

# **Regional Tax Coordination in the Greater Bay Area: A Talent-Flow Perspective**

**Roberto, CHAN KA LONG**

Orientador: Prof. Doutor João Ricardo Catarino

Coorientador: Prof. Doutor Pedro Gomes Rodrigues

Dissertação para obtenção de grau de Mestre  
em Administração Pública

*Lisboa*  
*2019*

[WWW.ISCSP.U LISBOA.PT](http://WWW.ISCSP.U LISBOA.PT)



# Regional Tax Coordination in the Greater Bay Area: A Talent-Flow Perspective

*Roberto, Chan Ka Long*

*Orientador: Prof. Doutor João Ricardo Catarino*

*Coorientador: Prof. Doutor Pedro Gomes Rodrigues*

Dissertação para obtenção de grau de Mestre  
em Administração Pública

Júri:

Presidente:

-Doutor Ricardo João Magro Ramos Pinto, Professor Associado do Instituto Superior de Ciências Sociais e Políticas da Universidade de Lisboa;

Vogais:

-Doutor João Manuel Ricardo Catarino, Professor Catedrático do Instituto Superior de Ciências Sociais e Políticas da Universidade de Lisboa, na qualidade de orientador;

-Doutora Patrícia Jardim Trindade Martins da Palma, Professora Associada do Instituto Superior de Ciências Sociais e Políticas da Universidade de Lisboa.

*Lisboa*  
*2019*



# Coordenação Fiscal Regional na Área da Grande Baía: Uma Perspetiva de Fluxo de Talentos

*Regional Tax Coordination in the Greater Bay Area:  
A Talent-Flow Perspective*

## Resumo

Estudamos o papel da coordenação fiscal regional na promoção do fluxo de trabalhadores talentosos na Área da Grande Baía de Guangdong, Hong Kong e Macau (GBA). Num contexto de crescentes atividades transfronteiriças e maior integração regional, é crucial que os governos descubram até que ponto diferentes sistemas fiscais na Grande Baía impedem a circulação de talentos regionais. Primeiro, comparamos as leis fiscais relevantes para clarificar onde estão as diferenças. De seguida, determinamos o impacto do imposto de duas formas. Em primeiro lugar, para determinar o nível de rendimento líquido de impostos, simulamos a taxa efetiva de imposto usando um perfil do rendimento para trabalhadores talentosos. Depois, reportamos as conclusões de uma entrevista em grupo com profissionais, especialistas e professores, a fim de compreender melhor as nuances das diferenças em termos de tributação regional. Concluimos que as diferenças na tributação dos rendimentos do trabalho causam impactos negativos tanto na mobilidade do fator trabalho como na vontade de trabalhadores talentosos irem trabalhar para a parte continental da GBA. Certas medidas fiscais, com o objetivo de promover a circulação de talentos, provavelmente levarão a efeitos indesejados. No contexto de uma melhor coordenação fiscal regional, salientamos uma série de passos futuros para mitigar os impactos negativos dos impostos no fluxo regional de talento.

**Palavras-Chave:** Grande Baía de Guangdong-Hong Kong-Macau; Mobilidade do fator trabalho; Integração regional; Fluxo de talento; Coordenação fiscal; Impostos sobre o trabalho



## Abstract

We study the role of regional tax coordination in promoting the flow of talented workers in the Guangdong-Hong Kong-Macao Greater Bay Area (GBA). In a context of increasing cross-boundary activities and greater regional integration, it is crucial for governments to determine to what extent different tax systems in the GBA hinder regional talent flow. We first compare the relevant tax laws to clarify where the differences lie. Then we determine the impact of taxes in two ways. First, to determine the after-taxes income level, we simulate the effective tax burden using an income profile of talented workers. Then, we report on a group interview with professionals and experts aimed at better understanding the nuances of differential regional taxation. We conclude that the differences in labour income taxation are deleterious both to labour mobility and to the personal willingness of talented workers to work on the mainland side of the GBA. Certain tax measures, with the purpose of promoting regional talent flow, are likely to lead to certain unintended effects, such as a social justice problem. In the context of better regional tax coordination, we highlight a number of future steps to mitigate the negative impacts of tax on regional talent flow.

**Keywords:** Guangdong-Hong Kong-Macao Greater Bay Area; Labour mobility; Regional integration; Talent flow; Tax coordination; Labour taxes





# Table of Contents

List of Tables .....	vii
List of Figures.....	viii
List of Abbreviations .....	ix
1. INTRODUCTION .....	1
1.1. Background.....	1
1.2. Problems .....	1
1.3. Research Objectives .....	2
1.4. Research Questions.....	3
1.5. Relevance and Motivation .....	3
1.6. Structure of the Thesis .....	4
2. THEORETICAL FRAMEWORK.....	5
2.1. Regional Talent Flow .....	5
2.1.1. On the Definition of Talent .....	5
2.1.2. On the Definition of Talent Flow .....	7
2.1.3. Motives for Regional Talent Flow.....	8
2.1.4. On the Importance of Regional Talent Flow .....	9
2.1.5. Regional Talent Flow in the GBA .....	10
2.2. Taxation of Labour Income .....	12
2.2.1. On the Definition of Taxation .....	13
2.2.2. The Functions of Taxation.....	13
2.2.3. Tax Laws .....	14
2.2.4. Differences in Tax Law .....	15
2.2.5. The Impact of Differences in Labour Income Taxation .....	16
2.3. The Impact of Differences in Labour Income Taxation on Talent Flow.....	17
2.3.1. Tiebout's Hypothesis .....	17
2.3.2. With Different Income and Skill Levels.....	17
2.4. Regional Tax Coordination .....	18
3. ANALYTICAL MODEL AND METHODOLOGICAL CONCERNS.....	21
3.1. Analytical Model .....	21

3.2. Research Strategies.....	22
3.3. Data.....	23
4. RESEARCH RESULTS AND DISCUSSION THEREOF.....	25
4.1. Summary of the Taxes Related to Labour Income in the GBA.....	25
4.1.1. Taxation Principles .....	26
4.1.2. Taxpayer .....	27
4.1.3. Taxable Units.....	27
4.1.4. Tax Objects.....	28
4.1.5. Taxable Income (Tax Deductions & Allowances) .....	28
4.1.6. Tax Rate.....	30
4.1.7. Tax Credits .....	32
4.1.8. Administrative Procedures .....	33
4.2. Simulation of the Effective Tax Burden in the GBA .....	35
4.3. The Impacts of Tax on Regional Talent Flow in the Greater Bay Area.....	41
4.4. Regional Tax Coordination .....	44
4.4.1. The Current Regional Tax Coordination in the Greater Bay Area.....	45
4.4.2. Future Practice of Regional Tax Coordination in the Greater Bay Area.....	56
5. CONCLUDING REMARKS .....	62
REFERENCES .....	64
APPENDICES .....	71
Appendix A: The Transcript of the Group Interview .....	71
Appendix B: Map of the Guangdong-Hong Kong-Macao Greater Bay Area (GBA).....	95

## List of Tables

Table 1.1 Research Objectives .....	2
Table 2.1 Socio-economic Profile of the GBA .....	11
Table 2.2 Changes in Population in the GBA since 2015 .....	12
Table 4.1 The Outline of Interviews .....	24
Table 4.1 Main Tax Laws Related to Labour Income in the GBA .....	25
Table 4.2 Tax Schedule of the Individual Income Tax of Mainland China .....	30
Table 4.3 Tax Schedule of the Salaries Tax of Hong Kong .....	31
Table 4.4 Tax Schedule of the Professional Tax of Macau .....	31
Table 5.5 Comparison of the Taxes Related to Labour Income in the GBA .....	34
Table 5.6 Actual Average/Median Income Level per Month in 2018 in the GBA .....	35
Table 4.7 Income Profile of Talented Worker .....	36
Table 4.8 Mandatory Social Security Contributions in the GBA .....	37
Table 4.9 The Effective Tax Burden on the Actual Income Level in the GBA .....	38
Table 4.10 The Effective Tax Burden on the Actual Income Level in the GBA .....	39
Table 4.11 The Effective Tax Burden on the Hypothetical Income Level .....	40
Table 4.12 The Effective Tax Burden on the Hypothetical Income Level .....	41

## List of Figures

Figure 3.1 Analytical Model.....	21
Figure 4.1 Comparison of the Statutory Tax Rates in the GBA .....	32
Figure 4.2 The Impact of Differences in Taxation on Regional Talent Flow.....	44
Figure 4.3 The Suggested Coordination Framework.....	61

## List of Abbreviations

CMAB	Constitutional and Mainland Affairs Bureau of Hong Kong
CSD	Census and Statistics Department of Hong Kong
DSEC	Statistics and Census Service of Macau
ECB	European Central Bank
EU	European Union
GBA	Guangdong-Hong Kong-Macao Greater Bay Area
GGP	People's Government of Guangdong Province
GHKSAR	Government of the Hong Kong Special Administrative Region
GMSAR	Government of the Macau Special Administrative Region
ICT	Information and Communications Technology
IITL	Individual Income Tax Law of the People's Republic of China (2018 Amendment)
IMF	International Monetary Fund
IRD	Inland Revenue Department of Hong Kong
IRO	Inland Revenue Ordinance
MC	Ministry of Commerce of the People's Republic of China
MFA	Ministry of Foreign Affairs of the People's Republic of China
MPF	Mandatory Provident Fund
NDRC	National Development and Reform Commission of the People's Republic of China
OECD	Organisation for Economic Co-operation and Development
PDR	Pearl River Delta Economic Zone
PTR	Professional Tax Regulations ( <i>Regulamento do Imposto Profissional</i> ) of Macau
RIITL	Regulation on the Implementation of the Individual Income Tax Law of the People's Republic of China (2018 Amendment)
SAFE	State Administration of Foreign Exchange of the People's Republic of China
SAR	Special Administrative Regions of China
SC	State Council of the People's Republic of China
SSC	Social Security Contribution
STA	State Taxation Administration of the People's Republic of China
TADAT	Tax Administration Diagnostic Assessment Tool



# 1. INTRODUCTION

## 1.1. Background

Considered as one of the most important drivers of the future economic development in China, the Guangdong-Hong Kong-Macao Greater Bay Area initiative (*A Grande Baía de Guangdong-Hong Kong-Macau*, hereafter referred to as GBA) was officially proposed by the Chinese central government in 2015 (NDRC, MFA, & MC, 2015). In principle, this initiative aims at strengthening the coordinated development among the main administrative districts in the Pearl River Delta Economic Zone (PRD) in southern China. In essence, the GBA can actually be considered a development process of regional economic integration, also known as “city cluster development”, which not only focuses on the economic, but also involves political and social integration (NDRC, GGP, GHKSAR, & GMSAR, 2017; SC, 2019).

Highly adhering to circulation economics, regional talent flow is one of the four types of cross-boundary activities that the national leading group advocates (SC, 2019). Repeatedly reiterated by the governors in the GBA, a free movement and optimal distribution of talented workers between different labour markets can ensure the vigour of regional economies by strengthening efficient complementarity of labour forces and the better configuration thereof across the cities (Chui<sup>1</sup>, 2019; Lam<sup>2</sup>, 2019a, 2019b, 2019c; Ma<sup>3</sup>, 2019).

However, the GBA covers two special administrative regions, Hong Kong and Macau, which retain their own political-economic systems according to the constitutional principle of “One Country, Two Systems” under the Basic Laws of Hong Kong and Macau. This implies not only different governments, but also distinct legal, economic, and financial systems in the GBA.

## 1.2. Problems

Although the uniqueness of the socio-political and economic system and the relations between the Chinese central government and the two special administrative regions provide flexibility as windows towards the international market, the cross-boundary interactions, such as flow of

---

<sup>1</sup> The current Chief Executive of Macau.

<sup>2</sup> The current Chief Executive of Hong Kong.

<sup>3</sup> The current Governor of Guangdong Province.

people, are continuously constrained by the above-mentioned institutional differences (Yang, 2006; Shen, 2014; Lin, 2019).

In this regard, regional differences in taxation are considered obstacles to the talent flow in the GBA which is of major concern in the Outline Development Plan for the GBA (SC, 2019). For example, differences in labour income taxation lead to different effective tax burdens and compliance costs, which may affect the mobility of talented workers. Governments believe that this may restrain the mobility and willingness of talent to work in the regions that have relatively higher tax liabilities and/or compliance costs, thereby hindering a free regional talent flow in the GBA (PricewaterhouseCoopers, 2017, 2018; Lam, 2019b, 2019c; Yuen, 2019).

In response, greater regional coordination is required. Related to government functions, the coordination in local public finance is to provide legal certainty for all cross-boundary activities, on the one hand, while it is adopted to pursue the strategic objectives that are favour of the regional development, on the other. When tax policy serves many other functions, a strategic tax coordination is thus necessary to balance various unintended effects of tax policies and to ensure their effective and efficient implementation (Catarino, 2016). Especially when the GBA is on a growing trend in the long term, a comprehensive tax coordination will gradually become indispensable for the GBA, sooner or later.

### 1.3. Research Objectives

Table 1.1 summarises the main and auxiliary research objectives of this dissertation.

**Table 1.1 Research Objectives**

<b>Main Objective</b>	➤ To study the need for regional tax coordination for freer talent flow in the Greater Bay Area.
-----------------------	--



<b>Specific Objectives</b>	<ul style="list-style-type: none"> <li>➤ To summarize and compare the three tax laws in the GBA;</li> <li>➤ To present the differences and the similarities thereof;</li> <li>➤ To determine the impact of differences in the GBA's labour income tax systems on regional talent flow;</li> <li>➤ To review and evaluate the current tax measures proposed by governments regarding the regional talent flow.</li> </ul>
----------------------------	--

## 1.4. Research Questions

This study is centred around answering the following research questions.

1. *For talented workers, to what extent are different tax systems in the GBA obstacles to their convenient regional flow?*
2. *How could regional tax coordination cope with the negative impacts to the GBA's regional talent flow?*

## 1.5. Relevance and Motivation

This research is relevant to both tax evaluations in public finance and to regional cooperation studies, as sub-disciplines of Public Administration. In addition, the theme has long been of concern to different stakeholders, including local tax authorities, individuals and enterprises (PricewaterhouseCoopers, 2017, 2018).

Local tax authorities are finding out that a more compatible mechanism for the regional tax coordination would not only more effectively combat tax evasion and other unfair and illegal practices, but would also promote economic efficiency, mostly by achieving certain policy goals. In addition, such a mechanism could even be considered as a benchmark for the coordination of other fields under the regional governance in the GBA.

For individuals and enterprises, the taxation of labour income directly relates to their immediate and vital interests, and respectively affects the supply and demand sides of the labour market. There is little doubt that demarcated tax coordination mechanisms improve the ongoing operations of enterprises, on one hand, and allow individuals to pursue better work opportunities, on the other.

At present, the available research on this topic is understandably rather limited. This dissertation aims to complement the existing literature by studying the relationship between income taxation and regional talent flow. We hope that this contribution will provide grounds and evidence in favour of stronger and more effective regional integration in the GBA.

## **1.6. Structure of the Thesis**

To answer the above research questions, the remainder of this study proceeds as follows. The first section will review and compare the existing tax systems with regard to individual labour income taxation in the GBA, with a summary of similarities and differences thereof. The second section will study the impact of these differences on regional talent flow in two ways. Firstly, we will calculate the effective tax rate in each jurisdiction by applying a certain profile of talent. Secondly, a group interview will be arranged in order to profoundly study the actual impact. In the third section, we will discuss the functionality of regional tax coordination in the GBA against the negative impact we expect to uncover, and further study its implication for the future regional public policies as well as the coordinated development of the GBA.

## **2. THEORETICAL FRAMEWORK**

Given that we aim to study the impact of different tax practices on regional talent flow, and to discuss the potential for regional tax coordination, we have to define the related concepts and clarify the connotations thereof. This will be done in four parts: 1) regional talent flow, 2) differences in taxes related to labour income, 3) the impact of tax on regional talent flow, and finally 4) regional tax coordination.

### **2.1. Regional Talent Flow**

#### **2.1.1. On the Definition of Talent**

Before discussing the concept of ‘regional talent flow’, we must realize that the term - talent - still has no single definition that is widely accepted amongst academics and policymakers (Tansley, 2011; Liu, 2015; Thunnissen, & Van Arensbergen, 2015). One of the reasons for this is that the term actually has different interpretations in the two languages, English and Chinese. With respect to the former, talent was studied in the field of business management, relating to the topics like the talent required for international business operations, the practice of talent management, etc. (Cappelli, 2008, 2010; Al Ariss, Cascio, & Paauwe, 2014) For the themes related to social sciences, such as studies linking talent to migration (Vertovec, 2002; Kuznetsov, 2006), the regional accumulation of human capital (Acemoglu, 1996), or the role of local education (Blundell, Dearden, Meghir, & Sianesi, 1999), scholars prefer to use the terms like ‘skilled workers’, ‘highly-skilled workers’, ‘professional workers’, in order to describe human capital as sort of higher-level human resource out of the labour market.

However, the use of talents in most academic studies has different interpretations especially in China. Regarding the field of social sciences, the connotation of talent is much more widely used. In most studies in Chinese, it refers to those high-qualified and valuable labour forces in the market that contribute, in a large extent, to economic development. For instance, according to the National Outline of the Blueprint for Mid- and Long-Term Development of Talents (2010-2020) in China (SC, 2010), talents refer to those who have certain professional knowledge or expertise, carry out creative work and also contribute to society, which is a labour with high capability and quality in all human resources. Chinese scholar Zeng (2001) suggested

that talent is in the higher level of the labour force, which can be considered as the essence of all human resources and as a key element of local social and economic development.

However, the above-mentioned descriptions of talent are too subjective in forming local talent policies, while governments need some objective indicators for the further assessment. In 1982, China proposed the first criteria for talent, which refers to those with at least technical secondary education and personnel with at least junior titles (Pan, 2014). Niu and Zhang (2013), pointed out that most of the definitions of talent appearing in various statistics in China were also based on education level, with professional titles as the single and absolute criteria.

Nonetheless, the problem is that if the talented worker were to be defined only by education level and job titles, the connotation and extension of this concept would be limited. Countless counter-examples in society have already proved that there were many shoddy talents identified mainly by the above criteria. Hence, the Chinese government has attempted to revise this assessment by adding some flexible and soft indicators. For example, three dimensions for the assessment were suggested in the “National Outline of the Blueprint for Mid- and Long-Term Development of Talents (2010-2020)”: 1) professional level, 2) contribution level, and 3) competence level (SC, 2010). Apart from this, the Report on the Development of Chinese Talents, also known as the Blue Book of Talent, adopted income level as the main criterion (Pan, 2014). It was argued that talent identification should return to the labour market while income level could largely reflect the degree of market recognition.

Another reason for no single definition is that this term, as a strategic element of socio-economic development, has a definition that varies greatly due to different geographical factors (Niu, & Zhang, 2013), or a pure division of labour (Tuan, & Ng, 2001). In fact, each government always has its needs for unique talented worker in response to their regional development strategy. In view of this, a universally single definition is really hard to fit into all different contexts between local talent policies, which is not practical either.

Considering that this study mainly focuses on the context of the GBA, the definition of talent that is widely applied in Chinese studies is particularly relevant and is thus preferable from a pragmatic standpoint. In this study, we defined that talents are labour with higher competence and qualities, those who have certain professional knowledge or expertise, and those who contribute to social and economic development. Meanwhile, measuring talent should be based on a battery of objective indicators, including knowledge, competence, performance, etc., which are established by the talented worker’s education level, position, and income level. It is

important that the related measurement is fully recognized by both the local government and the labour market.

### **2.1.2. On the Definition of Talent Flow**

After clarifying the concept of talents, we turn to the definition of “talent flow”. The Report on the Development of Chinese Talents describes the transnational flow of talents as a geographical flow between countries (Pan, 2014). With more details, Zeng (2001) pointed out that talent flow refers to the transformation of talents' occupation, employment or workplace through mutual selection with employers, which was a common phenomenon in society. The relevant flows were carried out in an orderly manner under laws and policies, reflecting the autonomy of talents in choosing jobs. The rational allocation of talents was conducive to a better labour market structure as well as regional economic development. With similar interpretation, Niu and Zhang (2013) argued that a proactive flow of talented workers which has covered all forms of change in occupation and position was actually an inevitable phenomenon from society's division of labour.

In fact, we can divide it into two parts: talents and flow. The former can be considered the main subject, which has already been discussed above, while the latter can be seen as sort of behaviour of the former. Covering different forms of flow, the related behaviour could be distinguished by the duration and the change of resident status. For example, the United Nations made a distinction between immigrants in long-term and short-term migration by the duration of stay (UNECE, 2018). The European Commission (2010) proposed three forms of flow in light of the frequency and the duration of cross-border movements, including long-term workers, cross-border workers and posting of workers. Regarding how the flow was described, migration usually referred to long-term stay, while movement is relatively intermittent and short-term (Koser, & Salt, 1997). Considering the official translation (SC, 2019), we chose to use the term “flow”, which covers all the spectrum from long-term migration to short-term movement.

In summary, the talent flow in this study implies an objective description of phenomenon. It indicates talented workers that are based on their employment selections and choose to flow geographically from one region to another, and from one labour market to another. Regardless of which forms it takes, the flow includes migration, posting, commuting, and other forms of cross-boundary movement, which involve both resident and non-resident taxpayers.

### 2.1.3. Motives for Regional Talent Flow

With respect to the motives for regional talent flow, explanations from most research were based on the theories of human migration. Scholars have attempted to study the reasons that encourage or deter migration at the individual level. Going back to the nineteenth century, the British scholar E. Ravenstein (1885) first proposed the “Laws of Migration” by analysing the data of the 1881 British Census. The relevant laws have provided a detailed description about the characteristics of migration, including distance, direction, quantity, composition, causes and impacts. On this basis, from the immigrants’ angle, Bogue (1977) pointed out that the most fundamental purpose of their decisions was to improve their living conditions. He believed that there were factors affecting the regional flow based on the personal evaluation, which respectively formed the push and pull forces. However, the limitation of the push-pull theory is that it oversimplified international migration through emphasizing the maximum utility of individuals during the bargaining process between push and pull factors.

Lee (1966) found out that there were still two factors existing apart from the push and pull factors. One was the intervening obstacles, such as distance, cultural difference, language, limits from immigration policies. Another was the personal factors, which could be seen as the value judgement of individuals upon all the factors above when considering their living conditions, socio-economic status, personal wills, etc.

On this basis, most studies started to narrow down the scope from all people to particular targeted groups by some characteristics, such as skill levels and income levels. It was argued that both the benefits and the costs that have caused by the regional flow of people varied in different skill levels of migrants, like the difference between talented and low-skill workers (Borjas, 1994; Chiquiar and Hanson, 2005; Grogger and Hanson, 2008; Egger, & Radulescu, 2009). In this context, Yan (2012) suggested that high-end talents usually had higher mobility than other labourers, which considered their valuation in different labour markets. In other words, the value was determined in line with the extent of resource scarcity of labour. In fact, for such a long time, labour was regarded as an immobile production factor. Although labour is still not perfectly mobile, as time go by, it has gained greater mobility in accessing other places (Makower, Marschak, & Robinson, 1938, pp. 83-123), which is actually in favour of greater regional talent flow.

Niu and Zhang (2013) concluded that most existing research explained the causes of talent flow in three levels. At the individual level, according to such as the afore-mentioned push-pull theory, regional talent flow was essentially about spontaneous decisions made by individuals after considering a set of factors, such as self-realization, family life, income level, etc. The destination of talent flow will be determined by the comparison between the area of origin and all those expected destinations. At the organizational level, the causes were explained through international talent management and practice. At the social level, factor endowments have shaped the unique division of labour, which gave rise to a unique structure between the supply and demand of talented workers, thereby having objective reasons for regional talent flow. Furthermore, there were other factors resulted from the differences in regional socio-economic development, such as culture, health, education and science, which would also lead to a specific direction of talent flow from one region to another, in other words, it explained why some regions were more popular than others.

In addition, government efforts also impose certain impacts on regional talent flow. In the name of adjusting market failures derived from inefficient human resource allocation, the goals related to the needs of talented worker were usually attained through a toolkit of policies, including regional economic policies, industrial policies, tax policies, technology policies, talent policies, and immigration policies. These policies also play a role in the inflow of people whether as guarantees to citizen or as obstacles to immigrants, which are often related to the attitude of local residents (Niu, & Zhang, 2013).

In this study, we assume talented workers as rational actors. At the individual level, taxation is one of the independent factors for talented workers to make decision on regional talent flow, which could have positive or negative effects. Meanwhile, government also plays a guiding role in attracting talented workers from other regions in consideration of the structure of labour market and the needs for socio-economic development.

#### **2.1.4. On the Importance of Regional Talent Flow**

According to the professor Cappelli from the Wharton School of the University of Pennsylvania (Cappelli, 2000), managing talent is more like managing a river today, rather than a dam that keeps water in place. The goal of talent retention is not to prevent the flow, but to control its

direction and speed. Cappelli's point of view actually implies that the importance of talent flow has changed to a large extent.

In detail, regional talent flow is generally considered a reasonable phenomenon that has positive effects on the overall economic development when it is premised on an economically efficient reallocation of human capital (Murphy, Shleifer, & Vishny, 1991). In this regard, many international organizations and scholars also agree that a greater labour mobility which can vitalize regional talent flow is conducive to regional economic development. For instance, facilitating and promoting intra-EU labour mobility is part of the Europe 2020 strategy, which contributes to a better match of labour supply with demand (European Commission, 2010). The IMF, in a working paper on labour mobility in Finland, proposed that greater labour mobility can promote job matching efficiency (Poghosyan, 2018). Zimmermann (2005) argued that geographical labour mobility can help to adjust and grow economic development (pp. 425-250), while the conclusion of Ana María Iregui (2005) was akin to him. She suggested that the elimination of barriers on labour mobility, regardless of the skilled level, can help to revitalize labour market, make up for the gaps of human capital, drive regional productivity, and thereby enhancing the worldwide efficiency (pp. 211-238). In addition, the importance of talent flow can be reflected in social interaction and development as well, such as facilitating the development of science and technology, accelerating the growth and education of local talents, saving investment in education and training, absorbing new technologies, etc. (Zeng, 2001).

### **2.1.5. Regional Talent Flow in the GBA**

Geographically, the Greater Bay Area includes nine cities in the Pearl River Delta Economic Zone (PRD), Hong Kong and Macau, namely the mainland side of the GBA and two special administrative regions. They are actually three different economies with their own socio-political and economic systems.

Table 2.1 describes the current socio-economic profile in the GBA. Given the incomplete data for the PRD, we adopted the data of entire Guangdong Province in substitution. In fact, the differences in economic development level between them are still fairly significant, which should have theoretically shaped a preference for regional talent flow. However, considering many social and economic reasons, such as institutional differences, urban capacity, public opinion, etc., pursuing a completely free regional flow is actually impractical. In this case, the



alternative for the governments is to aim at a convenient flow of people. Besides, coupled with the large population and the related market size in the mainland side of the GBA, immense potentiality is officially a selling point to attract talented workers from Hong Kong and Macau, which reach a widely-recognized consensus between all the governments. Therefore, the current talent flow mainly refers to directions from the two special administrative regions to the PRD.

**Table 2.1 Socio-economic Profile of the GBA**

	<b>Guangdong (YUAN)</b>	<b>Hong Kong (HKD)</b>	<b>Macau (MOP)</b>
GDP	9,727,777 million	2,845,317 million	440,316 million
GDP per Capita	88,450	381,870	666,893
Population	113,460,000	7,486,400	667,400
Percentage of the Total Population in the GBA	88.55%	10.51%	0.94%
Unemployment	2.4	2.8	1.8
Public Expenditure	1,573,737 million	470,863 million	80,332 million

*Sources:* Data for GDP, GDP per Capita, Population from the Hong Kong Trade Development Council (2019). Data for unemployment from the Statistics Bureau of Guangdong Province (2018), the CSD (2019a), and the DSEC (2019a). Data for public expenditure from the the Statistics Bureau of Guangdong Province (2018), the CSD (2018), and the Financial Services Bureau of Macau (2019).

In order to further observe the relevant direction in the GBA, we reviewed the changes in population since the GBA was initiated, which in essence implies a technical balance between the inflow and the outflow of people. Of course we cannot only focus on the direction that facilitated by the governments, and make conclusion without considering the inflows from other regions. However, in terms of numbers alone, the trend was, to a certain extent, reflected in the data. According to Table 2.2, the population of the PRD has been steadily increasing since the GBA was initiated, which implies an inflow of people from other regions. Instead, the changes in population of the two special administrative regions were relatively fluctuated. It may be due to the size of population and the afore-mentioned local impediments. In view of this, hereafter,

the regional talent flow mainly refers to the direction from Hong Kong/Macau to the mainland side of the GBA.

**Table 2.2 Changes in Population in the GBA since 2015**

	<b>Pearl River Delta Economic Zone</b>	<b>Hong Kong</b>	<b>Macau</b>
<b>2015</b>	587,426,000	7,309,700	646,800
<b>2016</b>	599,849,000 (2.1%)	7,377,100 (0.9%)	644,900 (-0.3%)
<b>2017</b>	615,054,000 (2.5%)	7,413,100 (0.5%)	653,100 (1.3%)
<b>2018</b>	630,099,000 (2.4%)	7,486,400 (1.0%)	667,400 (2.2%)

*Note.* The bracketed percentages refer to the growth rate over the same period last year. Data for the Pearl River Delta Economic Zone from the Statistics Bureau of Guangdong Province (2019). Data for Hong Kong from the CSD (2019b). Data for Macau from the DSEC (2019b).

## **2.2. Taxation of Labour Income**

Taxes are an important tool in public finance, insomuch as these provide much needed revenue, but they also provide side-effects. For instance, the taxation on labour earnings may affect the work-leisure relationship, real estate taxation may affect house prices, and consumption taxes may affect commodity prices (Stiglitz, 2000). In fact, it is inevitable that taxation affects the behaviour of particular groups of people. Although it is also very hard to conclude that the impact only comes from a particular tax while excluding the impact of others, in reality we are impossible to cover the impact of all taxes regarding talent flow in only one study. Therefore, it is necessary to narrow down different types of taxes and go for the most relevant one out of the all taxes. Studying the impact of tax on regional talent flow, we should start by clarifying the concept through delimiting the relevant tax scope and reviewing the corresponding functions, differences and impacts, which are all fundamental to further study the impacts of tax on regional talent flow.

### 2.2.1. On the Definition of Taxation

According to the classification by the OECD, taxes are compulsory unrequited payments, which actually means a mandatory levy on taxpayers that government has no duties to provide them the same proportion of return (OECD, 2018). Nonetheless, this definition covers not only tax related to labour income, but also other taxes, such as consumption tax, value added tax, and property tax. Mainly focusing on direct taxation, the Portuguese scholar João Catarino (2016) provided a more relevant definition, “*Imposto é uma prestação patrimonial, definitiva, unilateral a favor de entidades públicas ou de entidades que prossigam fins públicos, visam a satisfação das necessidades financeiras do Estado e que não tem função sancionatória* (p. 434)”. His definition, on the one hand, emphasizes that the taxation of labour income is a unilateral and mandatory levy, transferring resources from the private domain to the public one, by exercising public authority through government. On the other hand, it also points out that the purpose of taxation is to enable government to function in order to further meet the collective objectives in line with public interest and the needs of the population. In view of this, the function of tax is not merely a means for government revenue, but also an instrument for government to attain other policy objectives.

### 2.2.2. The Functions of Taxation

The famous scholar of public finance, Richard Musgrave (1989), indicated the three roles and functions of taxation devoted to public sector: 1) Allocation; 2) Distribution; 3) Stabilization. First, government needs to allocate resources from the private to the public sphere through taxation, in order to cover the cost of public goods. Second, government also has the function of redistributing social wealth and does so through taxation. Striving for social justice, the function of redistribution indicates the transfer of resources from one group of people to another. Third, government could even use taxation as instruments for economic adjustment. Especially during the period of economic instability, taxation could be considered as stabilizers. This is particularly relevant over the business cycle where the tax burden is automatically lightened during recessions and increased during expansions (Stiglitz, 2000).

Vermeend, Van Der Ploeg and Timmer (2009) had a similar description for tax functions as Musgrave. Three points that they set forth: 1) Public spending that ensures government functions can be financed by taxation; 2) Household income and wealth can be distributed by

taxation; 3) Taxation can be used to achieve structurally balanced economic growth and smoothen the business cycle.

To sum up, taxation does not only have the function of increasing government revenue, but can also play a role in the behaviour of specific groups of people through reaching the desired objectives of government. Some are automatic while some requires government intervention. For the reason that there is more than one function of taxation, government should design specific laws and policies for its effective implementation (Catarino, 2016).

### 2.2.3. Tax Laws

Being widely accepted, the principle of *nullum tributum sine lege* refers that the legality of taxation is indispensable. Catarino (2016) emphasized that “*Impostos são criados por lei*”, which means that all taxes should be established by law. The reasons behind this can be discussed in two perspectives. On the one hand, the established taxation that must have gone through legislative process implies that the consent of the public is obtained in advance. This allows government to exercise its public authority in a legitimate manner. On the other hand, the stability of taxation should also be ensured. It can be satisfied in the form of law with long-term legal effect. Any adjustments should be in line with the actual needs of socio-economic development, instead of the wills of policymakers. Hence, the main elements in tax laws, such as the scope of taxation, tax rate, tax base, allowance, exemption, etc., should be clearly expressed in the laws. In this case, the lawmaker should attempt to avoid any ambiguities that may occur during the taxation process (Stiglitz, 2000; Catarino, 2016).

With all the characteristics above, Messere, De Kam and Heady (2003) suggested that the tax law should cover the components, such as tax units, tax systems, tax reduction, taxation procedures, tax bases, tax brackets, etc. In order to calculate the amount due in terms of tax liabilities, the equations, as shown in (2.1) and (2.2), were proposed which involve tax base, tax rates and schedule, tax deduction, tax allowance, and credits (Vermeend, Van Der Ploeg and Timmer, 2009, p. 68). It was often applied into the simulation of tax liability (Stiglitz, 2000; Pereira, & Rodrigues, 2001a, 2001b).

$$\text{Tax Liability} = \text{Tax Base} * \text{Tax Rate} - \text{Tax Credits} \quad (2.1)$$

$$\text{Tax Base} = \text{Taxable Income} - \text{Eligible Deductions} \quad (2.2)$$

Particularly focusing on labour income, these main components will then be set out as follows. First, tax base is namely what is taxed. As a definition of taxable items, it usually refers to income, consumption, wealth, properties, etc. In this study, the tax base includes all taxable personal income that is derived from employment or other forms of delivery of labour services, including salaries, wages, fringe benefits, allowances, commissions, and other labour earnings. A tax deduction lowers the taxable income. It covers both standard deductions and itemizing deductions. After confirming the tax base, the tax rate is applied according to a particular tax rate schedule. The rate shown in tax law is the statutory tax rate, which generally does not reflect the effective tax liabilities due to the setting of tax deductions and other credits. Promoting social justice, the taxation of labour income is usually progressive, meaning that the marginal rate exceeds the average one. In other words, when the taxable income exceeds a certain threshold, the part of surplus will be applied accordingly by the rates in different income brackets. In addition, tax credits as a unit-for-unit reduction of tax payable are directly subtracted from individual's tax liability, which can be either refundable or non-refundable. The former implies that tax burden can be reduced below zero while the latter always sets a ceiling, namely a maximum amount of credit (Stiglitz, 2000; Messere, De Kam, & Heady, 2003; Vermeend, Van Der Ploeg, & Timmer, 2009).

#### **2.2.4. Differences in Tax Law**

Although the structure of the tax law is roughly the same as in the equation, each component has its own uniqueness in different tax jurisdictions. In discussing the causes of the differences in tax laws, Vermeend, Van Der Ploeg and Timmer (2009) explains that taxation often had to take into consideration different criteria and principles, such as equity, efficiency, simplicity, cost of administration and compliance, etc. The design of a tax law should be a value judgement that balances the above criteria and principles. Considering that different communities have their own value preferences according to the residents' cultural habits and interests, the demand for public goods and services is thus unique, which, to a certain extent, determines the public sector's expenditure pattern. Under this circumstance, tax policies and strategies developed by the government in response to its own expenditures result in a specific tax burden (Elschner, Lammersen, Overesch and Schwager, 2006).

On the other hand, the uniqueness can also imply the regional differences in socio-economic development level. A modern tax system, as compared with the past, has become much more

diversified not only with the increase in tax levels, but also with the changes in sources of revenue (Messere, De Kam, & Heady, 2003, p. 7).

While designing tax policies or proposing certain tax measures, a government often has to take a large number of social and economic factors into account, and pursues different policy objectives by these measures in response to their own development needs in the growth process. Particularly in the context of increasing economic integration, the inter-regional labour mobility is much greater than before, which requires that the design of tax policy accommodate new issues, such as overseas taxation and non-resident taxation (Vermeend, Timmer, & Ploeg, 2009, p. 268).

### **2.2.5. The Impact of Differences in Labour Income Taxation**

All taxes related to labour income are obviously unpopular for individual taxpayers, which leads to a stronger preference for regions with simpler tax systems and lower tax rates. However, residents are obliged to pay taxes to local government due to the characteristics of taxation. Certainly, the most direct impact for them is a reduction in income (Egger, & Radulescu, 2009), but not only that, there also are impacts on tax compliance. For example, the threat of punishment may make taxpayers less compliant, or high compliance costs arising in a complicated tax collection may lead to outright illegal or less moral behaviours, such tax evasion or tax avoidance (Mohdali, & Yusoff, 2014). Besides, taxpayers would yet respond indirectly by changing behaviour due to the above two reasons. In this regard, most past studies focused on discussing the income effects and substitution effects resulted by taxation, or else discussing the behavioural changes of taxpayer in consumption or investment (Stiglitz, 2000, pp. 459-460; Slemrod, 2001).

In fact, some of the impacts are the negative effects that government strives to avoid and mitigate while there are also others intentionally pursued by the government, but either the objectives, the tax policies or measures that government adopts would generate other unintended effects. For example, attracting talents by granting tax benefits may lead to an out-migration reaction, in which the higher-income labour forces that provide most resources to the regional public sector are thus likely to move to other regions that can let them afford less social welfare and public goods. Regarding the criteria of equity and efficiency, it may lead to a social justice problem when continuously intensifying the conflicts between locals and immigrants,

on the one hand, and, on the other, these fiscal-induced migrations may be merely a higher level of transfer payments, but not because the workers are more valuable in the new labour market, which should not be considered as economically efficient as well. (Aronson, 1985, pp. 148-149)

## **2.3. The Impact of Differences in Labour Income Taxation on Talent Flow**

### **2.3.1. Tiebout's Hypothesis**

Regarding the impact of differences in regional welfare level on interstate migration, Tiebout (1956) argued that people would “vote with their feet” in choosing the state that best satisfies their preference. In fact, each region's public finance, including spending and taxation, is unique in response to its different citizen preferences. Therefore, the tax rate and the delivery of public goods or welfare level differ in regions to regions. Under this circumstance, especially when people think that they have paid too much taxes for the local public goods they benefit from, they may choose to migrate to the jurisdiction where they believe best fits their preferences. Tiebout's hypothesis provides an important theoretical basis for the further studies in studying the impact of tax on regional migration (as cited in Tresch, 2010).

### **2.3.2. With Different Income and Skill Levels**

However, Tiebout's hypothesis did not take into account of immigrants with different income and skill levels, given that the impact of taxation may vary to different extents. Kirchgässner and Pommerehne (1996) studied the distribution of high-income groups among regions with different tax rates. Based on Tiebout's hypothesis, they found out that the difference in tax rates affects the distribution of high-income labour between different Cantons in Switzerland. After that, Feld and Kirchgässner (2001) carried out a regression analysis of the proportion of labour force at different income brackets through adopting the aggregated data from the largest 137 communities in Switzerland. It provided evidence for the tax effect on residence choice, that is, high-income labour tends to choose communities with lower average effective tax rates on high-income classes.

On the other hand, the impact of taxes on regional labour flow may also differ in skill levels. Grogger and Hanson (2008) studied the immigration choice made by skilled labour, and

proposed positive sorting theory. They suggested that “skilled workers are more likely to migrate to countries with higher rewards to skilled-relative-to-unskilled labour (as cited in Egger, & Radulescu, 2009, p. 4)”. Regarding the impact of tax on the migration decision of skilled workers, Egger and Radulescu (2010) pointed out that the positive sorting theory should not only focus on gross wage rate between resident and source countries, individual income tax burden should also be considered since it directly affects the net wage. Hence, they attempted to identify “to what extent labour income taxes and social security contributions determine migration flows of skilled workers (p. 1)”. The key findings highlighted a differential of individual income tax rate with a negative impact on the cross-regional labour mobility of skilled workers in the OECD.

In this study, the talented workers that we focus on are in line with the characteristics of both high-income and high-skill levels, it is expected that the negative impact of tax on their labour mobility would be more significant. The Differences in taxation are considered as obstacles to a freer regional talent flow.

## **2.4. Regional Tax Coordination**

Under increased globalization and closer regional economic integration, the regional interactions have obtained enough infrastructural supports, which allow an increasing universal and diverse cross-border activities between countries and regions, such as innumerable multinational corporations all over the world, efficient global transport networks, increased migration, the availability of ICTs, etc. In this context, the socio-economic relations between countries have become tighter knit. The tax jurisdiction that traditionally used to be consistent with national borders has therefore enlarged gradually. However, while respecting fiscal autonomy, the scopes of taxation in different jurisdictions may thus be more inconsistent or even overlapping due to the internationalization of tax base, which may give rise to certain unfair, illegal and economically inefficient tax treatments, such as double taxation, tax avoidance, tax evasion, etc. (Tao, 1988; Utz, 1993; Flochel, & Madies, 2002; Zagler, 2010).

In view of this, regional tax coordination is necessary as a buffer to ensure greater compatibility between different tax jurisdictions. The major forms of tax cooperation and coordination include: 1) Signing bilateral or multilateral tax agreements or conventions on particular tax issues. The contents of these agreements generally cover negotiation for conflicts, exchange of



information, administrative assistance in tax matters; (Vogel, 1986). Another form is 2) Writing reports, model tax convention, and action plans with respect to the internationally concerned tax issues, such as the OECD's Model Tax Convention on Income and on Capital; (OECD, 2017). Yet another is 3) Regularly organizing international or regional conferences, forums, seminars, lectures, and also arranging training and exchanges for different tax authorities; Finally, tax coordination and cooperation includes 4) In response to international development trends, providing technical assistance, advice and consultation to local tax authorities, so as to facilitate the regional tax reforms. In short, all the mentioned arrangements help to smoothen the regional tax relations, which are conducive to the normal development of regional economic and trade relations under the premise of respecting local public finances (Chang, 2007; Zagler, 2010).

### ***Tax Harmonization in the European Union***

In this regard, we take the European Union as reference, and attempt to learn from the practice of its tax coordination and harmonization. In fact, the European Union is at the forefront of regional coordination over the world, which has a long history of harmonizing regional tax policies (Safonova, Reznichenko, Melnichuk, Karaev, & Litvinova, 2016). Pursuing the European Common Market (also known as Single Market and Internal Market) as a common objective, the initial intention of the harmonization covered both direct and indirect taxes. Keuschnigg, Loretz and Winner (2014) explained that, on the one hand, the harmonization in indirect taxes could help to eliminate the impediments on the cross-border flows of goods and services, which was essential to ensure the functioning of a single custom union. On the other hand, the harmonization in direct taxes could further facilitate the regional mobility of capital and labour, which was also important for the common market (Bovenberg, Cnossen, & de Mooij, 2003).

However, while some member states advocated that the harmonization is in favour of economic prosperity, there were also voices standing opposite. The relevant initiative has just been carried out moderately. So far the existing efforts on regional tax coordination are mainly revolving around indirect taxes and part of corporate taxes (European Commission, 2018). The main reason is that there was no consensus at the EU level. The need for harmonizing taxes on personal income is still in doubt. For example, as Bovenberg, Cnossen and de Mooij (2003) argued, given that labour was highly immobile, any coordination at the central EU level would

hinder the local role in combating unemployment and thus frustrate the workings of the local labour market, which would only aggravate the related negative impact. Hence, a convergence of effective tax burdens on labour income should not be encouraged. Apart from this, even the harmonization of indirect taxes had also gone through a long process due to the divisions within the scope of harmonization, such as the deadlock between destination principle and origin principle, or the coverage of the VAT (Catarino, 2016, pp. 222-226). In fact, unlike monetary policy, member states conserve a wide-ranging freedom to legislate on local tax issues (Keuschnigg, Loretz, & Winner, 2014). Therefore, it is quite challenging to let them sacrifice parts of their autonomies in exchange for regional economic prosperity that is yet to arrive.

Summing up, there exists a major difference in the initial intention of government in the regional tax coordination between the EU and the GBA. In the EU, tax coordination was actually initiated against the harmful tax competition, which seems very hard to occur in the GBA. The main reason is that, unlike the super-national structure in the EU, there is a very high level of consensus on a wide range of issues in the GBA, which left limited space for a “race to the bottom”. Even if the governments intended to do so, the actual effects may overwhelmingly lead to a talent flow to the two special administrative regions in the consideration of the gap in their socio-economic development levels. Therefore, it implies that the tax coordination in the GBA actually aims to mitigate the negative impacts of tax on various cross-boundary activities.

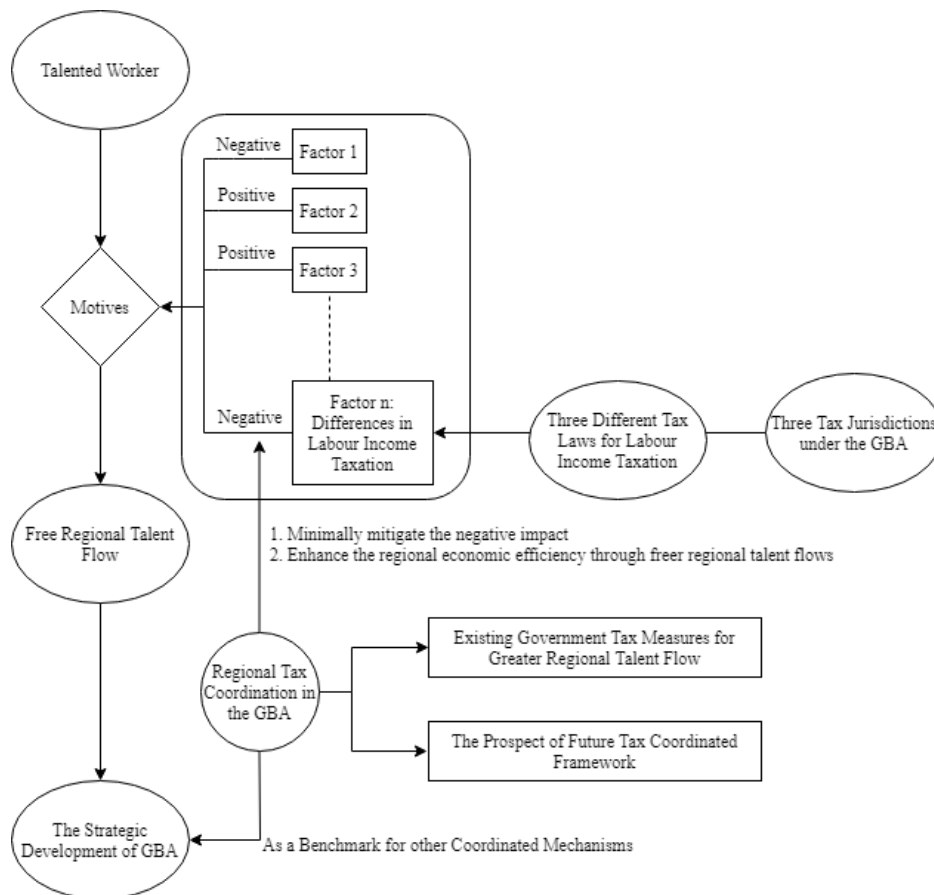
In this regard, from the EU development trajectory, governments should not pursue a pro forma regional integration by blindly implementing a single tax system or other forms of tax convergence. Instead, any mechanism on regional tax coordination should be proposed prudently in consideration of the uniqueness of regional tax systems, and better start to enhance the compatibility between different tax jurisdictions incrementally based on the current coordination level. In this regard, a comprehensive framework for regional tax coordination that strives to enhance the compatibility and functions as a buffer between different tax jurisdictions may be preferable in the context of the Greater Bay Area. This coordination can use as reference the tax policy coordination during the European Community creation, which does not require a uniform tax system, but instead a coordination based on mutual consultations and informal arrangements between the member states at the separate tax rates (Safonova, Reznichenko, Melnichuk, Karaev, & Litvinova, 2016).

# 3. ANALYTICAL MODEL AND METHODOLOGICAL CONCERNS

## 3.1. Analytical Model

As shown in Figure 3.1, individuals usually take into account various positive and negative factors when deciding where to live and work. We argue that differences in labour income taxation are one of the independent and negative factors that determines their immigration decisions. *Ceteris paribus*, the relevant impacts affect both the mobility and willingness of talented workers, and thereby hindering the regional talent flow in the GBA.

Figure 3.1 Analytical Model



Source: Elaborated by the author.

In addition, the talents that this study focuses on are usually engaging in works that require a high level of skills and qualifications, which are generally those belonging to higher-income groups in society. Compared to those that are relatively low-income and low-skilled workers, the impacts of tax on their employment decisions are much more significant. However, as the degree of integration is enhanced, these negative impacts of tax would be mitigated through establishing a compatible framework for regional tax coordination in the area.

### **3.2. Research Strategies**

Generally, there are three main research methods for academically discussing the effects of taxation. First, behavioural research, which is to study whether taxation has an impact on the behaviour of specific target groups. Second, statistical research, exploring the impact of taxation on macroeconomic variables through applying a large number of tax data for time series or cross-regional data analysis. Third, econometric research attempts to measure the quantitative effects of tax measures on economic variables by adopting complex models and equations (Vermeend, Van Der Ploeg and Timmer, 2009, pp. 45-47).

Given that there are relatively few studies in the context of the GBA and the relevant data for the GBA are neither sufficient nor fully mutually compatible, there is still no condition to quantify the impact of tax on regional talent flow. Therefore, this article will mainly adopt the behavioural approach by qualitatively discussing the corresponding impact.

In order to study the impact of differences in the GBA's labour income tax systems, we first need to understand all the three tax laws, and find out the similarities and the differences by comparing the main tax components. After that, we attempt to study the impact of these differences on regional talent flow in two ways. Firstly, we find out the impact of tax on the income level of talented workers in each tax jurisdiction, which theoretically reflects the specific preference of regional talent flow in the GBA. Considering that the statutory tax rate cannot effectively reflect the actual tax burden, given that there are still certain tax measures and policies, such as tax deductions and allowances, affecting the actual burden. Therefore, we will calculate the effective tax rate in each region by establishing an income profile of talented worker. Secondly, in order to more profoundly reflect other impacts of taxation differences on regional talent flow in the GBA, we intend to organise an in-depth group interview with professionals and experts in related fields, so as to learn their views on the impact, their

evaluation of existing government tax measures as well as the prospect of future regional tax coordination. In the next step, the current arrangement for regional tax coordination will be reviewed and evaluated, including those in tax laws, agreements, protocols, special tax measures and policies, in order to further find out the imperfections in the existing coordination mechanisms according to the probable impacts of tax on regional talent flow. Finally, on these bases, a compatible framework for future regional tax coordination in the GBA will be proposed.

### **3.3. Data**

First of all, with regard to the comparison of taxation related to labour income in GBA, we will sort out the relevant tax laws through literature review. Considering the complexity of horizontally comparing different tax laws, a wide-range search of the relevant academic literature, books, journals, government documents, and even academic theses will be covered in the scope of the literature review, in order to more accurately understand these laws on a case-by-case basis. In this part, the main components of general tax law, such as tax base, tax unit, tax rate, exemption, and others, will be structured to summarise the tax laws respectively in Guangdong, Hong Kong and Macau, and further compare them by making a table for all their similarities and differences.

Second, the most important aspect in the simulation of tax liabilities is to obtain data for the income profile of talented workers. In detail, we will adopt, respectively in each region, the average or median personal income per month, twice the income, three times the income, four times the income, and finally five times the income, which are expected to fall on the upper tax brackets. Meanwhile, we also consider the additional burden of social security contributions. The relevant data of this part is mainly obtained through government-published statistical resources (Stiglitz, 2000; Pereira, & Rodrigues, 2001a, 2001b).

To further clarify the impact of tax on regional talent flow, we need to have face-to-face discussion with professionals and experts that have in-depth knowledge and experience in the fields of taxation, public administration, and economics. Considering the nature of the information required, panel discussions and semi-structured group interviews will be adopted. Moreover, due to the limited times and resources, interviewees are selected by applying the one-to-one method, namely an intentional sampling and rational selection (Khan, 2014).

To prepare the interviews, the related questions will be developed and made available to participants in advance, as shown in Table 3.1. However, based on the response of interviewees' opinions, perceptions, and attitudes, the contents of panels or interviews may be adjusted immediately, in order to better find out the implication of their information. Besides, the whole process will be recorded with the consent of participants. It is ensured that their information will not be leaked or used for other purposes (Quivy & Van Campenhout, 1998; Carmo & Ferreira, 2008; Harrell & Bradley, 2009). After that, considering the language used by the interviewees, all transcripts will be translated in English, and will be coded and analysed by the qualitative data analysis computer software - Nvivo.

Finally, in discussing the regional tax coordination, we will first summarise the current arrangements in the GBA through tax laws, government documents, websites, related official newspapers and magazines, which will be further evaluated by the experts and the scholars mentioned above. Combined with the practical experiences of EU tax harmonization, we finally attempt to establish a compatible framework for future regional tax coordination in the GBA. Recommendations and implication in the context of the GBA will be discussed at the end of this paper.

**Table 3.1 The Outline of Interviews**

<b>The Outline of Interviews</b>
1. Describe the similarities and the differences in the different tax laws related to labour income in the GBA;
2. Please attempt to list all the factors that, in your opinion, a talented worker would consider when making decision on regional flow. Are differences in regional labour income taxation an independent factor out of them?
3. Discuss the impact of the above differences in taxation on the geographical talent flow in the GBA;
4. Can the convergence or unification of the existing local tax systems mitigate the probable negative impacts of tax? Why?
5. Evaluate the existing tax measures proposed by local governments for promoting regional talent flow in the GBA, such as Hong Kong Taxation for Hong Kong People, Macau Taxation for Macau People.
6. Discuss the future regional tax coordination in the GBA. What about the key areas that governments should start on?

## 4. RESEARCH RESULTS AND DISCUSSION

### THEREOF

#### 4.1. Summary of the Taxes Related to Labour Income in the GBA

In the GBA, there are different taxes related to labour income in different tax jurisdictions. Table 4.1 lists all the relevant tax laws. In mainland China, income from wages and salaries is considered one of a total of nine taxable items in the Individual Income Tax Law (IITL). Remunerations for labour services, business income, income from dividends, income from the lease of property and so on are also the assessable income. According to the tax law, three different tax rates are applied into different types of income accordingly.

**Table 4.1 Main Tax Laws Related to Labour Income in the GBA**

<b>Main Laws on Labour Income</b>	
<b>Mainland China</b>	1. Individual Income Tax Law of the People's Republic of China (2018 Amendment) 2. Regulation on the Implementation of the Individual Income Tax Law of the People's Republic of China (2018 Amendment)
<b>Hong Kong</b>	Chapter: 112 Inland Revenue Ordinance (IRO)
<b>Macau</b>	Professional Tax Regulations ( <i>Regulamento do Imposto Profissional</i> )

In comparison, the Salaries Tax in Hong Kong and the Professional Tax in Macau can be considered a classified income tax exclusively related to labour earnings or payroll according to the classification of the OECD (OECD, 2018). There are different taxes upon different income natures, which are taxed at different rates accordingly. However, the two tax laws are not completely the same. In Hong Kong, there is actually some sort of flexibility left for taxation. As an alternative, taxpayers in Hong Kong can choose whether or not to assess their tax liabilities by combining the Salaries Tax, the Profits Tax and the Property Tax, in order to reduce the tax that is payable, also known as personal assessment (Ho, 2017).

Due to the differences in tax systems, the scope of the IITL actually covers more categories of income than the relevant tax laws in Hong Kong and Macau. However, in order to make comparison between them, we assume that individuals only have income from wages and salaries. All other incomes, such as business income, income from interests or dividends, or income from property, will not be considered in this study.

#### **4.1.1. Taxation Principles**

In China, both residence-based taxation and source-based taxation are adopted in the IITL. In principle, the former is only applied to Chinese residents, whose individual income is derived not only from China, but from all over the world, are chargeable to the tax, also known as global taxation. For non-residents, source-based taxation is adopted only to their personal income arising in mainland China.

Given that there are different taxation principles applied, the implementation of tax law needs a set of criteria to identify the resident status of each taxpayer. According to the latest revised IITL in mainland China, the criteria mainly includes two aspects: 1) domicile; 2) the time of stay. In terms of Article 1 of the IITL, an individual taxpayer is considered a resident when he or she has a domicile within the territory of mainland China, or who has no domicile but has stayed in the aggregate for 183 days or more in a tax year in China. On the other hand, when an individual neither has a domicile nor stays in China or who has no domicile and has stayed in the aggregate for less than 183 days in the same circumstance, the individual is considered a non-resident individual. Besides, it should be noted that the definition of domicile here is not necessarily equivalent to a physical property. According to the Regulation on the Implementation of the Individual Income Tax Law (RIITL), it refers to individuals who habitually reside in China due to household registration, family, or economic ties. For individuals who have domicile only because they are studying or working, they are not considered to have habitual domicile in the mainland.

In respect of the taxation in Hong Kong and Macau, both the Salaries Tax and the Professional Tax are source-based taxation. The two taxes are levied only within the territorial jurisdiction. Regardless of resident status, individual taxpayers only have tax liabilities on their labour income derived from where it was earned. Income which is obtained outside the jurisdictions



will not be taxed. In other words, the individual taxpayer's resident status, in principle, does not affect the tax liability.

#### 4.1.2. Taxpayer

Regarding the types of taxpayers, given that the IITL involves various categories of income, there are three types of taxpayer in total, which include Chinese citizens, individual industrial and commercial households, and foreigners (including people from Hong Kong, Macau and Taiwan). The labour income that this study focuses on relates to the individual Chinese citizens and foreigners.

In Hong Kong and Macau, taxpayers of the relevant tax laws are more focused on individuals who are engaged in the behaviour of employment. Among them, taxpayers of the Salaries Tax in Hong Kong refer to those whose income are arising in Hong Kong from any office or employment of profit, and from any pensions. In Macau, taxpayers of the Professional Tax refer to those who have income from employment (*rendimentos do trabalho*), which can be divided in two groups. According to the interpretation of the Taxation Association of Macau, the first group is for employees who are employed to render services to third parties in return for remuneration, which will be focused in this study.

#### 4.1.3. Taxable Units

In China, the IITL mainly adopts the individual unit. Taxpayer's marriage and family status and the related household expenditure are not being considered in the taxation. In this regard, the Professional Tax in Macau is very similar to it, which likewise is based on the individual factors. (Lei, 2014)

In contrast, the Salaries Tax in Hong Kong allows for a certain degree of flexibility. As we discussed, taxpayers can choose to be assessed either individually or jointly for a married couple. According to the explanation of the IRD, the selection of taxable unit is mainly depending on the taxpayers' own considerations. They would generally compare the tax liabilities by applying different taxable units, and choose the more beneficial one (GovHK, 2019).

#### **4.1.4. Tax Objects**

With respect to the tax object in the GBA, there are a total of nine individual incomes listed according to Article 2 of the IITL. Among them, income from wages and salaries, income from remuneration for labour services, income from author's remuneration, and income from royalties are defined as comprehensive income, which have their own provisions throughout the law. For the resident individual, different categories of personal income are taxed at corresponding tax rates in each tax year while those non-resident individual is taxed on a monthly or transaction-by-transaction basis. Apart from this, there are still business income, income from interest, dividends and bonuses, etc.

In Hong Kong and Macau, the Salaries Tax and the Professional Tax only centres on partial individual income, or more precisely income from employment. In Hong Kong, this part of income refers to the income from both employment and pension. Article 9 of the IRO provides definition of what the income from employment means. It generally covers any wages, salaries, severance pay, fees, commissions, bonuses, gratuities, allowances, fringe benefits, etc. This is very similar to the taxation scope of the Professional Tax in Macau. According to Article 3 of the RIP, income from employment includes all remuneration whether it is certain or incidental, periodical or extraordinary, whether they are received by way of wages, salaries, honorarium or fees, or by way of attendance fee, bonuses or any other. All constitute labour income from employment. Meanwhile, when there are legal or contractual provisions, the items like entertainment, transportation, daily subsistence allowances are also chargeable.

#### **4.1.5. Taxable Income (Tax Deductions & Allowances)**

In general tax laws, the tax base for personal income, or what we usually call taxable income, is often acquired, after the exclusion of non-taxable income, by subtracting statutory deductions or allowances from tax objects within a certain tax period. The deductions and allowances can either be basic deductions set by government in order to guarantee the basic living quality of taxpayers, or it can be some special deductions for the pursuit of social equity (Stiglitz, 2000, p. 609).

In mainland China, Article 4 of the IITL stipulates ten exemptions, such as prizes in education awarded by particular organizations, subsidies and allowances distributed by the State, welfare benefits and so forth. In addition, some tax reductions may also be allowed under certain

circumstances according to Article 5, such as where the taxpayers suffer huge losses as a result of a natural disaster. After excluding these non-taxable incomes, Article 6 specifies the calculation of taxable income. In detail, resident individual can have a fixed deduction with 60,000 Yuan as well as a series of special deductions and additional special deductions in each tax year. Among them, the special tax deductions involve the well-known “five insurances and one provident fund”, which is the main social security system in China, respectively including basic pension insurance, basic medical insurance, employment injury insurance, unemployment insurance, maternity insurance, and housing provident fund. The additional special deduction principally refers to six types of expenses, including the expenses for children’s education, expenses for continuing education, medical expenses for serious diseases, mortgage interest, elderly care expenses and so on. The balance after deducting the above items is the taxable income. For non-resident individuals, they are not qualified for the deductions on social security contributions and other living expenses in general, but they can still have a fixed tax deduction with 5,000 Yuan per month.

The same situation occurs in Hong Kong, according to the second paragraph of Article 8 of the IRO, some items are excluded in computing the income of anyone, for example, the official emoluments of consuls, scholarship or other similar educational endowment. After excluding the related amounts, the taxable income will be the balance of the total amount of income minus the total amount of a series of deductions and allowances. Among them, the deduction generally includes certain outgoings and expenses and some concessionary deductions, such as all outgoings and expenses incurred in the production of his assessable income, self-education expenses, mandatory contributions to the Mandatory Provident Fund Scheme, etc. On the other hand, there is still a set of allowances, including a basic allowance with 132,000 HKD, married person’s allowance, child allowance, and others. It should be noted that, the amount of deductions and allowances may differ due to the choice of taxable unit.

In Macau, Article 4 of the PTR set a list of non-taxable income in response to taxpayers in different groups. For the first group of taxpayers, there are 14 non-taxable incomes in total, such as pensions, work accident compensation, payment from private retirement schemes, deductions of mandatory social security contributions. Apart from this, there is still a annual deduction with the fixed amount of 25% of the total remuneration.

#### 4.1.6. Tax Rate

All of the three taxes also apply a progressive tax rate in excessive of specific amount. This type of progressive tax generally requires a tax schedule with particular income brackets, while each bracket has its applicable tax rate. Whenever the taxable income exceeds a certain tax bracket, the excess will be taxed at the corresponding tax rate.

In mainland China, the IITL specifies that income from wages and salaries is subsumed into the comprehensive income, which is applied a progressive tax rate with seven tax brackets in excess of specific amount.

**Table 4.2 Tax Schedule of the Individual Income Tax of Mainland China**

2018/2019 Tax Brackets (Yuan)		
1	0 to 36,000	3%
2	36,000 to 144,000	10%
3	144,00 to 300,000	20%
4	300,000 to 420,000	25%
5	420,000 to 660,000	30%
6	660,000 to 960,000	35%
7	960,000 or more	45%

*Note.* Adapted from the Individual Income Tax Law of the People's Republic of China (Revised in 2018).

In Hong Kong, the Salaries Tax adopts both a progressive tax rate in excess of a specific amount and a standard tax rate. The progressive tax applies a tax schedule with five tax brackets while the standard tax is a flat tax with a fixed tax rate of 15%. In principle, taxpayers can choose to use one of these two tax rates within a certain income level which is usually contingent on the comparison between the two rates, yet they must be taxed at the standard rate when their income level is exceeded a particular amount. For example, in terms of the latest update in 2019, when the annual salaries exceed 2,022,000 HKD, taxpayers must be imposed by standard tax rate. Such arrangement, in a certain extent, controls the progressivity of the tax. Apart from this, it should also be noticed that the relevant tax rate will not be the same as always. In a certain period of time, it may be adjusted in line with the economic and financial situation, although the adjustment is usually slight, which does not affect the low tax policy implemented in Hong Kong according to the Basic Law (Liu, 1997).

**Table 4.3 Tax Schedule of the Salaries Tax of Hong Kong**

<b>2018/2019 Tax Brackets (HKD)</b>		
1	Up to 50,000	2%
2	Additional 50,000	6%
3	Additional 50,000	10%
4	Additional 50,000	14%
5	Remainder	17%
Standard Rate		
Since 2012/2013		15%

*Note.* Adapted from Schedule 2 of the Inland Revenue Ordinance of Hong Kong (Revised in 2017).

Macau is also a low tax jurisdiction, where the tax rate remains unchanged for a long time. The applicable tax rate of the Professional Tax is a progressive tax rate in excess of specific amount with six tax brackets in total. Although the threshold set out in Article 7 of the PTR is still at the annual amount of 95,000 MOP since 2003, the government has already raised it by the means of annual policy address. Since 2014, the threshold has risen to 144,000 MOP per year, but meanwhile the exemption also stipulates that the threshold for employees should be calculated at a monthly basis of 16,000 MOP as well. This means that for individual employees, the actual annual tax threshold has been raised to 192,000 MOP per year (Lei, 2014, p. 180).

**Table 4.4 Tax Schedule of the Professional Tax of Macau**

<b>2018/2019 Tax Brackets (MOP)</b>		
1	0 to 95,000 (144,000 <sup>1</sup> )	0%
2	Additional 20,000	7%
3	Additional 20,001 to 40,000	8%
4	Additional 40,0001 to 80,000	9%
5	Additional 80,001 to 160,000	10%
6	Additional 160,001 to 280,000	11%
7	Additional 280,000 or more	12%

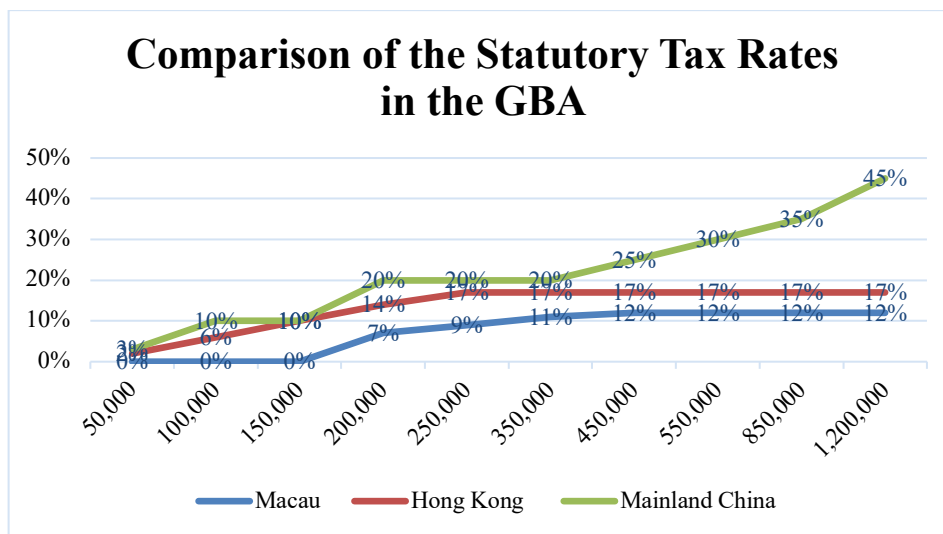
*Note.* Adapted from Article 7 of the *Lei n.º 12/2003* of the Macau Government (2003).

---

<sup>1</sup> The latest threshold according to the policy address for the fiscal year 2019.

In Figure 4.1 the statutory tax rates in the GBA were compared. It should be noticed that the tax rate in China is significantly higher than that in Hong Kong and Macau when income continuously increases.

**Figure 4.1 Comparison of the Statutory Tax Rates in the GBA**



Source: Elaborated by the author.

#### 4.1.7. Tax Credits

As a direct deduction on tax payable, the Financial Secretary of Hong Kong updated the tax reduction on the salaries tax in August 2019. The percentage of reduction was increased from 75% to 100% while the ceiling remains 20,000 HKD. However, it has to be noticed that such tax reduction is actually a tax rebate that takes effect after the tax year (Financial Secretary of the Hong Kong SAR Government, 2019).

In Macau, the SAR government is also used to make adjustments to tax benefits through annual policy address. For example, according to the *Lei do Orçamento de 2019*, taxpayers of the Professional Tax can have a direct deduction of 30% of their tax payable. In addition, taxpayer who is holding local identity card will even be refunded 60% of the tax payable paid in 2017, which is up to 14,000 MOP. In short, both Hong Kong and Macau have such arrangement for direct reduction on the amount of tax payable, whether it is an immediate reduction or takes

effect as a tax rebate. However, similar clauses and measures cannot be found in mainland China.

#### **4.1.8. Administrative Procedures**

Regarding the taxation methods, the IITL mainly adopts the method of source-based withholding while being supplemented by a self-assessment. The comprehensive income of resident or non-resident taxpayer is taxed on an annual basis. If there is a tax withholder, such as employer, this employer should withhold the tax payable on a monthly basis. During the period, the individual taxpayer can provide information about special deductions and additional special deductions to the withholder while that withholder is obliged to make the deductions according to the related provisions. After paying tax, the withholder should also report to the tax authorities within 15 days of the following month. However, if there is no tax withholder, according to Article 13 of the RIITL, individual taxpayer should file tax return and pay tax by himself or herself.

In Macau, the Professional Tax also uses the method of source-based withholding. For the first group of taxpayers, the tax is generally paid by employers on a quarterly basis respectively before the 15th of January, April, July and October of each year. It means salary that employees receive is actually an after-tax earnings. Reviewing the PTR, nearly half of the clauses is regarding the tax collection process. We can simply divide it in declaration, verification of relevant information, verification of taxable income, appeals of taxpayer, reassessment of income, delivery of tax demand note, tax paid and refund (Liu, 1997). Besides, taxpayers can also file complaints and administrative appeals during the collection process.

In Hong Kong, the Salaries Tax is imposed by self-assessment. According to Articles 51 to 58A of the IRO, taxpayers are obliged to fill out tax return after receiving it from the IRD in each tax year. The taxation allows them to choose different taxable units, or to elect for personal assessment if it will reduce their tax liabilities by assessing the Salaries Tax, profits tax and property tax altogether. The tax authorities will further review and verify the tax payable. In detail, the tax collection process can be divided into four phases. The first phase is tax filing, which stipulates that anyone who is eligible taxpayer is obliged to file a tax return that is received from the assessor of the IRD. The second phase is tax assessment. The assessor will determine tax payable according to the tax return submitted by the taxpayer or by inferring, and

issue a tax payment notice accordingly. Third, taxpayers who are not satisfied or do not agree with the tax assessment can file a written objection within one month of receiving the tax payment notice. A reassessment is possible if the objections are accepted, otherwise, the Commissioner of the IRD will make a written ruling. If the taxpayers are still dissatisfied, they can still appeal to the Board of Review. The fourth phase is the process of tax payment. After the tax assessment, taxpayers should pay the amount of tax payable indicated in the tax payment notice. In the case of tax arrears, the court will recover the corresponding tax payable and impose a fine. However, unlike mainland China and Macau, the IRO does not specify the deadline of tax filing and tax payment. Instead, it requires the assessor to set deadlines for each phase within a reasonable period of time (Liu, 1997; Ho, 2017).

**Table 4.5 Comparison of the Taxes Related to Labour Income in the GBA**

	<b>Mainland China</b>	<b>Hong Kong</b>	<b>Macau</b>
<b>Tax</b>	Individual Income Tax	Salaries Tax	Professional Tax
<b>Taxation Principle</b>	Both residence-based taxation and Source-based taxation	Source-based taxation	Source-based taxation
<b>Taxable Unit</b>	Individual	Either individual or joint assessment for married couples	Individual
<b>Tax Base</b>	All personal income	Partial income	Partial income
<b>Tax Rate</b>	Progressive tax rate in excess of specific amount	Progressive tax rate in excess of specific amount or standard rate	Progressive tax rate in excess of specific amount
<b>Taxation Methods</b>	Mainly source-based withholding and self-assessment as subsidiary	Self-assessment	Source-based withholding

Source: Elaborated by the author.



## 4.2. Simulation of the Effective Tax Burden in the GBA

In this section, we respectively adopt the multiples of actual average or median income and the multiples of hypothetical income in each region, which are expected to cover the medium-to-upper income brackets in each tax schedule. Actual average or median income can reflect the latest income level in the region. Whether to adopt average or median income, the intention is to ensure the representativeness of relevant data. However, the actual income level is certainly different in Guangdong, Hong Kong and Macau. It makes us unable to observe the progressivity. Therefore, an equal hypothetical income level in the GBA is adopted in order to further study the extent of change in effective tax burden from medium to upper income levels.

**Table 4.6 Actual Average/Median Income Level per Month in 2018 in the GBA**

	<b>Guangzhou</b>	<b>Hong Kong</b>	<b>Macau</b>
<b>Average/median income per month</b>	8,603 CNY 1,102 EUR	17,500 HKD 1,891 EUR	16,000 MOP 1,678 EUR

*Note.* The income is denominated in EURO by the equation: 1 EUR = 7.8081 CNY = 9.2559 HKD = 9.5335 MOP, according to the average exchange rate in 2018 by the ECB and the linked exchange rate between the Pataca and Hong Kong dollar. Data for the average income in Guangzhou from South China Market of Human Resources (2018). Data for the median income in Hong Kong from the CSD (2019). Data for the median income in Macau from the DSEC (2018).

Table 4.6 shows the actual average or median income per month in the GBA in 2018. Both the median income in both Hong Kong and Macau were published by the government statistics departments, which are the main indicators to reflect the income level of employees. In this case, average income may not effectively represent the income level of most employees due to the extreme values. In mainland China, the official statistics on average income are used to divide in two categories: private sector and non-private sector, but considering that there is a large income gap between them, a comprehensive average income is more preferable. Therefore, we take a salary survey in Guangdong province as reference, which was published jointly by South China Market of Human Resources, Guangzhou Human Resource Service Association, Guangzhou Talent Institute, Guangzhou Southern Human Resources Evaluation Centre. We

will specifically choose the average income in 2018 in Guangzhou, given that it is the capital and the most representative city of the Guangdong province. After converting by the same exchange rate, an income profile of talented worker was then proposed in Table 4.7.

**Table 4.7 Income Profile of Talented Worker**

	Actual			Hypothetical
	Guangdong	Hong Kong	Macau	n/a
<b>Average income (A)</b>	122,376	210,000	186,408	1,000,000
<b>Two times (A2)</b>	244,752	420,000	372,816	2,000,000
<b>Three times (A3)</b>	367,128	630,000	559,224	3,000,000
<b>Four times (A4)</b>	489,504	840,000	745,632	4,000,000
<b>Five times (A5)</b>	611,880	1,050,000	932,040	5,000,000

*Note.* All income is denominated in Hong Kong dollars by the equation: 1.0000 HKD = 0.8436 CNY = 1.0300 MOP, according to the average HKD/CNY exchange rate in 2018 by the SAFE and the linked exchange rate between the Pataca and Hong Kong dollar. The income was converted from monthly basis to annual basis.

In order to comprehensively reflect the actual burden on the income of talented worker, those mandatory social security contributions (SSC) in the region were considered, which also allows us to distinguish the status between residents and non-residents. In China, there are the well-known “five insurances and one provident fund”, which include basic pension insurance, basic medical insurance, employment injury insurance, unemployment insurance, maternity insurance and housing provident fund. Each of which is paid in proportion to the income of individual by both employer and employee, and subject to maximum and minimum bases. In fact, the proportion of each fee varies from region to region, but it has to be set within a range stipulated by the central government. In consideration of the representativeness, the proportion indicated by Guangzhou in 2019 was taken as reference. In Hong Kong, there is a mandatory contribution stipulated by the Mandatory Provident Fund (MPF) scheme, which is equal to 5% of the employee’s income per month, subject to the minimum and maximum income levels. For employees in Macau, the contribution of the obligatory social security system is a fixed amount of 30 MOP per month.

**Table 4.8 Mandatory Social Security Contributions in the GBA**

Mandatory Social Security Contributions	
Guangzhou	<p>“Five insurances and one provident fund”</p> <ul style="list-style-type: none"> <li>✧ Basic pension insurance: 8% <ul style="list-style-type: none"> <li>■ Max: 19,014 CNY; Min: 3,803 CNY</li> </ul> </li> <li>✧ Basic medical insurance: 2% <ul style="list-style-type: none"> <li>■ Max: 27,960 CNY; Min: 5,592 CNY.</li> </ul> </li> <li>✧ Employment injury insurance: only paid by employer</li> <li>✧ Unemployment insurance: 0.2% <ul style="list-style-type: none"> <li>■ Max: 27,960 CNY; Min: 2,100 CNY.</li> </ul> </li> <li>✧ Maternity insurance: only paid by employer</li> <li>✧ *Housing provident fund: 5%-12% <ul style="list-style-type: none"> <li>■ Max: 27,960 CNY; Min: 2,100 CNY.</li> </ul> </li> </ul>
Hong Kong	5% of a monthly income from 7,100 to 30,000 HKD (subject to a ceiling 1,500 HKD)
Macau	30 MOP per month

*Note.* The minimum proportion of 5% is selected since we are focusing on the minimum burden that individual has to comply with. Data for the SSC in Guangzhou from the Guangzhou Municipal Human Resources and Social Security Bureau (2019) and from the Guangzhou Housing Provident Fund Management Center (2019). Data for the SSC in Hong Kong from the Mandatory Provident Fund Schemes Authority (2019). Data for the SSC in Macau from the Social Security Fund (2019).

The effective tax rate will be computed and compared in four different contexts.

1. Comparing the effective tax burden of talented workers computed only by the actual average/median income in the GBA;
2. Comparing the effective tax burden of talented workers computed by both the actual average/median income and the SSC in the GBA;
3. Observing the progressivity of the effective tax burden simulated only by the hypothetical income in the GBA;
4. Observing the progressivity of the effective tax burden simulated by both the hypothetical income and the SSC in the GBA;

The first two contexts mainly reflected the effective tax burden that talented workers are likely to bear in the region. Among them, the context one may represent the situation of non-resident

talented workers who usually have no need for local social security contributions. The result showed that the level of effective tax burden is obviously lowest in Macau. According to Table 4.9, the effective tax rate for individuals who receive five times the median income in Macau is just about 4.6%. In the contrast, the effective tax rates in Guangzhou and Hong Kong are surprisingly close to each other below the five times the average income. However, the former's effective tax burden in the mainland is always slightly higher than that in the latter. Along with the increasing income level, the effective tax rate in Hong Kong is gradually approaching the standard rate of 15% while the rate in the mainland is continuously rising. Of course, it is also relevant to the difference in income levels. When the multiples of average income have reached the upper level of the tax schedule in Hong Kong, the equal multiples in Guangzhou are still in the first two to three brackets. In a certain extent, this implies the impact of the difference in tax schedules on the effective tax burden of equal income level.

**Table 4.9 The Effective Tax Burden on the Actual Income Level in the GBA**

<b>Context 1</b>				
	<b>Guangzhou</b>	<b>Hong Kong</b>		<b>Macau</b>
<b>Average Income</b>	<b>122,376</b>	<b>210,000</b>	<b>2,022,000up</b>	<b>186,408</b>
<b>A</b>	3.04%	1.28%	15.00%	0.00%
<b>A2</b>	8.18%	7.37%		2.28%
<b>A3</b>	12.22%	10.58%		3.42%
<b>A4</b>	15.51%	12.19%		4.13%
<b>A5</b>	18.41%	13.15%		4.57%

*Note.* All income is denominated in Hong Kong dollars.

After having considered the social security contributions, the second context can better reflect the effective tax burden that resident individuals may have to face. In Table 4.10, we can observe that the effective tax burdens are significantly increased after adding the SSC in the GBA, except Macau. It is because the SSC in Macau is actually a fixed contribution, which the amount has admittedly been low even though the government constantly puts forward the need to increase this contribution. In Hong Kong and mainland China, the SSC are paid in a certain

proportion of individual's income, and subject to minimum and maximum amounts. In this case, the additional burden of SSC was actually decreasing to a proportional level when the income increased. Like in Hong Kong, the additional burden of SSC on the median income level is evidently greater than that on the upper level, which will gradually stop at 15%. In the mainland, although the change in the additional burden from medium to upper income level is in line with the tendency in Hong Kong, the effective tax burden is much greater with the rise in the income level. The burden on five times the average income is almost one fourth the before-tax income.

**Table 4.10 The Effective Tax Burden on the Actual Income Level in the GBA**

<b>Context 2</b>				
	<b>Guangzhou</b>	<b>Hong Kong</b>		<b>Macau</b>
<b>Average Income</b>	<b>122,376</b>	<b>210,000</b>	<b>2,022,000</b>	<b>186,408</b>
<b>A</b>	16.72%	5.98%	15.74%	0.19%
<b>A2</b>	19.91%	10.93%		2.38%
<b>A3</b>	21.36%	12.95%		3.48%
<b>A4</b>	21.91%	13.96%		4.18%
<b>A5</b>	23.26%	14.57%		4.61%

*Note.* All income is denominated in Hong Kong dollars.

In the third and fourth context, we intend to observe the change of effective tax rates when the equal income level we assume is constantly increasing. In the same way, we will respectively study the case with and without considering the social security contribution. Regarding the third context, Table 4.11 showed that, from 1 million to 10 million, the effective tax rate was increased respectively by about 31% in Macau, 16% in Hong Kong, and 77% in mainland China. In fact, when today the governments are encouraging talents to work in other cities of the GBA, the best “selling point” is the development potential over there, which also implies that the expected income levels would be continuously rising in proportion. However, according to the data, talented workers may have to bear the much higher level of effective tax burden in mainland China until the level that reaches 45% of their before-tax income. In contrast, the effective tax burden in Hong Kong and Macau increase relatively slowly as income constantly

rises. We can observe that the income of 10 million are only taxed at an effective rate of approximately 6 % in Macau and 15% in Hong Kong. In somehow, this has created relatively positive effects on the reserve of talented workers and their long-term development in the region.

**Table 4.11 The Effective Tax Burden on the Hypothetical Income Level**

<b>Context 3</b>			
	<b>Guangzhou</b>	<b>Hong Kong</b>	<b>Macau</b>
<b>1,000,000</b>	24.31%	12.96%	4.68%
<b>2,000,000</b>	34.55%	14.98%	5.49%
<b>3,000,000</b>	38.04%	15.00%	5.76%
<b>4,000,000</b>	39.78%	15.00%	5.90%
<b>5,000,000</b>	40.82%	15.00%	5.98%
<b>10,000,000</b>	42.91%	15.00%	6.14%

*Note.* All income is denominated in Hong Kong dollars.

In the fourth context, we found out that all the effective tax rates are very close in number and are basically consistent to all the features concluded as shown in Table 4.12. The main reason is that, due to the ceiling of SSC, the relevant effects are very limited when the income level is continuously rising. In fact, people who have such high income level are usually more willing to have other better social security schemes, rather than just counting on mandatory contributions.

In summary, the effective tax burden which covers the burden of taxes and social security contributions in the Greater Bay Area can be concluded, whether the income gap was considered, in the following sequence from a higher level to a lower level: China, Hong Kong, Macau. The extents of the pure additional impact (only from tax and the SSC) theoretically implies the popularity of each tax jurisdiction as the destination of regional talent flow while the existing income gap has further widened the differences in the effective tax burden in the GBA.

**Table 4.12 The Effective Tax Burden on the Hypothetical Income Level**

<b>Context 4</b>			
	<b>Guangzhou</b>	<b>Hong Kong</b>	<b>Macau</b>
<b>1,000,000</b>	27.06%	14.45%	4.72%
<b>2,000,000</b>	35.72%	15.73%	5.51%
<b>3,000,000</b>	38.81%	15.51%	5.77%
<b>4,000,000</b>	40.36%	15.38%	5.91%
<b>5,000,000</b>	41.29%	15.31%	5.98%
<b>10,000,000</b>	43.14%	15.15%	6.14%

*Note.* All income is denominated in Hong Kong dollars.

In addition, when the income of talented workers was continuously rising, the highest effective tax rate reached approximately 45%, 15% and 6% of the income of talented workers in Guangdong, Hong Kong and Macau. This implies not only the effective tax burden on talented workers' income today, but also on their expected income level in the near future.

Furthermore, the additional burden of SSC significantly increased the effective tax burden on medium income level in the GBA, except Macau. However, the burden was inversely proportional to income level. When income is continuously increasing to an upper level, its impact become very limited due to the ceiling of SSC. In short, the differences in effective tax burden relates to the differences in both tax laws and social security contributions, such as the design of tax schedule, the regulations on tax deductions, etc.

### **4.3. The Impacts of Tax on Regional Talent Flow in the Greater Bay Area**

Given that the effective tax burden cannot comprehensively reflect all the impacts of tax on regional talent flow, a group discussion was arranged in order to further study the relevant behavioural impact. The participants are the experts respectively in the field of tax, economy and public administration. Among them, Ms Kathy Wong Wai Pan is a registered auditor and a senior tax professional in Macau, and has accumulated a lot of practical experience in the field of tax. Mr Benjamin Sou Chan Fai is a senior economic researcher in Macau. He knows the regional economic development of the Pearl River Delta Metropolitan Region very well. Professor Chan Kin Sun is an Assistant Professor of Public Administration at the University of

Macau. The field of public finance is one of his major research interests. Considering that this study requires a certain degree of inter-disciplinary knowledge, including public finance, tax, economy, etc., the selection of participants took this into account. It is expected that an in-depth interview between them can more comprehensively come up with ideas that can further clarify the relevant behavioural impact on regional flow of talented workers.

In line with our hypothesis, all the interviewees agree that tax is more like one of the factors that talented workers would consider when deciding whether to enter into the other labour markets of the GBA. In addition to tax, the other factors can still include quality of life, development opportunities, family, income level, etc. In fact, there is no unified basket of factors applicable to all talented workers. Instead, the possible factors and their respective importance may be different for each talented worker, given that its determination highly depends on the context of individual consideration. Depending on individual's subjective judgement and perception about the objective impact of all factors, the weighting of each factor may vary from person to person. In this case, what we are studying is to find out the objective impact of tax on regional talent flow respectively at the individual, government and social level.

Regarding the importance of tax, Benjamin Sou reiterated that it was up to an individual consideration and the related impact should be studied in a big picture with all the other relevant factors. For example, he confessed that, even though tax does not seem to be so important for talented workers at this moment, he was not surprised at all since the initiative of Greater Bay Area was still at the initial planning stage. In fact, there are many other factors which are more important and urgent, such as development opportunities, career planning, quality of life, etc. However, when the integration process becomes more mature in the GBA, most of the factors that are considered important and urgent would be satisfied. At that point in time, the factor of tax will become more important.

Besides, considering that it seems only to be a sub-factor that affecting income level, there is a question about whether tax should be considered an independent factor or not. In fact, this argument has only considered the impact of difference in tax payable on income level, but the truth is that the differences of taxes can also reflect in tax collection process as the interviewees mentioned, which likewise is exactly one of the main purposes of this in-depth interview. In view of this, the impact of these differences in taxation may be more complicated than a sub-factor looks like, and thus should be treated as an independent factor.



Apart from this, the participants particularly paid attention to the characteristics of talented workers, and attempted to more accurately explain the impact by distinguishing them from other labour forces. There are two major characteristics of them that the participants agreed: 1) talented workers are usually well paid; 2) the works they engage in usually require a certain skill level. The description is basically consistent with the definition of talents in this paper.

When discussing the objective impact of tax on regional talent flow, the participants mainly centred on two aspects. One is effective tax burden for talented workers, which the previous section has already discussed in very great detail. One another note was pointed out by Kathy Wong, that is, the difference in the existing income levels in the GBA may also affect the impact of tax, whether to consider it as a deterrent or a policy instrument. She argued that if the existing income gap is too large, tax may not be able to play any role. On the contrary, if the existing income is close enough, at least tax is not a negative factor that hinder the regional talent flow in the GBA. In fact, according to the income profile, the existing income gap between mainland China and Hong Kong/Macau is still significant, and talented workers should have already had a certain degree of expectations for their future income.

The second aspect is about the tax collection process in each jurisdiction. In addition to tax payable, in effect the compliance costs generated during administrative procedures can also be a deterrent, for example, such as all the expenses incurred by complying tax collection, the time spent on it, costs of violations (whether it is intentional or not), risk costs of double taxation or unfair treatments when assessing tax payable, etc. In this regard, mainly focusing on the direction of regional talent flow from Hong Kong/Macau to mainland China, the participants agreed that the complicated administrative process of tax collection may also cause the negative impacts that would hinder both the mobility and the willingness of talented workers to enter into other labour markets, especially when the two special administrative regions are practising a simple and low-rate tax system all along

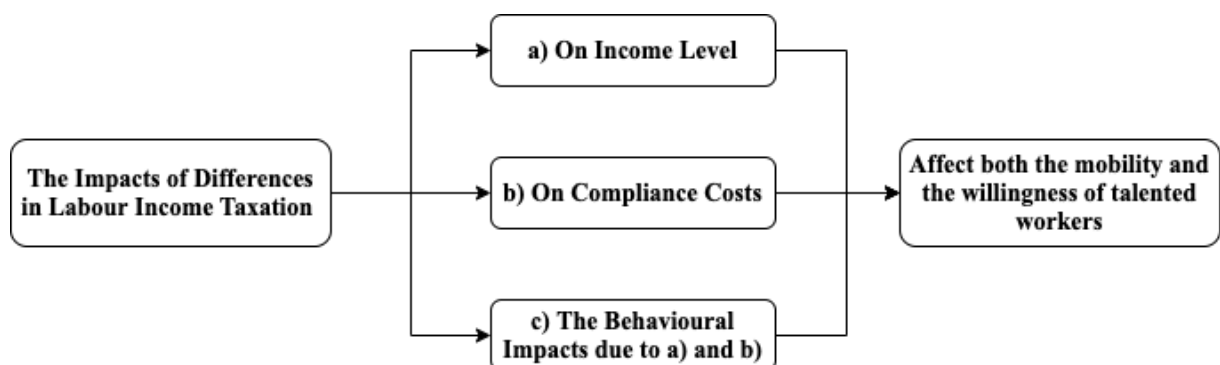
In addition, participants also discussed other behavioural effects that are likely to be induced by the differences in taxation. For example, individuals may intentionally make every attempt to avoid becoming a resident individual in the mainland so as to avoid being taxed globally. To this end, they cannot have any domicile and have to control the time of stay inside the mainland, which would unexpectedly affect a complete regional talent flow in the GBA. However, Kathy Wong pointed out that in effect the leeway for such tax avoidance was very limited. The costs for making tax avoidance, such as rent and transportation, may even be greater. Exactly for this

reason, as the participants discussed throughout the interview, most people from Hong Kong and Macau were very concerned about this issue. They hope that the government can introduce some special arrangements in order to prevent them from falling into the taxation in mainland China. Especially when most of them are professionals, both the tax liabilities and the compliance costs for them are supposedly much more complicated than other relatively low-income workers. As a response, the relevant governments had proposed some tax benefits, which attempted to compensate the differences in effective tax burden between Guangdong and the two SARs. However, we need to further study whether these tax measures can cope with the negative impact of tax on regional talent flow.

#### 4.4. Regional Tax Coordination

Given that the autonomy of government gives rise to unique local fiscal policy, different tax jurisdictions are usually conceived as inconsistent and even overlapping with each other. The possible impacts on regional talent flows have already been pointed out in the last section, which, as shown in Figure 4.2, can be simply concluded in three perspectives: 1) the effective tax burden; 2) the compliance costs during tax collection process; 3) behaviour impacts due to the points 1) and 2).

**Figure 4.2 The Impact of Differences in Taxation on Regional Talent Flow**



Source: Elaborated by the author.

With the premise of respecting the autonomy of local fiscal policy, we need certain mechanisms for regional tax coordination, in order to further smoothen the regional tax relations during the integration. Considering the dynamic process of integration, the regional tax coordination should function like a buffer against regional asymmetries, which aims at minimizing the negative impacts derived from the overlapping tax jurisdictions as much as possible, and gradually enhancing the efficiency of resource allocation along with freer regional flow of production factors.

Next, the current arrangement for regional tax coordination in the Greater Bay Area will be reviewed, in order to assess the existing government efforts and to indicate where further improvements should take place. Recommendations for future practice will then be proposed accordingly.

#### **4.4.1. The Current Regional Tax Coordination in the Greater Bay Area**

Promoting regional talent flow is regarded as one of the most important policy directions in the Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area, which naturally increases the number of cross-boundary workers in the region (SC, 2019). Their income from employment would thus generate certain tax liabilities in more than one tax jurisdictions. However, tax paid in different jurisdictions means that the relevant individual has to bear the effective tax burden different from the original place of residence, and the uncoordinated or overlapping jurisdictions between the two special administrative regions and Guangdong Province may lead to certain unfair treatments. These worries are likely to further distort the employment decision of individuals. Therefore, it is justified that local governments make some special arrangements for the relevant cross-boundary activities. According to the nature and purpose, these arrangements can be divided mainly into two categories.

The first category refers to the regular coordination mechanism. Through the coordination and cooperation in tax law enforcement, it aims to prevent unfair treatment or other illicit behaviours caused by the barriers between the overlapping tax jurisdictions, such as double taxation, tax evasion, tax avoidance and so on. Another category is the tax policies and measures with particular objectives, especially in the fields of economic and industrial development. Unlike the arrangements for regular coordination, these tax measures often have proactive intents to guide the behaviour of particular group of people through introducing incentives or

benefits. In this paper, we mainly paid attention to the current tax benefits in relation to the regional talent flow in the Greater Bay Area. In fact, both the two types of arrangements essentially have a coordinating and guiding function in the cross-boundary flow of talented worker, yet the relevant effects need to be further assessed regarding whether it can play a role in curbing the aforesaid negative impact of tax.

#### **4.4.1.1. Regular Coordination Mechanisms**

Given that there are different taxation principles respectively in mainland China, Hong Kong and Macau, it could make the same income of a cross-boundary worker be taxed repeatedly in different regions, namely double taxation. Besides, the uncoordinated and overlapping tax jurisdictions may even create certain leeway for other illegal and illicit practices, such as tax evasion or tax avoidance. In order to curb these issues, in general, there are specific chapters and sections for these issues in tax law. Apart from this, the related authorities are also used to strengthen the coordination in tax law enforcement at the government level by making some multilateral or bilateral agreements for this purpose. The most common topics include double taxation, tax base erosion and profit shifting, yet only the avoidance of double taxation is relevant in this context.

With respect to this issue, coordinating taxation principles and the identification of resident status are the fundamental components with the purpose of clarifying the tax liabilities of cross-boundary workers. Its determination is usually up to three factors: 1) the individual's resident status; 2) whether the income sourced from domestic or overseas (where the relevant service is provided); 3) whether the job positions or employment are determined from domestic or overseas (the location of contract or payment institution). No matter whether the content in tax laws or specific agreements, the above factors will help us to further understand the requirements of, and between different tax authorities in the GBA, about how the existing tax coordination functions (Ho, 2017, pp. 505-542).

##### **4.4.1.1.1. In Tax Laws**

In addition to the differences in effective tax burdens, the risk costs of double taxation due to the inconsistent tax jurisdictions may also hinder the desire for talented workers to work in

other jurisdictions. In this regard, there are usually clauses in tax laws for the purpose of avoiding double taxation (Messere, Kam, & Heady, 2003).

#### **i. Individual Income Tax in Mainland China**

In China, the tax liability of individual income tax is determined by the factors as follows: resident status, whether taxpayers have a domicile, the time of stay they live in mainland China, the number of days they work in the mainland, etc. According to the following two factors: 1) the location where the income is obtained due to employment or performance of contract by providing services and, 2) the institution of payment, individual income can then be subdivided into four parts: a) income derived from inside China paid by entities inside China; b) income derived from inside China paid by overseas entities; c) income derived from outside China paid by entities inside China; d) income derived from outside China paid by overseas entities. The apportionment of income is determined according to the number of working days inside and outside China.

In order to further clarify the resident status in mainland China, the Ministry of Finance and the State Taxation Administration made an announcement - No. 34 [2019] - about the standards for determining the period of residence of an individual who has no domicile in China. The authorities attempted to relax conditions especially for Hong Kong and Macau people with regard to their resident status in mainland China.

According to the explanation of the STA, for resident individuals, if they have a domicile in China, all the four subdivided incomes above are subject to the individual income tax regardless of the number of days they live in mainland China. According to Article 4 of the RIIITL, if they have no domicile, but have lived in the mainland for more than 183 days in more than six consecutive tax years, all the income from inside and outside China have to be taxed as well. However, if the individuals have no domicile, and the time that they have lived in the mainland for more than 183 days has not consecutively exceeded six years, their income derived from outside China paid by overseas entities can be exempt. It should also be noticed that, if the taxpayer had left China for 30 days or more in a single trip in any of the tax years that he or she has stayed for a total of 183 days or more in China, the starting time shall be recounted. Another point to note is that, if the individual stay in China for less than 24 hours, then that stay shall not be counted as a day (CMAB, 2019).

In addition, in terms of Article 7 of the IITL and Articles 20 to 22 of the RIIITL, the overseas income of resident individual can be applied for a tax credit. However, the credit is come up with limited amount, which can only be exempt within the amount computed in accordance with the statutory tax rate stipulated in China. If the amount of income tax paid abroad exceeds the ceiling, the excess shall not be exempt, but it could be exempt in the subsequent tax years under certain conditions. On the contrary, the difference should be paid in the mainland if the amount is below the ceiling.

For those non-resident individuals, they generally have no domicile in mainland China, and have lived in the mainland for less than 183 days. In this case, they only have to pay tax on their income sourced from the mainland regardless of whether the income is paid by institutions inside or outside China. Moreover, if a non-resident individual has not lived in the mainland for 90 days in a tax year, the income thereof derived from inside China, but paid by overseas entities, can also be exempt.

Apart from this, Article 4 of the IITL specifies that tax credits or exemptions, including those with the purpose of avoiding double taxation, can still be pursued through the agreements that the Chinese government signed with other countries or regions.

## **ii. Salaries Tax in Hong Kong**

In general, any taxpayers are subject to the Salaries Tax on their income derived from employment or job position in Hong Kong. However, for the overseas income of resident individuals, the related tax liabilities can be exempt according to Articles 8, 49 and 50 of the IRO, which are regarding the tax credit for overseas income and agreements on avoiding double taxation.

Nevertheless, we have to first clearly define the income derived from employment in Hong Kong. It can be divided into employment contracts originating from Hong Kong and non-Hong Kong employment contracts. Among them, the former literally refers to Hong Kong jobs or employment in Hong Kong, while the income from the latter may also be chargeable, given that it is earned by individuals providing services in Hong Kong. The assessors of the IRD usually determine whether or not an individual has tax liability based on three factors: 1) where the employment contract is negotiated, drawn up and started; 2) the resident status of employer; 3) where the remuneration is paid. Only when the locations referred to by the above three factors

are all outside Hong Kong, the employment contracts are accepted as non-Hong Kong employment contracts. We need to distinguish this because the tax liability of each of employment contract may be different accordingly (Ho, 2017, p. 95).

For the Hong Kong employment contract, if all the services related to the contract are performed in Hong Kong, the individual has 100% tax liability for the income derived from that contract. Conversely, if all the related services are performed outside Hong Kong, the related income can be fully exempt. If the services related to the contract are just partially performed in Hong Kong, the tax liability will be computed on time basis according to the number of days that the taxpayer was present in Hong Kong unless it meets the 60-day rule of visit. That is, whether the Hong Kong or non-Hong Kong employment, the related income is exempt when the presence of individual constituting visits and the services were performed in Hong Kong for less than 60 days during the tax year (Ho, 2017, p. 99).

For non-Hong Kong employment contracts, there may be three circumstances. First, all services that related to the employment contracts are performed in Hong Kong, and all the related income is 100% assessable; Second, only some of the services that related to the contracts are performed in Hong Kong, and the tax liability will be assessed on a time basis; Third, the individual meets the 60-day rule and thus the related income is fully exempt (Ho, 2017, p. 99).

In addition to the above arrangements, it is also worth mentioning that if income earned by anyone who performs part of the employment contract outside Hong Kong and it is chargeable to tax of the same nature as the Salaries Tax, in this case, the income is exempt in Hong Kong in accordance with the tax credit of the IRO. However, due to the entry into force of the Inland Revenue (Amendment) (No. 6) Bill 2017, this exemption is only applicable to those jurisdictions which still have not entered into a comprehensive double taxation agreement or arrangement with Hong Kong since the year of assessment 2018/2019. This may result in double taxation for Hong Kong residents who have lost the Hong Kong resident status due to frequent visits to mainland China.

### **iii. Professional Tax in Macau**

In Macau, the resident status of taxpayers and their time of stay in Macau generally do not affect their tax liabilities arising from the behaviour of employment. The relevant taxation is applicable to uniform criteria, that is, the taxation scope of the Professional Tax only covers

income from employment (*rendimentos do trabalho*) inside Macau. Apart from this, there is no explicit provision in the PTR with the purpose of avoiding double taxation. Instead, the related provisions mainly depend on the establishment of bilateral or multilateral agreements with other jurisdictions, which are stipulated in the form of executive order in accordance with Article 6 of the *Lei n. º 3/1999* in Macau.

#### **4.4.1.1.2. Bilateral Agreements**

Given that there are different taxation principles in the GBA, criteria of resident status are thus essential to the provisions of double taxation. In order to further coordinate the overlapping tax jurisdictions, certain specific bilateral or multilateral arrangements are required.

In 2003, the Arrangement between the Macau Special Administrative Region and the Mainland of China for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income (Arrangement between Macau and China) was signed, which covers the tax laws with regard to labour income in both the mainland and Macau. The arrangement was then revised through the forms of protocol respectively in 2009, 2011 and 2016.

With regard to cross-boundary worker, Article 15 of the Agreement between Macau and China specifies the income of non-independent individual (*Profissões dependentes*) from employment. All wages, salaries and other similar remunerations of individual in a party should be taxed only in that party, and likewise, the same situation should be taxed in another party. Besides, the second paragraph of Article 15 also stipulates that the resident individual in one party who has income from the above activities in another party can be taxed in the former party under three conditions: 1) the individual had stayed continuously or cumulatively for no more than 183 days in the tax year; 2) the income is not paid by the employer who is the resident of the latter party; 3) the income is not borne by the employer's permanent institutions in the latter party.

In addition, Article 23 specifically introduces the methods for the elimination of double taxation. For the residents from mainland China, their income earned from Macau should be taxed in Macau according to the Agreement between Macau and China. After that, the tax paid can be exempt in China accordingly. On the other hand, for Macau residents, their income sourced from the mainland should also be taxed in the mainland.



Between Hong Kong and Mainland China, a limited double taxation agreement was signed early in 1998. Until 2006, the Arrangement between the Mainland of China and the Hong Kong Special Administrative Region for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with respect to Taxes on Income (Arrangement between Hong Kong and China) was signed as a comprehensive arrangement in substitution, and it was revised subsequently in 2008, 2010 and 2015. As the Arrangement between Macau and China, the taxes related to the nature of labour income are covered as well.

In fact, the contents of the two arrangements between Macau and China and between Hong Kong and China are almost the same, so it will not be detailed here once again. However, there is only one thing should be noticed. That is, either Mainland China or Hong Kong also requires that the amount of exemption shall not exceed the amount of tax in respect of that item of income computed in accordance with their own tax laws, but in Macau, the limited amount is determined up to the amount of the taxable income in mainland China, instead of its own tax laws.

Raising examples in the GBA, in the case of an individual from Hong Kong or Macau that has income from employment in Guangdong, if the individual is identified as non-resident in Guangdong, he or she will be taxed in principle in Guangdong, but later those tax payable will be exempt in terms of the related provisions in the tax laws and the double taxation arrangements. However, if they are identified as resident of both Guangdong and Hong Kong or Macau, the determination of tax liabilities will be made by tax authorities according to the criteria, such as permanent home, personal and economic relations, habitual abode etc. In fact, resident individuals who are recognized by more than one jurisdictions are not uncommon in the GBA.

When focusing on individual from Guangdong that works in Hong Kong or Macau as a non-resident, their income should be levied according the source-based taxation in Hong Kong and Macau. Following the arrangements and the related provisions in tax laws, the tax paid will be exempt with a limited amount in Guangdong. The same criteria above will be applied if this individual has resident status on the both sides.

Last but not least, it is also worth to mention that there is still no comprehensive or limited double taxation arrangement between Hong Kong and Macau, but instead there only exist provisions that focus on particular industries. The main reason is still being verified. However, as inferred, it may be because of the same taxation principle that both Hong Kong and Macau

adopt, which temporarily does not cause double taxation or other serious problems in regular practice between the two cities.

#### **4.4.1.2. Special Tax Measures**

In addition, there are special tax measures proposed with the pursuit of particular policy objectives. Officially, the special tax measures in relation to regional talent flow mainly intend to attract talented workers to work in the GBA, and thereby playing a guiding role of the accumulation of talented workers. Hence, it can clearly be seen that these special tax measures are used as government instruments in order to attain certain policy objectives, and in this case, the relevant intentions are related to the aspect of promoting regional economic development in the context of the GBA integration.

Today, the relevant efforts are temporarily focusing on the regional flow from the two special administrative regions to mainland China. In other words, the governments officially encourage talented workers in Hong Kong and Macau to continue to develop their career in the other cities in the GBA whether as employers or employees (SC, 2019). However, as long as the relevant workers have needs for living, this will inevitably involve tax issues. As mentioned before, people from Hong Kong and from Macau are worried that they may be globally taxed as residents of mainland China, which may, in a certain extent, make them hesitate to develop their career in the mainland.

In view of this, the relevant authorities chose Hengqin and Qianhai as pilots, and in 2014, respectively proposed two preferential tax measures for the compensation of the difference in individual tax paid, which is also known as “Hong Kong Taxation for Hong Kong People, Macau Taxation for Macau People 1.0”. The relevant measures were expected to reduce the negative impact of tax, thereby encouraging Hong Kong and Macau people to develop their career in the mainland. Until 2019, namely five years after the policy was introduced, the relevant authorities of Hengqin and Qianhai had respectively issued approximately 100 million and 134 million Yuan in total (“Accumulated subsidies,” 2019).

On March 14, 2019, the Ministry of Finance and the STA published a notice about the preferential individual income tax Policies for the Greater Bay Area, which implied the “Hong Kong Taxation for Hong Kong People, Macau Taxation for Macau People 2.0” was officially introduced. Its implementation was extended from the initial pilot scheme to all the nine cities

in the GBA. The measure mainly aims to attract high-end and urgently-needed talented workers to the GBA by providing subsidies according to the difference of individual income tax rates. In detail, in terms of a notice about the implementation of the individual income tax preferential policies in the GBA proposed in June of the same year, it stipulates that the nine Municipal Governments in the GBA will subsidize eligible taxpayers for the individual income tax paid that exceeds 15% of their taxable income. In addition, the notice also defines the high-end and urgently-needed talent, which mainly takes the national and local talent policy as reference. The authorities believe that this measure could further reduce the effective tax burden of overseas talents working in the GBA, which would have a positive guiding and promoting role for the accumulation of talented workers in the area.

Apart from the compensation of tax paid, the authorities also had announced certain relaxation on the conditions for tax exemption, such as the Announcement of the Ministry of Finance and the State Taxation Administration on the Standards for Determining the Period of Residence of an Individual Who Has No Domicile in China. The main intention is to broaden the leeway of being residents in mainland China.

#### **4.4.1.3. Evaluation of the Existing Tax Measures**

In fact, these special tax measures have been widely agreed in the community, including the participants of the above interview. All of them supported that the relevant measures have positive effects on attracting talents to develop in the mainland. Furthermore, they expected more other benefits, as many as possible. In their arguments, the government subsidies can eliminate the impact of tax on income, which is undoubtedly a good thing at the individual level and could help to drive the regional talent flow.

However, the negative impacts mentioned above on the tax collection process still exist, especially when it comes to the cross-boundary talented workers. As Kathy Wong confessed, it is really hard to let people from Hong Kong and Macau directly pay Hong Kong and Macau taxes in mainland China at least in the short term. The eligible taxpayers even have to comply with more than usual regulations so as to be eligible. The complicated tax collection process may affect the expected effects of the relevant measures on promoting regional talent flow. In the long run, this requires the authorities to continuously improve the efficiency and

convenience of the tax collection process through enhancing the coordination between different tax jurisdictions.

In addition, we still need to pay attention to other impacts of these fiscal measures. The first is fairness in taxation. In fact, the relevant tax measures imply some sort of super-national treatment for the eligible taxpayers in mainland China, and the costs are borne by the local government's fiscal expenditure. In view of this, whether these special measures are in line with the principle of tax equity deserves a deeper discussion. Besides, for local residents, even though these measures may not be able to induce the Aronson's out-migration reaction in the short term (Aronson, 1985), these hidden worries, in the long run, are likely to further simmer especially when the regional gaps in social and economic development keep narrowing. By then, the impacts would transcend the pure economic and fiscal problems.

Secondly, it is an issue relating to economic efficiency. The importance of regional talent flow is due to the logic that high-end labour force can be effectively and efficiently distributed in different labour markets in the region, which in effect can drive the regional economic and industrial development and thereby enhancing the regional productivity. However, when the regional talent flow is not driven by the value of labour force that is recognized by labour markets, but only by these preferential tax benefits, the gains may not make up for the losses. It is because these special tax measures, at worst, might not only waste the financial resources, but also could not improve the regional economic efficiency, not to mention the governments have to take the risk of ruining the principle of tax equity.

For this reason, eligible applicants for these special tax measures need to be specifically assessed in order to ensure their values to the local economic development. In this regard, we have noticed that the target of the existing measures has been changed from all ordinary labour force to high-end and urgently needed talents, which may be due to the above considerations.

However, as mentioned throughout the whole study, there is still no single definition of talents, which likewise makes the definition of policy objects much more challenging. The current practice is to take the national and regional talent policies as references, which actually has its rationality, given that it is at least taking into account the differences in the needs for talented workers in different regions. In this regard, insisting on pursuing a detailed and single definition of talent may not be necessary. Instead, various talent identification mechanisms with regional characteristics based on a general definition of talent applicable to the entire GBA may be more preferable. From the observations on the "Hong Kong Taxation for Hong Kong People, Macau

Taxation for Macau People 2.0”, the criteria for candidates are in line with the above ideas, yet its practice still takes time to verify.

#### 4.4.1.4. Summary

In summary, the regular coordination mechanisms are mainly based on the exemptions in the tax laws and the bilateral agreements for the avoidance of double taxation and the prevention of fiscal evasion between different tax jurisdictions, aiming to avoid unfair and illegal taxation treatment by strengthening coordination in tax law enforcement.

In fact, this type of arrangement is indispensable in regional taxation. Government has the responsibility to protect taxpayers from unfair treatment during taxation. The relevant arrangements normally have long-term and stable characteristics, which are rarely abolished in the absence of alternatives. Instead, the government will regularly review and adjust the mechanisms, in order to adapt to new tax issues.

Besides, the relevant arrangements will help to minimize the negative impact from the overlapping tax jurisdictions. For individuals, in effect these arrangements are more like the hygiene factor (Herzberg as cited in Miner, 2005, pp. 61-74), as the basic protection on individual after-tax income, which will only be triggered if the unfair tax treatment is determined by the authorities. It mainly avoids the negative impact on individual income, and has limited effects in motivating regional talent flow. The key point here is that the establishment of these coordination mechanisms generally does not affect the taxpayer’s effective tax burden, but only focuses on strengthening coordination and cooperation in law enforcement between tax jurisdictions.

Compared with the regular arrangements, the existing special tax measures are mostly considered as government instruments to achieve certain policy objectives. This type of tax measure usually has some sort of flexibility from functional design to policy implementation. In the short term, the government can make adjustments according to the actual situation of socio-political economic development, so as to guide the behaviour of specific groups consistent with the policy effects pursued by the government. For example, the tax benefits with the purpose of attracting talents can facilitate the regional talent flow and accumulation, and the beneficiary can be targeted depending on which type of talented worker that the government wants to attract.

However, the nature of these special tax measures is different from the above-mentioned regular mechanisms. The relevant tax benefits are essentially government fiscal expenditures, which may be driven by political factors, are not necessarily an integral part of the local taxation system. For this reason, the government needs to assess the impacts of various aspects in a very prudent manner in order to ensure that the financial resources are used rationally and properly. After assessing the two aspect of the current tax coordination in the GBA, we found that the relevant arrangements are still relatively fragmentary. In the face of regional talent flow, a comprehensive and compatible tax coordination mechanism has not yet been formed in the GBA, which still can't effectively eliminate the related negative impacts. Apart from this, certain existing tax measures may even lead to other negative impacts. This requires the relevant authorities to keep observing the actual effects of these measures in a prudent manner and consider any adjustment if necessary.

#### **4.4.2. Future Practice of Regional Tax Coordination in the Greater Bay Area**

Compared to the existing fragmentary regional tax coordination, a comprehensive framework for tax coordination should be required to establish in the Greater Bay Area. The main functions are to 1) minimize the negative impacts of tax on regional talent flow and 2) enhance the economic efficiency through a better distribution of talented workers facilitated by freer regional talent flow. When taxation involves more than one tax jurisdiction, the coordination framework attempts to give the relevant jurisdictions moderate leeway as a buffer between them. In order to establish such a framework for regional tax coordination, a series of consensus on its components needs to be formed in the Greater Bay Area.

##### *1. Common Objectives*

With reference to EU tax coordination, the process of establishing the described framework should be consistent with the overall development goals of the Greater Bay Area. Setting common goals can ensure that all the tax policies and measures do not deviate from the development direction of the GBA. The common goals should be set according to the Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area, which are the

development goals that all participants in the region strive to achieve in collaboration, for example, greater mobility of talented worker in the regional.

## *2. A Series of Principles for the Regional Tax Coordination*

The regional tax coordination should be subject to a series of well-recognized basic principles that all the relevant authorities must not violate when improving their own tax systems and introducing new tax policies. In detail, we can take reference as the criteria for a good tax system, including equity, effectiveness, efficiency, economic, simplicity, transparency, etc. (Stiglitz, 2000, pp. 456-459; Catarino, 2016, pp. 460-483). In fact, it is believed that these basic principles are already complied in each tax jurisdiction, but it is still necessary to reiterate all of them within the framework.

In addition, it should also be noticed that the tax coordination in the GBA is not a tax convergence or unification. With the premise of respecting each tax jurisdiction, the coordination should strive to minimize the negative impact of tax on cross-boundary activities and to enhance the economic efficiency. As the participants mentioned in the interview, the tax convergence and unification are not feasible from a political, professional and technical level, which should not be proposed at all.

## *3. The Uniqueness of the Two Special Administrative Regions*

Taking into account the unique functions of the two special administrative regions, the regional tax coordination should be carried out in a compatible manner especially by respecting their international functions. The main reason is that this uniqueness is not only necessary for Hong Kong and Macau themselves, but also indispensable for Guangdong and even the Beijing authorities. On the one hand, their international role under the protection of “One Country, Two Systems” is the lifeline of the respective socio-economic development with a certain degree of international endorsement. On the other hand, the two cities are also considered as bridges to connect mainland China with the international market.

However, it does not mean that talented worker from the two special administrative regions can enjoy more super-national treatments in mainland China when discussing regional talent flow.

The essence of regional talent flow should be driven by the value of talented worker in different labour market, rather than these preferential super-national treatments. The relevant initiative may not only fail to improve regional economic efficiency, but may also undermine the principle of tax equity, not to mention the impact of other aspects. Based of the premise of respecting the uniqueness of Hong Kong and Macau, each government needs to prudently introduce tax benefits with super-national treatments.

#### *4. Criteria for Assessing Talents*

When tax policies aim to promote a more convenient regional talent flow, what we need most is a widely accepted definition that we don't have yet. Therefore, it is preferable that each city establishes the own assessment criteria and talent list according to its own needs on a general definition of talents applicable to the entire GBA. In addition, taking into account of the variability of the concept of talent, the relevant assessment for identifying talented workers should be carried out regularly.

#### *5. Strategic Implementation*

Considering that the coordination and cooperation of the PDR has actually been started out for many years, the regional tax coordination can be carried out through adopting an incremental model, which is also more in line with the step-by-step governance model of the Greater Bay Area. In the bargaining and negotiating process, the involved governments should gradually strengthen the depth and breadth of the coordination through continuously revising and adjusting based on past experience. For example, the transition from “Hong Kong Taxation for Hong Kong People 1.0 to 2.0”, namely from pilots to complete implementation, can be taken as reference.

#### *6. Coordination on Tax Collection Process*

It may be worthwhile to consider further coordinating the collection process on the basis of the current regular coordination mechanisms, so as to minimize the negative impact from the



inconsistent tax jurisdictions. Concretely, the Tax Administration Diagnostic Assessment Tool (TADAT), endorsed by the EU, the IMF, the World Bank and many other countries, can be used to conduct a horizontal assessment of the tax administration and collection process in the GBA. Through simplifying and coordinating the tax administration and collection, the relevant authorities can attempt to reduce the compliance costs and make taxpayers more convenient to fulfil their tax liabilities.

### *7. Special Tax Measures*

The flexibility of special tax measures, in a certain extent, is also necessary in shaping the regional tax coordination. In the context of regional tax coordination, the government can moderately and appropriately reduce the effective tax burden and relax the conditions for tax exemption through subsidization. In fact, talented workers also need certain incentives or motivators to develop their careers in the GBA, otherwise they may rather choose to maintain the status quo. In this case, providing such special tax benefits can also, to a certain extent, satisfy political needs. However, given the possible impact of these tax measures, the relevant authorities need to balance the expected benefits and costs thoughtfully, and make adjustment in a timely manner.

### *8. Institutional Arrangement*

At present, the development of the Greater Bay Area is mainly supported by the regular communication mechanisms established at the government level. There is no central decision-making body in the GBA like the European Commission. In fact, let's take a step back, whether there is a need to set up such central decision-making body is still in question. It is because the relevant initiative may inevitably affect the autonomy of Hong Kong and Macau. In this regard, the tax authorities in the GBA can regularly organize work meetings and even set up certain working groups as a central coordinating body, in order to deepen the existing communication mechanism. Apart from, a mechanism for mediation and arbitration is also necessarily established in the GBA so as to resolve those cross-boundary tax issues and disputes in a fair, independent, effective and efficient manner.

### *9. Information Delivery and Policy Communication*

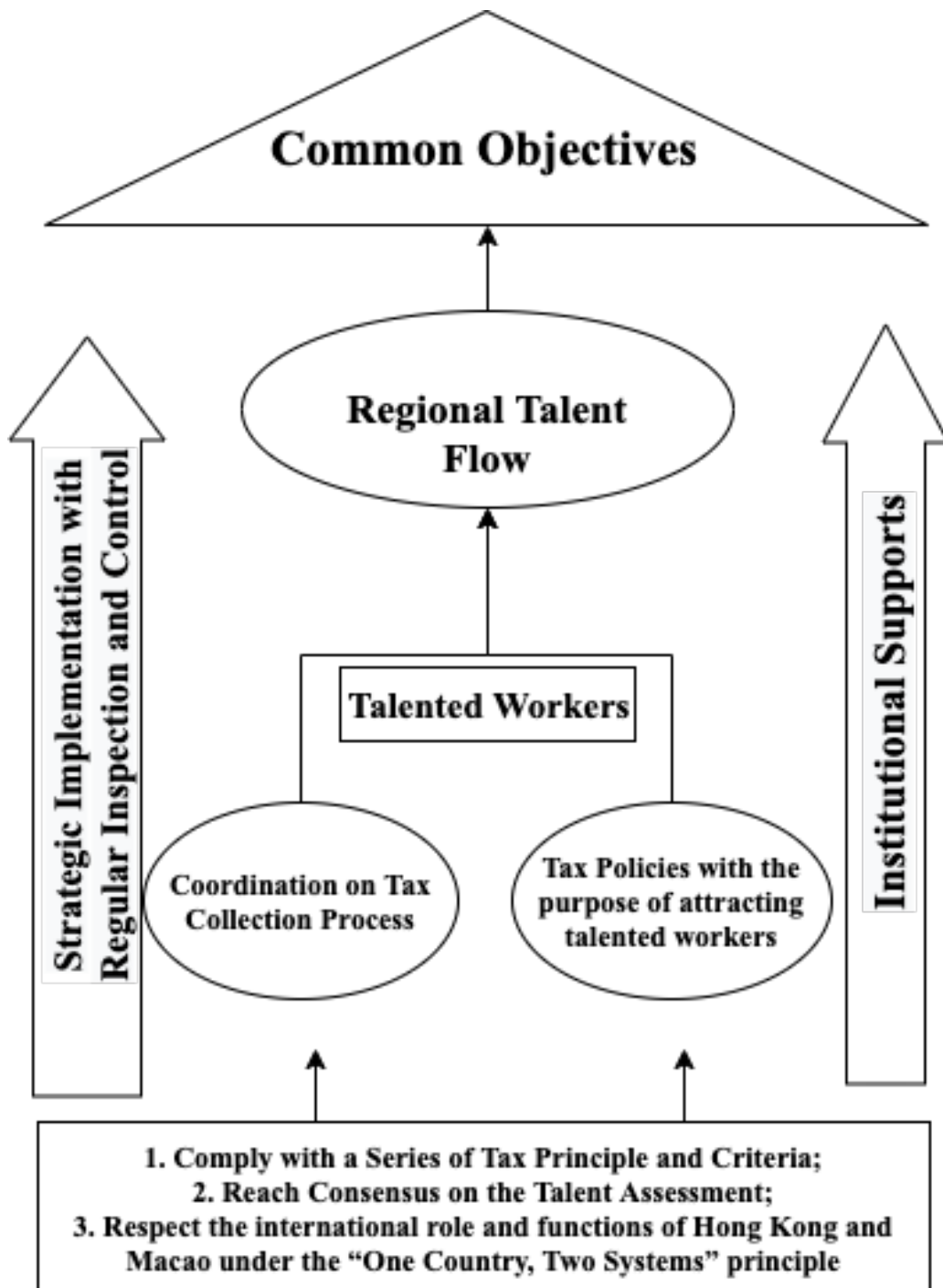
In a technology-driven world, there are actually many things for regional tax coordination that government can do, such as explain the differences in taxation and other arrangement for cross-boundary workers in a simple way, deliver information to relevant target groups by the existing information technology and particular algorithm, answer taxpayers particular tax issues in a more human way, strengthen the role of enterprises' personnel departments over tax collection process, etc. Besides, government has to provide two-way channels for taxpayers or relevant entities to reflect their difficulties during the tax collection process, and better forms an organic communication network that includes multi-level stakeholders.

### *10. Regular Inspection and Control*

All tasks within the framework should be assessed and controlled regularly, including the cost-effectiveness of the relevant policies and measures, the potential impact and externalities. Modifications and adjustments should be proposed if necessary. In addition, the objectives of each task within the framework have to be consistent mutually and compatible with the overall development goals of the Greater Bay Area.

Figure 4.3 integrates the above ten points into coordination framework and shows their correlations.

Figure 4.3 The Suggested Coordination Framework



Source: Elaborated by the author.

## 5. CONCLUDING REMARKS

The key findings of this study regarding the objective impact of tax on regional talent flow suggest that the different taxation in the Greater Bay Area that has given rise to the differences in both the effective tax rate and the tax collection process is likely to reduce the labour mobility of talented workers and affect their willingness to work in the mainland side of the GBA. In response, a compensation for the difference in tax burden was proposed in order to attract more talented workers. However, such fiscal-induced talent flow may cause other unintended effects on social justice and economic efficiency through encouraging super-national treatments for people from Hong Kong and Macau.

In view of all these, we do not suggest the relevant authorities actively propose the tax policies with any form of super-national treatments. Although appropriate and proper incentives may help to promote economic efficiency, social justice also needs to be ensured. Any tax policies cannot ignore the initial purposes and functions of taxation, like raising income for local public finance and income redistribution. Granting people who are of the same nationality certain super-national treatments on taxation is like opening the Pandora's box, which, in the long term, may lead to more impractical expectations for the beneficiaries, while intensifying the conflicts between locals and “outsiders” persistently by implementing unsound public finances. In this circumstance, the benefits from these special tax measures may be disproportionate to their costs. In addition, if the “One country, Two systems” principle is going to be genuinely safeguarded, it is very hard for a convergence of effective tax burden not to undermine the autonomies of the two special administrative regions. In this case, such form of tax coordination can actually be considered as a false proposition.

Therefore, the first thing the governments have to do is a re-examination of the existing similar policies, and adjust or even suspend if the impacts are significant. In the medium and long term, a tax policy coordination established through mutual consultations setting separate tax rates is suggested. A future important focus should be the reduction of compliance costs and the facilitation of tax collection process in a collaborative way within the recommended coordination framework.

One of the concrete examples is to strengthen the role of personnel departments, with the intention of shifting compliance costs from talented workers to enterprises. This can effectively reduce the negative impacts of the tax collection process on individuals. Officially, as tax

withholders of employees, the actual compliance costs for enterprises to handle a number of talented workers are actually much less than the sum of the costs of each talent. This is due to an economies of scale effect. In fact, this does not pose an excessive burden on enterprises, while greater talent flow could effectively respond the enterprises' needs for talents. In order to realise synergies, tax authorities can consider organizing workshops or meetings with personnel departments of the registered enterprises when proposing new tax policies or measures.

We conclude with a few words on the limitations and main difficulties of this study with respect to the compatibility and availability of data. Given that the data from both Guangdong, Hong Kong and Macau are involved, different statistical methods and standards, which may lead to potentially incompatible and inconsistent meanings concluded by statistical results. In fact, this not only limits the quantitative research of related topics. Different definitions and understandings of certain concepts and terms also hinder the further interpretation in qualitative study, which often requires us to devote more time and space for conceptual explanations. All of the above limitations and difficulties also imply that the related discussion is hard to summarize concisely. These difficulties in conducting a study of this nature are exactly evidence of the pioneering aspect of this research; it is believed that the mentioned limitations will be gradually improved when a greater degree of consensus is formed on relevant concepts at the theoretical level.

## REFERENCES

- Acemoglu, D. (1996). A microfoundation for social increasing returns in human capital accumulation. *The Quarterly Journal of Economics*, 111(3), 779-804.
- Al Ariss, A., Cascio, W. F., & Paauwe, J. (2014). Talent management: Current theories and future research directions. *Journal of World Business*, 49(2), 173-179.
- Aronson, J. R. (1985). *Public Finance*. New York: McGraw-Hill Book Company.
- Blundell, R., Dearden, L., Meghir, C., & Sianesi, B. (1999). Human capital investment: the returns from education and training to the individual, the firm and the economy. *Fiscal Studies*, 20(1), 1-23.
- Bogue, D. J. (1977). A migrants-eye view of the costs and benefits of migration to a metropolis. *Internal Migration*, 167-182.
- Borjas, G. J. (1994). The economics of immigration. *Journal of Economic Literature*, 32(4), 1667-1717.
- Bovenberg, L., Cnossen, S., & de Mooij, R. (2003). Introduction: Tax coordination in the European Union. *International Tax and Public Finance*, 10(6), 619-624.
- Cappelli, P. (2000). A market-driven approach to retaining talent. *Harvard Business Review*, 78(1), 103-103.
- Cappelli, P. (2008). Talent management for the twenty-first century. *Harvard Business Review*, 86(3), 74.
- Carmo, H., & Ferreira, M. (2008). *Metodologia da Investigação—Guia para Auto-aprendizagem (2ª edição)*. Lisboa: Universidade Aberta, 001-89.
- Catarino, J. R. (2016). *Finanças Públicas e Direito Financeiro*. Almedina.
- Census and Statistics Department. (2018). Government expenditure (General Revenue Account and the Funds). Retrieved from: <https://www.censtatd.gov.hk/hkstat/sub/sp110.jsp?tableID=194&ID=0&productType=8>.
- Census and Statistics Department. (2019a). *The Profile of the Unemployed Population in Hong Kong in 2018*. Hong Kong: CSD.
- Census and Statistics Department. (2019b). Population Estimates. Retrieved from: <https://www.censtatd.gov.hk/hkstat/sub/sp150.jsp?tableID=001&ID=0&productType=8>.
- Census and Statistics Department. (2019c). *2018 Report on Annual Earnings and Hours Survey*. Hong Kong: CSD.
- Chang, S. W. (2007). International Regional Tax Coordination: Theoretical and Empirical Study (Doctoral Dissertation, Shandong University). Retrieved from China National Knowledge Infrastructure.

- Chiquiar, D., & Hanson, G. H. (2005). International migration, self-selection, and the distribution of wages: Evidence from Mexico and the United States. *Journal of Political Economy*, 113(2), 239-281.
- Chui, S. (2019, February). *Opening Speech*. Speech presented at the Symposium on the Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area, Hong Kong. Retrieved from: [https://www.gce.gov.mo/read\\_news\\_page.aspx?reader=m&lang=cn&newsid=2661&print=true](https://www.gce.gov.mo/read_news_page.aspx?reader=m&lang=cn&newsid=2661&print=true).
- Constitutional and Mainland Affairs Bureau of Hong Kong. (2019). Tax arrangements for Hong Kong people to develop in the Mainland. Retrieved from: [https://www.bayarea.gov.hk/filemanager/tc/share/pdf/Tax\\_arrangement.pdf](https://www.bayarea.gov.hk/filemanager/tc/share/pdf/Tax_arrangement.pdf).
- Egger, P., & Radulescu, D. M. (2009). The influence of labour taxes on the migration of skilled workers. *World Economy*, 32(9), 1365-1379.
- Elschner, C., Lammersen, L., Overesch, M., & Schwager, R. (2006). The effective tax burden of companies and of highly skilled manpower: Tax policy strategies in a globalised economy. *Fiscal Studies*, 27(4), 513-534.
- European Commission. (2010). *EUROPE 2020 A Strategy for Smart, Sustainable and Inclusive Growth*. Retrieved from: <https://eur-lex.europa.eu/legal-content/en/ALL/?uri=CELEX%3A52010DC2020>.
- European Commission. (2018, August 31). EU Tax Policy Strategy. Retrieved from: [https://ec.europa.eu/taxation\\_customs/general-information-taxation/eu-tax-policy-strategy\\_en](https://ec.europa.eu/taxation_customs/general-information-taxation/eu-tax-policy-strategy_en).
- Feld, L. P., & Kirchgässner, G. (2001). Income tax competition at the state and local level in Switzerland. *Regional Science and Urban Economics*, 31(2-3), 181-213.
- Financial Secretary of the Hong Kong SAR Government. (2019). 2019-20 Budget – Concessionary and Support Measures. Retrieved from: <https://www.ird.gov.hk/eng/tax/budget.htm>.
- Financial Services Bureau of Macau. (2019). Central Account (evolution for the last five years). Retrieved from: <http://www.dsf.gov.mo/financialReport/?lang=zh>.
- Flochel, L., & Madies, T. (2002). Interjurisdictional tax competition in a federal system of overlapping revenue maximizing governments. *International Tax and Public Finance*, 9(2), 121-141.
- Fries-Tersch, E., Tugran, T., & Bradley, H. (2016). *2016 Annual Report on Intra-EU Labour Mobility*. European Commission. Retrieved from: <http://ec.europa.eu/social/main.jsp>.
- Fundo de Segurança Social de Macau. (n.d.). Contributions of the Obligatory System. Retrieved from: <https://www.fss.gov.mo/en/social/social-mandatory>.

- GovHK. (2019, May 1). GovHK: Separate Taxation or Joint Assessment for Married Couples. Retrieved from: <https://www.gov.hk/en/residents/taxes/salaries/salariestax/jointassessment.htm>.
- Grogger, J., & Hanson, G. H. (2008). Income maximization and the selection and sorting of international migrants. NBER Working Paper 13821.
- Guangzhou Housing Provident Fund Management Center. (2019). Notice of the Guangzhou Housing Provident Fund Management Center on the Relevant Issues Concerning the Adjustment of the Housing Provident Fund Deposits in 2019-2020. Retrieved from: <http://www.gzgjj.gov.cn/gzgjj/tzgg/201906/1286b11954a549b1b5f1ebf52a8cd55d.shtml>
- Guangdong Provincial Tax Service of the State Taxation Administration. (2019). Preferential Policies. Retrieved from: [http://www.gd-n-tax.gov.cn/gdsw/gzswwwwsbfyhzc/2019-07/01/content\\_8e725b3243094362966817d85614a931.shtml](http://www.gd-n-tax.gov.cn/gdsw/gzswwwwsbfyhzc/2019-07/01/content_8e725b3243094362966817d85614a931.shtml).
- Harrell, M. C., & Bradley, M. (2009). *Data Collection methods: Semi-Structured Interviews and Focus Groups*. Santa Monica, CA: RAND.
- Ho, P. K. W. (2017). *Hong Kong Taxation and Tax Planning*. Hong Kong: Pilot Publishing Company Ltd.
- Hong Kong Trade Development Council. (2019). Statistics of the Guangdong-Hong Kong-Macao Greater Bay Area. (2019). Retrieved from: <http://hong-kong-economy-research.hktdc.com/business-news/article/Guangdong-Hong-Kong-Macao-Bay-Area/Statistics-of-the-Guangdong-Hong-Kong-Macao-Greater-Bay-Area/bayarea/en/1/1X000000/1X0AE3Q1.htm>.
- Iregui, A. M. (2005). Efficiency gains from the elimination of global restrictions on labour mobility. In *Poverty, International Migration and Asylum*, 211-238.
- Keuschnigg, C., Loretz, S., & Winner, H. (2014). Tax competition and tax coordination in the European Union: a survey (No. 2014-04). Working Papers in Economics and Finance.
- Khan, S. N. (2014). Qualitative research method-phenomenology. *Asian Social Science*, 10(21), 298-310.
- Kirchgässner, G., & Pommerehne, W. W. (1996). Tax harmonization and tax competition in the European Union: Lessons from Switzerland. *Journal of Public Economics*, 60(3), 351-371.
- Koser, K., & Salt, J. (1997). The geography of highly skilled international migration. *International Journal of Population Geography*, 3(4), 285-303.
- Kuznetsov, Y. (Ed.). (2006). *Diaspora Networks and the International Migration of Skills: How Countries can Draw on their Talent Abroad*. Washington, DC: World Bank.
- Lam, C. (2019a, February). *Opening Speech*. Speech presented at the Symposium on the Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area, Hong Kong. Retrieved from: <https://www.info.gov.hk/gia/general/201902/21/P2019022100429.htm>.



- Lam, C. (2019b, March). *Chief Executive's Opening Speech at the Meeting with the Media in Beijing*. Press Release after the Second Plenary Meeting of the Leading Group for the Development of the Guangdong - Hong Kong - