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Research Paper

Aggressive Tax Planning Schemes: A Documentary Analysis of the Apple Case

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BEATRIZ CORREIA MOURA[1*]
JOSÉ CAMPOS AMORIM[2]

ABSTRACT

Purpose: This study analyses Apple's tax planning through Irish structures like the Double Irish and Green Jersey, highlighting how the company used legal loopholes and mismatches to lower its global tax bill. It also examines the responses of international organizations, especially the European Commission and the Organisation for Economic Co-operation and Development.

Methodology: A qualitative documentary analysis of official reports and academic sources was used to examine Apple's tax arrangements, the impact of Irish tax rulings, and the legislative reforms that led to changes in its corporate structure.

Results: The research shows that Apple benefited from Irish tax rulings that allocated profits to head offices, which have no physical presence, resulting in greatly reduced tax rates. Although legal at the time, these arrangements exploited tax mismatches and raised state aid concerns. Under regulatory pressure, Apple shifted to the Green Jersey model, continuing to benefit from Irish tax incentives such as capital allowances and research and development tax credits.

Research limitations: The study has faced some limitations due to its reliance on public sources, the difficulty in accessing confidential internal documents and keeping up with the evolution of tax legislation.

Practical implications: Findings underscore the need for enhanced international tax coordination and the reform of tax ruling practices.

Originality: By offering a comprehensive case analysis, the paper highlights how formally legal tax planning can challenge fiscal fairness and transparency, emphasizing the urgency of global tax harmonization.

Keywords: *Aggressive tax planning; Double Irish; Green Jersey; Tax rulings; Intellectual property.*

[1*] Porto Accounting and Business School, Polytechnic of Porto. beatrizcorreiamoura2003@gmail.com
[2] Porto Accounting and Business School, Polytechnic of Porto, CEOS.PP. j.camposamorim@gmail.com

1. Introduction

This study analyzes the tax planning strategies implemented by Apple, with particular emphasis on the use of a network of subsidiaries structured to significantly reduce the group's overall tax burden. In this context, the role of tax rulings granted by the Irish tax authorities is examined, as well as the specific mechanisms employed by the company namely, the structure known as the Double Irish and the subsequent transition to what is referred to as the Green Jersey structure.

Through an exhaustive analysis, the study seeks to understand how these practices enabled the tech multinational to achieve an extremely low effective tax rate by exploiting legislative loopholes and mismatches between the tax systems of Ireland and the United States (U.S.). Simultaneously, the research addresses the response of international authorities, particularly the actions of the European Commission (EC) and the Organisation for Economic Co-operation and Development (OECD), in their efforts to combat aggressive tax planning. In particular, it analyzes the impact of the EC's decision ordering Apple to repay more than thirteen billion euros in back taxes after identifying unlawful tax advantages.

The core objective of this paper is to examine the mechanisms used by Apple within its corporate structure in Ireland and to critically assess the reaction of the relevant international bodies to the company's practices. The motivation behind this study stems from the increasing relevance of the topic in contemporary debates around tax justice, equity, and fair competition, as well as its implications for public finance sustainability and public trust in tax systems.

This research is based on a qualitative documentary analysis using official sources such as EC reports, OECD technical documents, and specialized literature. This methodological approach enabled the evaluation not only of the economic and legal effects of Apple's strategies but also of the adjustments made by the company in response to legislative changes introduced by the Irish authorities.

Thus, this study contributes to clarifying Apple's tax planning operations, highlighting the interaction between Irish tax incentives and offshore regimes. Additionally, it demonstrates how certain practices, although formally legal, may contradict the spirit of tax legislation and raise concerns regarding state aid and unfair competition. In doing so,

it reinforces the need for international tax harmonization and greater transparency from multinational corporations.

The paper presents a literature review on tax planning, with a particular focus on aggressive strategies adopted by multinational enterprises, an analysis of the Double Irish mechanism, and Ireland's tax framework as an attractive jurisdiction for foreign investment. It then describes the adopted qualitative methodology, based on the analysis of official sources and academic literature. This is followed by the introduction and analysis of the case study, with special attention to the Decision of the European Commission (EU) 2017/1283, which assessed the legality of the tax benefits granted by Ireland. Finally, it examines Apple's corporate restructuring following the Irish legislative reforms, concluding with the main findings of the study.

2. Literature Review

2.1. Tax Planning and Aggressive Tax Planning

Tax planning represents one of the economic freedoms of taxpayers, allowing them to adopt behaviors, within the limits established by law, which aim at achieving tax savings. Among the tools available to taxpayers are tax benefits, exemptions, and reductions, among other mechanisms provided for in the legal system.

However, the complexity and inherent imperfections of tax systems make them susceptible to interpretations that may limit or eliminate taxpayers' tax obligations. Thus, tax reduction may consist of "[…] acts of tax evasion (contra legem), acts of tax avoidance (extra legem), and acts of tax planning (intra and secundum legem)" (Caldas, 2015).

