

Taking Flight 2023

An economic and employment analysis of the aviation leasing industry in Ireland.

April 2023



Contents



Foreword



Introduction

What a difference a few years makes. Since our inaugural “Taking Flight” report issued in 2018, the aviation industry has been shaken to its core. It has endured the 737 Max grounding, financial losses, airline closures, unemployment, the loss of global connectivity due to COVID-19, “Flight Shaming” caused by the industries core reliance on fossil fuels and most recently the impact of the continuing war between Russia and Ukraine.

So how has all of this affected the aviation leasing industry in Ireland and are we ready to “Take Flight” again?

This report reflects the views of Irish based aircraft and engine lessors and captures the key industry trends as we look ahead to the next 12 months and beyond. The findings in this report are based on responses to a detailed survey which was provided to members of Aircraft Leasing Ireland (ALI), the representative body for aviation leasing in Ireland.

The report seeks to analyse the economic and employment impact of the aviation leasing industry in Ireland, maps the expected industry growth and sets out ALI members' views on the emerging geographical growth trends in the industry out to 2025.

The report also details findings on other societal impacts that the aviation industry has on Ireland. This includes contributions to the Irish educational system and various Corporate Social Responsibility (“CSR”) initiatives. The report also looks at the key Environmental, Social and Governance (ESG) focus areas that the aviation industry is seeking to address now and into the future.

Finally, the report details some of the key challenges and opportunities for Ireland as it looks to keep its position as the preeminent location for the global aviation leasing industry.

PwC Ireland have been delighted to support ALI and its members over the past number of years and would like to take the opportunity to thank all participants who contributed to the preparation of this report. We hope that this report will prove useful to the industry and will help provide for informed policy representation.



Key Findings



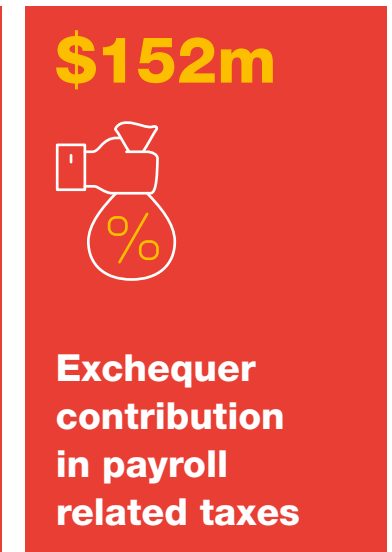
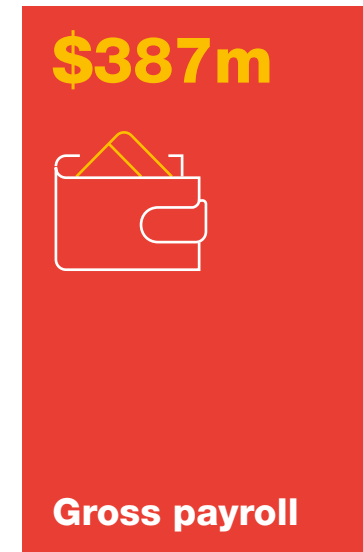
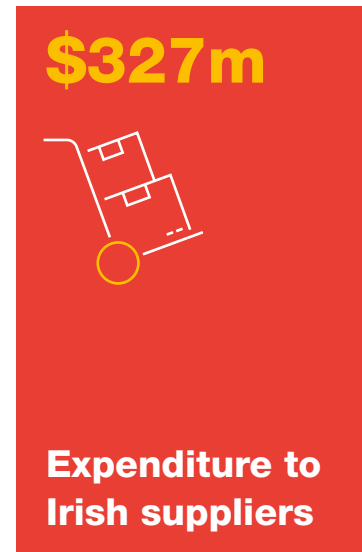
Key Findings

The aviation leasing industry's total contribution to Ireland's economy is composed of two critical factors: the Full Economic Impact of its employees and Irish suppliers' expenditure (\$823m) and its payroll exchequer contribution (\$152m). This results in an annual Total Economy Contribution of \$975m. This represents a 26% increase since the previous issue of the Taking Flight Report.

This expenditure supports the employment of 8,543 full time equivalent employee jobs in the Irish economy. Since the previous issue of the Taking Flight Report, this amount has increased by 71%.

The industry annually spends \$387m in gross payroll, including an exchequer contribution of \$152m in payroll related taxes (e.g. PRSI, PAYE, USC).

Direct aviation leasing sector expenditure to Irish suppliers for the procurement of goods and services (e.g. MRO, professional services) is \$327m. This expenditure plays an important role in supporting economic activity and employment in both Ireland's large urban centres and regional areas such as Shannon.



Key Findings

Nearly half of survey respondents provide support at third level education, ranking direct sponsorship of courses as the main contribution.

Lessors make on average financial contributions of \$265,000 per annum to CSR programs/initiatives.

Growth in asset volume is forecasted to be 26%, with Asia driving the largest proportion of this growth.



Cost of doing business in Ireland ranked number one on the list of key challenges



\$265,000 per annum financial contributions to CSR programs/initiatives

Almost 66% of respondents only had 0-25% female representation at a C-Suite level. Nearly 75% of respondents noted that female representation in aviation leasing companies was 25% - 50% of overall employee composition.

The cost of doing business in Ireland ranked number one on the list of key challenges facing the aviation industry.

Ireland's double tax treaty network was ranked number one as the key driver behind Ireland's success as a global centre for aviation leasing.



Almost 66% of respondents only had 0-25% female representation at a C-Suite level



Nearly half of survey respondents provide support at third level education



26% growth in asset volume forecasted



Ireland's double tax treaty network was ranked number one as the key driver behind Ireland's success

Sector Overview



Sector Overview

Ireland's aviation offering has seen considerable growth since the birth of commercial aviation in the early 20th century. Indeed, one of the earliest introductions to aviation came with the landing of Alcock and Brown in 1919 in the west of Ireland following their completion of the first ever transatlantic flight. Their choice of Ireland as a landing location whether intended or not, was a sign of things to come for aviation in Ireland.

On the foundation of Guinness Peat Aviation (GPA) in the 1970's by Aer Lingus and the Guinness Peat Group under the leadership of Tony Ryan, Ireland became an early adopter of the aviation leasing industry. Ireland now has a 60% share of the global leasing marketplace, it is home to over 50 leasing companies, including 19 out of the world's 20 top lessor companies. It is estimated that an Irish – leased aircraft takes off from a runway around the world every two seconds. All of this places Ireland as a world leader in the aviation leasing sector.

The difficulties experienced by the global aviation industry over the course of the Covid 19 pandemic have demonstrated that aircraft leasing continues to be an essential funding channel for airlines. In 2020 and 2021, over 53% of all new delivery financing was sourced through the lessor channel and the unprecedented level of indebtedness taken on by airlines during the pandemic seems certain to keep the lessor share of

fleet financing above 50% for some years to come.

The Irish aviation leasing industry serves as a flagship for the rest of Ireland's international financial services industry and demonstrates that Ireland can attract and retain decision makers and be a global leader in finance. It is a provider of highly skilled jobs, not just directly within the aviation leasing sector itself, but also in the wide professional services industry which supports it.

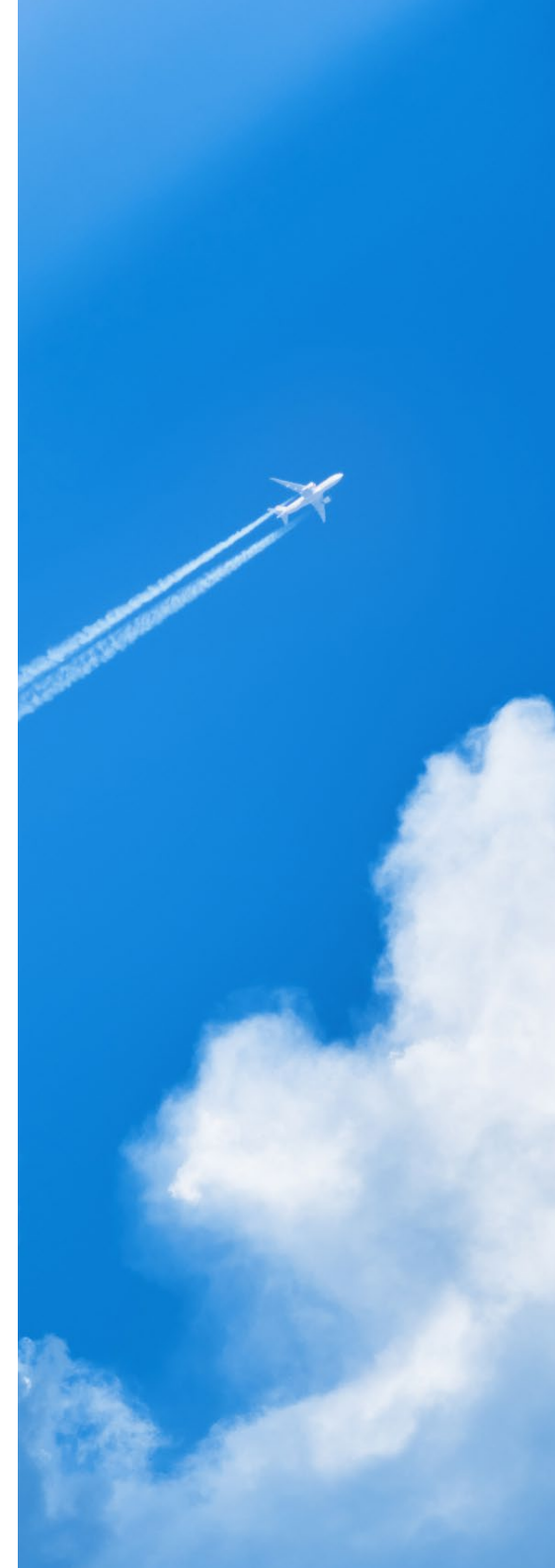
Successive Irish Governments have recognised the benefits and rewards for the country of having a truly global industry based out of Ireland and have provided committed support to the industry to date. Continued support from the Irish Government will be vital in order to keep the industry flying high in Ireland.

The talent pool which the sector has built up in Ireland over the last four decades has

provided a real competitive advantage to the industry. We now have some excellent aviation focused graduate and post graduate courses, graduate programmes and a dedicated aviation student body (Irish Aviation Students Association ("IASA")). However, it is important that investment is continued to be made in this area as people are one of the aviation leasing industry's biggest assets.

However, it is not all tail winds for the aviation leasing industry or Ireland as a world leader in the sector. Ireland is facing continued pressure from other jurisdictions who are looking to compete for market share in the industry. A number of the old concerns are re-appearing, global politics and tensions, inflation and interest rates, all of which are moving in the wrong direction. In addition, there are significant new challenges which will change the landscape of the industry over the coming years with ESG and sustainability at the top of this list.

