Tax Collection and Regulation Under the Business Model of the Sharing Economy and Implications for China

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Abstract

With the revolutionary progress of digital technology, the sharing economy has become a key transformative force in the global economic structure. It breaks the conventional corporate transaction paradigm and establishes an innovative system for resource sharing, which is crucial for optimising resource allocation and enhancing utilisation efficiency. However, this new business model faces additional challenges with uncertainty in tax laws and delays in regulations. B2C (business to customer) and C2C (customer to customer) are the two most common business models in the sharing economy. Under the B2C model, businesses provide products or services directly to customers through sharing platforms, and under the C2C model, transactions between peers are more frequent, but the absence of clear tax regulations and law enforcement has resulted in growing issues of tax base erosion and unfair competition. This research analyses the structure and operation of several sharing economy platforms through case studies under two business models: business-to-customer and customer-to-customer. It discusses the effects of the sharing economy on the existing tax system within these two types of business models and assesses the issues. And effects of regulatory frameworks and challenges on tax among different jurisdictions. Based on the existing tax policies in different regions, some suggestions are put forward for China's tax policy, which is "wading the river by groping for stones".

Preface

Time always flies. This thesis is the biggest project I have ever done in my life. During the period of writing, I faced excitement, hesitation, confusion, and bottlenecks. Then I realised that I must keep going toward my dream to make my life more meaningful.

I would like to say many thanks to my supervisor. The completion of this thesis is inseparable from his guidance and encouragement. His patience and care were like a reassuring pill, and his every encouragement gave me the confidence that I still have the potential to face any difficulties.

Then I would like to thank my family, especially my parents and my husband. While I was busy with research and writing, they quietly took on more family responsibilities and created a quiet and harmonious learning environment for me. I can’t complete this without their love and understanding.

At last, I would like to express my gratefulness to my daughter. I would like to thank her for her understanding and support in pursuing my academic dreams, and for her willingness to accompany me to live and study in New Zealand. Her companionship and understanding gave me more courage and strength.

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Chapter 1 Introduction

1.1 Background and Significance

The sharing economy has been recognised as an essential type of economic activity worldwide, driven by the transformation that has occurred by digital technology. Through the utilisation of digital technology, it effectively and successfully connects resources that are dispersed among peers (such as vacant residences and cars) with users who require these resources, thereby significantly improving the efficiency of resource utilisation. The sharing economy not only changes the traditional business transaction model but also provides new impetus for economic growth. However, in addition to its effects on the traditional economy, it also brings up difficulties in terms of taxation and oversight by the government.

The tax issues associated with the sharing economy are primarily reflected in two aspects: first, how to tax two different tax entities, resource suppliers and platform firms, in an appropriate way, and second, how to fill the gap between the existing tax system and the rapid expansion of the sharing economy. However, the current system of taxes is no longer able to accommodate the characteristics of the sharing economy, which include the decentralisation of transactions, the diversification of participating businesses, and the frequency of cross-border transactions. Because of the above mentioned characteristics, tax collection and administration in sharing economy are met with several challenges, for example, the difficulty in identifying taxpayers, the large amount of transactions, and the complexity of tax collection due to the high mobility of taxpayers. In addition, as a result of the expansion globalisation of the sharing economy, the challenges of tax collection and supervision for enterprises that operate cross-border have grown incredibly complicated. Variations in tax legislation among countries and regions, limited information exchange, and inadequate international collaboration provide obstacles to collecting and supervising taxes across borders.

This paper will analyse the development process of the sharing economy, seek out the relationships within the parties that are participating, and conduct an analysis of the sharing economy platforms that are globally well known to investigate the relationship that exists between resource providers and platform companies in the context of the two business models of the sharing economy, B2C and C2C. The purpose of examining the experiences of other countries and regions to assist China in bridging the gap between its existing tax system and the rapid expansion of the sharing economy.

1.2 Related Theories

1.2.1 Equity and Fairness in Taxation

Adam Smith introduced the concept of equity in taxation in his book The Wealth of Nations. "The subjects of every state ought to contribute towards the support of the government, as nearly as possible … in proportion to the revenue which they respectively enjoy under the protection of the state".[1] That is, the burden that the state imposes on each taxpayer needs to be appropriate to their economic status while maintaining a balanced level of burden among each taxpayer. To ensure a fair tax burden, the government has to be concerned with promoting both horizontal and vertical fairness of taxpayers. Horizontal fairness means that taxpayers with the same financial status (or in the same economic position) should be levied the same amount of tax; while vertical fairness means that taxpayers with different financial statuses should be treated differently in terms of taxation and differentiated according to their tax payment ability. Individuals with higher potential taxable capacity should pay a greater amount of taxes, while those with lower tax capacity should pay less. That is to say, in the process of implementing the existing national tax policy, the government should carefully grasp the relationship between horizontal and vertical tax distribution,

[1] Adam Smith *An Inquiry into the Nature and Causes of the Wealth of Nations* (Readings in Economic Sociology, 2002)

and in the process of formulating or reforming the future tax policy, it is also necessary to fully consider the principle of horizontal and vertical fairness, so that the tax burden of taxpayers can be adapted to their economic conditions.

1.2.2 Information Asymmetry

Information Asymmetry refers to the fact that various types of people have different information in the transaction process.[2] In social, political, economic, and other activities, due to the limitations of information, different groups of people have different abilities to obtain information, resulting in differences in the understanding of information by participating subjects, and also the differences in the data they possess. At this moment, participants who have a strong capacity to receive information are typically in a position of advantage, whereas those who have a weak ability to obtain information are in a comparatively disadvantageous position. This factor often leads to the following two phenomena. During the transaction process, the buyer is unable to evaluate the quality of the product because the seller has more information than the buyer. As a result, the seller sells defective products at a high price, which will lead to inferior quality products driving out superior quality products, which will eventually contribute to a reduction in the average quality of products that are traded in the market. This phenomenon is known as adverse selection which mostly occurs in the second-hand trading market. The moral hazard is the second factor. In situations where individuals participate in riskier behaviours after a transaction as they are protected, the protecting party cannot fully monitor the activities of the protected party. A moral hazard occurs when the protected party does not take adequate precautions and changes its behaviour after the transaction is completed, and the protecting party cannot detect this change itself. Consider a classic example from the insurance industry: as a result of information asymmetry, the policyholder's actions might change after the purchase of insurance, and these

[2] Richard A Lambert,Christian Leuz and Robert E Verrecchia "Information asymmetry, information precision, and the cost of capital" (2012) Review of Finance

changes will be unfavourable to the insurance company. However, the insurance company fails to take the initiative to find out or identify the changes. Information asymmetry theory mentions that information has an important impact on the conduct of market economic activities, and it points out the shortcomings of market economic transaction activities. Information asymmetry is common in all fields, and tax governance is no exception. The phenomenon of information asymmetry is prevalent in various fields, and tax governance is no exception. It is specifically manifested among various participating entities. For instance, the tax authorities are unable to get the actual operating status and profit data of the enterprise, or some enterprises or individuals do not fully understand tax policies. For example, the tax authorities are neither able to obtain the actual operating status nor profit data of the enterprise, or the enterprises or individuals do not fully understand the tax policies will cause information asymmetry. In addition, information asymmetry also exists between the tax authorities and other departments. The non-disclosure or limited disclosure of tax-related information and data between departments restricts the ways for tax authorities to access accurate information, making it difficult for them to obtain true tax-related information and data.

1.2.3 Tax Compliance

Theoretical research on tax compliance began in 1972 when Allingham & Sandmo established the expected utility maximization model (A-S model) based on the assumption that "taxpayers are rational agents". Their research argues that taxpayers make tax compliance or non-compliance decisions only to maximize their own benefits, and the increasing penalty rates and audit probabilities will reduce taxpayers' tax evasion activities.[3]

Alm used Prospect Theory to provide an explanation for the reason that the actual tax compliance is higher than the predicted result utility theory. Alm also contends that

[3] Michael G Allingham and Agnar Sandmo "Income tax evasion: A theoretical analysis" (1972) Journal of Public Economics 3

the likely reason for individuals are willing to pay taxes is an overestimation of the risk of being audited. [4]In the face of low probability losses, taxpayers are risk averse and they are forced to choose to comply. Empirical research by Elffer s and Hessing shows that intentionally increasing tax withholding can improve tax compliance. [5]People tend to think of getting a tax refund as a gain and back tax payments as a loss. Dhami and Al-Naihi used the legal after-tax income of taxpayers as a reference point and proposed that an increased tax rate will lead to a rise in the number of tax evasion and a fall in tax compliance.[6] This is consistent with a large amount of evidence.

Tax compliance is known as the degree of compliance with tax laws reflected by taxpayers' subjective wishes. Tax compliance is the degree of compliance with tax laws reflected by taxpayers' subjective wishes. [7]There are five main categories of factors influencing taxpayer compliance, the tax law system, the tax environment, the social moral level, the efficiency of tax law enforcement, and the tax services. The tax system includes a set of rules, regulations, and procedures with three aspects.[8] The tax environment contains the reputation of tax authorities, government efficiency, and fiscal expenditures, and the tax services specifically refer to the level of tax law publicity, reducing taxpayer compliance costs, and providing convenient services to taxpayers.[9]

More specifically, tax compliance means that taxpayers take the initiative to declare and pay taxes to the tax authorities, calculate the tax payable according to the actual income in accordance with the tax policy, and fulfil the taxpayer's tax obligations to pay taxes. Of course, these actions should be carried out without being enforced under

[4] James Alm "A perspective on the experimental analysis of taxpayer reporting" (1991) The Accounting Review
[5] Henk Elffers and Dick J Hessing "Influencing the Prospects of Tax Evasion" (1997) Journal of Economic Psychology 289
[6] Sanjit Dhami and Ali Al-Nowaihi "Why Do People Pay Taxes? Prospect Theory Versus Expected Utility Theory" (2007) Journal of Economic Behavior & Organization 171
[7] Neil Brooks *Key Issues in Income Tax: Challenges of Tax Administration and Compliance* (Asian Development Bank,2001)
[8] Joel Slemrod "The Return to Tax Simplification: An Econometric Analysis" (1989) Public Finance Quarterly 3
[9] Above n7.

the premise. There is a correlation between non-compliance and the cost of tax compliance. One of the factors that can be used to determine the level of tax collection and administration is the degree of tax compliance. The higher the cost of tax compliance, the higher the rate of tax non-compliance.[10] Therefore, a reasonable and effective tax system plays a significant role in promoting tax compliance, improving the enthusiasm of taxpayers to take the initiative to declare and pay taxes, and avoiding the loss of tax revenue. The degree to which taxpayers comply with their tax obligations will be a constraint in the execution of tax policy, particularly in the process of tax collection and administration. Furthermore, psychological factors such as taxpayers' attitudes and beliefs are important factors affecting tax compliance.[11] As a result, it is hard to achieve favourable implementation consequences of tax policies without the active participation and cooperation of taxpayers. And the other way round, if the governments want to achieve their goal for inspiring taxpayers to take on a more truthful and optimistic attitude, they must first establish a tax system that is rational and trustworthy.

Chapter 2 Sharing Economy

2.1 Sharing Economy

2.1.1 What is Sharing?

The sharing economy originated in the United States. As early as 1978, Felson and Spaeth first proposed acts of *collaborative consumption*, that is, those events in which one or more persons consume economic goods or services in the process of engaging in joint activities with one or more others.[12] People relied on groups, cooperating in space and time to accomplish something together at that time. With the development of information and communications technology (ICT) , collaborative consumption has

[10] Above n8.
[11] Steven M Sheffrin and Robert K Triest "Can Brute Deterrence Backfire" (1992) Perceptions and Attitudes
[12] Marcus Felson and Joe L Spaeth. "Community Structure and Collaborative Consumption: A Routine Activity Approach" (1978) American BS 614

been moved online. People who have similar requirements or interests come together to exchange and share intangible assets online to reduce the burden of their financial situations and to lessen the impact on the environment.[13] People have come to realise that the idle items, spaces, skills, time, land, and other things that are not being utilised are valuable and all of these things could potentially be shared and monetised. Thus, people make the most of their existing assets by switching idle capacity into other areas as a way to maximise effectiveness and management.[14] As the amount of user-generated content increases, methods of online collaborative consumption have been emerged.[15] During this period, collaborative consumption is no longer just consumption, it becomes an activity that interweaves the contribution and use of resources through peer to peer networks, that is, the peer to peer activities of acquiring, giving, or sharing goods and services through the coordination of community-based online services.[16] Then, Hamari equated the concepts of "collaborative consumption" and "sharing economy".[17] It is characterized by the provision of peer-to-peer access for profit or non-profit purposes through the intermediary of digital platforms, without changing the ownership of goods and services,[18] and only provide temporary access to goods and services.

2.1.2 Why Do People Share?

The development of the sharing economy is inseparable from the driving forces of three factors, social driving, economic driving, and information technology driving.[19]

Due to the increasing population density, people living in cities can reap the greatest

[13] Rachel Botsman, Roo Rogers "Beyond Zipcar: Collaborative Consumption" (2010) Har B Rev 30
[14] Lisa Gansky *The Mesh: Why the Future of Business Is Sharing* (Penguin Group, New York, 2010)
[15] Andreas M Kaplan and Michael Haenlein "Users of the World, Unite! The Challenges and Opportunities of Social Media" (2010) Business Horizons 59
[16] Juho Hamari, Mimmi Sjöklint, and Antti Ukkonen "The Sharing Economy: Why People Participate in Collaborative Consumption" Journal of the Association for Information Science and Technology (2016) 2047
[17] Above n16
[18] European Communities *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions* (European Communities, 14 Nov 2012)
[19] Jeremiah Owyang, Christine Tran, and Chris Silva *The Collaborative Economy: Products, Services, and Market Relationships Have Changed as Sharing Startups Impact Business Models* (4 June 2013)

benefits brought by sharing, because the ability of consumers to obtain when they need it depends on the number of surrounding consumers,[20] and obviously, customers in cities have a higher probability of owning an item, because they live or work closer to each other. People choose to rent rather than ownership allowing a wider range of people to use fewer products more efficiently, which in turn is better for the environment.[21] That is to say, the more you have within a certain range, the more you can share, the shorter the time to obtain it, and the more you can protect the environment. This is the social driver of the sharing economy. Temporary trading of the use of ubiquitous, expensive, but underutilized assets (idle capacity) for financial returns is an incentive for those who own high-value, low-use items. This is economically driven. 33 per cent of the world's population is connected to the Internet,[22] which will reach 4.1 billion by 2023.[23] The level of interconnection in current society, both in terms of its breadth and depth, is unparalleled. The increasing popularity of social networks has become an important information technology driver for promoting the sharing economy.

