

The Aircraft Leasing Industry in Ireland: Cross Border Flows and Statistical Treatment

Jenny Osborne-Kinch, Dermot Coates and Luke Nolan¹

Abstract

This Article examines the development of Ireland as a hub for the global aircraft leasing industry. Alongside the US, Ireland has become one of the two major centres in the world for aircraft leasing multinationals, with a significant number of the largest global entities operating here. Using a newly created internal Central Bank of Ireland database on aircraft leasing, we present the results following an analysis of leasing payments, funding flows, and counterparties. The scale of the aircraft leasing sector relative to the size of the Irish economy has the capacity to impact official statistics such as National Accounts and Balance of Payments and complicates the interpretation of movements in these measures over time. As part of this research, the Article examines changes in the statistical treatment of this sector over time arising from the introduction of new statistical methodologies and its implications for official national statistics. Finally, we summarise the possible economic contribution of the industry to Ireland's macroeconomy and the outlook for the industry.

¹ The authors are Senior Economists in the Statistics Division and a Trainee Actuary in the Insurance Division. The views expressed in this article are those of the authors only, and do not necessarily reflect the views of the Central Bank of Ireland or the European System of Central Banks. The authors would like to acknowledge the useful comments received from Gabriel Fagan, John Flynn, Joe McNeill, Rory McElligott and Peter Dunne. We would also like to acknowledge the assistance of Patrick Quill, John Sheridan and Mark Manto of the Central Statistics Office.

1. Introduction

Alongside the US, Ireland has become one of the two major centres in the world for aircraft leasing firms. A number of industry reports have found that 50 per cent of the world's leased commercial aircraft are managed from Ireland with an Irish-leased aircraft taking-off every two seconds somewhere across the globe (UCD Smurfit School/IDA Ireland, 2016; PwC, 2014). The number of global aircraft leasing companies operating in Ireland now exceeds 30 and these include most of the largest operators (Dillon Eustace, 2013).

The scale of the industry is now such that industry-specific developments have the capacity to impact Irish official statistics (i.e. National Accounts, Balance of Payments and the International Investment Position (b.o.p./i.i.p.), etc.). The Central Statistics Office (CSO) have previously noted that the 2016 data revisions to macroeconomic statistics arose on foot of a number of factors. These included, but were not limited to, corporate restructuring both through imports of individual assets and also reclassifications of entire balance sheets across a number of institutional sectors, and an increase in the number of new aircraft imports into Ireland for international leasing activities (CSO, 2016). This leasing activity can add to the recorded capital stock for Ireland and leads to increases in investment, imports and over time, boosts services exports through higher leasing income flows, as well as affecting estimates of operating surplus and the consumption of fixed capital.

The objectives of this research are to enable the reader to better understand why Ireland has come to develop such an internationally-orientated and fast-growing industry, and the applicable treatment of this industry in Ireland's official statistics. We also seek to explore the cross-border flows and inter-linkages of the industry in Ireland and the associated economic contribution.

This Article is structured as follows: Section 2 examines the scale and structure of the aircraft leasing industry in Ireland today and some of the factors that have facilitated its growth. Section 3 outlines the methodology and data sources used in mapping the operations and cross-border flows of the industry. Section 4 summarises the findings with regard to funding and counterparties. Section 5 examines the statistical treatment of the industry in Ireland's official statistics whilst Section 6 examines the economic contribution – and the potential risks to – the industry. Section 7 concludes.

2. Scale and Structure of the Industry in Ireland

The foundation of the aircraft industry can be traced back to the establishment of Guinness Peat Aviation (GPA) in Shannon in 1975 but it has since grown significantly, although estimates of scale have varied. Recent estimates put the total value of the aviation *assets under management* at between €83 billion² and €113 billion (TSG, 2012; PwC, 2014; UCD Smurfit School/IDA Ireland, 2016)³. There are a number of reasons why Ireland has come to attract investment from this industry. These factors have facilitated Ireland in becoming an important location through which to finance and lease aircraft.

2.1 What Makes Ireland Attractive?

Ireland's significant presence in the global aircraft industry can be attributed to many factors including the following: (i) a taxation regime which provides for a low headline rate of corporation tax and a depreciation write-off period of eight years; (ii) a comprehensive double tax treaty network with approximately 70 countries where many of the latter provide for zero withholding tax on inbound lease rentals; (iii) flexibility in the adoption of recognised accounting standards (i.e. IFRS, US GAAP or Irish GAAP) for financial

² The Federation of Aerospace Enterprises in Ireland (FAEI) had previously estimated the value of total assets under management at €83 billion in 2008.

³ An information note issued by the UCD Smurfit School/IDA Ireland put aviation finance assets under management from Ireland at €106 billion (\$120 billion) whereas the Tax Strategy Group report puts the figure at closer to €113 billion (\$150 billion).

reporting; and (iv) being recognised as a centre of excellence in this sector, with a skilled workforce.