According to Mileusnic (2023), aggressive tax planning involves the deliberate exploitation of loopholes in tax legislation to reduce or avoid tax obligations, formally complying with the law but going against its spirit. In the European Union (EU), this issue has raised concerns due to its impact on the fairness, efficiency, and integrity of tax systems, as well as the distortion of the single market.

Multinational companies, in particular, frequently resort to such practices, driven by the opportunity to reduce tax burdens, the strategic use of transfer pricing, and the effects of globalization. In response, governments and international organizations have intensified efforts to promote tax transparency and combat these forms of aggressive tax planning.

In this context, the actions of the OECD and the G20 stand out, particularly their launch of the BEPS (Base Erosion and Profit Shifting) project in 2013. This initiative aims to ensure that profits are effectively taxed in the areas where economic activities occur, rather than in those where tax rules can be more easily manipulated to artificially reduce tax burdens.

2.2. Tax Culture

Recent research has increasingly highlighted the organizational and social dimensions of corporate tax avoidance, moving beyond traditional economic or legal determinants. (Hasan, John, Teng, & Wu (2024) emphasize that creative corporate culture "[…] is a type of culture that actively seeks to innovate, maintains an infrastructure that facilitates the implementation of innovation […]" (p. 1) and plays a significant role in shaping tax behavior. Their study demonstrates that firms with highly creative environments are more prone to engage in tax avoidance, as creativity may be redirected from product development toward identifying and exploiting tax loopholes. This dynamic suggests that the same traits that drive innovation may also foster an inclination to challenge and stretch the boundaries of regulatory compliance. Multinational corporations illustrate this phenomenon, as their innovative cultures not only enable the creation of groundbreaking products and services but also support the development of complex tax structures that significantly reduce effective tax burdens across jurisdictions.

At the same time, Baudot, Johnson, Roberts, & Roberts (2020) investigate the reputational consequences of aggressive tax strategies. While corporate tax behavior has been increasingly discussed as a dimension of Corporate Social Responsibility (CSR), their findings indicate that aggressive tax practices do not consistently result in reputational damage. The authors argue that opacity in tax reporting, firms' emphasis on compliance with the letter of the law rather than broader social obligations, and the strategic use of CSR initiatives mitigate reputational risks. As a result, reputation does not emerge as a robust accountability mechanism for curbing aggressive tax strategies.

These insights resonate strongly with widely debated cases of multinational tax practices in Europe. Investigations by the European Commission, for instance, have revealed that several multinationals secured favorable tax arrangements in certain jurisdictions, enabling them to reduce their effective tax rates to exceptionally low levels. From Hasan et al.(2024) perspective, the innovative and creative cultures of these corporations—often celebrated as central to their product development success—can also be understood as

factors enabling sophisticated tax planning. Their ability to design complex international structures to minimize tax burdens reflects the application of creative problem-solving capabilities within the financial domain.

Consistent with Baudot et al. (2020) analysis, however, many of these corporations' reputations have not been irreparably harmed by such revelations. Although they often face political criticism, legal challenges, and temporary reputational scrutiny, their global consumer bases and brand strength tend to remain largely unaffected. These cases suggest that reputational mechanisms alone are insufficient to deter aggressive tax behavior. This duality, highlighted in the literature, demonstrates how internal cultural factors may encourage tax avoidance while external reputational pressures frequently fail to provide effective discipline.

Taken together, the literature and the experiences of multinational corporations underscore the need for regulatory and policy-based approaches rather than reliance on market-based accountability. Policymakers cannot assume that public exposure or reputational concerns will necessarily alter corporate tax behavior, particularly in the case of firms with highly innovative cultures and strong brand equity. Instead, robust enforcement and international coordination appear necessary to ensure that creative corporate capacities are directed toward innovation and societal value creation rather than aggressive tax avoidance.

2.3. Double Irish

As the name suggests, the mechanism known as the Double Irish relies on the use of a corporate structure typically composed of a parent company based in the USA and two entities based in Ireland. This scheme, which was abolished in January 2021, allowed one of the Irish subsidiaries to hold the ownership of Intellectual Property (IP) while simultaneously being registered for tax purposes in a tax haven. The second subsidiary operated effectively in Ireland, assuming commercial and distribution functions (the operational entity).

The most widespread practice relies on the Transfer Pricing Method, defined in Article 63(2) of the Corporate Income Tax Code as encompassing commercial transactions involving goods, rights, or services, whether tangible or intangible, including intra-group agreements, financial operations, and business restructurings that alter structures or contracts, particularly when involving asset transfers, intangible rights, or compensation

for damages or lost profits (Código do Imposto sobre o Rendimento das Pessoas Coletivas).

