



OVERVIEW OF UNREPORTED REVENUE IN THE US SHORT TERM RENTAL MARKET



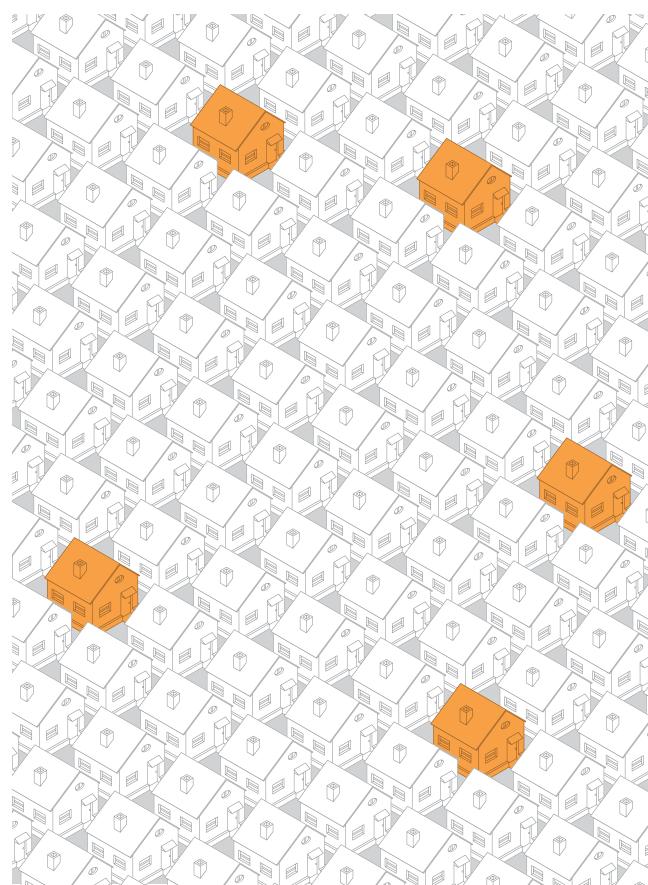
INTRODUCTION

When Airbnb launched in 2008, it kickstarted the popularization of the short term rental (STR) market by providing a platform that allowed hosts to engage directly with guests who required short term lodging.

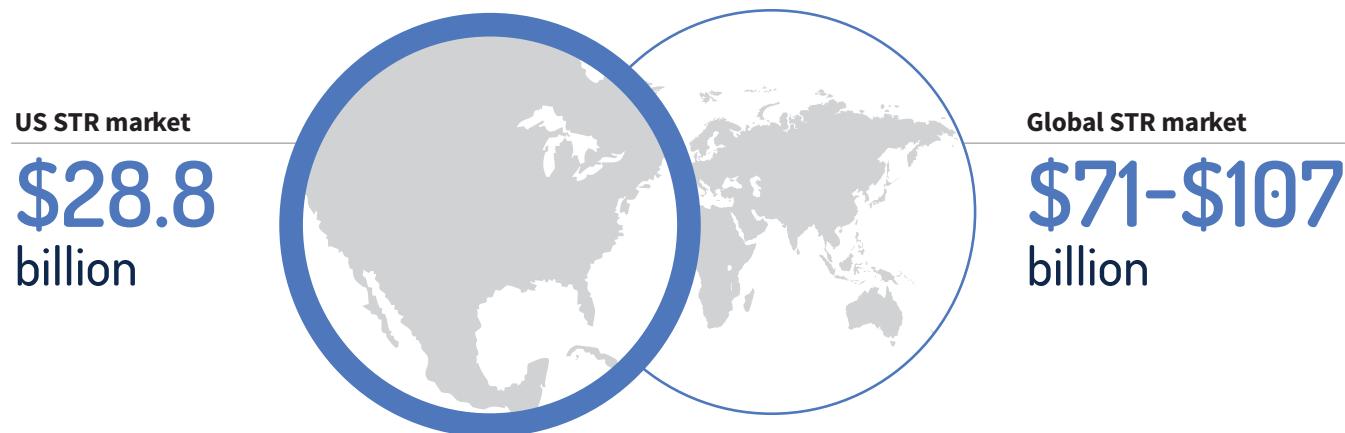
Since then, this market has seen significant growth, with many additional companies joining Airbnb to provide similar services including HomeAway, VRBO, Booking.com, hotels.com, Vacasa and Turnkey. Globally, the market is currently estimated to be between USD \$71-£107 billion, depending on the source^{[1][2]}. We estimate that \$28.8 billion of this is in the US alone.

