c) = 33%]

Thanks

Romuald Marek
Chief Finance Officer
Arrfield

The extract referred to by Romuald can be viewed by clicking the Reference Material button above.

Board minutes extract: proposal to support air traffic control service


Anna Obalowu Sote, Chief Operating Officer, reported on a meeting with the head of Norland's Air Traffic Control Service (NATCS):

- Norland's government is considering a plan to replace the NATCS systems with more modern hardware and software. The new systems will enable more planes to fly safely over Norland in all weather conditions.
- Of particular interest to Arrfield, the plan would enable more efficient use of the airspace in the vicinity of Capital City, which would enable 10% more planes to take off from and land at Arrfield's Capital City International (CCI), Capital City Max (CCM) and Capital City Business (CCB) airports.
- The runways at these three airports can cope with the extra air traffic, but we will have to invest heavily in aircraft parking and upgrades to our terminal buildings.
- The government will fund the modernisation of NATCS in order to boost Norland's economy. However, it requires key airport operators and major airlines to make binding commitments to using this additional capacity. Arrfield and Skylaine have been identified as key airport operators and NorFly, Air Estworld and Air Farland as major airlines.

Romuald Marek, Chief Finance Officer, estimated that Arrfield would have to invest approximately N\$5 billion on additional aircraft parking and upgrading our terminal buildings. He pointed out that the consequences for both aeronautical and non-aeronautical revenues would be difficult to evaluate.

Heng Chee Chan, Chief Commercial Officer, pointed out that supporting the government's plan to modernise NATCS was consistent with Arrfield's mission to "... create sustainable growth in shareholder wealth, while respecting the needs of other stakeholders ...".

It was agreed that the Board would hold a further meeting to discuss this potential opportunity.

 Reference Material Pre-seen

Draft your response to Romuald's requests in the box below.



From: Senior Finance Manager

To: Romuald Marek, Chief Finance Officer

Subject: Re: Air traffic control



A large, empty rectangular box for drafting the response to Romuald's requests.

 Reference Material Pre-seen

A week later, you receive the following email:

From: Romuald Marek, Chief Finance Officer
To: Senior Finance Manager
Subject: Expansion of CCI, CCM and CCB airports

Hello

I have forwarded an email that I received from Markus Jokela, Arrfield's Chief Executive Officer.

Please advise me on the following matters before I reply to Markus:

Firstly, evaluate Markus' suggestion that Arrfield should borrow N\$5 billion until we see how the share price reacts, with a view to replacing that debt with equity if the share price rises.

[sub-task (a) = 50%]

Secondly, analyse the probable cyber threats arising from this expansion that are likely to affect Arrfield. Your analysis need not concern itself with inflight safety issues because, as Markus says, those are managed by Norland's Air Traffic Control Service (NATCS).

[sub-task (b) = 50%]

Thanks

Romuald Marek
Chief Finance Officer
Arrfield

The email forwarded by Romuald can be viewed by clicking the Reference Material button above.

From: Markus Jokela, Chief Executive Officer
To: Romuald Marek, Chief Finance Officer
Subject: Expansion plans

Hi Romuald

We are progressing with the planning associated with expanding the facilities at Arrfield's Capital City International (CCI), Capital City Max (CCM) and Capital City Business (CCB) airports in response to improvements to the systems at Norland's Air Traffic Control Service (NATCS).


I have a suggestion for funding this expansion, which will cost us at least N\$5 billion. I think that we should borrow the funds and wait to see whether the share price rises as we near completion of the expansion. If it does then we can issue shares and use the equity finance to repay the debt raised.

I also have a question about the cyber risks associated with this expansion. NATCS is developing software that will enable more efficient use of airspace. That software will communicate with systems on aircraft and also with the systems at our airports. I am certain that safety will not be compromised because there will be a variety of safeguards, including human air traffic controllers monitoring all flights and taking charge at the first sign of a problem.

Thanks

Markus Jokela
Chief Executive Officer
Arrfield



 Reference Material Pre-seen



Write your response to Romuald's requests in the box below.

From: Senior Finance Manager

To: Romuald Marek, Chief Finance Officer

Subject: Re: Expansion of CCI, CCM and CCB airports



 Reference Material Pre-seen

Three months later, Arrfield has agreed to expand its facilities in order to facilitate the expansion in air traffic control capacity.

Romuald Marek stops by your workspace and hands you a document.

"I have printed a news article that makes worrying reading. The Board will meet later today to discuss it and I would like the following from you:

Please advise me on the following matters before the Board meeting:

Firstly, explain how the allocation of slots by Arrfield at its hub airports could impact three different stakeholders.

[sub-task (a) = 34%]

Secondly, recommend the work that Arrfield's Internal Audit Department could perform to offer assurances that Arrfield's own processes for allocating new slots can be defended if they are challenged.

[sub-task (b) = 33%]

Thirdly, recommend with reasons whether Arrfield's Board should commit itself to publishing the report that will be prepared by the Internal Audit Department in relation to the work carried out on Arrfield's allocation of slots."

[sub-task (c) = 33%]

The news article referred to by Romuald can be viewed by clicking the Reference Material button above.

Norland Telegraph




Slots scandal at Skylaine Capital City Airport

Proposed changes to Norland's air traffic control systems will make it possible for several major airports to offer new slots. Skylaine Capital City Airport (SCC) is the first to do so. Unfortunately, the manner in which it has been done has been controversial.










The changes will create 200 additional slots at SCC. Skylaine has announced how these will be allocated, so that airlines can start to plan ahead. This has, however, proved controversial because all of the new slots have been allocated to airlines who already operate from SCC.










The Boards of several airlines have complained that Skylaine ignored their requests for slots, despite the submission of detailed planning documents to indicate how those slots would be used. There were calls for a formal inquiry into Skylaine's behaviour, with allegations that Skylaine's Board had behaved in a corrupt manner.

Other airport companies have not yet invited bids for the slots that will become available.

 Reference Material Pre-seen

Write your response to Romuald's requests in the box below.

       **B** *I* U  x_2 x^2 

Paragraph         



Thank you for completing the Strategic Case Study Exam.

Before you leave, don't forget to collect your printed confirmation of attendance.

Please click the End Exam (E) button before leaving the testing room quietly.



Strategic Case Study Exam

Maximum Time Allowed: 3 Hours

Welcome, Candidate Name

If this is not your name, please let your administrator know.



Click **Next** to start the test.

The examination is structured as follows:

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1	60	1	3	(a) 34% (b) 33% (c) 33%
2	60	1	2	(a) 40% (b) 60%
3	60	1	2	(a) 50% (b) 50%

Each section (task) has a number of sub-tasks. An indication of how much of the time available for the section that you should allocate to planning and writing your answer is shown against each sub-task in the text of the question (and summarised in the table above).

This information will be available for you to access during examination by clicking on the Pre-seen button.

 Reference Material Pre-seen

You have received the following email:

From: Romuald Marek, Chief Finance Officer
To: Senior Finance Manager
Subject: Fuel tankerage

Hello

I have attached a news article.

Arrfield does not set the price for aviation fuel sold at our airports, but we do receive a percentage of the revenues earned by the fuel companies.

I need your help to prepare for a Board meeting to discuss this matter. Please write a paper covering the following:

- Firstly, explain the impact that the criticisms voiced by the environmental campaigners will have on the frequent PESTEL analysis that Arrfield's Board conducts.
[sub-task (a) = 34%]
- Secondly, evaluate the commercial logic of Arrfield's strategy of basing charges for non-aeronautical services (such as fuel sales and retail activities) on percentages of the revenues generated by the companies that operate at its airports.
[sub-task (b) = 33%]
- Thirdly, recommend with reasons whether Arrfield should attempt to justify strategic decisions to its shareholders when the commercial logic of those decisions is not immediately obvious.
[sub-task (c) = 33%]

Thanks

Romuald Marek
Chief Finance Officer
Arrfield

The news article referred to by Romuald can be viewed by clicking the Reference Material button above.

Norland Telegraph

Arrfield targeted by environmentalists




Environmental campaigners have criticised fuel suppliers at Norland's airports for selling aviation fuel more cheaply than in other countries. The N\$ is strong, making it possible to import fuel more cheaply. Most suppliers are passing some of the savings on to airlines in order to boost revenues.

Airlines are responding by buying more when they refuel aircraft in Norland. This means they need to buy less fuel for the return flight from their destination. Environmentalists

are concerned because this means that aircraft are carrying tonnes more fuel on their outward journeys and so consume more fuel and cause more pollution in the process.

Airlines refer to this as "tankerage" because aircraft are effectively acting as fuel tankers on their outbound journeys. An airline spokesperson defended the practice, stating that it is a cheaper way to fly even though fuel consumption is increased.

 Reference Material Pre-seen



Draft your response to Romuald's requests in the box below.

From: Senior Finance Manager

To: Romuald Marek, Chief Finance Officer

Subject: RE: Fuel tankerage



 Reference Material Pre-seen

A week later, Romuald Marek stops by your workspace and hands you a document.

"I have brought you an extract from the minutes of yesterday's Board meeting.

I made some enquiries after the meeting and found that interest rates offered by Norland's banks are much lower than equivalent rates in other countries. Those lower rates apply to both variable rate and fixed rate loans with terms of up to 3 years.

I need your help with two matters:

- Firstly, evaluate the possibility that the lower interest rates on N\$ loans helps us to understand whether the N\$ is likely to remain strong and also evaluate the difficulties associated with explaining how a strong N\$ might affect Arrfield's revenues.

[sub-task (a) = 40%]

- Secondly, evaluate the suitability, acceptability and feasibility of Markus Jokela's suggestion that Arrfield should start its own aviation fuel business with a view to increasing its share price."

[sub-task (b) = 60%]

The Board minute extract from Romuald can be viewed by clicking the Reference Material button above.




Board minutes extract: proposal to profit from ongoing strength of N\$

Anna Obalowu Sote, Chief Operating Officer, reported that the strong N\$ was helping generate revenues from fuel sales. Discussion followed as to whether the strong N\$ was likely to persist and whether a strong N\$ benefits Arrfield overall.










Markus Jokela, Chief Executive Officer, stated that the Board should develop contingency plans that could be implemented if it seemed likely that the strong N\$ would persist. In particular, Arrfield need not renew the contracts that permit aviation fuel suppliers to operate from its airports. Arrfield would then be free to create its own fuel sale business, buying fuel in bulk to replenish the storage tanks at each of its airports in Norland and then selling it directly to airlines. He stated that this would almost certainly enhance Arrfield's share price.










Romuald Marek reminded the Board that four of Arrfield's six airports are located in Norland and that those airports charge for aeronautical and non-aeronautical services in N\$.



 Reference Material Pre-seen

Write your response to Romuald's requests in the box below.

       **B** *I* U  x_2 x^2 

Paragraph         

A month later, you receive the following email:

From: Romuald Marek, Chief Finance Officer
To: Senior Finance Manager
Subject: Aviation fuel supplier

Hello

I have forwarded an email that I received from Hesham El-Sayed, the Convener of Arrfield's Audit Committee.

I need you to draft a paper for me that covers the following:

- Firstly, evaluate the value of an internal audit investigation into the manner in which Capital City International's (CCI) management team has behaved in regard to Planejoos.
[sub-task (a) = 50%]
- Secondly, evaluate the validity of the arguments put forward by CCI's management team that its actions had been consistent with an ethical duty to maximise the wealth of Arrfield's shareholders.
[sub-task (b) = 50%]

Thanks

Romuald Marek
Chief Finance Officer
Arrfield

The email forwarded by Romuald can be viewed by clicking the Reference Material button above.

From: Hesham El-Sayed, Independent Non-executive Director
To: Romuald Marek, Chief Finance Officer
Subject: Collapse of fuel supplier

Hi Romuald

I am writing to give you some advance notice of an internal audit investigation that has been commissioned by the Audit Committee.

Just over a year ago, Planejoos, a newly formed company, approached the management team at Arrfield's Capital City International (CCI) airport and offered to take over refuelling operations at the airport. Planejoos offered a higher percentage of revenue than the existing supplier was paying. CCI's management team agreed and appointed Planejoos rather than renew the existing supplier's contract.

CCI was unable to conduct the usual background and credit checks on Planejoos for two reasons. Firstly, Planejoos was a new company and so did not have an extensive credit history that could be checked. Secondly, CCI was under time pressure to reach a decision on whether to renew the existing supplier's contract or allow it to expire.


CCI's management team claimed that it had acted quickly in order to benefit from the additional revenue that could be earned from dealing with Planejoos. The management team was acting on the basis that it had an ethical duty to maximise the wealth of Arrfield's shareholders and that maximising revenues from fuel sales through this agreement with Planejoos was consistent with that ethical duty.

Unfortunately, as a new company, Planejoos struggled to obtain trade credit and the high demand for fuel put the company's cash flows under extreme pressure. Receipts from sales lagged behind payments for inventory. Planejoos has now collapsed, leaving a large trade receivable that CCI will have to write off as uncollectable. CCI had permitted this receivable to accumulate rather than pressing for payment and so putting Planejoos under further pressure.

Fortunately, the previous fuel supplier was prepared to return to CCI.

Kind regards

Hesham El-Sayed
Independent Non-executive Director and Convener of Audit Committee
Arrfield

 Reference Material Pre-seen

Write your response to Romuald's requests in the box below.

From: Senior Finance Manager

To: Romuald Marek, Chief Finance Officer

Subject: RE: Aviation fuel supplier





Thank you for completing the Strategic Case Study Exam.