Through the Double Irish, profits were shifted, in the form of royalties or other intra-group payments, from the operational subsidiary to the entity holding the IP. In this way, companies were able to significantly reduce the taxation of globally generated income by taking advantage of loopholes in both Irish and U.S. tax legislation.

Major multinational tech companies widely used the scheme until it was gradually dismantled by international tax authorities, particularly as part of the reforms triggered by the BEPS project.

2.4. Ireland

Ireland, located in northwestern Europe, is an island divided into two distinct political entities: the Republic of Ireland, a sovereign and independent state, and Northern Ireland, which is part of the United Kingdom (UK). The Republic of Ireland is widely recognized for its competitive tax policies, a factor that has made it a prime destination for multinational companies and foreign investors.

The corporate income tax rate in the Republic of Ireland has remained stable, "[…] embedding 12.5% as a kind of national 'brand' for FDI attraction" (Chasaide & Riain, 2025, p. 14). In contrast, Northern Ireland follows the corporate tax rate set by the UK.

Although Ireland is not classified as a tax haven by the OECD, its tax regime includes various deductions, exemptions, and selective treatments, often the result of bilateral agreements, which allow for a substantial reduction in the effective tax rate. This environment has attracted many multinationals that, by shifting part of their profits to Irish territory, seek to minimize their tax burden. As noted,

> Ireland has also entered into several favorable tax treaties with other countries that have the effect of significantly limiting corporate income taxes on business transactions made between those countries. […] Ireland simultaneously refuses to enforce aggressively "anti-abuse" mechanisms related to transfer-pricing regulations. (Sokatch, 2011, p. 732)

In summary, the Republic of Ireland positions itself as a particularly attractive destination for companies and investors, due to its adoption of favorable tax policies. However, this strategy has sparked debate and generated criticism, especially regarding the fairness of

the global tax system and the negative impact such practices may have on the tax revenues of other jurisdictions.

3. Methodology

This study adopts a qualitative approach, based on document analysis of official sources and specialized studies, with the aim of understanding the aggressive tax planning strategies employed by Apple and their corresponding legal and tax implications. This methodology proved to be the most appropriate, given the nature of the topic and the relevance of the official documentation available for the case under analysis.

Documentary sources from official entities were selected and examined, including reports from the EC, particularly Commission Decision (EU) 2017/1283; technical documents from the OECD; Irish tax legislation applicable to the period under review; as well as academic articles and specialized studies on tax planning and multinational taxation.

The document analysis identified the corporate structures and mechanisms used by Apple to reduce its global tax burden, with focus on the Double Irish and Green Jersey schemes. It also assessed Irish tax rulings, the legislative context, and the response of international authorities, particularly the EC's actions on State aid. In addition, the study examined Apple's corporate restructuring after Ireland's 2015 legislative changes, aimed at eliminating structures facilitating tax avoidance, showing how the company adapted its corporate architecture to maintain tax efficiency within legal boundaries.

Finally, a limitation of the study is acknowledged: its reliance on public sources, which may restrict access to confidential or internal information relevant to a more comprehensive understanding of Apple's tax strategy. In addition, the constant evolution of the international legal and tax framework may, in the medium term, alter the scenario described in this paper, requiring future monitoring for the purposes of updating and critical reassessment.

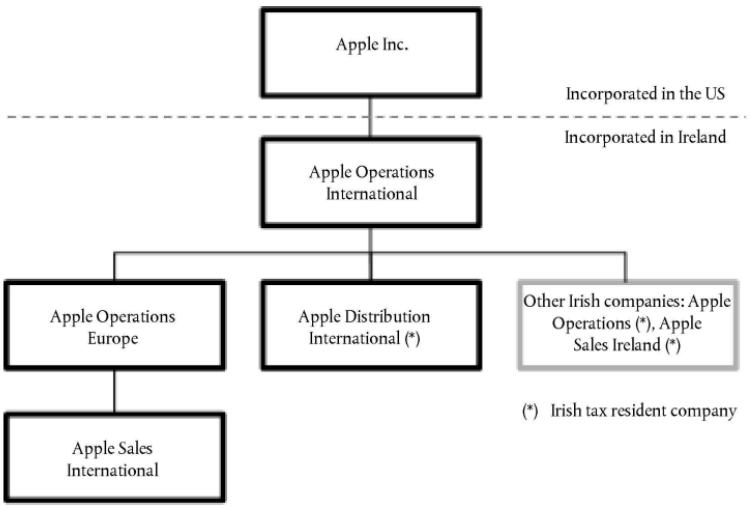
4. Introduction to the Study

Apple has been involved in various controversies related to aggressive tax planning for several years. In 2013, a report by the U.S. Senate revealed that Apple had developed corporate structures (a network of subsidiaries) to allocate profits to low-tax jurisdictions. In 2016, the EC fined the company 13 billion euros, plus interest, in back taxes for benefiting from illegal tax rulings. Apple and the Irish government challenged the decision, and in 2020, the General Court of the EU annulled the EC's decision due to lack of evidence. However, in 2024, the Court of Justice of the European Union (CJEU) overturned that ruling, confirming Apple's obligation to pay the fine imposed by the EC.