With regard to the write-off provisions, a recent industry analysis has considered the economic life of commercial jet aircraft. This indicates that the average retirement age of fleets is increasing and that aircraft retirement ages are close to 25 years with some 50 per cent of the total fleet likely to remain in service beyond this timeframe (Forsberg, 2015). The useful economic life, then, tends to be considerably longer than the depreciation period allowable for tax purposes.

Furthermore, the applicability of the securitisation provisions of Section 110 (S110) of the Taxes Consolidation Act, 1997 to the aircraft leasing industry has been expanded in recent years. Under changes to these provisions enacted in the Finance Act 2011, aircraft and aircraft engines are now designated as a qualifying asset under S110. This provides an opportunity for new entrants to the market to establish aircraft finance special purpose vehicles (or 'S110 aircraft SPVs') (Bedell Trust, 2015).

2.2 Types of Aircraft Lessors

There are two types of aircraft lessors in Ireland: the longstanding incumbents in the industry (plus aircraft assets redomiciled to Ireland over time⁴) and more recently established SPVs.

2.2.1 Non-SPV Aircraft Leasing Companies

These are long established in Ireland (sometimes redomiciled here) with substantive trading activity that pre-date the changes introduced in the Finance Act, 2011. These lessors avail of bank borrowing – primarily from international banks – in addition to asset-backed borrowing.

2.2.2 Usage of Special Purpose Vehicles

The Finance Act, 2011 designated aircrafts and aircraft engines as qualifying assets and allows tax treatment as a trading entity, creating a new class of aircraft financing structures. This provides a new incentive for those without existing trading platforms to establish in Ireland. These legal provisions allow taxable profits to be computed on the same basis as a trading company (notwithstanding that it will not meet usual trading principles).

More specifically, a SPV can claim tax deductions for all financing expenses. In such cases, the SPV acquires aircraft using senior and junior debt provided on an arm's length basis. These are 'orphan' SPVs with, typically, 100 per cent of issued share capital (equity) held on trust. The term 'orphan' SPV implies that the security (bond) issuer is bankruptcy-remote (i.e. outside of the leasing group). This entity issues bonds (i.e. asset-backed financing) but as an 'orphan' structure, the underlying security is separate from the group in the event of a collapse. The aircraft assets (tangible) are then vested in the S110 SPV, and the income flow generated from leasing the aircraft is used to pay the bondholders.

3. Methodology and Data Analysis

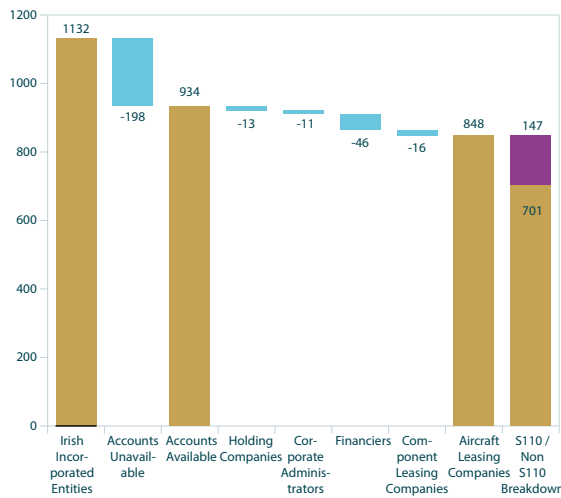
3.1 Overview of Data Sources

Research undertaken on the aircraft leasing industry in Ireland was motivated by the noticeable growth in this activity as evidenced in the statistical data reported by the SPV sector⁵ to the Central Bank of Ireland. This included entities engaged in operational and finance leasing with regard to aircraft and aircraft engines. Within this dataset, there were approximately 300 SPVs whose designated area of business was aircraft leasing.

⁴ For example, it has previously been reported that AerCap redomiciled aircraft assets to Ireland over the period 2014-2015 on foot of its acquisition of International Lease Finance Corporation (ILFC) (Reuters, 2013; O'Halloran, 2015). Redomiciled entities relates to multinational corporations relocating residency to another country, i.e. Ireland.

⁵ Data collection commenced from reference period Q3 2015.

Chart 1: Outline of the Composition of the Industry Population



Source: Authors' calculations.

Although the SPV data provided certain indicators, further information was required to arrive at a more comprehensive understanding of the aircraft leasing industry in Ireland. The Companies Registration Office (CRO) was the main source used to augment data on aircraft leasing activity conducted through SPV-type structures. Data from both sources was then merged into a unitary database on the aircraft leasing industry in Ireland.

The financial statements for these entities were studied with key indicators identified and exported to create an aircraft leasing database. This database covers attributes such as number of aircraft held and book value (BV), leasing income, counterpart country (i.e. source of lease income inflows), parent company, and sources of funding used to purchase the aircraft, amongst others.

As the combined book value of this cohort of SPVs was less than €10 billion (or represented coverage of up to 10 per cent of the overall industry at 2014) a significant data gap still remained. This data gap was attributable to the fact that not all Irish-resident leasing is conducted via SPV-type structures. In

particular, the largest companies operated outside the SPV framework.

