Frontier Workers' Tax and Social Security Status in Europe – Optimizing the Legal Status in a Changing Landscape

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Frontier Workers' Tax and Social Security Status in Europe – Optimizing the Legal Status in a Changing Landscape

Hannelore Niesten*

This report of the European Region of IFA evaluates the tax and social security implications of frontier workers in Europe. The exact meaning and scope of "frontier worker" differ in tax law and social security law. Several relatively old tax treaties contain special tax provisions attuned to the cross-border situation of frontier workers that deviate from the general allocation rules for employment income (article 15 of the OECD Model). The common characteristics of these special treaty provisions of daily return and geographical proximity may lead to unconscious tax biases in a changing landscape of digitalization and globalization. Tax treaties – primarily drafted at a time when physical presence was the most reliable element in determining taxing rights – are not attuned to the increasing flexible forms of frontier work, which have gradually developed and are becoming more prevalent. Enhanced means of communication tools and transportation enabling telework and highly mobile work (e.g. individuals who reside in one state and work in more than one other state), amongst others, have increased the mobility and diversity of frontier work. Frontier workers may also encounter difficulties in equal treatment with obtaining tax and social benefits. Further inconveniences may arise from the deviation of social security rules from tax rules. The key challenges in the legislative framework suggest the need to revise the definition and legal status of frontier workers, especially in the aftermath of the COVID-19 pandemic. Suggestions are made to minimize the detected application and interpretation problems, and to enable a better coordination of tax and social security rules.

1. Introduction: Optimizing the Legal Status of Frontier Workers in Europe

1.1. Outline of the problem

1.1.1. The current legislative framework for frontier works is insufficiently geared to …

"Frontier workers" are a special category of cross-border workers.[1] Not every cross-border worker is considered a frontier worker. Frontier workers usually live in a specified frontier zone of a country that differs from the country of employment, and regularly (daily) return to the place of residence. In the absence of a consistent and uniform definition among the EU Member States, or even within, the concept and scope of frontier workers differ in the tax treaties, European law and national legislations. The status also depends on the field of law (e.g. tax law and social security law). Tax treaties often contain stricter criteria for frontier workers than European social security legislation. Different criteria and the lack of statistical data make determining the exact number of frontier workers as a subgroup of cross-border workers in European countries difficult.[2]

The tax and social security frameworks are largely rooted in longstanding principles of physical presence and are not designed to cope with the digital developments in a globalized economy. Frontier work, particularly as it becomes more diverse and flexible, may cause unforeseen income and social security consequences for the frontier worker and its employer. Modern means of communication tools (telework) and global mobility (highly mobile work), amongst others, increase the diversity and mobility of cross-border workers. This article acknowledges the major developments in frontier work, especially with regard to a changing landscape of digitalization and globalization.

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1. For a detailed overview of the taxation of cross-border workers, *see* P. Pistone, *Article 15: Income from Employment* sec. 2.2.2.1, Global Tax Treaty Commentaries IBFD (accessed 30 Sept. 2022).

2. The federal public social security body in Belgium published statistics in 2021 on the number of frontier workers. Incoming frontier workers in Belgium came from neighbouring countries, including Luxembourg (597), France (37,983), Germany (1,091) and the Netherlands (12,414), which makes a total of 52,083. Outgoing frontier workers from Luxembourg (46,211), France (8,420), Germany (6,747) and the Netherlands (26,595) total 87,973. *See* National Institute for Health and Disability Insurance (2021). National Institute for Health and Disability Insurance (NIHDI), Statistics of cross-border employees 2021: https://www.inami.fgov.be/SiteCollectionDocuments/statistieken_grensarbeiders_2021.pdf.

This article focuses on the interpretation and application problems relating to frontier workers' tax and social security status in a changing landscape. The problematic areas are essentially fivefold:

(1) the outdated definition of "frontier work" for which special tax provisions apply;
(2) difficulties associated with digitalization and globalization for physical presence as a nexus for taxing rights;
(3) the loss of personal and family tax benefits;
(4) the implications of frontier telework for the employer; and
(5) the coordination difficulties between the taxing rules and the social security rules.

The complexities, uncertainties and practical difficulties for frontier workers call for an in-depth evaluation of the legal status to explore optimizing the tax and social security framework. Note that the *fiscal* status of frontier workers is not harmonized or coordinated at EU level; instead, it is governed by one of the many tax treaties, inspired by the OECD Model (2017).[3] Unlike for taxes, the European Union has taken an active lead for *social security* with Regulation (883/2004) by laying down which Member States are competent to levy contributions.[4]

The bilateral framework of tax treaties does not resolve the difficulties in connection with frontier work in a changing landscape of globalization and digitalization. Most tax treaties were signed in the 1980s and 1990s and have not been revised ever since.[5] The OECD Model and its Commentary deem it more suitable for the tax problems created by local conditions to be solved directly between the contracting states.[6]

Countries with mutual solid interchanges (particularly in terms of workflow) and high volumes of frontier work generally apply special treatment to frontier workers' employment income. They frequently include limits on the number of days a worker can work outside the usual jurisdiction they usually work before their status changes. What is the rationale for relying on a special frontier worker provision? Can an individual returning regularly (for example, weekly), but not daily, from the employment to the residence state be considered a frontier worker? How does telework impact the qualification as frontier worker, especially in case of force majeur? Is the definition of frontier workers adapted to the significantly increased cross-border and integrated nature of regional economies? Should the tax regime applied to frontier workers be extended to other types of mobile income?

When special frontier worker provisions are absent, the general taxing rules for employment income apply (article 15 of the OECD Model (2017)). The strict application of physical presence as the tax basis for the exercise of employment may create ambiguities. Is the worker working at home performing the employment where physically present, or should the employment be sourced where the employer is based? Should the remuneration be divided over the working days that the worker is physically present in the territory of the various states? How is proof of physical presence provided (especially if the tax administration challenges previous tax years)? Frontier workers may also be confronted with difficulties obtaining tax benefits, relief and deductions. To what extent are the residence and employment state prevented from denying tax benefits? To what extent does EU law provide a powerful tool for eliminating discrimination in tax treatment? Apart from the unpredictable situation, another important tax concern is whether working from home (i.e. from a home office) or the conclusion of contracts in the home of employees or agents creates a permanent establishment (PE) for the employer in those states (and add new filing and tax requirements).

Social security considerations also arise with frontier work. Frontier workers are often confronted with discrepancies between tax vis-à-vis social security regimes.[7] Social security contributions are not included in tax treaties because they are not considered as taxes.[8] Being a resident of one state (the place where a person habitually resides), while working and contributing to social security in another state may cause application and interpretation difficulties in the social security status of frontier workers. The opacity and lack of transparency of social security arrangements inhibit the ability to clearly understand the applicable

3. *OECD Model Tax Convention on Income and on Capital*, condensed (21 Nov. 2017), Treaties & Models IBFD.
4. Regulation (EC) No. 883/2004 of the European Parliament and of the Council of 29 April 2004 on the Coordination of Social Security Systems, OJ L166 (2004), Primary Sources IBFD.
5. D. Broekhuijsen & T. Vergouwen, *How Often Do OECD Member Countries Update Their Tax Treaties?*, 75 Bull. Intl. Taxn. 10 (2021), Journal Articles & Opinion Pieces IBFD.
6. Para. 10 *OECD Model: Commentary on Article 15* (2017).
7. B. Spiegel et al., *Analytical report 2014: The relationship between social security coordination and taxation law* (FreSsco 2015); F. Pennings & M. Weerepas, *Towards a Convergence of Coordination in Social Security and Tax Law?*, 15 EC Tax Rev. 4, pp. 215-225 (2006); M. Weerepas, *Tax or Social Security Contribution, a World of Difference?*, Nordic Tax J. 1, pp. 18-30 (2018); Y. Lind, *Crossing a Border – A Comparative Tax Law Study on Consequences of Cross-Border Working in the Öresund and Meuse-Rhine Regions* (Jure 2017); K. Cejie, *Taxes and Contributions on Cross-Border Employment Income – Before and During the COVID-19 Pandemic*, 74 Bull. Intl. Taxn. 12 (2020), Journal Articles & Opinion Pieces IBFD; Y. Jorens. *Grensarbeid*, die Keure, Bruges, 1997; European Commission, DG Employment and Social Affairs, *Scientific Report on the Mobility of Cross-Border Workers within the EU-27/EEA/EFTA Countries* pp. 52-53 (2009); K. Groenendijk, E. Guild et al., *Annual European Report on the Free Movement of Workers in Europe in 2011-2012*, European Network on the Free Movement of Workers, p. 101 (2013).
8. Para. 3 *OECD Model: Commentary on Art. 2(2)* (2017): "Social security charges, or any other charges paid where there is a direct connection between the levy and the individual benefits to be received, shall not be regarded as "taxes on the total amount of wages".

social security rules. Several questions arise: What social security legislation applies to the income of frontier workers? How are social security benefits defined? How are they different from tax benefits? Which state should collect the social security contributions from the frontier worker, and which one should pay social security benefits (e.g. unemployment payments, dependence insurance, and family allowances)? What happens if the frontier work is only carried out temporarily? Are the social security obligations geographically aligned with those which determine the place of employment for tax purposes? Are the tax allocation rules and the social security law rules properly coordinated? How can European social security law and international tax law be better framed and coordinated to achieve a more robust legal regime?

1.1.2. The changing landscape of globalization and digitalization

The mobility of persons in the global economy is changing. Due to stronger economic integration and enhanced ease of travel within and outside the European Union, many individuals face similar challenges and problems that frontier workers in the strict sense face. Regions with interregional links (e.g. Belgium, the Netherlands, Germany, Luxembourg, France, Austria, etc.) experience a high number of workers across borders who do not qualify as frontier workers. Highly mobile workers have to deal with different rules and interpretations by several tax administrations and face additional procedural obstacles.[9] Unlike frontier workers in the traditional setting, who are in most cases facing exposure to double taxation in two states only, highly mobile workers can face multilateral exposure to double taxation, since they may work in several states in one single year.[10]

Digitalization can have implications for frontier workers on the tax and social security front, for instance, when the employer allows part of the working time to be exercised in the residence state through homework.[11] Improved digital infrastructure, including technology and connectivity (e.g. VPN), and the increased availability of desk-based jobs with less physical activity offer opportunities for the global mobility of individuals. "Teleworking" (or telecommuting) allows people to substitute their physical presence in the state of employment with a virtual presence in another state (primarily their resident state). Digital developments enable frontier workers to travel less often to the employment state to communicate and deal with their employer or visit clients. This digital revolution resulted in less frontier work in another state and more telework in the residence state or a third state.

The changing landscape of globalization and digitalization presents frontier workers with new (and not-so-new) interpretation and application issues in the legislative framework, necessitating a revision and optimization of the tax and social security status. How can the legal regime be improved? How to better tailor to the changing global and digital landscape? How can European social security and international tax law be better coordinated to achieve a more robust legal regime? Considerations and recommendations are formulated to minimize the interpretation and application problems. Corporate income tax challenges (such as those arising from e-commerce) are at the top of policymakers' agendas;[12] the continued existence of personal income tax is often taken for granted. Personal income taxes of cross-border persons, on the other hand, remains a source of urgent reform for policymakers and regulators. Individual international taxation may need a similar overhaul as international corporate taxation.

1.2. Plan of action

To better understand the interpretation and application problems surrounding frontier workers' tax and social security status, this article analyses the frontier work concept as it transitions from a traditional to a changing landscape (section 2.). After contextualizing frontier work, the focus is first on the allocation of taxing rights under the large network of bilateral (tax) treaties, and whether bilateral tax treaties substantially deviate from the general rules of article 15(1) and (2) of

9. European Commission expert group on removing tax problems facing individuals who are active across borders within the European Union (EC expert group), *Ways to tackle cross-border tax obstacles facing individuals within the EU* pp. 14-15 (Nov. 2015), available at http://www.studium.lu/downloads/2016_Ways%20to%20tackle%20cross-border%20tax%20obstacles.pdf.
10. *See* Advocate General's Szpunar opinion, 29 July 2019, Case C-16/18, ECLI:EU:C:219:1110, para. 58. *See also* EC expert group, *supra* n. 9, at p. 25. *See also* H. Niesten, *Revisiting the Fiscal and Social Security Status of Highly Mobile Workers in the Road and Railway Transportation: Quo Vadis?*, 46 Intertax 11, pp. 836-855 (2018).
11. European Economic and Social Committee, *Opinion: Taxation of cross-border teleworkers and their employers* (13 July 2022), ECO/585-EESC-2022-00408, available at https://www.eesc.europa.eu/en/our-work/opinions-information-reports/opinions/taxation-cross-border-teleworkers-and-their-employers.
12. The Final Report Action 1 on the Action Plan on Base Erosion and Profit Shifting (AP-BEPS) mainly focuses on tax aspects of companies and does not address the personal income tax issues of employees: OECD/G20, *Addressing the Tax Challenges of the Digital Economy, Action 1 – 2015 Final Report* (OECD 2015), OECD/G20 Base Erosion and Profit Shifting Project, Primary Sources IBFD. The agreement on an OECD/G20 Inclusive Framework Tax Package consisting of two pillars recently overhauled the international corporate tax framework: OECD, *Statement on a Two-Pillar Solution to Address the Tax Challenges Arising from the Digitalisation of the Economy*, 8 Oct. 2021, available at https://www.oecd.org/tax/beps/statement-on-a-two-pillar-solution-to-address-the-tax-challenges-arising-from-the-digitalisation-of-the-economy-october-2021.pdf.

the OECD Model (2017). Particular emphasis is given to the changing landscape of globalization and digitalization. Section 3. assesses the social security status of frontier workers. Section 4. addresses the interpretation and application problems associated with the lack of coordination between taxation and social security (exemplified by a case study), the place of exercise of employment (e.g. tax fragmentation, administration, etc.), the concern of a permanent establishment (PE), the difficulties in enjoying personal and family tax benefits, and the lack of coordination between fiscal and social security law. An analysis of relevant jurisprudence of the Court of Justice of the European Union (ECJ) is indispensable to delineate the personal scope of the free movement of persons for personal and family tax benefits. Building upon the previous comparative analysis and findings, section 5. formulates recommendations to optimize frontier workers' tax and social security status based upon good practices and highlights remaining concerns. The article ends with a final summary in section 6.

1.3. Methodology

This article provides a comparative analysis of the tax and social security status of frontier workers in Europe, focusing on application and interpretation problems in international, European, and domestic legal arrangements. Labour law is not considered. The findings of notable experts in IFA European countries regarding the situation of frontier workers in their respective countries, and compiled after completing a questionnaire, serve as the basis for the comparative analyses. The submissions by the IFA European country representatives focus upon pre-defined questions relevant to the alignment of the concept of "frontier workers".

2. Fiscal Status of Frontier Workers

2.1. The frontier work concept in tax treaties

2.1.1. Traditional frontier work in tax treaties

Many EU Member States have signed bilateral tax arrangements for frontier workers to avoid double taxation.[13] In the bilateral context, the specific definition of "frontier workers" is typically connected to the permanent exposure of taxpayers to double income taxation. Only a few tax treaties define the term "frontier workers" (*see* Annex I). Frontier worker provisions vary according to the specific wording of the applicable tax treaty.[14] Different formulations apply as a result of two contracting states' divergent needs and (the interaction with) divergent domestic laws, making it challenging to come up with a clear definition.[15] Section 5.1. will discuss having a single definition at EU level.

By comparing and contrasting the "frontier worker" definitions in special provisions across the tax treaties, common elements and attributes can be identified (*see* Box 1):

- commute *daily* between the residence state and the employment state and *return* to their residence state (temporal requirement); and/or
- a specific frontier zone where the residence is located, and the employment must be carried out (geographical requirement).

Although bilateral definitions continue to be used, a multilateral convention could be beneficial. The Nordic Convention demonstrates that successful implementation of the latter requires close cooperation, similar tax systems, administrative cultures, and economic and political interests.[16]

Box 1 – Examples of traditional requirements of frontier workers in tax treaties or other agreements

Frontier worker provisions in tax treaties (e.g. Austria-Germany (2000), France-Switzerland (1966), Portugal-Spain (1993)) may stipulate the return requirement from the employment state to the residence state each working day. Other tax treaties or agreements do not impose a strict return requirement (e.g. Austria-Italy (1981), Belgium-France (Protocol, 1964)) and/or impose a geographical restriction of a specific border area close to the borderline (e.g. Germany-Switzerland Income and Capital Tax Treaty (1971), France-Switzerland Income and capital Tax Treaty (1966)). The Nordic Convention on Income and Capital entered by Denmark, Faroe Islands, Finland, Iceland, Norway, and Sweden, concluded in 1983 and amended in 2018, provides that frontier workers are persons who reside in a municipality that borders upon the land frontier between Finland and Sweden or Finland and Norway and work in a municipality which borders with these states.[17]

13. Note that the tax treaties generally do not specify the rationale for these special arrangements for frontier workers.
14. E.g. a definition of "frontier worker" is absent in bilateral tax treaty relations related to most neighbouring countries of Germany (e.g. Denmark, Poland and the Czech Republic).
15. E.g. Convention between Belgium and France for the Avoidance of Double Taxation and the Establishment of Reciprocal Rules of Administrative and Judicial Assistance in Respect of Taxes on Income art. 11, para. 2 (10 Mar. 1964), Treaties & Models IBFD [hereinafter *Belg.-Fr. Income Tax Treaty*, provided that "frontier workers who can prove that they are such by presenting a frontier card as provided for in the special agreements concluded by the Contracting States shall be taxable on the wages, salaries and other remuneration which they derive in that capacity only in the Contracting State of which they are residents". The capacity of a frontier worker could be demonstrated by submitting a frontier workers card. The Belgian tax authorities applied the frontier worker regime automatically, whether the requirements were met. *See* TNS -229 (1998), and Circular Letter No. Ci.R.9F/472.898 of 16 Sept. 1996. Court of Appeals of Mons, 29 Oct. 1993, *Le Courrier fiscal* p. 291 (1994). *See also* Cass. 27 Oct. 1994, Pas., 1994, I, 869. However, the European Council abolished the issuance of frontier workers cards by Regulation (EEC) No. 1612/68 of 15 Oct. 1968. The protocol of 8 Feb. 1999 ended the controversy in Belgium by providing that frontier workers are exclusively taxable in the residence state.
16. M. Helminen, *The Nordic Multilateral Tax Treaty as a Model for a Multilateral EU Tax Treaty* p. 7 (IBFD 2024), Books IBFD.
17. Protocol to the Nordic Convention (1996, as amended through 2018), sec. VI.

Frontier worker provisions should be distinguished from other activity forms in the OECD Model (for example self-employed workers, directors, government services).[18] Some bilateral tax treaties also contain alternative clauses for visiting professors, which prevail over the main employment income clause.[19] Frontier work primarily pertains to income earned through private employment.

2.1.2. Interpretation by domestic law

Despite the definitions in bilateral context, undefined terms have to be interpreted according to domestic law, unless the context requires otherwise.[20] Specific domestic tax provisions may apply to qualified workers. For instance, an exemption of part of the remuneration or other specific benefits could apply. Special tax regimes for highly qualified workers frequently impose strict residency requirements, such as staying outside a set distance of the border.[21] So far, the tax treatment of frontier workers has not been a topic of big concern for most national policymakers. Only a few domestic tax laws define the term "frontier workers" (*see* Box 2).[22] The absence may be explained by the limited percentage of frontier workers domestically (e.g. Russia).[23] The poor infrastructure and high level of centralization may cause limited commuting back home regularly by residents of bordering countries (e.g. Serbia).