The case under analysis involves the alleged granting of two tax rulings to Apple, specifically benefiting Apple Sales International (ASI) and Apple Operations Europe (AOE), between 1991 and 2014. The first tax ruling was issued by the Irish tax authorities in 1991 and remained in effect until 2007, when it was replaced by a second ruling in May 2007. These tax rulings, hereafter referred to as "tax decisions", allowed for specific methods of profit allocation for ASI and AOE in their respective Irish branches. The 2007 tax decision remained in effect until Apple's corporate restructuring in Ireland and applied up to the fiscal year ending on September 27, 2014.

4.1. Apple's corporate structure in Ireland

Figure 1: Apple's corporate structure in Ireland



Source: (European Commission, 2017, p. 6)

According to the (European Commission, 2016) and the (European Commission, 2017), Apple had the following structure in Ireland:

Apple Operations International (AOI): Headquartered in Cork, Ireland, but its central management and control were exercised in the U.S. AOI was designed to serve as a holding company, managing and consolidating the profits generated by Apple's operations outside the U.S. In December 1980, Apple Inc. entered into an Intangible Property Transfer Agreement with AOI. Subsequently, "[…] AOI, in turn, concluded an 'Agreement to sub-Transfer Intangible Property' with AOE […]" (European Commission, 2017, p. 32), under which it granted "[…] an exclusive, royalty-free licence to use the trade names, trademarks, trade secrets and patents […]" (European Commission, 2017, p. 32)

Apple Operations Europe (AOE): Also headquartered in Cork, Ireland, with its central management and control carried out in the U.S. Originally, AOE was established to manufacture, distribute, and manage logistics for Apple products in the EMEIA region (Europe, Middle East, India, and Africa), in addition to performing administrative and management support functions. In December 1980, Apple Inc. signed a cost-sharing agreement with AOE.

AOE Branch: Responsible for the production and assembly of a specialized range of computing products at its Irish facilities, all destined for the EMEIA region and sold to related parties. Beyond its core manufacturing activities, the branch also provided "[…] shared services to other Apple group companies in the EMEIA region […]" (European Commission, 2017, p. 9), including areas such as "[…] finance (accounting, payroll and accounts payable services), information systems and technology and human resources" (European Commission, 2017, p. 9).

Apple Sales International (ASI): Also headquartered in Cork, Ireland, but centrally managed and controlled from the U.S. ASI held the rights to use Apple's IP "[…] to sell and manufacture Apple products outside North and South America" (European Commission, 2016, p. 1). In return, it made payments to the parent company (Apple Inc.) "[…] to contribute to the development of this intellectual property – often more than 2 billion US dollars per year" (European Commission, 2016, p. 1). In 1999, ASI joined the cost-sharing agreement already in place between Apple Inc., AOE, and AOI.

ASI Branch: Primarily responsible for managing the acquisition, sale, and distribution of Apple products to related parties and third-party customers in the EMEIA and APAC (Asia-Pacific) regions. The branch also handled order processing for local distribution entities in various APAC countries. Many of the logistics and operational activities related to distribution in this region were "*[…] performed by related parties (for example, logistics support) under service contracts with ASI's Irish branch*" (European Commission, 2017, p. 8).

The structure under analysis does not correspond to the traditional Double Irish model, as none of the entities involved, ASI and AOE, were headquartered in a tax haven. However, the structure presented a notable fiscal feature: both companies were incorporated in Ireland, but their effective management and control were exercised from the U.S. This arrangement resulted in a situation of tax residency mismatch. On the one hand, the companies were not considered tax residents in Ireland, as they were not effectively managed and controlled there. On the other hand, they were not treated as tax residents in the U.S. either, since U.S. tax law determines corporate residency based on the place of their headquarters incorporation. As both companies were incorporated in Ireland, they did not meet the U.S. criteria for tax residency.

Under the Irish tax regime applicable at the time specifically, Section 23A of the TCA 97, a company incorporated in Ireland is generally considered tax resident there. However, this presumption does not apply when, under a double tax treaty, the company is regarded as a resident of another jurisdiction and simultaneously as a non-resident in Ireland. In such cases, even though the company is formally Irish, the fact that its management and control are exercised from abroad can justify its exclusion from Irish tax residency (Taxes Consolidation Act, 1997).