To develop the dataset further the financial statements of the 'Top 15 Aircraft Lessors' (Airfinance Journal, 2015), ranked by fleet size, were obtained and the entities located in Ireland identified. Once identified, the financial statements of these Irish-incorporated companies and associated entities were added to the database.

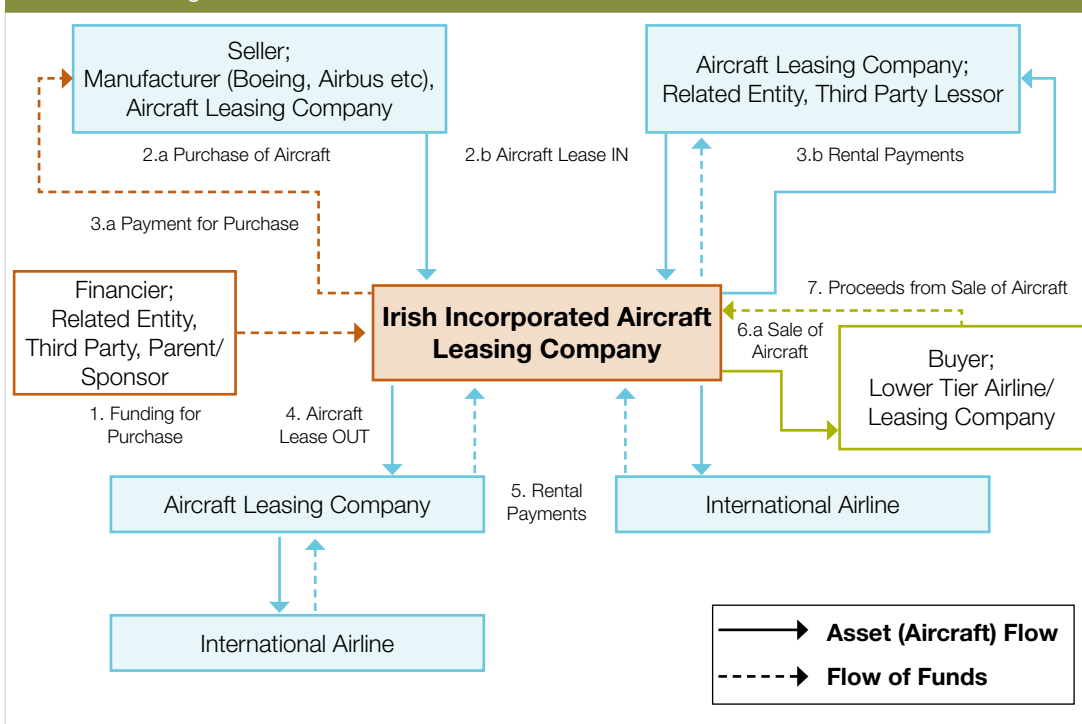
The number of Irish-incorporated entities found with activities linked to the aircraft leasing industry was 1,132 in total. However, data limitations restricted the usable database to 848 entities involved directly in the leasing of aircraft and for which accounts were available. This is composed of 147 SPVs classified as S110 companies plus a further 701 entities who fall outside the S110 designation (Chart 1).

3.2 Data Limitations

Reflecting the data limitations of this analysis and the use of multiple data sources to compile a compound schedule of aircraft leasing entities, the population frame used in this analysis is not exhaustive and all aggregate data presented should be considered as a lower-bound estimate for the industry.

Secondly, data compilation was subject to the availability and consistency of the year-end financial statements for each of the identified entities. The information varied across companies in terms of coverage and quality. Whereas some statements provided the number of aircraft held, others did not. Similarly, the geographic location of leasing activity (i.e. the country where the lessee is based) was given on a country-specific basis by some entities, but reported by continent/region in other instances. Useful indicators such as lease duration, aircraft age and leasing counterparty would facilitate deeper analysis of the industry but were at times unavailable. Nonetheless, the database collated does enable us to present a high-level overview of the aircraft leasing industry in Ireland.

Chart 2: Leasing Flowchart



Source: Authors' calculations

4. Results

Using the database of the accounts available for the 848 Irish-resident aircraft leasing companies, we undertook a range of analyses, the results of which are presented below. In the first instance, we estimate that the book value (BV) of the aircraft stock owned by Irish-resident lessors stood at approximately €81 billion (or \$97 billion) by 2014.⁶ This relates to some 1,400 aircraft owned by Irish-resident lessors.⁷ This BV was sourced from CRO filings and relates to the economic ownership of aircraft stock, as per said filings. This is broadly consistent with previous industry estimates.