While the vast majority of transactions on these platforms are digital, and therefore, theoretically, trackable, tax evasion remains highly possible. This is because self reporting of host revenue either is not happening or is being under reported. Like in almost every industry, the value of revenue that is legal, but not reported to the tax authorities ("unreported revenue" or "unreported income", is of significant concern to state and government authorities, both in terms of the potential lost income and as a tool to properly understand the size and needs of the sector.

This report considers the specific characteristics of the short term rental market in the US. This, in combination with comparisons with other, similar markets, offers an assessment of the probable size of unreported revenue within the US STR market and the potential for tax revenue that could be collected, as well as suggestions on how tax authorities could achieve this.



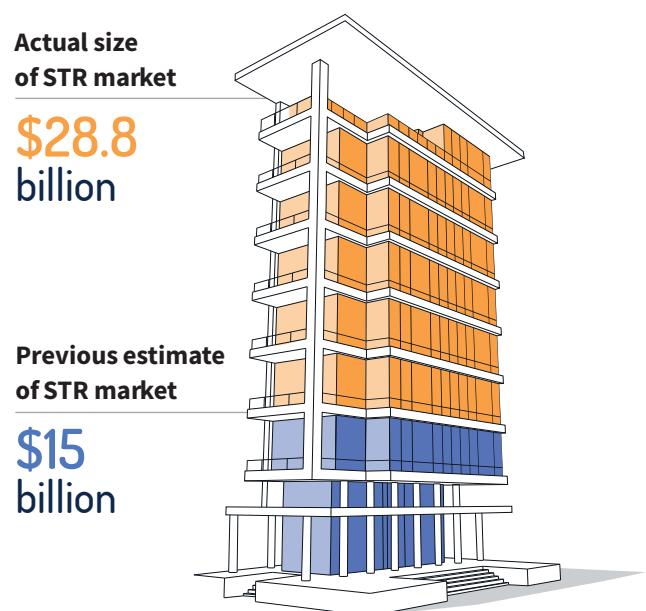
Global STR market vs US STR market



KEY FINDINGS

- 1** The US STR market is \$28.8 billion, significantly higher than the \$15 billion previously estimated.
- 2** The value of unreported revenue in the STR market in the US is \$8.6 billion or 30%, representing lost tax income of \$2.6-3.1 billion. This is notably larger proportionally than the US market's overall shadow economy, which official figures place at 16%.
- 3** Unreported revenue in the US STR market is strongly affected by the fact that a large portion of the revenue is being generated across state borders and with co-hosts, increasing the complexity of tracking, reporting and taxing this income.
- 4** The planned change in 1099-K reporting could possibly lead to a significant increase in identified hosts, with almost the entire STR revenue being identified. But unless this data is used effectively, the impact will, in fact, be minimal.

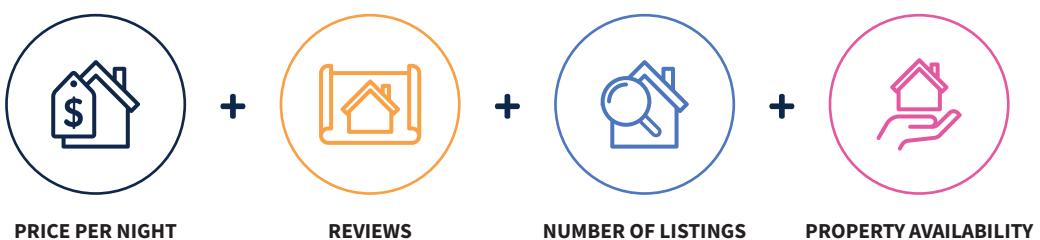
STR market hugely underestimated



METHODOLOGY

To create this report, IVIX analyzed anonymized data on millions of public hosts' profiles on the leading STR platforms using information such as price per night, reviews, number of listings and monitored property availability changes. The data was from 2021 and was extrapolated for the full year. IVIX used proprietary algorithms and analysis tools, cross-referenced with other publicly available data such as financial reports of publicly traded companies. IVIX also used its experience from analyzing the shadow economy in OECD countries.