In addition to this, the general trust and maintenance of the sharing economy is also an essential factor in the progress of the sharing economy.[24] Based on trust, people choose to publish the share information on reliable online community platforms. Online community platforms connect goods or services providers and consumers through network technology, reducing previously high search and transaction costs, and creating trust and reputation in anonymous markets, for example ratings and feedback, and provide integrated fulfilment and payment capabilities, like social media payments, to guarantee simple and reliable compensation for using shared

[20] Katie Finley "Trust in the Sharing Economy: An Exploratory Study" (2013) Centre CPS
[21] Arun Sundararajan *The Sharing Economy: The End of Employment and the Rise of Crowd-Based Capitalism* (MIT Press, Massachusetts, 2017)
[22] Mark Suster "Here's What's Driving Collaborative Consumption and Where the Market May Head Next"(9 Jun 2013) <www.bothsidesofthetable.com>
[23] Tianyi Gu "43% of Active Smartphones Will Be 5g-Ready by 2023: The Global Mobile Market Is on Track for Substantial Growth and Game-Related Engagement" (25 Sep 2020) <www.linkedin.com>
[24] Dietlind Stolle "Trusting Strangers–the Concept of Generalized Trust in Perspective" (2002) Österreichische Zeitschrift für Politikwissenschaft 397 at 401

goods and services.[25] The use of mobile smart devices, such as smartphones and tablets, makes it simpler to gain access to the applications that are available on the platform.[26]

2.1.3 Sharing Economy Platform - the Middleman

Initially, the goal of the sharing economy was individuals as providers of occasional sharing of private goods and services. Later, professional providers also began to join, Later, the large and growing number of professional providers and private providers are no longer limited to sharing goods and services on an occasional basis, they are frequently involved in the practice of sharing goods and services as their main occupation.[27] Hence, the European Union requires providers who exceed a set scope and are engaged in relevant purposes related to their trade, business, craft or profession, as well as providers with a profit motive who provide more frequently, must register as traders.[28] While a peer customer purchases, obtains or rents goods and services from peer providers, they may also act in the role as a peer provider.[29] Sharing economy platforms play a matchmaking role between providers and consumers. They serve as digital intermediary platforms to share peers' goods and services on a for-profit or non-profit basis through matchmaking and increasing added value.[30]

As the sharing economy platform covers wider and wider businesses scope, open-source software, online collaboration, file sharing, and peer-to-peer financing

[25] Thomas Puschmann and Rainer Alt, "Sharing economy," Business & Information Systems Engineering 58 (2016). at 93

[26] Douglas MacMillan, Peter Burrows, and Spencer E. Ante "Inside the App Economy" (23 October 2009) <www.bloomberg.com>

[27] Katarina Stanoevska-Slabeva, Vera Lenz-Kesekamp, and Viktor Suter *Platforms and the Sharing Economy: An Analysis* (European Commission, 28 Nov 2017) at14

[28] European Communities *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions* (European Communities, 14 Nov 2012).

[29] Juliet B Schor and Connor J Fitzmaurice "Collaborating and Connecting: The Emergence of the Sharing Economy" in Lucia A. Reisch(ed) Handbook of Research on Sustainable Consumption (Edward Elgar Pulishing, Cheltham, 2015) 410

[30] Katarina Stanoevska-Slabeva, Vera Lenz-Kesekamp, and Viktor Suter *Platforms and the Sharing Economy: An Analysis* (European Commission, 28 Nov 2017) at16

are labelled as four typical examples of the sharing economy.[31] In 2016, OECD divided the sharing economy platform into short-term accommodation, shared workspaces, short and long-distance transportation options, monetary loans and capital funding, variety of staffing services, health, beauty and wellness, education and learning, food delivery and meal sharing, logistics and storage, as well as utilities.[32]

2.1.4 What Do People Share?

A common distinctive feature of the sharing economy is the right to use rather than ownership of shared goods.[33] In economics, property is described through the distinction of property rights which is the right to use recourses, the right to change the form and matter of a resource, the right to acquire the yield of recourses usage and the right to transfer the resource and its right. Access rights are based on the transfer of the first three rights, while ownership is marked by the transfer of the last one.[34] Accordingly, transactions can be divided into two categories, which are transferring resource ownership and rights ownership, and transferring rights ownership but not resource ownership.

In a use-oriented business model, the providers take ownership of the products, and they sell the right to use the product or some of its features to the customer.
The product and service group transforms to the use of product functions.[35]
In addition to guaranteeing the functionality, maintenance, repair and control of the tangible products offered, the provider allows the consumer to use all or part of the product for a certain period of time.[36]Although services play an important role, the

[31] Juho Hamari, Mimmi Sjöklint, and Antti Ukkonen "The Sharing Economy: Why People Participate in Collaborative Consumption" Journal of the Association for Information Science and Technology (2016) 2047
[32] OECD *Protecting Consumers in Peer Platform Markets Exploring the Issues.* (OECD, June 7, 2016).
[33] Russell Belk "You Are What You Can Access: Sharing and Collaborative Consumption Online" (2014) Journal of Business 1595
[34] Lisa Gansky *The Mesh: Why the Future of Business Is Sharing* (Penguin Group, New York, 2010)
[35] Above n34
[36] Arnold Tukker "Eight Types of Product–Service System: Eight Ways to Sustainability? Experiences from Suspronet" (2004) Business strategy and the environment 246

utilisation of the product is still gained by the customer, which means that the consumer is provided with the right to use the tangible product.[37]

Sharing, which is defined by non-reciprocal, prosocial, and altruistic characteristics, is considered to be a third distribution mechanism, following the exchange of market and gift giving[38]. It has a focus on fostering social connections among participants. Prosociality is understood as having a social interest in others, being guided by an altruistic mindset who are not only caring about one's own, but also considering of others.[39] Rather, characteristics of nonreciprocal behavior emerge only when participants do not calculate nonmonetary or monetary debts.[40] Sharing is considered to be an in-person communal act that contributes a sense of solidarity and connection with members of the community who are relatively close to one another.

When participants are identified as peers, ideas of equality and benefit-sharing among them are visible to each other.[41] Peers are often described as prosumers,[42] because they alternate roles as consumers or producers of goods and services,[43] and develop of value propositions as collaborators.[44] This situation can be observed in supplier-consumer relationships very often. For example, in ride-hailing programs, the consumers almost acting as the employees. They pick up, deliver, and clean the car, top up and report damage of the car.[45]

[37] Oksana K Mont "Clarifying the Concept of Product–Service System" (2002) Journal of Cleaner Production 237
[38] Russell Belk "Why Not Share Rather Than Own?" (2007) The Annals of the American Academy of Political and Social Science Research 126
[39] Eric J Arnould and Alexander S Rose "Mutuality: Critique and Substitute for Belk's 'Sharing'" (2016) Marketing Theory 75
[40] Above n38.
[41] Koen Frenken and Juliet Schor "Putting the Sharing Economy into Perspective"(2019) A Research Agenda for Sustainable Consumption Governance 121
[42] Koen Frenken "Political Economies and Environmental Futures for the Sharing Economy" (2017) PTRS
[43] George Ritzer and Nathan Jurgenson "Production, Consumption, Prosumption: The Nature of Capitalism in the Age of the Digital 'Prosumer'" (2010) Journal of Consumer Culture 13
[44] Daniel Thomé de Oliveira and Marcelo Nogueira Cortimiglia "Value Co-Creation in Web-Based Multisided Platforms: A Conceptual Framework and Implications for Business Model Design" (2017) Business Horizons 747
[45]Fleura Bardhi and Giana M Eckhardt "Access-Based Consumption: The Case of Car Sharing" (2012) Journal of Consumer Research 881

In platform business models, peers act as independent micro-entrepreneurs, providing goods and services to platform customers to complete their value creation[46]. As a result, the differences between the types of participants become blurred. Finally, platforms become intermediaries that connect (micro)businesses and temporary providers with their customers in the multi-party market.[47] If these individuals are not employees but outsourced, and the private rental rooms are illegal hotels, like Uber and Airbnb, it would possibly cause legal disputes.[48] From a business model perspective, these disputes are specially created. The goal is to obtain or hire professional individuals who can create and deliver value propositions. Consumers, on the other hand, are the ones who are empowered to create and deliver their value.[4950] And those assets with a high potential rental value are more likely to be shared.[51]

Today, in addition to extending to many key industries such as automobiles, hotels, finance, human resources, and media streaming, the sharing economy has also begun to develop into medical care and education.

2.2 How Do People Share: in B2C Or C2C Models?

Sharing economy business models are characterised by not transferring of ownership and relying on the Internet and mobile applications to facilitate transactions. In fact, sharing goods and services has existed for a long time, but the support of networks such as social media and community platforms has enabled consumers to easily share

[46] Koen Frenken and Juliet Schor "Putting the Sharing Economy into Perspective"(2019) A Research Agenda for Sustainable Consumption Governance 121

[47] Rebeca Perren and Robert V Kozinets "Lateral Exchange Markets: How Social Platforms Operate in a Networked Economy" (2018) Journal of Marketing 20

[48] Juliet B Schor and William Attwood‐Charles "The 'Sharing' Economy: Labor, Inequality, and Social Connection on for‐Profit Platforms" (2017) Sociology Compass

[49] Hagiu Andrei and Julian Wright "Multi-Sided Platforms" (2015) International Journal of Industrial Organization 162

[50] Ritter Martin and Heiner Schanz "The sharing economy: A comprehensive business model framework" (2019) Journal of Cleaner Production 320

[51] Arun Sundararajan *The Sharing Economy: The End of Employment and the Rise of Crowd-Based Capitalism* (MIT Press, Massachusetts, 2017) at 61

their goods or services with others,[52] and then the attitudes of consumer have changed. They prefer to temporarily acquire goods rather than own things.[53] As a result, asset owners are beginning to use digital clearinghouses to make the most of the idle items they already own, and consumers are renting from another one rather than renting or buying from companies.[54]

Companies that own and operate such online platforms do not control over the sharing of actual items at all. Sharing economy (especially Collaborative Consumption) platforms only act as economic and technical coordination providers,[55] and derive two types of B2C and C2C business models.

2.2.1 B2C Model

B2C, or business to consumer, is a type of commerce where a business sells products or services to individual consumers.[56] This is currently a relatively common online sharing retail business model. Under B2C model, enterprises or platforms conduct direct transactions with consumers and provide leasing or services of specific products. The B2C model is based on online platforms, which excludes face-to-face interaction between businesses and consumers.[57] It is expected that by 2026, the scale will reach 8 trillion US dollars.[58] The business-to-consumer (B2C) industry can be divided into five business models: Direct sellers, Online intermediaries, Advertising content, Community-based, Fee and subscription.

As a direct sellers, customers purchase products or services directly from the

[52] Puschmann Thomas and Rainer Alt "Sharing Economy" (2016) Business & Information Systems Engineering 93
[53] Fleura Bardhi and Giana M Eckhardt "Access-Based Consumption: The Case of Car Sharing" (2012) JCR 881
[54] Geron Tomio "Airbnb and the Unstoppable Rise of the Share Economy" (2013) Forbes 58 at3
[55] Caroline Wiertz and Ko de Ruyter "Beyond the Call of Duty: Why Customers Contribute to Firm-Hosted Commercial Online Communities." Organization studies (2007) 347
[56] Shopify Staff "Business to Consumer (B2C) Definition and Examples"(6 Oct 2023) <www.shopify.com>
[57] Katie Finley "Trust in the Sharing Economy: An Exploratory Study" (2013) Centre CPS
[58] Statista "Retail E-Commerce Sales Worldwide from 2014 to 2027(in Billion U.S. Dollars)" (June 2023) <www.statista.com>

e-commerce website or application established by the seller, such as Amazon, Allbirds, etc. The second type online intermediaries is that platform companies serve as intermediaries to connect consumers and sellers. Such platform companies do not own products or services themselves, but use marketing and search engine optimization to match interested consumers with suppliers, such as Trivago, Farfetch, etc. The third model is advertising content. This model uses free content to guide users to visit specific websites or social media, and then shift to the page of specific products to increase the number of visits and sales of the product. Online platform companies use currently popular content to connect businesses with consumers through this type of advertising, such as Instagram and YouTube. The fourth sales method is to establish an online community, gathering people with common topics and interests in the online community to interact and place targeted advertisements. Facebook, for example, helps marketers serve ads to people based on their activities and interests. There are also a growing number of websites and apps based on community available for businesses to advertise.

B2C companies mainly get profits come from product sales, advertising revenue and product rental revenue. B2C companies primarily generate profits from platform transactions involving goods and services, while advertising also serves as a significant revenue stream for sharing economy platforms operating under the B2C model, which must be reckoned with. Advertisers attract customers' attention by placing advertisements on the platform, and the platform uses its advantages such as direct correlation between advertising costs and click-through rates, intuitive return on investment, and refined consumer groups to attract advertisers. Compared with traditional media, common advertisements of sharing economy platforms include pop-up ads, banner ads, text ads, etc. Furthermore, in addition to selling products, B2C sharing economy platforms also provide rental services and collecting rent to get profits.

2.2.2 C2C Model

The C2C model is well known as a market environment where one customer purchases goods from another customer, typically using a third-party platform or business to facilitate the transaction. In this model, the business does not sell the products directly but acts as a facilitator between consumers looking to buy, sell, or trade products.[59] C2C model is one of the oldest forms of all businesses. The beginning of its existence can be traced back to a time much earlier than the Internet. As an example, flea markets and classified ads in newspapers are the well-known C2C business models. Subsequently, with the advancement of the Internet and its global connectivity, C2C businesses began to extend their operations online, thereby facilitating the transformation of traditional commerce into e-commerce, which significantly influenced consumer behaviours. Over the next decade, C2C content continued its expansion into the online platform field, with notable platform companies such as eBay, Craigslist, and others gaining prominence.

Similar to the B2C model, the main sources of income for C2C are transaction revenue and advertising revenue. However, compared to B2C, the C2C model is often free for buyers, while it charges sellers for value-added services or membership fees to provide additional services. These services include but are not limited to special placement of product displays, premium search rankings, and customized store designs. Some C2C platforms also offer membership services for sellers, including better display rankings, more product listings, and advanced data analysis services, to generate revenue from membership fees. Additionally, if C2C platforms provide payment processing services, they may charge a certain processing fee for each payment transaction completed through the platform.

[59] Andreas Rivera “What Is C2C?” (9 Jan 2024) <www.businessnewsdaily.com>

2.2.3 Advantages of the Sharing Economy Business Model

The sharing economy business models are different from traditional economic business models. Traditional economic business models involve multiple layers of transactions between suppliers and demanders, encompassing transactions between businesses and customers, and involving intermediaries and distributors along the supply chain. It is evident that in traditional economic business models, the chain between suppliers and demanders is too long, with profits at each layer being passed on to the customers, thus resulting in higher prices.

The difference between the sharing economy and traditional economic business models lies in the fact that, in traditional economic business models, transactions are often based on direct or indirect connections between the suppliers and customers (demanders). It encompasses the entire process from producer to consumer, including transactions between businesses, direct sales from businesses to customers, and all the upstream and downstream enterprises involved in these transactions. As products or services are transferred from producer to consumer, they must pass through multiple stages, such as intermediaries and channel merchants, with each stage potentially marking up the price to gain profits. A notable characteristic of this model is the relatively long chain between the suppliers and demanders. The markup at each level is, in effect, passed on to the final consumers, causing them to pay higher prices for products or services. This not only increases the burden on consumers but also limits market demand and the purchasing power of consumers.