As the estimated asset holdings of the sector relate to 2014, this does not capture more recent activity within the industry here – as seen in the increase in new aircraft imports into Ireland – and the impact of any additional

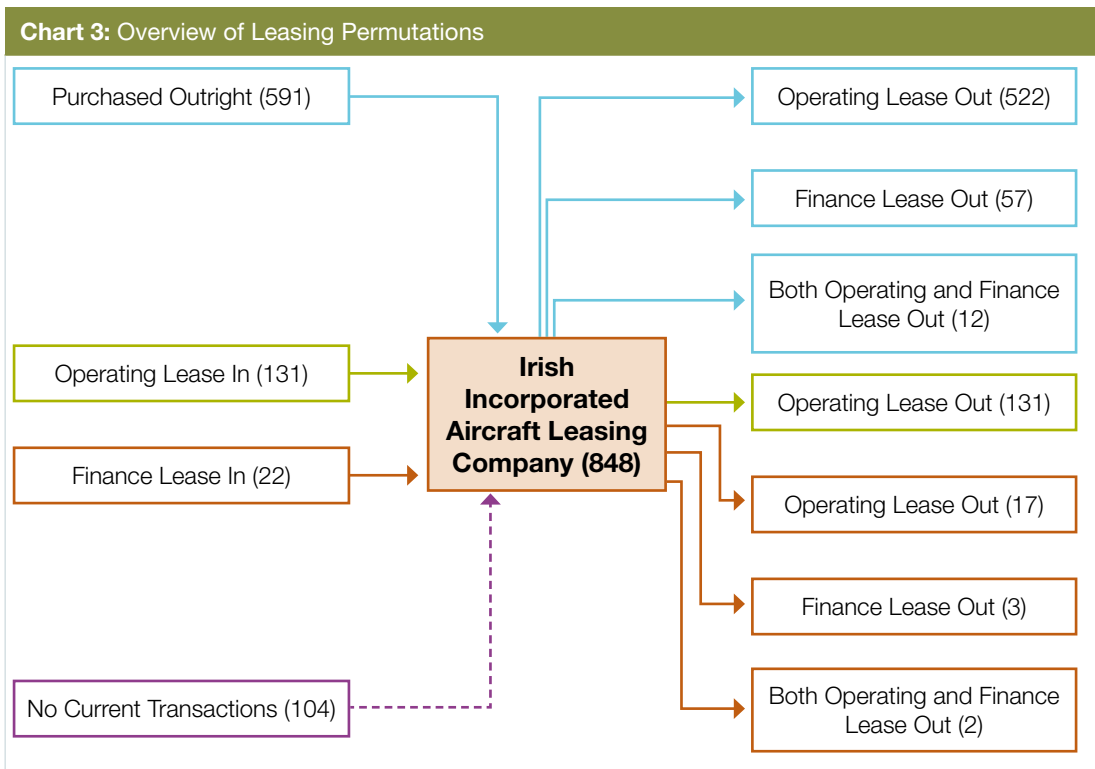
merger and/or redomiciling activities. The recent acquisition of ILFC by AerCap is one such example. Consequently, we would expect that the current size of the sector is higher than the estimates derived in this analysis.

4.1 Modalities of Leasing

Chart 2 presents a stylised outline of the movement into Ireland of aircraft assets and the onward leasing (or sale) of those same aircraft out of Ireland. Aircraft are acquired through a purchase or an inward lease (*lease in*). As these acquisitions are generally cross-border in nature, they impact on imports and investment for the purposes of the macroeconomic statistics, although the treatment is determined by the type of lease adopted. The statistical treatment is further elaborated in Section 5.

⁶ This relates to the economic ownership of these aircraft assets. Assets owned is a sub-set of total assets managed. In a small number of cases, the year-end of the latest available accounts did not fall in 2014 and so the cumulative BV of the aircraft owned was converted into euro amounts, where necessary, taking into account the various applicable year-end exchange rates (using the end-December rate in all cases). Some 300 aircraft leasing companies identified for the purposes of this research reported no current BV. This may be attributable to either a divestment of assets over time and/or the leasing model under operation (i.e. operating lease in and finance lease out).

⁷ These are necessarily minimum estimates as some 100 aircraft leasing companies did not report the number of aircraft owned.



Source: Authors' calculations

Notes: (i) Data presented here are estimates based upon a database of Irish-resident aircraft lessors constructed by the authors.

An Irish-resident aircraft leasing company then leases these assets out of Ireland (lease out). These aircraft can be leased to either an airline or to another leasing entity. Leasing arrangements can take the form of either an operating or a finance lease. Similar to aircraft acquired, onward leasing (or the sale of aircraft) impacts exports for services and merchandise.

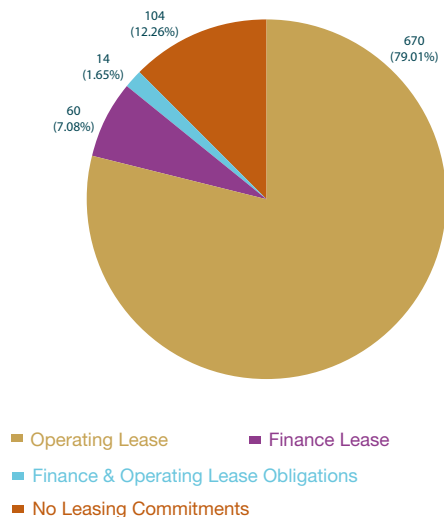
The different accounting frameworks applying to operational and finance leases is an important consideration here. At present, the applicable accounting treatment of an operating lease by the lessor stipulates that the leased asset be recognised on the Balance Sheet of the lessor as a tangible fixed asset and depreciated over time. By contrast, under a finance lease the leased asset is not capitalised on the Balance Sheet of the lessor but rather, it is recognised by the lessee alongside a corresponding liability (Deloitte, 2012).