Before you leave, don't forget to collect your printed confirmation of attendance.

Please click the End Exam (E) button before leaving the testing room quietly.





Strategic Case Study Exam

Maximum Time Allowed: 3 Hours

Welcome, Candidate Name

If this is not your name, please let your administrator know.

Click **Next** to start the test.

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Each section (task) has a number of sub-tasks. An indication of how much of the time available for the section that you should allocate to planning and writing your answer is shown against each sub-task in the text of the question (and summarised in the table above).

This information will be available for you to access during examination by clicking on the Pre-seen button.

Reference Material

Pre-seen

You have received the following email:

From: Romuald Marek, Chief Finance Officer

To: Senior Finance Manager

Subject: Hangar facilities

Hello

I have attached an email that I received from Anna Obalowu Sote, Arrfield's Chief Operating Officer. I asked her for this information because the Board has received complaints from NorFly that it does not have sufficient hangar space for its maintenance operations at Capital City International (CCI).

There is no spare space at CCI and therefore the Board is considering building seven additional hangars at Hope City International (HCI) and offering NorFly the opportunity to lease all of the hangar space at that airport. The leases on HCI's existing hangars are due for renewal at the end of this year and we could simply give the existing lessees notice to quit.

We could retain the hangars at CCI and offer those to other airlines.

This decision will affect several stakeholders, including NorFly, the other airlines that operate from CCI and the airlines that presently lease hangars at HCI.

I need your advice on two matters:

- Firstly, assuming that we decide to build more hangars at HCI, explain whether the Board would be justified in calling that a strategic decision.

[sub-task (a) = 40%]

- Secondly, recommend how we should evaluate and manage the interests of the three stakeholders which I have listed above.

[sub-task (b) = 60%]

Thanks

Romuald Marek
Chief Finance Officer
Arrfield

The email referred to by Romuald can be viewed by clicking the Reference Material button above.

From: Anna Obalowu Sote, Chief Operating Officer
To: Romuald Marek, Chief Finance Officer
Subject: Proposal to relocate maintenance hangars

Hi Romuald

We have ten maintenance hangars at Arrfield's Capital City International (CCI). All of those are leased to NorFly, which uses them to repair and maintain its large fleet of aircraft. It organises routine maintenance by scheduling aircraft in need of work to fly into CCI on a regular flight. Those aircraft are then towed to the hangar after they have disembarked their passengers and been unloaded. Airworthy aircraft in need of repair are flown without passengers to CCI and taken straight to the hangar.

As part of its agreement with us, NorFly permits other airlines to use its hangars to conduct repairs that would otherwise leave aircraft stranded at CCI because of technical malfunctions. That arrangement is subject to NorFly having priority.

NorFly has started to complain that it has insufficient hangar space at CCI. There is very little spare capacity for unscheduled repairs and almost none to assist other airlines. Last week, an Air Farland aircraft had to park for 3 days before hangar space became available for it to be repaired.

There is no space at CCI to construct additional hangars. NorFly is unwilling to lease additional hangars at another airport because that would complicate inventory management and staffing. They might be willing to consider relocating their maintenance centre to Arrfield's Hope City International airport (HCI), which is 500 kilometres away. HCI has eight large hangars and there is room to build at least another seven, although the plot of land that we could use for this is not adjacent to HCI's existing hangars.

Thanks

Anna Obalowu Sote
Chief Operating Officer
Arrfield

 Reference Material Pre-seen

Draft your response to Romuald's requests in the box below.



From: Senior Finance Manager

To: Romuald Marek, Chief Finance Officer

Subject: RE: Hangar facilities



A large, empty text area for drafting the response to Romuald's requests.

 Reference Material Pre-seen

A week later, Romuald Marek stops by your workspace and hands you a document.

"I have brought you an extract from the minutes of yesterday's Board meeting.

I need your advice on the following:

- Firstly, evaluate whether the fact that Wingpaint's parent is planning to divest itself of this subsidiary should be a factor in our decision to acquire it.

[sub-task (a) = 34%]

- Secondly, evaluate the argument that it would be unethical for Arrfield to change the use of Wingpaint's airfield because it would disrupt the lives of local residents.

[sub-task (b) = 33%]

- Thirdly, some of the aircraft that will be flown to the new maintenance facility will be in need of repairs that would prohibit them from carrying passengers, although they would still be deemed airworthy. Evaluate the implications of such flights for Arrfield's reputation."

[sub-task (c) = 33%]

The Board minute extract from Romuald can be viewed by clicking the Reference Material button above.



**Board minutes extract: proposal to expand hangar capacity**

Anna Obalowu Sote, Chief Operating Officer, reported on a recent meeting with the CEO of Wingpaint.

Wingpaint is a subsidiary of a major aircraft manufacturer. It operates from a large site in central Norland, almost exactly halfway between Arrfield's Capital City Airport (CCI) and Hope City International (HCI) airports. The site is located on the edge of a small residential town.


Wingpaint's base of operations is an airfield that has a long runway and 12 large hangars. It uses these facilities to paint new aircraft before they are delivered.

At present, the airfield rarely has to deal with more than one take-off or landing every few days, although it is equipped to operate any size of aircraft, even during the hours of darkness and in all weathers.









Anna recommended to the Board that Arrfield should purchase 100% of Wingpaint and convert the airfield into a maintenance facility that will be leased to NorFly, and possibly to other airlines if space permits. In order to succeed, this would require:











- agreement from the Norland Air Traffic Control Service to a significant increase in the number of flights to and from this airfield.
- a warehouse to be built to handle the extensive inventory of parts that are required, ranging from fuses to spare aircraft engines.
- the road to the airfield to be upgraded because of the increased number of delivery vehicles, some of which would be carrying large items.

Wingpaint's parent appears to be planning to divest itself of its subsidiary and so it would be open to offers from us to acquire it.

 Reference Material Pre-seen

Write your response to Romuald's requests in the box below.

       **B** *I* U  x_2 x^2 I_x

Paragraph          

Reference Material

Pre-seen

Two months later, Arrfield's Board has decided to acquire 100% of Wingpaint in order to use its airport as a repair and maintenance facility.

You receive the following email:

From: Romuald Marek, Chief Finance Officer
To: Senior Finance Manager
Subject: Acquisition of Wingpaint

Hello

I have forwarded a news report. The complaints are a little premature because we have not yet finalised the details of our purchase of Wingpaint. For example, the Board will exchange Arrfield shares in return for 100% of Wingpaint, but we have not yet agreed on the number of shares.

The Board is meeting soon to discuss developments. I need you to advise me on the following matters:

- Firstly, discuss the problems associated with agreeing the number of Arrfield shares that will be given in exchange for Wingpaint's equity and recommend an approach that the Board might use to determine the most that it should give.
[sub-task (a) = 50%]
- Secondly, discuss the legitimacy and possible consequences of major shareholders criticising strategic decisions that are made by Arrfield's Board.
[sub-task (b) = 50%]

Thanks

Romuald Marek
Chief Finance Officer
Arrfield

The news report forwarded by Romuald can be viewed by clicking the Reference Material button above.

Norland Telegraph


Shareholders criticise Arrfield's acquisition



Several of the financial institutions who are Arrfield's largest shareholders have criticised the company's Board over its recent decision to acquire an airfield that will be converted into a repair and maintenance facility that will be leased to its major airline customers, most notably NorFly. The shareholders believe that Arrfield is investing in a venture that it does not fully understand. They do not understand why Arrfield would buy an airfield that is unlikely ever to be

used for the carriage of passengers or freight.

One shareholder argued that the Board's mission was to create "sustainable growth in stakeholder wealth, while respecting the needs of other stakeholders." In this case, it would appear that the Board has been more concerned with the needs of its airline customers than with those of its shareholders.

 Reference Material Pre-seen

Write your response to Romuald's requests in the box below.

From: Senior Finance Manager

To: Romuald Marek, Chief Finance Officer

Subject: RE: Acquisition of Wingpaint





Thank you for completing the Strategic Case Study Exam.

Before you leave, don't forget to collect your printed confirmation of attendance.

Please click the End Exam (E) button before leaving the testing room quietly.



Strategic Case Study Exam

Maximum Time Allowed: 3 Hours

Welcome, Candidate Name

If this is not your name, please let your administrator know.



Click **Next** to start the test.

The examination is structured as follows:

Section number	Time for section (minutes)	Number of tasks	Number of sub-task/s	% time to spend on each sub-task
1	60	1	2	(a) 50% (b) 50%
2	60	1	3	(a) 34% (b) 33% (c) 33%
3	60	1	3	(a) 34% (b) 33% (c) 33%

Each section (task) has a number of sub-tasks. An indication of how much of the time available for the section that you should allocate to planning and writing your answer is shown against each sub-task in the text of the question (and summarised in the table above).

This information will be available for you to access during examination by clicking on the Pre-seen button.

 Reference Material Pre-seen

You have received the following email:

From: Romuald Marek, Chief Finance Officer

To: Senior Finance Manager

Subject: Interest in acquiring MLI airport

Hello

I have attached a news article.

The Board will meet later today to discuss this news and I need the following from you:

- Firstly, recommend and justify the factors Arrfield should consider when evaluating the strategic implications of the potential sale of Majjor Link International (MLI) to Runitza.

[sub-task (a) = 50%]

- Secondly, recommend with reasons how Arrfield should set its selling price for MLI.

[sub-task (b) = 50%]

Thanks

Romuald Marek

Chief Finance Officer

Arrfield

The news article referred to by Romuald can be viewed by clicking the Reference Material button above.

Norland Telegraph

Estland's government bids for MLI




Estland's Minister for Transport announced yesterday that Runitza, the state-owned airport operator, had been given permission to bid for Majjor Link International (MLI), which is owned and operated as a 100% subsidiary of Arrfield. MLI is one of four major hub airports in Estland.

Much of Estland's national infrastructure was purchased by foreign investors when the country went through a period of economic and political transformation in the 1990s. Growing prosperity has led to a reversal of that process, with local investors buying back control. Runitza, which is owned by the Estlandian government, recently purchased three of the country's major hub airports, leaving only MLI in foreign ownership.

Runitza's CEO welcomed the announcement, stating that the acquisition of the only remaining hub airport would offer a number of operating efficiencies and might hasten the privatisation of Runitza by making the company more attractive to potential shareholders.

Arrfield's Board has declined to comment at this stage. There was a flurry of speculative trading on the company's shares immediately after the announcement by Estland's Minister for Transport, but the shares had reverted to their pre-announcement price by close of business.

 Reference Material Pre-seen



Draft your response to Romuald's requests in the box below.

From: Senior Finance Manager

To: Romuald Marek, Chief Finance Officer

Subject: RE: Interest in acquiring MLI airport



 Reference Material Pre-seen

A week later, the Board is still considering whether to sell the Majjor Link International (MLI) airport subsidiary to Runitza. MLI is located in Estland and Runitza is owned by Estland's Government. Romuald Marek stops by your workspace and hands you a document.

"I have brought you an extract from the minutes of yesterday's Board meeting.

I need your help with the following matters:

- Firstly, recommend and explain steps that Arrfield might take to manage the attempts by Estland's Ministry of Transport to apply pressure to Arrfield by appearing to target MLI.

[sub-task (a) = 34%]

- Secondly, identify the key stakeholders who will be affected if Arrfield decides to sell MLI and explain how their interests should be managed.

[sub-task (b) = 33%]

- Thirdly, explain whether it would be unethical for Arrfield to continue to operate MLI now that it is clear that Estland's government does not wish us to remain there."

[sub-task (c) = 33%]

The Board minute extract from Romuald can be viewed by clicking the Reference Material button above.

Board minutes extract: possible sale of Majjor Link International (MLI) to Runitza

Anna Obalowu Sote, Chief Operating Officer, reported on a series of messages from MLI's Airport Manager.

Estland's Ministry for Transport has been interfering with operations at MLI.

Passengers have been delayed by major roadworks that have commenced on the approach road to the airport.


MLI's operating hours have been curtailed for "noise abatement" reasons. Flights are not permitted to take off or land after 21:00hrs instead of 22:30hrs. The hours at Estland's other airports remain unchanged.

Detailed safety inspections will be carried out at all of Estland's airports, starting with MLI.










Markus Jokela, Chief Executive Officer, commented that Estland's Ministry for Transport appeared to be attempting to apply pressure to make Arrfield sell MLI to Runitza. He reminded the Board that no decision had been taken as to whether MLI would be sold.










Estland is a country that went through a period of economic and political transformation in the 1990s. During that period, a number of multinational companies made significant investments in the country in order to benefit from its growing economy and increasing political stability. Arrfield purchased MLI in 1998.



 Reference Material Pre-seen

Write your response to Romuald's requests in the box below.

       **B** *I* U  x_2 x^2 

Paragraph         

Reference Material

Pre-seen

A month later, Arrfield remains undecided as to whether it should sell MLI to Estland's Runitza.

You receive the following email:

From: Romuald Marek, Chief Finance Officer
To: Senior Finance Manager
Subject: Attempted intrusion

Hello

I have forwarded an email that I received from the General Manager of Majjor Link International (MLI).

Please advise me on the following matters before I report to the Board:

- Firstly, evaluate the argument that the cyber risk arising from this incident is one that should have been mitigated.
[sub-task (a) = 34%]
- Secondly, recommend with reasons the steps that Arrfield should take in order to block any further intrusion attempts.
[sub-task (b) = 33%]
- Thirdly, evaluate the argument that the Board should accept responsibility for the prevention of such elaborate hacks at MLI.
[sub-task (c) = 33%]

Thanks

Romuald Marek
Chief Finance Officer
Arrfield

The email forwarded by Romuald can be viewed by clicking the Reference Material button above.

From: Dariusz Oleszak, General Manager, Majjor Link International (MLI)

To: Romuald Marek, Chief Finance Officer

Subject: Hacking attempt

Hi Romuald

I am writing to inform you of an attempt to hack into one of MLI's IT systems. The airport has several networks, each of which has a specific purpose. Some of our networks use wireless technology, but more sensitive systems use wired connections between devices, using network cabling. All networks operate independently of each other.


We provide the retailers who operate in our terminals with a wireless network that permits them to access the internet. They use this to share data with their parent companies, including the processing of credit card payments and details scanned from customers' boarding passes.

A safety inspector employed by Estland's Ministry of Transport visited our terminal buildings this morning. He issued a retailer at each terminal with a smart device that he claimed would measure air quality and send the results back to the Ministry. One of the retailers asked our IT department to help connect the device to the terminal's wireless network. Our IT technician discovered that the device would have transmitted the password for connecting to the wireless network.

MLI's Head of IT Security says that the network password would have enabled anyone with the necessary skills to gather data that was being transmitted by our retailers. Very few individuals or organisations would have such skills, but government agencies would undoubtedly have experts with that ability.

Thanks

Dariusz Oleszak
General Manager, Majjor Link International (MLI)
Arrfield

 Reference Material Pre-seen

Write your response to Romuald's requests in the box below.

From: Senior Finance Manager

To: Romuald Marek, Chief Finance Officer

Subject: RE: Attempted intrusion



A large, empty rectangular box for writing the response to Romuald's requests.





Thank you for completing the Strategic Case Study Exam.

Before you leave, don't forget to collect your printed confirmation of attendance.

Please click the End Exam (E) button before leaving the testing room quietly.



STRATEGIC CASE STUDY MAY & AUGUST 2021 EXAM ANSWERS

Variant 1

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CIMA will not accept challenges to these answers on the basis of academic judgement.

Section 1

Requirement 1 – submit plan

The first challenge is in determining whether bidding for this opportunity could harm Arrfield politically. Arrfield already controls both of the hub airports that presently serve Capital City. Attempting to take control of the third could make the company appear to be uncompetitive. Airlines and government regulators, such as the Ministry for Transport, might lobby for another operator, such as Skylaine, to be granted the opportunity to build this airport. Offering a bid that is subsequently rejected could harm Arrfield's credibility, particularly in the minds of its shareholders.

The Board should consider whether it has the resources (both financial and non-financial) required to build the airport and put it into operation. This will clearly require significant funding and will take up a huge amount of senior management time. This will be a massive construction contract that will put resources under pressure for many years. It will be extremely embarrassing if Arrfield wins this bid but is unable to commence work on schedule.

The impact of a third hub on the revenues of Arrfield's existing hub airports requires some thought. Arrfield's existing airports could lose a significant number of airline customers if they are attracted to the new airport. Alternatively, the existing airports could remain just as busy, with no significant loss of revenue, because major airlines such as NorFly could continue to operate from them in order to maintain flight connections. If the new airport is unpopular with airlines then it may not generate sufficient revenue to justify its construction.

Arrfield might feel obliged to bid if only to demonstrate confidence in its existing operations and its present capability. This is a major opportunity for any airport company and Arrfield's stakeholders could be concerned by any decision on Arrfield's part not to attempt to develop a third hub airport serving this key market. The Board should consider whether Arrfield can offer a credible justification for

any decision not to bid, bearing in mind that competing airport operators will use this bid as an opportunity to promote their competence. The reputational issues associated with another company creating the third hub airport could be extremely damaging.

Arrfield should also consider its relationships with existing stakeholders and the implications for those relationships if it decides not to bid. Airlines could be keen to see capacity expanded in that area and could be disappointed if Arrfield does not take the lead in offering that new capability. The Minister for Transport will undoubtedly be embarrassed if credible airport operators do not demonstrate their support for this proposal. Damaging these key relationships could prove costly to Arrfield in the long term, even if it does not particularly wish to offer a bid.

Requirement 2 – share price

An increase in the share price means that the market perceives information that it has received as “good”. Arrfield’s Board should consider why the market views this announcement as positive and should consider whether it can obtain some continuing benefit from it. If, for example, the stock market believes that investing in this new airport would be a positive Net Present Value (NPV) project then Arrfield’s share price could drop back to its previous level if it announces that it will not be making a bid. If the market continues to be positive then the increased share price will make it easier to raise equity to finance the expansion.

The increase in Skylaine’s share price, alongside Arrfield’s, might seem confusing because it is unlikely that both airports will be able to benefit from the opportunity to build a third hub. The stock market could have interpreted the news as a possibility that either of the two companies could win the bid and so both prices rose in the short term. If that is the case then Arrfield’s share price could rise still further if it emerges as the leading contender in the bidding process or its share price could fall if Skylaine appears to have an advantage.

The increase in the share price does not, in itself, suggest that Arrfield should be unduly concerned with the bid. The Board should have a better understanding of the company’s best interests than the stock market. The Board will, for example, have a better understanding of the costs associated with planning and building the new airport and the risks that are involved. It may be preferable to allow the opportunity to pass and for the market to discover the wisdom of that decision in the longer term.

It could also be a mistake to believe that the price rise signifies anything of any real significance. The fact that NorFly’s share price increased as well as the two airport operators’, could suggest that the market simply interpreted the news as a sign that Norland’s government planned to boost the air travel industry in general. The price rise may not have been a specific response to the possible bid for the new airport. The fact that the price moved on the day of the announcement could also imply a speculative jump in share prices that will correct itself once the market has the opportunity to reflect on this news.

Section 2

Requirement 1 – scenario planning

Scenario planning is a practical approach to developing long-term plans that will deal with foreseeable events. If Arrfield decides to bid then it will be exposed to a host of possible problems and opportunities that will have to be addressed because they could threaten the viability of the new airport. The need to obtain approval for plans could give any party with an interest in the new airport an opportunity to block the development of it. Arrfield will have to think ahead and identify ways to address any such objections. The viability of the new airport could also be threatened by any alternative facility offered by a competitor. Arrfield should consider whether it is prepared to risk investing in a 50% increase in capacity for the Capital City market.

One highly possible scenario is that parties who object to the proposal to build the new airport will object to some aspect of Arrfield's plans, in the hope of delaying work and discouraging Arrfield from continuing. For example, local residents may be unhappy because of the increase in aircraft noise and other disruption. They could choose to object on any basis that is open to them, such as a concern that Arrfield's plans are not fully compliant with all aspects of planning legislation. Ideally, Arrfield should address that scenario by attempting to predict all possible objections and developing a contingency plan for each. The starting point would be to ask lawyers and other professionals with experience in this area to study the proposal and any subsequent plans with a view to identifying possible grounds for complaint.

Another scenario could arise because of continuing political objections that might be voiced during the planning phase of this project. Political objections may prove difficult to overcome because they involve matters of principle that could be enforced by decision makers. For example, a change of government could see the election of a party that has a greater interest in the environment, which could lead to plans being rejected or approval delayed. Arrfield should address that scenario by developing counter-arguments to any concerns that could be voiced by future governments, such as by developing an argument that the new airport will be more efficient and so will reduce pollution levels.

Skylaine will have significant advantages over Arrfield if it decides to develop its North Norland hub in direct competition with routes through Capital City. In particular, it already has an operational airport and so can implement its plans much sooner. Arrfield should start by identifying the airlines and routes that are at greater risk of being attracted by Skylaine and should then decide how important their loss would be. Arrfield only has limited capacity at its existing hubs and so the loss of some flights to North Norland could actually be helpful if it enables Arrfield to take better care of the airlines whom it wishes to retain at those hubs. It will take a total of nine years to design and build the new airport and so Arrfield should be more concerned with the long-term demand than in retaining flights in the short-term.

It may prove easier to deal with any expansion at North Norland once the new hub airport has been developed and so Arrfield should plan ahead to allow for that contingency. Any loss of business to Skylaine should be analysed during

planning and the early stages of construction in the hope that the new hub will be well positioned to win that business back. For example, Arrfield could set aside sufficient space at the new hub to enable NorFly to consolidate all of its flights at the airport, which should create significant capacity at the other hubs and enable other airlines to be offered greater flexibility too. Similarly, the new hub could be connected to high speed rail networks to make it easier for passengers based near North Norland to switch to Capital City.

Requirement 2 – funding

The long-term nature of this project creates conflicting objectives for the financing. Arrfield must be ready to make substantial payments when they fall due, but there will be a financing cost associated with raising the cash in advance of its needs. The design and construction phases will have to be broken down into phases, with the cash needed for each estimated and a plan for raising the finance. That could be complicated by the fact that unexpected construction problems could change the costs for different phases and the timing of payments. Any such forecasting errors could lead to problems if finance has to be raised under conditions of duress.

Ideally, the funding should be scheduled at the very start of the project, with potential sources identified and their commitment sought from the start. It would, however, be difficult to obtain a commitment to pay such large sums possibly several years in advance. Lenders could face a very different economic environment in, say, five years and could be unhappy about making a binding commitment in advance. Agreeing to flexible terms, such as scheduling a loan at a variable rate of interest, could commit Arrfield to significant risks.

The risks associated with the project could change, making it difficult to raise finance at different stages of construction. For example, an unexpected decline in demand for air travel could make investors reluctant to buy equity or advance loans to complete the construction. It may not be realistic for Arrfield to cancel the project at an advanced stage of construction. The company's existing asset base will not be an attractive basis for securing loans in the event that the value of airports is declining.

Section 3

Requirement 1 – cyber risks

Implementation creates cyber risks because the plan is to move from having independent systems for each airport to having a centralised facility. The needs of each airport will have to be determined and compared with the others so that a coherent system is created that meets all needs in a satisfactory manner. There could be problems with compatibility if the airports appear to have the same systems in place, but they actually differ in terms of file structures or are using different versions of software packages. The team responsible for writing the system will also have to consider whether different airports require different systems to cope with issues such as the larger number of transit passengers at hub airports compared to non-hub ones.

The new IT centre will have to be built and made operational before the work on the new airport can be completed. The existing systems will have run out of capacity by the time the new airport is finished. The new airport may use different technologies for processes such as handling baggage or allocating aircraft to gates and so the system will have to be flexible enough to cope with such innovations. The complications associated with serving both legacy needs and new procedures will increase the risk of a software failure when the airport opens. The airport will not be able to operate if logistics fail and so Arrfield's reputation could suffer.

The new system will require secure online communications because it will operate using wireless satellite links. Those are inherently less secure than internal links within the airport sites because they can be linked by wires and so can be subject to greater physical security. The satellite links can be secured using passwords and encryption, but there are ways to beat such security. It may not be necessary to access the encrypted data in order to interfere with data flows. Anyone who wishes to interfere with Arrfield's operations could jam the data connections.

The ongoing security of the system appears to depend on the security of the hot backup at CCI airport. That will have to be able to cope with the needs of all existing airports, plus the new hub. It will be necessary to ensure that CCI has sufficient capacity to cope with the demands that will be placed on it in the event that the backup site has to be put into effect. The geographical location may also be an issue because the hot backup may not be far enough from the primary site to ensure that it could not be taken out of operation by the same event, such as adverse weather conditions in the Capital City area. Also, airports may be tempting targets for cyber crime and so it may be safer to locate IT centres at separate sites.

Requirement 2 – Chief Information Officer

The design and implementation of a new system for the Arrfield Group as a whole will be a major undertaking and so it might be worth considering the appointment of a new director to take charge. A new appointment will avoid distracting the other Board members from their duties and so it will reduce the disruption. It is not unusual for a quoted company to have a full-time finance director, so it would

be perfectly in order for the CFO to be relieved of the responsibility for IT. The appointment would signal the ongoing importance of IT.

A designated Chief Information Officer will ensure consistency in making the key decisions that will arise in the design and implementation of the new system. Different Board members will have differing needs and interests from IT and that could lead to debates and suboptimal decisions if Board members seek compromises. A new appointment would focus attention on the optimisation of the IT system overall and would ensure that all needs are met. In the event of conflicting needs, the Chief Information Officer can resolve disputes by taking the needs of the company as a whole into account.

A new appointment would create a career path for senior IT managers. If the IT centres at the existing airports are to be consolidated then Arrfield may have to consider making IT managers and staff redundant. Offering a senior IT manager a seat at Arrfield's Board would be a good way to retain such a key employee and so the company would be less likely to lose the knowledge and experience of airport operations. This would also motivate staff by making it clear that IT is a major enabler and is not simply a support activity that underpins operations and finance. That would ensure that IT receives the support that it requires from across the organisation.

There is a risk that the role of Chief Information Officer will encourage costly and disruptive dysfunctional behaviour in order to justify the continuation of this new Board position. The new appointment could lead to a desire to upgrade hardware and software to the latest versions, if only to demonstrate the pace of change in this area. Such updating will imply unnecessary change to systems, with the associated risk that errors or loopholes in security will be introduced into the system. That risk could be mitigated by giving the new director a clear job specification, with a focus on the maintenance of high operational standards after the initial design and implementation of the new system.

STRATEGIC CASE STUDY MAY & AUGUST 2021 EXAM ANSWERS

Variant 2

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CIMA will not accept challenges to these answers on the basis of academic judgement.

Section 1

Requirement 1 – Risk Committee

It would be unrealistic to expect the Risk Committee to predict anything as specific as D-Ayrr's acquisition of NorFly, but it should have been aware of the possibility that NorFly was a potentially valuable target. As a leading airline, NorFly has slots at several major airports around the world and that was effectively public knowledge because the airline publishes its timetable of available flights. The Risk Committee could, however, have argued that the risk was mitigated by the fact that NorFly's slots at CCI and CCM are too valuable to waste and so the airline would have an incentive to continue to fly from those airports. The risk of such a massive rationalisation of flights, with NorFly offering short-haul flights in place of the long-haul flights, would have been difficult to predict and so the Risk Committee should not be criticised.

Airlines can redeploy resources relatively easily to take advantage of declining demand for existing routes or growing interest in new ways to travel. The Risk Committee should have paid closer attention to the possibility of a change in flying habits, such as the switch from flights using Arrfield's Capital City hubs to competing hubs elsewhere in Norland or overseas. The fact that CCI and CCM are operating at full capacity could have distracted the Risk Committee from considering the need to retain business because, historically, demand for slots has exceeded supply. The Risk Committee should perhaps have considered the wider risk that NorFly could have developed a closer link to another airline, whether by acquisition or simply through collaborative approaches such as code sharing.

The Risk Committee should not be held responsible for the lack of a contingency plan for the retention of NorFly's long-haul flights because it is debateable whether anything could have been done to have prevented the change. NorFly is a major presence at both CCI and CCM airports, leasing a whole terminal at CCI, so Arrfield should already have been doing everything within its power to

retain NorFly's business. Realistically, the only contingency plan that Arrfield could have put in place in readiness for this news would have been to make high-level contact, up to Board level, with any major airline whose custom is in doubt. Even so, the response to any such announcement would have to be developed on a case-by-case basis and so a detailed contingency plan would have been impossible.

It could be argued that there should have been a contingency plan in place for dealing with the wider implications of losing large numbers of passengers, especially from NorFly. There are many possible reasons for a major airline to reduce the number of flights or the number of passengers going through any given airport. The Risk Committee should have a plan in place to deal with the direct impact on its own revenues, particularly aeronautical, and on its commissions from non-aeronautical sources, such as retailers in the terminals. At the very least, there should be a plan in place to enable Arrfield to maintain contact with third parties who depend on passengers to generate revenue and to enable them to keep operating.

Requirement 2 – strong N\$

The strong N\$ could make it more expensive to fly passengers to and from CCI and CCM because the aeronautical fees are set in N\$. Foreign airlines, including D-Ayrr, will find it cheaper to operate through Seeland while the N\$ is strong and so these new arrangements will create cost savings in Seeland and Farland that can be passed on to passengers. That saving will be offset by the fact that many passenger journeys will originate or terminate at CCI and CCM and so D-Ayrr will have to bear some aeronautical fees in N\$. When NorFly was an independent entity, it would have benefitted from the fact that the strong N\$ would have reduced the cost of landing fees in foreign airports, including those in Farland.

The strong N\$ would have benefitted NorFly at the time of the acquisition and so D-Ayrr would have had to pay a little more in terms of its home currency in order to make the acquisition. The strong N\$ would, therefore, have discouraged the acquisition rather than encouraging it. The N\$ share price would, however, have reflected the market's perception of likely future movements in exchange rates. The market price would also have allowed for the possibility that D-Ayrr would offer a premium in order to gain control, but that premium could be restricted by the effects of expected currency movements.

D-Ayrr's acquisition of a major airline was a significant strategic investment that will affect the Group's performance into the long-term future. The record level of the N\$ has persisted for several months, but it is likely to reverse at some time and could do so very quickly. The strong N\$ will not necessarily benefit Norland's economy and so its government may be keen to encourage a weaker currency. Any benefit that D-Ayrr enjoys from the strong N\$ is likely to reverse. In the long term, most currencies go through periods of relative strength and weakness.

Future weakening of the N\$ could create currency losses in the D-Ayrr Group's consolidated financial statements. If the N\$ falls in response to, say, economic measures by Norland's government then D-Ayrr will incur currency losses when restating the book values in terms of the Group's reporting currency. That loss will go directly to reserves, but it will still have the effect of reducing Group equity

and so increasing gearing. Translation risks do not have any direct impact on shareholder wealth, but directors are generally reluctant to incur translation losses.

Section 2

Requirement 1 – technology as a driver of change

Arrfield's revenues will be affected by changes in the wider environment in which the air travel industry operates. The Board should study and consider the impact of factors that might affect demand for air travel and also the competitive positions of Arrfield's airports and those of its competitors. Technology can have an impact on Arrfield's ability to serve airlines and so generate revenues.

In this case, a major airline that uses competing hub airports for long-haul flights has acquired new aircraft that can offer lower fares over longer distances. Passengers may be encouraged to use D-Ayrr via Seeland in preference to an Air Farland flight from CCM, if D-Ayrr passes the savings in fuel costs on and the aircraft is more comfortable because it is quieter. The fact that the aircraft can take off and land at night is also a consideration because it might enable D-Ayrr to offer more flexible routes or to add flights at times when conventional aircraft cannot operate. That does raise a question of the significance of this new technology (or any new technology) because the impact on fares and passenger comfort may be minimal and so may not attract passengers away from Arrfield.

The technological factors that drive change may not necessarily affect Arrfield's competitive position in the longer term because most technological developments are adopted across the industry as a whole. If, for example, Calmjet gives D-Ayrr a significant commercial advantage then other airlines will start to order it and the benefits will undoubtedly become available to Arrfield in the medium term. The fact that major airports must be capable of handling flights operated by most airlines, suggests that any changes in technology will eventually be adopted by Arrfield and its competitors. Airports may have very little choice with regard to incurring the cost of adopting any technological advances because they need to remain compatible with their airline customers.

Requirement 2 – product portfolio

Any analysis of Arrfield's product portfolio should consider the factors that impact on its freedom to make changes. The main problem is that NorFly's acquisition has led to a significant shift from long-haul to short-haul flights at CCI and CCM. That change was forced by circumstances and should not necessarily encourage an active change to focus more on short-haul. It may be possible to replace some of NorFly's long-haul flights by persuading other airlines to increase long-haul flights from these airports. There could be scope for, say, Air Farland to increase the number of flights from CCM to Farland, capitalising on the healthy number of short-haul flights and the proximity of Capital City to attract passengers.

Arrfield already has a dedicated short-haul airport serving Capital City in the form of CCB. Attracting additional short-haul flights into CCI and CCM could pull revenue away from CCB and so offer little real benefit to Arrfield overall. CCI and CCM presently have the advantage of being regarded as the main hub airports serving Capital City. There are already non-hub airports, operated by other companies, that would compete with any change of strategy by Arrfield. It would probably be easier to maintain the existing range of services across the company's airports. If necessary, Arrfield could subsidise the acquisition of slots that are used by airlines for short-haul routes in order to create additional long-

haul capacity. Doing so would go some way to redressing the balance between long-haul and short-haul flights that has been disrupted by NorFly's new routes.

Arrfield must also consider the impact that any change in the type of flights will have on non-aeronautical revenues. Retailers might close some of their outlets if there are fewer transit passengers waiting for their connecting flights. Even if the retailers remain open, any decrease in turnover will impact on Arrfield's commissions. Any such decline in the amenity value of Arrfield's airports could create vicious circles, in which fewer shops create less attractive terminals, reducing passengers and so further discouraging airlines.

Requirement 3 – share prices

The decrease in Arrfield's share price has persisted for the month since D-Ayrr acquired NorFly, which suggests that the capital markets regard that acquisition as "bad news" for Arrfield. It was not surprising that our price fell at the time of the transaction because the market would have assumed that it would be interpreted as bad news and so there would have been a speculative downward blip. The fact that the price remains depressed suggests that the market has reviewed Arrfield's position and believes that the company is worth less than it was before the acquisition.

Arguably, there is no real significance for Arrfield, other than possible concerns about the competence of the Board. There is no actual cost associated with the reduced share price, although it would mean issuing more shares in the event that we ever have to raise fresh equity and that would lead to a bigger dilution for the shareholders. The fact that the market believes that future cash flows will be depressed by the acquisition does not, of course, mean that the downturn will actually occur or persist.

D-Ayrr's Board would have hoped to see a market capitalisation that exceeded that of the two companies before the acquisition. The logic behind the acquisition would have been that acquiring NorFly would have created synergies that would have enabled the overall value to exceed that of the two separate parts. The fact that the combined value is less suggests that the market believes that there will be inefficiencies that will more than offset any synergies that can be created.

Taken together, the market seems to believe that the acquisition will harm both Arrfield and the D-Ayrr/Norfly Group. There could be concerns about the need to persuade large numbers of passengers to fly from Seeland instead of Norland and so all of the companies will lose out. The overall implication is that D-Ayrr's Board has acted irresponsibly and has damaged Norland's air travel industry as a whole.

Section 3

Requirement 1 – cyber risks

There could be a risk that a careless staff member at D-Ayrr could unwittingly introduce a virus or other piece of malware into Arrfield's systems. Arrfield has no way to control the access that it will grant to D-Ayrr staff once it creates the remote access and issues passwords. Flights could be disrupted if data relating to, say, passenger lists is affected.

NorFly may not be the only airline to use these servers, which could mean that D-Ayrr will have access to competitors' data. That could lead to Arrfield being accused of failing to take proper care of the data on its servers and being in breach of contract. The resulting loss of credibility could lead to airlines making alternative arrangements for data storage, which would cost revenue, or even their loss as operators from CCI or CCM.

There could be data privacy issues associated with granting access, regardless of D-Ayrr's claims that its terms and conditions give it free access. Arrfield's contract is with NorFly, which may be a subsidiary of D-Ayrr, but that does not give it the same rights and privileges as its parent. The nature of airline passenger data makes it particularly sensitive because it contains personal details about travel and also about payment cards.

D-Ayrr's searches could corrupt data files, which could create security problems and safety issues if passenger lists and the weight of checked luggage cannot be accessed before flights take off from CCI or CCM. In the worst possible case, aircraft will take off with incorrect information, which could lead to aircraft being overloaded. If the records are badly corrupted then it should be clear that the data needs to be recreated by some other means, but that would still lead to delayed flights.

Requirement 2 – mitigation

D-Ayrr could be asked to undergo a full system check to ensure that it has systems in place to prevent malware from finding its way onto its devices. The check should include ensuring that full antivirus protection is installed on all devices and that all staff who will be permitted access are trained in data security. Arrfield's systems should also have software in place to protect data at all times.

Arrfield's systems could be designed to restrict access to third-party data according to the user's location. Terminals and other devices have specific reference numbers that might identify a user attempting to log in as being at, say, the Air Farland computer terminal. The system could then be programmed to treat any devices that do not have specific locations as having access to NorFly files only.

The simplest way to deal with any privacy issues would be for NorFly to ensure that its terms and conditions grant other members of the D-Ayrr Group the right to access passenger data. NorFly could also be asked to contact all passengers who have already booked in advance of their flight, to warn them that the terms and conditions had changed to permit this access and giving passengers the right to refuse if they so wish. Arrfield should not grant access until it has received

evidence that the airport has the necessary permission to allow D-Ayrr to run searches.

It may be preferable to copy the records relating to any given flight on a frequent basis, with the frequency increasing as the flight time gets closer. Arrfield could then make the latest copy available to D-Ayrr so that the worst case would be the loss of a copy of the file. The copies would have to be downloaded frequently, otherwise D-Ayrr might underestimate the weight of checked bags or the number of passengers requiring assistance on any given flight.

Requirement 3 – digital strategy

It is clear that Arrfield is constantly gathering data that has a commercial value to a variety of stakeholders. For example, tracking the total weight of checked baggage in real time, will make it easier to estimate the maximum weight of freight that can be loaded before the flight departs. Arrfield is ideally placed to gather such data because it is responsible for issuing boarding passes and those can be used to track the manner in which passengers progress through the airport.

Arrfield's strategy could be developed in conjunction with the parties who operate in the terminal. For example, food retailers will undoubtedly be interested in the fact that Arrfield can track arrivals at the airport, with details of their time of departure. Even better, Arrfield's data set includes details of incoming flights, with information on the number of transit passengers and their expected length of stay.

The need for a clear strategy is further confirmed by constant changes in the IT environment. For example, passengers can check in for their flights at home and may carry their boarding passes as barcodes on the screens of their smartphones. Arrfield's systems must be able to integrate with the changing systems developed by airlines and with the changing expectations of passengers with regard to the use of their own devices.

Ultimately, the need for a clear digital strategy arises from the fact that a modern airport would undoubtedly be unable to operate without an efficient and effective IT system. Passengers arriving at the airport having checked in online must be capable of checking in their bags and negotiating their way through the security area, otherwise they could miss their flights.

STRATEGIC CASE STUDY MAY & AUGUST 2021 EXAM ANSWERS

Variant 3

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Section 1

Requirement 1 – scenario planning

One crucial scenario would be the airlines' response to a limited passenger interest in the additional capacity that will be created. If the airlines are unable to fill the additional aircraft that they will fly to and from airports such as CCI and CCM then they may respond by reducing ticket prices. This would benefit Arrfield because it would have additional aeronautical and non-aeronautical revenues thanks to increased landing fees and more footfall in the terminals. If airlines respond to a lack of demand by reducing flights then Arrfield could find itself in the situation where it has invested in additional capacity, but derives no real benefit because revenues remain unchanged. At this early stage, it may be possible for Arrfield to work with the airlines to estimate the level of unfilled demand for important routes. The airlines will have data from their online booking systems that track the number of searches that lead to full flights and they may be willing to share that with Arrfield in order to persuade the company to expand its facilities. Arrfield can also consider the long-term trends in demand for air travel. This is clearly a long-term strategic investment and Arrfield should not be too concerned about the immediate prospects of selling the additional seats.

Arrfield should also consider the manner in which any additional capacity will be shared between airports and airport operators. One concern may be that the additional capacity at popular airports will displace flights that would have operated through quieter airports anyway and so Arrfield will be no better off. Airlines could reduce the number of flights using, say, Arrfield's Hope City Airport (HCI) because there is now additional capacity at the more popular CCI and CCM airports. Filling the additional capacity at airports that were already very busy could lead to operational inefficiencies, even if there has been expansion. Arrfield will also have to consider whether competitors will have an advantage because of the expansion, which would enable them to encourage airlines to switch. For example, expanding operations at Skylaine Capital City Airport could make it

easier to attract a major airline to establish its own hub in competition with CCI and CCM.

Requirement 2 – mission statement

The mission statement provides the Board with a starting point whenever it is faced with a strategic decision. The document enables the Board to go back to first principles when weighing up conflicting objectives. In addition to identifying relevant criteria, the Board can proceed on the basis that any decisions can be justified by the fact that the mission is being furthered. If the shareholders object to a decision that the directors can justify on the basis of the mission statement then the Board should be able to defend itself. That should enable the directors to make more decisive actions, knowing that their credibility can be protected.

The fact that Arrfield's primary mission is expressed in terms of delivering growth in shareholder wealth, confirms that the company is a traditional commercial entity and that its focus should be on factors that drive wealth creation, such as profit. Unfortunately, that does little more than confirm the primary objective that would be true of most quoted companies and so it provides very little assistance. The commitment to sustainable growth in wealth could be an argument for proceeding with the expansion, in this case because Arrfield has been forced to ration take-offs and landings through the issue of slots. Unfortunately, there can be no guarantee that demand for flights from Arrfield's airports will continue to grow and so care would have to be taken in quoting the mission statement.

The secondary objective of respecting the needs of other stakeholders complicates the application of the primary mission. Arrfield has a wide range of stakeholders and its actions can have a significant impact on all of them. In this case, there are parties who will clearly benefit and others who will be adversely affected. That requires care when evaluating stakeholder needs. Supporting a political initiative will demonstrate support for the government and may benefit Norland's economy. The additional capacity will also create opportunities for airlines that will be to their benefit. Unfortunately, expanding airports to permit more flights will also adversely effect local residents, who will suffer even more disruption, and for society in general because of the additional fuel that will be consumed.

Requirement 3 – currency volatility

Aeronautical fees are charged in N\$ and so any volatility in currency will affect the cost to airlines. In principle, that could make it more expensive to operate flights from Norland when the N\$ is strong, which could make it more attractive to consider operating transit flights through airports in nearby countries such as Seeland. The fact that the N\$ is volatile suggests that there are also times when the currency is relatively weak and so the cost to airlines is reduced. It may also be inconvenient for airlines to move their transit hubs because that could affect passengers' flight connections. Overall, that suggests that the volatile currency will have limited impact on airline operations.

NorFly is a major airline that is based in Norland and that makes heavy use of Arrfield's airports. If NorFly's fares are fixed in N\$ then any volatility might have an impact on passenger choice. Arrfield could have fewer arriving passengers if the N\$ is strong and passengers choose competing airlines that use long-haul

hubs in other countries because that is cheaper than flying via Norland with NorFly. That could also mean that NorFly will lose outgoing passengers when the N\$ is strong because it will be cheaper to buy tickets that are priced in other currencies. The fact that the currency is volatile means that there will also be periods when the N\$ moves in NorFly's favour, which will hopefully offset those problems to some extent.

Arrfield may also suffer fluctuations in non-aeronautical revenues when the N\$ strengthens. For example, it will be cheaper for foreign airlines to buy fuel in Norland when the N\$ is weak, but more expensive when it is strong. Airlines may restrict fuel purchases so that they have sufficient to get their aircraft to the next stop on their journeys, thereby reducing Arrfield's commission on fuel sales. There could be a similar issue with retail sales in the terminal. Passengers will perceive N\$ prices as expensive when their currencies are relatively weak in comparison and so commissions might be reduced. Having said that, passengers may have time to shop and will be prepared to buy to pass the time. They will also have little choice with regard to buying food and refreshments while waiting for their flights, so the impact might not be severe.

Section 2

Requirement 1 – funding

It is unlikely that a lender would be prepared to advance N\$5 billion and give Arrfield the flexibility to repay the loan at Arrfield's discretion. There are significant costs associated with negotiating a loan of this size and conducting the associated due diligence and so the lenders will wish to earn interest over the whole of the agreed term of the loan. Granting this flexibility would probably require an associated penalty payment or a higher rate of interest, which would offset any benefits that the proposed funding strategy might offer. Lenders might be unwilling to advance a loan under circumstances in which it will be repaid early if a major project appears to be succeeding, but will be carried to term if the project is in decline.

Markus seems to be suggesting that the cost of equity will decrease if the stock market has greater confidence in the expansion plan as it gets nearer to completion. It is possible that there will be less risk associated with owning equity when the project reaches completion, but the cost of equity is still likely to exceed the cost of debt. It is unclear why Markus believes that the switch from debt to equity will be to Arrfield's advantage, even if the share price does increase as hoped. That would suggest that the best way to proceed would be to retain the loan, secure in the knowledge that the project is close to completion and appears to be on course for success.

If the initial stages of the expansion are perceived as risky then the fact that the N\$5 billion has been borrowed could suggest a risky funding strategy. The loan will still have to be serviced, even if the project runs into difficulties. It would probably be more logical to raise equity in the first instance because that gives the Board much more flexibility in order to deal with any problems that occur with the project. It would be difficult to replace equity with debt, but raising equity at this early stage would leave Arrfield's debt capacity in place for use in the event that it wished to raise additional funds to invest in other projects.

Markus appears to be suggesting that the shareholders who buy the new equity will be investing to fund the expansion, but they will actually be investing in Arrfield as a whole, knowing that the company plans to expand. The share price will not necessarily change significantly in response to progress on the project and it will be affected by all of the factors that affect future cash flows. Even if the project is proceeding to plan, Arrfield is unlikely to issue ongoing progress reports and so the markets will not be aware in order to adjust the share price. If Arrfield is prospering then issuing additional shares will risk diluting the equity that is already in issue, which might not benefit the shareholders.

Requirement 2 – cyber risks

The implementation of this new system will create significant risks of incompatibility and other problems that could seriously hinder Arrfield's operation. The software used by NATCS will have to be written so that it can interact with systems aboard any type of aircraft in Norland's air space and also the systems at all airports. For example, the NATCS system will have to be able to confirm that the runway is clear before it can issue instructions to an aircraft to land or take off. We may have to adapt our systems to make them compliant

with the system that is under development by NATCS. Their needs and interests will have to take priority because of the need to ensure the safety of aircraft in the air and so Arrfield will be left with the responsibility for adapting its systems to meet the needs of air traffic control.

The integrated nature of our operations could require extensive changes that will carry on over a number of aspects of the system. For example, baggage handling software will have to ensure that all cases are loaded on to the correct aircraft in time for departure, otherwise flights will be delayed or passengers' baggage will be left behind. We may have to adapt our systems to allow for changes in how air traffic control manage arrivals and departures and so we will have to wait until the NATCS software has been specified before we can be sure of the work that we will have to do on our systems. The need for compatibility between our systems and those of a third party will complicate the testing of new code during the software development.

Our systems will be a tempting target for malware. Environmentalists and other parties may wish to hack our new systems in order to protest at the increase in air traffic. This will also be a prestigious project for Norland's government, which will also encourage hackers. The fact that the system will have to communicate with NATCS and with aircraft in the air and on the ground, means that the system will operate wirelessly and so could be accessible to anyone with the required skills and equipment. Even a relatively crude hack, such as a denial of service attack, could hamper our operations very significantly.

Any errors with the new system are likely to create significant reputational damage for Arrfield. Passengers and other parties who are affected by any problems, will blame us for failing to take greater care in the development of the new system. The consequences of problems may be far-reaching and could escalate rapidly. For example, aircraft that are delayed at CCI will be late in making their onward flights; passengers could miss their connections. In extreme cases, this could leave passengers reluctant to fly through affected airports.

Section 3

Requirement 1 – stakeholder needs

From a strategic point of view, Arrfield needs to maintain a good working relationship with the airlines because they are major stakeholders. If it increases capacity, without offering some of the newly created slots to existing airline customers, then it may risk the loss of goodwill and could even lose business to other airport operators. Arrfield also needs to consider the needs of smaller airlines that wish to fly to, and from, large airports such as CCI. Smaller airlines will be unable to expand beyond “niche” timetables if they cannot connect to major hubs.

Towns close to small airports can also be stakeholders if Arrfield gives slots to airlines that operate from them. Opening small, local airports up to major hubs such as CCI and CCM would boost the local economies, with more scope for attracting inward investment and possibly boosting property prices. Regular services to a major hub airport could also stimulate business at those airports and create additional job opportunities. It could be argued that Arrfield has no particular responsibility to assist those communities even though they are interested parties, so the benefits that it is offering should be balanced against the possibility that only small aircraft, with small passenger capacities, will be used for those slots.

Norland’s government will undoubtedly see itself as a stakeholder because of the potential impact on the country’s economy and also because of the political issues associated with the allocation. Giving slots to foreign airlines will generate less tax revenue and possibly fewer jobs than would be created if the slots are given to overseas airlines. The government is also making a significant investment, through the software at NATCS, which means that taxpayers might question any benefits that go to foreign companies. Good air links will also boost Norland’s economy, so the slots should be distributed in a commercially sound manner in order to maximise the benefit to the country.

Requirement 2 – internal audit

Internal audit investigations generally focus on compliance, but the auditor should start this assignment by reviewing the system to ensure that it is both sound and defensible. The starting point would be to identify the decision makers within Arrfield who will make the final decision on the allocation of slots. They should be managers with suitable backgrounds and seniority and should possibly include a Board member. The auditor can then meet with them in order to discuss the key issues that should be considered in choosing between different bids.

Airlines who wish to bid for slots should be furnished with a checklist of the information that they are expected to provide so that all bids can be compared on the basis of the facts that are deemed relevant. The internal auditor should ensure that the facts that have been requested are consistent with the issues that came out of the discussions held with decision makers. Ideally, those factors should lend themselves to objective statements or they should be matters that are objectively present or absent.

There should be a clear process to ensure that bids are received by a specific date and that airlines are aware of that deadline. There should also be a clear means of delivery. The auditor should ensure that the bids are submitted in a safe and credible manner, such as a package of documents to be couriered to a designated non-executive director or a secure website that is accessible only to a non-executive. The auditor should not accept bids or become part of the process because that would inhibit auditor independence.

The auditor should be present when the bids are opened or downloaded and should compile a register of the bids that have been received. The auditor should attend all meetings at which bids are discussed and selected, but should have observer status only. The auditor should record the final decision, along with the decision-makers' justification.

Requirement 3 – publishing report

It would be unwise to publish the internal auditor's report, primarily because it would add very little credibility to the process. The document has been prepared internally by Arrfield employees. Even if they have the greatest integrity and were independent of the decision, third parties will not necessarily accept their assurances. Anyone who wishes to challenge Arrfield's allocation will have a clear vested interest in doing so and so will not necessarily be prepared to accept that the internal auditor's assurances are sufficient. There is likely to be an argument that Arrfield should have commissioned an external review of the process, perhaps by an audit firm.

Committing to publishing the report could be regrettable in the event that the auditor's report is inconclusive or even suggests that procedures were inadequate. While it is to be hoped that the auditor's report will be satisfactory, there is no way to be 100% certain in advance that the selection process will lend itself to a positive outcome. If the final decision is based on subjective discussions then the auditor's report might not conclude that the allocations were based on clear and unambiguous criteria. Clearly, the auditor could warn the decision makers that the report will reflect any problems, but that could lead to a dysfunctional decision process that emphasises objective factors for the auditor's sake.

It could be regarded as being somewhat unconstructive to state in advance that the decision will be accompanied by an audit report. It should be sufficient to state that Arrfield's Board will ensure the highest standard of care for the decision and that the final decision will take all relevant factors into account. Announcing that there will be an audit investigation could actually undermine the credibility of the process.

STRATEGIC CASE STUDY MAY & AUGUST 2021 EXAM ANSWERS

Variant 4

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Section 1

Requirement 1 – PESTEL

The most pressing concern is that the manner in which airlines are buying fuel from Norland's airports is harming the environment. Aircraft are taking off with heavier fuel loads on their outward journey, which means that they will burn more fuel on that part of their journey. This story will attract the attention of environmental pressure groups and lobbyists both because the airlines' behaviour is harmful to the environment and also because it is a very clear issue that can be reported in the press. Arrfield has done nothing to create this issue and can probably do very little to prevent it, but it could still attract public protests and demonstrations. Airports are visible and accessible locations for protestors. Arrfield is no more guilty than any other airline operator, but it does own and operate major hub airports that are close to Capital City and so there is a strong possibility that they will be targeted.

The environmental concerns could provoke political and social reactions. Norland's government could respond to any environmental concerns by adding additional tax to sales of aviation fuel or by taxes on air travel. Such moves are popular with voters who are interested in the environment and also raise tax revenues in a manner that is less unpopular than increasing, say, income tax. From a social point of view, this type of story could discourage the use of air travel for tourism and even some business meetings. In many countries, increasing awareness of the importance of the environment is leading to social responsibility becoming more mainstream.

Arrfield must also consider the economic issues arising from this story. Changing currency values are clearly affecting Arrfield's ability to compete with foreign airports for revenues from some goods and services. Passenger aircraft travel internationally and so it may be possible to change buying decisions on the basis of currency fluctuations. If prices change then airlines have some choice about where and when they will buy their fuel. That could have impacts on other

revenue streams. Airlines might be less willing to carry commercial freight if that additional weight would interfere with the ability to fill up with cheaper fuel. There is also a clear possibility that the N\$ will weaken and that Arrfield's fuel sales will be adversely affected.

Requirement 2 – charging percentage

The obvious downside risk to accepting a percentage is that Arrfield is effectively sharing the commercial risks with those operators. If demand for air travel declines then there will be less non-aeronautical revenue and that will reduce Arrfield's commission. It could be argued that Arrfield is now accepting more than its share of the risk because many of Arrfield's costs are fixed while the operators will have significant variable costs that will be reduced in line with revenue. Fewer flights means that the refuelling companies can buy less fuel, but Arrfield will have to pay just as much for the upkeep and security of the grounds occupied by the operators.

It could be argued that air travel is relatively robust in the medium to long term and so any volatility in Arrfield's revenues will be relatively minor. Air travel is prompted by business and leisure needs that will be relatively persistent. If the airlines are operating at all then the operators at Arrfield's airports should be in business. For example, airlines will have to buy fuel even if their aircraft have empty seats. Any volatility due to currency and other factors will be offset by the fact that aircraft have limited capacity to carry fuel and other consumables, such as food for inflight catering. Ultimately, the risks associated with charging on a commission basis will be restricted by the fact that the operators would be unlikely to have massive changes in their revenues.

There is an upside risk to taking a commission because this is common practice throughout the airline industry. Operators might be reluctant to commit themselves to Arrfield's airports if they are faced with significant fixed rental payments. The commission basis builds a degree of risk protection in because it ensures that Arrfield's income moves in line with inflation and other economic variables. Sharing the risk of a downturn in any one area could be prudent because of the interdependence of the different operators for keeping the airport operational. If a fixed rent makes it uneconomic to operate, say the refuelling service then airlines may be forced to redirect their flights to other airports.

Requirement 3 – justifying strategy

It is probably not a good idea for the directors to attempt to offer the shareholders an explicit justification for Arrfield's strategy. The directors' immediate job prospects and their ongoing careers will always benefit from them being perceived as being competent. The shareholders will not necessarily accept that any justification offered by the directors is motivated by anything more than self-interest and so any justification that they offer will be suspect. The very fact that the Board is offering such a justification will create a poor impression of the quality of its management.

The directors are subject to the discipline of stock market forces. If informed experts in the airline industry believe that the company is being mismanaged then that could prompt a takeover bid by bidders who believe that the company could be better managed. If the directors attempt to raise the share price by

offering an explanation of their strategy then they would really have to provide the market with information that was not publicly available. The share price might increase in the short term if the markets believed that the company's prospects were stronger than had first been believed, but the shareholders would suffer because competitors would also find this information useful. The publication of that information could then be viewed as self-serving in order to benefit the directors and their decision to do so could be perceived as naïve.

The decision to publish a justification for any strategic decision would almost certainly require an explanation of the assumptions and forecasts being made by the directors. It is likely that the passage of time will indicate that the Board's predictions did not all turn out to be accurate, which could raise a risk of accusations of negligence. For example, an economic prediction of the likely movement in the N\$ could be based on realistic models and market-based information, but there is no guarantee that reality will follow the models. The shareholders will be more likely to evaluate performance with hindsight rather than giving the Board credit for the decisions made on the basis of the facts as they were known and understood at the time.

Section 2

Requirement 1 – currency movements

The International Fisher Effect suggests that the markets anticipate a strong N\$ for the next three years. The logic is that borrowers will not borrow in N\$ if the currency is expected to appreciate. It would be more sensible to borrow in a currency that is expected to weaken. International Fisher Effect suggests that differences between the interest rates on different currencies will reflect the total cost of borrowing, including any increase in the value of the principal arising from the anticipated strengthening of the currency.

It is fair to say that the differences between interest rates on the N\$ and other currencies will enable Arrfield to derive an unbiased forecast of the movement of the N\$ against those currencies. That does not mean that the predicted strength of the N\$ will definitely happen. Any forecast can be incorrect, even if it is based on a logical model and objective variables. The markets can only base their predictions on economic models and economic data that will always be subject to some doubt.

The strong N\$ will affect different airlines in different ways, depending on where they are based. That complicates any analysis of likely outcomes. Foreign airlines will have to pay more for aeronautical fees in N\$ when they are converted back to their home currency, but airlines based in Norland will not be affected. Changing exchange rates could lead to airlines adjusting their fares in order to pass the currency movements on to their passengers, which could affect demand for air travel. That impact will, however, depend largely on the passengers' home currencies. A passenger who lives in Norland will find that a stronger N\$ offsets the increased fare charged by, say, Air Farland when set in F\$.

There is a further complication in that Arrfield's revenues are set largely in relation to the number of passengers who pass through its airports. The elasticity of demand relative to the price of air travel is complicated by the fact that passengers may not behave differently just because of price changes. Travellers may be prepared to pay more for a trip, either because it is necessary for work purposes or because they are prepared to pay more for their annual vacation if they have to. Similarly, leisure travellers may be prepared to pay more because the alternative would be to forego a foreign holiday.

Requirement 2 – strategic decision

It is debateable whether this proposal would pass the suitability test. Arrfield's strengths lie in the management of airports, allowing specialists to provide services ranging from refuelling, to catering for inflight service, to retail. There is a mutual interdependence between those experts and Arrfield, which benefits both sides because each can rely on goodwill from the other party. The refuelling companies cannot relocate unless they can move to different airports and Arrfield cannot operate without refuelling services, especially with regard to long-haul flights.

Arrfield will suffer major disruption if it takes over direct responsibility for refuelling and subsequently struggles to operate this service efficiently and effectively. The

reputations of its airports will be threatened and the Board will be branded as incompetent.

The proposal appears to be based on the apparent “opportunity” created by the strong N\$. That is very much a short-term phenomenon, that is likely to disappear before long. It will also be possible for Arrfield to capitalise on that simply by taking its commission from the increased sales made by the existing contractors.

The acceptability of this proposal depends on the response of the various stakeholders who will be affected. The most immediate concern will be that the experienced staff who presently operate the refuelling service may not wish to work for Arrfield. If Arrfield cannot recruit staff with the required ability and experience then there could be problems in passing any regulatory requirements because the safety of operations on the ground and in flight could be at stake.

This move will almost certainly unsettle other operators who are based at Arrfield’s airports. If Arrfield takes over refuelling then it could just as easily take over other services such as retail in the terminals or inflight catering. The uncertainty that will be created could lead to a loss of goodwill and even some dysfunctional behaviour. Arrfield could lose important service providers to rival airport operators, which could lead to a loss of credibility with the airlines, who may feel that the overall service at Arrfield’s hubs could become unreliable.

Arrfield’s shareholders could be nervous about the likelihood of this proposal succeeding and so the share price could fall. In the short term, the airlines will have no choice but to operate their existing flights, but the loss of any airline customers will have a disproportionate impact on the overall performance of any given airport, especially a hub that loses some connections.

It should be relatively straightforward to determine the feasibility of this project. Firstly, Arrfield should investigate the regulations relating to the sale of aviation fuel in order to understand the need for a licence. The criteria for obtaining a licence will then be clear and Arrfield can seek advice on whether it would be able to make a successful application.

The ownership of the equipment at the airports will have to be considered. If the present operators own the equipment required to store and transport fuel then Arrfield will have to check that it will be possible to buy those items as part of the severance. If the equipment cannot be purchased then the replacement will be a complicated undertaking that would almost certainly involve the risk of having to close down for a period.

The distribution channel will also have to be considered. Presumably, the suppliers of aviation fuel would be willing to make bulk sales to Arrfield, but that would have to be checked. If the suppliers are related to the present airport operators then they would have an incentive to refuse any orders from Arrfield in order to have their contracts reinstated.

Section 3

Requirement 1 – internal audit

Nothing that the Internal Audit Department can do at this stage can alter the fact that Arrfield has incurred a significant cost. It could be argued that it is a waste of internal audit time and resources to interfere with ongoing planned investigations in order to investigate this case. Internal audit investigations are generally focussed on compliance and so concentrate on checking that systems are operating as specified. In this case, the lack of compliance is clear and the implications are already apparent to all, so it could be argued that further investigation will serve no purpose.

The role of internal audit is really a matter for the Board to decide and so it would be inappropriate to argue that the audit staff should not have been engaged in this work. The Board has every right to decide that the audit staff may be asked to undertake ad hoc investigations as required. In this case, the alternatives would probably have been more disruptive because the work would have had to be done by senior managers from elsewhere in the company, which could have caused operational inefficiencies. The internal audit staff are also more skilled in dealing with this type of investigation and in documenting the results.

An internal audit investigation would send out a very clear message that senior management takes this case very seriously and so it could discourage future recklessness. Internal audit is a key element of the control environment and the work that it does is one of the ways in which the Board can communicate its concerns and interests to staff. The very fact that the internal audit team is taking time to investigate and is asking questions will make it clear that the Board is dissatisfied. That will undoubtedly discourage such rash behaviour in the future and so could serve as an effective deterrent.

The Board may wish to gather further information in order to decide whether to take disciplinary action against the managers who made this decision. Any such decision should be based on the facts surrounding the event and the auditor staff are trained and experienced in gathering and reporting facts. The fact that the internal audit team is independent of the airport management team means that any decisions based on their report will be unbiased. A full investigation will demonstrate that any disciplinary action taken by the Board is fully justified and that the Board took all reasonable steps to determine the facts.

Requirement 2 – ethical duty

It could be argued that the CCI management team was faced with an ethical conflict between their duty to maximise shareholder wealth and their duty to comply with established rules and procedures, including the need to conduct a detailed credit check on its customers. In this case, the facts must be evaluated and related to those potentially conflicting duties. For example, the fact that fuel sales account for a significant proportion of an airport's non-aeronautical revenue means that there will be significant receivables from the companies that sell fuel. That suggests any controls that check a fuel supplier is creditworthy has to be important because significant amounts of revenue are at stake. The fact that Planejoos was a new company indicates that there was an even greater need to conduct all necessary due diligence on its ability to pay its debts. The decision

to override the controls associated with doing business with this new supplier should really have been taken by Arrfield's Board because only they have a direct duty to maximise shareholder wealth. The management team on an airport had a much more specific set of duties that are prescribed by the Board.

The principle of objectivity comes into play here. The management team appears to have been motivated by a desire to report higher earnings, rather than to enhance their overall financial performance. They have interpreted the facts as offering a clear justification for their actions, but have manipulated the facts in doing so and have breached objectivity. While it is true that Planejoos offered the prospect of more revenue, it did so at the cost of having to accept a higher risk. It is not possible to compare Planejoos with the previous vendor in any meaningful way and so there can be no objective justification for the management team's actions. They have overstated their justification.

The principle of professional behaviour implies that the management team should have complied with all relevant laws and regulations. In this case they have clearly failed to do so and are using the maximisation of shareholder wealth as an excuse. Arrfield's Board had set out detailed rules concerning the need to evaluate the financial security of prospective business contacts such as Planejoos. The Board is well within its rights to set such rules and they should be followed. The claim that the management team intended to maximise shareholder wealth ignores the fact that the Board's rules were also designed with that objective in mind. Avoiding worthless receivables is consistent with maximising wealth.

The principle of integrity implies being honest in all business dealings. It is realistic to give those senior managers a wide discretion in making even quite important decisions. If the decision had to be taken so urgently that the usual checks could not be carried out, there was nothing to prevent CCI's management team from contacting the CFO or other Board members to explain the circumstances. It would then have been up to the Board to decide whether or not it mattered that the credit checks could not be carried out without losing the opportunity to appoint Planejoos. The decision would not necessarily have been different, but it would have recognised that the directors are ultimately responsible for Arrfield's performance and so they are entitled to be consulted on major decisions such as this. It could be argued that this has been a dysfunctional decision that has been made by CCI's management in order to create the impression of sound commercial decision making.

**STRATEGIC CASE STUDY
MAY & AUGUST 2021
EXAM ANSWERS**

Variant 5

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CIMA will not accept challenges to these answers on the basis of academic judgement.

Section 1

Requirement 1 – strategic decision

It could be argued that the Board is merely reacting to a problem that has started to emerge as a concern and so it is hardly a strategic decision. Anna's proposal appears to be a forced response to increasing levels of dissatisfaction from NorFly and the other airlines that operate from CCI. Her recommendation appears to be based on what happens to be available at the moment and in the relatively immediate future. It would undermine the Board's credibility if it was claimed that it was a strategic decision to offer this option to NorFly.