The impact of 1099-K's impact on non-compliance in the US STR market was also taken into account.



SHORT TERM RENTALS IN THE US

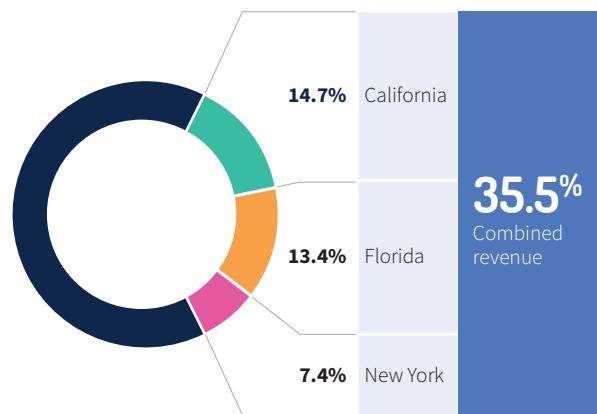
IVIX's analysis shows that the short term rental market in the United States is worth approximately \$28.8 billion, significantly higher than the 2021 Statista^[1] estimate of \$15 billion.

Our calculations have been made by monitoring the availability and pricing of listings in all US states and by using our proprietary algorithms to estimate booking volumes. When we cross check with Airbnb's filings, this number is further corroborated. As an example, Airbnb's 2020 report shows that North America represents 55%^{[4][5]} of its business, with at least 60% of this figure in the US. This would put the US STR market at 30% of the global market, which is consistent with the number of listings, occupancy and prices we compared the data to^{[6][7]}.

A number of trends can be seen in the data:

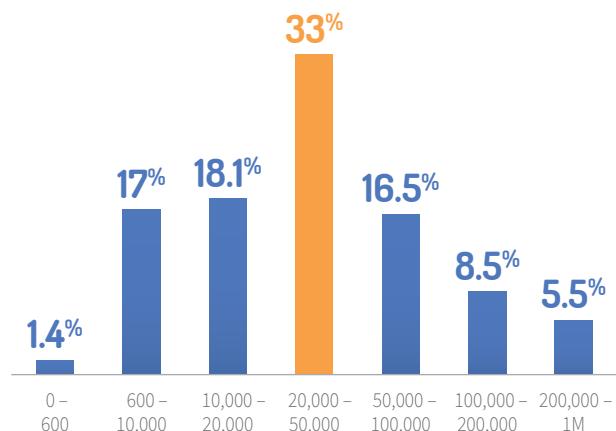
- 1** A large percentage of hosts are either out-of-state (12.1%) and/or are co-hosts (ie where there is a property manager) (16.3%) or both (4%). This is the most significant factor for tax calculations as the host needs to determine where to file and which state would receive the revenue. It is also easier for hosts to either under-report or not report revenue that is earned in different tax jurisdictions.
- 2** California and Florida have the largest STR revenues by a wide margin, with a combined total of 28% of all listings being in these states. New York is in third place, with 7% of listings. This suggests these are the states that should be prioritized by tax authorities.
- 3** Overall, variation between states in terms of short term rental popularity is significant (eg according to Airbnb data, Ohio, with a population of 11.8 million has just 9K listings while North Carolina, with a population of 10 million, has more than three times as many listings at 32K). Some states are therefore more likely to benefit by identifying unreported revenue from their STR markets.
- 4** The majority of hosts have a lower number of listings – usually just one or two – with relatively low revenue for each. The average is two listings per host.
- 5** The average booking costs \$1,380, with each listing receiving approximately 20 bookings per year on average. This represents an average revenue of \$27K per listing, or \$58K per host.

Top 3 states as percentage of total US STR Revenue



Value per listing

Average booking		Average Revenue	
\$1,380	20	\$27,000	\$58,000
Costs	Bookings per year	Per listing	Per host



WHAT DRIVES UNREPORTED REVENUE IN THE STR MARKET?

As with any sector, concealed revenues, whether as a result of income being purposefully hidden or simply misreported, negatively impact the value and volume of tax collections by tax authorities.

In the case of the STR market in the United States, a number of factors contribute to this, and, as we will demonstrate later in this report, play an active role in unreported income in the STR shadow economy being larger, proportionately, than for total (legal and illegal) shadow economies in other sectors.

- 1** Because hosts and listings are often in different states, the opportunity for revenue to be misreported or underreported as a result of complex cross-border taxation rules is high.
- 2** This is exacerbated by hosts being less likely to be professional property managers or corporates. This is true across the entire global STR market.
- 3** Relatively small revenue value per listing makes data collection and tracking by authorities more difficult. US authorities have made some effort to address this via the 1099-K form requirement. However, the average host does not meet the threshold. Even for those hosts who do, it's likely to be the result of listings on multiple platforms. As platforms do not share or aggregate data, the form will therefore not be sent to these hosts.
- 4** Many STR listings were originally part of the traditional rental market where a culture of tax evasion is common. This culture has therefore been transplanted to the STR market, driving a higher value for unreported revenue.

1099-K

1099-K forms have been required for hosts that exceed \$20,000 or have more than 200 transactions per listing. The forms are issued by the hosting platforms and are used to report payments received through reportable payment card transactions (such as debit, credit or stored-value cards) and/or settlement of third party payment network transactions. However, the average host does not meet this requirement, particularly on any one platform, and platforms do not share or aggregate data.



CROSSING STATE BORDERS

Adds complexity for tax authorities and hosts



INFORMAL PROPERTY MANAGEMENT

Reduces professional approach



HIGH VOLUME OF HOSTS AND LISTS

Creates tracking and monitoring challenges



SHARED CULTURE WITH TRADITIONAL RENTAL MARKET

Drives higher value of tax evasion

CASTING A LONG SHADOW: UNREPORTED REVENUE IN THE US STR MARKET

Value of unreported revenue in the US STR market:	8.6 billion
Value of potential lost tax revenue:	\$2.6 – \$3.1 billion

The overall tax gap in the US, is estimated to be valued at \$1 trillion (according to current IRS commissioner, Charles Rettig)^[8], or 16.72% of GDP. Applied to the short term rental market, this would represent untaxed revenue of approximately \$4.81 billion, less than half of our estimate of \$8.6 billion.

How is the \$8.6 billion calculated?

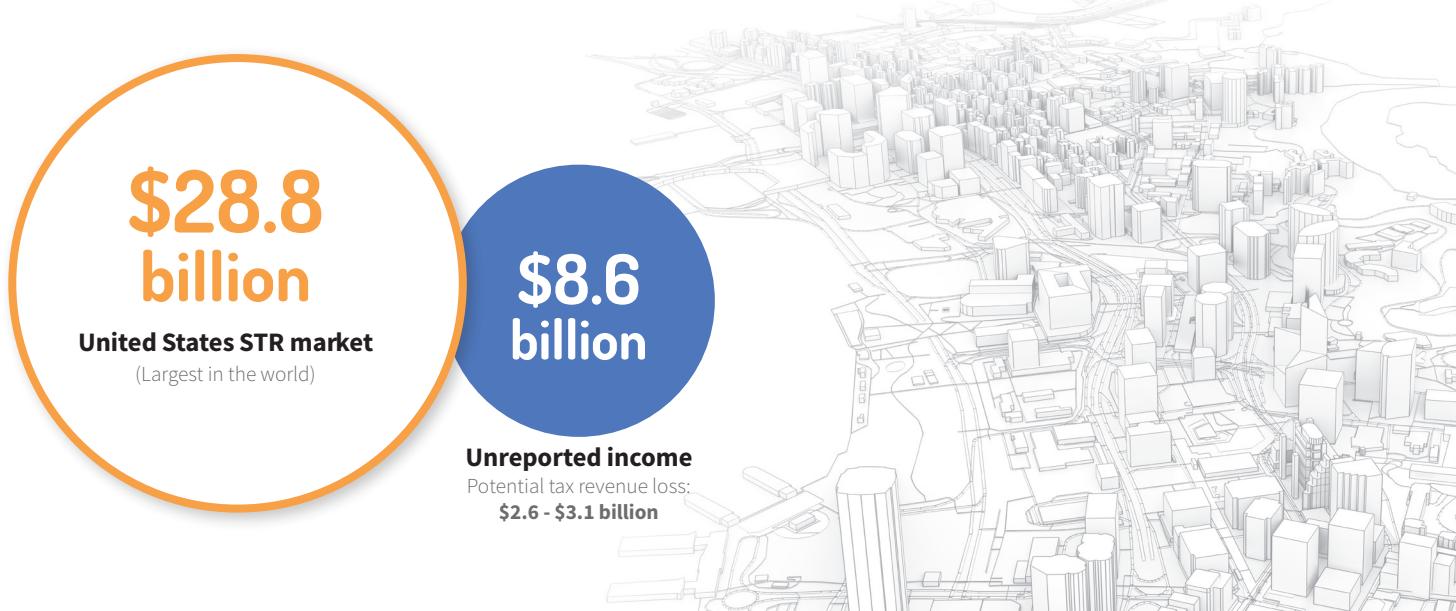
- 1 Proportionally, we consistently see a larger value for unreported income in short term rental markets vs overall untaxed revenue. For example, in other OECD countries, IVIX's analysis has shown that STR unreported revenues are approximately 60% vs those countries' average total untaxed revenue of 22%.

- 2 At 16.72% the US's untaxed revenue is generally lower than other markets IVIX has examined. As a result, the difference between the US average shadow economy and that of unreported income in its STR market is likely to be less than in other OECD countries. In addition, there are frameworks in place to combat unreported income in the STR market specifically, such as the implementation of 1099-K reports.

Determining tax levels

The average size of unreported revenue for the STR market is estimated at 30%, but the impact on taxable revenues could be anywhere between 30-36%. This is impacted at a state level by:

- a) The individual tax situation of tax payers whose STR income is currently fully or partially hidden
- b) Differences in tax codes between states.

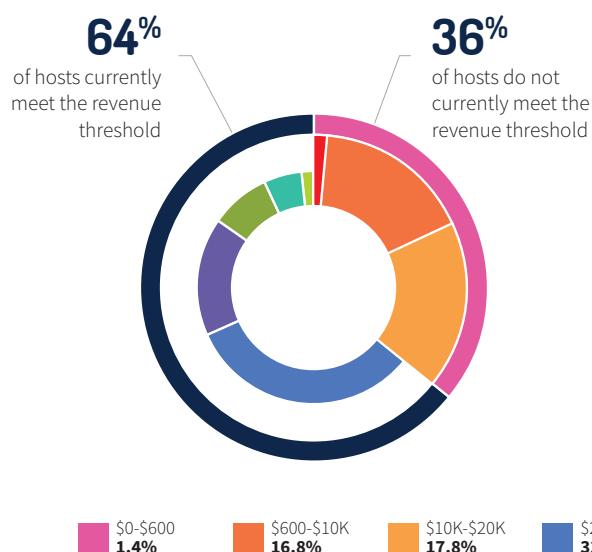


1099-K AS A CATALYST FOR CHANGE

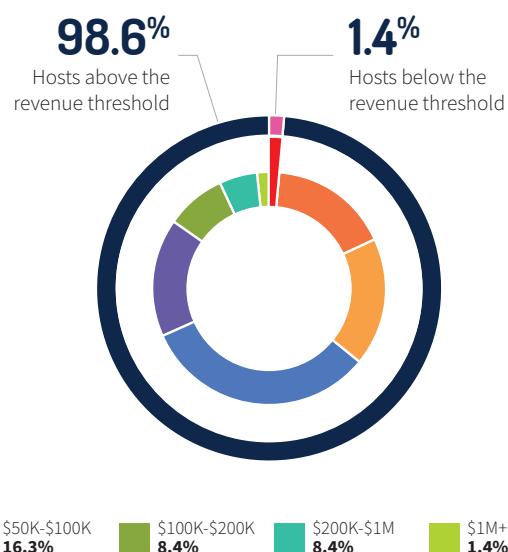
Under the current 1099-K requirements, for hosts to be issued with a form, they needed to meet the revenue threshold of \$20k and also the transaction threshold of 200+ transactions. 36% of hosts do not even meet the revenue threshold and only 3.9% of hosts meet the transaction threshold. That means, that, at most, only 3.9% of hosts meet requirements to be issued reports.

In 2022, 1099-K is set to be completely overhauled, eliminating the minimal transaction requirement and lowering the revenue reporting threshold to just \$600. As a result, platforms will now issue reports for 98.6% of hosts, leading to a dramatic effect on the tax authorities' ability to map STR revenue.

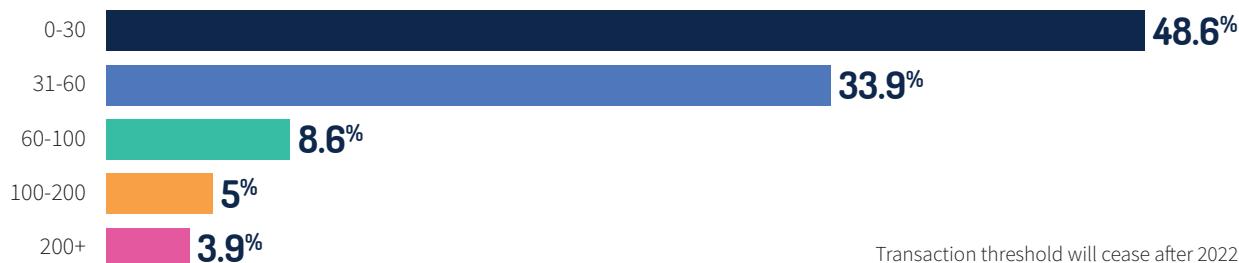
Hosts in scope of 1099-K currently



Hosts in scope of 1099-K from 2022



Number of transactions by host



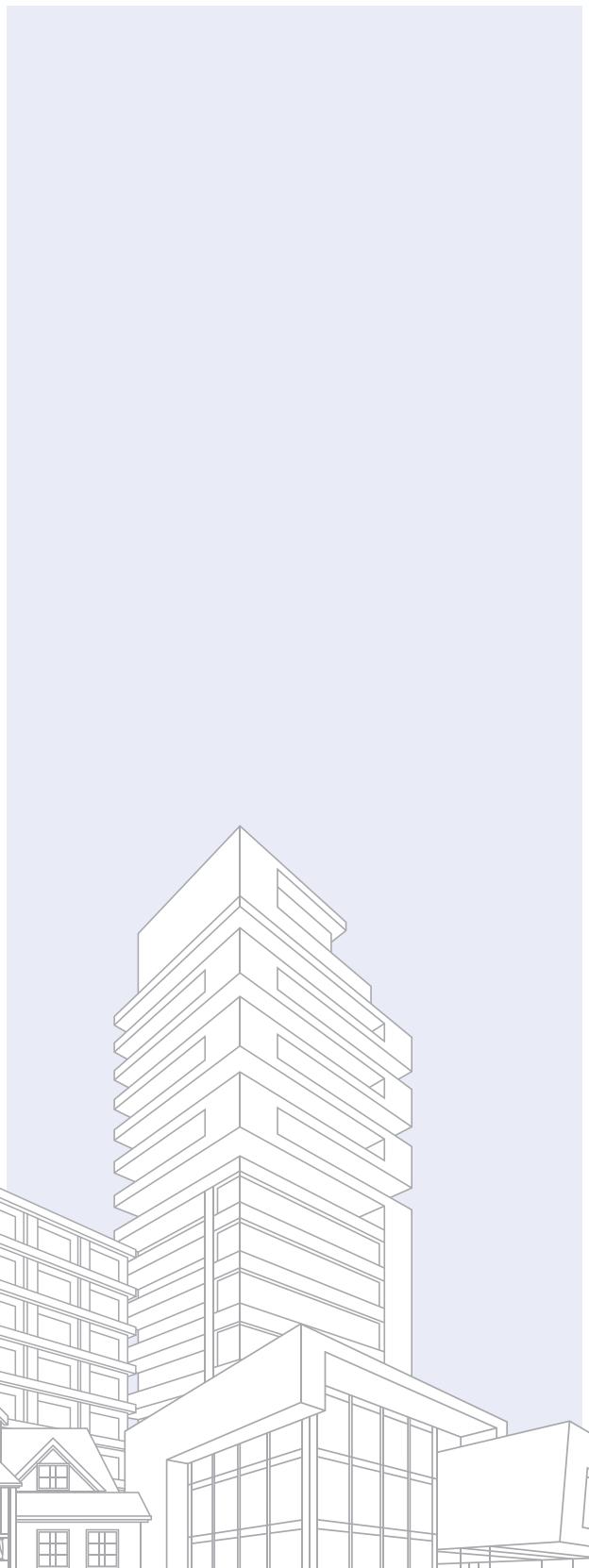
RECOMMENDATIONS

Lowering the reporting of 1099-K to \$600 (planned for 2022), as well as to cover any number of transactions, is likely to have a dramatic impact on the IRS's ability to assess STR revenue. In addition, cross-border issues need to be addressed to assist state and local tax authorities.

However, according to the Treasury Inspector General for Tax Administration and others, a similar tool to assess the foreign holdings of US account holders of foreign financial institutions (FATCA) has not been successful^{[9][10]}, suggesting that analyzing and enforcing 1099-K data might not be easy. Aggregating 1099-K from multiple vendors would provide authorities with a clearer picture of revenue per host.

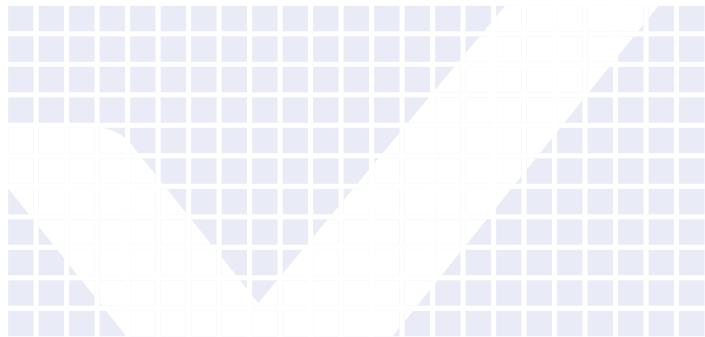
We recommend that authorities leverage the positive increase in reporting as a result of 1099-K to extract as much as possible out of it and to increase deterrence.

States identified as having a higher value of lost taxable income, such as California and New York, which have both higher income tax and STR activity, are most likely to be the ones that tax authorities should target in the first instance. Similarly, each state should consider the specifics of unreported income in its STR market to assess the value of identifying and taxing these revenues vs the effort involved.



ABOUT IVIX

IVIX brings a technology-driven approach to assist tax authorities to close the tax gap and increase tax collection at scale. IVIX's platform leverages novel technologies to smart-intersect a plethora of public data sources with tax authorities internal data sources. The platform uses sophisticated algorithms on the unified data to provide a clear picture of businesses' activity at scale – both the who and how much. IVIX targets non-compliance verticals and allows tax authorities to close the tax gap in a resource-efficient manner.



Sources

- [1] www.statista.com/outlook/mmo/travel-tourism/vacation-rentals/united-states
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- [10] www.gao.gov/products/gao-19-180

IVIX Tech Inc. ("Advisor" or "We") has been requested by Mr. Charles o. Rossotti (the "Client") to prepare an analysis in connection with "Shadow economy in STR market in the US" (the "Summary").

The Summary was prepared for the Client, based on a limited agreed scope, is focused on certain limited issues the Client has identified as being of particular interest to it and limited to information gathered through the procedures that the Client requested us to perform, as of such date. In the preparation of this Summary, we have assumed that: The ratio of the shadow economy percentage in the STR to avg. shadow economy percentage kept between countries. Also, assumes are the 1099-K impact and or others KPIs we weren't able to find exact data on. The procedures performed were undertaken as an advisory service to the Client and do not constitute a full, comprehensive or exhaustive due diligence review of the subject matter or of all the matters that may be relevant or desirable in connection with subject matter hereof. The Summary is subject to certain assumptions, qualifications, limitations and exclusions set forth therein and does not provide any form of assurance regarding the information discussed therein. Furthermore, the Summary may not address all matters which We are aware of and/or other matters which have been discussed between Advisor and the Client directly or otherwise. The Summary sets forth certain issues identified by Advisor up to and as of the date specified therein. Advisor does not undertake any obligation to update the Summary, even if it is aware of changes.

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