Our database indicates that 591 aircraft leasing companies (70 per cent) directly acquire aircraft via purchases before leasing these assets out. These results show that the most common arrangement is for an aircraft lessor to purchase an aircraft (import) and then onward lease this asset using an operating lease with 522 companies (62 per cent) using this model.

In a small number of cases (131 companies), aircraft are acquired by Irish-resident leasing companies via an operating lease but in all such cases, these assets were then leased out by these same companies, using an operating lease also (Chart 3). Indeed, some 153 companies (18 per cent)⁸ covered by this research undertook transactions using a Li-Lo (lease in-lease out) model.

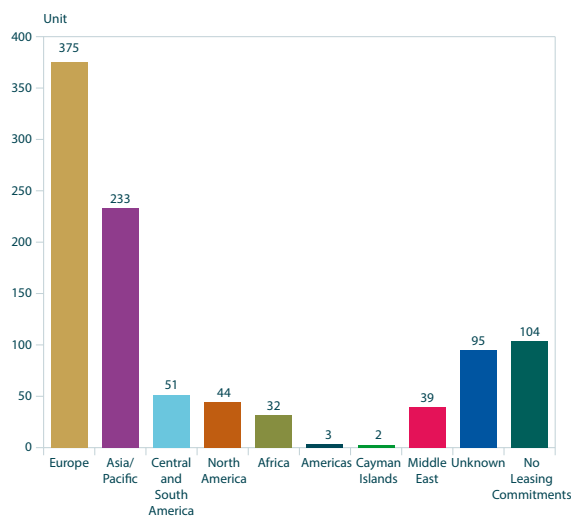
The database compiled indicates that operating leases were the predominant

⁸ This refers to cases where a company's aircraft assets are both leased in and leased out (irrespective of the lease type used for either leg of a given transaction).

Chart 4: Aircraft Leasing Companies by Lease (Out) Type

Source: Authors' calculations.

Notes: Data presented here are estimates based upon a database of Irish-resident aircraft lessors constructed by the authors.

Chart 5: Aircraft Leasing Companies by Region of Geographic Activity

Source: Authors' calculations.

Note: The count here does not sum to the 848 lessors in the authors' database as each company can be represented more than once above.

business model utilised with 670 aircraft leasing companies (79 per cent) using this approach to lease out aircraft (Chart 4). Only 7 per cent of companies used finance leases with less than 2 per cent using a combination of both.

4.2 Counterparty by Geography

An analysis of geographic counterparty is useful as this provides some insights into the cross-border relationships that feed into statistical measures such as b.o.p./i.i.p. This helps to illuminate the direction of the flows on aircraft and leasing income. Chart 5 presents data on the region of business of each lessor in our database. This relates specifically to the location where the aircraft are leased out to.⁹

Europe is the principal geographic counterparty with almost 400 Irish-resident companies leasing out to entities across the continent. The next most prevalent region is Asia/Pacific. It is our understanding that certain

European countries are intermediate steps into other global markets, such that aircraft assets may effectively be routed from Ireland to their ultimate lessee via Europe.

Finally, it is not feasible to provide a detailed commentary with regard to counterparty by economic sector (and by country) as the data do not provide this level of detail. Typically, aircraft – and engines – are leased out to airlines (non-financial corporations sector) and other aircraft lessors (other financial intermediaries sector).

4.3 Funding Flows

The sourcing of funds to finance the purchase of aircraft has, at times, been challenging. Post the global financial crisis, when bank funding was scarce, Export Credit Agencies (ECAs) guaranteed financing. With ECA guarantees, banks were seen to be more willing to provide debt and, with reduced risk, were able to price more competitively. In more recent

⁹ The data indicates that certain lessors are active across multiple regions.

years, investors from Asia have moved into the sector, replacing banks from Europe, with banks such as Japanese Bank Sumitomo Mitsui, Development Bank of Japan, and Bank of China involved in numerous deals (PwC, 2013).

In the context of this research, the flow of leasing income and access to funding by Irish-resident aircraft lessors was analysed. With regard to the former, leasing payments to Irish lessors are predominantly cross-border (Chart 5). These are recorded as Operational Leasing inflows in the Current Account (b.o.p.). Cumulative net leasing income was estimated at €9 billion (\$11 billion) in 2014. The SPV subset of lessors accounted for just 8 per cent of this income.

Funding by Irish-resident aircraft leasing entities to finance purchases of aircraft assets is another important consideration. This funding will accrue from various sources spanning sovereign wealth funds, capital markets, private bank lending¹⁰ and inter-group borrowings. In the case of capital markets, the issuance of certain note types – for instance, profit participating notes (PPNs) – by SPVs is one source of funding.

'S110 aircraft SPVs' allows for the issuing of PPNs where the interest expense is deductible for tax purposes (Bedell Trust, 2015). This facilitates tax-deductible profit extraction in structured finance transactions (McCann FitzGerald, 2013; Dillon Eustace, 2012).