In the specific case of ASI and AOE, the centralized management from the U.S. excluded them from being classified as tax residents in Ireland. However, they also did not qualify as U.S. tax residents, as U.S. tax law exclusively uses the place-of-incorporation rule, limiting tax residency to entities created or organized in the U.S. As highlighted by Sokatch (2011, p. 733), "*The United States subscribes to a 'residence-based' tax system whereby a corporation is subject to income tax if it is 'created or organized in the United States or under the law of the United States or of any State[…]*".

As a result, ASI and AOE were not recognized as tax residents under either legal system, benefiting from a legal loophole that enabled them to qualify as stateless entities for tax

purposes. While this structure was legal at the time, prior to the legislative reform introduced by Ireland in 2015, it clearly reflected a form of aggressive tax planning, exploiting differences between tax residency criteria in different jurisdictions.

5. Commission Decision (EU) 2017/1283

The transfer of IP rights to ASI marked the beginning of the tax rulings in question. According to the European Commission (2016), the rulings legitimized an internal division of ASI's profits for tax purposes, which involved reallocating profits between its head office and its Irish branch. In reality, the head office existed only abstractly it had no employees, facilities, or activities. The branch was subject to taxation in Ireland, while the head office was not taxed, as it did not exist in practice. This situation was made possible under Irish tax legislation, which allowed the existence of so-called "stateless" companies.

As a result of the profit allocation method approved in the tax rulings, only a small portion of ASI's revenue was attributed to the Irish branch, while the vast majority was allocated to the head office. AOE also benefited from the same rulings granted to ASI. Thus, AOE's profits were largely allocated to its non-existent head office, and therefore, were not taxed.

The following extract states:

> In 2011, Apple Sales International made profits of 16 billion euros. Less than 50 million euros were allocated to the Irish branch. All the rest was allocated to the "head office", where they remained untaxed. This means that Apple's effective tax rate in 2011 was 0.05%. To put that in perspective, it means that for every million euros in profit, it paid just 500 euros in tax. This effective tax rate dropped further to as little as 0.005% in 2014, which means less than 50 euros in tax for every million euro in profit (European Commission, 2016, p. 2).

The EC's primary objective was to assess whether Ireland had adopted a method distinct from the OECD's Arm's Length Principle (ALP). In this context, the Commission expressed concern about the adequacy of the profit allocation methods approved in the Irish tax rulings, particularly regarding whether these methods "*[...] reflected a remuneration for ASI's and AOE's Irish branches that a prudent independent operator*

acting under normal market conditions would have accepted" (European Commission, 2017, p. 38).

The ALP aims to prevent abusive transfer pricing practices. However, this principle is non-binding, meaning EU Member States are not obliged to apply it in their dealings with companies. This voluntary nature creates room for discrepancies in its implementation across jurisdictions.

In response to the Commission's claims, Ireland submitted a report in 2016 stating that: "[…] the profit attribution to the Irish branches of ASI and AOE endorsed by Irish Revenue in the 1991 and 2007 tax rulings was at arm's length" (European Commission, 2017, p. 4). It's worth noting that the ALP was first introduced in the OECD Model Tax Convention on Income and on Capital in 1963, but it was only formally recognized in Irish tax law in 2010, through the inclusion of Part 35A of the TCA 97 under Section 42 of the Finance Act 2010.

According to the European Commission (2017, pp. 40-45), the Commission assessed whether Ireland's tax rulings complied with the ALP and EU State aid rules. Ireland argued that only Section 25 of the TCA 97 applied to non-resident companies with Irish branches, while OECD principles and Article 7 of the OECD Model Convention were irrelevant, as they had not been incorporated into Irish law during the period under review. By adopting this position, Ireland sought to demonstrate that the rulings complied with national law and to exclude the applicability of international standards and EU State aid rules.

Ireland also challenged the relevance of the Commission's case law, arguing that it applies to situations where OECD principles had already been incorporated into national law and exceptions were then made for certain taxpayers. Ireland maintained that this was not the case, as the ALP had not been integrated into Irish law and was not referenced in the tax rulings at issue.

Regarding the Market Economy Investor Principle (MEIP) test, Ireland contended that the Commission had misapplied it by confusing two distinct domains: the State's role as a public authority and its behavior as a market operator. The MEIP is used "[…] to identify the presence of State aid in cases of public investment […] to determine whether a public body's investment constitutes State aid […]" (European Commission, 2016, p. 17). For that purpose, "[…] it is necessary to assess whether, in similar circumstances, a

private *investor of a comparable size operating in normal conditions of a market economy could have been prompted to make the investment in question*" (European Commission, 2016, p. 17).

This principle ensures that public authorities act with the same economic rationality as private investors seeking returns. If public action fails to meet this standard, it may be classified as State aid under Article 107(1) of the Treaty on the Functioning of the European Union (TFEU) for conferring a selective advantage that distorts competition.