Box 2 – Definitions of "frontier workers" in domestic tax law

Austrian tax law defines "frontier worker" as an employee that is a resident of Austria, with the workplace in another country and goes to work there each workday.[24] The workplace can be considered "near the frontier" if it is possible to commute daily from the residence to the employment state, under the premise that the travel time is reasonable considering modern traffic conditions.[25] The *German* Finance Ministry stipulated that frontier workers are defined as workers who exercise their employment in the frontier zone of the other contracting state and return daily to their residence state.[26] A definition of "frontier worker" is missing in the *Italian* Income Tax Code, but the Provincial Tax Commission of Forlì held that: "[T]his classification includes those persons who daily go to a foreign country bordering Italy or to border areas to work and at the end of the working day return to their residence in Italy".[27]

Tax obstacles arising from diverging interpretations of frontier worker provisions within the national context have to be resolved by the domestic courts of the EU Member States, not the ECJ (*see* Box 3).[28] The judiciary's understanding of the "frontier worker" concept and the solutions reached through mutual agreement procedures are often crucial for interpreting and defining the precise limits of the special frontier workers clauses.[29]

18. P. Pistone, *Article 15: Income from Employment* sec. 5.1.3.1.4, Global Tax Treaty Commentaries IBFD; P. Pistone, *Government Service (Article 19 OECD Model Convention)*, in *Source versus Residence: Problems Arising from the Allocation of Taxing Rights in Tax Treaty Law and Possible Alternatives* p. 283 et seq. (M. Lang et al. eds., Kluwer L. Intl. 2008).
19. R. Vlasceanu, Article 20: Students, Teachers and Professors, sec. 2.1.2., Global Topics IBFD.
20. Art. 3(2) of the OECD Model.
21. For instance, the Luxemburg tax regime applies to qualified workers relocating to Luxembourg as of 1 Jan. 2014. The specific conditions of residency and not having lived less than 150 km from the Luxembourg border make that the provision does not apply to frontier workers (Circ. LIR 95/2).
22. E.g. United Kingdom, Bulgaria, Ukraine, Türkiye, Serbia, Luxembourg, Italy, Poland, Malta, Estonia, Ireland, Russia, Croatia, Czech Republic, Hungary, etc. In Switzerland, art. 91 of the Swiss Act on Direct Federal Taxes mentions the category of "cross-border workers", but it does not define this term. This article provides that for the non-self-employed cross-border workers the income tax is generally withheld at source. A concrete meaning of the term "cross-border worker" differs depending on the relevant tax treaty.
23. Russia is not part of the European Union. However, IFA has a European branch in Russia.
24. AT: sec. 16 (1) (4) (g) ITA.
25. Austrian Federal Ministry of Finance, Income Tax Guidelines 2000, m.no. 7957, BMF-010200/0024-IV/6/2019.
26. Letter on the tax treatment of income from employment under tax treaties (IV B 6 – S 1300 – 367/06), updated by letter IV B 2 – S 1300/08/10027 published on 3 May 2018.
27. *See also* the Provincial Tax Commission of Forlì (hereinafter CTP), sec. 2, Judgment 129 of 23 Apr. 2019. Art. 1, para. 175 Law 147 of 27 Dec. 2013.
28. The ECJ's competence is limited to the interpretation of the Treaty of the European Union (TEU) and the Treaty on the Functioning of the European Union (TFEU), as well as "the validity and interpretation of actions of the Union's institutions, bodies, offices or agencies of the Union" (art. 267 TFEU). *See* F. Pötgens & M. Vergouwen, *The Report Ways to Tackle Cross-Border Obstacles Facing Individuals Within the EU*, 26 EC Tax Review 5 (2017), p. 255.
29. G. Maisto, *Interpretation of Tax Treaties and the Decisions of Foreign Tax Courts as a "Subsequent Practice" under Articles 31 and 32 of the Vienna Convention on the Law of Treaties (1969)*, 75 Bull. Intl. Taxn. 11/12 (2021), Journal Articles & Opinion Pieces IBFD; P. Pistone, *Article 15: Income from Employment* sec. 2.2.2.1, Global Tax Treaty Commentaries IBFD.

Box 3 – Judicial interpretations of "frontier workers"

In the Swiss-German bilateral context, the *Bundesfinanzhof* held that a worker can keep the frontier worker status even though the person does not commute daily, as long as the reasons for staying in the employment state are related to the employment.[30] In another case, the *Bundesfinanzhof* ruled that despite crossing the border every day and working near the border in Switzerland, the taxpayer did not live "close to the border" in Germany.[31] The term "close to the border" was not specified in the tax treaty; rather, the *Verhandlungsprotokoll* ("negotiation protocol") – a mutually recognized official understanding of tax treaty clauses – specifies that individuals with a permanent residence more than 30 kilometres from the border should not be considered frontier workers.[32] The Finanzgericht Baden-Württemberg considered a German taxpayer hired by a Swiss corporation but unable to meet the 60-day threshold due to work visits in different states to be a frontier worker.[33] In the German-French context, the *Bundesfinanzhof* allowed a limit of 45 days of no return established by France and Germany in a mutual agreement procedure.[34] In the Austrian-Swiss context, the Austrian *Verwaltungsgerichtshof* ruled that the frontier workers clause also covered employment situations partly exercised outside the frontier zone and in third states.[35]

The reliance on domestic law to interpret certain requirements in tax treaties or agreements may cause qualification conflicts,[36] which may result in unrelieved double taxation or unintentional double non-taxation.[37] Mismatches caused by interpretation conflicts[38] can be resolved at the relief level.[39] In the case of double non-taxation or very low taxation arising from an interpretation conflict, the residence state is no longer obliged to exempt the income that may not be taxed in the source state.[40] Article 5(1) in connection with article 5(2) and (3) of the Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting (2017) (MLI) provides a similar provision to article 23A(4) of the OECD Model, which also covers qualification conflicts.[41]

2.2. Status quo allocation of taxing rights

2.2.1. Special provisions for frontier workers

Countries with strong mutual interchanges (i.e. working population) with bordering countries have traditionally included specific measures to allocate taxing rights on the employment income of frontier workers. For instance, Switzerland concluded several frontier worker agreements with neighboring countries (*see* Box 4). Special frontier workers provisions may be the outcome of negotiations in a specific bilateral context between two states, such as the correction of an unbalanced flow of workers between contracting states, the avoidance of structural exposure to double taxation, the allocation of tax benefits and a more agile framework for tax filing, collection, and compliance.[42] These provisions may also be rooted in budgetary and historical reasons. Due to the *lex specialis* nature, special frontier workers provisions prevail over the general allocation rules.

30. DE: BFH [Federal Tax Court], 24 Oct. 2004, Case I R 31/04, Case Law IBFD.
31. DE: BFH [Supreme Administrative Court], 24 July 1996, I R 74/95, Case Law IBFD. See also P. Pistone, Article 15: Income from Employment sec. 2.2.2.1, Global Tax Treaty Commentaries IBFD.
32. *See also* P. Pistone, *Article 15: Income from Employment* sec. 2.2.2.1, Global Tax Treaty Commentaries IBFD.
33. DE: FGB-W [Tax Court Baden-Württemberg], 25 Sept. 2007, Case 11 K 571/04, Case Law IBFD.
34. DE: BFH [Federal Tax Court], 11 Nov. 2009, Case I R 84/08, Case Law IBFD. The *Bundesfinanzhof* ruled that the bilateral tax treaty (1959) requires the frontier worker to return home every day. If an employee does not return home for one or more nights due to work-related reasons, the employee loses the frontier worker status.
35. AT: Vwgh [Supreme Administrative Court], 23 Feb. 2010, Case 2008/15/0148.
36. Art. 3(2) of the OECD Model provides that undefined terms have their domestic law meaning, unless the context otherwise requires. *See also* P. Pistone, *Article 15: Income from Employment* sec. 5.1.3.2.22., Global Tax Treaty Commentaries IBFD.
37. P. Pistone, *Article 15: Income from Employment* sec. 5.1.3.2., Global Tax Treaty Commentaries IBFD.
38. Paras. 32 and 32.6 *OECD Model: Commentary on Article 23A and 23B* (2017).
39. Art. 23A(4) OECD Model. *See* para. 32.6 *OECD Model: Commentary on Article 23A and 23B* (2017).
40. R. Julien, *Elimination of Double Taxation*, in *The UN Model Convention and its Relevance for the Global Tax Treaty Network* sec. 9.2. (M. Lang et al. eds., IBFD 2017), Books IBFD; C. Marchgraber, *Conflicts of Qualification and Interpretation: How Should Developing Countries React?*, 44 Intertax 4, p. 313 (2016).
41. F.P.G. Pötgens & D.M. Broekhuijsen, *Het Multilaterale Instrument met zijn vele bilaterale schakeringen*, 146 Weekblad fiscaal recht 7186, p. 482 (2017).
42. The OECD addressed these issues in 1994 in DAFFE/CFA/WP1(93)6/REV2, available at www.taxtreatieshistory.org (accessed 16 Dec. 2022).

Table 1 – Tax treatment of employment income of frontier workers under tax treaties

Tax treaties	Taxing rights
Austria-Germany (tax treaty 2000 + Memorandum of Understanding), Austria-Italy (tax treaty 1981), Belgium-France (unilateral for French residents - tax treaty 1964, amended through 2009 + Additional Protocol), Finland-Norway, Finland-Sweden, and Norway-Sweden (Nordic Convention 1996, as amended through 2018), France-Germany (tax treaty 1959, as amended through 2015), France-Italy (tax treaty 1959, as amended in 1989), France-Spain (tax treaty 1995 + Protocol 1995 + 1961 Complementary Agreement), Switzerland-Liechtenstein (tax treaty 2015, as amended through 2020) Abolished: Belgium-Germany (old – 1967), Belgium-Netherlands (old – 1970)	Exclusive in the residence state (compensation mechanism may apply, e.g. France-Germany, France-Switzerland)
Sweden-Denmark (Agreement of 29 October 2003) Abolished: Italy-Switzerland (old – 2015)	Exclusive in the employment state
Austria-Liechtenstein (tax treaty 1969), Italy-Switzerland (Agreement Frontier Workers 2020, not yet entered into force), Germany-Switzerland (tax treaty 1971), Italy-San Marino (tax treaty 2002, as amended through 2012 + Protocol) France-Geneva (Agreement 29 January 1973)	Shared between the residence state and employment state (i.e. withholding tax at source on income)

Box 4 – Special frontier worker provisions in the Swiss treaty context

The allocation of taxing rights over the remuneration of the frontier worker to the residence state in Swiss tax treaties with its five neighbouring states (Germany, Austria, France, Italy and Liechtenstein) presents variations representing the flow of frontier workers (Annex I). In the Germany-Switzerland Income and Capital Tax Treaty (1971), the residence state can tax the remuneration of the worker who commutes every working day from the residence state and the employment (source) state. The employee can stay overnight in the employment state without returning home. A threshold of calendar days in which the employee could stay overnight in the employment state applies, i.e. 60 days in a full calendar year.[43] In the Austria-Switzerland Income and Capital Tax Treaty (1974), the residence state can tax the remuneration of the worker who regularly crosses the border. The source state can withhold tax from the income at a rate not exceeding 3%, for which the residence state allows a credit.[44] The France-Switzerland Income Tax Treaty (Frontier Workers) (1983)[45] and Italy-Switzerland Income and Capital Tax Treaty (1976)[46] stipulate a financial compensation from the residence state to the source state of 4.5% of the total gross annual remuneration of frontier workers. The Liechtenstein-Switzerland Income and Capital Tax Treaty (2015) allocates exclusive taxing rights to the residence state.[47]

In terms of allocation of taxing rights, Table 1 shows that the special provisions may grant the taxing right over income of frontier workers exclusively to the residence state, exclusively to the employment state, or shared (residence and employment state). The derogations for frontier workers apply mandatorily whenever the substantive criteria for application of the regime are met.[48]The taxpayer is unable to opt-out of the frontier worker regime.

Exclusive taxation prescribes that the income of the frontier worker is taxed solely in the residence state or the employment state (*see* Box 5). Exclusive taxation in the residence state is more common. While section 5.2. makes some general observations about why some states have residence taxation while others have employment state taxation, the bigger debate[49] is focused on the extent to which *exclusive* taxing rights constitute the appropriate taxing rule for the income of frontier workers. Exclusive taxation in one of the states may be arranged for several reasons, such as the avoidance of double taxation or the simplification of the tax system because taxpayers will not need to compile paperwork to prove their entitlement to an exemp-

43. Convention between the German Federal Republic and the Swiss Confederation for the Avoidance of Double Taxation with Respect to Taxes on Income and on Capital (as amended through 2010) (11 Aug. 1971), Treaties & Models IBFD [hereinafter *Ger.-Switz. Income and Capital Tax Treaty*].
44. Convention between the Swiss Confederation and the Republic of Austria for the Avoidance of Double Taxation with Respect to Taxes on *Income and on Capital* [unofficial translation] art. 15(4) (30 Jan. 1974), Treaties & Models IBFD [hereinafter *Austria-Switz. Income and Capital Tax Treaty*].
45. Agreement between the Government of the French Republic and the Swiss Federal Council Concerning the Taxation of Remuneration of Frontier Workers [unofficial translation] art. 17(4) (11 Apr. 1983), Treaties & Models IBFD [hereinafter *Fr.-Switz. Income and Capital Tax Treaty*].
46. Convention between the Swiss Confederation and the Italian Republic for the Avoidance of Double Taxation and the Regulation of Certain Other Questions Relating to Taxes on Income and Capital art. 15(4) (9 Mar. 1976), Treaties & Models IBFD [hereinafter *It.-Switz. Income and Capital Tax Treaty*].
47. Convention between the Swiss Confederation and the Principality of Liechtenstein for the Avoidance of Double Taxation with Respect to Taxes on Income and on Capital [unofficial translation] art. 15(4) (10 July 2015), Treaties & Models IBFD [hereinafter *Liecht.-Switz.Income and Capital Tax Treaty*].
48. For instance, Belgian Commentary Tax Treaty, No. 15/31. *See also* T. Denayer, *IFA Cahiers 1998 – Vol. 83b. Practical issues in the application of double tax Conventions: Belgium* p. 253 (1998).
49. *Compare* P. Kavelaars, *Fiscaal Duel: Grensarbeidersregeling: werkstaat is beter dan woonstaat*, Weekblad Fiscaal Recht 2001, no. 5417, 58-59; L. Hinnekens, *The EC compatibility of frontier workers' taxation according to the Belgian-Dutch Treaty*, 6 EC Tax Review 3 (1997), p. 175. *See also* F. Pötgens, *Income from International Private Employment*, vol. 12, p. 135 (IBFD 2006), Books IBFD; B. Peeters, *Article 15 of the OECD Model Convention on 'Income from Employment' and its Undefined Terms,* 44 Eur. Taxn. 2, pp. 76-77 (2004), Journal Articles & Opinion Pieces IBFD; M. Weerepas, *Contributions of Tax Law and Social Insurance*, in *Social Security for Frontier Workers in Europe*, Conference 22-23 Nov. 2001, p. 197 et seq. (Aken 2003). *See also* L. Weizman, *Frontier Workers and the Free Movement of Labour within the European Union*, 3 EC Tax Review 3 (1994), p. 109. *See* the report of the Governance Committee, *Fair distribution of taxes in transfrontier areas – Potential conflicts and possibilities for compromise*, CG37(2019)10 final, 29 Oct. 2019, p. 18.

tion or credit for taxes paid abroad. However, exclusive taxation hampers the sovereignty of the other state to levy taxes over the economic activities developed in its territory.[50] The non-taxing state bears costs and expenses in favour of the frontier worker that it cannot charge for. Individuals' increased mobility in some European regions, where workers frequently commute, indicates that such clauses may result in unintended tax biases.[51] This suggests that these provisions should be reconsidered from a policy standpoint. Common practical reasons for residence taxation may include the higher economic allegiance in the residence state, the higher use of public services (e.g. infrastructure or schools) in the residence state and the entitlement to personal deductions therein.[52]

Box 5 – Examples of exclusive taxation in residence or employment state

The protocol (1996) to the Nordic Convention (Denmark, Faroe Islands, Finland, Iceland, Norway, Sweden) includes special provisions concerning frontier workers.[53] The employment income is taxable only in the residence state, provided that the frontier worker is regularly present at the permanent address in that state. The agreement between Sweden and Denmark of 29 October 2003 complements the Nordic Convention by stipulating that the income from partly working at home is not taxed in both states but rather in the state in which the main part of their work is performed, i.e. the state in which more than 50% of the working hours are performed in a 3-month period.[54]

Shared taxation may be conditioned by the residence state or the employment state competent to levy a specific percentage (*see* Box 6). In most bilateral relations, the employment state has limited taxing rights by withholding.

Box 6 – Examples of shared taxation

The Germany-Switzerland Income and Capital Tax Treaty (1971) stipulates that the residence state and the employment state may tax the employment income. The employment state can only levy a tax up to 4.5% on the gross remuneration earned by the individual in the case the residence state confirms the residency of the individual.[55] The Italy-Switzerland Tax Agreement (Frontier Workers) (2020)[56] provides that the employment state has limited taxing rights, while no limitations are imposed on the residence state.[57] With regard to employment income received by an Italian resident in a "frontier area" (canton of Graubünden, Ticino or Valais) of Switzerland,[58] Switzerland may exercise tax but the income tax applied cannot exceed 80% of the ordinary income tax applicable in Switzerland. The Germany-Switzerland Income and Capital Tax Treaty (1971) states that the employment state may withhold a tax at source at 4.5% of the gross remuneration if proof of residence is supplied through an official certificate.[59] The Austria-Liechtenstein Income and Capital Tax Treaty (1969) allocates shared allocation of taxing rights between the residence state and the employment state. The residence state is entitled to tax the income received in the employment state at a rate not exceeding 4% by way of withholding at source.[60]

2.2.2. General allocation rules in the OECD Model

In the absence of special frontier worker provisions (*see* section 2.2.1.), the general taxing rule for cross-border income from employment in article 15(1) and (2) of the OECD Model applies.[61] Special rules for frontier workers deviating from the general allocation rules are increasingly abolished. For example, special bilateral rules regarding the taxation of frontier workers are nowadays absent in the current Belgian tax treaties

50. K.H. Lambertz, *Fair distribution of taxes in transfrontier areas: potential conflicts and possibilities for compromise*, Report CG37(2019) 10 final, 29 Oct. 2019, p. 18.
51. P. Pistone, *Article 15: Income from Employment* sec. 2.2.2.1, Global Tax Treaty Commentaries IBFD.
52. Id. *See also* EC expert group, *supra* n. 9, at p. 14.
53. Protocol to the Convention between the Nordic Countries for the avoidance of double taxation with respect to taxes on income and on capital (between Denmark, Faroe Islands, Finland, Iceland, Norway, Sweden) art. VI (23 Sept. 1996) [hereinafter *Nordic Convention*]. See *also* M. Helminen, *Finnish International Taxation* p. 291 (2000); *Guidance on frontier workers of the tax authorities*, 13 Aug. 2019 (Guidance number VH/2351/00.01.00/2019 of 30 July 2019).
54. The Social Security Agreement (29 Oct. 2003) between Sweden and Denmark does not appear to mention the requirements for daily return and labour in the border zone. Secondary sources, on the other hand, occasionally refer to "the Agreement on the Taxation of Frontier Workers".
55. Art. 15(A)(1) *Ger.-Switz. Income and Capital Tax Treaty.*
56. Italy-Switzerland Tax Agreement (Frontier Workers) of 23 December 2020, Treaties & Models IBFD [hereinafter *Agreement Italy-Switzerland (2020)*]; Protocol *It.-Switz. Income and Capital Tax Treaty.* The *Agreement Italy-Switzerland 2020* replaces the agreement on taxation of frontier workers between Italy and Switzerland, which was signed on 3 Oct. 1974. See also P. Salvatore & R. Rossi, *Italy and Switzerland Sign New Agreement on Income Taxation of Frontier Workers: Initial Comments from an Italian Perspective*, 64 Eur. Taxn. 4 (2021), Journal Articles & Opinion Pieces IBFD.
57. Art. 3 *Agreement Italy-Switzerland (2020).*
58. Provided that the income is taxable in Switzerland pursuant to paras. 1 and 2 art. 15 *It.-Switz. Income and Capital Tax Treaty.*
59. Art. 15A(1) *Ger.-Switz. Income and Capital Tax Treaty.*
60. Convention between the Principality of Liechtenstein and the Republic of Austria for the Avoidance of Double Taxation with Respect to Taxes on Income and Capital and the Prevention of Tax Evasion and Avoidance art. 15(4) (5 Nov. 1969), Treaties & Models IBFD. Austrian tax treaties demonstrate the absence of a clear line between the various provisions with the contracting states. For instance, Convention between the Republic of Austria and the Republic of Italy for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income And Capital art. 15(4) (29 June 1981), Treaties & Models IBFD [hereinafter *Austria-It. Income and Capital Tax Treaty*] allocates taxing rights to the residence state.
61. Para. 10 *OECD Model: Commentary on Article 15* (2017).

with Germany,[62] the Netherlands[63] and Luxembourg.[64] Hence, the absence of frontier worker provisions in a bilateral context may create procedural obstacles that might produce the undesirable effect of shifting labour to the black economy.[65] The European Commission reported that this seems to occur in the border region between Croatia, Italy and Slovenia; where there is a considerable level of undeclared work by the frontier worker, which may at least partly be because of the absence of frontier workers definitions in the tax treaties between the three states and procedural complexities.[66]

Article 15(1) of the OECD Model stipulates that the residence state has exclusive taxing rights over wages, salaries and other similar remuneration,[67] unless the employment is exercised in another state ("employment state").[68] According to the OECD Commentary, this refers to the location where the employee is "physically present when performing the activities for which the employment income is paid".[69] The employment state may, in principle, tax the remuneration that is "derived from" that part of the employment activity performed in its territory (under reservation of article 15(2) of the OECD Model). The residence state of the employee must give relief from double taxation.