As a result, it is important that Ireland's aviation leasing industry stays ahead of the game and remains cognisant of the fact that Ireland's out-sized place at the centre of the aviation world is fragile and needs to be nurtured in order to enable it to continue to grow.

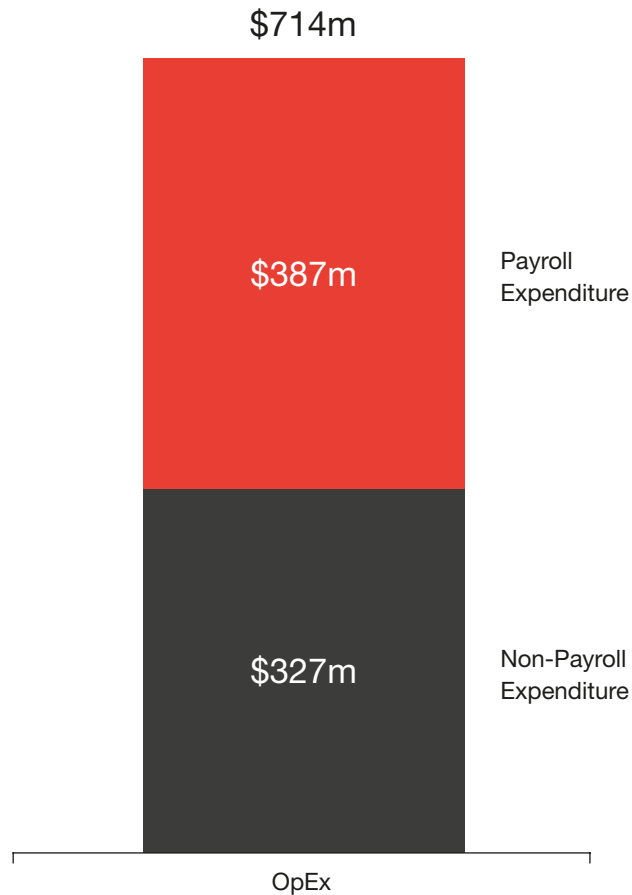


Economic and Employment Analysis



The aviation leasing industry spends an estimated \$714m in operational expenditure in the Irish economy

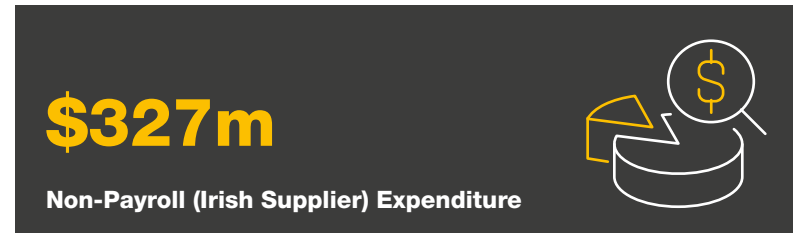
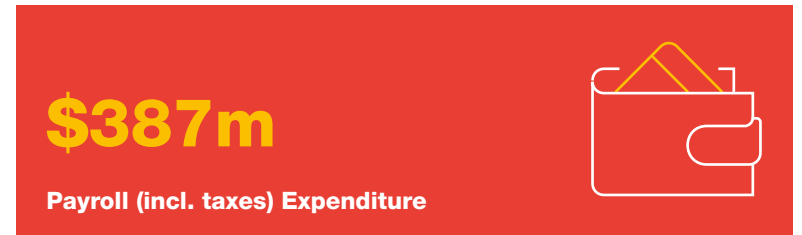
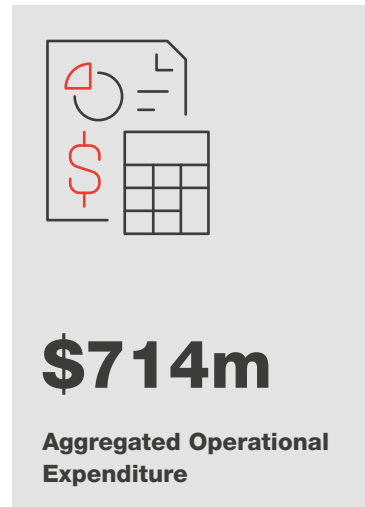
Fig 1.0: Overview of Industry Operational Expenditure, (\$m)



Aggregated Operational Expenditure

The aviation leasing industry spent c.\$714m (inclusive of payroll taxes) in the Irish economy on annual operational expenditure in FY 2021.

Payroll accounts (inclusive of payroll related tax) for 54% (\$387m) of total operating costs and non-payroll (supplier) expenditure accounts for 46% (\$327m).

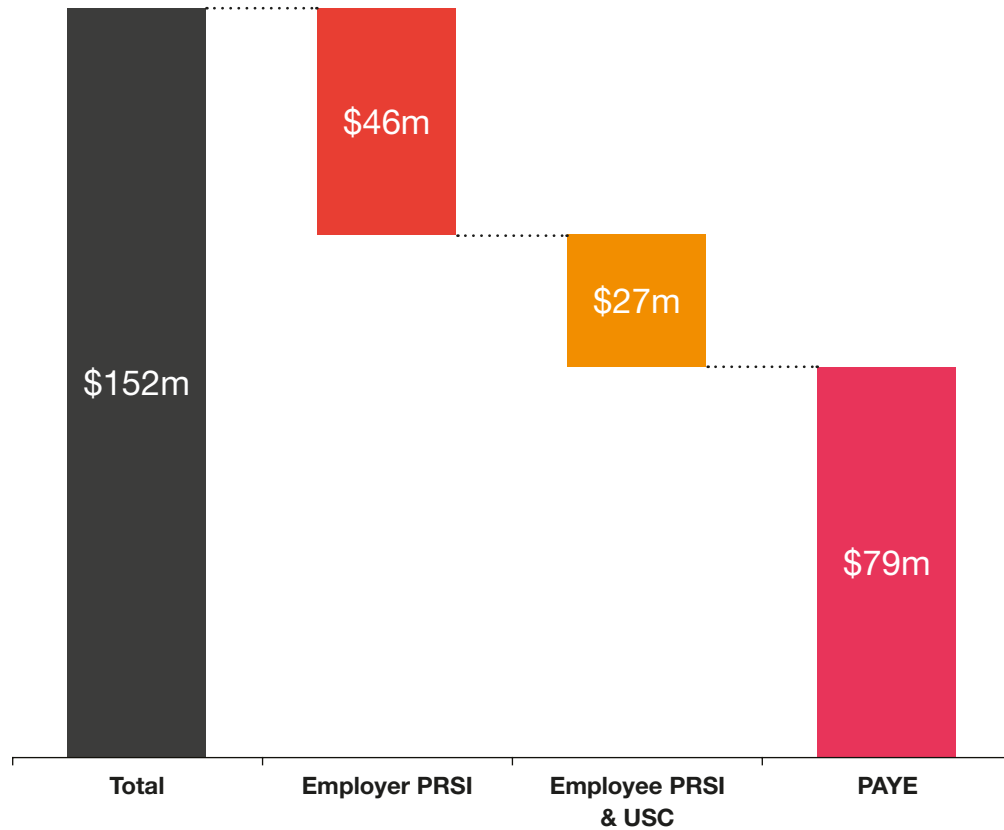


Note: See Appendix 1 for methodology
Source: Respondent data, PwC Analysis

*Please note numbers may not add up due to rounding errors

The aviation leasing industry and its employees contribute on average \$152m in annual payroll exchequer contributions

Fig 1.1: Aviation Leasing Industry Exchequer Payroll Contribution, (\$m) ¹



Note: 1. Aviation leasing industry exchequer contribution excludes the positive impact of the industry's corporation tax.

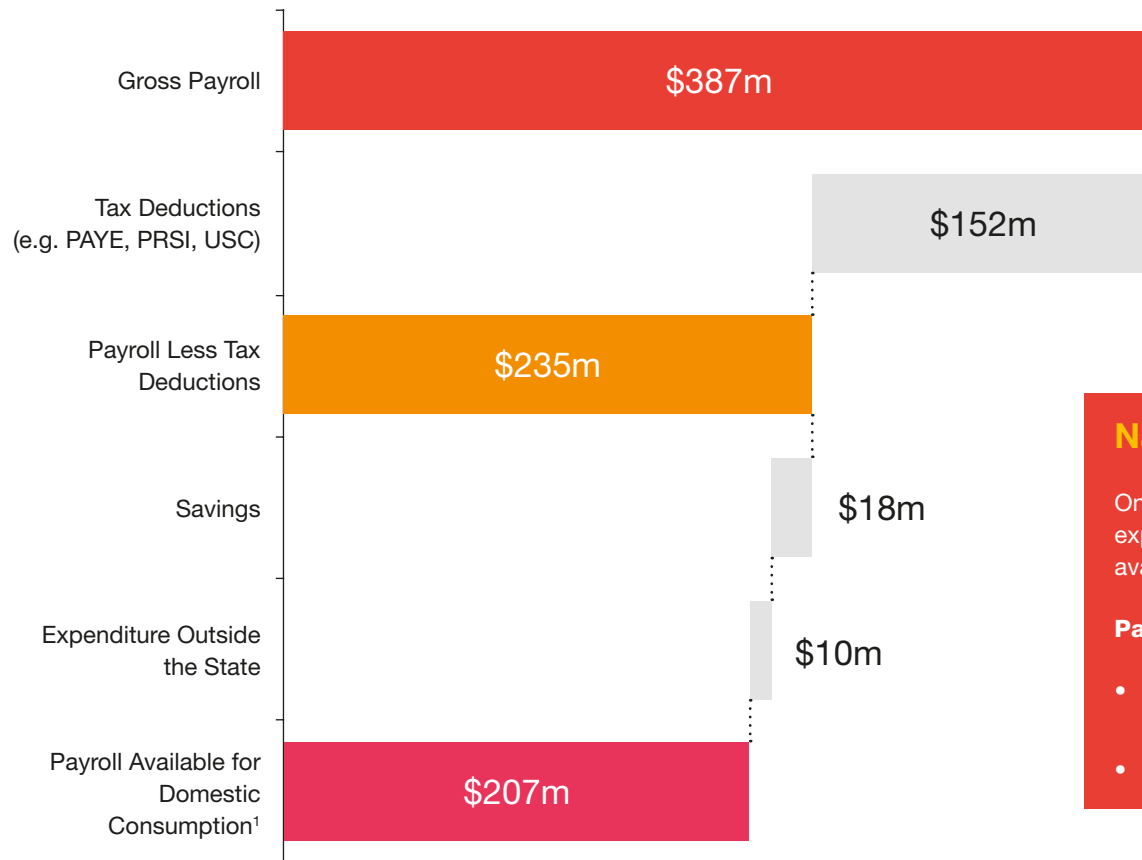
Source: Respondent data, PwC Analysis

*Please note numbers may not add up due to rounding errors



Aviation leasing industry employees spend \$207m in the Irish economy on average (after deductions)

Fig 1.2: Consumer Expenditure of Aviation Leasing Industry Employees in the Irish Economy, (\$m)



National Payroll

Once necessary payroll deductions are made including tax, savings and expenditure outside the state, aviation leasing industry employee income available for domestic consumption totalling \$207m.

Payroll Deductions Include:

- **Tax deductions** including employers and employees PRSI, PAYE and Universal Social Charge (USC);
- **Other deductions** including savings and expenditure outside the State











Note 1: Payroll available for domestic consumption includes the payroll deductions that are assumed to be spent within the Irish economy, e.g. health insurance, company car costs, memberships, pension contributions.

Source: Respondent data, CSO (2021), PwC Analysis

*Please note numbers may not add up due to rounding errors

The aviation leasing industry spends on average \$327m per year on Irish suppliers

Fig 1.3: Non-Payroll (Supplier) Expenditure Breakdown (\$m)

Expenditure by Sector	% of Total	Expenditure	Expenditure (€m)
Professional Fees (incl. legal, audit, consulting)	39%		\$129m
MRO	35%		\$115m
Property Rent / Leasing / Mortgage Costs	8%		\$27m
Administration	7%		\$24m
General Staff Expenditure (e.g. training)	4%		\$13m
Travel	2%		\$7m
Insurance	2%		\$5m
Corporate Entertainment	1%		\$4m
Utilities	1%		\$2m
Other (IT equipment)	1%		\$1m
Total	100%		\$327m

Note: Not included in this report is the capital expenditure of the aviation leasing sector with Irish suppliers.

The operational expenditure of the aviation leasing industry on average contributes \$823m to Ireland's economy. The industry generates a positive economic multiplier of 1:1.54

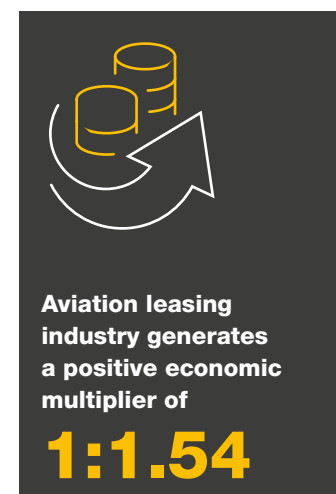
Fig 1.4: Full Economy Impact of Operational Expenditure (\$m)

	Payroll	Non-Payroll	Total
Sector Spend (\$m) (after taxes etc.)	\$207m	\$327m	\$534m
National Output (€m)			
Direct	\$207m	\$327m	\$534m
Indirect	\$69m	\$78m	\$147m
Induced	\$56m	\$86m	\$142m
Total:	\$332m	\$491m	\$823m
Supported Employment (FTEs)¹			
Direct & Indirect	3,186	3,483	6,669
Induced	977	897	1,874
Total	4,163	4,380	8,543

Full Economic Impact

As outlined in figure 1.4, payroll-related spend (excl. taxes and deductibles not spent in Ireland) by aviation leasing companies in Ireland is estimated at \$207m in the Irish economy, while an estimated \$327m was paid to Irish suppliers of goods and services. By applying sectoral multipliers, the full economy impact of the operational expenditure is estimated to be \$823m.

Aviation leasing companies in Ireland employ close to 1,971 FTEs. However, in order to calculate the jobs supported in the Irish economy, 'employment effects' are applied to both the amount spent by employees and the companies' non-payroll (supplier) expenditure in the Irish economy. Employment effects measure the impact on employment (FTE jobs), throughout the economy arising from a change in the final demand for sectoral output of €1 / \$1, i.e. every €1m / \$1m spent in a particular sector creates a certain amount of jobs. Jobs created from the employees' expenditure, together with the non-payroll spend of the aviation leasing companies, supported approximately 8,543 FTE jobs.



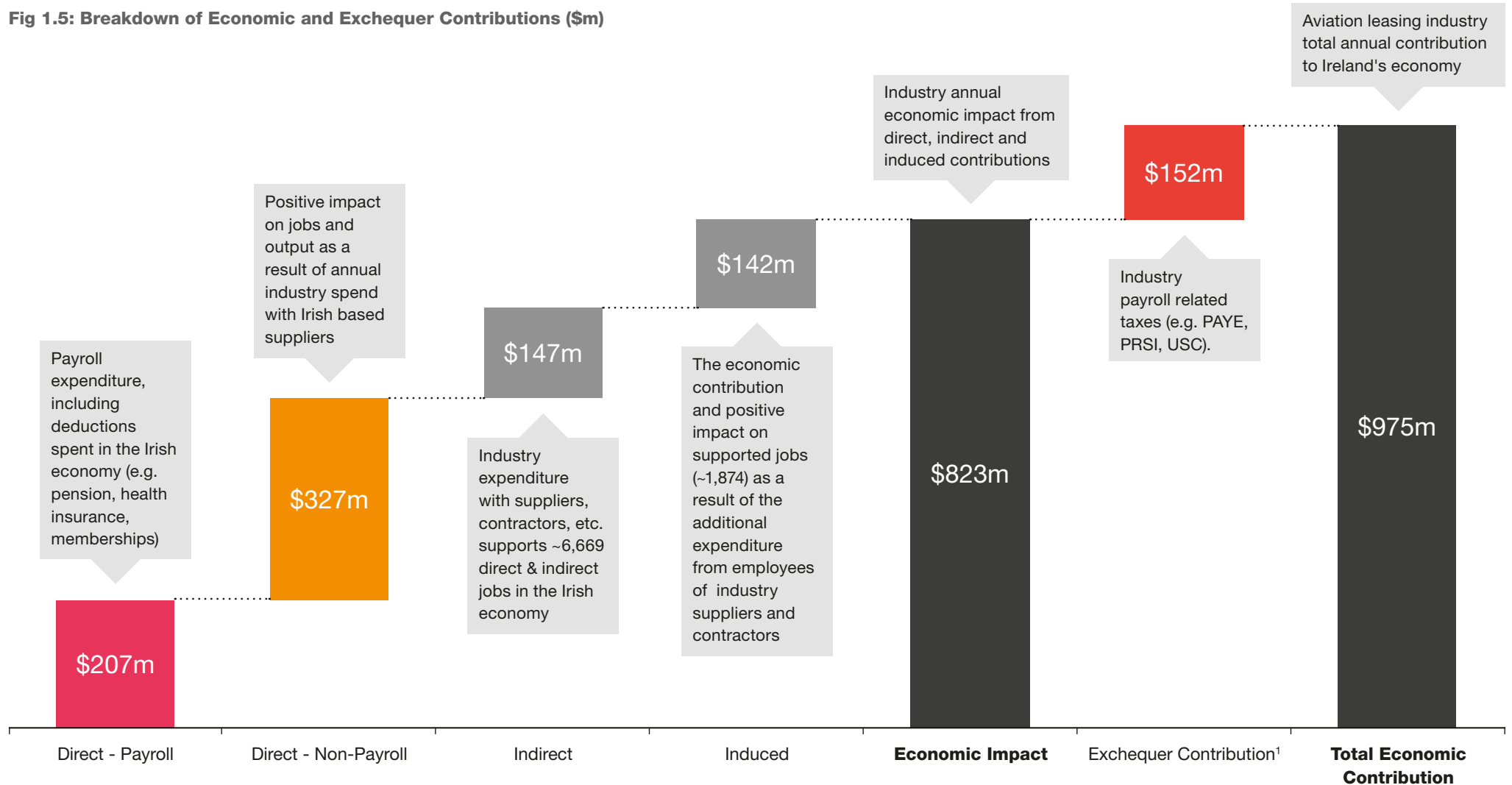
Note: 1. CSO Aircraft Leasing in Ireland 2018

2. See Appendix 1 for methodology

Source: Respondent data, PwC Analysis

Ireland's aviation leasing sector provides a total average annual contribution of \$975m based on operational expenditure and payroll exchequer contributions

Fig 1.5: Breakdown of Economic and Exchequer Contributions (\$m)



Notes: 1. Exchequer contributions do not include corporation taxes paid by the aviation leasing sector in Ireland.

Source: Respondent data, PwC Analysis

Industry Direction



Industry Direction

Once again, the aviation leasing industry has demonstrated its resilience in challenging and difficult times. However, things don't stand still in this industry for too long. In this section of the report, we aim to look at the expected growth of the industry over the next number of years and the factors which will shape the direction of the industry over the next twelve months and beyond, with particular focus on ESG and diversity & inclusion matters.

Growth in asset volume is expected to continue to 2025, with that growth forecasted to be 26%



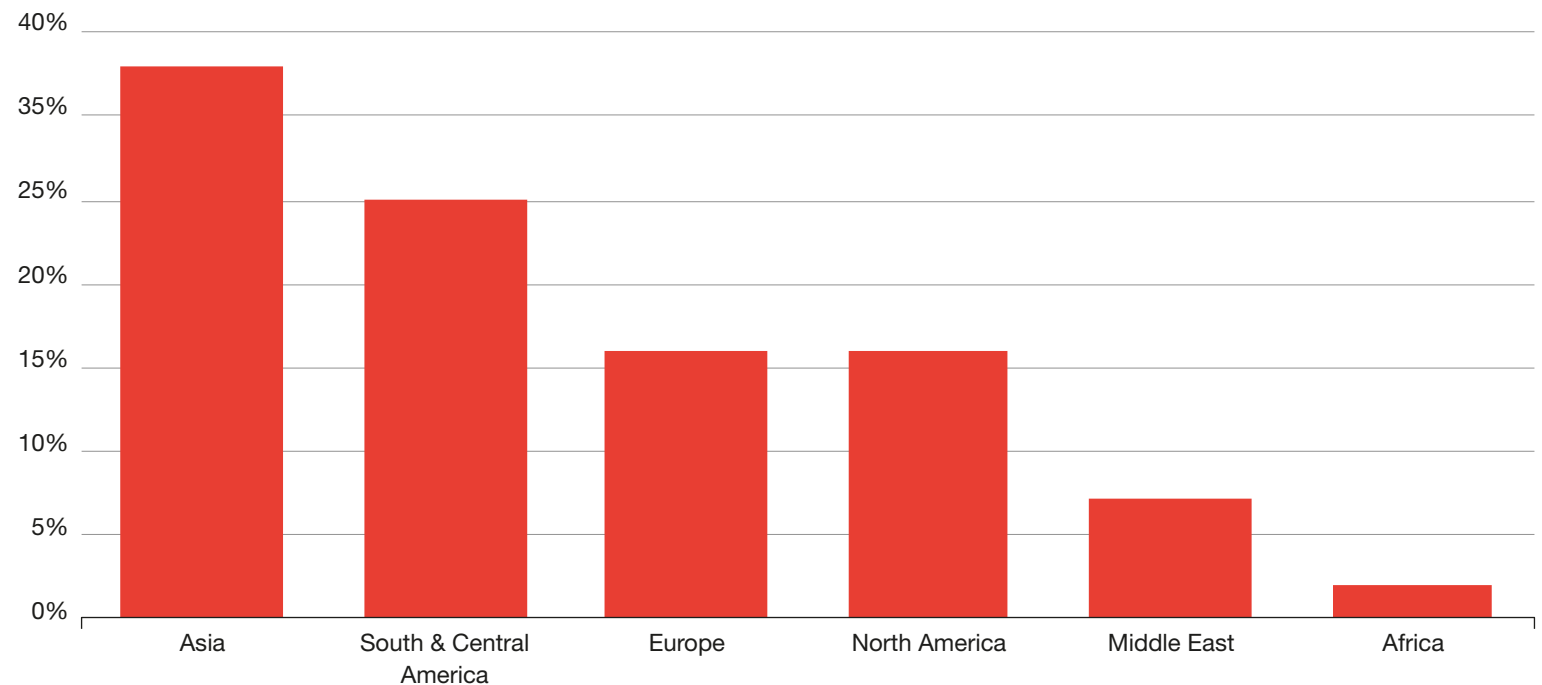
Growth analysis

Respondents were asked to provide details of their aircraft assets in terms of quantum for their most recent financial year end and a projected figure to their financial year end 2025. Respondents also indicated what regions the growth in asset volume was expected to arise.

Respondents indicated that growth in asset volume is expected to continue to 2025, with that growth forecasted to be 26%. The largest proportion of these additional assets are expected to be leased to Asia, followed by South and Central America and Europe.

Despite the extensive challenges for the industry, the rate of growth reflects that the aviation industry continues to show its resilience to social and geopolitical challenges. The need for growth is underpinned by the pent-up demand for travel.

Fig 1.6: Expected Growth in Aircraft / Engine Units by Region, 2021-25



Industry Direction

Geographical spread – lease income

In addition, respondents were requested to provide data on the regional split of their lease income for their most recent financial year and a projected figure to their financial year end 2025.

Asia has surpassed Europe as the largest market



The past five years have shown considerable changes in the regional split of lease income. With the breakdown of the split between actual lease income in 2021 and forecasts made in 2018 making for interesting reading.

Asia has surpassed Europe as the largest market since our last Taking Flight report. At which point, Asia's share of lease rental income was 32.6% and was expected to increase to c.36.9% by 2021. Our survey findings actually show that Asia's share of lease rental income has increased to 43%, making it by far the largest and most important market for aircraft lessors.

Europe is the second largest market with a share of 23%. This represents a drop of c.12% from our 2018 Taking Flight report.

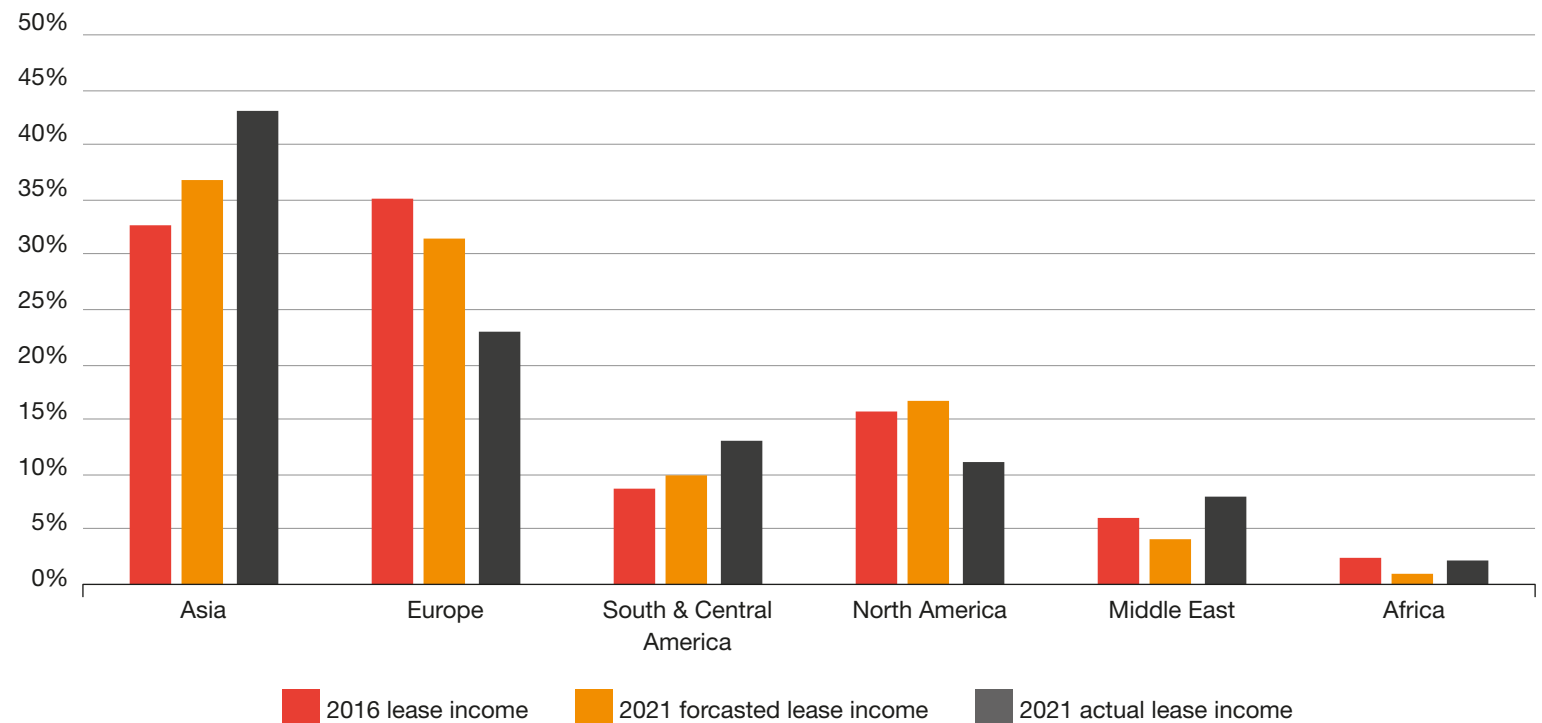
The growth in South and Central America has continued as expected with an increase of c.4% between 2016 and 2021

However, perhaps most interestingly, the North American market has contracted by c5% from 2016-2021. This comes as a big surprise given lessors had expected that market to marginally increase during that period.

North American market has contracted by c.5% from 2016-2021



Fig 1.7: Geographical Spread of Lease Income, 2016-21



Industry Direction – Diversity & Inclusion

Almost two thirds of survey respondents had female representation at C-Suite level in the lowest category of 0 – 25%



It is well reported that a diverse and inclusive workplace leads to greater innovation, happier employees, increased productivity and ultimately greater organisational success. The aviation industry has typically been a male dominated industry and although efforts have been made to try and improve the imbalances within the sector, the aviation industry, to date, has not been a strong performer when it comes to diversity & inclusion. But how does the aviation leasing sub-sector within the industry measure up? We asked lessors about the composition of both their C-Suite and overall employee base from a gender perspective.

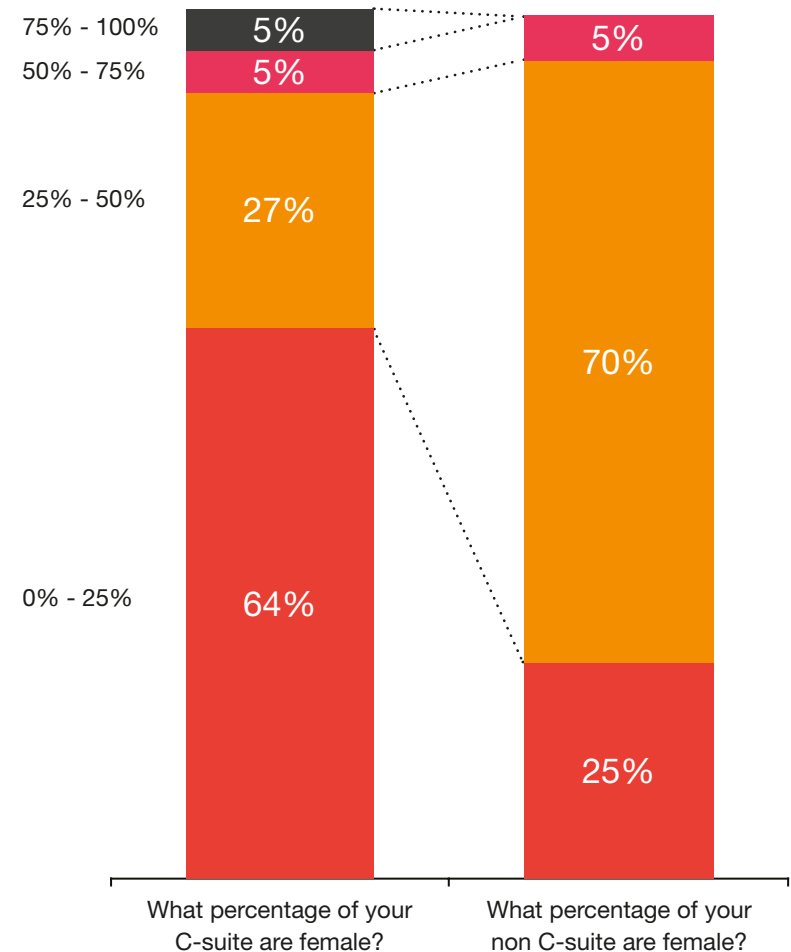
Overview of survey findings – Gender diversity

Almost two thirds of survey respondents had female representation at C-Suite level in the lowest category of 0 – 25%. This is below the 30% level set for female representation on boards and C-Suites by the 30% club.

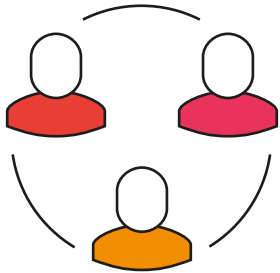
Outside of C-Suite level, nearly three quarters of survey respondents noted that female representation in aviation leasing companies was 25% - 50% of overall employee composition.

Unfortunately, these survey findings illustrate that the aviation leasing sub-sector still has work to do when it comes to gender diversity in their organisations. Great work has been done by industry groups such as Propelher and Advancing Women in Aviation Roundtable (AWAR) to build awareness and offer support to women in the aviation industry. However, it is clear that more work still needs to be done and investment needs to be made in this area for gender diversity to really “Take Flight” within aviation leasing organisations.

Fig 1.8: Taking Flight 2023 – Gender Diversity Survey Findings

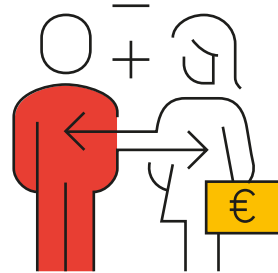


Industry Direction – Diversity & Inclusion



Diversity Committees

While gender is an important factor of diversity, it is not the only one. Focus also needs to be maintained on diversity within organisations outside of gender. Many of the top leasing companies have established diversity committees dedicated to achieving more inclusivity in the workplace. However, Law firm Mason Hayes & Curran, which conducts an annual report on gender and diversity in aviation, found in their 2022 report that there has been a decline in the reporting of a Diversity & Inclusion Committee to 41% which is down from 51% in the previous year and is the second lowest which they have recorded in the 7 years that they have been completing this annual report. While their report is prepared for the entire aviation industry and not just aviation leasing, this is a worrying finding as, without formal structures in place for reviewing diversity and inclusion within organisations, it will be more difficult to follow through on intentions to improve the diversity agenda.



Gender pay gap

The introduction of mandatory gender pay gap reporting came into effect on 31 May 2022 under the Gender Pay Gap Information Act 2021. Under the legislation it is mandatory for employers with over 250 employees to report the pay gap between male and female employees. This threshold will reduce to 150 employees or more within two years, and finally, those with 50 or more within a further year. As the reporting thresholds begin to reduce this will make gender pay gap reporting a reality for many of the Irish based aviation lessors in the industry. These reports will be required to be published on Irish based aviation lessor's websites for a period of three years and must report the pay gap between male and female employees each year. As gender pay gap reporting will become a reality for the majority of lessors, lessors will need to begin to prioritise reporting in preparation for the pending obligations, as well as identifying the ways they will work to reduce the gap.

Law firm Mason Hayes & Curran found that there has been a decline in the reporting of a Diversity & Inclusion Committee to 41% which is the second lowest recorded



Sustainability and the role of tax policy

Environmental, Social and Governance (ESG) Factors provide a range of targets for organisations to meet in order to improve sustainability and lower risk. The aviation leasing sector in Ireland is committed to ESG as demonstrated by the launch of the Aircraft Leasing Ireland (ALI) Sustainability Charter earlier this year. This sets out ESG and climate aligned principles for the aviation industry and promotes collaboration and ambition among the lessor community.

The aviation sector has set some extremely challenging environmental targets, including the goal of reaching net zero emissions by 2050, and will play a key role in reducing worldwide greenhouse gas (GHG) emissions. Aviation is an innovative sector and actions to reduce GHG emissions are already underway. The key areas of focus to meet aviation's net zero target are centered around sustainable aviation fuel (SAF), operational improvements (improved air traffic management, etc.), other alternative fuels (hydrogen, electric, etc.), carbon capture techniques and verified carbon credits schemes.

A number of these focus areas (including hydrogen and battery technologies) have long lead in times and it will be some years before they can materially reduce GHG emissions. SAF, on the other hand, is expected to be the main driver of the aviation sector's decarbonisation journey, at least between now and 2050. The International Air Transport Association (IATA) estimate that SAF can reduce emissions by 80%. A number of sustainable aviation fuels are already in production and are being used in limited cases. However, there are still challenges around the production and scale of SAF and further work and investment is needed to develop new technologies to enable the production of SAF at scale and to make it commercially viable.

A recent PwC Report (The Real Cost of Green Aviation) reinforces this sentiment and highlights that

“the production of SAF is more costly than the production of conventional kerosene, and incentives are not yet sufficient to entice airlines to purchase huge fuel volumes at higher prices. Although current macroeconomic shocks and external influences on the European economy have led to an increase in the price of conventional kerosene, the biogenic feedstocks required for some SAF conversion pathways have become more expensive at the same time. As a result, SAF is currently not competitive with conventional kerosene from a purely financial perspective”.

Ireland, as the leading centre for aviation leasing globally and home to Europe's largest airline, has the opportunity to lead the aviation sector on its journey to net zero. Aviation leasing companies can leverage their growing influence within the sector to raise awareness and stimulate action across their international customer base. As buyers of more than 50% of new commercial aircraft, lessors can use their sizable buying power to help influence OEMs to invest in new technology development to contribute towards the industry meeting its climate goal.

The introduction of tax incentives can be a powerful lever to encourage more environmentally sustainable behaviours, as well as encouraging investment in areas that are critical to achieve climate targets. Tax incentives could be used to foster the development of and investment in new innovation hubs in Ireland focused on the development of the new technologies needed to scale up the production of SAF. These incentives could also have a social benefit if linked to the creation of new skilled job opportunities in Ireland (and could be located in areas where there is a requirement to generate new employment opportunities) as well as tapping into the huge potential around Ireland's green hydrogen ambitions. Government incentives could also be used to incentivise the supply of SAF by helping to bring supply costs on a level playing field with conventional kerosene, and by creating a reliable market in Ireland for the supply and uplift of SAF.

These are not easy choices for any government at a time of economic hardship, driven by the war in Ukraine and impact of energy prices and energy security concerns. However bold actions are needed now to accelerate the decarbonisation of the aviation sector. Tax incentives are a powerful tool that can change behaviours and help mobilise private investment to areas that are critical to reduce emissions and meet climate goals. As noted at the outset, the aviation sector needs to play its part in reducing worldwide GHG emissions. This cannot be done without a combination of Government support and private investment. Ireland has an opportunity to act now and enhance its position as a world leader on this journey.

Societal Impact



Societal Impact

In addition to the economic, employment and policy contributions which Irish aviation lessors make, they also contribute to the Irish economy at a societal level. This includes contributions to the Irish educational system and various Corporate Social Responsibility (“CSR”) initiatives. As part of our report, we asked survey respondents how they contributed in these two key areas.

Average financial contribution was \$265,000 per annum



Education

Irish aviation lessors recognise the importance to the industry of being able to draw from a highly skilled pool of individuals. In order to support this, lessors play a key role in contributing to the educational needs of the industry. Our survey findings show that this support is primarily focused on third level institutions and courses with nearly half of survey respondents providing support at this level in the form of direct sponsorship of courses (ranked first), lecturing (ranked second) or employee time (ranked third).

In addition, many Irish aviation lessors offer graduate programmes which provides jobs and an invaluable experience for those looking to develop a career in the industry. Of the survey respondents, c.38% of aircraft lessors offer graduate programmes.

Irish based Lessors educational contribution	
Rankings	Area of contribution
1	Direct sponsorship
2	Lecturing
3	Employee time

CSR

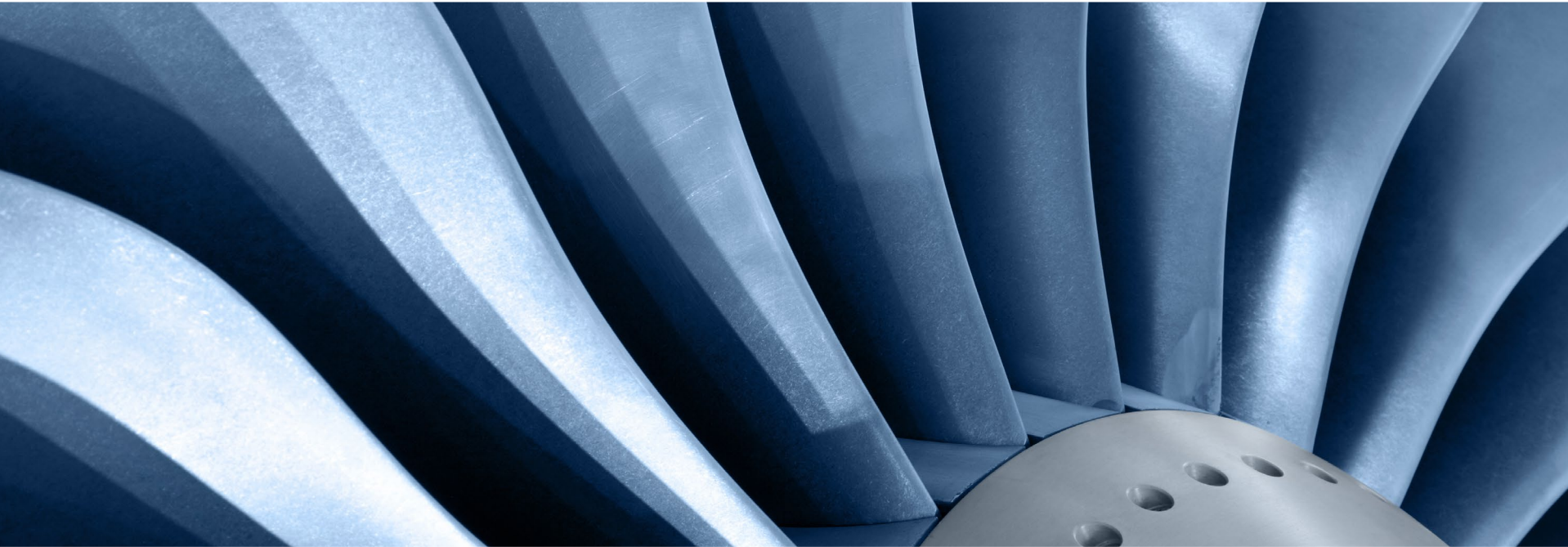
Irish aviation lessors are actively contributing to the communities in which they operate via the provision of employee hours and financial support. Of survey respondents in this area, the average financial contribution was \$265,000 per annum and the average employee hours donated was 554 per annum. Of the sectors which lessors are contributing to, charities ranked as number one, this was followed by donations to education and sports. These contributions are invaluable to communities and help provide resources which might otherwise not be available.

Irish based Lessors CSR contribution	
Rankings	Area of contribution
1	Charities
2	Education
3	Sports
4	Arts
5	Other

Nearly half of survey respondents providing support at this level in the form of direct sponsorship of courses (ranked first), lecturing (ranked second) or employee time (ranked third)



Contributions to Government Policy



Contributions to Government Policy

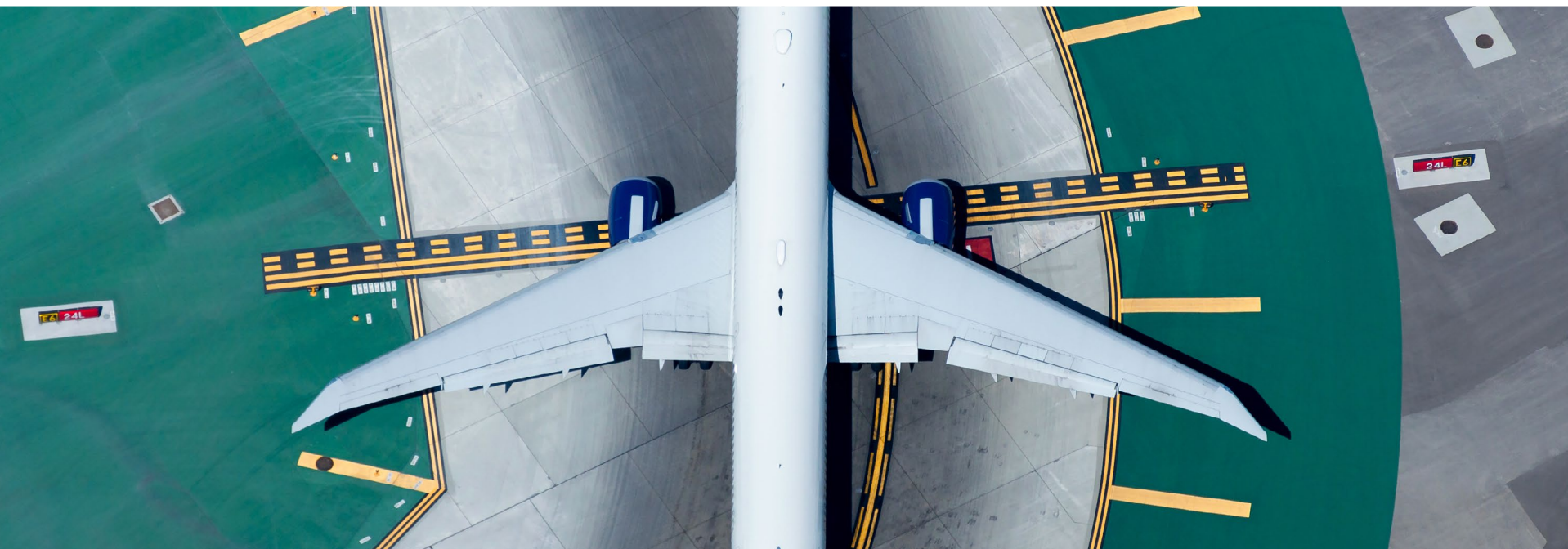
The activities of the aviation leasing sector directly contribute to a range of Government policies and initiatives. This includes supporting economic growth and employment creation, skills development and enhancement of Ireland’s reputation as a global destination for FDI.

Government Policy	Policy Objective	Impact on the Aviation Leasing Sector
National Aviation Policy for Ireland	The principle goals of the policy are fostering the growth of aviation enterprise in Ireland to support job creation, positioning Ireland as a recognised global leader in aviation, and maximising the contribution of the sector to Ireland’s economic growth and development.	 The Irish aviation leasing sector’s status as a global hub is directly aiding the development of the wider aviation industry value chain and its reputation at a global level.
Global Ireland: Ireland’s Global Footprint to 2025	To double Ireland’s global footprint in both a political and economic context, with a focus on increasing FDI and Irish exports.	 Ireland’s aviation leasing sector is internationally reputed as being a market-leader. The sector makes important supplier expenditure and exchequer contributions to Ireland’s economy, while also promoting it as an attractive destination for FDI.
National Recovery and Resilience Plan 2021	This policy was developed in response to the €915m in EU grants Ireland will receive between 2021-2026 as part of the EU recovery package from the Covid-19 pandemic. Economic recovery through job creation is a key priority of this policy.	 The sector’s annual expenditure with Irish suppliers and spending by aircraft lessor employees in the economy supports an estimated 8,543 jobs. ¹
Ireland’s National Skills Strategy 2025	A core objective of the strategy is the development of relationships between employers, education, and training providers, to ensure the transfer of knowledge between entities and matching of skill sets with the changing needs of the labour market.	 The aviation leasing sector is renowned for its solution focused approach to skills development and is a key partner of national and technological universities across Ireland. A number of entities work in tandem with Irish universities to design courses, upskill workers, and address areas in the sector where knowledge and employment gaps exist.

Note: 1. Respondent data & PwC derived.

Source: Gov.ie, IBEC, PwC derived analysis

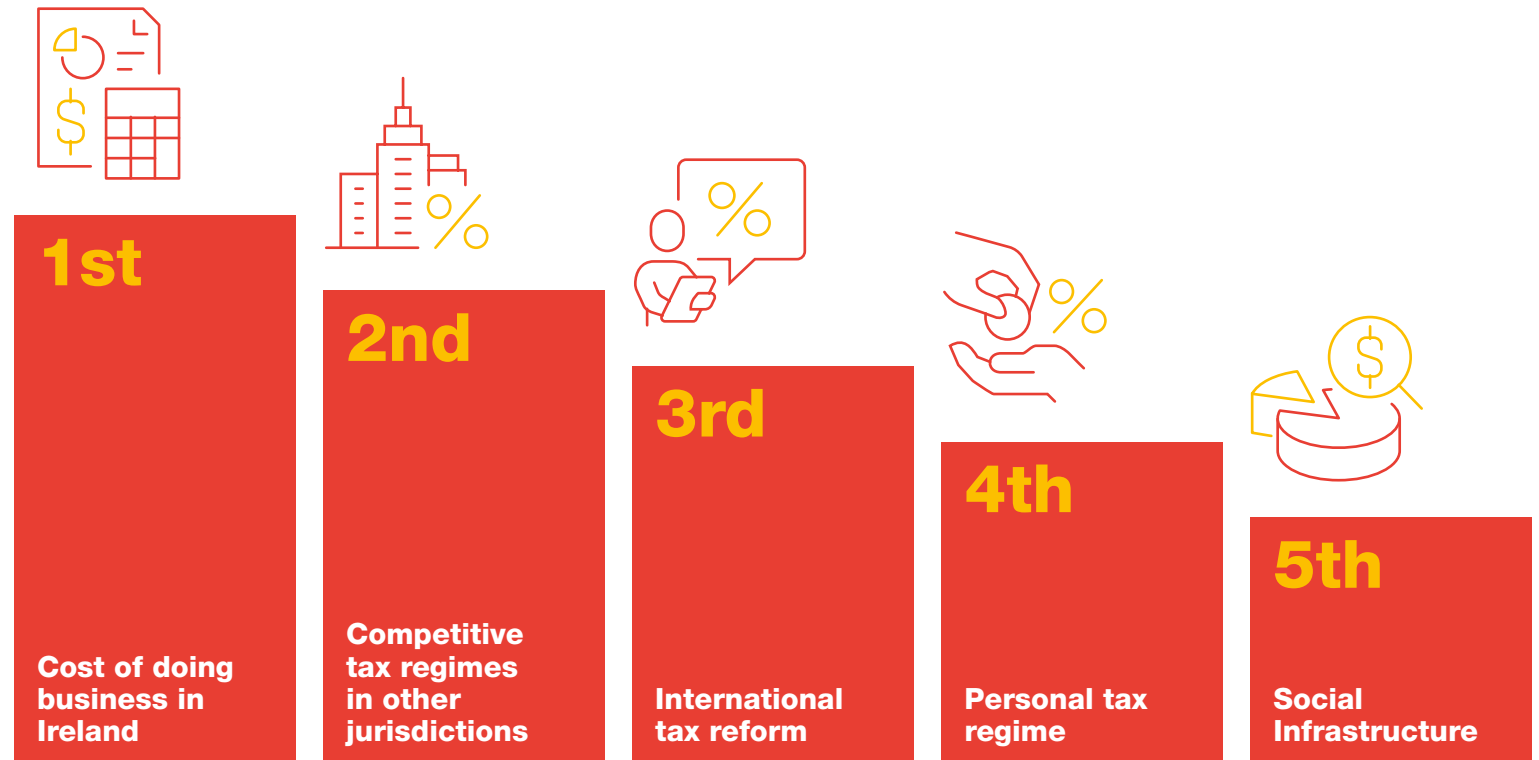
Challenges and Opportunities



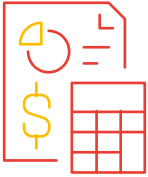
Challenges

As we have seen over the last number of years, the aviation industry is no stranger to challenges and susceptible to external shocks and events over which its participants have little control. We asked aviation lessors what they see as the key challenges for the industry and for Ireland to maintain its position as a world leader in aviation leasing.

The key challenges were ranked by the lessors asked as listed below. We consider each of these challenges in further detail on the following pages.



Challenges



Cost of doing business in Ireland

The cost of doing business in Ireland featured at the top of the challenges list. This is a significant turnaround from where it appeared in our last Taking Flight report at which point the cost of doing business in Ireland was ranked as one of the lower challenges facing the industry. Respondents referenced the cost of housing and the cost of living which is driving pay demands to unsustainable levels. As a small, open economy ensuring Ireland's competitiveness is key to underpinning our future prosperity and ensuring that Ireland continues to attract and retain the people with the skills required to maintain Ireland's position as a world leader in the aviation leasing sector.



Competitive tax regimes in other jurisdictions

Tax competition from other jurisdictions remains a key challenge for the aviation leasing industry but does feature lower on the list when compared to our last report. At that time, tax regimes in jurisdictions such as Singapore and Hong Kong had only been recently introduced or enhanced. However, fast forward five years and it is evident that, to date, these regimes have not had the level of take up that was anticipated. What is clear is that a competitive tax regime in its own right is not enough to encourage aviation lessors to fully relocate their aviation platforms out of Ireland. For now, the current favourable corporation tax structure, the strength of our double tax treaty network along with our multi-disciplined talent pool and deep roots within the aviation leasing industry has helped to secure Ireland's position. In order to ensure our position is not eroded, we need to continue to provide "best in class" tax offerings which are compliant with the international standards of transparency and anti-avoidance measures as set out by the EU and OECD. In addition, we also need to continue to focus on expanding and, in the case of some existing double tax treaties, further improving them to ensure Ireland remains as the location of choice for aviation leasing companies.



International tax reform

International tax reform continues to remain an area of significant concern for aviation lessors in Ireland. This is not surprising given the pace of change in recent years. New rules are coming thick and fast from the OECD, the EU, the US and other key jurisdictions in which airlines are based. This has created a growing degree of tax uncertainty for Irish based aviation lessors which makes their operating environment increasingly difficult. Continued consultation with key stakeholders on proposed policy changes is recommended in order to better inform policy making and to provide certainty in what is a time of great change in the international tax environment. The aviation leasing industry would ask that the Irish Government include them from the outset in policy discussions at a government and EU level so that they can be represented from the beginning of the process which should result in clearer skies for the industry.

Challenges



Personal tax regime

Ireland's personal tax regime has presented a major challenge to many industries with the marginal income tax rate being significantly higher when compared to competitor jurisdictions. While successive budgets have increased the standard rate threshold (most recently to €40,000 with effect from 1 January 2023), it is still low by EU levels. Government initiatives such as Special Assignee Relief Programme or "SARP" have helped to encourage the relocation of key talent within organisations to Ireland. To further enhance our current SARP offering improvements could include:

- Extending the duration of the relief for qualifying personnel from 5 years to 7 or 9 years.
- Extending the relief to include new hires that do not currently work for an associated company in another jurisdiction which would allow Irish entities attract new talent from overseas.

- Ensuring that the relieved income is exempt not just from income tax, but also from USC and PRSI.
- Applying a lower qualifying income threshold for more junior but critical employees, particularly where teams need to be put in place to support a new business unit.
- Reconsidering the earnings limit for the relief.
- Extending exemptions to other expatriate related expenditure, particularly to accommodation costs met by the overseas employer.
- Using the relief to promote a more balanced regional development.

In addition, the current procedural aspects of applying for and reporting the relief are very impractical, onerous and cumbersome. These processes should be streamlined.

As the aviation leasing industry in Ireland continues to face pressure from other jurisdictions who are looking to compete for market share, it is critical that our personal income tax system doesn't impede the industry's ability to continue to soar here.



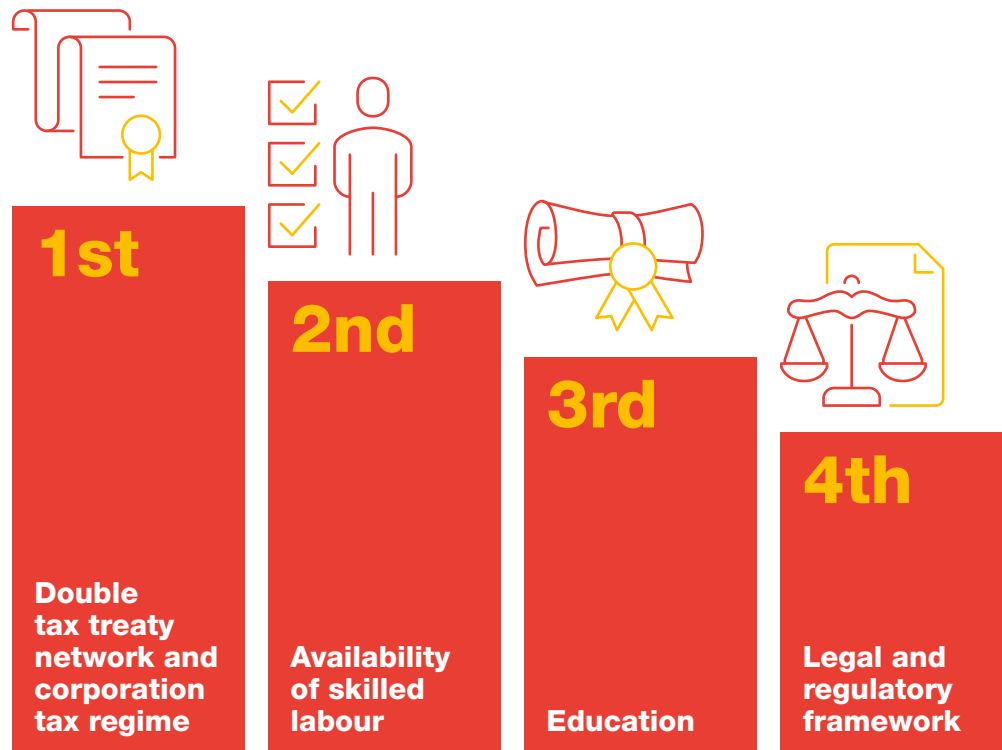
Social Infrastructure

Social infrastructure in Ireland continues to be a challenge. The National Competitiveness & Productivity Council launched a report in September 2022 "Ireland's Competitiveness Challenge 2022" which references the competitive challenges that Ireland faces. On the social infrastructure side, housing and healthcare were top of the list. The governments Housing for all strategy was launched in September 2021, with over €20 billion in capital funding allocated out to 2025. Delivery of housing is recovering following a slow-down due to lockdown measures during the COVID-19 pandemic. However, the delivery of housing remains a constant pressure, with particular concern developing around the availability of rental accommodation. On the healthcare side, the pandemic drew further attention to the need for quality and efficient infrastructure to support health services in the country. Health is key to a higher quality of life and is a key component of our public capital programme, and Ireland needs to ensure expenditure is aligned with strategic priorities.

Opportunities

The aviation leasing sector has been well established in Ireland for a number of decades and, as a result, a strong ecosystem for the industry has been created here. This brings many opportunities for the industry in Ireland which we should continue to focus on and grow in order to maintain our position as a global leader in aviation leasing.

The key opportunities were ranked by the lessors asked as listed below. These key areas have been expanded on with details of the key drivers further below.



Opportunities



Double tax treaty network and corporation tax regime

As is widely recognised, Ireland's extensive double taxation treaty network plays a key role in creating a positive business environment for aviation lessors. For the second time, our survey findings serve to validate the importance of this network to the aviation leasing industry with Ireland's double tax treaty network coming out on top as the key driver behind Ireland's success as a global centre for aviation leasing. These double tax treaties serve to mitigate, or indeed eliminate in many cases, withholding tax applying to lease rentals in the lessee country. As the risk of any withholding tax exposure is generally commercially borne by the lessee, the reduction of withholding tax costs can reduce significantly the cost for international airlines of doing business with Irish based lessors. Ireland currently possess the best double tax treaty network for aircraft leasing but other leasing hubs are attempting to close the gap. It is therefore clear that the Irish Government, Department of Finance and the Revenue Commissioners need to ensure that the

Irish treaty network continues to expand and that certain existing, more limited treaties are updated to enable Ireland maintain its competitive position in this area. With the establishment of ALI, the industry body representing aviation leasing in Ireland, there is more opportunity than ever for direct communication with the Irish government and government bodies to ensure that efforts are focused in ensuring the quality and relevance of provisions in double tax treaties for aviation leasing.

The treaty network prioritisation is closely followed in importance by broader elements of Ireland's corporation tax regime, including stability, the corporation tax rate and the availability of tax depreciation over an eight year period. The Irish Government has in the past publically stated that, when it comes to tax initiatives it will "play fair, but play to win" meaning that it will provide "best in class" offerings, which are compliant with the international standards of transparency and anti-avoidance measures as set out by the EU and OECD.

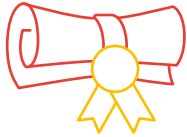


Availability of skilled labour

Ireland's position as a global leader for the availability of skilled labour has once again proven to be another driver of success in attracting business. Our survey found that this was the second key benefit or driver behind the aviation leasing industry's success in Ireland. Indeed, this finding is not surprising given that the industry is not reliant on a product or software but its people. Ireland has a deep, multi-disciplined talent pool in aviation leasing which has been built up over the last four decades. In addition, highly experienced support services to the leasing industry have also developed in tandem with the growth of the industry in Ireland including specialised accounting and finance professionals, tax advisers and legal service providers.

A strong pipeline of educated employees in the sector is central to Ireland's success as an attractive location for the industry, and continued focus and development in this area is vital in maintaining this position. With this in mind, our survey sought to identify the particular skills and functions within the industry that are most in demand by lessors and where opportunities lie. Technical, pricing, accounting, tax and marketing were identified as the skills most in demand. Ireland plays a key role in filling these gaps in the employee market by its educational programs (discussed further) and its support in developing a skilled labour force to support the aviation industry. Credit risk and legal were identified as the skills least in demand.

Opportunities



Education

In recent years, new education paths have been introduced with a focus on aviation finance at higher education and post-graduate levels. ALI have a list of the educational institutions in Ireland which offer aviation related courses across the various levels of the Irish educational qualifications system on their website. Further, the industry has a dedicated student body in IASA which is an excellent resource for those looking to get into the industry. However, in order to safeguard Ireland's position as a leader in aviation finance and to ensure an ongoing stream of qualified industry personnel, there is opportunity for more educational programmes to be developed in areas where skillset has been ranked as low.

Ireland has the opportunity to become a leading global provider of education courses to support the (global) aviation industry. Government and industry support in achieving this would be greatly appreciated.



Legal and regulatory framework

Finally, survey respondents continued to value the Irish legal and regulatory framework which enables lessors to carry out their business efficiently relative to other jurisdictions. Ireland offers a transparent judicial system and has an excellent image as a reputable corporate domicile and positive working relationship with EU and other markets. This provides opportunities for the industry as it further bolsters Ireland's attractiveness as a location for aviation leasing.



Appendix



The economic and employment analysis is based on the operational expenditure of the aviation leasing sector in FY 2021

This section presents an overview of the Irish economic benefits attributable to the expenditure of Irish based aviation leasing companies in the financial year 2021. The benefits described in this section focus on the economic impacts derived from the day-to-day operation of these companies (operational expenditure including payroll and non-payroll (supplier) spend).¹

The economic modelling in this report is based on respondent survey data. The data received was aggregated for confidentiality and modelling purposes. Respondent data is self-reported and not audited by PwC.

The methodology used for estimating the economic impact of the aviation leasing sector is shown in Figure A.1

Steps Involved in the Modelling of Respondent Data

Data Preparation



- Determined the average annual aggregated payroll (Irish residents only) and non-payroll (Irish suppliers only) spend from respondent data; and
- Respondent data was grossed to market (100%). Utilising a comparison of the number of full time equivalent (FTE) employees recorded in the respondent data and a CSO estimate of FTEs in the aviation leasing industry (1,971)² a metric was attained to scale respondent data to provide a proxy of full market size. The scale factor was applied to the operational expenditure data of the respondents before economic modelling took place.