5. Statistical Treatment of the Industry

This section examines the methodological changes introduced under the European System of Accounts 2010 (ESA 2010) for the aircraft leasing sector and provides some insight into the impact of industry expansion and relocation of lessors in recent years. The methodologies underpinning the statistical treatment of this sector in Ireland's official data have changed in recent years following

the introduction of ESA 2010. Firstly, it should be noted that under the *transfer of economic ownership* approach which was adopted under ESA 2010, those aircraft that are purchased (or leased inwards under a finance lease) by an Irish-resident entity are deemed to be Irish assets and imports into Ireland, regardless of whether they physically enter Irish territory or not.

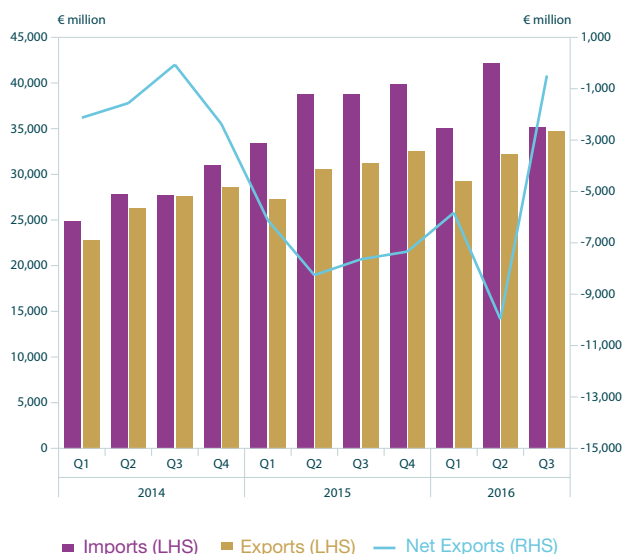
On foot of the methodological changes, the CSO amended its treatment of trade in aircraft from 2015 to incorporate the concept of economic ownership and revised its data back to 2000 for trade in goods, b.o.p./i.i.p. and the National Accounts series. Consequently, trade in aircraft is now recorded when economic ownership of the aircraft is transferred '*... regardless of where the aircraft is registered for aviation purposes*' (CSO, 2015).

In the CSO's quarterly publication on b.o.p./i.i.p., outright purchases or acquisitions via finance lease of aircraft appear in the Current Account (b.o.p.) under merchandise imports, while leasing income from an operational lease acquisition is recorded as service exports under Operational Leasing in the Current Account. Under the change in methodology, the main effects will be to add to imports of goods into Ireland, thereby decreasing in the Current Account balance (b.o.p.), although this should be more than offset over time by increasing services export revenue coming from the leasing income earned over the lifetime of the aircraft.¹¹ Under the new approach '*the balance sheets of operational leasing companies who relocate to Ireland are included in Ireland's Balance Sheet at the time of relocation and their aircraft fleets are also added to Ireland's capital stock*'.

Aside from changes in the statistical treatment, in recent years the aircraft leasing sector has also experienced organic growth with an increase in the number of new aircraft imports into Ireland. In addition, there is also evidence of the relocation of lessors by way of new entrants into the Irish market and corporate

¹⁰ It is our understanding that such bank lending is typically sourced from non-resident credit institutions.

¹¹ The changes in the Current Account balance at this time, relate to numerous factors, including changes in the methodology for aircraft leasing, but also includes contract manufacturing. See note on contract manufacturing: <http://www.cso.ie/en/media/csoie/surveysandmethodologies/documents/pdfdocs/ContractManufacturingInformationNotice.pdf>

Chart 6: Current Account - Services, Exports and Imports

Source: Central Statistics Office.

Chart 7: Services - Operational Leasing, Exports and Imports

Source: Central Statistics Office.

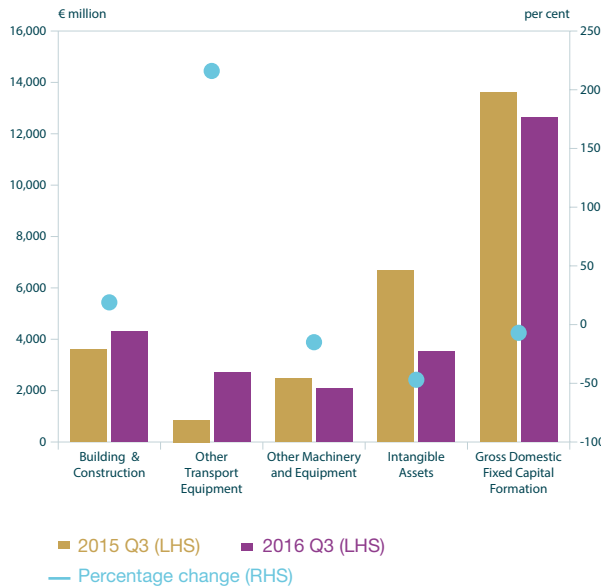
restructuring whereby global lessors transfer assets (aircraft) onto the Balance Sheet of their Irish operations. Within the National Accounts framework, we can endeavour to examine how these developments have impacted the data but given the global nature of the economy and other developments in the multinational sector, it is difficult to separate out pure aircraft leasing. While the aircraft leasing sector was not the predominant contributor to recent revisions in Irish macroeconomic statistics, it is nonetheless informative to focus on a specific set of metrics that are impacted by developments in this sector over time. For example, based on the higher capital stock, there will be a resulting increase in capital formation and in the provision for depreciation. However, for the purpose of this article our focus is primarily on the contribution to external statistics.