Ireland, however, criticized the Commission's reliance on the MEIP, claiming that "[…] the reference in the Opening Decision to the market economy investor test is unconvincing as it confuses two matters which should be kept separate: the State's role as a public authority, and its behaviour in the market place" (European Commission, 2017, p. 40). It further argued that applying the MEIP to taxpayers would improperly extend the principle, since "The Commission would effectively be demanding that the taxpayer itself behaves as a market economy investor, even though this standard only refers to actions of the State" (European Commission, 2017, p. 40). This criticism highlights concerns that the MEIP might be applied beyond its intended limits, as the principle is designed to assess the economic rationality of public investment decisions rather than impose such expectations on private parties or companies.

Selectivity is a central criterion in identifying State aid, as a "[…] State measure must favour 'certain undertakings or the production of certain goods'" (European Commission, 2016, p. 27). Thus, as established by (European Commission, 2016, p. 27) "[…] not all measures which favour economic operators fall under the notion of aid, but only those which grant an advantage in a selective way to certain undertakings or categories of undertakings or to certain economic sectors". In this case, Ireland argued that the tax rulings granted to ASI and AOE did not involve selective treatment, since "[…] although Irish Revenue has to exercise judgment when allocating profit to a branch of a non-resident company, that judgment does not imply that taxpayers are treated on a discretionary basis and therefore selectively favoured over others" (European Commission, 2017, p. 40). Accordingly, Ireland maintained that "[…] the process leading to the contested tax rulings did not involve any preferential treatment of Apple" (European Commission, 2017, p. 40).

The Irish tax authority rejected claims of any negotiation to agree on a fixed tax amount and asserted instead that the process aimed "[…] to ensure that the basis used for the

allocation of profits is appropriate" (European Commission, 2017, p. 40). It further stated that the profit allocation methods were aligned with Section 25 of the TCA 97, reflecting the branches' actual contribution to value creation. Therefore, Ireland argued that the selectivity criterion did not apply, as the rulings respected the general tax framework and did not grant any selective advantage.

According to the (European Commission, 2017, pp. 41-45), Apple's observations largely aligned with those of Ireland, particularly concerning applicable national legislation. Apple argued that its intellectual property is predominantly developed in the U.S., where its headquarters, R&D engineers, and senior executives are based. Apple Inc. is the sole legal owner of the IP, and no decisions related to product development or commercialization are made in Ireland. Irish branch staff do not engage in R&D or decisions on IP use these are kept under the exclusive control of Apple Inc. and the boards of ASI and AOE, both located outside Ireland.

Apple argued that the Commission used the wrong legal framework to assess the existence of a possible advantage, which should have been based solely on the Irish tax regime "[…] governing the treatment of non-tax resident companies with Irish branches only (that is to say, Section 25 TCA 97) and not OECD principles that carry no force of law in Ireland" (European Commission, 2017, p. 41). Apple maintained that "[…] the profit allocation methods agreed to in the contested tax rulings were consistent with Irish Revenue's administrative practice under Section 25 TCA 97 […]" (European Commission, 2017, p. 41) and that they did not result in any reduction of ASI's or AOE's tax burden, nor in any undue advantages.

Apple rejected the application of the private market operator test, favoring the ALP instead, and argued that "[…] the private market operator test cannot be used to impose the arm's length principle for finding an advantage, since that test cannot be applied to the State as it is acting as a public authority" (European Commission, 2017, p. 41). It also refuted the claim of selective treatment, arguing the rulings merely confirmed profit allocation in line with applicable law and practice.

Even if the ALP were considered applicable, Apple submitted an ad hoc report concluding that the profit allocation to the Irish branches was within arm's length ranges under transfer pricing rules. The report highlighted the branches' limited functions and found that the Transactional Net Margin Method (TNMM) was "[…] is the most appropriate profit allocation method to determine their taxable profit […]" (European Commission,

2017, p. 41) suggesting the Berry ratio (for ASI's branch) and a cost-plus markup (for AOE) as the best indicators. Distribution costs were treated as operating expenses, with limited remuneration for value-added functions.

A comparative study commissioned by Apple used third-party data to evaluate the profits allocated to the Irish branches and concluded they were in line with the ALP. In 2014, Apple submitted another report by a different tax advisor confirming the appropriate allocation of profits to ASI's and AOE's Irish branches.

Finally, Apple argued that the State aid rules applied by the Commission were unsuitable for harmonizing tax law across Member States. Observance of non-binding principles like the ALP does not ensure a fair interpretation or application of State aid rules, even when national laws are followed.

6. Apple's Corporate Restructuring

Following the EC's announcement in June 2014 regarding the initiation of proceedings to investigate the possible existence of tax benefits granted by Ireland to Apple, the Irish government decided, in the same year, to move forward with the gradual elimination of the Double Irish tax structure. For that purpose, the year 2020 was set as the deadline for the application of this scheme, with a transitional period established to allow existing corporate structures to adapt.