62. Convention between the Kingdom of Belgium and the Federal Republic of Germany for the Avoidance of Double Taxation and for the Settlement of Certain Other Questions with Respect to Taxes on Income and Capital, Including the Business Tax and the Land Taxes art. 15(3) (11 Apr. 1967), Treaties & Models IBFD [hereinafter *Belg.-Ger. Income and Capital Tax Treaty*] provided a special frontier worker clause, but a protocol signed in 2002 replaced this provision in line with art. 15(3) OECD Model. *See* W. Kaefer, *Neureglung der deutsch-belgischen Grenzpendlerbesteuerung*, Internationales Steuer- und Wirtschaftsrecht 11 (2004), pp. 509-512; and C. Hensel, *DBA-Belgien: Neureglung der Grenzgängerbesteuerung*, Internationales Steuer- und Wirtschaftsrecht 7 (2004), pp. 297-298.
63. Convention between the Government of the Kingdom of the Netherlands and the Government of the Kingdom of Belgium for the Avoidance of Double Taxation with Respect to Taxes on Income and on Capital and for the Settlement of Some Other Questions on Tax Matters art. 15(3) (19 Oct. 1970), Treaties & Models IBFD provided a special frontier worker clause, but the Convention between the Kingdom of Belgium and the Kingdom of the Netherlands for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income and on Capital (5 June 2001), Treaties & Models IBFD [hereinafter *Belg.-Neth. Income and Capital Tax Treaty*] abolished this provision.
64. *See*, however, the 34-day rule in the Belgium-Luxembourg context.
65. EC expert group, *supra* n. 9, at p. 22.
66. Id.
67. This exclusive allocation rule applies regardless of where the employee exercises the employment. *See* P. Pistone, *Article 15: Income from Employment* sec. 3.2.2.3., Global Tax Treaty Commentaries IBFD.
68. L. De Broe, *Article 15 OECD and UN MC*, in *Klaus Vogel on Double Taxation Conventions* (E. Reimer & A. Rust eds, Kluwer Law International 2015), p. 1115; T. Jansen & P. de Vos, *Handboek internationaal en Europees belastingrecht* (Intersentia 2008), p. 211.
69. Para. 1 *OECD Model: Commentary on Article 15* (2017).

Article 15(2) of the OECD Model provides an exception to the place-of-work principle of article 15(1) of the OECD Model. The residence state may reassert its exclusive taxing rights if the following three conditions are cumulatively fulfilled:

(1) the presence in the employment state is no longer than 183 days in any 12 months in the taxable year;
(2) the remuneration is not paid by or on behalf of an employer who is a resident of the source state; and
(3) the remuneration is not borne by a permanent establishment of the employer in the source state.[70]

If only one of the three criteria is fulfilled, the employment state can exercise its taxing rights over employment income derived by a resident of the other contracting state.

2.3. Highly mobile frontier workers

Despite the similarities between highly mobile workers and frontier workers, the former is almost never the object of specific provisions in tax treaties. Essential criteria of the special frontier worker provision are not met anymore when working in multiple member states and outside the frontier worker zone. Highly mobile workers fall back on the general taxing rules for employment income when they no longer qualify as frontier workers. Tax administrations could mediate to resolve interpretation or application issues of the tax treaty in a mutual agreement procedure.[71] There should be a commitment to resolve the issue, even though the treaties rarely require tax authorities to do so. Frequently, these arrangements are also not publicly available and could benefit from a common or coordinated model.[72]

Enhanced means of transportation (e.g. high-speed trains, low-cost airlines, etc.) facilitate mobility of workers, beyond traditional frontier work, for example, international drivers and pilots with high mobility.[73] Article 15(3) of the OECD Model (2017) assigns the taxing rights over employment income of workers employed aboard ships or aircraft operated in international traffic to the residence state of the employee. States may extend this clause to other forms of transport.[74] Some bilateral treaties apply this clause to employment in connection with road transport,[75]

70. K. Vogel, M. Engelschalk & J. Marin, *Klaus Vogel on Double Taxation Conventions* art. 15, no. 6 (3rd ed., Kluwer Law International 1997).
71. Art. 25(3) OECD Model.
72. EC expert group, *supra* n. 9, at p. 40.
73. H. Niesten, *Revisiting the Fiscal and Social Security Status of Highly Mobile Workers in the Road and Railway Transportation: Quo Vadis?*, 46 Intertax 11 (2018), pp. 836-855.
74. Para. 10 *OECD Model: Commentary on Article 15* (2017).
75. The inclusion of road transportation is common in Luxembourg treaties, *see* the Convention between the Grand Duchy of Luxembourg and the Principality of Andorra for the Avoidance of Double Taxation and the Prevention of Fiscal

railway transport[76] or rail transport,[77] while others refer to general means of transportation.[78,79] Such special clauses address the issues raised by the mobility of workers engaged in cross-border transport activities, as well as the application of article 15(2)(a) of the OECD Model through the allocation of taxable income to the source state in proportion to the time spent in each contracting state and the recurrence of multilateral cases. Taxing rights are often allocated to the residence state (e.g. Netherlands-Bulgaria, Poland-Uzbekistan) or the place of effective management of the enterprise operating the ship, boat or aircraft (e.g. Netherlands-Belgium).[80] In the absence of such clauses, equivalent solutions are reached at the interpretative level in Belgium.[81] Some tax treaties allocate the taxing rights to the state of effective management of the enterprise.[82]

2.4. Teleworking frontier workers

Flexibilization can occur when the employer allows part of the working time to be exercised in the residence state, for example, through homework. Improved digital infrastructure, including technology and connectivity (e.g. VPN), and the increased availability of desk-based jobs with less physical activity offer opportunities for the global mobility of individuals. "Teleworking" (or telecommuting) allows people to substitute their physical presence in the state of employment with a virtual presence in another state (primarily their resident state). Digital developments enable frontier workers to travel less often to the employment state to communicate and deal with their employer or visit clients. This digital revolution resulted in less frontier work in another state and more telework in the residence state or a third state.

Evasion with Respect to Taxes on Income and on Capital art. 14(3) (2 June 2014), Treaties & Models IBFD; Synthesised Text of the Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting and the Convention between the Grand Duchy of Luxembourg and Barbados for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income and on Capital art. 15(3) (1 Dec. 2009), Treaties & Models IBFD; Convention between the Grand Duchy of Luxembourg and the Republic of Cyprus for the Elimination of Double Taxation with Respect to Taxes on Income and on Capital and the Prevention of Tax Evasion and Avoidance art. 14(3) (8 May 2017), Treaties & Models IBFD; Convention between the Grand Duchy of Luxembourg and the Republic of Estonia for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income and on Capital art. 14(3) (7 July 2014), Treaties & Models IBFD; Synthesized Text of the Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting and the Agreement between Guernsey and the Grand Duchy of Luxembourg for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income and on Capital art. 14(3) (10 May 2013), Treaties & Models IBFD; Synthesized Text of the MLI and the Convention between Hungary and the Grand Duchy of Luxembourg for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income and on Capital art. 14(3) (10 Mar. 2015), Treaties & Models IBFD; Convention between the Republic of Kosovo and the Grand Duchy of Luxembourg for the Elimination of Double Taxation with Respect to Taxes on Income and on Capital and the Prevention of Tax Evasion and Avoidance art. 14(3) (8 Dec. 2017), Treaties & Models IBFD; Synthesised Text of the MLI and the Convention between the Grand Duchy of Luxembourg and the Republic of Poland for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income and on Capital art. 15(3) (14 June 1995), Treaties & Models IBFD; Convention between the Government of Grand Duchy of Luxembourg and the Government of the Republic of Senegal for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income and on Capital art. 15(3) (10 Feb. 2016), Treaties & Models IBFD. The extension of art. 15(3) to international road transport is fairly common in tax treaties signed by Bulgaria (e.g. Convention between the Kingdom of the Netherlands and the Republic of Bulgaria for the Elimination of Double Taxation with respect to Taxes on Income and the Prevention of Fiscal Evasion and Avoidance art. 15(3) (1 Sept. 2020), Treaties & Models IBFD [hereinafter *Bulg.-Neth. Income Tax Treaty*), Romania, and Russia, and may also be found in tax treaties signed by Croatia, Hungary, Portugal and Türkiye. In some cases, the extension extends to railway transport as well.

76. Convention between the Government of the Grand Duchy of Luxembourg and the Government of the French Republic for the Elimination of Double Taxation and the Prevention of Tax Evasion and Avoidance with Respect to Taxes on Income and on Capital art. 14(3) (20 Mar. 2018), Treaties & Models IBFD [hereinafter *Fr.-Lux. Income and Capital Tax Treaty*].
77. Synthesized Text of the MLI and the Agreement between the Grand Duchy of Luxembourg and the Republic of Croatia for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income and on Capital art. 15(3) (20 June 2014), Treaties & Models IBFD; art. 15(3) Poland-Spain double tax treaty (1979), Treaties & Models IBFD. *See also* the Convention between Belgium and Luxembourg for the Avoidance of Double Taxation and the Regulation of Certain Other Questions relating to Taxes on Income and Capital art. 15(3) (17 Sept. 1970), Treaties & Models IBFD [hereinafter *Belg.-Lux. Income and Capital Tax Treaty*].
78. Agreement between Tajikistan and Uzbekistan for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income and Capital art. 15(3) (9 Mar. 2018), Treaties & Models IBFD.
79. P. Pistone, *Article 15: Income from Employment* sec. 2.2.2.3., Global Tax Treaty Commentaries IBFD.
80. For instance, art. 14(3) *Bulg.-Neth. Income Tax Treaty*; Convention between Poland and Uzbekistan for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income and on Capital art. 15(3) (11 Jan. 1995), Treaties & Models IBFD; art. 15(3) *Belg.-Neth. Income and Capital Tax Treaty*.
81. The established case law of the Belgian HvC/CC addresses the issue at the interpretation level (*see* Case AR F.99.0085.F (2000)), indicating that the days of physical presence of international truck drivers in a contracting state are not decisive in determining the allocation of taxing rights in respect of their salaries.
82. Art. 15(3) of the Belgium-Luxembourg double tax treaty (1970). On 29 Nov. 2018, the Belgian Constitutional Court ruled that the difference between the criterion used in this treaty clause and the days of physical presence instead adopted in other Belgian tax treaties (including the Convention between the Swiss Confederation and the Kingdom of Belgium for the Avoidance of Double Taxation with Respect to Taxes on Income and Capital art. 15(3) (28 Aug. 1978), Treaties & Models IBFD) did not amount to discrimination; *see* BE: CC/GH [Constitutional Court], 29 Nov. 2018, Case 6654 (163-201).

In response to the unprecedented (quarantine) measures to curb the COVID-19 pandemic across the EU Member States, governments have encouraged employees and employers to work remotely to minimize the spread of the virus.[83] The working-from-home policies – which became not temporary anymore – have tax consequences for home working individuals, and the businesses for which they work.[84] The dislocation of workers from the original workplace in a state other than the residence state to home may result in that the requirements from the frontier worker definition are not met anymore (i.e. the daily return or frontier zone). For the teleworker, the movement across the border may be exercised virtually or take place on a rarer basis than "daily or at least once a week".[85] According to the OECD, no adjustments to the allocation of taxing powers should arise from a force majeure that prevents employees from working from their normal place of employment.[86] Exceptional circumstances necessitate an exceptional coordination level between countries to reduce the compliance and administrative costs for employees and employers related to an involuntary and temporary change of the place where employment is performed.[87]

General interpretative mutual agreements on the taxation of employment income for cross-border workers were bilaterally agreed upon to avoid disadvantages for teleworkers due to the COVID-19 pandemic.[88] For instance, Belgium signed agreements with the Netherlands, Germany, Luxembourg and France; Germany signed agreements with Switzerland, the Netherlands and Austria on the taxation of frontier workers who worked at home due to COVID-19 measures.[89] Italy and Switzerland have signed a nearly identical agreement on the taxation of frontier workers who are currently e-working at home because of the COVID-19 pandemic.[90] No similar agreements have been concluded between the European Union and the United Kingdom. The core of such interpretative agreements is that days spent working from home in the residence state were temporarily deemed to be performed in the state where the work would have been carried out absent the COVID-19 measures, insofar as teleworking is a direct consequence of those measures. The agreed measures are being phased out (in general, as of 1 July 2022) as jurisdictions have slowly begun lifting their pandemic restrictions. The derogations only apply to telework carried out because of government measures to combat the exceptional COVID-19 pandemic (e.g. structural homework arrangements). However, many workers have organized their work in such a manner as to enable their work to telework continuously.

In some bilateral contexts, a daily threshold tolerance beyond the frontier worker context applies with limits on the number of days that a worker may work outside the regular work jurisdiction (e.g. the residence state and third states) before triggering a change in status (*see further* the discussion in section 5.2.). The entire employment income remains taxable in the employment state if the number of days of the employee outside the usual state of activity (i.e. residence state or third state) does not exceed a specific limit. It was agreed that days spent working from home as a result of COVID-19 would not be taken into account when determining the threshold. For instance, in the Luxembourgish context, the days that Belgian, French or German residents work from home due to COVID-19 are not considered for the calculation of

83. For instance, Belgium took social distancing measures, including the strong promotion of working from home, to prevent the spread of COVID-19. *See* BE: Ministerial Decision containing the Promulgation of the Federal Phase for the Coordination and Management of the Coronavirus of 13 Mar. 2020 and 23 Mar. 2020.
84. The problems associated with international employment in the digital economy are discussed in H. Niesten, *Revising the Fiscal and Social Security Landscape of International Teleworkers in the Digital Age*, 49 Intertax 2 (2020), pp. 120-143. This report builds on previous research and will make appropriate references where this is the case.
85. O. Golynker, *Ubiquitous Citizens of Europe: The Paradigm of Partial Migration* (Intersentia 2006), p. 165.
86. A change of workplace would give rise to other difficulties, for instance in relation to special provisions with a limit on the number of days that a worker may work outside the regular working jurisdiction and withholding obligations. *See* OECD, *OECD Secretariat Analysis of Tax Treaties and the Impact of the COVID-19 Crisis* (3 Apr. 2020), paras. 21-27, available at https://read.oecd-ilibrary.org/view/?ref=127_127237-vsdagpp2t3&title=OECD-Secretariat-analysis-of-tax-treaties-and-the-impact-of-the-COVID-19-Crisis (accessed 16 Dec. 2022).
87. OECD, *supra* n. 86, at para. 27.
88. T. Morales & J. Rogers-Glabush, *Emergency Tax Measures in Response to the COVID-19 Pandemic: The Full Picture in Europe*, 60 Eur. Taxn. 7, sec. 4.6.1. (2020), Journal Articles & Opinion Pieces IBFD; H. Niesten & E. Van Malder, *Coronamaatregelen vormen overmacht voor 'grenswerkers'*, Fiscoloog Intl. 1-4 (2020).
89. Agreement between Germany and Switzerland (IV B 2-S 1301-CHE/07/10015-01, DOK 2020/0485608 (11 June 2020) which entered into force on 12 June 2020; Agreement between Germany and the Netherlands IV B 3-S 1301-NDL/20/10004:00, DOK 2020/0348934 (6 Apr. 2020), published on 8 Apr. 2020, and entered into force on that same date; Agreement between Germany and Austria IV B 3-S 1301-AUT/20/10002:001, DOK 2020/0379571 (15 Apr. 2020), published on 16 Apr. 2020, and entered into force on that same date.
90. Agreement between Italy and Switzerland, signed in Bern on 18 June 2020 and in Rome on 19 June 2020, which entered into force on 20 June 2020, available at https://www.finanze.gov.it/export/sites/finanze/.galleries/Documenti/Varie/Allegato-3-20200618-covid-19-frontalieri-accordo-amichevole-di-portata-generale-FINALE.pdf.

the 34-day threshold,[91] the 29-day threshold,[92] or the 19-day threshold, respectively (from mid-March 2020 onwards until a new order is issued).[93]

3. Social Security Status of Frontier Workers

3.1. The frontier worker concept in social security law

Regulation (EC) No. 883/2004 defines "frontier worker" as "any person pursuing an activity as an employed or self-employed person in a Member State and who resides in another Member State to which he/she returns as a rule daily or at least once a week".[94] The term "frontier workers" encompasses a dual national allegiance due to working in a state other than the home state and a regular return to the residence state requirement applies. A European-wide regulation of this type is to be supported.

The ECJ defines frontier work as "regular movement across the border". As a result, a worker who, after relocating to an EU Member State other than the employment state for family reasons, never longer visits the latter for the purpose of employment is not regarded a frontier worker.[95]

A few bilateral social security treaties define the term "frontier worker" (*see* Box 7).

Box 7 – Frontier worker definitions in bilateral social security treaties

The Germany-Poland Social Security Agreement (1990), for instance, defines "frontier worker" as "a person to whom the legislation of one Contracting State applies by reason of his occupation in the territory of that State and who is resident in the territory of the other Contracting State and normally returns there at least once per week".[96] The Ireland-United Kingdom Social Security Agreement (2019) defines "frontier worker" as "any person pursuing an activity as an employed or selfemployed person in one Party and who resides in the other Party to which they return as a rule daily or at least once a week".[97]

Although it is not the goal of this article to expand on the social security difficulties associated with the concept of frontier work, similar issues of scope, interpretation and overlap with other treaty and domestic rules in social security as in taxation apply.[98] The main issue is the absence of common regimes for frontier workers across taxation and social security, resulting in the application of different regulations, which may lead to unequal treatment, in violation of workers' right to free movement.