The advantages of the sharing economy business model are primarily reflected in the following six aspects. Firstly, it has increased product utilisation rates. Unlike traditional economic models, the sharing economy does not just offer new products or services. Instead, it focuses on existing idle resources, transferring their usage rights to those in need to generate profits, effectively solving the problem of low product utilisation rates. Secondly, it has reduced operational costs. In the traditional

economic model, companies need to make substantial fixed asset investments, incurring high sunk costs, leading to high operational costs and slow transformation. In contrast, sharing economy platforms utilise the idle resources of suppliers without the need for fixed asset investments, a typical light-asset operational model that not only reduces operational costs but also speeds up transformation. Thirdly, it meets the personalised and customised demands of customers. The products and services offered by traditional business models are often standardised, whereas the sharing economy model, due to the diversity of suppliers (including individuals and enterprises), can provide a large number of non-standardised products or services, better meeting consumers' demands for personalised and customised services. Fourthly, it offers a pricing advantage. Under traditional economic models, the prices of products and services are influenced by various transaction entities such as suppliers, manufacturers, and distributors, resulting in high transaction costs. The sharing economy model, by directly matching supply with demand and enabling direct dynamic pricing between parties, eliminates the erosion of profits by intermediaries, thus offering a clear pricing advantage. Fifthly, it addresses the issue of long-tail customers, who have a need for these niche, specialized, or customized products and services.[60] While the demand for a particular product or service may be small per long-tail customer, due to the extensive connectivity of the internet, the overall number of such customer groups is large and has market potential that cannot be ignored. Traditional models typically serve mainstream customers, ignoring the asymmetric cost and revenue problems faced by long-tail customers due to a lack of scale effects. The sharing economy model, however, focuses on these overlooked long-tail customers, meeting their needs to penetrate into the mainstream market. Lastly, the sharing economy can promote sustainable social development. Unlike the traditional model, which relies on continuous resource input to create new products or services, the sharing economy focuses on the efficient allocation and utilisation of existing idle resources, requiring no additional resource inputs, thus promoting green

[60] Chris Anderson *The long tail: How endless choice is creating unlimited demand* (Random House Books, London, 2007)

and sustainable economic and social development.

2.3 Sharing Economy Platform

The sharing economy has flourished amidst the technological wave, and most businesses are now operating through online platforms. These platforms provide consumers with instant access, catering to the demand for temporary usage rights over goods rather than ownership, thus alleviating consumers from the burden of high ownership costs. Customers simply pay a relatively low fee for the usage rights, maximising resource utilisation and offering greater sustainability compared to traditional business models.[61]

The sharing economy model has shifted from direct service provision from commercial establishments to consumers, to a more peer-to-peer service offering, accompanied by changes in organisational structures and employment relationships. Today, participants interact more as "individual business partners", with traditional employment relationships gradually fading. Leveraging information technology and online platforms, direct exchanges of goods and services between individuals have been facilitated.

Within the sharing economy model, individuals utilise these online platforms to exchange or share their idle items, transforming them into effectively used resources. Through online platforms, supply and demand can be swiftly matched, with the platform playing a crucial "intermediary" role to facilitate convenient and efficient transactions. Suppliers, possessing certain resources and skills, can easily join this ecosystem to offer services or share resources. This model not only promotes the efficient recycling of resources but also provides individuals with a source of income, whilst offering consumers cost-effective choices in products and services.

[61] Wolfgang Kathan, Kurt Matzler, and Viktoria Veider "The Sharing Economy: Your Business Model's Friend or Foe?" (2016) Business Horizons 663

Sharing and gig economy platforms are used to encompass those platforms which mainly facilitate the buying and selling of goods and services between individuals, including the self-employed, but which also facilitate some transactions between businesses and consumers (and in some cases businesses to business transactions), defined by OECD in 2019.[62] The EU defines sharing economy as business models where activities are facilitated by collaborative platforms that create an open marketplace for the temporary usage of goods or services often provided by private individuals.[63]

The emergence of sharing economy platforms is not an incidental occurrence. The advent of the first generation of smartphones in the year 2000 marked a pivotal turning point, heralding an era of rapid advancement in mobile internet technology. This technological leap forward catalysed a significant surge in the penetration rate of mobile terminal devices, fundamentally altering the way individuals interact with digital platforms and each other. By the year 2024, the global landscape of smartphone users had expanded dramatically, with the number reaching an astounding 6.93 billion. This figure represents that 85.68 per cent of the global population, illustrating the widespread adoption and integration of smartphones into daily life.[64] This widespread accessibility to mobile technology has been a crucial driver behind the rise of sharing economy platforms, enabling seamless, on-the-go access to a myriad of services and fostering a culture of connectivity and shared resources across the globe.

The widespread adoption of mobile smart devices has laid a crucial hardware foundation for both suppliers and consumers within the sharing economy. Despite supporting traditional debit and credit card payments, third-party payment platforms such as Apple Pay and Google Pay provide a software foundation for both supply and

[62] OECD *The Sharing and Gig Economy: Effective Taxation of Platform Sellers* (OECD,28 Mar 2019) at11

[63] Giacomo Luchetta, Enrico Giannotti, S Dale, Grzegorz Poniatowski, Bradford Rohmer, and Stephen Dale *VAT in the Digital Age – Final Report. Volume 2, the VAT Treatment of the Platform Economy (*Publications Office of the European Union, March 2022) at 19

[64] Ash Turner "How Many Smartphones Are in the World? (2024)" <www.bankmycell.com>

demand sides with their advanced and efficient payment technologies. This mobile payment method greatly shortens the time of the transaction, reduces the cost of the transaction, and simplifies the steps of the transaction, so it quickly occupies a considerable market share after its creation. The advantage of a third-party payment platform is that it improves the convenience and security of the transaction, and it acts as a guarantor of the transaction, eliminating people's concerns about online transactions. People also often use third-party payment platforms as an important tool to avoid transaction risks. In addition, the application of third-party payment helps to solve the problem of settlement between commercial banks. Third-party payment is particularly suitable for B2C and C2C fields. In the B2C market, the business with high commercial credit and large amounts is mainly bank settlement. Transactions with low commercial credit or small amounts are mainly paid by third parties. In the C2C market, because there is no reliable credit system, bank settlement is almost impossible to carry out, so the advantages of third-party payment are reflected. Most of the transactions on the sharing economy platform are small in amount and high in frequency, so third-party payment plays an indispensable supporting role.

Additionally, the sharing economy platform also applies location-based services (LBS) technology to locate both supply and demand. The platform uses this technology to determine the location of mobile facilities or users through the network of mobile operators, then expands the scope of resource sharing through virtualization technology and distributed computing, and realizes access and access to physical resources and virtual resources distributed in various data centres anytime and anywhere through a network connection, and finally uses big data to quickly mine massive data information, conduct predictive analysis and visualize the results. This is what is displayed on the Uber platform, how many empty cars are around the demander, how long it will take for the driver to arrive after placing the order, the current route of the car and the planned route, and the estimated time to reach the destination. Drivers can find the quickest and cheapest route from positioning and navigation, while those who need it can get the service for less money. The

emergence of these technologies has greatly reduced transaction costs, increased the success rate of transactions, and become the technical support for the development of the sharing economy.

Furthermore, the habit of using sharing economy platforms has gradually developed because of the availability of cheaper services on the platform, which has become a catalyst for the development of sharing economy platforms. Both suppliers and consumers benefit from this sharing model. Consumers fulfil their needs at reasonable prices, obtaining better value than traditional business organisations can offer in terms of products or services. Moreover, consumers enjoy greater autonomy and transparency during the purchasing process. Suppliers, on the other hand, generate additional income from their idle assets, substantially increasing the utilisation rate of these resources. The mutual benefits derived from sharing for both suppliers and consumers serve as a driving force for the sustainable development of sharing economy platforms, illustrating a win-win scenario that underpins the model's viability and growth.

2.4 Participants in the Sharing Economy

The sharing economy involves three key participants: suppliers, consumers, and the sharing economy platforms. On the supply side, platform sellers are persons who sell goods or services through a sharing and gig economy platform OECD.

From the perspective of demand, every individual or enterprise can become a demander of products and services, as long as they have idle resources and are willing to temporarily transfer the right to use the product to others. Consumers do not directly own the items, instead, they meet their needs for products and services through sharing by others, such as renting or borrowing. The cost-effectiveness of the supplier's products or services brings relative benefits to consumers, creating a vast "service demand pool" within the sharing economy. It empowers consumers with the

right to participate, choose, and take initiative, as transparent transactions conducted on sharing economy platforms reduce the expenses for consumers.

From the perspective of the sharing economy platforms, these platforms facilitate mutual benefit between the supply and demand sides by integrating idle resource location sharing, and applying big data algorithms for precise matching, and connecting. The platforms do not incur fixed costs based on the products and services. Their expenses come from maintenance and related costs. Operating on a transaction fee system, sharing economy platforms manage to reduce fixed costs and increase transaction success rates, enhancing the efficiency of using suppliers' idle resources and meeting the personalized and customized service needs of consumers. Thus, in other words, the sharing economy represents a process of disintermediation and reintermediation.

Chapter 3 Taxation of the Sharing Economy

3.1 The Necessity to Tax on the Sharing Economy Participants

According to *The Social Contract*,[65] explained by Jean-Jacques Rousseau in 1762, the state provides public services, including security, to protect individuals, and the consideration to be paid by individuals to the state is taxes. The more a person benefits from public services, the more taxes he should pay. Of course, subsequent philosophers introduce additional theories identifying no direct relationship between benefits enjoyed by a person and taxation.[66] Nonetheless, the benefit theory is a fundamental justification for taxation. In the case of Uber, the drivers and passengers are driven by a number of factors, such as the smooth flow of transportation roads, the use of smartphone fast payment applications, and the development of mobile

[65] Maurice Cranston *The Noble Savage: Jean-Jacques Rousseau, 1754-1762* (University of Chicago Press, London, 1991)

[66] Craig Elliffe "Justifying source taxation in the digital age" (2021) Victoria University of Wellington Law Rev 743-768

information technology, all of which are based on the countless investments that the state has invested in infrastructure. When people want to enjoy these public services and public goods, they should contribute their own taxes as consideration.

From the perspective of tax fairness and affordability, in the traditional economy, companies need to bear many kinds of taxes. These taxes have a direct impact on their operating costs. Compared with the traditional economic model, the sharing economy moves the information platform online, providing more efficient information connecting services for both supply and demand and does not need to bear tax obligations for the time being, because of the lag of tax laws. It breaks the operating rules of traditional industries, introduces new competitors, and changes the balance of the market. For example, taxi and hotel operators are traditionally responsible for high licensing fees and taxes. However, the lack of individual service providers on sharing economy platforms will not be subject to similar tax regulations for the time being. This disparity leads to and exacerbates unfair competition in the marketplace. As a result, voices against the sharing economy have come and gone,[67] and protests have appeared in some countries and regions.[68] Fundamentally, however, services provided by entities in the sharing economy (similar to those in the traditional taxi and hotel industries) should be considered taxable to ensure fairness of tax liability. A balanced tax framework is essential not only to protect traditional industries from unfair competition but also to foster the growth of innovation and new business models. A judiciously applied tax system will bolster the economy's overall health, fostering innovation while ensuring that all participants contribute equitably.

Taxation of the sharing economy is the need to promote the standardised development of the sharing economy. The sharing economy industry has a low entry threshold, and applicants only need to fill in their identity information on the platform, and after simple authentication, they can become service providers on their platform. After

[67] Euronews "Uber Taken to Court in Paris over Alleged Unfair Competition"(23 Oct 2023) <www.euronews.com>
[68] Hanne Cokelaere "European Taxi Drivers Block Brussels in Uber Files Protest" (8 Sep 2022) <www.politico.eu>

nearly 20 years of development, plenty of enterprises and individuals have jumped into the pool of the sharing economy one by one. And now the sharing economy market has begun to take shape and has formed a considerable tax source, which constitutes the basis for taxation. On the one hand, people have moved from traditional industries to the sharing economy, resulting in a huge number of personnel losses in traditional industries, and on the other hand, the number of practitioners in the sharing economy is getting larger and larger. This results in tax losses that are difficult to estimate.

3.2 Sharing Economy Tax Assessment Framework

3.2.1 Efficiency and Growth

Tax efficiency requires the state to capture the maximum tax revenue with the minimum tax cost. Therefore, the government needs to pay attention to the incentive effect of the sharing economy on economic efficiency and growth before formulating its tax policy. The design of tax policy not only affects the government's revenue but also directly affects the behaviour and decisions of market participants. The ideal tax policy should aim to promote the healthy development of the sharing economy while maximizing tax efficiency.

The Laffer curve explains the relationship between a government's tax revenues and tax rates.[69] When the tax rate is below a certain limit, an increase in the tax rate can increase government tax revenue, but when the tax rate is above this limit, a further increase in the tax rate will lead to a decrease in government tax revenue. Because a higher tax rate will increase the operating costs of enterprises, reduce investment, inhibit economic growth, reduce the tax base, and reduce tax revenue. Conversely, tax cuts can stimulate economic growth, broaden the tax base, and increase tax revenues. Taking ride-hailing as an example, if the government sets the tax rate too high when designing the tax rate, then the driver will reduce the time to provide services,

[69] Jude Wanniski "Taxes, revenues, and the Laffer curve" (1978) The public interest 5

passengers will reduce the number of times they use the ride-hailing platform due to the increase in prices, and the platform will also lose profits due to the reduction of transactions, which will ultimately affect the scale and growth rate of the entire sharing economy. Therefore, this requires the government to find a more suitable tax rate to balance the government's revenue with the people's income.

3.2.2 Equity and Fairness

As mentioned in Chapter 1, the equity and fairness principle is that when the state imposes taxes on individuals, it must take into account the need to adapt the burden borne by each taxpayer to his or her economic situation, so that the level of tax burden among the individual taxpayers is balanced. The principle of tax fairness is further divided into vertical fairness and horizontal fairness.

The vertical equity means a tax principle which states that taxpayers in different financial circumstances should receive different treatment, for example, those with higher incomes should pay more tax.[70] If the country wants to achieve vertical equity in the sharing economy, it needs to design a tax system that ensures that people with low incomes pay less or are exempt from taxes, are not oppressed by excessive tax burdens, and that high incomes contribute fair tax revenues.

First, by implementing a progressive income-based tax rate structure that ensures tax rates increase as an individual's income increases, differentiated tax impacts can be effectively produced for individuals with different income levels. This means that higher tax rates will be imposed on high-income earners on the sharing economy platform, while lower tax rates will be imposed on low-income earners to ensure that low-income earners are not oppressed by excessive tax burdens, and at the same time Allowing high-income earners to equitably contribute more tax revenue. In addition, the government can provide tax credits and relief measures to low-income participants

[70] TACIS Program *Dictionary of Taxation Terms: English, Russian, German, French* (Publications of the European Communities, Brussels, 1996)

in the sharing economy to reduce their tax burden and ensure that they can obtain sufficient net income from their labour, which can help alleviate poverty and inequality.

Horizontal equity means a doctrine which holds that similarly situated taxpayers, for instance, taxpayers with the same income, should receive similar tax treatment.[71] In the sharing economy, the essence of horizontal equity is to ensure that taxpayers in similar economic conditions bear an equal tax burden. This means that individuals or businesses providing similar services or products should be treated equally in terms of taxation. Tax policies need to impose similar tax burdens on different participants in the sharing economy who offer similar services, regardless of whether these services are provided through large platforms or individual websites. Furthermore, when offering tax incentives, it is imperative that the government will not and avoid to create an unfair competition in the market for certain participants. Additionally, tax regulations should be transparent and consistent to guarantee that all participants can clearly understand their tax obligations and rights, which could ensure the fairness of the tax system, and achieve equity among different income levels and various economic activities.