Indeed, the Irish Revenue Commissioners determined that, from January 1, 2015, all entities incorporated in Ireland would, by default, be considered tax residents in Ireland, unless evidence to the contrary was provided, demonstrating tax residence in another state under a double taxation treaty. For companies incorporated before that date, a transitional regime was established until December 31, 2020, after which they would also be considered Irish tax residents, except in cases where they benefitted from an applicable double taxation treaty.

It is important to highlight that, under the previous regime, neither AOE nor ASI met the required conditions, as they were considered stateless entities (i.e., without tax residency). Given the entry into force of the new legal framework, which specifically aimed to eliminate the possibility of stateless tax entities, Apple proceeded to change the tax

residence of the head offices of both AOE and ASI, in compliance with the new requirements.

As noted by Christensen & Clancy (2018), following the gradual withdrawal of the Double Irish, Apple implemented a new tax planning structure known as the Green Jersey, with the aim of preserving the tax advantages previously secured, albeit in a form adapted to the new rules. The name of this new structure refers to the island of Jersey, a jurisdiction classified as a tax haven, which came to play a key role in Apple's new corporate arrangement.

The implementation of the Green Jersey structure thus represented a direct response to the need to reconcile continued tax efficiency with compliance with the new regulatory framework established by Irish authorities. This strategy allowed Apple to reposition its intangible assets and non-U.S. profits in Ireland, benefiting from tax incentives provided under national legislation, without formally violating the applicable legal standards. In doing so, the company managed to maintain an effective tax rate significantly lower than Ireland's nominal corporate income tax rate, while ensuring the continued operation of its business within the European market under a legally acceptable structure.

According to Christensen & Clancy (2018), the restructuring implemented by Apple has the following configuration:

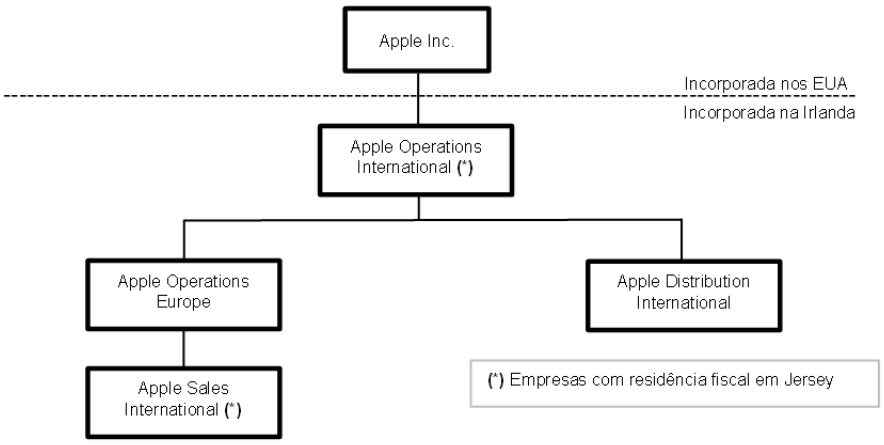
AOI remained incorporated in Ireland but transferred its tax residence to Jersey, a tax haven, thereby maintaining its non-resident status in Ireland.

AOE remained incorporated in Ireland but transferred its tax residence to Ireland as well and is thus considered an Irish tax resident. It exclusively acquired the intellectual property license rights previously held by ASI. These rights are now managed in Ireland, benefiting from the tax incentives provided by the Irish tax system.

ASI, previously responsible for recording sales, no longer performs this function and was transferred to Jersey, where it is now considered a taxable entity. Consequently, ASI ceased to hold Apple's IP rights, which were transferred to AOE.

ADI, traditionally tax-resident in Ireland, assumed the role of the operational entity and is now responsible for executing and recording non-U.S. sales.

Figure 2: Apple's Corporate Restructuring



Own Elaboration

The essence of the Green Jersey scheme lies in the relocation (onshoring) to Ireland of IP assets and commercial profits generated outside the U.S. This relocation allows Apple to fully deduct the acquisition costs of IP from profits reported in Ireland by applying the Irish tax regime known as Capital Allowances for Intangible Assets (CAIA), as set out in Section 291A of the TCA 1997.

According to the Irish Revenue Commissioners, the CAIA regime allows companies to benefit from tax deductions related to investments in specific intangible assets, provided these are linked to income generated from qualifying activities. These activities include the management, development, and exploitation of the relevant assets, as well as the commercialization of goods whose value is primarily derived from their use. For tax purposes, such operations are treated as separate relevant trade, with intangible assets treated, from an accounting perspective, as plant and machinery (Irish Revenue Commissioners).

In this context, amortization expenses and potential impairment losses recorded in the income statement may be deducted when determining taxable income. As such, the costs incurred by AOE in acquiring IP were fully deductible, resulting in almost zero tax liability. Meanwhile, regarding ASI, the income from the sale of IP rights was not taxed, since the entity was registered in a tax haven (Jersey) where the corporate income tax rate is 0%.

To secure the rights to use the IP, AOE took out loans that presumably originated from AOI, another subsidiary based in an offshore jurisdiction. The payments made by AOE to AOI included not only the repayment of principal but also interest expenses, which were treated as financial costs and, under Irish tax law, fully deductible from taxable profits. In this way, AOE significantly reduced its taxable income in Ireland, while AOI, being in a zero-tax jurisdiction, received that income without incurring any tax liability. This structure enabled the Apple group to optimize its tax burden through planning based on intra-group financial transactions, supported by permissive accounting and tax provisions.

Additionally, one of Apple's Irish-resident subsidiaries maintained a cost-sharing agreement with the parent company, Apple Inc. The payments made under this agreement were classified as R&D activities conducted in Ireland. This classification enabled access to the R&D Tax Credit regime, governed by Sections 766 and 766A of the TCA 1997. The regime provides a 25% tax credit on qualifying expenditures, which is cumulative with the standard 12.5% corporate tax deduction, resulting in an effective tax rate of approximately 3.75% on profits attributed to R&D activity.

As noted by Christensen & Clancy (2018):

> Meeting the payment of its cost-sharing agreement with Apple Inc for research and development by availing of R&D tax credits provided under Ireland's tax law that allows Apple and other companies to pay tax on R&D activities at a rate of 3% (p. 5).

This tax model, centered in Ireland, represents a sophisticated evolution of the former Double Irish scheme and is described by Christensen & Clancy (2018) as having been deliberately designed by Irish authorities to continue attracting tech multinationals — "*It has specifically been designed by the Irish government to facilitate near-total tax avoidance by the same companies who were using the Double Irish tax avoidance scheme*" (p. 6).

Thus, the Green Jersey scheme, based on the coordinated use of the CAIA regime, R&D tax credits, and intra-group financing mechanisms with deductible interest, has allowed Apple to maintain an extremely low effective tax rate, despite operating and recording significant profits within the European Union. Although legal, this practice raises growing

concerns across Europe about tax fairness, transparency, and the effectiveness of anti-abuse legislation.

7. Conclusion

This study aimed to critically and thoroughly examine the aggressive tax planning strategies adopted by Apple, with particular emphasis on the Double Irish and Green Jersey schemes. The analysis revealed how the company used complex corporate structures and favorable tax regimes, particularly those granted by the Irish tax authorities, to reduce its global tax burden by exploiting legal loopholes and the lack of harmonization between national tax systems.

By applying a qualitative approach and drawing on official reports and specialized literature, the study highlighted both the technical mechanisms of these schemes and the response of international authorities to such arrangements. The EC's decision requiring Apple to repay more than thirteen billion euros in unpaid taxes underscored the importance of the role of international regulatory organizations in correcting distortions caused by selective state aid.

The findings contribute to a broader understanding of how certain tax practices, although legally compliant, can undermine the principles of fairness, equity, and transparency that underpin modern tax systems. Apple's restructuring following the dismantling of the Double Irish illustrates how multinationals continuously adapt to changing legal frameworks to preserve tax efficiency.

All together, the Apple case demonstrates the urgent need for stronger international coordination and binding tax rules capable of limiting aggressive tax competition. A fairer and more sustainable global tax system depends not only on effective regulatory frameworks, but also on responsible corporate behavior aligned with the principles of sound tax governance.

8. Motivations

The motivation for this research stems from the growing importance of tax justice, equity, and fair competition in contemporary debates, as well as their implications for the

sustainability of public finances and for trust in tax systems. The Apple case is particularly illustrative, as it demonstrates the ability of multinationals to achieve extremely low effective tax rates despite generating substantial profits across multiple jurisdictions.

This case represents a significant opportunity to examine the complex interaction between corporate strategies, tax policies, and international regulatory frameworks. It also raises fundamental questions concerning distributive justice, the preservation of fair competition, and the resilience of public finance systems. Addressing these issues becomes imperative not only to strengthen public confidence in tax regimes but also to safeguard the fiscal capacity of states in the face of the challenges posed by globalization.

9. Limitations

The analysis relies on publicly available sources, reflecting both the difficulty of accessing confidential internal documentation and the challenges associated with keeping pace with the continuous evolution of tax legislation. In particular, the unavailability of Apple's internal records limits the possibility of providing a fully comprehensive assessment of its tax strategy.

Secondly, the international tax landscape is highly dynamic. Therefore, the findings should be interpreted with caution and understood as representative of a specific moment in time. Finally, although the study presents a detailed case analysis, its scope remains limited to Apple and Ireland. To fully capture the scale and diversity of aggressive tax planning practices at a global level, broader comparative research across multiple jurisdictions and sectors would be required.

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