As already mentioned, metrics such as exports and imports under Merchandise and Services in the Current Account will be impacted by developments in the aircraft leasing sector.

In the case of aircraft acquired (excluding operating leases), these movements are an input into Merchandise Imports. In the case of leasing charges (payable and receivable), these are an input into the Operational Leasing sub-component under Services.

Furthermore, the impact of the aircraft leasing sector on Gross Domestic Product (GDP) is visible through the published b.o.p. data, specifically with regard to the inflow of Operational Leasing revenues on the Current Account. These revenues expanded significantly with an increase of approximately €2.4 billion recorded under exports of Operational Leasing between 2014 (€9.4 billion) and 2015 (€11.8 billion). The level shift in this metric initially occurred in mid-2014: for instance, these inflows stood at approximately €2 billion in both Q1 and Q2 2014 but had increased by some 35 per cent to €2.7 billion in the subsequent quarters of 2014. By Q3 2016, the equivalent figure was closer to €3 billion (Charts 6 and 7). The aforementioned increase of €2.4 billion under Operational

Chart 8: Components of Gross Domestic Fixed Capital Formation



Source: Central Statistics Office.

Leasing (exports) implies a rise of some 25 per cent over a one-year period but it is important to put this in its necessary context. Over the same period, Services (exports) increased by €16 billion with components such as Computer Services increasing significantly. Over the same period, Merchandise (imports) increased by €11 billion.

Finally, developments for this sector can also be seen in the official statistics relating to capital formation. Gross Domestic Fixed Capital Formation fell back by approximately €1 billion (or 7 per cent) between Q3 2015 and Q3 2016, primarily on foot of a reduction in Intangible Assets. At the same time, Machinery and Equipment – including ‘*other transport equipment*’ – increased by close to €1.5 billion and this represented an increase of 44 per cent. This increase was driven by the Other Transport Equipment sub-component of this series (Chart 8) which rose by €1.9 billion to €2.7 billion by Q3 2016. In the case of aircraft

specifically, capital formation increased by €1.4 billion between Q3 2015 and Q3 2016.¹² However, it is important to bear in mind that this figure also includes aircraft activity outside the leasing sector.

6. Economic Contribution and Risks

6.1 Contribution of the Industry in Ireland

Recent employment estimates for this sector in Ireland have varied. A survey of the cross-border aviation leasing sector commissioned by the FAEI in 2008 estimated that there were almost 1,000 people employed in this sector, with direct employment accounting for 60 per cent of these jobs. Keaveney and Murray (2011) put the number of people employed in the industry at over 2,000 (direct and indirect¹³). More recent estimates, however, suggest that there are over 1,200 people employed in the industry in Ireland (UCD Smurfit School/IDA Ireland, 2016).¹⁴

In terms of tax contribution, the aforementioned FAEI survey found that the sector contributed approximately €270 million in Corporation Tax – deferred and current – to the Exchequer in 2007. The total tax contribution was closer to €310 million and included €5 million in VAT revenues generated by consumption by this sector.¹⁵ Keaveney and Murray (2011) put the Corporation Tax contribution at more than €300 million per annum.

Such metrics must be put in context, however, and other research has questioned the contribution of the industry to Ireland’s economy: FitzGerald (2015) found that they ‘*employ a relatively small number of people in Ireland, they buy a limited range of services locally...*’

¹² According to the CSO’s Quarterly National Accounts & Balance of Payments Q3 2016 Media Briefing (9th December 2016).

¹³ These are support services to the sector such as legal and accounting.

¹⁴ This figure likely refers to direct employment.

¹⁵ Said survey estimated that a ‘*further €132.8 million was injected into the economy in the form of expenditure on professional services, physical infrastructure including rent, telecoms etc. and on other day to day running expenditure.*’

Addressing the value added of the aircraft leasing sector is challenging, particularly as aircraft is not separated out in the Supply and Use tables published by the CSO.¹⁶ Moreover, as the sector has a limited impact on domestic economic activity, the Gross Value Added is likely to be distorted, arising from the treatment of depreciation. The metrics discussed here are probably more representative of the contribution to the domestic economy. However, it would be extremely helpful if these could be enhanced by data on the compensation of employees, and purchases of domestic services.

6.2 Outlook for the Industry and Possible Implications for Ireland

The data indicates that this is a resilient industry with strong growth prospects into the future. There are, however, potential headwinds. These include, but are not limited to, the risk of a regional slowdown in emerging markets and the possible implications for both demand and external funding sources; increased competition over time from other European countries; demand for new technologies, specifically in terms of fuel efficiency; proposed changes to the international accounting treatment with regard to leases; and uncertainty related to the OECD Base Erosion and Profit Shifting (BEPS) process(es), which will see possible changes to the international tax regime.

