taxnotes federal

Volume 178, Number 5 ■ January 30, 2023

# The Intersection Between Tax Credits and Trade or Business

by Benjamin Alarie and Christopher Yan

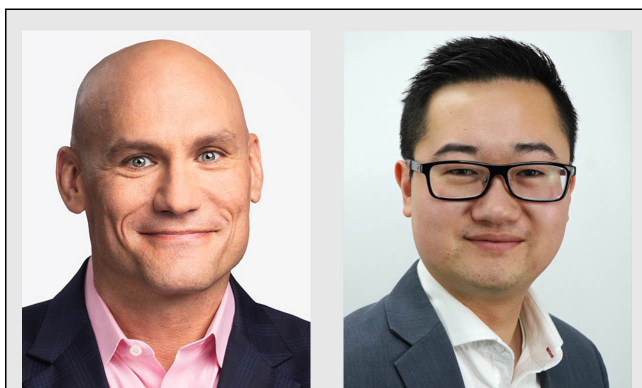
Reprinted from *Tax Notes Federal*, January 30, 2023, p. 689

For more *Tax Notes* content, please visit www.taxnotes.com.

© 2023 Tax Analysts. All rights reserved. Tax Analysts does not claim copyright in any public domain or third party content.

# The Intersection Between Tax Credits and Trade or Business

by Benjamin Alarie and Christopher Yan



Benjamin Alarie Christopher Yan

Benjamin Alarie is the Osler Chair in Business Law at the University of Toronto and the CEO of Blue J Legal Inc. Christopher Yan is a senior legal research associate at Blue J Legal.

In this article, Alarie and Yan compare the predictions of their machine-learning model with the reasoning behind the Tenth Circuit's upholding of the Tax Court decision in *Olsen* that the taxpayers weren't engaged in a trade or business.

Copyright 2023 Benjamin Alarie and Christopher Yan.
All rights reserved.

## I. Introduction

In last month's installment of Blue J Predicts, we reflected on the state of predictive tax analytics in 2023 and the long-term role of artificial intelligence in tax analysis, drawing on OpenAI's Generative Pre-Trained Transformer 3 (GPT-3).[1] This month, we revisit a prediction made in February 2022, in which we analyzed the appeal of the Tax Court's decision in *Olsen* before the Tenth Circuit.[2] A central dispute in the case involved determining whether the Olsens' activity constituted a trade or business — a crucial question with significant financial consequences for deductions, credits, exemptions, disqualifications, and penalties. The Tax Court held for the commissioner, deciding that the taxpayers were not engaged in a trade or business, and thus not entitled to specific deductions, credits, and exemptions.

Using Blue J's machine-learning algorithm, we predicted with greater than 95 percent confidence that the Tenth Circuit would hold for the commissioner. Even when adopting the most favorable characterization of the facts presented by the taxpayer, Blue J's algorithm still predicted with 86 percent confidence that the commissioner's position would prevail, based *solely* on the position taken in the taxpayer's submissions.

Our prediction proved accurate when the Tenth Circuit affirmed the Tax Court's decision that the taxpayers were not engaged in a trade or business.[3] This outcome demonstrates the effectiveness of machine-learning models in analyzing legal issues, particularly regarding trade or business status, an area in which the case law is extensive and the fact-intensive inquiry is complex. It also emphasizes the importance of understanding the trade or business question and highlights the potential of machine learning in evaluating the strength of legal arguments.

Here we provide a comprehensive examination of the facts and circumstances of the case and delve into the Tenth Circuit's analysis. We then compare the Tenth Circuit's reasoning

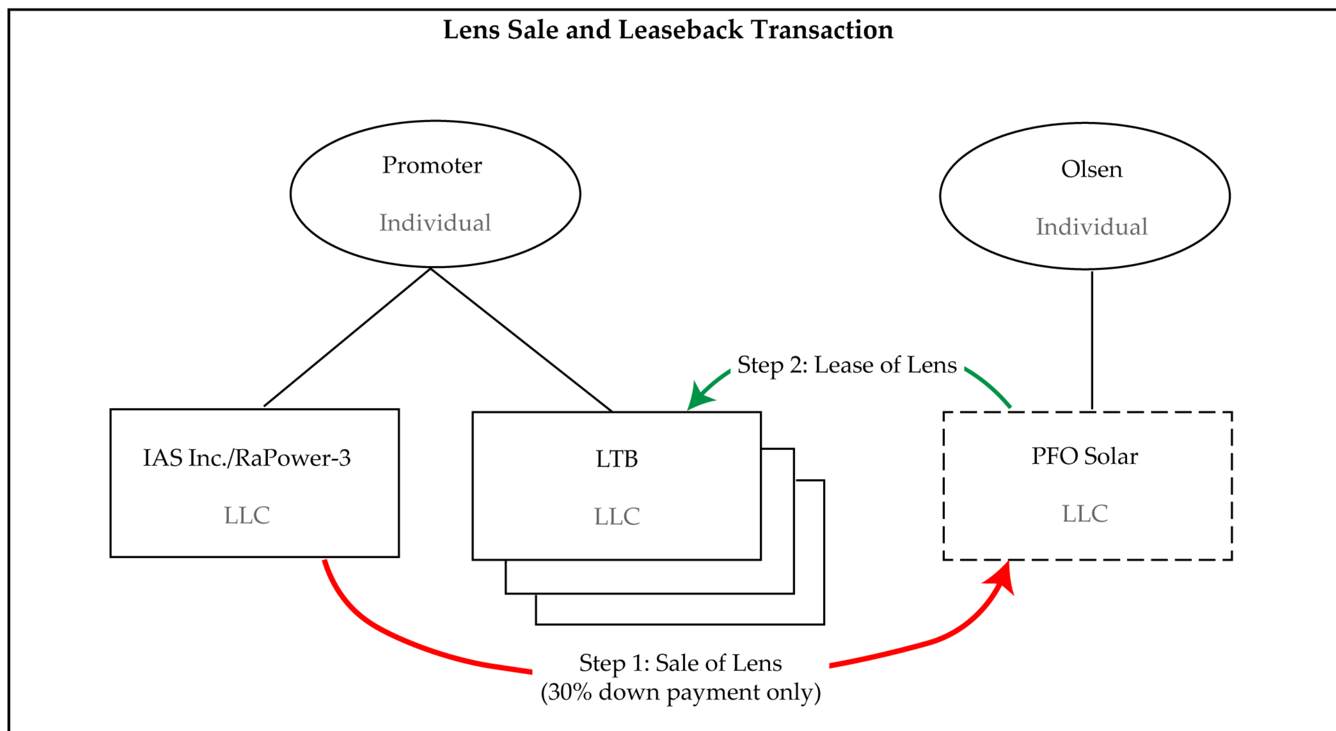
[1] In keeping with the tradition of leveraging the latest tools in furtherance of tax analysis, we used GPT-3 to assist with parts of this installment.

[2] Benjamin Alarie and Christopher Yan, "Using Machine Learning to Evaluate the Existence of a Trade or Business: *Olsen*," *Tax Notes Federal*, Feb. 28, 2022, p. 1231. *Olsen v. Commissioner*, T.C. Memo. 2021-41.

[3] *Olsen v. Commissioner*, No. 21-9005 (10th Cir. 2022).



For more *Tax Notes*® *Federal* content, please visit www.taxnotes.com.




with the insights and predictions generated by our machine-learning model. In doing so, we provide an in-depth understanding of the case and the role of machine learning in legal analysis.

## II. Recap of Background and Facts

*Olsen* involved a dispute over whether Preston and Elizabeth Olsen were entitled to claim depreciation deductions and energy tax credits for purchases of lenses intended for solar projects. These projects were later found to be part of a tax shelter scheme, in which the promoters represented that the Olsens could claim energy tax credits and depreciation deductions for the lenses purchased, effectively neutralizing any federal tax liability from earned income.

The tax scheme involved the purchase of solar lenses to claim investment tax credits and accelerated depreciation deductions. Preston Olsen, the taxpayer, signed an agreement to purchase $60,000 worth of lenses but was required to make a down payment of only 30 percent, and the balance would be due only if the project began generating electricity. No electricity was generated, and the balance never became due.

On the advice of the promoter, the taxpayer made the purchase through a newly created limited liability company of which he was the sole member and leased the lenses back to LLCs formed by the promoter. From 2011-2014, the taxpayer made additional purchases of lenses, amounting to total purchases of $242,000. However, the project never generated electricity or revenue. In summary, the Olsens purchased solar lenses from a corporation (and subsequently an LLC) formed by the promoter and simultaneously leased the lenses back to a separate group of LLCs also formed by the promoter.

The Olsens then claimed depreciation expenses and investment tax credits on the full amount from these activities from 2009-2014 (rather than the 30 percent down payment), which allowed them to offset almost all their income tax liability against their income. However, the IRS disallowed all deductions and credits because the lenses were not used in a trade or business, were not held to produce income, and were never placed in service.

To qualify for these deductions and credits, the Olsens had to show that the lenses were purchased for a trade or business or to produce income and were placed in service during the years in which the amounts were claimed, and that the losses and credits on the claimed activity were not connected to a passive activity.



For more *Tax Notes*® *Federal* content, please visit www.taxnotes.com.

© 2023 Tax Analysts. All rights reserved. Tax Analysts does not claim copyright in any public domain or third party content.

© 2023 Tax Analysts. All rights reserved. Tax Analysts does not claim copyright in any public domain or third party content.

The Tax Court ultimately held against the Olsens, finding that their activities and involvement did not constitute a trade or business, that the lenses were never placed in service, and that the investment activity was passive. This was the first of more than 200 cases involving investors who participated in this tax scheme.

## III. Recap of Tax Court Decision

The Tax Court case analyzed whether a taxpayer was entitled to claim investment tax credits under sections for depreciable property. The court relied on factors from case law to determine if the taxpayer was engaged in a trade or business, including the requirement for continuity and regularity, the presence of extensive business activity over a substantial period (while noting that sporadic activities or managing one's investments do not constitute business activities), and the requirement to conduct an examination of all facts in the case.[4]

The Tax Court determined that the taxpayer failed to establish that he was engaged in a solar energy business in 2010-2012. The court noted the following:

- The taxpayer did not possess the skills, education, or experience to conduct the business.
- The taxpayer's activities primarily consisted of: (1) writing checks to the promoters; (2) signing a few forms and documents each year; and (3) engaging in email correspondence with the promoters.
- For the purported business, the taxpayer: (1) kept no business records; (2) received no gross income; and (3) reported no expenses apart from depreciation and legal fees he was unable to substantiate.
- PFO Solar LLC, which was formed to engage in the purported business: (1) had no business records or employees; and (2) did not maintain its own bank account.
- The taxpayer's responsibilities concerning PFO Solar LLC merely involved: (1) renewing the LLC each year; (2) maintaining PDF copies of documents; and (3) trying to determine how many lenses to purchase.
- The taxpayer had trouble explaining the specifics of the project and made observations that were contrary to someone engaged with continuity and regularity in a genuine trade or business.

The Tax Court found that the taxpayer failed to establish that he engaged in a solar energy business with continuity and regularity and that his primary purpose was for income or profit, which made him ineligible for the depreciation deduction and investment tax credits.

## IV. The Tenth Circuit's Decision

The Tenth Circuit noted that the Olsens were required to demonstrate a profit motive and concurred with the Tax Court's finding that one did not exist. The court of appeals interpreted section 167 — which requires that property be "used in a trade or business" or "held for the production of income" — to mean that the taxpayer must have had a profit motive. The court noted that an incidental profit motive is insufficient and that profit must be the dominant or primary objective of the venture. Because this was a finding of fact by the Tax Court, the court of appeals left the finding unchallenged in the absence of a clear error.

In determining the taxpayer's intent, the court of appeals examined the factors in reg. section 1.183-2(b) as well as indicators from previous case law that suggest when a taxpayer might not have a profit-driven motivation.

### A. Treasury Regulation Factors

In this case, the court of appeals found that the Tax Court did not err in its application of the factors in the regulation. The court of appeals evaluated several factors:

- *The manner in which the taxpayer conducted the activity*. The Tax Court did not err in concluding that the taxpayer had not conducted the activity in a business-like manner because of the lack of substantial business records, a bank account, a business plan, or a marketing strategy, and because the lessee had not signed any of the lease agreements or made any lease payments.

[4] *Commissioner v. Groetzinger*, 480 U.S. 23, 35 (1987); and *Higgins v. Commissioner*, 312 U.S. 212, 216 (1941).



For more *Tax Notes® Federal* content, please visit www.taxnotes.com.

© 2023 Tax Analysts. All rights reserved. Tax Analysts does not claim copyright in any public domain or third party content.

- *The expertise of the taxpayer and his advisers.* The Tax Court did not err in determining that this factor weighed against a profit motive because the taxpayer lacked knowledge in solar energy or equipment leasing and had not sought expert advice in either field. The court of appeals also noted that the Tax Court did not err by expecting the taxpayer to do more than basic internet research and consult with a relative who was a chemistry professor.
- *The time and effort the taxpayer invested.* The Tax Court did not err in finding that this factor weighed against a profit motive. The Tax Court observed that the taxpayer had not spent much time on the business because he had visited the site only "once or twice" over a five-year period, and his activities were limited to writing annual checks to purchase lenses, renewing the LLC each year, maintaining copies of agreements, and deciding how many lenses to buy annually.
- *Expectation of asset appreciation.* The Tax Court did not err in finding that the taxpayer did not anticipate the lenses to appreciate in value because they were deemed "essentially worthless" with a low chance of producing electricity. The court also found the taxpayer's and the expert witness statements to be self-serving and not credible.
- *Profit and loss.* The Tax Court reasonably concluded that this factor weighed against the taxpayer as the lenses never generated any revenue or commercially usable volume of electricity. Even when the promoters failed to meet their promises, the taxpayer did not seek a refund and instead bought more lenses.
- *The taxpayer's financial status, including other sources of income.* The Tax Court did not err in finding that this factor weighed against the taxpayer because he had substantial wage income and used the losses to significantly reduce his tax liability. The tax savings were also more than the actual losses.
- *Presence of personal motives.* The court of appeals noted that a lack of personal or recreational motive on the part of the taxpayer does not automatically indicate a profit motive; the Tax Court found the taxpayer's actions were motivated by an attempt to eliminate tax liability.

### B. Common Law Hallmarks of Absence of Profit

When considering the signs of tax-motivated behavior, the court of appeals considered five common characteristics suggesting an absence of a profit motive:

- marketing materials from the promoter that focused on expected tax benefits;
- the purchase of an item at a grossly inflated price without negotiation;
- a lack of inquiry from the buyer to the seller about potential profitability;
- a lack of control over activities; and
- the use of nonrecourse debt.

The court of appeals noted the Tax Court could reasonably rely on the presence of at least three of those hallmarks:

- *The marketing materials focused on projected tax benefits.* The court of appeals reviewed quotes from the promotional materials and noted that the marketing of the lens project focused primarily on tax benefits with little mention of profit.
- *The taxpayer paid a grossly inflated purchase price.* The court of appeals observed that the taxpayer paid a grossly inflated purchase price without negotiation and leased the lenses for free (with little upside even in the unlikely event that the system produced revenue).
- *The taxpayer lacked control over the business.* The court of appeals noted that the taxpayer admitted he did not fully understand the project, but never took possession of the lenses they bought and could not identify which lenses were theirs.

The Tenth Circuit concluded that the Olsens had not shown a clear error by the Tax Court in rejecting a profit motive based on the aforementioned factors, and at most, the Olsens have demonstrated only that the Tax Court could have weighed the evidence differently. This was insufficient to show clear error.



For more *Tax Notes*® *Federal* content, please visit www.taxnotes.com.

© 2023 Tax Analysts. All rights reserved. Tax Analysts does not claim copyright in any public domain or third party content.

The multitude of details informing the facts and analysis demonstrates the intensity of the inquiry involved in a trade or business analysis.

### C. Lack of Profit Requirement

Another central argument in the taxpayer's appeal is that the Tax Court should not have disallowed the taxpayer's rental activity as a trade or business solely because it was tax motivated. The taxpayer argued that when considering whether the transaction was profitable or profit-oriented, the Tax Court should have taken tax benefits into account; the taxpayer relied heavily on the Ninth Circuit opinion in *Sacks*,[5] which held that a taxpayer was entitled to investment tax credits from a sale and leaseback of solar water heating equipment even though the transaction would not be profitable unless tax benefits were taken into account.

The court of appeals addressed that issue by distinguishing *Sacks*, noting that a profit motive cannot arise solely from a desire for a tax benefit, but "whether the taxpayer had intended to do anything other than acquire tax deductions." Thus, taxpayers may have a profit motive if they intend for a tax credit to turn an activity that's otherwise unprofitable into a profitable venture, but it is insufficient if the primary intent is to save on taxes.

Applying its formulation of the Ninth Circuit's opinion in *Sacks*, the court of appeals found that the Olsens had not shown an expectation for the solar leasing business to become profitable even with the tax benefits and, instead, intended for the big tax losses to offset their wage income. Thus, *Sacks* was not applicable to the facts of the case; a profit motive cannot be assumed whenever the primary motive is to save on taxes. Because the Tax Court found that the taxpayer had bought the lenses with the main purpose of saving on taxes rather than making a profit, the Tenth Circuit said this finding was not clearly erroneous, the taxpayer did not use the lenses in a trade or business, and the Tax Court correctly disallowed the depreciation deductions.

In finding that the Olsens could not obtain solar energy credits, the court of appeals noted that the Olsens attempted to assert that the statute limits a depreciation deduction only to the taxpayer's gross income. However, as the Tenth Circuit pointed out, similar to the argument in our original article, a core consideration was not simply that the venture did not profit but that it lacked any income from the lenses.

Overall, the Tenth Circuit thus affirmed the Tax Court's decision, concluding that the Tax Court did not commit a reversible error in denying the depreciation deductions and solar energy credits.

Judge Robert E. Bacharach concurred with the majority opinion but wrote a separate concurring opinion to emphasize that even if the Olsens had a profit motive, they would not have been eligible for the desired tax benefits. To qualify for these deductions, the Olsens needed to prove not only a profit motive, but also that the lenses were placed in service as part of a solar energy system.

Bacharach said the lenses were not placed in service in this manner and that the Tax Court had reasonably determined that the Olsens had not demonstrated the system's readiness to generate usable electricity. Also, Bacharach pointed out that the Olsens had not challenged the Tax Court's finding that the lenses had never been held out for lease, and thus had not shown clear error. Therefore, even if the Olsens had shown a profit motive, they would not have been entitled to the depreciation deductions, and without those deductions, they would not have been eligible for the solar energy tax credits.

## V. Revisiting Blue J's Prediction

To recap, we used Blue J's machine-learning model, which is based on a data set of more than 700 court opinions that consider whether a taxpayer is engaged in a trade or business. We noted that Blue J's algorithm originally predicted that a court would decide that the taxpayer did not engage in a trade or business after considering all the factors.

Even setting aside whether tax credits should be factored into profitability, the algorithm considered many of the same factors as the Tenth Circuit did in the majority opinion in assessing the factors in the regulations. Similarly, although the commissioner's brief was unavailable at the time of the original prediction, many of these

[5] *Sacks v. Commissioner*, 69 F.3d 982 (9th Cir. 1995).



For more *Tax Notes® Federal* content, please visit www.taxnotes.com.

© 2023 Tax Analysts. All rights reserved. Tax Analysts does not claim copyright in any public domain or third party content.

factors made their way into its brief to challenge the transactions in question.

Some of the common factors that were in the government's brief, adopted by the Tenth Circuit, and considered by the algorithm include:

- the taxpayer did not have a written business plan;
- the taxpayer did not keep contemporaneous business records to substantiate that he was running a solar leasing business;
- the activity's funds were not kept in a separate account for personal use;
- the taxpayer had a private nonbusiness use of the inventory;
- the taxpayer's conduct fell below the type of moneymaking practices or advice of the professionals in the field;
- the taxpayer did not conduct any process improvements that increased the activity's profitability;
- the taxpayer lacked experience in carrying out the activities;
- the taxpayer held no formal qualifications to conduct the activity;
- the taxpayer was unable to show that the asset intended and used for the activity's operations had appreciated; and
- the taxpayer was able to maintain his pre-activity standard of living regardless of profits from the activity.

In light of various factors that posed a disadvantage to the taxpayers, our algorithm predicted with a high level of confidence (exceeding 95 percent) that a court would likely find that the Olsens were not participating in a trade or business.

Also, it is noteworthy that Bacharach issued a separate concurring opinion, in which he said the Olsens would not be entitled to claim depreciation and tax deductions even if they demonstrated a profit motive, which they were unable to do. Our algorithm, Blue J, also evaluated the impact of profitability on the determination of whether the activity qualified as a trade or business. The results of this analysis showed that even if we assumed that the taxpayer had a profit in all the tax years in question, the algorithm would still have predicted with 86 percent confidence that a court would determine that the taxpayer was not engaged in a trade or business.[6]

In concluding that the deductibility requirement was not met, the concurring opinion focused on reg. sections 1.167(a)-10(b) and -11(e)(1)(i) rather than the traditional common law principles. That Bacharach felt the need to write a separate concurring opinion suggests there were additional concerns with the arrangement beyond a lack of profitability. That aligns with the observations made by Blue J's algorithm in its analysis.

## VI. Key Takeaways and Conclusion

In a few of our recent publications, we considered the interaction between tax credits, profitability, and the likelihood that a court would accept the form of the taxpayer's transactions. For example, we correctly predicted in *Cross Refined Coal*[7] that the D.C. Circuit would find that a taxpayer who operated a business venture that was guaranteed to be unprofitable before tax credits could still be considered a bona fide partnership for federal income tax purposes.

In *Chemoil*, we explored the relationship between the economic substance doctrine and unprofitable transactions that are rendered economically viable by tax credits.[8] We predicted with 83 percent confidence that the court of first instance would find that the transactions in question would not have economic substance; the decision has yet to be released. Now in *Olsen*, we have further guidance from the Tenth Circuit on how courts are likely to assess profitability in the trade or business analysis in the claiming of deductions and tax credits.

While taxpayers must adhere to the factors outlined in the regulations, this suggests that the spirit of the regulations reflects much the same

---

[6]This hypothetical scenario could have arisen if the court of appeals had included tax credits in considering whether the enterprise earned any profits, but as we now know, the majority opinion from the court of appeals rejected this interpretation and found that there was no profit motive.

[7]Alarie and Bettina Xue Griffin, "Tax Credits That Bond a Partnership: Revisiting *Cross Refined Coal*," *Tax Notes Federal*, Sept. 26, 2022, p. 2069; *Cross Refined Coal LLC v. Commissioner*, No. 20-1015 (D.C. Cir. 2022), *aff'g* No. 19502-17 (T.C. 2019) (bench op.).

[8]*See* complaint, *Chemoil Corp. v. United States*, No. 1:19-cv-06314 (S.D.N.Y. July 8, 2019); Alarie and Yan, "*Chemoil*: Economic Substance, Tax Credits, and Unprofitable Ventures," *Tax Notes Federal*, Oct. 31, 2022, p. 719.



For more *Tax Notes*® *Federal* content, please visit www.taxnotes.com.

considerations from the common law and codifies these considerations in the process. Taxpayers would continue to benefit from conducting the same analysis using machine learning and predictive models to assess the likelihood that courts will adopt their characterization. ■

Join host David Stewart as he chats with guests about the wide world of tax, including changes in federal, state, and international tax law and regulations.

taxnotes.com/podcast

Subscribe on iTunes or Google Play today!


© 2023 Tax Analysts. All rights reserved. Tax Analysts does not claim copyright in any public domain or third party content.



For more *Tax Notes® Federal* content, please visit www.taxnotes.com.