3.2.3 Revenue Integrity

According to the New Zealand Inland Revenue's document, the revenue integrity is the extent to which the tax system is sustainable over time and minimises opportunities for tax avoidance and tax evasion.[72] The Revenue Integrity Principle expects the tax system to capture all taxable revenues and ensure that these revenues are properly treated in taxes to ensure the stability of public finances. However, due to the particularity, complexity and unconventional nature of sharing economy transactions, there are often some incomes that cannot be recognized and regulated by the existing tax system. In the sharing economy, there are activities that cannot be

[71] Above n70.
[72] Inland Revenue "Taxation Principles Reporting Act 2023. s 2" (2023) <www.ird.govt.nz>

identified by the existing tax system. For example, if an individual rents out a vacant room or offers a ride through an online platform, the tax authorities will not be able to obtain the transaction information without the platform actively providing it. Also, the individual who passes similar transactions income is difficult to be included in the traditional tax system. Clarify, which is only increases the difficulty of supervision by the tax department but also causes the problem of splitting the tax base. A key factor in safeguarding the integrity of income is transparency and openness. Transparency means that all participants, the government, the platform, and the user, can clearly understand the tax rules, know how to comply, and increase public trust in the tax system.

Therefore, the government should provide tax guidance to participants in the three stages before, during, and after the introduction of tax policies to help them understand and comply with tax regulations. For example, governments should use websites and social media to educate about taxation. Instruction manuals, online courses, and workshops are available to give participants guidance on how to file taxes, how to calculate taxable income, and more, especially for those who are new to the program.

3.2.4 Compliance and Management Costs

Compliance and administrative costs refer to the reasonable costs that taxpayers and governments need to pay to maintain the compliance of the tax system.[73] But the government cannot increase the unfairness of the tax system in order to minimize costs.

Compliance refers to the behavior of taxpayers to correctly declare their income and pay corresponding taxes in accordance with the requirements of laws and tax policies. It is very broad and includes not only taxpayer compliance with tax laws, but also tax

[73] Above n70.

law requirements, proper reporting of income, calculation of tax payable, and timely filing of tax returns. When taxpayers can fully understand and comply with tax laws and regulations, do not evade or avoid taxes, and have a high degree of compliance with tax laws, the degree of compliance will be high. Conversely, if tax policies are complex, incomprehensible, and ambiguous, taxpayers may misunderstand and reject tax regulations, leading to violations. Administrative costs include the costs incurred by the government in the process of tax administration related to regulation, taxation, auditing, and enforcement. Tax authorities should maximize resource conservation and maximize tax revenue at the minimum cost before formulating tax policies. This is actually related to tax efficiency. High administrative costs can lead to inefficient tax collection.

However, it is difficult to save costs while ensuring tax compliance, and it is necessary to start by simplifying the tax system to reduce the burden on taxpayers and the government and using technology to improve the efficiency of tax collection. Since the participants in the sharing economy are mostly individuals or small businesses, they cannot deal with complex tax regulations, so simplifying the tax process from the taxpayer's perspective, providing clear and easy-to-understand tax guidance services, and pre-populating returns are ways to help them reduce the cost of compliance. For tax authorities, the use of modern digital tools can significantly improve the efficiency and accuracy of tax administration. For example, through the automated system to classify and analyze income and expenses, quickly identify possible tax issues, and use big data analysis to effectively identify and reduce tax compliance risks and reduce administrative costs.

3.2.5 Coherence

The formulation of a policy should take into account not only the previous and current policies but also the impact of future policy choices, which is coherence. The same is

true when it comes to tax policy, when the government formulates tax policies for the sharing economy, it is important to ensure that these policies are consistent with the existing tax system, and also to consider the impact of the new tax policy on all aspects in the future to ensure fair competition. This means that the new policy is consistent with the current tax system, as well as the future tax system, stable and coherent, and avoids frequent or random changes that can cause market distortions.

This is embodied in the fact that, firstly, the new tax policy is compatible with the current tax law. For example, the same tax principles and regulations should be adhered to for income earned on a sharing economy platform, whether it is subject to personal income tax or corporate income tax. Second, the sharing economy does not receive unfair market treatment because of special tax regulations. For example, shared accommodation services should enjoy the same tax benefits as traditional hotels, avoiding market distortions caused by tax differences. Third, leave enough room to adjust in response to future market and technology changes, and make adjustments in the future if necessary. Fourth, develop a flexible tax policy framework to adapt to the rapid changes in the sharing economy. Fifth, tax policies should be aligned with international standards and global trends to facilitate cross-border cooperation and data sharing in the future.

3.3 Existing Tax Supervision Mechanism

3.3.1 Exchange of Tax-Related Transaction Information

The increase in income and the flexibility of transaction forms have spurred economic development. This has allowed individuals in the middle to high-income bracket to consider income from sharing transactions as a form of supplementary income. It has also enabled those in the middle to low-income group of the group to regard this source of funds as their primary means of livelihood. The transaction information between buyers and sellers on platforms has become a valid basis for tax authorities to legally determine tax obligations. Although the emergence of the sharing economy has prompted more people to have second and third jobs, most individuals and

businesses still rely on the sharing economy platform for the exchange of information between buyers and sellers. As far as the platform itself is concerned, regardless of whether it plays the role of a client or a third party in the transaction process, it has clear online records of the buyers and sellers and the content of the transaction.

As for the reporting content of tax-related information, there is no unified standard form internationally, and the emphasis of the reporting information varies. However, most reports cover some basic contents: the time of reporting, basic information of the buyer and seller, the location of both parties at the time of the transaction, relevant tax numbers and tax rates, the content of the transaction, and the related information that the transaction platform needs to collect and submit to the tax authorities. The richer and more detailed the content of tax-related reports, the greater helpful for the tax authorities to check and retrieve the required taxpayer information and delineate the tax liability.

Table 1 Different levels tax-related reporting

Report format	Time, platform involved in the transaction, buyers and sellers, amount of the transaction, industry to which the transaction belongs, location of both parties when the transaction occurred, platform used for the transaction, etc.
Taxpayer	Names, addresses, contact information of the buyer and seller, national resident ID number or taxpayer identification number, tax payable, payment method (electronic payment platform), etc.
Platform	The transaction content between the buyer and the seller, the electronic invoice and ticket number generated by the transaction, the amount of tax withheld and paid by the platform, the amount of tax that can be reduced or reduced by the returned taxpayer, etc.

3.3.2 Method of Tax-related Information Exchange

International practices for accessing tax-related information from the sharing economy differ from national information exchange methods. Tax authorities within a country cannot directly access tax reports from sharing economy platforms operating in other countries. Instead, domestic tax authorities must first engage in an exchange of tax-related information with these platforms, and then retrieve and filter the tax information provided by the platforms. After verifying the accuracy of the information, the domestic tax authorities are responsible for compiling and issuing an official tax report, and finally publishing it on the official website within a specified timeframe. Only after the tax report is officially published by domestic authorities can the foreign tax authorities access and download the tax report from the website to engage in the exchange of tax-related information. This process is not only cumbersome but also results in delays in information sharing.

Chapter 4 Comparison of Business Models of Sharing Economy Platform – Case Study

4.1 Uber

Uber was founded in San Francisco, USA. At its inception, Uber was an urban transportation platform, also known as a Transportation Network Company (TNC). It focused on utilising mobile application technology to connect city dwellers in need of transportation with private car drivers, to offer a paid, pre-arranged transport service.[74] The founders created this platform in response to solving the inconvenience of finding and booking taxis in the city by allowing users to reserve car services through a mobile application. This innovation offers a more convenient, comfortable,

[74] European Commission *Exploratory Study of Consumer Issues in Online Peer-to-Peer Platform Markets – Task 4 Report – Cross Analysis of Case Studies of 10 Peer-to-Peer Platforms* (Publications Office, 2017)

and reliable alternative to traditional taxis, enabling users to book a vehicle within minutes and track the vehicle's location in real-time, while also improving travel efficiency and comfort.

Unfortunately, Uber's emergence disrupted the taxi market. It acts as a "catalyst" by linking passengers with vehicle service providers through its technological platform, bypassing traditional taxi dispatch centres. The payment process is completely automated through the application, eliminating the need for cash transactions, and optimising the matching process between passengers and drivers. This has increased the transparency and reliability of the entire travel service. However it creates competition and legal challenges for the traditional taxi industry. In some European countries and regions, drivers have protested the unfair competition brought about by Uber. They believe that Uber uses attractive bonuses to attract more drivers to serve them.[75] Despite Uber's claim that it only serves as a platform connecting drivers and passengers, rather than a transportation service, and therefore, is not subject to the stringent regulations of the taxi industry, the reality is quite different. Uber's presence has stirred controversy, both in the labour market and the taxi industry. This has sparked intense discussion among scholars regarding Uber's operational model, labour relations, legal regulation, and tax oversight.

Sharing economy platforms have two matching mechanisms, the central markets, and decentralised markets. In centralized markets, every order converges on a single central exchange, without any competition from other markets. Uber exemplifies a centralized market.[76]

Under this matching mechanism, Uber operates with minimal fixed asset investment and owns few proprietary vehicles. The majority of the vehicles are shared by owners. The business of Uber is further refined to cater to users of different characteristics and

[75] Hanne Cokelaere "European Taxi Drivers Block Brussels in Uber Files Protest"(8 Sep 2022) <www.politico.eu>
[76] Liran Einav, Chiara Farronato, and Jonathan Levin "Peer-to-Peer Markets" (2016) ARE 615

age groups, offering a variety of transportation services ranging from the more affordably priced UberX and UberPop to the luxurious Uber Lux and the environmentally friendly electric vehicle service Uber Green. Nowadays, Uber has evolved beyond a simple carpooling platform. In addition to its ride-sharing business, it has launched the food delivery service Uber Eats and the freight service UberRush, venturing into the business sector to become a versatile platform that offers simple integration. It also collaborates with various enterprises, specifically providing carpooling and food delivery services for their employees or clients.

In its pursuit to ensure a safe and reliable service for both passengers and drivers, Uber implements stringent criteria similar to traditional taxi services for driver registration. Detailed on Uber's New Zealand webpage, the key requirements for aspiring Uber drivers include reaching the age of 20 years, holding a valid full New Zealand driver's licence and a valid Passenger Endorsement card, and obtaining a Certificate of Fitness with Uber's specific Transport Service Licence (TSL) number. This comprehensive approach ensures that all drivers on the platform meet the legal and safety standards required for transporting passengers. The vehicle criteria are meticulous. A vehicle used for Uber services must be under the maximum age requirements set by the company and be insured for a minimum of third-party property damage. It's imperative that the driver-partner is either the policyholder or a named insured driver on the policy, which guarantees that the vehicle is adequately covered for any incidents that may occur during providing rideshare services.[77]

Uber's policy on working hours is designed to promote road safety and prevent driver fatigue, a critical aspect of ensuring passenger and public safety. The rules stipulate that a driver's working hours cannot exceed 13 hours in a single working day. Following this, a rest period of at least 10 hours is mandatory before the driver can commence another shift. This policy helps in mitigating the risk of accidents caused by fatigue. Additionally, after seven consecutive hours of driving, a break of at least

[77] Uber "How to Drive with Uber" <www.uber.com>

30 minutes is compulsory, allowing drivers to rest and recuperate before continuing their duties. Over any working period, the total working hours must not surpass 70 hours, before starting the next period, a rest of at least 24 hours is obligatory. If the drivers use Uber's Small Passenger Service Licence (SPSL), To facilitate compliance with these working hour regulations, Uber mandates the use of the Logmate application (subscription fee is USD 9.95 per month) which allows drivers to accurately log their working hours, breaks, and rest periods to provide a transparent and verifiable record.[78] This digital tool might help both Uber and regulatory authorities ensure that all drivers are adhering to the stipulated work time directives. It not only helps in maintaining high safety standards but also aids in the monitoring and enforcement of labour laws, ensuring that drivers are not overworked and that their rights are protected.

Uber's main expenditures stem from its significant investments in technology and infrastructure, including substantial funds that are allocated to promotional campaigns and incentives aimed at attracting and retaining drivers and customers alike. Advertising and public relations efforts also constitute a considerable portion of its expenses, as Uber endeavours to bolster its market presence and brand image amidst fierce competition. For the revenue policy, Uber operates on a transactional model, securing a 20 per cent commission on the fare of each trip undertaken through its platform. The drivers, essential to Uber's service delivery, are entitled to 80 per cent of the trip fare, which they can deposit into their bank accounts weekly. Besides the trip charges, drivers earn additional income through specific fees for extra services or conveniences offered to passengers, including cleaning fees for any mess made during a ride or tips for exemplary service. The fare calculation for drivers is comprehensive, factoring in the base fare based on trip duration and distance, and surge pricing during peak demand periods, it is known as a dynamic pricing system, which will adjust fares in real-time to balance the demand with supply. During peak periods or exceptional situations, when there is a scarcity of Uber drivers and passengers struggle to find

[78] Uber "Regulations for Drivers" <www.uber.com>

rides, surge pricing can be used to maintain equitable remuneration for their services. This pricing strategy encourages a greater number of providers to be online during times of high demand, thus distributing the available ride services to those consumers who value them the most.[79] Also, Uber establishes a maximum fee for each journey, giving drivers the discretion to charge below this limit if they wish. Furthermore, Uber's system assigns rides automatically, using big data and internet technology to allocate vehicles based on the principle of proximity, and maximising the efficiency of vehicle use. If a passenger cancels the trip beyond a set timeframe, the driver may receive a cancellation fee as compensation. This diverse earning structure ensures drivers are remunerated relatively fair for their time, effort, and the quality of service delivered. In addition, payment for Uber rides necessitates linking a debit or credit card, with fees directly debited from the associated account upon the ride's completion. Uber later incorporated third-party payment services, allowing passengers to settle trip fees through Google Pay and Apple Pay.[80]

4.2 Airbnb

Airbnb is a platform where peer providers can rent out their accommodation and peer consumers can book private or professionally run accommodation.[81] Since its establishment in 2007, it has remarkably expanded to more than 220 countries and regions around the world.[82] Its expansion has firmly positioned Airbnb as one of the most favoured sharing economy enterprises worldwide.[83] By offering an extensive choice of products and services provided by hosts, Airbnb employs a decentralized matching process that simplifies the list of potential matches, making it easier for consumers to find and choose accommodations that meet their needs. This innovative

[79] Jonathan Hall, Cory Kendrick, and Chris Nosko "The Effects of Uber's Surge Pricing: A Case Study" (2015) The University Chicago Booth School of Business

[80] Uber "Updating a Payment Method on Your Account" <www.help.uber.com>

[81] European Commission *Exploratory Study of Consumer Issues in Online Peer-to-Peer Platform Markets – Task 4 Report – Cross Analysis of Case Studies of 10 Peer-to-Peer Platforms* (Publications Office, 2017)

[82] Airbnb "About Us" <www.news.airbnb.com>

[83] Luisa Andreu and others "Airbnb Research: An Analysis in Tourism and Hospitality Journals" (2020) International Journal of Culture, Tourism and Hospitality Research 2

approach to connecting travellers with unique lodging options has revolutionised the way people think about their travel accommodations.

Operating as an intermediary, Airbnb facilitates the exchange between the market (renters) and service providers (hosts), offering a platform where both participants can benefit.[84] Remarkably, Airbnb does not own any of the accommodations listed on its platform, nor does it bear the responsibility of maintaining any physical properties. This unique business model allows Airbnb to operate with significantly lower overhead costs compared to traditional hospitality businesses. The primary costs incurred by Airbnb include technological infrastructure costs, such as software development and maintenance, salaries for its employees, insurance, and marketing expenses. Moreover, the company faces variable costs related to promotions and discounts, legal disputes, and tax obligations, as well as expenses associated with software development, public relations (PR), and efforts to build and maintain community trust.[85] One of the key advantages of Airbnb's operating model is its ability to offer lower prices to consumers by minimizing its own expenses. This strategy not only benefits consumers but also contributes to the platform's attractiveness for hosts, who can leverage Airbnb to reach a global audience of potential guests. Moreover, Airbnb's model emphasizes the importance of trust and community within the sharing economy. It invests in building a robust system for reviews and ratings, which helps to ensure transparency and trustworthiness among users.

The Airbnb platform primarily generates revenue through transaction fees and fees for add-on services on its online platform. From the accommodation charges paid by consumers, Airbnb deducts a transaction fee ranging between 6 per cent to 12 per cent. This fee structure is designed to cover the operational costs of the platform. If the consumer cancels the reservation, Airbnb may refuse to refund the room fee

[84] Geron Tomio "Airbnb and the Unstoppable Rise of the Share Economy" (2013) Forbes 58 at 7

[85] European Commission *Exploratory Study of Consumer Issues in Online Peer-to-Peer Platform Markets – Task 4 Report – Cross Analysis of Case Studies of 10 Peer-to-Peer Platforms* (Publications Office, 2017)

according to the cancellation policy, only if there are special circumstances. Also, Airbnb imposes a 3 per cent currency conversion fee for bookings made in a currency different from the listing's currency, addressing the exchange rate differences involved in international transactions. For hosts or suppliers, Airbnb levies a booking fee of 3 per cent on the accommodation charges, which is deducted directly from the payout to the host.[86] This fee is calculated based on the listing price of the accommodation, ensuring that hosts contribute to the platform's maintenance and operational efficiency. Additionally, the value-added tax (VAT) on service fees is calculated separately to comply with local tax regulations and transparency in fee structures.[87]

Airbnb supports various payment methods, catering to the diverse preferences of its users. Payments can be made using debit cards and credit cards as well as through third-party online payment systems, including PayPal, Apple Pay, and Google Pay. This flexibility in payment options enhances the user experience, making it convenient for guests to secure their bookings. When viewing a specific listing and proceeding with a booking, the total price displayed to consumers includes the rental cost for the accommodation, transaction (or service) fees, and cleaning fees (if applicable). The payment for the booking is required upfront, with the platform holding the accommodation fee in escrow. The accommodation fee minus Airbnb's commission will be released to the host in 24 hours after the guest's check-in, which allows hosts are compensated for their services and guests are satisfied with their accommodation before the payment is finalised. This design provides a safety net for both hosts and guests, promoting trust in the platform.

Airbnb allows both individual and commercial suppliers to operate on the platform without distinguishing between them or requiring professional hosts to disclose their status. This inclusive approach brings Airbnb to accommodate both business-to-consumer (B2C) and consumer-to-consumer (C2C) business models,

[86] Above n84
[87] Airbnb "Value Added Tax (VAT) and How It Applies to You" <www.airbnb.co.uk>

broadening its market reach and appeal. By not differentiating between individual and professional hosts, Airbnb fosters a diverse and vibrant community of users.

4.3 Didi

In China, Didi stands as the largest shared mobility platform, incorporating services like Didi Hitchhiker and Didi Express (Kuaiche) that adopt a consumer-to-consumer (C2C) model. For suppliers, the platform offers an accessible avenue to monetize their idle cars briefly by registering on the platform, facilitating the lending of their available resources for income. On the demand side, consumers benefit from lower costs for the temporary use of the needed cars. Private car owners are the operational backbone of these services, mirroring the model operated by Uber, where both drivers and passengers are individuals rather than professional entities.

On the Didi platform, cars are provided by individual owners. Those interested in operating Express services only need to complete a straightforward registration process on the Didi platform. This process involves submitting basic personal information such as name, national ID number, copy of driver's license, and vehicle registration number. Once the Didi platform receives an individual's application and verifies the information as accurate, the supplier, now a driver, obtains the qualification to access the platform's operational opportunities. Then this fresh driver is able to tap into the information and resources provided by the Didi platform to start accepting ride requests. Passengers, on the other hand, are also required to register on the Didi mobile application, a process that includes mobile phone verification, to access online ride-hailing services. The connection between Didi drivers and passengers is assisted by the Didi online platform. Upon the completion of the service, passengers pay the fare via third-party payment methods, like Alipay or WeChat Pay. As Didi controls the information flow between suppliers and demanders, acting as an intermediary, it gets a commission, which is 10 per cent to 25 per cent from each transaction. The remaining portion of the fare, after deducting the commission, will be transferred to the driver's account through a third-party payment platform weekly.

Unlike Uber, Didi diversifies its service offerings not only to individual drivers (Didi Express) but also to professional services provided by companies, especially through its Premier (Zhuanche) service. Didi Premier operates as a high-end, business travel service, the sub-platform of Didi, leveraging mobile internet technology to match and facilitate transactions based on real-time and scheduled personalised business travel needs. This platform caters to car rental enterprises and professional driver service companies, offering a more formalised and business-oriented service compared to Didi's consumer-to-consumer (C2C) model. Car rental companies purchase vehicles and register them on the Didi platform to be dispatched onto the market, while labour companies provide full-time drivers to deliver these premier services to consumers. This behaviour embodies a business-to-consumer (B2C) model.

A distinguishing feature of Didi Premier Is its target market. It is positioned towards the mid to high-end segment. Requirements for vehicles in this service are stringent, with a minimum value of RMB 200,000 (approximately NZD 46,000). Drivers must undergo specific training and pass evaluations before they are qualified to provide services. The operational relationship between Didi platform, car rental companies, and drivers is intricate, including various aspects of labour relations and service provision. Didi Premier's model illustrates the platform's versatility in catering to a wide range of consumer needs, from everyday rides with Didi Express to more luxurious, business-oriented travels with Didi Premier, laid its first place of market presence and appeal to a broader user base.

When it comes to pricing strategies, Didi employs an open pricing system. The system is mainly responsible for calculating the non-basic denominated part of the fare, such as overtime fees, night service charges and empty fares back to the city for long-distance trips. The system establishes an intermediary platform for the pricing system by separating the pricing intervention needs of the business from the pricing engine. In terms of order allocation, Didi enables two-way selection between passengers and drivers. Passengers can choose according to various factors such as

vehicle type, price, distance, etc. Similarly, the driver can also select passengers in reverse based on the distance of the destination from the current location and the time to complete the trip. This mutual selection method can significantly improve the autonomy and selectivity of users and drivers, and users can also make reservation orders according to their own arrangements, which greatly improves the matching efficiency of passengers and drivers and improves the satisfaction of both parties.

Another feature of the Didi platform is that fares are settled through a third-party payment platform. As mentioned above, third-party payment platforms are widely accepted and used by people because of their convenience, simplicity, and high security. It saves a lot of complicated procedures and builds a bridge for the flow of funds between countless consumers and enterprises.

Unlike Uber, Didi doesn't require prepaid fares. Passengers do not need to pay the fare until the trip is completed. When the trip is over, the passenger's fare is not directly credited to the driver's bank account through the third-party payment platform but remains in the driver's third-party platform account. Drivers will periodically, usually weekly, withdraw the income in the third-party platform account, that is, the balance of the fare after deducting commissions, service fees, and other fees, to their bank cards. Third-party payment platforms charge Didi for account custody. Therefore, from the perspective of the flow of funds, third-party payment platforms, Didi platforms, and Didi drivers will all receive income from each order transaction.

This mechanism benefits all parties involved: the third-party payment platform gains revenue from processing fees, Didi benefits from a streamlined and secure transaction process without the need to handle payments directly, and drivers enjoy the convenience and security of receiving payments through a reliable intermediary. From a financial flow perspective, each completed order generates revenue for the third-party payment platform, Didi, and the individual drivers. This tripartite revenue model underscores the collaborative nature of the shared economy, where technology

platforms facilitate the efficient exchange of services and financial transactions, and create value for all participants in the ecosystem.

4.4 Amap

Amap, also called Gaode Map, evolving from its initial role as a navigation service, has become an integrated platform that aggregates resources from numerous other platforms, providing a unified access point to a diverse range of services to improve user experiences. This development represents a strategic shift towards becoming a multi-party aggregation application, a one-stop solution for various consumer needs ranging from travel and accommodation to food delivery, among others.[88] The advantage of Amap's model lies in its ability to offer users the convenience of comparing options across multiple platforms (compare deals) directly through its interface. This not only reduces the wastage of idle resources by matching demand with supply more efficiently but also shortens the waiting times for consumers and delivers substantial convenience consequently.

For instance, in the context of shared mobility, users can place orders on Amap, which then forwards these orders to affiliated online car-shared companies, like Didi and Caocao. These companies, in turn, provide transportation services to the passengers, completing the transaction through Amap. The income generated from these transactions is transferred from the user to the third-party shared mobility companies via third-party payment platforms. Within this transaction process, the car-shared companies earn commission fees, while drivers receive income for their services. Meanwhile, the third-party payment platforms involved in transferring funds charge a fee for their services, which is a triple win. This system allows Amap to function as a central hub that connects consumers with various service providers, facilitating seamless transactions and interactions. Amap's approach exemplifies the aggregation application concept, where a single platform can meet multiple consumer needs through integration and collaboration with various services from business and

[88] Amap "Home Page" <mobile.amap.com>

individual providers. This model not only simplifies the user experience but also fosters a more connected and efficient digital ecosystem, with potential benefits for all participants involved.

Chapter 5 Tax Issues in the Sharing Economy

5.1 Determination of Taxable Amount Consideration

A sharing economy platform connects multiple trading entities. Transactions are performed by the trading firms through the platform, and the platform generates income by charging specific fees from its users. Direct income and indirect income are the two types of income of the sharing economy platforms generate. Under the direct revenue model, customers are the ones who are responsible for paying for the platform's expenditures. As for indirect revenue model, the platforms do not receive income directly from users or consumers of their primary products or services but rather obtain revenue through third-party organisations. Indirect revenue models are multi-sided market places since they require at least three-way relationships for them to keep the organisation afloat. These ties include commissions that connect consumers and suppliers and payers who pay platform fees for the bulk of users who are necessary to create content on platforms. When it comes to multi-sided markets, certain business models consider consumers and suppliers to be separate sources of revenue. Furthermore, the surpluses of these two groups are gained independently through the use of distinct pricing methods. However, in the majority of instances, the party in the market that is more price-sensitive receives a subsidy from the other party.[89] The majority of the revenue created by the intermediary comes from the party that has less elastic demand and lower prices, and indirect network effects can bring about greater profits.[90]

[89] Geoffrey G Parker and Marshall W Van Alstyne "Two-Sided Network Effects: A Theory of Information Product Design" (2005) Management science 1494

[90] Justus Haucap and Gordon J Klein "How Regulation Affects Network and Service Quality in Related Markets" (2012) Economics Letters 521

The income model of organisations that operate platforms for the sharing economy primarily consists of three characteristics. The first one is that it collects a commission from both the supply and demand components, according to the degree to which the suppliers and the demanders are dependent on the platform, the amount of the profits, and several other features. As an illustration, Uber charges a fee on each transaction from the supplier as a way to generate revenue, and Airbnb charges a commission from both the hosts and visitors. The relationship between consumers, intermediaries, and suppliers is at least three-way in this model and is dominated by them. Customers are allowed to switch between provider and consumer roles by creating and delivering value propositions, with only a few employees working for the intermediary, and value creation and delivery being externalised.[91]

From a consumer perspective, consumers have the right to collaborate together and to design the terms of collaboration by negotiating the content, including value propositions, terms and conditions for creation, distribution and consumption.[92] Consumers buy things on platforms like Tauschticket and eBay, access services within a certain time from platforms like Booking.com and Airbnb, or acquire services from temporary and professional providers like Uber and BlaBlaCar. Platforms apply rating systems, micro-guarantees, and standardised payment and delivery processes to create a secure environment that fosters community and enhances successful connections between consumers and providers. They charge commissions for effectively and successfully matching and executing transactions as a sort of reward .

The second feature is that they can effectively aggregate and utilise the value of consumer resources on both the supply and demand sides. As these sharing economy

[91] Hagiu Andrei and Julian Wright "Multi-Sided Platforms" (2015) International Journal of Industrial Organization 162

[92] Myriam Ertz, Fabien Durif, and Manon Arcand "Collaborative Consumption: Conceptual Snapshot at a Buzzword" (2016) Journal of Entrepreneurship Education 1

platforms gather a significant number of customers and service providers, they naturally become the ideal locations for the marketing of specific products and brands. Sharing economy platforms are able to charge fees from third parties who wish to expand brand awareness and product sales on the platform since they provide advertising services, these third parties can increase their sales in return. In addition, platforms might attract a large number of users by forming partnerships with businesses in order to run specific marketing campaigns or product promotions, which will result in an improvement of the platform's social image and will also attract sponsorships.

The third feature of the sharing economy platform is reflected in its extended service value to the platform resources. Based on the big data analysis of a large number of customer resources, relevant services are extended to expand the service boundaries of the platforms. Through user interaction, the platform gathers a substantial amount of data regarding user behaviour. This data includes user personal information, consumption habits, location data, and preference settings. The platform then implements data mining and computer algorithms to analyse the collected data in order to identify consumption trends, user behaviour patterns, and market needs. According to the findings of the data analysis, the platform satisfies the requirements of users by providing them with innovative services and products, which results in improved user satisfaction and loyalty. Furthermore, the platform has the ability to supply value-added services to corporate clients, such as data analysis services, market research reports, and consumer insights, to help them generate revenue. For instance, Airbnb has introduced an "experience" function that is based on the study of customer preferences. This function enables users to book more than accommodations, as well as travel experiences, like cooking courses or historical tours. Uber supplies urban planners with analysis reports on traffic flow and travel demand by analysing the massive amount of trip data it collects. These reports are valuable for the government to improve the efficiency of the system of public transportation.

In the B2C and C2C models of the sharing economy, the treatment of taxable income has both commonalities and particularities with traditional business models. The taxable base or tax base is the amount of income, profits, capital, or value of property or goods on which a tax is liable to be paid,[93] such as sales revenue, interest, rental income, and copyright royalties. The providers of services for platforms that are part of the sharing economy derive their revenue from providing labour services or services in return. This method of earning money is reasonably straightforward but extremely unstable. Meanwhile, the extent of income unpredictability is sometimes found to be higher in traditional employment relationships. For example, on Uber or Airbnb platforms, the taxable income of a driver or host is mostly determined by the total amount of revenue that they generate from those platforms. This contains all the sums spent by the customer, including but not limited to a booking fee, accessories, and tips. If an Uber driver earns a total of USD 100 at the end of the day (excluding the 20 per cent transaction fee Uber takes from it), including USD 90 of trip fees and USD 10 of tips, then his taxable income starting point should be USD 100. Likewise, if an Airbnb host makes USD 200 from renting out a room, regardless of whether the money comes from rent or additional cleaning costs, then that USD 200 ought to be recorded towards the host's taxable income.

5.2 Determination of Taxpayers

Supply and demand for resources are connected through the sharing economy business models. Funds are returned to the platform from the resource demander through a third-party payment platform, then the platform deducts a portion of the revenue and transfers the remaining income to the resource supplier's account. Additionally, from the perspective of the flow of cash, third-party payment systems, online platforms, and resource suppliers are all regarded as taxpayers and are obligated to fulfil their respective requirements. This is because they are all deemed to be subject to taxation. The current tax system, on the other hand, does not have any

[93] TACIS Program *Dictionary of Taxation Terms: English, Russian, German, French* (Publications of the European Communities, Brussels, 1996)

broad limitations on the taxpayers of the business model of the sharing economy. Instead, it only provides tax payment obligations for a few specific groups. Generally, tax authorities exercise tax oversight over taxpayers by requiring them to register for filing their taxes. On the other hand, service providers, such as private vehicle owners and landlords, are only required to apply or register following the platform's requirements. They are not required to go through the process of tax registration. Plus, the complicated and wide variety of business structures has contributed to the difficulties of the determination of taxpayers.

Within the context of the C2C model of the sharing economy, individuals make use of their resources that are currently idle in order to get gains through sharing. Resource providers and demanders are directly connected through the platform. In general, the determination of taxpayers is based on the direct connection between supply and remuneration in kinds. That is to say, the actions of a person directly obtaining monetary or in-kind recompense for providing these products or services establish a tax liability in accordance with the legislation governing taxes. The identification of taxpayers presents a variety of challenges to the criteria that are used to define the concept of a taxpayer in the sharing economy.[94]

These individual suppliers are not taxed until they are included in the taxpayer category. The competition between individual suppliers and traditional enterprises may result in unfair tax treatment in the market. This is due to the reality that traditional enterprises must pay for the corresponding tax obligations, but individual suppliers could absence of complying with their obligations. It is possible that differential tax treatment would result in distortions in market competition as well as neutrality issues in tax policy, which will impact the market environment for open competition. Theoretically, in this chain of tax collection and administration, resource suppliers, platforms for the sharing economy, and third-party payment platforms all

[94] Puschmann Thomas and Rainer Alt "Sharing Economy" (2016) Business & Information Systems Engineering 93 at 6

create money. They should be regarded as taxable entities (as mentioned above). However, in the actual running of the sharing economy platform, individual providers only need to register on the platform and submit basic personal information. They are not asked to provide the tax number from the tax authorities to be eligible to participate in the actual market. Because there is no direct link to a tax ID number, it is difficult for the tax department to track and record an individual's income on the platform. In addition, the creation of tax blind spots has been facilitated by such phenomena as several individuals sharing a single account and one individual registering multiple accounts. It further added to the difficulty of tax collection and administration.

5.3 Determination of Taxable Objects

The setting of tax objects reflects the scope and boundaries of taxation and is the main symbol for distinguishing different types of taxes. However, in the sharing economy business model, the boundaries of taxable objects are blurred and not easy to identify. In the Enkler case,[95] the court proposed that an act should be determined to be taxable if it satisfies the following two principles. The first one is a tangible property for rental purposes constitutes exploitation of this property to generate ongoing income and, for the purposes of value-added tax, must be classified as an economic activity. Another principle is that the taxable amount for turnover tax on transactions considered supplies of services should encompass expenses incurred while the goods are available to the taxable individuals for non-business use and are related to the goods or are deductible for VAT purposes. The expenses included should be proportional to the ratio of the overall duration of business use of the products to the duration of non-business use.[96]

In general, allowable expense or allowable expenditure includes the expenses that the

[95] Case C-230/94, Enkler, EU:C:1996:352.
[96] Francesco Cannas "Sharing Economy: Everyone Can Be an Entrepreneur for Two Days… but What About a Vat Taxable Person?"(2017) World Journal of VAT/GST Law 82 at 10

taxpayer may deduct from the gross income when calculating the taxable income.[97] For the platforms, the costs directly related to their income are different from traditional industries. The main cost of a sharing economy platform is not investment in fixed assets, but various expenses directly related to its service operations, including operating expenses such as platform maintenance, technology updates, server fees, employee wages, marketing, and legal counsel. These are expenses that are both essential and should be deducted from the income that is subject to taxation. For Uber drivers, the possible deductible expenditures are vehicle operating expenses, such as gasoline, maintenance, insurance, vehicle depreciation, mobile phone expenses, and application subscription fees. Airbnb hosts have the right to deduct expenses, including but not limited to house maintenance fees, depreciation of furniture, cleaning fees, and water and power bills. In addition, commissions or service fees collected by the platform can also allow to be deducted.

In the sharing economy, it is particularly important to appropriately divide these expenses because there is a possibility that personal spending and business expenses could cross. Airbnb hosts, for instance, rent out their homes on the platform during the busiest times of the year for tourists and then live in those themselves during the shoulder seasons. Uber drivers use their private vehicles for traveling, commuting, and other purposes outside of working hours. One feasible solution is to allow the deduction of relevant input tax proportionally based on the time or proportion of the goods or services used for business and personal use. Specifically, taxpayers record and calculate the specific time or proportion of the goods or services used for commercial and private purposes within the total of use, and then determine the deductible input tax amount based on this proportion for commercial purposes. There is no doubt that the laws and regulations governing taxes in various countries and locations will differ from one another. Therefore, when it comes to taxation participants in the sharing economy, some countries or regions might implement

[97] TACIS Program *Dictionary of Taxation Terms: English, Russian, German, French* (Publications of the European Communities, Brussels, 1996)

appropriate tax discounts or exemptions.

As a sharing economy platform company, it is essential to clarify the relationship between the platform company and registered individuals. Whether the platform just offers information matching services for both parties, or whether there is an employment relationship between the platform and the individual who registered on the platform are both debatable issues. It is not only an important issue in the collection of taxes but also a contentious one in labour relations. For instance, Airbnb mainly offers services related to accommodation, but it also provides extra services including travel escorts or tours of shopping malls. This blurs the lines between products and services, which in turn makes the classification of different types of taxes more difficult. There is a lack of clarity over whether or not these kinds of commercial activity ought to be taxed as the sale of products or as the provision of services.

For Uber drivers, the provision of transportation services is carried out through their vehicles. Uber argues that these drivers are independent third-party transportation service providers, commonly referred to as independent contractors, and are not employees of Uber. The driver's income tax classification becomes more complicated by the definition of their relationship. It would appear that their status as independent contractors is supported by the fact that they are able to choose their working hours and accept orders according to their own preferences (European Commission, 2017). On the contrary, the services that they offer are closely associated with Uber, and their income is derived from the platform, which seems to exclude them from the group of independent contractors and place them in the role of an employee. As a consequence of this uncertain situation, it is hard for drivers to determine the type of personal income tax they are required to pay because the tax requirements and criteria for various categories are different.

5.4 Determination of Tax Liability

In the B2C model, transaction activities occur directly between enterprises and consumers, which include selling goods or services. In this process, When it comes to this procedure, enterprises usually have a comprehensive financial and tax record system that can be used to clearly define their tax responsibilities, which may include but are not limited to, value-added tax, consumption tax, corporate income tax, and other types of taxes. It is necessary for businesses to accurately calculate and incorporate the value-added tax or consumption tax into their selling prices when they are selling goods or delivering services. Additionally, businesses are required to compile and transmit comprehensive tax reports consistently in compliance with tax laws, and eventually, pay taxes to the tax authorities. Additionally, businesses are required to compile and transmit comprehensive tax reports consistently in compliance with tax laws, and eventually, pay taxes to the tax authorities. First of all, it is challenging for individuals to appropriately assess their tax obligations and to correctly declare or pay taxes without the assistance of a professional financial consultant.

The C2C model refers to the exchange of goods or services between peers through online platforms. Under this model, only if the supply of goods and services is for monetary consideration, these transactions may be considered taxable for VAT purposes. A transaction cannot be considered subject to VAT if it does not pay the price.[98] Within the context of the C2C model, the determination of tax liability becomes more complicated and challenging because both parties involved in the transaction are individuals who rarely have official financial records and any prior experience with completing tax forms. Secondly, the services that an individual provides may be performed regularly or simply on an occasional basis, which results in the establishment of certain requirements for the assessment of tax liability. Thirdly,

[98] Francesco Cannas "Sharing Economy: Everyone Can Be an Entrepreneur for Two Days… but What About a Vat Taxable Person?"(2017) World Journal of VAT/GST Law 82 at 6

service providers rely heavily on shared platforms to provide income reports and to declare and pay taxes accordingly. This means that the platform needs to provide accurate documentation of transactions and income reports as a prerequisite for individual sellers to declare taxes.

5.5 Tax Data Sharing

Many sharing and gig economy platforms operate across borders, but, they have no physical presence in each market where their services are used. In this context, without strong international cooperation, some jurisdictions may have difficulty obtaining information from these platforms and enforcing any legislative requirements.[99]

The current tax jurisdiction is faced with the fact that the sharing economy is widespread across the globe and is present in many aspects of life, which raises the issue. Through the Internet, the sharing economy offers a variety of services, including consultancy, technical guidance, and information services. But, the internet has virtualised the location of the institution, and the labour services are carried out within the virtual network. Therefore, it is difficult to ascertain who has tax jurisdiction over an institution, no matter whether the location of the institution, the area where the services are performed, or the place where the services are consumed is taken into consideration.

Besides that, the majority of the orders and payment methods during the transaction process are carried out in the form of paperless transactions. Furthermore, the transaction vouchers and information are stored in the form of data information, which makes the supervision of the transaction process more complicated. Sharing economy platform entities have powerful enormous data processing and cloud computing capabilities, but the ability of tax authorities to collect and process this data is somewhat behind. Platforms might intend to reduce taxes by manipulating

[99] OECD *The Sharing and Gig Economy: Effective Taxation of Platform Sellers* (OECD,28 Mar 2019)

transaction data.

Plus, the registered users of the platform are dispersed and scattered, and free to the flow. Some platform companies classify and set restrictions on accounts in different countries or regions.[100] As an illustration, some shared travel platforms require drivers to re-register their accounts to receive orders from different countries or regions. Since this approach results in a highly dispersed distribution of revenue sources, the tax authorities have difficulty precisely calculating the income and an exact tax of one driver, as a consequence.

5.6 Government Participation and Supervision - Withholding Tax

Given a large number of providers on the platform, which is likely to continue to grow, and the fact that a majority of them may have incomes that fall into the low-to-medium range, it is not only time-consuming and labour-intensive for the tax authorities to conduct a large number of individual investigations and audits on them, but it is also expensive and not cost-effective. Individuals who were previously only wage earners or self-employed individuals through one or more platforms will become a more substantial portion of the tax base as the sharing and gig economy continues to grow. Facing this huge number of individuals, one of the options available and a successful strategy for ensuring compliance is withholding taxes. Withholding tax is a tax paid directly to the government, usually by the principal who pays the income to the recipient or who acts as an intermediary between the payer and the customer.[101] The income tax on salary income is commonly charged as a kind of withholding tax.

The following concerns need to be taken into consideration by the government if a withholding tax is implemented:

[100] Inland Revenue *The Role of Digital Platforms in the Taxation of the Gig and Sharing Economy* (Inland Revenue, 10 March 2022)

[101] Yariv Brauner and Andres Baez Moreno *Withholding taxes in the service of BEPS action 1: Address the tax challenges of the digital economy* (WU International Taxation Research Paper Series, 9 September 2015)

(1) Whether or not the legislation needs to be simplified;
(2) Whether or not taxpayers have the option to opt out of paying withholding tax instead adhere to the rules that are currently in place on tax filing and payment to lessen the burden on platforms and to establish different rates and thresholds to cater to the requirements of various taxpayers;
(3) Whether or not it will result in an excessive amount of withholding, and additionally the solution to this problem;
(4) Whether or not withholding tax should be applied to different tax rates and/or thresholds;
(5) Whether or not withholding tax should be targeted at specific individuals, such as those who do not engage in commercial activities;
(6) If the platform does not have a physical presence in the country, what would be the procedures for withholding taxes and determining jurisdiction; and
(7) What kind of format should the information be submitted in, and what kinds of penalties should be imposed on taxpayers who fail to report their income.

The advantages of withholding tax through the platform are that it simplifies the tax payment process, improves tax compliance, and enables instant taxation of income as it occurs. The advantage of implementing a withholding tax policy on a sharing economy platform is to simplify the tax payment process, improve tax compliance, and enable instant taxation of income. This approach significantly simplifies the tax filing process for participants in the sharing economy. Particularly for those individual providers who are active on a shared economy platform, this means that the time pressure and procedural complexity they face when filing their taxes is substantially decreased. For example, an individual who does not regularly provide services on a shared platform can quickly complete a tax return form to complete a tax return after the process is streamlined and does not need to seek help from a professional. Another part-time Uber driver has the option of having Uber deduct taxes directly from his income and no longer needs to file and pay.

A straightforward filing process can also help the public become more aware of their taxes. For example, an individual or independent contractor who joins a new sharing economy platform can see more intuitively how much tax he or she should bear through this simplified process. Withholding also reduces the likelihood of omissions and errors by individuals and reduces the risk of individual providers not filing their taxes in accordance with the law because they are not familiar with the tax laws.

The introduction of withholding tax can be achieved by imposing a small tax on each transaction. Every time a consumer completes a transaction through a sharing economy platform, a certain percentage of small taxes will be automatically added. The implementation of this method is something that can be considered more straightforward for platforms and governments. It is also capable of providing the government with a reliable source of tax revenue. This is because it does not require complicated revenue calculations and classifications. As it is directly proportional to the number of transactions rather than the amount. In situations in which there is a high frequency of economic activities, this approach might guarantee the continuity of taxation; however, it will also directly cause consumers to pay extra costs. As a result of the rising costs, there is going to be a reduction in the number of users and consumers to use sharing services, and the platform will lose its advantage in terms of price competitiveness. Furthermore, the revenue that is generated by relying on per-transaction levies might be subject to fluctuations as a consequence of changes in demand from the market. For example, during the off-peak tourism season, the transaction volume of shared accommodation on platforms will decrease, which could result in a reduction in the taxes that are associated with those platforms.

Another way is to allow providers to make an estimate of their income for the current year by referring to the income they earned the previous year. So that they can pay taxes in advance based on their estimated income for the current year. They also have the option of paying in instalments, which means that service providers can choose to pay a portion of the tax each quarter rather than waiting until the end of the year to

pay the entire amount in one lump sum. It is regarded as an alternative to paying the tax all at once. This payment mechanism helps alleviate the pressure of one-time large tax payments faced by sharing economy participants at the end of the year and is more in line with their original intention of choosing to join the sharing economy, that is, the pursuit of work-life flexibility and freedom from traditional employment. The disadvantage of this approach is that it is difficult to accurately estimate taxes for an entire year in advance for participants who have unstable incomes. As a consequence, there might be differences between the taxes they have been prepaid and the actual amount of taxes they owe. At the end of the year, participants might be required to make adjustments to their taxes Any excess payment would be refunded, and deficiency shall be repaid.

The third way is to implement a progressive tax rate. It is especially beneficial for individuals who only receive a small amount of income from the sharing economy platform. If an individual's yearly revenue from platforms is greater than a certain threshold, they will be subject to tax liability. In other words, individuals or independent contractors who occasionally participate in activities are exempt from paying taxes if their annual income does not exceed the established minimum tax amount. The threshold for starting a business and joining the sharing economy drops as a result of this approach, which encourages more people to try their hand at providing services on the sharing economy platform. Because they do not have to worry about the tax burden, they will have to bear at the beginning stages of their business. The implementation of progressive tax rates places higher requirements on income definition and supervision. For example, as mentioned above, a driver who offers his services on multiple ride-sharing platforms is required to add up the total amount of money he earns from each of these platforms to determine whether his overall income is sufficient to meet the tax standard. Besides that, the government will lose a portion of the revenue received from taxes because many small amounts of income do not meet the taxable standards. This plan will in turn introduce individuals to hide their incomes to avoid reaching a higher tax rate range and minimise their tax

burden by diversifying their sources of income, dividing their income into parts, or adjusting the amount of income they receive.

