Did the OECD Help Reduce Multinationals' Income Shifting?

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Abstract

The Organisation for Economic Co-operation and Development's (OECD's) 2015 Base Erosion and Profit Shifting Framework, consisting of fifteen action items, is a substantial global effort to reduce multinational corporations' tax-motivated income shifting. Prior research has primarily focused on two disclosure-based action items. I collectively consider all action items – both disclosure-based and more direct methods of addressing income shifting. Using a hand-collected dataset on action item implementation and exploiting the differences in the implementation of action items across countries and time, I find robust evidence that, on average, multinationals significantly decrease their income shifting from 2016 to 2021. My results suggest that three direct action items – *Action 4*, EBITDA-based interest deduction limitations; *Action 5*, harmful preferential tax regimes; and *Actions 8-10*, transfer pricing – and one disclosure-based action item – *Action 12*, mandatory third-party reporting – individually contribute to the decrease. Comparing these four action items, I find evidence that interest deduction limitations and updated transfer pricing guidelines are most significant in curtailing income shifting behavior. My results are important to governments and policymakers worldwide as countries continue to implement the action items, and the OECD monitors the action items and develops further initiatives to reduce income shifting.

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Summary

The international corporate tax landscape has changed drastically over the last decade, along with increased scrutiny of multinational corporations' (MNCs') international tax planning activities by tax authorities, policymakers, media, and the public (e.g., The Guardian [2009], Bergin [2012], Gilleard [2012], Wayne et al. [2014], Bowers [2017]). In October 2015, the Organisation for Economic Co-operation and Development (OECD) released its Base Erosion and Profit Shifting (BEPS) framework comprising fifteen action items intended to curtail MNCs' tax-motivated income shifting behavior (hereinafter, "income shifting"). As of May 28, 2024, 147 countries have become members of the framework and generally agreed to implement its action items (OECD [2024]). This framework is the first time this many countries have agreed to align their tax laws and treaties in a substantive global effort to reduce MNCs' income shifting. In this paper, I study whether the BEPS framework met its objective to significantly reduce MNCs' income shifting and whether observed reductions result from the collective BEPS initiative or from specific action items.

Income shifting typically involves complex structures spanning multiple countries and multiple layers of entities. These planning structures use various strategies, including strategically structuring debt, setting transfer prices across affiliates, and avoiding permanent establishment status in various countries. Some structures also allow MNCs to avoid reporting income in any jurisdiction. Notably, the vast majority of income shifting strategies are legal. Hence, the OECD developed the BEPS framework to address the laws and regulations that allow income shifting.

The fifteen action items included in the BEPS framework are intended to address income shifting through various means. Several action items directly attack income shifting techniques through the amendment of tax laws and treaties. Other action items are more indirect, such as

increased disclosure to tax authorities and assistance for countries implementing the action items. It is important to note that only four action items are considered "minimum standards," meaning that implementation is subject to peer review by other BEPS framework member countries. The remaining action items are strongly recommended by the OECD.

Prior research has considered the effects of a few of the individual BEPS framework action items on income shifting, with differing results. For example, Joshi [2020] considers whether income shifting decreased after the implementation of European Union (EU) Directive 2016/881, the EU's implementation of *Action 13 Country-by-Country Reporting* (CbCR). Using a sample of EU MNCs from 2010 to 2018, she fails to find robust evidence that either treated or control MNCs decrease their income shifting after the implementation. Edwards et al. [2024] study whether income shifting decreased after the implementation of EU Directive 2018/822 (DAC6), the EU's implementation of *Action 12 Mandatory Disclosure Rules*. Using a sample of EU MNCs from 2015 to 2021, they find that treated MNCs exhibit a statistically significant decrease in income shifting after the implementation.

Given that *Action 12* is an indirect, disclosure-based method of addressing income shifting and was found to be effective, are direct methods of addressing income shifting (e.g., stronger transfer pricing rules) even more effective? Furthermore, the OECD released *Action 12* and *Action 13* simultaneously, in conjunction with the thirteen other action items, and there is overlap in action item implementation. The action items collectively create a comprehensive response to income shifting and are designed to work together. Thus, a comprehensive assessment of the collective BEPS framework action items is necessary to determine which action items significantly curtail income shifting, and is the objective of this paper.

To answer my research questions, I begin by examining the general time trend in income shifting behavior from 2010 to 2021 for a global sample of MNCs using the Hines and Rice [1994] and Huizinga and Laeven [2008] affiliate-level income shifting model. I find that, on average, MNCs exhibit statistically significant decreases in income shifting from 2016 to 2021, which corresponds with the time frame for the implementation of the BEPS action items. However, causality cannot be asserted based on this pre-post analysis as no control sample is available.[1]

Next, I turn to the individual action items. I hand-collect country implementation data for the action items from the OECD. If the OECD does not have sufficient data on an action item, I collect the data from both Deloitte and EY publications to ensure accuracy. To examine the effect of the action items on income shifting, I amend the Hines and Rice [1994] and Huizinga and Laeven [2008] affiliate-level income shifting model for a series of difference-in-differences models where identification is based on the staggered implementation across countries and across action items. Like Christensen et al.'s [2016] study on country-level implementation of securities regulations, I assert that countries implemented different action items at different times due to plausibly exogenous reasons, such as a country's individual legislative procedures. Thus, for an unrelated event to impact my inferences, it must coincide with the various implementation times of the dozens of countries that implemented the action item, which seems unlikely. Nonetheless, it is difficult to assert causality in this setting as I cannot control for all changes in the international corporate tax landscape over this time period. I conduct a battery of tests to demonstrate the robustness of my results; however, my results should be interpreted accordingly.

I find evidence that the BEPS framework has generally met its objective: the implementations of *Action 4 Limitation on Interest Deductions*, *Action 5 Harmful Tax Practices –*

[1] Only five MNCs in my sample are not subject to any action items.

Preferential Tax Regimes, *Actions 8-10 Transfer Pricing*, and *Action 12 Mandatory Disclosure Rules* are all significantly associated with the decrease in income shifting in the post-implementation period. Then, I explore whether a specific action item appears more effective at reducing income shifting or whether common country implementation among the four action items drives the results. My results show that the implementation of EBITDA-based interest deduction limitations and updated transfer pricing guidelines are, on average, most strongly associated with the significant decrease in tax-motivated income shifting globally. These results are consistent with these two action items being most significant in curtailing income shifting behavior.

I conduct a variety of tests to verify the robustness of my results. First, I modify my main regression model to control for the income shifting behavior of affiliates located in countries compliant with the action item before the action item was released (e.g., countries that never had a harmful preferential tax regime), instead of dropping these affiliates. Second, I use the De Simone et al. [2017] affiliate-level income shifting model that includes loss affiliates. Third, I drop MNC groups with consolidated return on sales of less than three percent because consolidated losses create different incentives to shift income (De Simone et al. [2017]). Fourth, I drop affiliates in financial industries due to unique industry regulations. All inferences remain unchanged. Fifth, in the spirit of Klassen and Valle Ruiz [2023], I split my sample between relatively high- versus low-tax affiliates and confirm that my results are concentrated among high-tax affiliates, which have the greatest incentive to shift income out.

Lastly, I reconcile Joshi's [2020] results with my results, as my evidence of a significant on-average decrease in income shifting from 2016-2021 is not consistent with Joshi's [2020] evidence that neither the treatment group of MNCs subject to *Action 13* nor the control group exhibit statistically significant decreases in income shifting after 2015. In summary, the key

difference arises due to Joshi's [2020] sample selection criteria, and in particular, her need for sample firms to have an international securities identification number (ISIN) populated in *Orbis,* which effectively limits her sample to very large public MNCs listed on certain stock exchanges.

My results are important to governments and policymakers worldwide, particularly the OECD. I provide much-needed and timely insight into which BEPS framework action items have effectively curtailed income shifting behavior, informing countries about which action items they may want to prioritize implementing. This evidence is critical to document before the implementation of public CbCR, so as not to confound the impacts of the regulations. Additionally, my results suggest that public CbCR and the OECD's proposed BEPS Pillar Two rules (global anti-base erosion rules, e.g., the implementation of a global minimum tax) may have a limited effect on income shifting because MNCs, on average, have already drastically decreased their income shifting levels. Pillar Two is a complex response to income shifting, even relative to the BEPS framework action items.

This paper contributes to the international tax planning and income shifting literatures. For example, this research directly responds to Dharmapala's [2014] call for more research on the economically important topic of BEPS. To my knowledge, I provide the first global evidence considering the BEPS framework in its entirety and documenting the significant on-average decrease in MNCs' income shifting from 2016 to 2021 across various size groupings and across a global sample of MNCs. Furthermore, I provide interesting insight into the income shifting techniques MNCs use: my results suggest that the use of debt shifting and strategic transfer pricing has been significant prior to the release of the BEPS framework. I look forward to future research on strategies that may substitute for these techniques.