Economic Modelling



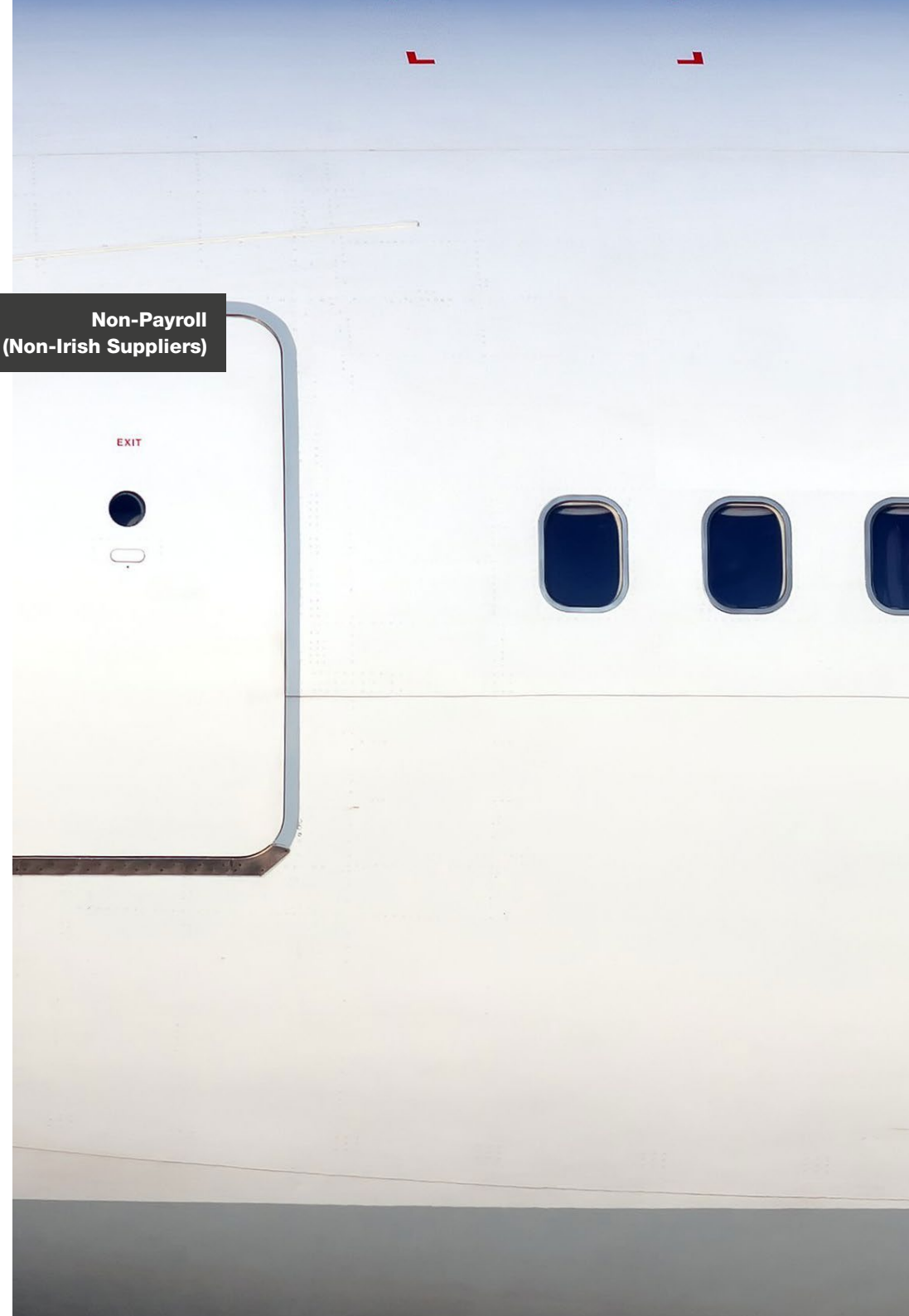
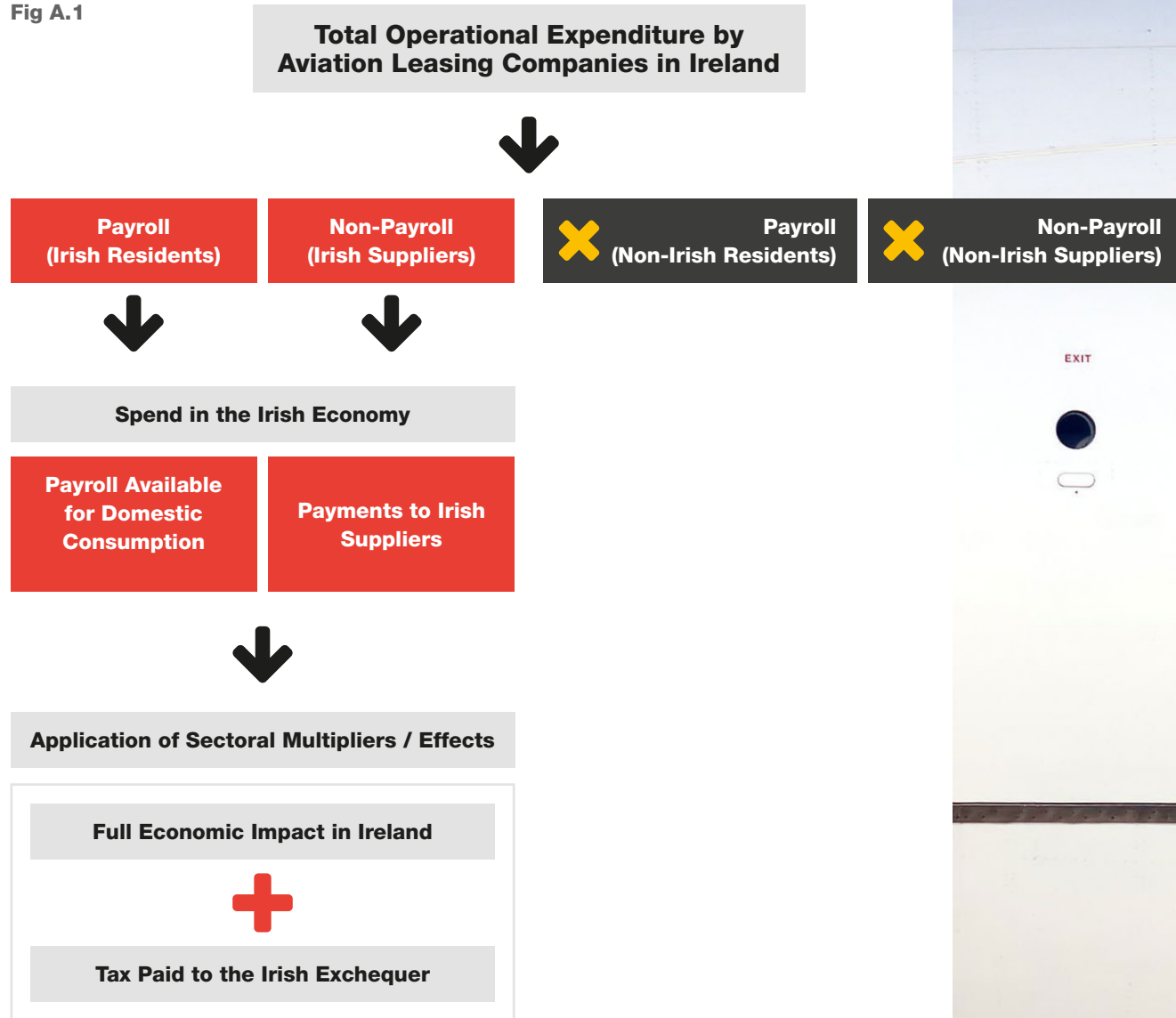
- Total payroll spend was reduced by all direct deductions, including taxes and pensions, estimated savings, and out to state expenditure (e.g. holidays) to arrive at an estimate of resultant average annual consumer spend in the Irish economy by employees of aviation leasing companies based in Ireland;
- Total non-payroll (supplier) expenditure was reduced by the value of all payments made to international / non-national suppliers;
- The sectoral allocation of all generated expenditures (i.e. payroll and non-payroll) in the Irish economy was determined; and
- Sector-based multipliers / effects were applied as appropriate, to arrive at an estimate of the full annual economic impact (output and FTE jobs)

Notes: 1. The Irish economy benefits derived from capital expenditure in the aviation leasing sector are not included in this report due to data availability. Resultantly, the economic impact modelled in this report is based on operational expenditure only. This is an indicative measure based on best available data.

2. CSO Aircraft Leasing in Ireland 2018

Source: PwC Methodology

Fig A.1



The operational expenditure of the aviation leasing sector has direct, indirect, and induced effects on national output and FTE jobs in the Irish economy

Methodology Explained

The aviation leasing industry's operational expenditure in the Irish economy has direct, indirect and induced impacts on national output and FTE jobs. Additional industry capital expenditure has not been modelled due to data limitations.

The full economy impact of any organisation is a function of two factors, namely:

1. The value of national economy expenditures; and
2. The sectoral composition of this spend

The sectoral composition of spend is material to the extent that spend in sectors with a low import content (e.g. services) have a more substantial impact on the national economy than expenditures in sectors with a high import content.

The full economy impact of a € / \$ increase in expenditure in a defined sector is measured at three levels which describe the progression of the € / \$ spend through the economy, namely direct, indirect and induced. Explanations of these levels of economic benefits are described in figure A.2.

The most commonly applied form of multipliers and effects are:

- **Output** - the contribution of an additional € / \$ in expenditure to national output; and
- **Employment** - measures the impact on full-time equivalent jobs (FTEs).

Multipliers and effects are unique to individual economies, reflecting (among other factors) the fact that the import content of different sectors of activity will vary significantly depending on the resource base of the economy. In this report, money spent by the companies (non-payroll) and its employees (payroll) was allocated to the relevant economic sector (e.g. food, housing and professional services). Output multipliers were then used to estimate the direct, indirect and induced impact of this spend on the broader economy. Employment effects were used to estimate the impact of this spend on jobs.

Fig A.2: Multipliers / Effects Explained

Economic Impact	Description	Example
Direct	The jobs and output generated by immediate beneficiaries of the additional Irish economy expenditures of the aviation leasing sector.	Expenditure by suppliers to the aviation leasing sector on labour, materials, other suppliers and capital to meet demand for their services.
Indirect	The jobs and output of suppliers to the direct beneficiaries of the additional spend.	Impact from lower tier suppliers that also employ labour and purchase goods to meet demand. For example, catering expenditure with food suppliers to provide staff restaurant facilities supports jobs and outputs of that supplier.
Induced	The jobs and output resulting from the additional economy expenditure from expenditure of employees of the aviation leasing sector's suppliers and sub-suppliers.	Income received by retailers as a result of the spending of suppliers' employees.



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