Separately, future trends and implications for developments in official statistics over the medium- to long-term are an important issue, however it is difficult to project forward for such a dynamic globalised industry such as aircraft leasing. Recent industry commentary, however, may provide some plausible insights. For instance, Boeing and Airbus forecasts estimate that the future demand pipeline for new aircraft is \$5-\$6 trillion over the next 20 years with approximately 50 per cent of this to be leased (KPMG, 2015).

Assuming that the industry in Ireland is to continue to account for some 50 per cent of the leased output (as per current estimates), this would imply approximately €1.4 trillion (\$1.5 trillion¹⁷) in new assets – either acquired or via finance leases inward – held by the sector in Ireland. In other words, this would add €68 billion (\$75 billion) per annum to the Balance Sheet imports of the Irish aircraft leasing sector. If that were to occur, this could have significant implications for National Accounts and b.o.p./i.i.p. in terms of a range of metrics such as depreciation, investment, imports, exports and operating lease income.

7. Conclusions

This Article provides information on a significant and growing sector within the Irish economy which generates a certain degree of employment and tax revenues but also cross-border flows ranging from funding, lease payments receivable and/or payable, and imports and exports where these flows are an important factor in Ireland's official statistics. However, interpreting the impact on Irish National Accounts against the background of an economy affected by many new facets of the globalisation process is challenging. Here, we have attempted to examine the Irish-resident aircraft leasing industry in this context, facilitated by a newly created database on aircraft leasing, in order to provide information on an important and expanding sector within Ireland's economy.

¹⁶ The GVA at a four-digit level on NACE code 77.35 (renting and leasing of air transport equipment) is unpublished.

¹⁷ Based upon the prevailing exchange rate at end-October 2016.

References:

1. Airfinance Journal (2015), 'The Leasing Top 50 2015', www.airfinancejournal.com
2. Bedell Trust. 2015. 'Bedell Trust Ireland Briefing: S110 Aircraft Finance Structures'. Bedell Trust Ireland: Dublin.
3. Central Statistics Office. 2015. 'Moving to a transfer of economic ownership basis for trade in aircraft – Information Notice'. Central Statistics Office: Dublin (July 2015).
4. Central Statistics Office. 2016. 'Press Statement: GDP increases significantly in 2015 – Explanatory Note'. Central Statistics Office: Dublin (July 2016).
5. Deloitte. 2012. 'Leasing in Ireland: crossing borders'. Deloitte & Touche: Dublin.
6. Dillon Eustace. 2012. 'Ireland as a Domicile for Special Purpose Vehicles'. Dillon Eustace: Dublin.
7. Dillon Eustace. 2013. 'Aviation Finance: Ireland and the Cayman Islands as Key Locations'. Dillon Eustace: Dublin.
8. Federation of Aerospace Enterprises in Ireland. 2008. 'Cross Border Aviation Leasing Industry Survey Results', FAEI: 2008.
9. FitzGerald, J. 2015. 'Special Article: Problems interpreting National Accounts in a globalised economy – Ireland'. ESRI: Dublin.
10. Forsberg, D. 2015. 'Aircraft Retirement and Storage Trends: Economic Life Analysis Reprised and Expanded'. Avolon Holdings Limited: Dublin.
11. KPMG. 2015. 'Plane sailing ahead for aviation leasing industry'. KPMG: Ireland.
12. Keaveney, C. and Murray, S. 2011. 'Aviation finance and leasing'. Dillon Eustace: Dublin.
13. McCann FitzGerald. 2013. 'Choosing a SPV Jurisdiction for a Structured Finance Transaction – Ireland: An Easy Choice'. McCann FitzGerald: Dublin.
14. O'Halloran, B. (2016), 'Aircraft lessor AerCap moves €39bn in assets to the Republic', <http://www.irishtimes.com/business/transport-and-tourism/aircraft-lessor-aercap-moves-39bn-in-assets-to-republic-1.2079080>
15. PwC. 2013. 'Aviation Finance – fasten your seatbelt'. PwC: Dublin.
16. PwC. 2014. 'A better result for you – Opportunities for aviation finance companies to use Ireland'. PwC: Dublin.
17. Reuters (2013), 'Fitch Places AerCap's 'BBB-' L-T IDR on Rating Watch Negative on Proposed Acquisition of ILFC', <http://www.reuters.com/article/fitch-places-aercaps-bbb-l-t-idr-on-rati-idUSFit68038420131216>
18. Tax Strategy Group (TSG, 12/18) (2012), 'International Financial Services', <http://www.finance.gov.ie/sites/default/files/12%2018%20International%20Financial%20Services.pdf>
19. UCD Smurfit School/IDA Ireland (2016), 'Aircraft leasing: flying into the future', <http://www.smurfitschool.ie/aboutsmurfit/smurfitnews/newsitems/title,325573.en.html>