3.2. Status quo allocation of social security rules

Coordination between states regarding social security differs significantly from taxation. Regulation (EC) No. 883/2004 on the coordination of social security systems[99] and the implementing Regulation (EC) No. 987/2009[100] provide social security rules (e.g. insurance, pensions, medical assistance, unemployment benefits, etc.).[101] These instruments do not contain

91. Mutual agreement of 19 May 2020 between the competent authorities of Belgium and Luxembourg concerning frontier workers in the context of the fight against the spread of Covid-19, Belgian Official Gazette (29 May 2020). *See also* Press release FOD Finance regarding Belgian-Luxembourg double tax agreement: exceptional corona measure related to the telework of frontier workers (17 Mar. 2020), available at https://financien.belgium.be/nl/Actueel/belgisch-luxemburgse-overeenkomst-tot-het-vermijden-van-dubbele-belasting-uitzonderlijke (accessed 16 Dec. 2022).
92. *Accord de 16 juillet 2020 amiable entre les autorités compétentes de France et du Luxembourg concernant les travailleurs transfrontaliers dans le context de la lutte contre la propagation du Covid-19* (only in French), available at https://impotsdirects.public.lu/dam-assets/fr/conventions/conv/FR-LU-AccordCOVID19signe.pdf.
93. Agreement between Germany and Luxembourg relating to Art. 14, para. 1 of the Convention between the Grand Duchy of Luxembourg and the Federal Republic of Germany for the avoidance of double taxation and the prevention of fiscal evasion with respect to taxes on income and on capital on 23 April 2012 in order to take into account the situation related to the Covid-19 crisis, IV B 3-S 1301-LUX/19/10007:002, DOK 2020/03456083, https://impotsdirects.public.lu/dam-assets/fr/conventions/conv/DELUaccordAmiableSigne03042020.pdf.
94. Art. 1(f) Regulation (EC) No. 883/2004 of the European Parliament and of the Council of 29 April 2004 on the coordination of social security systems, OJ L 166, 30 Apr. 2004, 1. *See also* Regulation (EC) No. 987/2009 of the European Parliament and of the Council of 16 September 2009 laying down the procedure for implementing Regulation (EC) No. 883/2004 on the coordination of social security systems, OJ L 284/1 (30 Oct. 2009), 1, as last amended by Regulation (EU) No. 465/2012 of the European Parliament and of the Council of 22 May 2012, implementing Regulation (EC) No. 987/2009 of the European Parliament and of the Council of 16 September 2009 laying down the procedure for implementing Regulation (EC) No. 883/2004 on the coordination of social security systems OJ L 284/1 (30 Oct. 2009), 1, as amended by Regulation (EU) No. 465/2012, 4.
95. Case C-236/87, *Anna Bergemann v. Bundesanstalt für Arbeit* (1988) ECR 5125, para. 13.
96. Convention between the Federal Republic of Germany and the Republic of Poland on Social Security art. 1(13) (8 Dec. 1990), Treaties & Models IBFD.
97. Convention on Social Security between the Government of the United Kingdom of Great Britain and Northern Ireland and the Government of Ireland art. 1 (1 Feb. 2019), Treaties & Models IBFD.
98. Y. Jorens, P. Minderhoud & J. De Coninck, *Comparative Report – Frontier workers in the EU*, FreSsco, European Commission, Jan. 2015, p. 12, available at https://ec.europa.eu/social/BlobServlet?docId=13536&langId=en (accessed 16 Dec. 2022).
99. The European Parliament and the Council of the European Union, Regulation (EC) No. 883/2004 of the European Parliament and of the Council of 29 April 2004 on the coordination of social security systems, OJ L 166/1 (30 Apr. 2004), Title II.
100. Regulation (EC) No. 987/2009 of the European Parliament and of the Council of 16 September 2009 laying down the procedure for implementing regulation (EC) No 883/2004 on the coordination of social security systems, OJ L 284/1 (30 Oct. 2009).
101. These regulations entered into force on 1 May 2010, replacing Regulations (EEC) No. 1408/71 of the Council of 14 June 1971 on the application of social security schemes to employed persons and their families moving within the Community, OJ L 149/2 (5 July 1971) and Regulations (EEC) No. 574/72 of 21 March 1972 fixing the procedure for implementing Regulation (EEC) No. 1408/71 on the application of social

specific allocation rules for frontier workers. The general social security rules apply. In contrast to taxes under the bilateral tax treaties, the frontier worker is subject to the social security legislation of only one EU Member State.[102] The main rule is *lex loci laboris*, i.e. the EU Member State where the frontier worker performs the activities is competent to levy social security contributions, regardless of the EU Member State where the worker resides or where the employer is established.[103]

3.3. Highly mobile frontier workers

For highly mobile frontier workers, the general rules for employment income in two or more EU Member States apply.[104] The determining factor is the concept of the "substantial part"[105] of worker's activities.[106] Frontier workers who normally work *a substantial part of the activity* (defined as 25% of working time and/or remuneration) in the residence state, are covered by the social security legislation of the residence state and no longer by the legislation of the employment state.[107] Assessing the "substantial part of the activity" test is difficult and might require a closer examination of the working arrangement (e.g. travel schedules, or other data).[108] The assumed future situation in the next 12 months must be considered, which might be delicate for frontier workers.[109] Depending on the situation, if the frontier worker does not carry out a substantial part of the activity in the residence state, the legislation of the EU Member State in which the registered office or place of business of the undertaking(s) employing the frontier worker is situated (seat country principle)[110] or the legislation of the residence state applies for social security.[111,112]

3.4. Teleworking frontier workers

During the COVID-19 pandemic, the question arose whether telework of the frontier work in the residence state resulted in social security system changes. Social security issues were not recognized in the OECD report (which addressed only tax issues) nor at the European level.[113] However, remote work may result in changes in the applicable social security legislation.

The European Commission provided Guidelines to the EU Member States.[114] EU Member States should rely on the exception in article 16 of Regulation (EC) No. 883/2004 to retain the current social security coverage in telework situations. In this situation, the employer or self-employed person could submit an application to the competent authority of the Member State whose legislation the employee or self-employed person wishes to continue to be subject to, and the competent authorities may mutually agree to provide special treatment in the worker's best interest. The European Commission Guidelines, while not legally binding, support a flexible interpretation of the law that serves the interests of frontier workers. The possibility of negotiating administrative agreements on the subject is another item that the Commission mentions in its Communication to the Member States.

security schemes to employed persons and their families moving within the Community OJ L 74 (27 Mar. 1972).

102. Art. 11(1) Regulation (EC) No. 883/2004.
103. F. Pennings, *Co-Ordination of Social Security on the Basis of the State-of-Employment Principle: Time for an Alternative?*, 42 Common Mkt L. Rev. 1, pp. 67-89 (2005).
104. Art. 13(1) Regulation (EC) No. 883/2004.
105. European Commission, *Practical Guide to the Applicable Legislation in the European Union (EU), the European Economic Area (EEA) and Switzerland*, pp. 27, 29 and 32 (Dec. 2013). *See also* H. Verschueren, *The Renewed EU Social Security Coordination in Regulation No. 883/2004 and Its Link with Bilateral Tax Agreements*, 21 EC Taxn. Rev. 2, p. 105 (2012). Marginal activities (less than 5% of the worker's regular working time/overall remuneration) shall not be taken into account for the determination of the applicable legislation on the basis of Regulation (EC) No. 883/2004, art. 13.
106. Art. 14(8) Regulation (EC) No. 987/2009. For an interesting case study, *see* M. Weerepas, *Grensoverschrijdend thuiswerken en verzekeringsplicht*, Nederlands Tijdschrift voor Fiscaal Recht 12 (2017) (case note to Dutch Supreme Court 30 Aug. 2016, 1503858).
107. Art. 13(1)(a) Regulation (EC) No883/2004. *See also* art. 14(8) Regulation (EC) No987/2009.
108. European Commission, *supra* n. 105, at pp. 32-33.
109. Art. 14(10) Regulation (EC) No987/2009.
110. When the teleworking frontier worker is employed (i) by one undertaking or employer; (ii) by two undertakings with a registered office or place of business in the same Member State; or (iii) by two undertakings, one of which has its registered office in the residence state and the other in another Member State (art. 13(1)(b)(i), (ii) and (iii) Regulation (EC) No. 883/2004).
111. When the teleworking frontier worker is employed by various undertakings or various employers whose registered offices or places of business are in different Member States outside the country of residence (art. 13(1)(b)(iv) Regulation (EC) No. 883/2004).
112. European Commission, *supra* n. 105. *See also* H. Verschueren, *The Renewed EU Social Security Coordination in Regulation No 883/2004 and Its Link with Bilateral Tax Agreements*, 21 EC Taxn. Rev. 2 (2012), p. 105.
113. *See*, for example, Council Recommendation of 28 January 2021 amending Council Recommendation (EU) 2020/1475 of 13 October 2020 on a coordinated approach to the restriction of free movement in response to the COVID-19 pandemic, Interinstitutional File: 2021/0021(NLE), available at https://www.consilium.europa.eu/media/48122/st05716-en21-public.pdf.
114. Communication from the Commission Guidelines concerning the exercising of the free movement of workers during COVID-19 outbreak CI 102/12, 12–14 (30 Mar. 2020), available at https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52020XC0330(03) (accessed 16 Dec. 2022). *See* European Labour Authority, *Impact of teleworking during the COVID-19 pandemic on the applicable social security* (July 2021), available at https://www.ela.europa.eu/sites/default/files/2021-07/ELA%20Report%20-%20Cross-border%20teleworking%20during%20the%20COVID-19%20pandemic%20%282021%29.pdf.

The Administrative Commission for the coordination of social security systems of the EU/EEA has also issued non-binding guidance[115] on a transitional period until 31 December 2022 during which no change in the competent Member State will occur due to homeworking of 25% or more.[116]

4. Interpretation and Application Problems and Perils

4.1. (Dis)coordination between taxation and social security

4.1.1. Problem

Complexities may arise as a result of the (lack of) geographical alignment of the rules governing the place of employment for tax purposes (article 15 of the OECD Model) with the social security rules (articles 11 and 13 of Regulation (EC) No. 883/2004). Despite the substantial amount of literature and research on tax treaties and, in parallel, social security, only very few studies have examined the interplay between personal income tax and social security contributions for frontier workers.[117] Coordination within the EU Member States may vary. The tax treaties are bilateral agreements between two contracting states on how the tax should be distributed between the countries involved (who gets what piece of the pie), avoiding imposing an additional tax burden on the person. The social security coordination is far more focused on individuals' rights and benefits.

The taxing right is given exclusively to the residence state, exclusively to the source state or shared by both. When taxes are levied in the residence state, and the social security contributions must be paid in the employment state, discoordination may arise.[118] Assuming residence state taxation,[119] coordination only occurs when the frontier worker spends at least 25% time or earns 25% remuneration at home. Otherwise, coordination between tax and social security contributions only occurs if the employee – in the absence of special tax treaty provisions – works substantially in the residence state and the so-called "183-day rule" applies (in that case, the entire income is taxed in the residence state) or the employee works full time in the original employment state and not from home (taxation in the employment state). Alignment of the criteria under Regulation (EC) No. 883/2004 and tax treaties is not easy, since the underlying reasons for the allocation rules are different in each branch.[120]

Coordination of taxation and social security is crucial.[121] In modern economies, tax and social security contributions are essential components of the welfare systems' financing.[122] The OECD defines "social security contributions" as mandatory payments provided to the general government for entitlement to receive a (contingent) future social benefit.[123] Some countries finance their welfare programmes by contributions, resulting in higher social security contributions. Others rely on taxation to fund residual welfare sys-

115. This guideline provides employers an indication of the social security positions and can be used for implementing policies for teleworkers.
116. A member of the EU's Administrative Commission for the Coordination of Social Security Schemes shared this information publicly on his LinkedIn page, available at https://www.linkedin.com/feed/update/urn:li:activity:6943128771398918144/ (accessed 16 Dec. 2022).
117. K. Cejie, *New Problems Caused by the Covid-19 Pandemic – Income Taxes and Social Security Contributions (an Overview)*, 61 Eur. Taxn. 5 (2021), Journal Articles & Opinion Pieces IBFD; H. Niesten, *Belastingvoordelen van grensoverschrijdende economisch actieve EU-personen* (Kluwer 2018); F. Pennings & M. Weerepas, *Towards a convergence of coordination in social security and tax law?*, 15 EC Taxn. Rev. 4 (2006), pp. 215-225. *See also* B. Spiegel et al. (eds.), *Analytical report 2014: The relationship between social security coordination and taxation law*, FreSsco, European Commission (Apr. 2015), p. 47. *See also* Commissie Grenswerkers, *Grenswerkers in Europa: een onderzoek naar fiscale, sociaalverzekerings- en pensioenaspecten van grensoverschrijdend werken*, Vereniging voor Belastingwetenschap, doc. No. 257 (2017).
118. For a discussion on convergence, *see*, for instance, F. Pennings & M. Weerepas, *Towards a Convergence of Coordination in Social Security and Tax Law?*, EC Tax Rev. 4 (2006), p. 221 et seq.; B. Spiegel (ed.), *Analytic Report 2014: The Relationship between Social Security Coordination and Taxation Law* (FreSsco 2015), pp. 56-58; and J. Teppeorvá, D. Hadic & K.K. Egholm Elgaard, *Tax and Social Security: EU Perspective*, KPMG Acor Tax (24 Jan. 2018).
119. For instance, in the Convention between the Republic of Austria and the Federal Republic of Germany for the Avoidance of Double Taxation with Respect to Taxes on Income and on Capital and to Trade Tax and Land Tax (24 Aug. 2000), Treaties & Models IBFD; the *Austria-It. Income and Capital Tax Treaty*; the Synthesized Version of the Convention between the Republic of France and the Kingdom of the Netherlands for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income and on capital (16 Mar. 1973), Treaties & Models IBFD; the Convention between the Federal Republic of Germany and the French Republic for the Avoidance of Double Taxation and the Establishment of Rules for Reciprocal Administrative and Legal Assistance with Respect to Taxes on Income and on Capital, Business Tax and Land Tax (21 July 1959), Treaties & Models IBFD [hereinafter *Fr.-Ger. Income and Capital Tax Treaty*].
120. K. Cejie, *New Problems Caused by the COVID-19 Pandemic: Income Taxes and Social Security Contributions*, 61 Eur. Taxn. 2, sec. 2 (2021), Journal Articles & Opinion Pieces IBFD.
121. F. Pennings & M. Weerepas, *Towards a convergence of coordination in social security and tax law?*, 15 EC Taxn. Rev. 4 (2006), pp. 215-225. *See also* Rapport van de Commissie Grenswerkers, *Grenswerkers in Europa: een onderzoek naar fiscale, sociaalverzekerings- en pensioenaspecten van grensoverschrijdend werken*, Vereniging voor Belastingwetenschap, doc. No. 257 (2017).
122. *See* J. Tepperová, *Personal Income Tax and Social Security Coordination in Cross-Border Employment – a Case Study of the Czech Republic and Denmark*, 21 Eur. J. Soc. Security 1 (2019), p. 24.
123. Definition of "social security contributions" by the OECD, available at https://data.oecd.org/tax/social-security-contributions.htm (accessed 16 Dec. 2022).

tems and to keep social security contributions low.[124] Aside from divergent interpretations of key terms in applicable regulations (e.g. "residence", "employer", etc.), discoordination may emerge in terms of social security contributions (funding of social security system) and benefits (i.e. the entitlement to a statutory pension, medical assistance, etc.).[125]

When a country raises income taxes while concurrently lowering social security contributions, problems with *social security contributions* may arise. Differences in domestic tax and social security contributions, as well as discoordinated payments in a cross-border situation, may have unfavourable consequences.[126] Disparities, for instance, may occur in the absence of clear definitions of essential terms. The ECJ made clear that a payment made to finance a particular benefit and paid in a specific fund, is to be treated as a social security contribution, regardless of its name in domestic legislation.[127] "Taxes" are commonly regarded as a general contribution to public budgets, having no specific purpose at the time of the payments.

Because a frontier worker for social security is essentially only subject to the laws of the employment state, if the residence state charges a payment that is essentially a tax but meets the requirements for social security contribution, the individual is not required to make this payment if (s)he works in another Member State.[128] Countries may also have contrasting approaches to finance their welfare systems. Discoordination may occur, for instance, when residing in an EU Member State with healthcare financed from general tax resources with an economic double levy at stake. Tax-related social security contributions must be paid in one Member State while tax is paid in the other Member State. In the opposite situation, frontier workers would receive a higher net income and would not complain.[129] Because of the flexible and virtual nature of (tele)work, work can be organized advantageously, resulting in a risk of forum shopping. The discoordination may result in wrong-way driving behaviour whereby low taxation is combined with low social security contributions in another state. The ECJ pointed out that the simultaneous exercise of competences by two states to collect social security contributions constitutes an obstacle to free movement.[130] The discoordination may result in very high or very low contributions in cross-border situations compared to strictly national contexts.[131] Discoordination has led the Netherlands and Belgium to abolish the frontier workers regime in the tax treaty in 2001.[132] The Germany-Netherlands Income Tax Treaty (2012) guarantees that taxpayers resident in the Netherlands and working in Germany will not incur a higher tax burden as a result of cross-border activities by referring to the tax and social security rules burden.[133]

Besides discoordination for social security contributions, problems may arise for *social security benefits* connected to sickness, unemployment insurance, family allowances and others. Regulation (EC) No. 883/2004 stipulates that frontier workers have to be covered by the social security system of the working state and not the residence state. There are exceptions for unemployment benefits,[134] sickness benefits in kind (of choice) and benefits in respect of accidents at work and occupational diseases (of choice). However, benefits are not covered in the same manner and at the same extent in all EU Member States (e.g. the nature, the method of financing, the duration of entitlement, the amounts given the different living standards,[135] the conditions for obtaining these benefits, etc.).[136]

124. B. Peeters & H. Verschueren, *The Impact of European Union Law on the Interaction of Members States' Sovereign Powers in the Policy Fields of Social Protection and Personal Income Tax Benefits*, 25 EC Tax Review 5-6 (2005), pp. 262-276.
125. K. Daxkobler, G. Strban & A.P. van der Mei, *Analytical report 2014: The Relationship Between Social Security Coordination and Taxation Law*, 30 (B. Spiegel ed., FreSsco, European Commission 2015), p. 15; G. Essers, C. Segaert & J. Smits, *Over de sociale en fiscale positie van de actieve werknemers binnen de Europese Unie: optimalisering van het werklandbeginsel?*, 6708 Weekblad Fiscaal Recht 136 (2007), p. 231; M. Dahlberg & A.S. Önder, Taxation of Cross-Border Employment Income and Tax Revenue Sharing in the Öresund Region, 69 Bull. Intl. Taxn. 1 (2015), pp. 29-36, Journal Articles & Opinion Pieces IBFD.
126. K. Daxkobler, G. Strban & A.P. van der Mei, *Analytical report 2014: The Relationship Between Social Security Coordination and Taxation Law*, 30 (B. Spiegel ed., FreSsco, European Commission 2015); M. Weerepas, *Tax or Social Security Contribution; a World of Difference?*, 2018 Nordic Tax J. 1 (2018), pp. 18-30.
127. FR: ECJ, 15 Feb. 2000, Case C-34/98, *Commission of the European Communities v. French Republic*, ECR I-995. *See also* J. Tepperová, *Personal Income Tax and Social Security Coordination in Cross-Border Employment – a Case Study of the Czech Republic and Denmark*, 21 Eur. J. Soc. Security 1 (2019), p. 24.
128. F. Pennings, *Barriers to Free Movement due to Mismatches of Cross-Border Tax and Social Security Instruments*, 25 Studia z zakresu prawa pracy i polityki społecznej 4, p. 309, available at https://www.ejournals.eu/sppips/2018/Tom-25-Zeszyt-4-2018/art/12749/ (accessed 16 Dec. 2022).
129. F. Pennings & M. Weerepas, *Towards a convergence of coordination in social security and tax law?*, 15 EC Tax Review 4 (2006), p. 220.
130. BE: ECJ, 15 Feb. 1996, Case C-53/95, *Inasti (Institut National d'Assurances Sociales pour Travailleurs Indépendants) v. Hans Kemmler*, EU:C:1996:58.
131. Daxkobler, Strban & van der Mei, *supra* n. 126.
132. *See also* M. Weerepas, *The relation Netherlands-Belgium. A feasible solution? An investigation into the issue of frontier workers in Belgium and the Netherlands*, in *Challenge of Change* (Noordweek 1997).
133. Convention between the Federal Republic of Germany and the Kingdom of the Netherlands for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income art. XII Protocol (12 Apr. 2012), Treaties & Models IBFD.
134. Art. 11(3)(c) juncto art. 65 Regulation (EC) 883/2004.
135. For example, Austria adjusts the child benefits for workers whose children live in Slovakia or Hungary. *See* AT: ECJ, 16 June 2022, Case C-328/20, *European Commission v. Republic of Austria*, Case Law IBFD (accessed 9 Dec. 2022).
136. For instance, Bosnia and Herzegovina has nine (six with EU Member States) international bilateral agreements on social security in place, and additional 16 agreements (12 with EU

Table 2 – Schematic representation of frontier telework in different work situations*

Frontier telework		Tax status	Social security status
(1)	100% working from home	RS	RS
(2)	Working from home for 80% of working time (4 days/week RS and 1 day in the ES)	RS/ES	RS
(3)	Working from home for 60% of working time (3 days/week RS and 2 days in the ES)	RS/ES	RS
(4)	Working from home for 40% of working time (2 days/week RS and 3 days in the ES)	ES	RS
(5)	Working from home for 20% of working time (1 day/week RS and 4 days in the ES)	RS/ES	ES
(6)	0% working from home (5 days in the ES)	ES	ES

* RS = residence state; ES = employment state.

Different institutions, such as employment bureaus, pension and disability funds and health insurance funds, provide social security benefits; each operates within its territorial (regional, provincial or local) and subject jurisdiction. Their cooperation is often ad hoc or based on memoranda. A lack of a common approach hampers cooperation with other states in tracing and granting social security benefits. Despite being established by law and aligned with the EU regulations, waiting periods for benefit entitlement are subject to constant delays in implementation. Administrations or organizations may also refuse to grant social security benefits if the residence criterion would not be met. This makes coordination of social security between states difficult and restricts worker mobility.

4.1.2. Case study

To illustrate the discoordination, consider a French frontier worker (X) working in the frontier zone in Germany. X has his permanent home in the frontier zone of France, to which he generally returns each day. According to the special frontier worker provision in the tax treaty, the income is taxable only in the residence state (France) when residing and working in the frontier zone (30 km), and the frontier worker returns home daily. Under these circumstances, the income is taxable only in the residence state (France).[137] The frontier zone is restricted to territories no more than 20 km from the frontier, broadened to 30 km in the case of frontier workers residing in France and working in Germany. If the individual lives in France but does not work in the frontier zone, the general tax rules for employment income apply (i.e. taxing in the employment state, namely Germany).

