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

Contents

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.

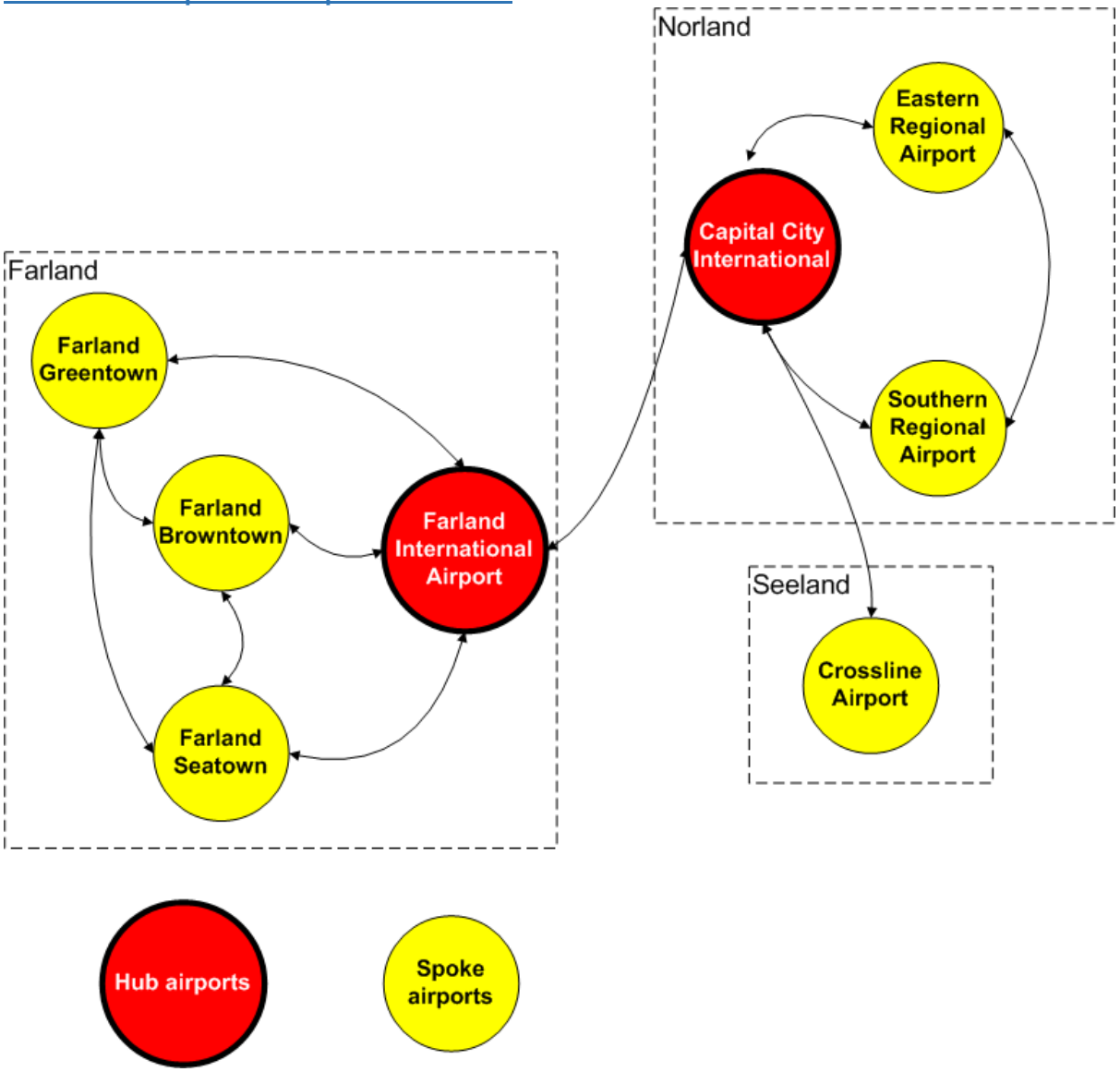
Codeshare arrangements are important to airports because they give passengers a much wider range of potential destinations.

- 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.

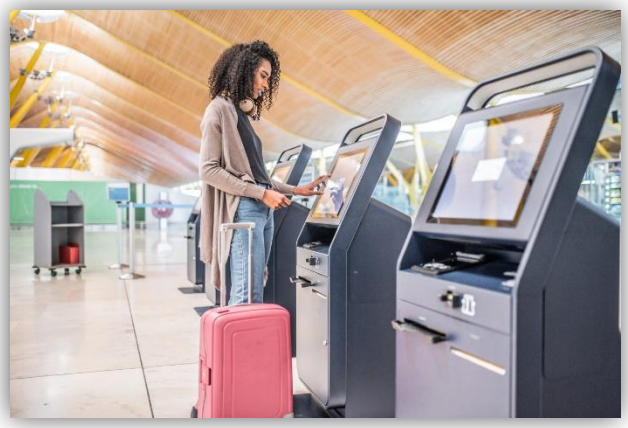
Passenger facilities

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.

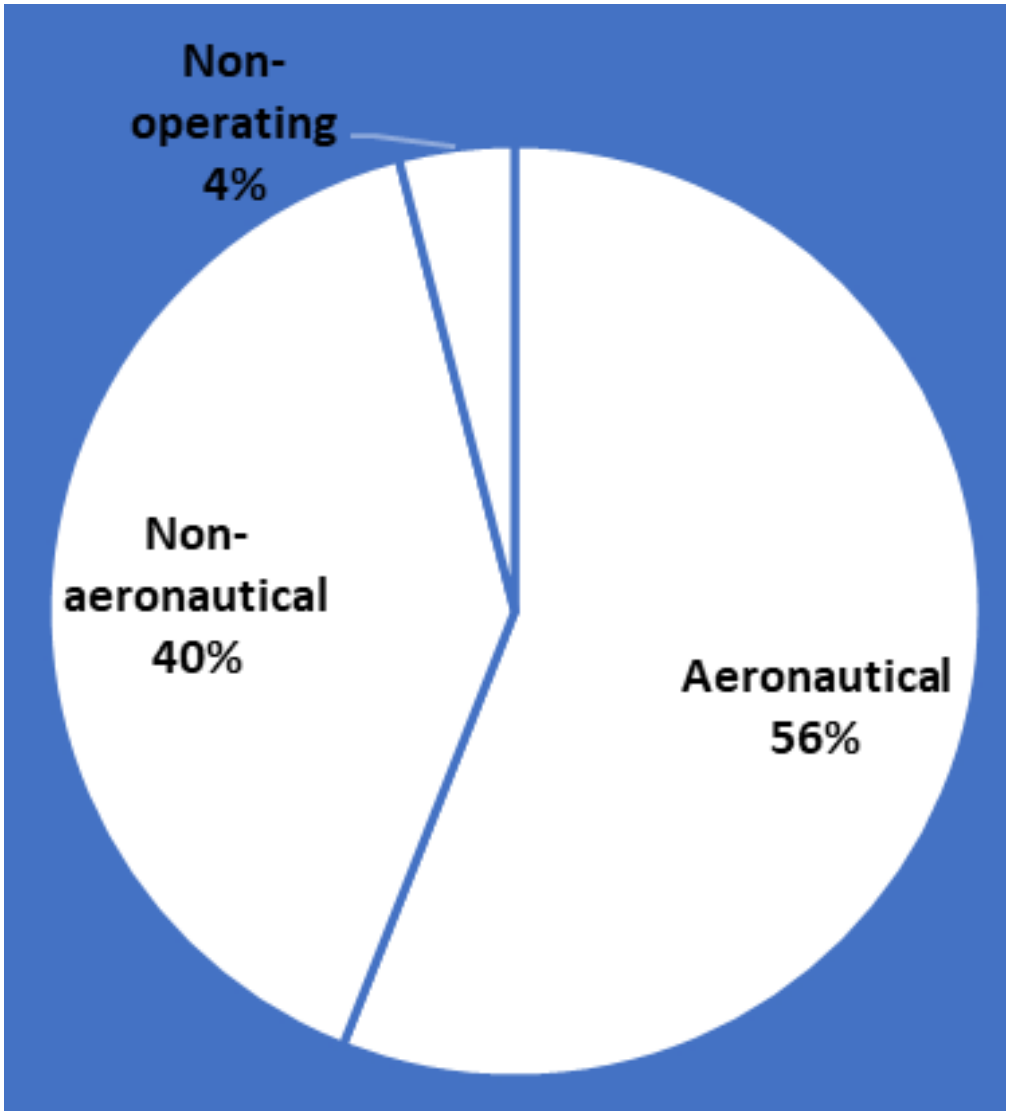
In addition to passenger baggage, most airports provide air freight facilities. Large airports often have warehouses that can be used to expedite the shipment of loads. Air freight is often used to transport high value items, partly because of enhanced security and partly to avoid tying cash up in expensive 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:

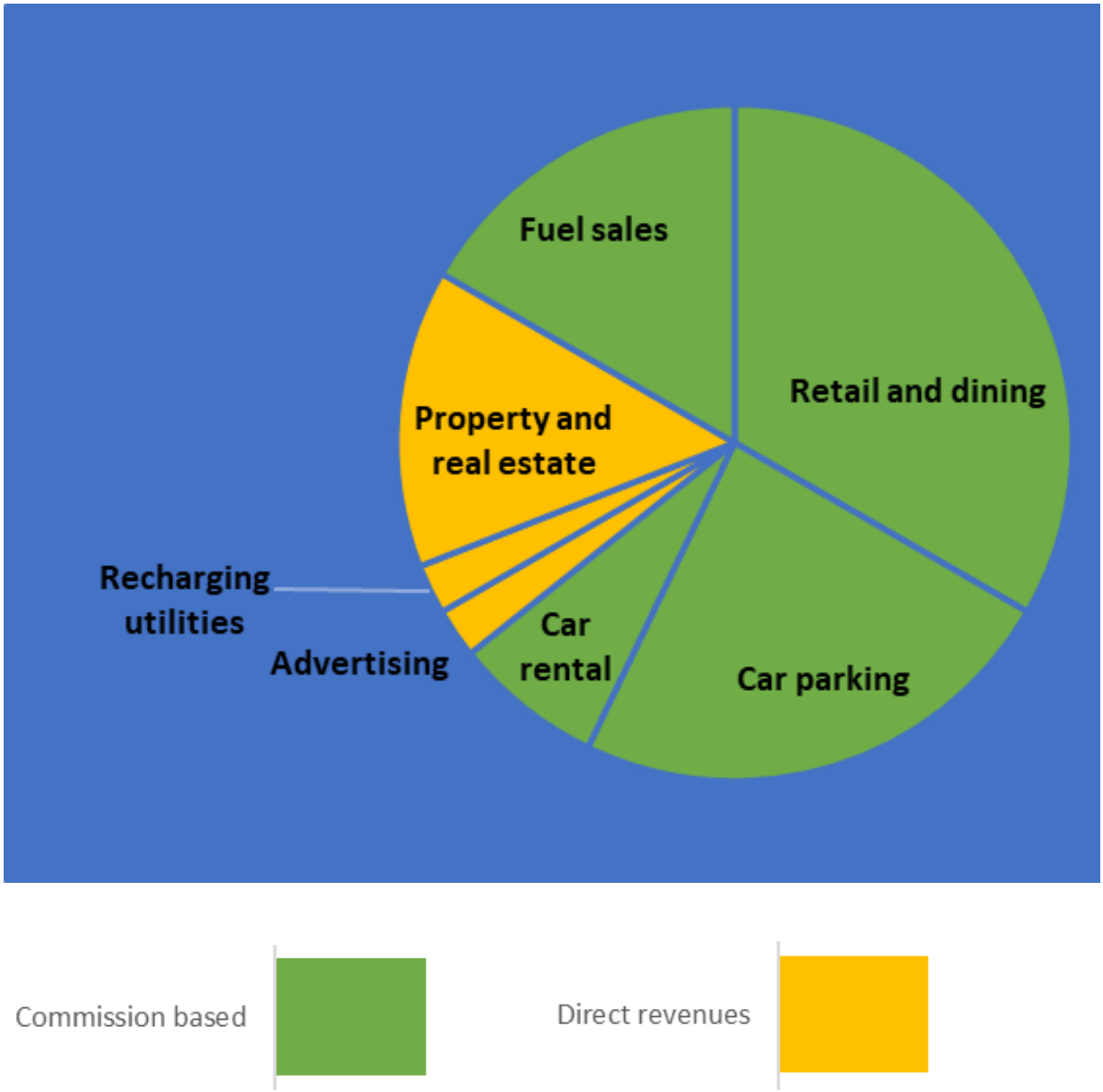
- **Landing fees** – a charge is made every time an aircraft lands or takes off at the airport. Landing charges are affected by the size of the aircraft, the time that it will spend on the ground and the facilities that it will use. For example, it costs more to park at a gate equipped with a bridge 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.

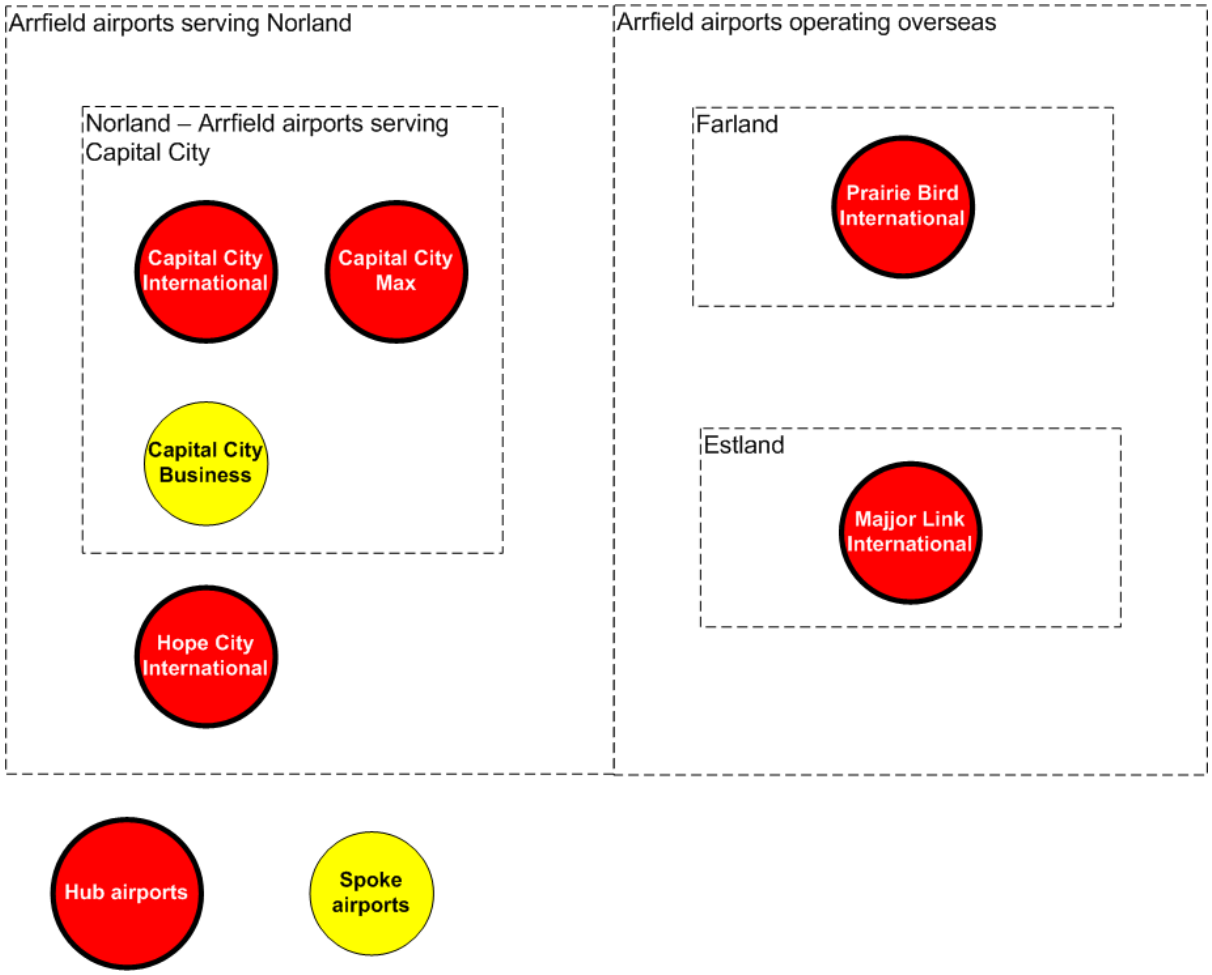
Arrfield's closest competitor is Skylaine, which owns Skylaine Capital City Airport, a non-hub airport 80 kilometres from Capital City, and two hub airports in other parts of Norland.

Arrfield now owns and operates a total of six airports:

Hub airports serving Capital City in Norland	
Capital City International (CCI) **[Norland]**	Located 50 kilometres to the north east of Capital City, Norland's largest city. CCI has two runways and four passenger terminals. The airport is a hub for NorFly, which leases the whole of CCI's Terminal 4. A total of 70 airlines fly from CCI. 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.
Capital City Max (CCM) **[Norland]**	Located 60 kilometres to the south of Capital City. CCM has two runways and two passenger terminals. The airport is a hub for NorFly and for the airline Air Farland. A total of 58 airlines fly from CCM. 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.

Non-hub airport serving Capital City in Norland	
Capital City Business (CCB) **[Norland]**	Located 9 kilometres from Capital City's Business District, on the city outskirts. CCB has one runway and one passenger terminal. A total of 37 airlines fly from CCB. 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. 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. CCB's cargo handling facilities are designed to support courier operations.
Hub airports serving other parts of Norland	
Hope City International (HCI) **[Norland]**	Located 40 kilometres from the centre of Hope City, Norland's second largest city. Hope City is 800 kilometres from Capital City. HCI has two runways and two passenger terminals. The airport is a hub for NorFly and also for the airline Air Estworld. A total of 52 airlines fly from HCI. HCI is one of the 20 largest airports in the world in terms of both passenger numbers and tonnage of freight shipped.

Hub airports outside of Norland	
Majjor Link International (MLI) **[Estland]**	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. 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. MLI is a main base for Air Estworld, which operates a frequent service to HCI, in addition to its global network of flights.
Prairie Bird International (PBI) **[Farland]**	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. PBI has two runways and two passenger terminals. PBI is a major passenger and freight hub serving intercontinental services to and from Farland. PBI is a main base for Cappan Air, which offers flights across Farland and to the other countries in the Farlandian continent. Cappan Air, NorFly and Air Farland all offer regular flights between CCM and PBI.



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
• Building and facilities management • Airfield operations • Airport security • Health and safety • Repairs and maintenance	• Accounting and finance • Information technology	• Marketing • Human resources • Customer relations • Public relations

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

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.	The airports have developed contingency plans that address many external threats to operations. There are back-up systems in place to duplicate the functions of most key equipment.
	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.	Arrfield conducts stringent financial checks on all third parties who wish to operate at the airport. Key contractors whose activities affect flight operations must pass thorough background checks before being awarded a contract. All third parties who operate at Arrfield's airports must maintain a satisfactory standard of performance, otherwise they face the cancellation of their contracts.
	Arrfield is wholly dependent upon the airlines who use its airports for the ongoing provision of its services.	Arrfield works closely with its airline customers to ensure that they are satisfied with the service that they receive. Passenger numbers are monitored closely.
	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.	Arrfield refuses to permit airlines to operate aircraft that create significant noise disturbance. All airports restrict flights between the hours of 22.00hrs and 06.00hrs. Runways are reversed halfway through each day so that residents only suffer take-offs for a few hours at a time.

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

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

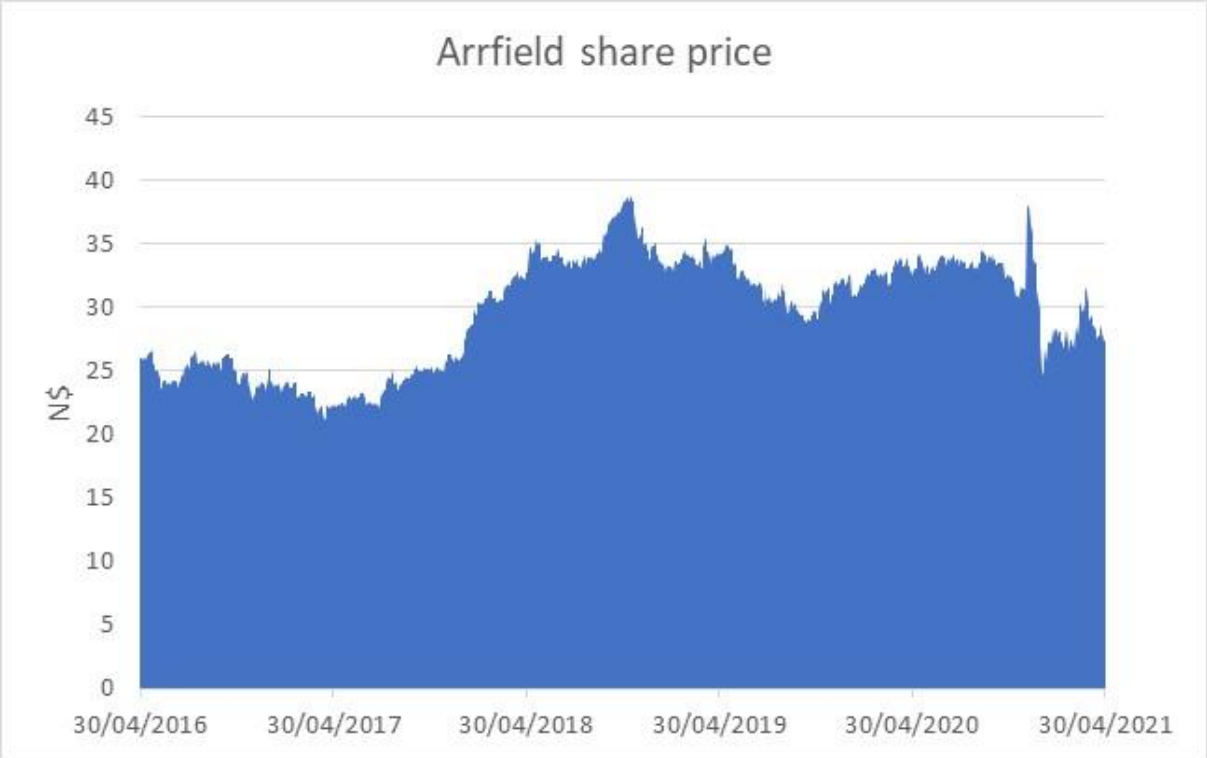
	Share capital	Retained earnings	Total
	N$ million	N$ million	N$ million
Opening balance	2,999	5,831	8,830
Profit for year		551	551
Dividend		(79)	(79)
Closing balance	2,999	6,303	9,302

Skylaine Group

Consolidated statement of financial position as at 31 December

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