Chapter 6 Comparison of Tax Policies In Different Jurisdictions

6.1 European Union

An announcement regarding the implementation of the "Single Digital Market Strategy" was made by the European Commission in May 2015. The strategy's main objective was to encourage the establishment of a unified digital tax plan within the European Union[102]. In March 2018, the European Commission proposed two short-term and long-term digital tax legislative proposals. These proposals were focused on taxing the digital economy cross-border which is interconnected with the sharing economy. The short-term solution, was a temporary digital services tax.[103] The digital services tax applies to online advertising, digital intermediaries, user data sales, and other digital activities in which users play a major role in value creation. The tax is levied on digital companies whose global annual revenue exceeds 750 million euros and whose annual revenue in the EU exceeds 50 million euros. Enterprises are taxed on gross income at a tax rate of 3 per cent, covering the main digital activities that are currently evading tax in the EU, including online advertising revenue, digital intermediary activity revenue, and user data sales revenue. The plan aims to ensure that member states can obtain revenue from the digital activities of relevant companies before the implementation of long-term tax reforms. It will also help to avoid unilateral digital taxation by some member states from harming the EU digital single market. In addition, in order to better distribute the profits of multinational groups among member states, the European Commission has also

[102] European Commission *A Strategy for the Digital Single Market.* (European Commission, 6 May 2015)
[103] Marcin Szczepański *Interim Digital Services Tax on Revenues from Certain Digitalservices.* European Parliament (European Parliament,7 December 2018).

proposed an initiative to ensure the connection between the source of digital profits and the place where they are taxed.

The long-term solution is the Significant Digital Presence proposal. The proposal highlights a new definition of a digital permanent establishment and revised profit distribution rules. According to the proposal, a company is deemed to have a "significant digital presence" if it meets any of the following three criteria, annual revenue from digital services in a member state exceeds 7 million euros, has more than 100,000 users in a certain member country in a tax year, and enter into more than 3,000 digital service contracts with users in a certain member country in a tax year. Companies with a "significant digital presence" are required to pay tax in the corresponding member state on profits attributable to the "significant digital presence".[104] These standards are a reflection of the widespread acceptance and market penetration offered by digital services of an entity. It can be used to judge the influence and scale of activities of an enterprise more accurately in a particular market by looking into the number of users. By considering the number of users, it is possible to more accurately judge an enterprise's influence and scale of activities in a specific market and to identify companies that, although they have a small number of users with high transaction frequency or can gain significant economic benefits. In addition, the establishment of a relatively high income threshold to make sure that the tax scope will only be extended to large digital businesses that have a significant influence on the market of a single member country.

The leaders of the European Commission hope to solve the tax problems brought about by the digital economy by launching this two-step digital tax legislative proposal. However, low-tax countries such as Ireland and Luxembourg are strongly opposed to digital taxes because they worry that they will reduce their attractiveness to foreign investment. After nearly a year of consultations, EU regulatory authorities

[104] Marcin Szczepański *Interim Digital Services Tax on Revenues from Certain Digitalservices.* European Parliament (European Parliament,7 December 2018).

announced in March 2019 that they would not implement a digital tax plan across the EU for the time being, and digital tax legislation was shelved.[105]

6.2 OECD

In March 2019, the OECD released a report "Sharing Economy and Gig Economy: Effective Taxation for Platform Sellers", which put forward some suggestions on how to improve the tax collection and administration of the platform economy in the future.[106]The report points out three characteristics of the platform economy pose new challenges to tax collection and administration, which are taxpayers may not be clear enough about their tax obligations as platform sellers, some transaction activities may be new or have not been included in the scope of taxation, and income obtained through the platform may be scattered.

Therefore, it is very necessary to establish an effective collection and management mechanism. There are four measures to improve tax collection and management for reference, namely popularising tax law knowledge, simplifying legislation, withholding and payment mechanisms, and identifying the identity of platform sellers. In terms of popularising tax laws, it can be promoted through the tax authority website, and the tax authority can directly participate, for example, the Australian Taxation Office will notify sharing drivers to register as GST taxpayers. It can be promoted through the media, and it also can cooperate with various trade companies or industry organisations. Simplifying legislation, for example, the UK directly stipulates tax exemption amounts for income from specific transactions. In terms of withholding and payment, for instance, the Italian Tax Agency requires intermediaries participating in online payments to withhold and pay personal tax. In terms of identifying the identity of platform sellers, tax authorities could obtain data through public channels, but this will involve the issue of whether it conflicts with data protection regulations. They could sign a voluntary information sharing agreement

[105] European Council "Timeline - Digital Taxation" < www.consilium.europa.eu>
[106] OECD *The Sharing and Gig Economy: Effective Taxation of Platform Sellers* (OECD,28 Mar 2019)

with the platform operator, or they can obtain data through the platform by legal authorisation. In the legal authorisation method, it is important to note that the tax authorities are obligated to take into consideration the requirements for tax information exchange for foreign platform operators. Alternatively, they may add provisions to the tax law that require platforms to report sellers' tax information to them.

In January 2020, the OECD Working Group 10 on Information Exchange and Tax Compliance developed and released "The Model Rules for Reporting by Platform Operators with Respect to Sellers in the Sharing and Gig Economy". The document contains core definitions of "platform operators", "reportable platform operators", "non-reportable platform operators", "reportable sellers", "non-reportable sellers" and "reportable jurisdictions".[107]

Table 2 Core definitions in the Sharing economy

Platform operator	an entity that signs a contract with a seller to provide all or part of the platform functions to the seller
Reportable platform operators	a tax resident of the jurisdiction implementing the "Model Rules", or a platform operator that is not a tax resident of the jurisdiction but is established under the law of the place where the "Model Rules" are implemented or has a governing body there, including an actual management body
Non-reportable platform operators	platform operators that meet the following conditions at the same time: (1) promote the supply of related services such as real estate leasing or personal services, and the total revenue in the previous calendar year is less than 1 million euros and has notified the tax authorities of the relevant tax jurisdictions to choose platform operators to be treated as such, (2) provided satisfactory proof to the tax authorities of the tax jurisdictions,

[107] OECD *Model Rules for Reporting by Platform Operators with Respect to Sellers in the Sharing and Gig Economy* (OECD, 3 July 2020)

	indicating that the overall business model of the platform does not allow sellers to benefit from the above-mentioned profits. (3) provide satisfactory evidence to the tax authorities of the tax jurisdiction, indicating that the overall business model of the platform does not allow the existence of reportable sellers.
Reportable sellers	A seller, other than a non-reportable seller, who resides in a reportable tax jurisdiction, provides services related to the leasing of real estate in a reportable tax jurisdiction, or obtains income related to real estate leasing services in a reportable tax jurisdiction of active sellers.
Non-reportable sellers	(1) entities, such as large hotels, for which the platform operator facilitated more than 2,000 real estate rental services in the real estate list during the reporting period (2) government entities (3) an entity whose shares are regularly traded on an established securities market, or a related entity of an entity whose shares are regularly traded on an established securities market.
Reportable jurisdictions	a tax jurisdiction where a valid agreement or arrangement has been made and which is included in the published list.

6.3 France

The sharing economic model also brings serious challenges to the French tax system. For example, platform economy practitioners (such as Uber drivers) often do not file taxes based on their actual income. More and more French people are engaged in platform economy industries such as online ride-hailing to avoid taxes. As a result, there are inconsistencies in the status of workers and taxes under different economic models. An equal situation. In 2016, the French tax department issued guidance requiring relevant practitioners to declare all income earned through online economic

platforms. In March 2017, the French Congress issued the No. 482 Act relating to the adaptation of taxation to the collaborative economy. [108]

This Act has three innovations. Firstly, it establishes a tax declaration system for platform practitioners. Practitioners of the platform economy have been deemed to be freelancers, which mandates that they disclose their personal income from the platform economy on the internet according to this act. Additionally, the Act includes the addition of obligations for network platform operators to automatically report information and the provision of relevant information after users have given their consent. Secondly, it establishes a presumption system for full-time practitioners. As long as the total amount of the revenue in a tax year exceeds 3,000 euros, it will be classified as a full-time practitioner and will be required to pay taxes following the regulations. Finally, it sets up a preferential system for platform economy practitioners. It exempts individual platform users from paying a small amount of extra income and provides a deduction of 3,000 euros per year to those who actively declare their participation in the platform economy. Meanwhile, the "Bill" applies online declaration and tax collection and management technology to stipulate personal part-time income which is earned through the platform economy into a single category. This erases the elimination of the differences between the traditional economy and the sharing economy, as well as the unreasonable competitive advantages that currently exist in the tax system.

6.4 the United States

As the birthplace of the platform economy, it has a relatively mature tax collection and administration system that is compatible with the platform economy. The Taxpayer Identification Number (TIN) system, which is very comprehensive, provides the United States tax authorities with a powerful tool that allows them to easily track the sources of income that individuals receive, including those that are

[108] Senate *"Draft law on the adaptation of taxation to the collaborative economy"* (Retrieved 20 January 2023) <www.senat.fr>

obtained through platform transactions. This allows almost every citizen and resident can be effectively included in the scope of tax collection and administration. In addition, the severe punitive measures that the United States government has taken against individuals who avoid taxes. The technical instruments and laws played a key role in establishing a powerful deterrent force, which was successful in deterring a large portion of people.

The tax regulations on personal income in the American platform economy have two characteristics. The first one is that certain providers do not have any tax reporting obligations, whereas third-party platforms have withholding and payment obligations for those who exceed the minimum revenue limit on the platform. In other words, providers on the platform have no tax reporting obligations, and the platform's withholding and payment obligations (including reporting obligations) are also limited to high-frequency, high-trading volume and high-income providers, who occasionally trade once or have transactions less than a certain amount are exempt from filing tax returns. Taking Lyft and Sidecar as examples, the online ride-hailing platform is required to withhold money from the driver and pay tax if the driver provides more than 200 rides or if the business earns more than USD 20,000 during that specific year.[109]

The second one is about tax deductions. The U.S. platform economy has different tax deductions in different fields. Individuals who provide services through the platform are required to separate the expenditures between their personal or family consumption activities and business activities by the tax laws of the United States. Additionally, they are permitted to deduct operating costs or depreciation expenses that arise from the business activities from the income they make.

The second feature is that the United States has different tax deductions for platforms in different fields. According to the relevant tax laws of the platform economy in the

[109] Internal Revenue Service "IRS Announces Delay for Implementation of $600 Reporting Threshold for Third-Party Payment Platforms' Forms 1099-K" (23 Dec 2022) <www.irs.gov>

United States, practitioners who provide relevant platform economy services should separate personal or household consumption behaviour from commercial behaviour. Tax laws allow practitioners to deduct operating costs or depreciation expenses incurred as a result of their business activities from their business income. For example, when a private car is operated commercially, the driver must truthfully record the mileage of the commercial operation and deduct the corresponding car parking fee and toll fee according to the actual operating value. The requirements are the same for landlords renting out their homes. The IRS stipulates that if a house is used for the whole rent, the real estate tax, maintenance costs, and utility expenses involved in the house can be deducted at the time of tax payment. If a home is used for both owner-occupancy and renting, the landlord needs to divide the income and deductible expenses according to the number of days you rent it.[110]

6.5 Australia

Australia has introduced a series regulations for the tax collection and administration of several different types of sharing economic activities.[111] For example, ride-sharing activities require drivers to register for GST before providing the first passenger service. After registering as a GST taxpayer, they will provide the Australian Business Number (ABN) to the third-party platform, which will act on behalf of the driver. After the transaction is completed, the driver legally issues the tax invoice to the passenger through the platform, and they are required to fill in monthly or quarterly business activity reports and then pay income tax and GST calculated on their income from providing passenger services.

For whole-rent or sub-let property sharing platforms, the Australian government stipulates that regardless of the identity of the user who registered for the platform, the property owner needs to include rental income in the income tax return. Fees related to leasing and service fees and commissions collected by the platform can be

[110] Internal Revenue Service "Rental Income and Expenses - Real Estate Tax Tips" (07 Feb 2024) <www.irs.gov>
[111] Australian Taxation Office *Sharing Economy and Tax 2023* <www.ato.gov.au>

included in the income tax return, tax deductions are made in advance. Individuals do not need to pay GST on rental income from renting out or sub-letting their own homes through digital platforms, but rental income from companies operating commercial residence rentals is subject to GST. Taxpayers need to keep the income certificates issued by the platform and other relevant taxation basis material.

For shared asset platforms, it is stipulated that enterprises operating shared assets must apply for ABN registration for GST when certain conditions are met and declare GST on their income from operating activities in asset sharing. Taxpayers must keep the income certificates and pre-tax deductions issued by the platform. Expenditure invoice. In addition, in terms of the platform economy and data interconnection, the Australian government obtains the income information of natural person taxpayers through three channels, that is, requiring platform operators to report the income and other relevant data of sellers on the platform, collecting it through employers, government agencies, financial institutions, etc., and access taxpayer-related information through the Australian Transaction Reports and Analysis Centre and international tax treaty partners. In all data interconnection actions, the ATO works with data providers to ensure that only tax-relevant information is disclosed to the ATO.

In order to more conveniently and comprehensively grasp the tax information of taxpayers in the sharing economy platform, the Australian government has developed a salary information system and applied this system to the payment and settlement system of enterprises. This system allows enterprises to automatically collect and extract salary and tax-related information of their employees, and then send it directly to the ATO. Starting in 2018, companies engaged in sharing economic activities in Australia have been mandated to adopt this compensation system. ATO could discover and correct tax non-compliance more quickly with the assistance of this

system. It is also an active exploration by the Australian government to adapt to the development trend of the digital economy and optimise the tax management system.

The Australian government attaches great importance to educating the general public to improve their tax knowledge and awareness of taxation, especially the popularisation of tax policies of the sharing economy in recent years. To make sure that participants of sharing platforms have a complete comprehension of their tax obligations, the ATO has implemented several preventative measures. As an illustration, the ATO conducts a count of newly registered sharing platform drivers every three months and provides them with clear guidance about the tax obligations they are responsible for. And those drivers who started providing transport services but have not yet officially registered on the sharing platform will not be ignored by the ATO. They are going to send out tax filing notices in advance to remind these drivers that they are responsible for understanding and meeting their tax obligations. In addition, the Australian government conducts tax awareness and education campaigns for individuals through social media. It further increases public awareness of tax compliance.

6.6 New Zealand

The New Zealand government will mandate individuals and businesses that conduct economic activities through digital platforms to pay income tax and goods and services tax (GST) from 2024, including ride-sharing and ride-hailing, food and beverage delivery, short-stay, and visitor accommodation. However, accommodation used by the customer as their principal place of residence is excluded. To be more specific, the new regulations mandate that from January 1, 2024, New Zealand's online marketplace operators need to collect and report information on sellers who provide relevant services on their platforms, including transaction details, to enhance tax transparency and compliance. In addition, starting from April 1, 2024, these

operators are required to collect a goods and services tax of 15 per cent on all services income sold through the platforms. [112] For those sellers who have registered GST, the services they sell through online platforms will be subject to a zero-rating policy, allowing them to deduct related costs such as gasoline and vehicle costs. And for those non-registered sellers, they will be subject to the flat-rate credit scheme. The market operator needs to first collect goods and services tax at the standard rate of 15 per cent, and then pass 8.5 per cent of the collected goods and services tax to sellers who have not registered for GST, which means that the 8.5 per cent tax has been deducted. The remaining 6.5 per cent will be returned to the IRD. The calculation method demonstrates that the government acknowledges the costs that are incurred by sellers, which simplifies the process and improves the efficiency of taxation. Nevertheless, However, compared to sellers who have registered for GST, the amount that can be deducted is limited, with a maximum of only 8.5 per cent.

When it comes to specific operations, sellers are required to provide the marketplace operator with their name, IRD number, and the status of their GST registration. In addition, opt-out rules are available for large non-individual sellers who are registered with the GST. It means that sellers who make sales of more than NZD 500,000 or more than 2,000 nights of accommodation within 12 months are eligible to choose opt-out rules. After opting out, they will no longer be regarded as an operator of an online marketplace but rather as a supplier.

Chapter 7 Enlightenment to China

7.1 Clarify The Tax Entities And Tax Objects

Unlike the countries or regions mentioned above, China's sharing economy has a large number of participants, and its scale is still growing. In China, the Chinese government has released the Annual Report on the "Development of China's Sharing

[112] Inland Revenue "Sharing Economy and Tax" (2023) <www.ird.govt.nz>

Economy" for six consecutive years. These reports illustrate that the figures for transaction volume of the sharing economy market from 2017 to 2021 are USD 319.569 billion, USD 452.615 billion, USD 505.046 billion, USD 519.584 billion, and USD 567.4 billion (assuming the exchange rate is 1 US dollar = 6.5 RMB).[113]

Therefore, if the government wants to tax the sharing economy, it must first find a solution to the problem of taxpayers, which is currently unclear. Should it be the responsibility of the sharing platform to withhold and pay the tax, or should the provider of the service be the one to declare and pay the tax on their own? The Chinese tax authority needs to further consider whether to withhold the payment based on the amount of each transaction or based on the total income accumulated by the provider within a certain period of time, monthly for example. Moreover, providers might register accounts on multiple platforms and provide services to earn higher income. It is necessary to find a solution to break the information barriers, and link transaction information between platforms and the tax authorities. To be more specific, the practice of Australia is a good example to be followed. For those suppliers who are registered on multiple sharing platforms, they are mandatory to link their identity information with the tax system. Only after completing this process, the supplier can continue their business activities on the sharing economy platforms.

Secondly, the relationship between service categories, vendors, and platforms should be more granular and transparent. This has a direct impact on the calculation of various types of taxes and rates. Different categories of services may be subject to different tax rates. For example, the VAT rate for leasing services of tangible and movable property is 13 per cent, while the rate for leasing intangible assets and providing transportation services is 9 per cent. For individuals, as small-scale taxpayers, with a small monthly turnover, the VAT rate can be further reduced to 3 per cent or 5 per cent. To this end, the tax authorities should classify the services

[113] The State Information Centre of China *Annual Report on the Development of China's Sharing Economy from 2017 to 2021* (2022)

provided by the sharing economy platform in detail, list the specific objects to be taxed, and provide criteria for determining the objects of taxation. In the sharing economy model, the platform plays the role of a direct service provider and may also play the role of an information service provider. Their particular kind of service determines which value-added tax policy is applicable. For instance, if ride-sharing and online taxi platforms offer transportation services, they are required to apply a value-added tax rate for transportation services. On the other hand, if the platform only offers information matching services, they should pay VAT at the tax rate of information services. Similarly, online rental platforms need to make it clear whether they offer house rental services or only information matching services. The answer to this question will determine whether or not their income should be subject to the VAT rate for rental services or information services.

In addition, in the sharing economy model, the relationship between the platforms and the suppliers is complex and ever-changing. The nature of this relationship plays a decisive role in determining whether the platform has the obligation to withhold and pay taxes. In the case of ride-sharing and ride-hailing, for instance, the establishment of a labour-employment relationship between the driver and the ride-sharing and ride-hailing platform is an essential factor in determining the nature of the driver's income and the tax liability. Under the non-labour employment relationship, the driver's monthly income is primarily derived from the remuneration that is received from the travel services provided through the platform, which is in contrast to the wages or salaries that are paid regularly by the platform. A partnership is a better way to describe the relationship between drivers and platforms in this scenario. Drivers use the information matching service provided by the platform to independently complete transactions with passengers and receive service payments. The activities of drivers are more analogous to those of self-employed individuals, so their income should be declared and paid personal income tax according to personal business income. Because the platform plays the role of an information intermediary in this process, helping to establish connections between drivers and passengers, rather than being an

employer in the traditional sense.

The second scenario is that the platform and the driver are involved in a labour-employment relationship. In the B2C model, drivers are not employed as individual operators, but as employees of online platforms or third-party companies. The driver signs a labour contract with a third-party labour service company and becomes a full-time driver after the online platform outsources labour to this third-party labour service company by signing an outsourcing contract. Drivers' income comes from wages and commissions paid regularly by online platforms or third-party companies. It is not surprising that the nature of this income is distinct from the one mentioned previously. Consequently, this portion of the income should be reported and paid as personal income tax as wages and salaries. Online platforms and the labour company might be responsible for tax withholding and payment.

7.2 Clarify the Tax Jurisdiction

The majority of the trading activities that take place on the sharing economy platform are based on information technology. Because of its appearance, the traditional approach of determining tax location based on geographical location is no longer applicable. In China, taxation constitutes the primary source of revenue for each province, and the issue of how to allocate tax attribution is significant. On the one hand, in some provinces with higher levels of economic development, the sharing economy is full of vitality. However, on the other hand, some companies that operate sharing economy platforms might choose to register in particular provinces that offer tax incentives to take advantage of the tax benefits, even if the majority of their income and business activities are carried out in other developed regions. Therefore, the government must clarify the ownership of tax revenue.

Governments could consider dividing tax attribution based on the physical location of

users and service providers. Or establish an inter-provincial tax distribution mechanism to distribute taxes according to the business volume and income ratio of sharing economy platform enterprises in each province. It not only ensures the fairness of taxation, but also prevents enterprises from avoiding taxes by choosing the place of registration. In addition, the government can also use big data and other advanced technologies to strengthen information sharing and regulatory cooperation among provincial tax authorities to improve the efficiency and accuracy of tax administration.

The tax authorities are in a position to effectively monitor the transaction activities of platforms, ensuring that tax policies are fair and rational, and prevent the economic disparities between provinces from becoming more pronounced.

The trading activities of sharing economy platforms are mostly based on information technology, and its emergence has broken the traditional method of judging the location of tax payment based on geographical location. In China, taxation is the core part of the fiscal revenue of each province, so how to divide the attribution of tax is a very important issue. On the one hand, we observe that in regions with a higher level of economic development, the sharing economy tends to show more vigorous vitality. But on the other hand, some sharing economy platform enterprises may choose to register in certain provinces that provide tax incentives for tax incentives, while their main income and business activities actually occur in other economically more developed regions.

7.3 Promote Multi-Department Collaborative Tax Administration

The rapid growth of the sharing economy has resulted in a wide range of new business models and industries. The formulation of laws, on the other hand, always lags behind new things, particularly in the collection and administration of taxes. In comparison to high-tech businesses, the level of information technology that tax authorities possess is a significant distance behind. Consequently, it has resulted in an

imbalance of tax information between sharing economic platforms and tax authorities. It has resulted in an imbalance of information concerning taxes between economic platforms that share information and tax authorities, which has brought difficulties to tax authorities.

To change this situation, the tax department urgently needs to achieve data sharing with financial institutions and industrial and commercial departments, break down existing tax data barriers, and promote collaboration among multiple departments by establishing an efficient information sharing and transmission channel. The construction of a multi-subject linkage comprehensive governance system would involve the participation of tax authorities, social organisations, sharing platforms, third-party payment platforms, as well as resource suppliers and demanders. Through the sharing of information and close collaboration among the various departments, the tax authorities could monitor capital flows more effectively, supervise transaction income data with greater precision, and improve the accuracy and efficiency of tax collection and administration from the source. By doing so, it will not only contribute to improving the transparency and fairness of tax administration but also effectively combat tax avoidance and tax evasion.

7.4 Tax Publicity and Education

Whether it is regarded as a short-term part-time job or a long-term career, it is undeniable that the development of the sharing economy has indeed brought solutions to alleviate the unemployment problem. The development of the sharing economy provides new solutions to alleviate employment pressure, and also brings new business opportunities, allowing more and more people and companies to join this emerging economic model. However, the sharing economy is a relatively new economic activity, and there are still gaps in tax law regulations and tax management. As a result, there is a lack of basis for tax authorities to supervise the sharing economy. It is often only when major cases are involved that they attract widespread

attention from society and prompt the introduction of relevant remedial measures. Among these are not only the enhancement of tax compliance awareness, tax payment awareness, and legal awareness of all participants in the sharing platform, but also the enhancement of the tax compliance of taxpayers.

Therefore, taxpayers frequently have difficulty determining their income types accurately, and as a result, they are unable to correctly declare their taxes. This is because the types of income that the sharing economy participants earn are diverse, and different types of income correspond to different tax provisions. In light of this, the tax authorities are required to increase their publicity efforts before the official policies are issued. Clarify the rights and responsibilities of all parties involved in the sharing economy by providing detailed tax payment guidelines for the suppliers, the demanders, the sharing economy platforms, and the third-party payment platforms. At the same time, they have the right to ask the sharing platform to remind the supplier of its tax payment obligations through pop-up windows as well as other methods whenever the supplier completes a transaction or withdraws income.

Considering that there are a large number of suppliers in the sharing economy, they are not very well educated and lack sufficient understanding of complex tax law provisions. Therefore, when tax authorities conduct tax publicity and education, they should adopt ways that are brief, easy to understand, and highly practical. Additionally, they should use media and forms that are easily accepted by the general public, including but not limited to animations, comics, and short videos. Moreover, tax authorities could offer simplified tax calculation tools and guidance to assist taxpayers in better understanding tax policies and lowering compliance costs.

7.5 Balancing Taxation and Development

There is a strong connection between the process of digitalization and the growth of the economy in the current context of economic growth worldwide. Instead of

becoming an impediment to the growth of the economy, the formulation and execution of tax policies should be aimed towards fostering the growth of a healthy economy. Although various countries have basically the same attitude towards taxing digital services, for China, the actual situation of the country must be fully taken into account before formulating the new tax policies. Especially when taxing the growing sharing economy field, it must not only consider the contribution of taxation to fiscal revenue, but the government must also evaluate the possible negative impact that taxation may have on the growth of the sharing economy.

To put it another way, in the process of formulating tax policies, the Chinese government should limit the reasonable scope of taxation, objects, tax bases, and tax rates based on local realities. For those smaller sharing economy businesses that are still in the beginning stages of development, the government could either provide appropriate tax incentives or exempt them from taxation to avoid placing unnecessary pressure on their future growth. To ensure the rationalisation and maximisation of tax revenue, the government needs to first create a taxation environment that is fair and reasonable.

7.6 Strengthen International Cooperation

The Internet-based information technology revolution has given birth to many new economic formats and transformed technology into productive forces in a very short period of time. Countries are rethinking how tax power is distributed to prevent the undertaxation of major digital platforms in the rapidly evolving digitalization of the economy. But digital can flow around the world, so there are no borders with the sharing economy. While changing the way of global economic value creation, the sharing economy has brought the problem of tax source loss to the market jurisdiction, and the existing international tax order is difficult to solve the problem of unfair distribution of profits of the sharing economy, and it is impossible for the countries from which the profits of the sharing economy are to share the benefits fairly. In the

context of economic globalization, the domestic tax policy of any country has long been inseparable from the tax rules of other countries, the region and even the world. No country can rely solely on domestic tax reform to solve its fiscal security problems by switching between foreign-related tax sources and domestic tax sources. The rapid development of the sharing economy has put the domestic fiscal and tax problems of various countries at the international level and solved them through the cooperation of various countries. China is no exception. The rapid development of the global sharing economy has made the geographical distance between the home country and the market country of the sharing economy continue to expand. Under this trend, China should take an open attitude, fully consider the space reserved for the development of the sharing economy in the new international tax order, participate in the formulation of bilateral or multilateral tax treaty policies, and safeguard China's tax interests.

Second, the Chinese government needs to improve the existing tax data exchange mechanism. In fact, tax data is not interconnected between different departments in China. Although each department has its own database, there is no inter-departmental sharing of tax data. Therefore, the construction of a tax-related information sharing database can not only realize the domestic transmission of tax data but also realize the international exchange. This is beneficial for enhancing the flow of cross-border tax data. However, the international community is far from reaching a consensus on the concepts, principles, and mechanisms of cross-border data flow, and the formulation of rules for cross-border data flow is still in the early stage of exploration. For the time being, it is difficult for different countries to strike an effective balance between data flows, privacy protection, and national security issues. So China can take the lead in this step, first realising the flow of data at home, and lay the foundation for the next step.

Finally, it is necessary to pay attention to the dynamics of tax reform in various countries in a timely manner and promote bilateral or multilateral cooperation, especially strengthening tax cooperation with various international organizations.

China's participation in the OECD's BEPS program is a good start. Learn from and learn from the experiences of other countries and promote tax reform in your own country when appropriate.

Chapter 8 Summarise

8.1 Overview

The development of the sharing economy has been fully recognized and penetrated into all aspects of people's lives. It has not only changed people's lifestyles and injected new vitality into the global economy, but also brought challenges to the current global tax system. This thesis discusses the sources of income, taxpayers, tax objects, and tax responsibilities under the two business models of B2C and C2C in the sharing economy.

In addition, this thesis includes a comparison of the operating models, profit methods, and capital flows of several well-known sharing economy platforms around the world and the typical ones in China. It also introduces the diversity of sharing economy models through examples and analyses the differences between several major countries and global economic organisations in the world and analyses the tax policies introduced by several major countries and economic organizations around the world in response to the rapid development of the sharing economy and the role these policies play in promoting tax fairness and avoiding tax base erosion.

In the last chapter, this article provides some specific suggestions for China's participation in international tax cooperation, as well as for the formulation of a reasonable taxation policy for the sharing economy and finding a balance between taxation and innovation.

8.2 Limitations

This thesis discusses the sharing economy and its tax policy, but there are certain limitations in the research process. To begin, the definition of the sharing economy has not yet reached a consensus among the academic community. This is because the sharing economy is a relatively new economic field and developing at a rapid pace. The definitions including the platform economy, the sharing economy, the digital economy, and the gig economy, are still under discussion among scholars. These concepts might share some similarities, but they also have significant distinctions. Due to the conceptual ambiguity and lack of clarity in the definition, there have been some challenges encountered when attempting to determine the scope of research on the sharing economy. So, when I was analysing the sharing economy, I referred to the definitions provided by the OECD and the European Commission. Although this can provide a general analytical framework, it also ignores the variations in the sharing economy in different countries and regions.

Moreover, for the purpose of case study and comparison, I chose some typical businesses that operate on a large scale and generate plenty of discussion around the world. However, because of the rapid development of the sharing economy and the ongoing appearance of new business models, these selected research objects are unable to cover all of the models that currently exist and will appear worldwide. As a result, the analysis and summary in this article are not sufficiently comprehensive. For the purpose of providing more detailed and in-depth analysis and suggestions, it is necessary for me to do future research to further investigate the diversity of the sharing economy as well as the specific impact that various business models have on tax policies.

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