Arrfield's Board should have a strategic plan in place to meet the developing needs of the airlines and other entities who do business at its airports. That strategic plan should be based on expectations concerning likely scenarios that could emerge, including growth or decline in demand for key facilities. In this case, it should have been noted that there was no surplus hangar space at CCI and consideration should have been given as to whether that was likely to be a problem in the longer term. A strategic decision would have allowed for a less drastic response than asking NorFly to relocate to a smaller facility.

Anna's proposal does not appear to be considering the significant cost and disruption that would, at best, be only a partial response to NorFly's needs. Even though the investment in the hangars at CCI is very much a sunk cost, moving NorFly to an alternative location would risk leaving them unoccupied and there may not be an alternative lessee. The proposal also risks harming Arrfield's relationships with the airlines that presently lease the hangars at HCI, which may prove damaging to long-term revenue streams if they move their flight operations. The proposal will also involve significant expense for the construction of the additional hangar space at HCI.

Requirement 2 – stakeholders

All of these stakeholders will have both a high interest and a high power. The hangar space is vital to maintain aircraft and so the airlines who use the facilities at CCI and HCI will be inconvenienced if Arrfield makes any changes. The airlines all have high power. Clearly, NorFly is the largest and so can exert the greatest interest, but the loss of even a small airline could reduce the number of destinations that can be reached from Arrfield's airports.

We should manage NorFly's interests by scheduling a high-level meeting between Anna and her counterpart at the airline. The meeting should focus on NorFly's immediate needs for hangar space and its needs in the longer term. Anna should raise the fact that NorFly has "started to complain" and should ask the airline's management team to elaborate on whether there is in fact a serious problem. It may be that the local engineering manager has been complaining about temporary problems that are not, in themselves, sufficient to justify the relocation of the maintenance facilities. It should be remembered that the hangars are also used to deal with unscheduled repairs for NorFly and for other airlines and so there could be short-lived accommodation shortages no matter how many hangars there are.

If NorFly confirms that there are serious problems at CCI then Anna needs to determine what options are available to the airline and whether those could have serious consequences for Arrfield. Arrfield may not suffer any significant loss if NorFly makes its own alternative arrangements for hangar space at another airport. It would only be a concern if NorFly decided to reduce the number of flights from CCI because of that, which seems unlikely. Anna's proposal to offer the arrangement at HCI would really be best suited to a scenario in which Arrfield is faced with the loss of all of NorFly's business. Otherwise, Arrfield is under no particular obligation to provide NorFly with maintenance facilities.

Arrfield should avoid involving the other airlines who fly from CCI in any discussions until it has decided to move NorFly's base to HCI. Any premature announcement would create uncertainty and could affect Arrfield's relationship with those airlines if the proposal is subsequently withdrawn or modified. The senior management team at NorFly can be trusted to respect Arrfield's confidence because they are, ultimately, in competition with the other airlines.

The most important issue to be addressed once a decision is made is the question of whether Arrfield will continue to provide hangar facilities at CCI. The land and buildings could have other uses if they are not being leased by NorFly. Arrfield should meet with managers from each of the airlines that has made use of these hangars and ensure that it understands the airlines' needs. Ideally, Arrfield should reach a compromise arrangement that leaves at least some of the hangars staffed and operational so that any repairs can be carried out in order to keep aircraft airworthy.

The situation with regard to the airlines who presently lease hangars at HCI is complicated by the fact that their needs are sufficient to pay to occupy those hangars. It would be unhelpful to leave those airlines with the impression that their leases will be reinstated if Arrfield is actively considering the possibility of terminating their agreement at the next breakpoint. Some airlines will find it

easier to move on than others and Arrfield may be able to reserve, say, one or two of the hangars at CCI for those that would be the most inconvenienced. That would then have to be factored into discussions with NorFly as to whether 13 or 14 hangars at HCI would be sufficient.

The obvious solution would be to ask the airlines whether they could relocate their maintenance operations to CCI. Airlines that have regular flights from CCI should be able to move without undue difficulty. They may even prefer to relocate to a larger and more central airport. Arrfield could consider offering a financial incentive, such as covering some or all of the airlines' removal expenses or offering the lease at a reduced cost.

Section 2

Requirement 1 – relevance of divestment decision

As with any acquisition, Arrfield will have to conduct a detailed due diligence before it signs a contract to acquire Wingpaint. In this case, it will have to establish why the subsidiary is being sold because the company's owner will still need to paint its planes before they can be delivered to customers and so Arrfield should establish why it is divesting. There could be several good explanations for wishing to divest, none of which need discourage the acquisition and so Arrfield's Board need not be unduly concerned.

The wish to divest could create opportunities for Arrfield, such as the availability of ground staff at Wingpaint who will be made redundant by their current employer. There could, therefore, be a pool of staff who are both qualified and have experience of operating the facilities at this particular site. Arrfield could employ this in bargaining for the purchase because it will reduce the reputational issues associated with making the employees redundant.

Unfortunately, the decision to divest could imply problems, such as a need for costly repairs to the runway or hangar buildings, which would render the acquisition uneconomic once Arrfield had paid to resolve the problems. Arrfield's shareholders will be particularly unimpressed if the company overpays for a new subsidiary that owns defective assets that require extensive refurbishment before they could be put to use. Arrfield can, of course, deal with that possibility by commissioning its own structural check on the parts of the airport that it wishes to keep and lease out to NorFly. That would, hopefully, identify any structural problems and demonstrate that proper care was taken in buying the property.

Arrfield will also have to consider whether the divestment is due to aeronautical issues that could impact on its plans for the use of the airport. For example, if Wingpaint was having problems in obtaining permission to take off or land because of air traffic control restrictions or adverse weather then the airport would be unsuitable. It should be possible for Arrfield to investigate that concern by reviewing flight records held by Wingpaint and checking with air traffic control as to whether the airspace around the airport is subject to congestion.

Requirement 2 – ethics

The principle of objectivity requires Arrfield not to compromise business judgement because of bias or conflict of interest. Arrfield's business decisions should always focus on maximising shareholder wealth in the first instance. If we assume that the acquisition of Wingpaint would be a positive net present value investment then Arrfield should not reject that opportunity on the grounds that it would adversely affect other stakeholders. Given that Arrfield operates airports, which are inherently noisy and likely to impact local residents, its shareholders probably hold shares on the basis that Arrfield will pursue investment opportunities that are to their benefit, even if they have the effect of increasing noise pollution and other externalities. It could be argued that rejecting this opportunity because of local residents would involve political or other bias in the Board's decision making.

The principle of professional behaviour requires the avoidance of behaviour that would discredit Arrfield. In this case, it seems impossible to completely avoid reputational damage because the investment in Wingpaint will involve a “significant” increase in the number of flights. At present, the airport handles only one take-off or landing every few days. That will have only a limited impact on local residents. Presumably, increasing the number to even one or two flights every day will increase the disruption. There is the further consideration that the local roads will have a great deal of traffic, including over-sized loads such as aircraft engines. Arrfield could be the target for a great deal of criticism because the additional air and ground traffic will be in the vicinity of a small town.

The principle of professional competence and due care would require the Board to act diligently and in accordance with relevant standards. The Board can be guided by the fact that there are specific rules and regulations that govern the operation of aircraft. These define the limits of acceptable behaviour. For example, noise abatement regulations generally restrict take-offs and landings to daylight and evening hours to enable people to sleep. Very few developed countries have unpopulated space for airports and so it has become accepted that air travel requires a compromise between the needs of travellers and residents. Arrfield will be required to comply with the law and may even be able to exceed the minimum requirements without incurring undue expense.

Requirement 3 – reputational risks

There are strict safety regulations that govern air travel. Arrfield can always defend its reputation on the basis that aircraft cannot be flown unless they are deemed safe to fly. The problem in this case is that the rules require aircraft to meet minimum safety requirements to be flown, but that an even higher standard be applied to aircraft that are to carry passengers. No matter how that is presented, it implies that some of the aircraft that will be flown into the Wingpaint airport will be less safe than most civil aircraft flying into “normal” airports. Residents who live under Wingpaint’s flightpath will be concerned because the probability of a crash will be higher than from a normal flight, even though that probability is still small. That is also an issue because many of the aircraft landing at Wingpaint will have minor defects that would prevent them from being safe for passenger flights.

While it is to be hoped that Wingpaint will operate safely and without incident, if there ever is a crash then Arrfield will be blamed for creating a facility that attracts these flights. Critics will blame Arrfield’s Board, even though the risks were within the limits specified by law and regulations. The fact that hindsight confirmed the very slight fears will be sufficient to persuade many observers that Arrfield behaved irresponsibly. The press will undoubtedly refer to the lower safety standard even if the incident involved a perfectly sound aircraft that was being flown in for routine maintenance.

Safety concerns are a convenient basis to attack Arrfield’s reputation for any reason, possibly completely unrelated to the actual concerns held. Anyone who objects to the additional air traffic created by Wingpaint Airport may argue that the lower safety threshold is evidence of irresponsible behaviour by Arrfield. Any such complaints will damage the company’s reputation even if they are exaggerating an immaterial threat. Unfortunately, there is little that Arrfield can

do to counter such a threat because damaged aircraft do require repair and there may not be an economical alternative to flying to a repair facility.

Section 3

Requirement 1 – shares

The number of shares would be based on the value attributed to Wingpaint, divided by Arrfield's value per share. Deciding the number of shares requires agreement on the value of Arrfield shares and that of Wingpaint.

Arrfield is a quoted company and so it has an observable share price that should reflect the value of the company. If we assume that the stock market is efficient then the market price will reflect all available information in an unbiased manner. That efficiency could cause problems because uncertainty about the number of shares that will be issued could reduce the share price. The capital market might be concerned that Arrfield will overpay by issuing too many shares and so will dilute the share price. While the directors of Wingpaint's parent are unlikely to accept this argument, Arrfield's shareholders may be concerned that this uncertainty is likely to cause a self-fulfilling prophecy in which the depressed share price leads to an overpayment.

Wingpaint is unquoted, which means that there is no observable market price. Arrfield's Board must identify a suitable valuation model that can be applied because their decision to acquire this company is likely to be challenged by the shareholders. The fact that Wingpaint has such a specialised line of business means that it cannot be valued by referring to a quoted company in the same line of business. That would make it impossible to base a value on a comparable company's price/earnings ratio or its beta coefficient and implied cost of equity. In any case, any such valuation would value Wingpaint as a going concern, which is not particularly helpful because Arrfield plans to put the company to a completely new purpose.

It might be possible to base a value on Wingpaint's assets. That would have the advantage of relevance to Arrfield's motive for acquiring the company because it basically wants to obtain the assets. Again, that could be a complicated problem because Wingpaint's assets are specialised and so there is unlikely to be a visible market for large aircraft hangars and runways. There are also issues with the intangible assets, such as operating licences to permit flight operations because each airport is likely to be unique with respect to location and the types of aircraft that it can operate. The parent company might also point out that the acquisition is giving Arrfield a complete package in the form of a working airport.

Ultimately, the price of any unquoted company must be finalised through negotiation, with the buyer keen to pay as little as possible and the seller keen to receive the highest possible price. In this case, each side has some strengths in their arguments. Arrfield could argue that there is a limited market for an airport that does not have suitable facilities for freight or passenger flights. If Arrfield does not buy it then Wingpaint's owners may be forced to sell the land and buildings for development, which could restrict the value if there is no demand for building land in that location. Wingpaint's owners might argue that Arrfield is unlikely to find a site that is as well suited to its needs and that it would take a great deal of time to develop an alternative site.

Requirement 2 – criticism by shareholders

If the shareholders actively interfere with the strategic leadership of the Board then there could be confusion about who is actually running the company. Stakeholders will be left unsure as to whom they should engage with and managers who report to the Board may not be prepared to commit to following instructions from the Board in case they are countermanded by the shareholders. If the Board does not have full authority to take action then Arrfield may drift in different directions, with confusion as to the strategy that has to be followed. Major shareholders should consider seeking an appointment to the Board if they feel it necessary to become involved in corporate decision making.

The public disagreement will affect Arrfield's share price. The criticism could suggest that the Board lacks competence, which could depress shares. The fact that major shareholders are complaining about management could suggest that they may intend to bid for control, which would probably give the share price an artificial boost. Less capable shareholders could be persuaded by the major shareholder comments, which could lead to the sale of smaller shareholdings, pushing prices down in the process. These conflicting forces could make the share seem like a risky investment, which could make it more difficult to raise fresh equity if required.

The shareholders do own the company and so they do have the right to voice opinions about its strategic management. They appoint the directors to act as their agents, but that does not necessarily mean that the directors should receive their unqualified support over every decision. It would be preferable for major shareholders to meet privately with the Board to offer any thoughts and advice. Quite apart from reducing the controversy, the directors may have information and insight that is not generally available even to major shareholders.

It could be argued that major shareholders have a duty to become actively involved in the oversight and management of quoted companies. Effective governance requires that directors are held accountable for their decisions, which is only likely to happen if the major shareholders take an active interest in their companies. These shareholders have the incentive of owning large amounts of equity to take time to understand the industries and the companies in which they invest. They may have less at stake in terms of their personal careers to speak out against poor decisions or to recommend a change of direction.

**STRATEGIC CASE STUDY
MAY & AUGUST 2021
EXAM ANSWERS**

Variant 6

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Section 1

Requirement 1 – decision to negotiate

Arrfield has to consider whether the disposal of MLI would affect synergies with the company's other major airports. It may be that MLI is used as a gateway for airlines that operate from Arrfield's hubs in Norland to open up global routes to major airlines such as NorFly. Runitza claims that it wishes to control all of the hubs in Estland, which implies that it might have plans to reorganise flight operations, which could affect flights from Norland. Many of Arrfield's airline customers will undoubtedly be nervous about any discussions between Arrfield and Runitza.

It is important to consider the interests of Estland's government in this case. Arrfield may not wish to sell, but the government could, at least in theory, introduce legislation that forces the sale under terms decided by the government. There would be less extreme ways to coerce Arrfield, such as tightening up regulations relating to airport operations and having air traffic control delay take-offs and landings. Arrfield should consider whether it is likely to be forced into accepting a poorer deal if it does not enter into negotiations at this stage.

If Arrfield can determine Runitza's motives and intentions then it should consider whether there is an alternative means to benefit both sides. For example, Arrfield could develop a strategic relationship with Runitza that would leave MLI in the Arrfield Group, but that enabled cooperation on matters of mutual interest. Major hub airports often operate at close to full capacity and so they do not always lend themselves to expansion. In that case, there may be relatively little cost to agreeing that Arrfield will not seek to compete aggressively with Runitza. Restructuring the proposed takeover would probably benefit Arrfield far more than a negotiated sale.

The Board will have to consider whether it would have any use for the funds that would be raised from the sale of MLI. If it is not planning any major projects that

would put the funds to good use then the sale will almost certainly lead to the cash being paid out as a dividend or share repurchase. The sale will realise too much to simply hold cash because that will not generate a meaningful return on such a large asset. The company's overall market capitalisation will be reduced and the shareholders' wealth will probably decrease.

Requirement 2 – selling price

There is no objective basis for the valuation of MLI as a separate entity. The airport is effectively an unquoted company in its own right and the selling price would be a matter for negotiation for both parties. Arrfield will have to consider three separate approaches to valuation and could argue for whichever is the highest. As a start, it could determine the value of MLI to Arrfield. Logically, there would be no reason to sell the subsidiary for less than that amount. It could determine the value of MLI's assets. It is to be hoped that the airport will be worth more to Arrfield as a going concern, but if MLI is worth more on an asset basis then it would be realistic to insist on that amount. Finally, Arrfield could estimate the value of MLI to Runitza. If the airport is worth more to the bidder then that would set the upper limit to any negotiated price.

Determining the value of MLI to Arrfield is difficult because it is an unquoted company and so there is no observable market price. As a rough starting point, Arrfield could work on the basis that the group as a whole is quoted and so the market capitalisation is known. It could then argue that MLI is worth a fraction of that total capitalisation. Arrfield owns six airports, so it would be possible to argue that MLI is worth one sixth the value of the Group, or its value could be based on the contribution of MLI to total revenue. The only real problem with this approach is that it might provide Runitza with useful information that is not in the public domain and that might help it to compete with Arrfield if the sale of MLI does not go through.

Valuing MLI on an asset basis would set a starting point for negotiations, which would undervalue MLI as a business but would at least set a minimum acceptable starting price for negotiation purposes. The values would not require Arrfield to furnish the bidder with any commercially sensitive information because the airport itself is visible and observable and the assets themselves are known. Arrfield can also negotiate for the intangibles that should also be taken into account in acquiring MLI, such as the relationships built up with airlines. A further advantage of this approach is that Arrfield can value the assets on the basis of alternative uses. For example, the land may be worth more if redeveloped for housing or retail.

Setting a selling price based on the value of MLI to Runitza will obviously be open to challenge by Runitza and Arrfield is likely to be accused of overvaluing MLI. It is very likely that this basis will produce the highest valuation of all because there is nothing to prevent Arrfield from using optimistic assumptions. That does not necessarily matter because agreeing a final selling price is really a matter of negotiation and it would be a potentially sound negotiating tactic to press Runitza

on the basis of what it will do with this airport. If Runitza voices objections to Arrfield's arguments then it might provide useful information in its denials.

Section 2

Requirement 1 – responding to pressure

Arrfield should seek advice from local advisers with respect to the legal aspects of the government's behaviour. For example, a lawyer who specialises in aviation law could be asked to review the basis of the curtailment of the operating hours. Arrfield could then consider pressing for court action against the Ministry for Transport on the grounds that it has abused its power in retaliation for Arrfield's refusal to sell MLI. Even if the action itself does not succeed, it will draw attention to the Ministry's behaviour and could embarrass the senior politicians who authorised these actions.

Arrfield should identify as many Estlandian businesses that operate out of MLI, such as airlines and companies that provide goods and services to the airport. Their support should be obtained, in the form of identifying the monetary cost to them of discouraging and inconveniencing passengers. The Ministry's sanctions would then be seen to be harming businesses based in Estland and their owners would have a legitimate reason to speak out.

It may be possible to seek support from the governments whose airlines operate international flights to and from MLI. If, for example, NorFly has services to that airport then Norland's government might be willing to apply pressure to Estland's government. It would be possible to threaten to delay flights from Estland, particularly if they are provided by its national airlines in response to that country's behaviour.

It could be easier for Arrfield to work within these sanctions in the short term than it would be for the Ministry to maintain them. For example, the forthcoming safety inspection could be a problem if the results are falsified, but if Arrfield ensures that it is fully compliant in every way then it should have nothing to fear because the facts can be disputed. Similarly, the roadworks could be dealt with by informing passengers of the need to allow extra time to deal with the roadworks and making it clear that the Ministry for Transport are to blame.

Requirement 2 – key stakeholders

Clearly, the shareholders will have a high interest and a high power because the disposal will amount to a significant divestment of a core business segment by Arrfield and they could replace Board members on the grounds of mismanagement. Arrfield's Board can only aim to ensure that they demand a realistic selling price that exceeds the value of MLI to the Group as a whole, although that value will be difficult to quantify. The Board will have to ensure that it communicates its reasons for agreeing to the sale and its acceptance of the terms that were negotiated, in order to reassure the shareholders. It would help to hold a private meeting with key market analysts to ensure that they can offer calm and informed advice when the news of the sale breaks.

The airlines who operate from MLI will have a high interest in this divestment but will have relatively little power over Arrfield's decision to sell. Runitza will own all of Estland's hub airports and that could enable the company to reorganise flight schedules. They will not, however, have a great deal of influence over the disposal other than to threaten to stop flying from Arrfield's other airports, which

would probably harm them. Arrfield should work with Runitza to structure the deal in a manner that minimises the disruption to the airports. Runitza could, for example, be asked to agree not to alter flight operations for a few months immediately after it acquires MLI. Arrfield could also try to be flexible in dealing with any disruption to the scheduling of flights between MLI and its other airports, although that will be of relatively little value to airlines that fly from MLI to a wide range of destinations.

Arrfield's airports act as bases for a wide range of companies that provide goods and services to the airport itself and to airlines, including fuelling companies, caterers for inflight dining and retailers who provide duty free. These companies will have a high interest in the sale because they will be concerned that Runitza might replace them with competing providers. They may also have a high power because they could operate on a multinational basis and provide Arrfield with key services at its other airports in other countries. Arrfield should meet with the senior management of these companies at the first opportunity and should seek to reassure them that the disposal of MLI has no bearing on business relationships elsewhere. Arrfield could offer to make introductions to buyers at Runitza and to provide recommendations that they continue to trade with these suppliers.

Requirement 3 – ethical arguments

The principle of integrity requires the Board to be straightforward and honest in all business relationships. In this case, the most important relationship is with the company's shareholders. Arrfield has an explicit duty to maximise shareholder wealth. In this case, the fact that Estland's government wishes to purchase MLI and effectively remove Arrfield from the country does not create a duty to comply with those wishes. A sovereign government can achieve its objectives by passing and enforcing legislation and so Arrfield has no particular duty to base decisions on its perceptions of the government's preferences. It would be inappropriate to make the sale on a voluntary basis. If maximising wealth involves retaining ownership of MLI then Arrfield should keep the company and remain in Estland.

The principle of objectivity requires that the Board is not influenced by others. Arrfield has established itself in accordance with Estland's legal requirements for foreign-owned companies and so it need not be unduly concerned by perceptions of feeling unwelcome. MLI is a foreign subsidiary which will be required to comply with the rules and regulations governing airport operations and companies in general. Arrfield can demonstrate that MLI is fulfilling its obligations under Estland law through paying appropriate taxes and complying with employment law. There are always compromises for host countries in accepting foreign direct investment from multinationals such as Arrfield, but it is the governments' responsibilities to define the limits of those compromises.

The principle of professional competence suggests that Arrfield should comply with legislation. In this case, the Board should focus on the legal and economic issues associated with retaining MLI and should not be influenced by the wishes of Estland's Minister for Transport. The Board's primary duty is to the shareholders and the needs and interests of other stakeholders are secondary, even if they should be taken into account in any decisions. The needs of Estland's government can be met by complying with the rules and regulations

that govern the activities of foreign companies in that country. Provided MLI is complying with the law, there is no need for Arrfield to withdraw its presence in the form of owning a subsidiary in that country.

Section 3

Requirement 1 – cyber risk

The fact that Estland's Ministry for Transport wishes to acquire MLI suggests that local management should have been more alert to any attempts to gather data or disrupt operations. Arrfield's management should have been aware that any successful intrusion would have assisted the Ministry's efforts to acquire control over MLI. At the very least, intercepting details of transactions would have given the Ministry valuable commercial knowledge that would have been helpful in ongoing negotiations. A detailed breakdown of retail sales would have helped determine the value of MLI to Arrfield. At worst, the Ministry could have hacked customer's personal details, including credit card numbers. Releasing that information might have disrupted MLI's revenues and made Arrfield more open to bids.

Regardless of whether the intrusion was sponsored by Estland's government, the risks created by the wireless network should have been identified and mitigated. Wireless networks are inherently less secure because connections can be established with quite basic equipment and without the need to obtain physical access to the network hardware. The risks of getting caught once the network has been hacked are low because all it would take would be to sit with a laptop in any part of the terminal that has a network signal. The fact that the retailers use this network for transactions processing suggests that it will always be a potentially lucrative target for fraudsters to hack into.

It should be borne in mind that the intrusion attempt was prevented because MLI's IT technician was sufficiently alert to check the device before connecting it to the network. It is impossible to mitigate the vulnerability arising from hackers wishing to access MLI's systems because airports make tempting targets for a host of different reasons. The important thing is to mitigate the risks of a successful intrusion. MLI was successful in this case, but it will have to remain on top of this risk. Unfortunately, hackers will always have the advantage because they will always be working to develop new techniques and so it is impossible to guarantee that the risk can be eliminated.

Requirement 2 – preventing intrusion

The first step is to identify the wireless network as creating the most obvious area of vulnerability and deciding whether it can be made more secure in a cost-effective manner. Network data is encrypted using a key. It would be possible to make the data more difficult to decode by using a longer key. Accessing the network requires hackers to be within radio range of the router. It would be ideal if that range could be reduced so that it was only accessible within the airside part of the terminal because then hackers could only intercept data if they held valid boarding passes. It may be possible to shield the internal walls of the terminal building to prevent the network signal from leaking out to the landside areas.

MLI might consider whether a wireless network is worth the security risk. It could be replaced by a wired network. A wired network would require the various retail outlets to be connected to a router using network cabling, which would be inherently more secure because a hacker would have to physically connect a

device to the cabling in order to gain access. Airport terminals are designed with security in mind and so anyone behaving suspiciously and attempting to access network cables would be spotted and investigated by airport security. Modern buildings are designed to allow cables to be run through false ceilings and in spaces under floor tiles, which means that it need not be massively inconvenient to switch to wired connections.

MLI should conduct regular staff training and offer updates to its own staff and the employees of the companies who operate at MLI. Staff need to be aware of the risks because they are frequently the weak links in any IT system. This recent attempted intrusion showed that it was a simple matter to persuade a retail assistant to accept a piece of hardware that would have granted access. Any member of staff could be willing to permit a hacker with a plausible story to use a terminal for almost any reason.

Requirement 3 – responsibility

It could be argued that it is unreasonable to expect anyone to accept responsibility for the prevention of unauthorised intrusion. There are too many areas of vulnerability and the risks attached to each are constantly evolving. Making the Board responsible creates the possibility that the directors will be held accountable for a risk that they could not have mitigated under any circumstances. In extreme cases, Arrfield could be disrupted by the need to ask one or more directors to resign in the face of a successful hack. None of Arrfield's Board even have any particular background in IT.

The counterargument to this is that the Board must be held accountable because they are ultimately responsible for everything that happens in the company. In this case, that accountability extends to deciding how much to spend on cyber-security and on the strategic oversight of that function. If the Board is accountable then it will be less inclined to underspend on security. The directors will also have an incentive to make proactive requests of the company's cyber security experts as to whether they have everything that they need.

As with its other responsibilities, the Board can delegate the actual tasks associated with keeping the networks safe to IT staff. The Board can attribute the responsibility for any successful intrusions in a realistic manner. It would be acceptable to argue that the security systems were adequately resourced and properly supervised. There would be no need to question the Board's competence in the event that it fell victim to an intrusion that could not have been foreseen. Having said that, the fact that a government agency has attempted to break into MLI's systems suggests that the Board should be expected to take extra care.