Because of the COVID-19 pandemic, X was forced to perform his employment from home in France. Arguably, for teleworking from home in France, general rules seem to grant the residence state France the exclusive taxing right over private employment income. Following the OECD guidelines published in April 2020, as similarly negotiated with other neighbouring countries, France signed a mutual agreement with Germany stipulating that, as long as the emergency persists, no changes in pre-existent tax rules will be made. All days spent in the residence state due to COVID-19 remotely working must be considered time spent in the source state. This effectively means that Germany retains its sole taxing rights over income derived from dependent employment of France's workers.

Let us assume X prefers to work from home (France) after the pandemic, because of family responsibilities.[138] Table 2 presents the fiscal and social security status of the frontier worker in different scenarios.

From a tax perspective, when working full-time from home, taxation occurs in the residence state (France). In situations (2) and (3), the worker can be confronted with tax in the employment state (i.e. Germany) when assuming that the employer resides in Germany (or has a PE therein). In situations (4) and (5), the employment state can tax because the worker is physically present for more than 183 days in the employment state. Still, the residence state can tax the income earned while physically present in the residence state. In situation (6), the employment state can tax the income as the worker is assumed to be full-time physically present there.

From a social security perspective, if the employer is situated in an EU Member State, the frontier worker resides in another EU Member State. The worker performs less than 25% of the professional activities and/or earns less than 25% of the professional income in the residence state. The teleworker is covered by social security in the employer's state. In situations (5) and (6), because fewer than 25% of the workdays is performed in France, X is covered by German social security.

Member States) have been implemented based on succession from the former Yugoslavia.

137. Art. 13(5)(a) *Fr.-Ger. Income and Capital Tax Treaty.*

138. On a typical telecommuting day, X logs onto the company's computer network via the company's server to engage in a variety of functions, including videoconferencing and Webex Calls, and coding software. These server-based activities might be processed in any state with computers connected to the German company's network. X can access cloud-based software from anywhere. The storage applications enable to save files to a remote database and retrieve them on demand.

4.2. Physical presence as nexus for taxing rights in need of change

In the absence of special provisions, the general taxing right is for the residence state, unless the employment is exercised in another state. The OECD Commentary determines that "employment is exercised in the place where the employee is physically present when performing the activities for which the employment income is paid".[139] Due to the strict equation of the "place of exercise of the employment" with the "physical presence", the remuneration derived from exercising activity in the employment state is taxed there. The strong link of physical presence for individuals in international tax rules is a nexus in need of change. Globalization and digital developments increasingly enable work from everywhere (*see* section 1.1.2.). Arguably, the OECD Model insufficiently addresses the continued (r)evolution and digital transformation challenges in a globalized world.[140] Similarly, tax treaties, inspired by the OECD Model, were drafted at a time when the employee's physical presence was the most reliable element in determining the sourcing (taxing) rule to ensure a fair and balanced link with the sovereignty of the employment state.[141] The question arises whether a different criterion for the allocation of taxing rights – that uses the criterion of physical presence – is more suitable for the ongoing in respect of frontier workers.

For the *teleworker*, the physical presence principle often leads to residence state taxation. The criteria in article 15(2) of the OECD Model for taxation in the residence state may be more easily fulfilled as a result of digitalization and increased internet use. The worker may be physically present in the working state on fewer days than previously. However, the exact formulation of the applicable tax treaty must always be considered. Teleworkers may fall within specific provisions with a daily threshold. Difficulties may arise when the telework is not purely exceptional due to the COVID-19 pandemic.[142]

For the *highly mobile worker*, the time-based physical presence in several employment states may cause fragmentation and practical difficulties. The time spent in multiple states for reasons functionally related to the exercise of employment must be considered. Any presence on a day[143] must be considered for the daily counting.[144] When traversing several states each day, the income can be taxed in multiple employment states based on the time spent or travel distance in each state.[145] If the worker commutes to work in the source state in the morning for a short meeting but works the rest of the day from home, the traveling day counts as a day of presence in the employment state and the residence state. Multiple employment states may create a salary split that is difficult to implement and control in practice. Proper job scheduling would make it possible to match and further attune the physical presence to the 183-days test. A multistate employment does not prevent the residence state from exercising taxing rights. Still, it complicates the exercise of taxing rights by other states that may consider a genuine nexus with their jurisdiction. Employment might be fragmented according to different performance places that are dispersed over various states. The frontier worker must prove by all legal means that the activity from which those remunerations originated was physically exercised in the other country to receive an exemption.

The (partly) allocation of the salary to the various states depending on the physical presence of the employee may create divided taxing rights regarding remuneration, a fragmented tax base, complex and difficult verifiable situations, and a heavy administrative burden for the employee, the tax administration as well as the business employer.[146] For the *employee*, a detailed daily calendar is necessary to prove the physical presence. Smartphone applications to track and prove the days of physical presence in a tax jurisdic-

139. Para. 9 *OECD Model: Commentary on Article 15* (2017).
140. H. Niesten, *Revising the Fiscal and Social Security Landscape of International Teleworkers in the Digital Age*, 49 Intertax 2 (2021), p. 124.
141. P. Pistone, *Article 15: Income from Employment* sec. 3.3.2.2.2., Global Tax Treaty Commentaries IBFD.
142. A number of countries have structured their tax systems to attract (tele)workers who will remain employed by their existing employer during the transition period. *See*, for instance, N.P. Schipper, *Groeten uit Griekenland*, NTFR 2020/3494. *See also* V. Tyutyuryukov & N. Guseva, *From remote work to digital nomands: tax issues and tax opportunities of digital lifestyle*, IFAC PapersOnline 54-13 (2021), pp. 188-193.
143. Any part thereof, as short as it may be, as well as arrival day, departure day, Saturdays, Sundays, public holidays, holidays, and days off before, during, or after the termination of the work or short interruptions thereof, etc.
144. Para. 5 *OECD Model: Commentary on Article 15* (2017). For case law on the interpretation in referring the 183-day period to physical presence, *see* DE: BFH, 23 Feb. 2005, Case I R 13/04; DE: BFH, 17 Oct. 2003, Case I B 98, s. 9/03, I B 9/03, IS 9/03 (holidays and days of sickness count towards the 183-day period); NL: Supreme Court, 21 Feb. 2003, Case 37.011. Some legal scholars disagree with this broad interpretation by requiring that the days of presence have to be linked to the employment activity. *See* E. Lechner & K. Muswynska, *Die 183-Tage-Regel im DBA-Recht, in Arbeitnehmer im Recht der Doppelbesteuerungsabkommen*, p. 164 et seq. (W. Gassner et al. eds., Linde Verlag 2003).
145. O. Geiger & K. Alscher, *Besteuerung von reisenden Arbeitnehmern – insbesondere Berufskraftfahrem – im grenzuberschreitender Verkehr*, IWB 4 (1994), p. 165; L. De Broe & J. Luts, *Taxation of Remuneration from Employment Aboard a Ship or Aircraft Operated in International Traffic: Interpretation Issues Under Article. 15(3) of the OECD Model*, 71 Bull. Intl. Taxn. 3/4 (2017), p. 158, Journal Articles & Opinion Pieces IBFD.
146. F. Pötgens, *Income from International Private Employment: An Analysis of Article 15 of the OECD Model* pp. 794-795 (IBFD 2006), Books IBFD; G. Essers, C. Segaert & J. Smits, *Over de sociale en fiscale positie van de actieve werknemers binnen de Europese Unie: optimalisering van het werklandbeginsel?*, 136 Weekblad Fiscaal Recht 6708 (2007), p. 231.

tion may be available.[147] The exposure to different fact interpretations based on differences across domestic laws, may result in compliance burdens, the exposure to multiple tax auditing and potential unrelieved double taxation.[148] The *competent tax authorities* will have to determine whether the evidence suffices. Relevant proof may include an employment contract, registered tickets, invoices concerning accommodation costs, proof of attendance at meetings, etc. *Business employers* must properly adhere to tax obligations and not levy more income tax than effectively due, or, refund the tax to the frontier worker (if any). Other compliance difficulties may arise for employers and employees if the former employment state loses its taxing right following the strict physical presence test. When not physically present in the source state but earning income there, the physical presence creates new challenges. Withholding obligations of employers that are not underpinned by a substantive taxing right will be suspended. These obstacles raise the question of another criterion to determine the taxing rights for employment income.

4.3. Permanent establishment for the employer

The performance of activities in states other than the regular employment state and working from home can constitute a PE for the company employing the frontier worker.[149] A PE would impose new filing requirements and tax liabilities for the employer. The source state may tax business profits that are factually attributable to the PE.[150] The question arises whether teleworking from home (i.e. from a home office) will create a material PE[151] or a personal PE[152] for the employer in the worker's residence state. For instance, a Belgian resident who regularly works in the Netherlands but works now at home in Belgium and it does not do so through a PE. The Belgium-Netherlands Income and Capital Tax Treaty (2001) prevents Belgium from taxing the business profits even though the income might otherwise have been taxable as effectively connected income under the Belgian Income Tax Code.

4.3.1. Material PE

The first question is when the conclusion of contracts in the home of employees or agents creates a "material PE" for the businesses, which is defined as a "fixed place of business through which activities of an organization are entirely or partly carried out".[153] In order for the home activities of the frontier teleworker to constitute a PE requires a certain permanency and being at the disposal of an enterprise.[154] The facts and circumstances of each case need consideration.[155] Merely working at one location – e.g. the frontier worker' home office – does not imply being at the disposal of the enterprise.[156] For a home office to qualify as a PE, the employer' power (right of use or effective power) over the living quarters of the frontier worker is relevant.[157] Generally, the right-of-use requirement is satisfied when the employer is remunerating the frontier worker for costs related to the home office, such as office furniture and computer equipment.[158] The home office must be used continuously (e.g. usually for at least 6 months as a rule of thumb from the OECD Commentary, whereby each case must be judged on its merits depending on the nature of the activities) for performing the enterprise activities.[159] If the enterprise requires the frontier worker to use the home to carry out the enterprise' business (e.g. by requiring the individual to use that location to carry on the enterprise's business), the home office may be considered being at the disposal of the enterprise.[160] Preparatory and auxiliary activities have been specifically excluded from the PE definition.[161] If the activities at the home office cease to be preparatory or auxiliary, the office becomes a PE.

4.3.2. Personal PE

Another question is whether working from the residence state can constitute a personal PE for the foreign employer.[162] Although the issue of a personal PE for frontier workers is beyond the scope of this report, it can nonetheless be stated that the employee must have the power to enter into binding contracts on behalf of the foreign company and must also habitually make use of this power to create a personal PE. It even suffices when the agent (not being an independent agent)

147. *See* e.g. Imera, Residency Tracker, http://imera.us/residency-tracker/?fbclid=IwAR0gQzqRUxkR5dzUsjy7bdM_0fFyAg8oSsIJVCWk7Xz-WyWzaRH9EXZwtcQ.
148. P. Pistone, *Article 15: Income from Employment* sec. 3.2.2.3-4, Global Tax Treaty Commentaries IBFD.
149. Art. 7 OECD Model.
150. Art. 5 OECD Model.
151. Art. 5(1) OECD Model.
152. Art. 5(2) OECD Model.
153. *Supra* n. 151.
154. A. Skaar, *Permanent Establishments: Erosion of a Tax Treaty Principle* (Kluwer Law International 2020), sec. 14.2; C. Garbarino, *Judicial Interpretation of Tax Treaties: The Use of the OECD Commentary* (Edward Elgar 2016), p. 122.
155. OECD, *Interpretation and application of Article 5 (permanent establishment) of the OECD Model Tax Convention* (2012), No. 4.8.
156. Para. 18 *OECD Model: Commentary on Article 5* (2017). This position is supported by international jurisprudence and doctrine; *see* A. Skaar, *Permanent Establishments: Erosion of a Tax Treaty Principle* sec. 14.2 (Kluwer Law International 2020); T. Wustenberghs & W. Vanmechelen, *Thuiskantoor vormt geen vaste inrichting*, 340 Fiscoloog Internationaal (2012), p. 3. *See also* BE: Preliminary Decision no. 2011.432 (29 Nov. 2011); NL: Hoge Raad (Supreme Court), 13 Mar. 1957, BNB 1957, nr. 144; DE: Reichsfinanzhof, 26 Sept. 1936, RStBl. 1939, 1227.
157. Para. 12 *OECD Model: Commentary on Article 5* (2017).
158. Skaar, *supra* n. 156, at sec. 14.2.6.
159. *See* OECD, *OECD Secretariat Analysis of Tax Treaties and the Impact of the COVID-19 Crisis* (3 Apr. 2020), para. 6.
160. Para. 18 *OECD Model: Commentary on Article 5* (2017).
161. Art. 5(4) OECD Model.
162. Art. 5(5) OECD Model.

"habitually concludes contracts, or habitually plays the principal role leading to the conclusion of the contracts".[163] The threshold of what meets the frequency test depends on the contractual nature. Carrying out tasks may not be an isolated case or an occasional occurrence. The precise minimum time is not determined.[164] The home office does not automatically qualify as a PE.

4.3.3. COVID-19 implications on PE

In its guidance of 3 April 2020, the OECD issued (non-binding) guidance that the exceptional and temporary change of the work location because of government measures in the extraordinary context of the COVID-19 pandemic to teleworking from home would not, in principle, create a PE for the employer.[165] The OECD pointed out that it is force majeure, not an enterprise's requirement, and that it would "not become the new norm over time". Teleworking from home under the COVID-19 pandemic was supposed to have an insufficient degree of permanency or continuity (for less than six months). One can question if this statement is still valid anno mid-2022 after more than 30 months of new variants and lockdown measures in parts of the world. But from a tax viewpoint, it is more important that the enterprise has no access to or control over the home office that is regularly available to its employees.[166] Each company should limit any turnaround in the companies' management to what is strictly required by the government restrictions. An employee's or agent's activity is unlikely to be habitual if the work at home is only for a short period because of force majeure and/or government directives that extraordinarily impact the normal routine. A different conclusion, however, would apply if the employee habitually concludes contracts on behalf of the enterprise in the home country prior to the onset of the COVID-19 pandemic.[167]

The COVID-19 pandemic affected the entire economy in the short, medium and long run. Once the restrictive lockdown measures were gradually lifted, governments began to resume domestic and international travels. However, home-based work is unlikely to be temporal.[168] While travel restrictions slowly phased out, employees continued (and were allowed) to work from home voluntarily.[169] A home office may constitute a PE risk for a foreign company if the home office is used continuously, and the employer requires the employee to use the home office (by providing office equipment, e.g. laptop, internet, telephone). Accordingly, difficulties with accurate profit and loss attribution to a PE may arise. Risks and related losses should be attributed to the PE if the performing functions demonstrate active decision-making power regarding the acceptance and/or management of those risks, including risk mitigation measures to specifically deal with the challenges brought about by the COVID-19 pandemic.[170]

Nevertheless, in the fixed (material) PE and agency (personal) PE cases, when only performing functions of a preparatory or auxiliary character,[171] the PE requirement is not met. Key lessons learned from the COVID-19 pandemic for future cross-border employment policies is the increased likelihood of travel restrictions imposed by global pandemics or other events. Legislators and policymakers should consider the changing economic and social context not only during but also after the pandemic.[172] The permanent shift to the new normal of telework necessitates a revision of the traditional longstanding principles underlying the tax and social security status of frontier teleworkers.

4.4. Personal and family tax benefits

4.4.1. Domestic law

Claiming personal and family tax benefits for frontier workers may be difficult or less favourable due to overlapping tax jurisdictions. Different tax systems exist for residents and non-residents. Personal and family tax benefits are connected with the ability to

163. Art. 12 Multilateral Instrument, Artificial Avoidance of Permanent Establishment Status through Commissionaire Arrangements and Similar Strategies, available at https://www.oecd.org/tax/treaties/multilateral-convention-to-implement-tax-treaty-related-measures-to-prevent-BEPS.pdf. Compare the threshold pre-2017 for which the condition for a dependent agency PE to exist was that the agent 'has, and habitually exercises, in a Contracting State and authority to conclude contracts in the name of the [principal]' (*see* e.g. OECD Model (2014)).
164. S. Prasanna & G. Capristano Cardoso, *Developing a Transfer Pricing Policy Framework for the Current Economic Crisis and Beyond*, 27 Intl. Transfer Pricing J. 5 (2020), Journal Articles & Opinion Pieces IBFD.
165. OECD, *supra* n. 159.
166. OECD, *supra* n. 159, at para. 9. *See* T. Wustenberghs & H. Begian, *De impact van corona op de dubbelbelastingverdragen*, 437 Fiscoloog (2020), p. 1.
167. OECD, *supra* n. 159, at para. 12.
168. Eurofond, *Labour market change: Telework ability and the COVID-19 crisis: a new digital divide?*, Working Paper WPEF20020, available at https://www.eurofound.europa.eu/sites/default/files/wpef20020.pdf.
169. E.g. Amazon announced in June 2021 to allow flexible homework for 2 days a week to continue home-based work. K. Anne Long, H. Groover & P. Roberts, *Amazon shifts return-to-office stance, says remote work is OK 2 days a week* (10 June 2021), available at https://www.spokesman.com/stories/2021/jun/10/amazon-shifts-return-to-office-stance-says-remote-/ (accessed 16 Dec. 2022).
170. S. Prasanna & G. Capristano Cardoso, *Developing a Transfer Pricing Policy Framework for the Current Economic Crisis and Beyond*, 27 Intl. Transfer Pricing J. 5 (2020), Journal Articles & Opinion Pieces IBFD, with reference to R. Holzinger, *Attribution of Profits to Permanent Establishments*, in *Fundamentals of Transfer Pricing: A Practical Guide* (M. Lang et al. eds, Wolters Kluwer 2018).
171. Art. 5(4) OECD Model.
172. *See* BusinessEurope, *BusinessEurope Proposals for A European Economic Recovery Plan* (30 Apr. 2020).

pay tax, and include spousal income splitting,[173] tax-free allowance,[174] the deduction of childcare costs,[175] the zero-rate bracket,[176] etc. While personal and family tax benefits are not linked to a specific income source or item, income-related tax benefits (e.g. business expenses, repayment of overpaid wage, withholding taxes) are connected to the actual income source and generally allocated territorially to the residence state or the employment state.[177] The question is under what conditions the frontier worker can enjoy personal and family tax benefits when pursuing an economic activity in another EU Member State.

Traditionally, states distinguish between resident and non-resident taxpayers for personal and family circumstances to consider the taxpayer's ability to pay tax. The residence state usually subjects the worldwide income to tax and considers personal and family circumstances. The employment state usually taxes only certain income items from sources in that state but applies a simplified tax system to those items. Typically, resident taxpayers are automatically granted personal and family tax benefits, whereas non-resident taxpayers are only entitled to such benefits if they meet certain requirements. Personal and family tax benefits may be lost if the employment state does not provide them and the residence state does not consider circumstances due to low income.

Nowadays, most EU Member States grant tax benefits to non-residents with a strict income threshold (e.g. 75% or 90%) in the EU Member States concerned. For instance, non-residents with at least 90% (50% for a Belgium resident, *see* Belgium-Luxembourg Income and Capital Tax Treaty (1970)) of total income (i.e. Luxembourg and foreign) is taxable in Luxembourg, and may opt to be taxed as resident.[178] Non-residents who pay tax in the Netherlands on more than 90% of their worldwide income and can produce a personal income statement from the tax authorities of their domicile state may enjoy the same tax treatment as residents under the Dutch regime of qualifying foreign taxpayers. The qualifying non-resident is, in principle, entitled to the same tax benefits as resident taxpayers (e.g. mortgage loan deduction) in the Netherlands.[179] However, when working one day a week from home, the 90% burden may not be achieved, and these benefits may be lost.

4.4.2. European case law

Although income taxation has traditionally been in the hands of the national governments, EU Member States must exercise that competence consistently with EU law (the treaty freedoms and the principle of non-discrimination).[180] Over the last three decades, the ECJ has developed a large body of case law – not restricted to frontier workers – on the elimination of tax obstacles.[181] The rights and opportunities associated with the free movement, particularly the allocation of personal and family tax benefits in domestic law, is subject to compatibility scrutiny with EU law. The primary question is whether the residence state and/or the employment state must grant the frontier worker personal and family tax benefits.[182] The overarching question is whether and to what extent countries may grant different treatment to resident or non-resident taxpayers.

Article 45 of the TFEU and Regulation of 15 October 1968 regulate the principle of "free movement of workers", providing equal treatment for persons employed across borders. The Regulation provides that a worker who is a national of another EU Member State "shall enjoy the same social and tax advantages as national workers".[183] The European Commission recommended in 1993 that a resident of an EU Member State who derives at least 75% of total income from sources located in another EU Member State should be treated in the second EU Member State no less favourably than a resident of the latter state.[184] Also, article 7(2) of Regulation (EC) No. 492/2011, which provides that

173. DE: ECJ, 14 Feb. 1995, Case C-279/93, *Finanzamt Köln-Altstadt v. Roland Schumacker*, Case Law IBFD; DE: ECJ, 14 Sept. 1999, Case C-391/97, *Frans Gschwind v. Finanzamt Aachen-Außenstadt*, Case Law IBFD; DE: ECJ, 25 Jan. 2007, Case C-329/05, *Gerold Meindl and Christine Meindl-Berger v. Finanzamt Dinslaken 25*, Case Law IBFD; LU: ECJ, 16 May 2000, Case C-87/99, *Patrick Zurstrassen v. Administration des Contributions Directes*, Case Law IBFD.
174. NL: ECJ, 5 July 2005, Case C-376/03, *D. v. Inspecteur van de Belastingdienst/Particulieren/Ondernemingen buitenland te Heerlen*, para. 24 et seq., Case Law IBFD).
175. BE: ECJ, 12 Dec. 2013, Case C-303/12, *Guido Imfeld and Nathalie Garcet v. Belgian State*, Case Law IBFD.
176. SE: ECJ, 1 July 2004, Case C-169/03, *Florian W. Wallentin v. Riksskatteverket*, Case Law IBFD; DE: ECJ, 12 June 2003, Case C-234/01, *Arnoud Gerritse v. Finanzamt Neukölln-Nord*, Case Law IBFD.
177. P. Wattel, *Capital Export Neutrality and Free Movement of Persons*, 23 Legal Issues Econ. Integration 1 (1996), pp. 115-127.
178. Lux: Art. 157ter LIR.
179. NL: art. 7.8 Income Tax Act (ITA) 2001. The TFEU freedoms and the principle of non-discrimination. *See* DE: ECJ, 14 Feb. 1995, Case C-279/93, *Finanzamt Köln-Altstadt v. Roland Schumacker*, Case Law IBFD (workers); and NL: ECJ, 11 Aug. 1995, Case C-80/94, *G.H.E.J. Wielockx v. Inspecteur der Directe Belastingen*, Case Law IBFD (self-employed). *See*, for instance, B. Peeters, *Mobility of EU Citizens and Family Taxation: A Hard to Reconcile Combination*, 23 EC Tax Rev. 3 (2014), pp. 118-220.
180. FR: ECJ, 28 Jan. 1986, Case 270/83, *European Commission v. French Republic*, Case Law IBFD.
181. Art. 45 TFEU on free movement for employed workers; art. 49 TFEU on free movement for self-employed workers; art. 56 TFEU on free movement of services; and art. 63 TFEU on free movement of capital. R. Lyal, *Elimination of Tax Disadvantages for Frontier Workers: Non-Discrimination and Exceptions* p. 336, available at https://link.springer.com/content/pdf/10.1007/BF02857084.pdf.
182. B. Terra & P. Wattel, *European Tax Law* (Kluwer 2012), p. 975.
183. Art. 7(2) Regulation (EC) 1612/68.
184. EC Commission Recommendation of 21 December 1993 on the taxation of certain items of income received by non-residents in a Member State other than that in which they are resident, OJ No. L 39, 10 Feb. 1994.

a cross-border worker "shall enjoy the same social and tax advantages as national workers", acts as a catch-all-provision.[185]

The ECJ and relevant literature have widely discussed the allocation of personal and family tax benefits in the European Union.[186] The starting point is the famous *Schumacker* case from 1995. The ECJ ruled that foreign and domestic residents are not comparable. The residence state is best placed to consider the personal and family circumstances of the taxpayer,[187] as it can tax residents on the worldwide income and is better equipped to access the information necessary to grant personal and family tax benefits. The employment state is required to grant personal and family tax benefits to non-residents only if (i) the taxpayer obtains (almost) all the taxable income from that state (income requirement); and (ii) the residence state with no significant taxable income was not in a position to grant the benefits (residence state requirement). The Court applied the so-called "Schumacker doctrine" – initially applied in the context of the free movement of workers – to the freedom of establishment.[188] The ECJ also applied the Schumacker doctrine to negative income from the use of the home,[189] and to Swiss cross-border commuters as part of the Switzerland-European Union Agreement on the Free Movement of Persons.[190]

In another ground-breaking judgment of 9 February 2017, the ECJ ruled that Member States must take into account the personal and family circumstances of non-residents pro rata, i.e. "in proportion to the share of that income received within each Member State of activity", where failing to do so would constitute discrimination.[191] In principle, any Member State with the taxing power should grant pro rate personal and family tax benefits to non-residents.[192]

The Schumacker doctrine embodies several unclarities and practical difficulties widely discussed in literature.[193] For instance, EU law does not allocate specific responsibilities to the EU Member States. The ECJ's analysis may result in inconsistent outcomes when the EU Member States apply the credit method to foreign income, instead of the exemption method.[194] Considering the different policies across the EU Member States, the doctrine does not work well if the residence and source EU Member State have different policies and approaches towards granting deductions, credits and allowances, which are a matter of domestic law.[195] Countries may also calculate the taxable base (i.e. income) differently. Countries usually deal with social support and tax adjustments separately. While the residence state could grant tax alimony payments deductions from income tax, the source state could

185. Only dependent workers are subject to the principles of equal treatment in terms of social benefits as set out in Regulation (EC) No. 492/2011. Despite the lack of secondary legislation, self-employed persons can invoke comparable rights under art. 49 TFEU. *See also* 5th recital and art. 1 Regulation (EC) No. 492/2011 stipulating the free movement and equal treatment principles to be applicable irrespective of place of residence.

186. Some literature on the Schumacker doctrine includes: P. Wattel, *Taxing Non-Resident Employees: Coping with Schumacker*, 35 Eur. Taxn. 11/12 (1995), pp. 347-353; F. Vanistendael, *The consequences of Schumacker and Wielockx: Two steps forward in the tax procession of Echternach*, 33 Common Market Law Rev. 2 (1996), pp. 255-269; P. Wattel, *The EC Court's attempts to reconcile the Treaty freedoms with international tax law*, 33 Common Market Law Rev. 2 (1996), pp. 223-254; D. Weber, *In Search of a (New) Equilibrium Between Tax Sovereignty and the Freedom of Movement Within the EC*, 34 Intertax 12 (2006), pp. 585-616; C. Bardini, *The Ability to Pay in the European Market: An Impossible Sudoku for the ECJ*, 38 Intertax 1 (2010), pp. 2-20; and B. Peeters, *Mobility of EU Citizens and Family Taxation: A Hard to Reconcile Combination*, 23 EC Tax Rev. 3 (2014), pp. 114-115.

187. DE: ECJ, 14 Feb. 1995, Case C-279/93, *Finanzamt Köln-Altstadt v. Roland Schumacker*, Case Law IBFD, paras. 36-38; DE: ECJ, 12 June 2003, Case C-234/01, *Arnoud Gerritse v. Finanzamt Neukölln-Nord*, Case Law IBFD, paras. 47 and 48; DE: ECJ, 28 Feb. 2013, Case C-168/11, *Dr Manfred Beker and Christa Beker v. Finanzamt Heilbronn*, Case Law IBFD, paras. 43, 44 and 56.

188. *See* NL: ECJ, 9 Feb. 2017, Case C-283/15, *X v. Staatssecretaris van Financiën*, Case Law IBFD, para. 36, referring to NL: ECJ, 11 Aug. 1995, Case C-80/94, *G.H.E.J. Wielockx v. Inspecteur der Directe Belastingen*, Case Law IBFD; NL: ECJ, 27 June 1996, Case C-107/94, *P.H. Asscher v. Staatssecretaris van Financiën*, Case Law IBFD; and DE: ECJ, 28 Feb. 2013, Case C-425/11, *Katja Ettwein v. Finanzamt Konstanz*, Case Law IBFD.

189. LU: ECJ, 18 July 2007, Case C-182/06, *État du Grand-Duché de Luxembourg v. Hans Ulrich Lakebrink, Katrin Peters-Lakebrink*, Case Law IBFD. G. Meussen, *Renneberg: ECJ Unjustifiably Expands Schumacker Doctrine to Losses from Financing of Personal Dwelling*, 49 Eur. Taxn. 4 (2009), Journal Articles & Opinion Pieces IBFD.

190. DE: ECJ, 28 Feb. 2013, Case C-425/11, *Katja Ettwein v. Finanzamt Konstanz*, Case Law IBFD. *See also* A. Cloer & N. Vogel, *Swiss Frontier Worker Can Claim the Benefits of Schumacker: the ECJ Decision in Ettwein (Case C-425/11)*, 53 Eur. Taxn. 10 (2013), Journal Articles & Opinion Pieces IBFD.

191. NL: ECJ, 9 Feb. 2017, Case C-283/15, *X v. Staatssecretaris van Financiën*, Case Law IBFD, para. 44 et seq.

192. CFE ECJ Tax Force, *CFE - Opinion Statement ECJ-TF 4/2017 on the Decision of the Court of Justice of the European Union of 9 February 2017 in X (Case C-283/15) ("Pro-Rata Personal Deductions"),concerning Personal and Family Tax Benefits in Multi-State Situations*, 58 Eur. Taxn. 4, sec. 4.3. (2018), Journal Articles & Opinion Pieces IBFD.

193. A. Cordewener, *The Prohibitions of Discrimination and Restriction within the Framework of the Fully Integrated Internal Market*, in *EU Freedoms and Taxation* p. 4 et seq. (F. Vanistendael ed., IBFD 2003), Books IBFD; F. Vaniste ndael, *The Compatibility of the Basic Economic Freedoms with the Sovereign National Tax Systems of the Member States*, 12 EC Tax Rev. 3 (2003), p. 141 et seq.; M. Lang, *Ist die Schumacker-Rechtsprechung am Ende?*, 51 Recht der Internationalen Wirtschaft 5 (2005), p. 336 et seq.; P.J. Wattel, Progressive Taxation of Non-Residents and Intra-EC Allocation of Personal Tax Allowances: Why Schumacker, Asscher, Gilly and Gschwinddo not suffice, 40 Eur. Taxn. 6 (2000), Journal Articles & Opinion Pieces IBFD; W. Schön, *Neutrality and Territoriality – Competing or Converging Concepts in European Tax Law?*, 69 Bull. Intl. Taxn. 4/5, sec. 7.1 (2015), Journal Articles & Opinion Pieces IBFD.

194. J.F. Avery Jones, *Carry on Discriminating*, 36 Eur. Taxn. 2, p. 46 (1996).

195. W. Schön, *Die beschränkte Steuerpflicht zwischen europäischem Gemeinschaftsrecht und deutschem Verfassungsrecht*, 4 Internationales Steuerrecht 3 (1995), p. 121 et seq.

grant the same benefits in social security legislation. Because of the isolation of tax adjustments, an individual can combine the social measures of one Member State with the tax adjustments of another and end up better off.[196]

And if the residence state cannot grant personal and family tax benefits, the pro rata obligation on source Member States also poses problems with different application methods. For instance, a country can grant tax benefits based on the proportion of taxable source state income to the aggregate annual taxable income earned in each state (i.e. worldwide income) prior to the allocation of benefits. The calculation of each source Member State's fractions may also not add up to 100% due to different income definitions, raising the possibility of an "incomplete" benefit distribution.[197]

Information exchange between the states is required to determine the taxpayer's worldwide income and the percentage of benefits that must be distributed. The taxpayer is required to provide all data on the taxpayer's worldwide income required for the applicable national authorities to determine that percentage.[198]

5. Towards Optimization of the Fiscal and Social Security Status of Frontier Workers

5.1. Definition of frontier workers revisited

The recognition of the special status of frontier workers, and in particular the inclusion of a "frontier worker" definition in international and national law, depending on the treaty context, is recommended. The revisitation would make the European, national and regional authorities more sensitive to the serious challenges and difficulties encountered by frontier workers.[199] Accordingly, it would be advisable to negotiate the consideration of highly mobile workers and teleworkers.[200] Countries could consult periodically to ascertain whether amendments or additions to the special frontier workers provisions may be deemed necessary. For better coordination with social security, inspiration could be drawn from European social security law, for which the individual returning at least once a week is also considered a frontier worker (*see* section 3.1.).[201]

The tax treaties could apply some flexibility in the requirements of the daily return to home or the frontier zone, and thus the frontier worker could still keep the privileges. Inspiration can be drawn from some tax treaties or other agreements that include a special provision with a daily threshold for an individual who does not return to the place of residence daily or who engages in employment activities outside the frontier zone on a rare occasion (*see* Box 8).

Box 8 – Examples of daily threshold for qualification of frontier worker

In the Austria-Germany Income and Capital Tax Treaty (2000), the frontier worker status will not be lost if being employed in the frontier zone throughout the full calendar year and not spending more than 45 non-return days or days on which the employment activities are exercised outside the frontier zone. Individuals who are not employed in the frontier zone for the entire calendar year are exempt if the days of non-return or employment activities performed outside the frontier zone do not exceed 20% of the actual working/employment days during the calendar year under the terms and conditions of the employment relationship (maximum 45 days).[202] In the context of the Liechtenstein-Switzerland Income and Capital Tax Treaty (2015), the frontier worker status is granted, provided a worker does not return to the residence state on more than 45 working days because of exercise of employment.[203] Similarly, the Italy-Switzerland Tax Agreement (Frontier Workers) (2020) contains a 45-day period during which the cross-border worker may derogate from the daily return requirement, although for "work reasons only".[204] Personal reasons are explicitly excluded. There is no explicit barrier of "working reasons", but the provision allows the worker to remain only in the source state (and, eventually, in a third country). The threshold does not apply to stays in the residence state of. This phrase clearly undervalues the phenomenon of remote (at-home) working. In the Germany-Switzerland Income and Capital Tax Treaty (1971), the frontier worker status shall cease to apply only if that person, in the case of employment for a full calendar year, does not return to the residence state on more than 60 working days because of the exercise of their employment.[205] In the context of the Belgium-France Income Tax Treaty (1964), frontier workers residing in France and working in Belgium can enjoy the frontier workers regime (taxable in the residence state), provided the individual is not absent from the Belgian frontier zone, while performing the work, for more than 30 days per calendar year.[206]

196. For instance, in *Imfeld and Garcet*, the ECJ interpreted the Schumacker doctrine to allow family deductions for joint children in Belgium on the wife's income, although the husband already benefitted in Germany from the legislation on foreign residents that was introduced following Schumacker. *See* BE: ECJ, 12 Dec. 2013, Case C-303/12, *Guido Imfeld and Nathalie Garcet v. Belgian State*, Case Law IBFD, paras. 56-63.
197. CFE ECJ Tax Force, *CFE – Opinion Statement ECJ-TF 4/2017 on the Decision of the Court of Justice of the European Union of 9 February 2017 in X (Case C-283/15) ("Pro-Rata Personal Deductions"), concerning Personal and Family Tax Benefits in Multi-State Situations* , 58 Eur. Taxn. 4, sec. 4.3. (2018), Journal Articles & Opinion Pieces IBFD.
198. NL: ECJ, 9 Feb. 2017, Case C-283/15, *X v. Staatssecretaris van Financiën*, Case Law IBFD, para. 48.
199. *See also* M. Anderson, *Frontier workers in Western Europe* (Routledge 2013), p. 106.
200. EC expert group, *supra* n. 9, at p. 38.
201. Art. 1(f) Regulation (EC) No. 883/2004 of the European Parliament and of the Council of 29 April 2004 on the coordination of social security systems, OJ L 166, 30 Apr. 2004, p. 1.
202. Memorandum of Understanding published by the German Ministry of Finance on 18 Apr. 2019.
203. Protocol sec. 4 *Liecht.-Switz.Income and Capital Tax Treaty.*
204. *Agreement Italy-Switzerland (2020).*
205. Art. 15A *Ger.-Switz. Income and Capital Tax Treaty.*
206. Protocol sec. 5 *Belg.-Fr. Income Tax Treaty.*

5.2. Allocation of taxing rights revisited

5.2.1. Taxing rights to employment state

The allocation of taxing rights over employment income of frontier workers to the residence state raises (at least) three major questions, justifying the argued primary allocation of taxing rights to the employment state.

First, the criteria to delineate the "residence state" for international tax purposes traditionally presumes the frontier workers' strong and personal relationships with a particular jurisdiction.[207] Despite strong connecting factors for determining the tax residence (e.g. the state of the permanent home, centre of vital interest, habitual abode or nationality),[208] the increasing mobility of individuals makes it easier to relocate the (general) residence to anywhere without moving the tax residence (so-called "digital nomads").[209] Individuals are often deemed to remain a resident of the state where they were born (or raised) unless specific steps are taken to disconnect or formally deregister from the home address. If the links to the new state are insufficient, the new state will most likely not aim to dispute the original residence state. The question arises of whether it is (finally) time to revisit the residence state concept as the foundation for international taxation of individuals.[210] How much confidence is there in applying the old criteria of the residence state? Should there be a better focus on the impact of globalization and digitalization on the global mobility of individuals?

Second, residence state taxation is, in principle, at odds with the benefit theory. The source state usually provides most or all benefits/public goods relevant for the income production and, therefore, incurred costs in providing these benefits.[211] If the income is (partly) made possible by the economic environment, public services and infrastructure in a state other than the residence state, part of the income should contribute to funding public action.[212] However, it is becoming increasingly difficult to link individuals with cross-border activities to a specific jurisdiction for tax purposes. Digital development and high mobility revolutionize individuals' global mobility, forcing rethinking how employment income is related to a particular geographical location. The following section attempts to reconcile the best of both worlds by proposing a tolerance rule to be integrated into the tax treaty framework.

Third, allocating exclusive taxing rights to the employment state could align taxation rights to income creation. A "place of effective management" (POEM)-based taxation would imply that the frontier worker performs all activities in the state of the effective management of the employer. This is an extension of article 15(3) of the OECD Model, which already uses the POEM as an indicator for the taxation of employees working aboard ships and aircrafts in international traffic. Persons earning income in one specific jurisdiction, in the same competition market, will be subject to the same tax burden. This minimizes potential distortions caused by residence state taxation. Taxation in the employment state could also bring administrative advantages, generating fewer compliance costs to taxpayers and allowing the tax authorities to easily check whether taxes are effectively being paid, without dependence on information provided by another state. However, source taxation will likely not reflect the taxpayer's ability to pay. The employment state will only be aware of income earned by the taxpayer in its territory. Since it is believed that the residence state provides more benefits for taxpayers than the source state, taxation in the employment state will disconnect the link between benefits earned by the taxpayer and the financing of these benefits.[213] At the same time, using the POEM can bring new interpretation and application challenges. The definition of the POEM as used by the OECD has a wide scope and can also be (more easily) relocated to a jurisdiction with a more favourable tax system.[214]

However, for the allocation of taxing rights, no one-size-fits-all solution exists. The economic relations between the states involved will determine the option between the systems. A good example is the different withholding tax rates prescribed by the Germany-Switzerland Income and Capital Tax Treaty (1971)[215] and the France-Switzerland Income Tax Treaty (Frontier Workers) (1983).[216] Determining which

207. *Compare*, e.g., the residence of companies and legal fictions might be considered somewhat "artificial". *See* A. Nikolakakis, *The Unbearable Lightness of Being Incorporated: The Diminishing Relevance of Corporate Resident, in Residence of Companies Under Tax Treaties and EC Law*, 5 EC & Intl. Tax L. Series, p. 903 et seq.
208. Art. 4(2) OECD Model.
209. For an interesting discussion on the residence state's taxation rights for employment income, *see* S.V. Kostić, *In Search of the Digital Nomad – Rethinking the Taxation of Employment Income Under Tax Treaties*, 11 World Tax J. 2 (2019), pp. 189-225, Journal Articles & Opinion Pieces IBFD.
210. N. Schipper, *De invloed van de woonplaats op de fiscale behandeling van grensoverschrijdende werknemers*, Fiscale Monografieën (2019); Rapport van de Commissie Grenswerkers, *Grenswerkers in Europa: een onderzoek naar fiscale, sociaalverzekerings- en pensioenaspecten van grensoverschrijdend werken*, Vereniging voor Belastingwetenschap, No. 257 (2017), p. 72.
211. K. Vogel, *Worldwide vs. Source Taxation of Income – A Review and Re-Evaluation of Arguments (Part III)*, 16 Intertax 11 (1988), p. 398.
212. D. Pinto, *E-Commerce and Source-Based Income Taxation* (IBFD 2003), Books IBFD.
213. Lambertz, *supra* n. 50, at p. 18.
214. Rapport van de Commissie grenswerkers, *supra* n. 210, at pp. 170-171.
215. Art. 15A(1) *Ger.-Switz. Income and Capital Tax Treaty*.
216. Art. 17(4) *Fr.-Switz. Income and Capital Tax Treaty* juncto Agreement of 11 Apr. 1983 concerning the taxation of remuneration of frontier workers.

approach will result in a "fair" allocation of taxation rights is insufficient. The "fairness" would be determined by the (in)balance of the parties' economic relations as well as the modalities of access to social security benefits. So, the decision on this division of taxation rights must be taken case-by-case.[217]

When allocating taxing rights to the employment state, the Belgian-Luxembourg bilateral setting can be used as inspiration to mitigate the practical difficulties of physical presence. Not every day of physical presence in the territory of the other (treaty) state must be demonstrated for the right to exemption. The evidence will depend on the (specificity of the) activity of the taxpayer and the distance between the place of residence and the place of employment. "Exceptional" and as far as "the situation of the employee has not evolved (the same employer, the same position, the same place of employment)", "the evidence collected for a recent year can prove the presence in a previous year". The Vademecum distinguishes between a "graduation in the burden of proof" between employees where the place of employment is essential (for example, cashier, counter clerk, nurse) and other employees. For the former employees, it is sufficient that the employment contract is submitted with the condition that it mentions the place of employment. If the employment contract is silent, "a certificate from the employer" must be added. For the employees for whom the presence at a fixed workplace is not required or unlikely or who perform an activity at a fixed workplace – this activity can involve at home or elsewhere – it is insufficient to simply submit an employment contract and/or attestation from the employer. Tax filers must annually demonstrate "their physical presence on Luxembourg territory". This can be done via the odometer of the car, purchase orders from customers, invoices, reports of attended meetings, mobile phone bills, documents relating to yards (precise location) where the taxpayer's presence is required, etc. The arrangement could be introduced for other treaty relations to overcome many physical presence difficulties of the international teleworker.

5.2.2. Tolerance threshold

5.2.2.1. Flexibility for changing landscape

A new, single, comprehensive tolerance provision for physical presence in article 15(1) of the OECD Model could reflect digital developments (tele-employment) and high mobility in other treaty relations. The provision could be inspired by Regulation 883/2004:

> Notwithstanding the preceding paragraphs of this Article, a resident of a Contracting State who exercises an employment in the other Contracting State and is physically present in the first-mentioned State and/or in a third State during a taxable period to exercise an employment for a period or period not exceeding a *substantial part of the activities*, shall be deemed to be actually exercising his employment in the other State for the whole of the taxable period.

Consequently, if the employment activity does not exceed the "substantial part" threshold, it is deemed to have been carried out at the location where it is generally performed throughout the taxable period. The introduction of such a tolerance rule to perform activities outside the state of regular activity for a maximum of days without changing the authority of the employment state to levy taxes (i.e. not being taxed in the residence state) is a practical and simple solution for frontier work in a changing landscape of digitalization and globalization. A balanced allocation of taxing rights for frontier workers in a changing landscape at the tax treaties level could achieve coordination with social security.

5.2.2.2. Special daily threshold in bilateral context

The tolerance rule could be inspired by mutual agreements with a daily threshold. Under these schemes, a cross-border employee is taxable on the total employment income only in the state where the employee generally works and receives remuneration, provided the employee is not working more than a number of days per year outside of this state. The income related to employment activities performed outside the usual employment state will not be taxed by the residence state as long as the activities do not exceed the maximum number of days spent outside the employment state.

In the context of Luxembourg, the annual tolerance by the daily threshold for the allocation of taxing rights over employment income is: 34-days (24 days before 31 December 2021) with Belgium,[218] 19-days

217. Lambertz, *supra* n. 50, at p. 19.

218. Mutual agreement of 16 Mar. 2015 between Belgium and Luxembourg based on art. 25(3) OECD Model. *See also* circular letter of 1 June 2015 (circular AAFisc No 22/2015 – No. Ci. 700.520), available at https://finances.belgium.be/sites/default/files/downloads/accord_amiable_16032015.pdf. On 31 Aug. 2021, the Luxembourg and Belgian governments announced that an amending protocol was signed to update the tolerance regime of frontier workers. Signing of a New Covenant between Belgium and Luxembourg, 3 Sept. 2021, available at https://financien.belgium.be/nl/Actueel/ondertekening-van-een-nieuw-avenant-tussen-belgi%C3%AB-en-luxemburg. For the government communications, *see* from the Luxembourg government (available at https://gouvernement.lu/fr/actualites/toutes_actualites/communiques/2021/08-aout/31-declaration-gaichel.html) and Belgian government (available at https://www.premier.be/nl/gaichel-xi-gezamenlijke-verklaring-van-de-luxemburgse-en-belgische-regering) (accessed 16 Dec. 2022). Based on the Mutual Agreement Concluded on the Basis of Article 25, Paragraph. 3 of the Belgium-LuxembourgPreventive Convention of Double Taxation and Concerning Tax Treatment of Dependent Professions (16 Mar. 2015), Treaties & Models IBFD. The Luxembourg Chamber of Deputies approved the amending protocol, signed on 31 Aug. 2021 on 17 May 2022.

Table 3 – Table of special provisions for frontier teleworkers in tax treaty context*

	Tolerance rule with LUX		Working days in LUX (220 days in total)				
		220/200 days (100%)	201/220 days	196/220 days	191/220 days	186/220 days	176/220 days (80%)
BE resident	24 days (until 31 December 2021)	100% taxable in LUX Max. double tax relief in BE	100% taxable in LUX Max. double tax relief in BE	100% taxable in LUX Max double tax relief in BE	191/220 days taxable in LUX 29/220 days taxable in BE	186/220 days taxable in LUX 34/220 days taxable in BE	80% taxable in LUX 20% taxable in BE
	34 days (from 1 January 2022)	100% taxable in LUX Max double tax relief in BE	100% taxable in LUX Max double tax relief in BE	100% taxable in LUX Max double tax relief in BE	100% taxable in LUX Max double tax relief in BE	100% taxable in LUX Max double tax relief in BE	80% taxable in LUX 20% taxable in BE
FR resident	29 days	100% taxable in LUX Max double tax relief in FR	100% taxable in LUX Max double tax relief in FR	100% taxable in LUX Max double tax relief in FR	100% taxable in LUX Max double tax relief in FR	186/220 days taxable in LUX 34/220 days taxable in FR	80% taxable in FR 20 taxable in FR
DE resident	19 days	100% taxable in LUX Max double tax relief in DE	100% taxable in LUX Max double tax relief in DE	196/220 days taxable in LUX 24/220 days taxable in DE	191/220 days taxable in LUX 29/220 days taxable in DE	186/220 days taxable in LUX 34/220 days taxable in DE	80% taxable in LUX 20% taxable in DE
Resident of other state	–	100% taxable in LUX Max double tax relief in RS	201/220 taxable in LUX 19/220 days taxable in RS	196/220 days taxable in LUX 24/220 days taxable in RS	191/220 days taxable in LUX 29/220 days taxable in RS	186/220 days taxable in LUX 34/220 days taxable in RS	80% taxable in RS 20% taxable in RS

* LUX = Luxemburg; FR = France; DE = Germany.

with Germany[219] and 29-days with France.[220] On 26 August 2022, the Luxembourg Tax Agency published clarifications regarding the application of the tolerance threshold.[221] Table 3 presents different modalities of the tolerance threshold. The number of days the employee is physically present in the state of residence (or a third state) must be considered when calculating the threshold. A fraction of a day is equivalent to a whole day. In the case of a part-time contract, the threshold is lowered proportionally (according to the convention with France) or not (treaties with Belgium and Germany). Payments made under social security legislation do not fall within the scope of the employment income article (article 14 or 15 of the relevant treaty, as the case may be), and are thus only taxable in the state from which they are paid.

For instance, a Belgian resident working in Luxembourg is fully exempt in Belgium and exclusively taxable in Luxembourg if the employee has not worked for more than 34 days outside Luxembourg. The threshold in the Belgian-Luxembourg context is "all or nothing". Suppose the frontier worker exceeds the 34-day limit. In that case, the individual will be taxed in the residence state on the salary related to those days. Only the employment income related to the workdays performed in Luxembourg may be taxed in Luxembourg. Working from home for a day in the residence state is considered a workday spent outside Luxembourg. Business trips outside of Luxembourg are also seen as non-Luxembourg workdays. When the employment state retains taxing rights, the residence state must comply with article 23 of the OECD Model to avoid double taxation (either by giving an exemption for the income received abroad or by granting a credit for the source state tax).

5.2.2.3. Better coordination with social security

For better coordination with social security,[222] inspiration could be drawn from Regulation (EC) 987/2009 to define a "substantial part" of the activity.[223] A

219. Agreement (*Verständigungsvereinbarung*) of 26 May 2011, available at https://www.bundesfinanzministerium.de/Content/DE/Standardartikel/Themen/Steuern/Internationales_Steuerrecht/Staatenbezogene_Informationen/Laender_A_Z/Luxemburg/2011-06-14-Luxemburg-Abkommen-DBA-Verstaendigungsvereinbarung-Besteuerung-Grenzpendler.html (accessed 16 Dec. 2022).
220. Protocol sec. 3 *Fr.-Lux. Income and Capital Tax Treaty.*
221. *Précisions apportées au niveau des Conventions Allemagne/Belgique/France concernant le seuil de tolerance*, available at https://impotsdirects.public.lu/fr/archive/Actualites/actu26082022.html (accessed 16 Dec. 2022).
222. Recall that for social security purposes, a person normally pursuing an activity as an employed person in two or more Member States shall be subject to the legislation of the Member State in which the registered office or place of business of the undertaking or employer is situated if not pursuing a substantial part of the activities in the Member State of residence (art. 13(1)(b) Regulation (EC) No. 883/2004).
223. Art. 14(7) and (8) Regulation (EC) 987/2009:
1. For the purposes of the application of the previous provision, a substantial part of the activity pursued in a Member State shall mean a quantitatively substantial part of all the activities of the employed or self-employed person pursued there, without this necessarily being the major part of those activities.
2. To determine whether a substantial part of the activities is pursued in a Member State, the following indicative criteria shall be taken into account:
   (a) in the case of an employed activity, the working time and/or the remuneration; and
   (b) in the case of a self-employed activity, the turnover, working time, number of services rendered and/or income.
3. In the framework of an overall assessment, a share of less than 25% in respect of the criteria mentioned above shall be an

"substantial part" of the activities is being considered as over 25% of the working time or more than 25% of the remuneration. Suppose a resident who is subject to the social security of the employment state spends a maximum of the days outside the usual employment state for professional reasons. In that case, this may not affect the social security regime of the employment state. The threshold should be limited to wages and remuneration paid for cross-border employment under a single employer-employee relationship. Following the Belgian-Luxembourg scheme, the threshold should be an "all-or-nothing" approach. If the frontier worker exceeds the substantial part-time limit, the employee will be taxable in the residence state on the salary related to those days. The determination of whether the substantial part-threshold has been exceeded must be assessed on a day-by-day basis. A day worked part-time, no matter how short, is considered a full day. If the frontier worker, during the same day, is physically present in the residence state and a third state, this will count as one full day in each state. Situations such as telework, periods of sickness and remuneration for cross-border employment under a single part-time contract should be understood as a working activity/day. Weekends and holidays, parental leave, or a period of illness are not considered. Days or parts of days relating to an activity not covered by article 15(1) of the treaty are not considered. Consequently, it should be carefully monitored whether the frontier worker performs more than a substantial part of the activities in the residence state as this may activate social security contributions in the residence state.

The legislation could even go further and provide for a system according to which taxation would follow the social security contributions framework. When the individual living in one country performs the job only in one other state, the individual would be taxable only in the state where the activity is carried out. Alternatively, a home state approach could be considered with an apportionment of the collected revenue pro rata. The scope of the legislation could be limited to those EU citizens who are resident in an EU Member State and either (i) derive more than 50% of their income from one or more different EU Member States; or (ii) earn above a certain threshold.[224] EU legislation could set the framework for a shared allocation of the revenues between the residence state and the employment state, obliging the latter state, e.g. to collect tax and pass three quarters of the revenue to the former state.

5.3. Compensatory measures

5.3.1. Compensation between countries

Contracting parties could negotiate a prorate apportionment of the collected revenue.[225] The framework might designate the employment state to collect taxes and distribute a portion of the proceeds to the residence state. The compensation could allow the resident and employment states to benefit from the tax on the income made by frontier workers while avoiding the complications of dealing with tax credits already paid. Compensation by revenue sharing between states frequently occurs in existing agreements between contracting states with a higher inflow of frontier workers performing employment activities in one state than the other way around (Box 9). Revenue sharing is not a one-size-fits-all approach. The implementation requires an appraisal of the specific economic bilateral relations between the countries and the specific modalities of the social security systems.

indicator that a substantial part of the activities is not being pursued in the relevant Member State.

224. Proposal to restrict the scope of art. 17 OECD Model set out in OECD Commentary, art. 17, para. 10.1 (2014).

225. *See also* the proposed solutions by the EC expert group *supra* n. 9, at pp. 26 and 37.

Box 9 – Examples of bilateral agreements with compensation

The employment state with the initial taxing rights could have an obligation to forward part of the tax collected to the residence state. An example is the France-Geneva agreement through which the canton of Geneva (employment canton) pays compensation to the French government amounting to 3.5% of the gross annual remuneration earned by frontier workers residing in France.[226] The other approach could be that the residence state pays to the employment state a compensation. For instance, in the France-Germany bilateral context, the residence state shall pay the employment state an annual compensation of 1.5% of the gross annual remuneration of the frontier worker.[227] The gross annual remuneration will be determined using the information provided by the employers to the respective tax authorities.[228] France does not have the same obligation. The France-Switzerland Income Tax Treaty (Frontier Workers) (1983) stipulates financial compensation by the residence state to the employment state at 4.5% of total gross annual remuneration of frontier workers.[229] A unilateral revenue sharing mechanism is foreseen in the Austria-Switzerland context. Although it does not contain a frontier worker clause, the Swiss Confederation pays the Austrian Federal Ministry of Finance 12.5% of the Swiss tax revenue from employment annually. Should the movement of workers between the contracting states change substantially, bilateral tax compensation can be negotiated.[230] The Italy-Switzerland Tax Agreement (Frontier Workers) (2020) states that, up to 2033, Italian municipalities located in the "frontier area" will receive compensation from the Swiss frontier Cantons that will be computed according to the mechanism contained in the 1974 Agreement.[231]

5.3.2. Compensation for individuals

Besides compensation at the state level, compensation for frontier workers exist. For instance, in the Belgian-Dutch context, a higher inflow of Belgian frontier workers occurs in the Netherlands than the other way.[232] Special compensation arrangements apply for Dutch residents performing employment activities in Belgium. The individuals receive a tax reduction in the Netherlands if the tax burden on their income is higher in Belgium than if the employment was in the Netherlands. These compensation mechanisms in bilateral relations satisfy the principle of avoiding double taxation, which benefits taxpayers, minimizes the taxpayer's compliance obligations, and minimizes the tax authorities' monitoring costs. Tax authorities do not have to check everyone's circumstances to determine the tax situation and eliminate double taxation. States could also generate revenue to cover the costs and the expenses incurred in favour of taxpayers.[233] Another example in the Belgian context exists with municipal taxes. In the Belgian-German bilateral context, the municipalities in Belgium as the residence state of the frontier workers may collect, apart from any taxation of income, directly from these workers a portion of local taxes (between 6% to 8%). In return, their tax in Germany is reduced by a flat rate of 8%.[234]

5.4. Allocation of personal and tax benefits revisited

Section 4.4. highlighted that an individual may miss certain tax benefits when working across the border. The literature proposed the "fractional approach" for the unjustified situation for cross-border taxpayers who lose or receive double tax benefits.[235] The fractional approach removes the traditional distinction between residence and source states. Income should be taxed as fractional income in each EU Member State. Personal and family circumstances should be considered according to the income received within a country's national territory. While the underlying premise of a proportional consideration of personal and family circumstances seems to be fair and consistent, the precise scope and the implementation of this doctrine are not without complexity.[236] The portion of taxable income to be considered for tax benefits can be difficult to determine at times.[237] A fractional approach would also impose an undue administrative burden on source states where only a small fraction of the person's taxable income is realized.

226. Agreement between the Swiss Federation and the French Republic on the financial compensation regarding frontier workers in Geneva (1973), art. 1(c), available at http://crfginfo.org/prod/sites/default/files/documents/accord_compensationfinanciere_1973.pdf. Guideline (BOI 14 A-5-05) of 18 May 2005 also contains an exchange of letters signed on 21 and 24 February 2005 between the French and Swiss tax administrations in which the states agreed on a standard definition of "frontier workers". In respect of individuals resident in France in Departments Ain and Haute-Savoie and employed in the Canton of Geneva, the Canton of Geneva is obliged to transfer to the Departments Ain and Haute-Savoie an equalization payment of 3.5% of the gross salary.
227. Art. 13A(1) *Fr.-Ger. Income and Capital Tax Treaty. See also* art. 6 Protocol *Fr.-Ger. Income and Capital Tax Treaty.*
228. Art. 13A(3) and 13A(4) *Fr.-Ger. Income and Capital Tax Treaty.*
229. Art. 2 of the Agreement of 11 April 1983 concerning the taxation of remuneration of frontier workers.
230. Final Protocol, sec. 4 *Austria-Switz. Income and Capital Tax Treaty.*
231. Art. 9(2) *Agreement Italy-Switzerland (2020).*
232. Art. 27 *Belg.-Neth. Income and Capital Tax Treaty.*
233. Lambertz, *supra* n. 50, at p. 19.
234. Protocol (as amended through 2002), sec. 11 (Ad art. 23) and art. 15 *Belg.-Ger. Income and Capital Tax Treaty.*
235. K. van Raad, *Fractional Taxation of Multi-State Income of EU Resident Individuals - A Proposal*, in *Liber Amicorum Sven-Olof Lodin* (K. Andersson, P. Melz & C. Silfverberg eds., Wolters Kluwer 2001), p. 211 et seq.; P.J. Wattel, Progressive Taxation of Non-Residents and Intra-EC Allocation of Personal Tax Allowances: Why Schumacker, Asscher, Gilly and Gschwind Do Not Suffice, 40 Eur. Taxn. 6 (2000), p. 218, Journal Articles & Opinion Pieces IBFD; W. Schön, *Neutrality and Territoriality – Competing or Converging Concepts in European Tax Law?*, 69 Bull. Intl. Taxn. 4-5, sec. 7.2 (2015), Journal Articles & Opinion Pieces IBFD.
236. CFE ECJ Task Force, *CFE - Opinion Statement ECJ-TF 4/2017on the Decision of the Court of Justice of the European Union of 9 February 2017 in X (Case C-283/15) ("Pro-Rata personal Deductions")* , 58 Eur. Taxn. 4 (2018), Journal Articles & Opinion Pieces IBFD.
237. B. Peeters, *Kieback: When Schumacker emigrates …*, 25 EC Tax Rev. 2 (2016), p. 66.

Bilateral frontier workers clauses in tax treaties anchor the fractional tax treatment of personal and family tax benefits by extending benefits entitlement in the source state.[238] Under the specific non-discrimination provision in the Belgian tax treaties with the Netherlands,[239] France,[240] and Luxembourg,[241] non-residents are entitled in proportion (i.e. pro-rata) of professional income taxable in Belgium to total professional income (tax treaty with France) or in proportion of income taxable in Belgium to the total worldwide income (tax treaty with the Netherlands and Luxembourg) to the same "personal allowances, reliefs and reductions by reason of marital status or composition of the family" (the Netherlands) and "family status or family responsibilities" (Luxembourg and France) as residents of that other state, provided that they are in the same situation as residents of that state. The tax treaty rules are applied only insofar as they offer the taxpayer greater protection than the internal law rules inspired by EU law.[242] The determination and verification of worldwide income/total professional income are additional difficulties in the practical implementation. It seems to be up to the taxpayer to hand over the information that allows the personal situation and family expenses to be considered. If this is not done by them, taxpayers will *casu quo* have to submit an objection.

5.5. Tax administration for enhancing global mobility difficulties

5.5.1. Amicable settlement and mutual agreement procedure

The countries should do their best to settle any interpretation or application difficulties of tax treaties or agreements amicably to avoid a potentially time-consuming mutual agreement procedure to explain detailed standard clauses for frontier workers in income tax treaties of EU Member States.[243] They can communicate directly with each other for this purpose, as well as through a mixed commission made up of themselves or their representatives.[244] A Joint Commission that regularly convenes can discuss how the treaty or agreement should be interpreted or applied.

To avoid double taxation and ensure a level playing field for frontier workers inside the European Union, the European Commission expert group proposed to include targeted solutions in the framework of mutual agreement procedures.[245] Accordingly, when the government takes measures that entail or will result in taxation that does not comply with the treaty or agreement, a common mutual agreement procedure model for frontier workers could be adopted to achieve a single tax treatment for workers inside the European Union. This would allow the involvement of a committee with technical tax experts, supplemented by a timeline and tax mediation and arbitration.

Suppose contracting states reject introducing such clauses in bilateral treaties. In that case, Member States could implement domestic tax regulations to achieve a satisfactory solution.[246] Only then, EU Member States could consider the unique characteristics of the changing landscape for international employment.

5.5.2. One-stop shop

The revision of the frontier workers regime could involve a one-stop shop concept for completion of all the workers' tax compliance obligations in one office.[247] The 2010 Communication already identified as a possible solution for the difficulties of cross-border workers in obtaining information: "to set up central one-stop-shops in tax administrations where mobile workers and investors could not only seek relevant and reliable information, but also directly pay taxes and receive all the necessary certificates for their home country's tax authorities"[248] and "facilitating cross-border tax compliance by seeking greater alignment of tax claims and declaration forms …".[249]

238. P. Pistone, *Article 15: Income from Employment* sec. 3.2.2.2., Global Tax Treaty Commentaries IBFD. *See* the specific provision for frontier workers in Convention between the Federal Republic of Germany and the Kingdom of the Netherlands for the Avoidance of Double Taxation with Respect to Taxes on Income and Capital and Various Other Taxes, and for the Regulation of Other Questions Relating to Taxation art. 10 (16 June 1959), Treaties & Models IBFD.
239. Art. 26(2) Belg.-Neth. Income and Capital Tax Treaty. J. Roels, *Non-discriminatie*, in *Het nieuwe Belgisch-Nederlands dubbelbelastingverdrag. Een artikelsgewijze bespreking* (B. Peeters ed., Larcier 2002), p. 537.
240. Art. 25(2) *Belg.-Fr. Income Tax Treaty*.
241. Art. 24(4)(b) *Belg.-Lux. Income and Capital Tax Treaty*. Remarkable about the tax treaty with Luxembourg is the asymmetrical character of the non-discrimination provision on personal deductions. Whereas in substance it has the same scope as in the tax treaty with the Netherlands, the proportional consideration only applies to residents of Luxembourg who are taxable in Belgium.
242. BE: Circ. nr. AFZ/ Intern. IB/96.0470, 26 Oct. 2000, Bull. Bel., ed. 810, no 4, 2. *See also* B. Peeters, *EG-recht en overeenkomsten ter vermijding van dubbele belasting*, in *Europees belastingrecht*, p. 257, nr. 73 and pp. 260-261, nr. 85 (B. Peeters ed., Larcier 2005); P. Bielen & H. Verstraete, *Non-discriminatie*, in *Het Belgisch-Nederlands dubbelbelastingverdrag: een artikelsgewijze bespreking* (B. Peeters ed., Larcier 2008), pp. 670-671 and the notice concerning "Bedrijfsvoorheffing op bezoldigingen betaald aan inwoners van Nederland", Belgian Official Gazette (31 Dec. 2002).
243. By mutual amicable settlement procedure referred to in art. 26(3) OECD Model.
244. *See*, for instance, Italy-Switzerland Tax Agreement (frontier workers) (2020), which is not yet in force.
245. European Commission, *Report of the Expert Group of the European Union, Ways to tackle cross-border tax obstacles facing individuals within the EU* (Nov. 2015), p. 33.
246. EC expert group, *supra* n. 9, at p. 32.
247. The proposed common consolidated corporate tax base (CCCTB) directive shows a good example of how the one-stop-shop concept could apply in the framework of a directive. Anti-avoidance measures could be introduced.
248. Commission Communication, *Removing Cross-border Tax Obstacles for EU Citizens*, COM(2010) 769 final (20 Dec. 2010), p. 7.
249. Id.

Similar to the One-Stop Shop (OSS) in the VAT domain,[250] the one-stop shop for employment could play a crucial role in simplifying tax compliance obligations for individuals working across borders, and reducing employers tax compliance costs.[251] The 2012 Communication on Tax Evasion confirms the concept of a one-stop shop for non-resident taxpayers as a central office, allowing them to pay all direct taxes owed to that state, putting them in provide complete information, this concept was also reiterated in the "Action Plan to Strengthen the Fight against Tax Fraud and Tax Evasion" in improving tax compliance. The one-stop shop could function not only for receiving comprehensive information about national tax systems, but also for dealing with a single tax administration to settle all the direct tax obligations towards different Member States.[252] The one-stop shop could strengthen administrative relations between participating EU Member States without affecting the allocation of taxing rights or the tax burden of mobile workers and investors who move from one participating country to another, compared to the tax burden of other mobile workers and investors who move from or to a non-participating country. Of course, implementing such a one-stop shop would be contingent on Member States' political willingness to proceed with further administrative integration in direct taxation. Going forward, building on the mutual trust and confidence underpinning the creation of the internal market will be critical to facilitate the implementation of EU tax policy to mitigate the interpretation and application problems for frontier workers.

6. Conclusion

Resolving interpretation and application problems for frontier workers in a globalized and digitalized world is left to the contracting states concerned. At present, no unanimous concept of frontier work is agreed in legislative tax texts. The "frontier worker" definitions present different features, corresponding to the policies pursued by the contracting states and their ability to include them in tax treaties or agreements. Bilateral tax treaties (if any) may provide different criteria for allocating taxing rights among states. Only a few tax treaties provide special frontier workers rules deviating from article 15 of the OECD Model.

The many interpretation and application problems identified in this report require a revision of frontier workers' tax and social security status. The absence of "frontier worker" definitions and clauses in the tax treaty framework may cause issues. The lack of coordination between tax and social security legislation may create differences in wage costs and net salary, which may hinder the free movement of employees or cause undesirable labour cost competition. The workers' reimbursement (compensation) system sometimes applies for tax purposes (e.g. the Belgium-Netherlands Income and Capital Tax Treaty (2001)), whereas this is not possible under the social security regulation. Member States' intensive and varied economic relations with a high number of teleworkers necessitate (better) alignment of bilateral tax allocation rules with EU coordination rules. Furthermore, the criterion of the "actual physical place of employment" for allocating taxing rights over cross-border employment income is insufficiently attuned to teleworkers performing activities at home or from anywhere and for highly mobile workers. The actual physical presence at the company's premises may be limited in comparison to the overall period of the employment activity. This problem is exacerbated when considering work with a short-term presence in the contracting state other than the residence state (article 15(2) of the OECD Model). Excessive fragmentation of (the exercise of) the place of employment by multiple employment states might raise the exposure to contradictory factual characterizations.

Solutions must be tailored to minimize the administrative and complex issues associated with the controversial and strict application of the physical presence requirement. This contribution pleads for adapting and harmonizing the traditional employment rules to/with today's digital world. Coordinated action at the EU and global level should be encouraged. Coordination between EU Member States, but also between different legal areas, is of utmost importance. Taxation of frontier workers should accord with the social security rules or at least be aligned. Frontier workers should be subject to residence state taxation if a substantial part of the activities is performed in the residence state. This approach could be implemented with a tolerance rule of 69 days regarding taxation of days physically worked outside the employment state. A resident employed abroad will remain taxable in the employment state on the entire employment income, provided less than 25% of the work time or remunerations abroad during a calendar year. Such a tolerance

250. The EU implemented the VAT One-Stop-Shop (OSS) to reduce the cost on enterprises selling to consumers in other EU Member States. Instead of registering for VAT in several countries, One-top shops allow firms to file a single VAT return declaring sales in several EU Member States. *See* https://europa.eu/youreurope/business/taxation/vat/vat-digital-services-moss-scheme/index_en.htm (accessed 16 Dec. 2022).

251. European Commission, *Tax Compliance Costs for SMEs: An update and a complement Final Report* (2022), available at https://op.europa.eu/en/publication-detail/-/publication/70a486a9-b61d-11ec-b6f4-01aa75ed71a1/language-en (accessed 16 Dec. 2022); L. Cerioni, *Removing Cross-Border Tax Obstacles for EU Citizens: Feasibility of a Far-Reaching One-Stop-Shop Regime for Mobile Workers and Investors*, 53 Eur. Taxn. 5, sec. 2.2. (2013), Journal Articles & Opinion Pieces IBFD.

252. Commission Communication, An Action Plan to strengthen the fight against tax fraud and tax evasion, COM(2012) 722 final (6 Dec. 2012), sec. 27., p. 13, which mentions a "Fiscalis" workshop organized on this subject in Dec. 2012.

rule to physical presence could alleviate difficulties in determining the state in which the frontier worker performs employment.

Another option for avoiding double taxation (favouring the taxpayer) and reducing taxpayer compliance obligations and tax authority monitoring costs is for only one state to tax the income of the frontier workers, with the obligation to forward part of the tax collected to the other state. The collecting state could be the employment state (e.g. France-Geneva) or the residence state of the frontier worker (e.g. France-Germany and France-Switzerland). Nevertheless, no one-size-fits-all approach exists for the allocation of taxing rights. Ultimately, in the absence of a supranational instrument, optimizing the legal status of frontier workers case-by-case or bilaterally should always be considered in the broader framework of the equilibrium of the contracting states' economic relations.

Annex I

Bilateral relation	Definition of "frontier worker"		Taxing rights	Treaty/agreement/ protocol
	Temporal	Geographical		
Austria-Germany	Yes (daily return)	Yes (zone of 30 km on both sides of the border)	Taxing rights to residence state (exclusive). Tolerance rule of 45 days: When not returning to the residence state daily, or when exceptionally exercising employment activities outside the frontier zone, the individual does not lose the status of frontier worker if this person is employed in the frontier zone throughout the full calendar year and does not spend more than 45 non-return days or days on which the employment activities are exercised outside the frontier zone. The same applies for individuals who are not employed in the frontier zone throughout the entire calendar year if the days of non-return or employment activities performed outside the frontier zone do not exceed 20% of the actual working/employment days within the terms and conditions of the employment relationship during the calendar year (maximum 45 days).	Austria-Ger. Income and Capital Tax Treaty (2000) art. 15(6) (as amended through 2010); Memorandum of Understanding published by the German Ministry of Finance on 18 April 2019.
Austria-Italy	No (habitually crossing the border)	Yes (near the frontier)	Taxing rights to residence state (exclusive).	Austria-Italy Income and Capital Tax Treaty (1981) art. 15(4) (as amended through 1987)
Austria-Liechtenstein	Yes (travel every working day)	Yes (near the frontier)	Taxable in the residence state, but the employment state is entitled to impose a withholding tax at source on the income at a rate not exceeding 4%.	Austria-Liechtenstein Income and Capital Tax Treaty (1969) art. 15(4) (as amended through 2016)
Belgium-France	No	Yes (municipalities located within an area of 20 km on both sides of the Belgian-French border)	Taxing rights to residence state (exclusive) for employment income of frontier workers from France working in the Belgian frontier zone since 1 January 2012. The frontier worker may not be absent from the Belgian frontier zone, while performing the work, for more than 30 days per calendar year. There are also special rules for seasonal workers for frontier workers from France working in the Belgian frontier zone: taxing rights to residence state, provided that the number of days outside the Belgian frontier zone does not exceed 15% of the number of worked days during the relevant year. General rules for Belgian frontier workers in France after 1 January 2007: Remuneration received on or after 1 January 2007 in respect of work performed in the French frontier zone by individuals having their permanent home in the Belgian frontier zone shall be taxable under the conditions provided for in article 11(1) and (2)(a) and (b) of the Convention. Frontier clause only for French foreign workers in tax treaty 1964 (as amended through 2009) article 11(2)(c). Article 14(4) of the new Belgium-France Income and Capital Tax Treaty (2021, not yet in force) confirms that the arrangement for frontier workers from France remains in place.	Belgium-France Income Tax Treaty (1974) Additional Protocol to the Convention between France and Belgium signed at Brussels on 10 March 1964, relating to frontier workers The new Belgium-France Income and Capital Tax Treaty (2021), provides that the standard rules on employment income apply subject to the Additional Protocol on Frontier Workers attached to the Belgium-France Income Tax Treaty (1964).

Bilateral relation	Definition of "frontier worker"		Taxing rights	Treaty/agreement/ protocol
	Temporal	Geographical		
Sweden-Denmark	No	No	Taxing rights to employment state. There is a special equalization agreement. According to the agreement, cross-border workers who perform some of their work from home must pay taxes in the state where most of the work is done, or the state where they spend more than 50% of their working time over the course of three months. Income earned from business trips to the state of residence or a third state and from other types of temporary employment performed in the state of residence or a third state is taxed in the state where most of the work is performed. If the aforementioned requirements are met, no salary split is necessary. The clarification states that the taxable salary earned during the three-month period includes sick and vacation pay. The three months may be three consecutive calendar months or another three months that have been agreed upon. Weekends and holidays are no longer considered to be workdays.	Agreement between Sweden and Denmark on certain issues of 29 October 2003, clarified on 27 June 2017 Note: the text is written in Swedish and Danish languages, and cited in secondary sources as "Agreement on the taxation of frontier/ cross-border workers"
Nordic Convention	No (regularly present)	Yes	Income derived by a resident of Norway or Sweden exercised in Sweden or Norway, is taxable only in the residence state, if the employment is concerned with the erection and maintenance of fences for reindeer along the sections of the Norwegian-Swedish frontier as determined in an agreement. According to Protocol VII, income derived by a resident of a municipality in Finland, Norway, or Sweden which borders upon the land frontier between Finland and Sweden, or Finland and Norway, as the case may be, in respect of work performed in such a municipality situated in another of these states, shall be taxable only in the residence state, provided that such person is regularly present at his permanent address in that state. Income derived by a resident of a municipality in Finland or Norway respectively Finland or Sweden respectively Norway or Sweden, which borders upon the land frontier between these states, in respect of work performed in such a municipality situated in the other state, is taxable in the resident state, provided that such person is regularly present at his permanent address in that state. The Protocol clarifies that the expression "is regularly present" means that the taxpayer is normally present at least once every week at his permanent address in the residence state. Being deemed present at his permanent address means that the residency must comprise at least 2 days. "Day" encompasses part of a day.	Nordic Convention (1996, as amended through 2018) (between Denmark, Faroe Islands, Finland, Iceland, Norway, Sweden) + Protocol VI.1. The Finish tax authorities have released an updated version of its frontier worker guidance on 28 April 2022 (Guidance number VH/1154/00.01.00/2022). For an unofficial English translation: https://www.vero.fi/en/detailed-guidance/guidance/49150/taxation-of-cross-border-commuters3/
France-Germany	Yes (daily)	Yes (municipalities which are wholly or partly no more than 20 km from the frontier, this threshold being extended to 30 km in the case of individuals with permanent homes in France performing employment activities in Germany)	Taxing rights to residence state (exclusive). Bilateral compensation mechanism: The state which has the right to tax the remuneration shall pay to the state in which the employment is exercised a compensation corresponding to a fraction of the tax on the income from such dependent work levied on the frontier workers in their state of residence. This compensation amount is 1.5% of the gross annual remuneration of the frontier worker (all income in cash or in kind derived from an activity wholly or partly exercised for another person, including legal and contractual benefits, such as child allowances paid by the employer or a family fund (caisse d'allocations familiales/ Familienkasse), or health insurance benefits). No deductions of any kind, such as contributions to compulsory or optional insurance, are taken into account. The amounts paid by the employer for the reimbursement of expenses incurred in the exercise of the activity are not included in the gross remuneration. The competent authorities shall settle by mutual agreement the administrative measures necessary for the implementation of the provisions. They shall meet every five years to ensure that the percentage does not result in a compensation amount higher than 44% of the tax levied on the total amount of the annual gross remuneration of frontier workers. If this is not the case, they shall adjust the percentage accordingly.	Fr.-Ger. Income and Capital Tax Treaty (1959) (as amended through 2015) – art. 13.5(a)(b)(c) (as amended through 2015)

Bilateral relation	Definition of "frontier worker"		Taxing rights	Treaty/agreement/ protocol
	Temporal	Geographical		
France-Italy	No	Yes (certain areas in Italy and departments in France adjacent to the border)	Taxing rights to residence state (exclusive)	Fr.-It Income and Capital Tax Treaty (1989) – art. 15(4) + Protocol (1989) (no. 9)
France-Spain	Yes (daily)	Yes (no farther than 10 km on either side of the frontier)	Taxing rights to residence state (exclusive) Authorization with border crossing licence and a frontier employment permit	Fr.-Spain Income and Capital Tax Treaty (1995) + Protocol 1995 + 1961 Complementary Agreement between France and Spain concerning frontier workers (in force) Proof: frontier card
France-Switzerland	Yes (daily)	No	Taxing rights to residence state (exclusive) Employment state receives a compensation payment of 4.5% of the total annual gross income of the frontier workers paid by the cantonal authorities. In a similar agreement of 29 January 1973 between France and Geneva, the employment state is the one which has the taxing rights. If Geneva is the employment state, the French border municipalities receive a compensation payment of 3.5% of the gross proceeds from Geneva.	Fr.-Switz. Income and Capital Tax Treaty (1966) (as amended through 2014) – art. 17(4) + Agreement of 11 April 1983 between the government of the French republic and the Swiss federal council of the Swiss Cantons Berne, Basel-Land, Basel-Stadt, Jura, Neuchâtel, Solothurn, Vaud and Valais) concerning the taxation of remuneration of frontier workers (1983, in force)
Germany-Switzerland	Yes (regular return with a max threshold of 60 days in the employment state per calendar year)	No	Taxing rights to residence state. The employment state can levy a tax up to 4.5% upon gross income. Switzerland avoids double taxation by reducing the gross receipt from Germany by one fifth in determining the taxable base. Germany applies the credit method.	Ger.-Switz. Income and Capital Tax Treaty (1971) (as amended through 2010) – art. 15A + Germany and Switzerland signed a Memorandum of understanding regarding the taxation of lorry drivers in international traffic (on 9 and 16 June 2011)
Italy-Switzerland	Yes (daily return)	Yes (residing in the border area – in Switzerland cantons of Grisons, Ticino and Valais; in Italy the Regions of Lombardy, Piedmont, Valle d'Aosta and the Autonomous Province of Bolzano, and residing in the municipality located within 20 km of the border between Italy and Switzerland)	Employment state levies income taxes at 80% of the tax resulting from the person income tax applicable on the employment income (including local taxes on income). The residence state in turn subjects to taxation and eliminates double taxation. A transition period applies to frontier workers working in the cantons of Graubünden, Ticino and Valais until the year 2033.	Italy-Switz. Income and Capital Tax Treaty (1975); Protocol to the 1976 Treaty (2020), not yet in force as of July 2022: Agreement between the Swiss Confederation and the Italian Republic relating to the taxation of frontier workers, together with the Final Protocol thereto, signed at Rome on 23 December 2020 For the allocation of repayments made by Swiss Canton to Italian municipalities, see Ministerial Decree of 28 November 2019

Bilateral relation	Definition of "frontier worker"		Taxing rights	Treaty/agreement/ protocol
	Temporal	Geographical		
Switzerland-Liechtenstein	Yes (every working day)	No	Taxing rights to residence state (exclusive) A person ceases to be a frontier worker if, for work-related persons, he does not return to his home at the end of his work on more than 45 working days per calendar year	Liech.-Switz. Income and Capital Tax Treaty (2015, as amended through 2020) + Final Protocol, Sec. 4.
Italy-San Marino	No	No	Concurrent taxation, with final taxation for the residence state	It.-San Marino Income Tax Treaty (2002) (as amended through 2012) + protocol (as amended through 2012), Sec. 6
France-Spain	Yes (daily return)	No (no farther than 10 km on either side of the frontier)	Taxing rights to residence state (exclusive) The Complementary Agreement concerning Frontier Workers (1961) defines "frontier workers" as French and Spanish nationals returning in principle every day to their residence state Authorization with border crossing licence and a frontier employment permit	Fr.-Spain Income and Capital Tax Treaty (1995) Protocol 1995, Sec. 12
Portugal-Spain	Yes (normally daily return)	No	Taxing rights to residence state (exclusive)	Port.-Spain Income Tax Treaty (1993), Art. 15(4)

Source: Author's desk research of tax treaties and agreements; IBFD databases.

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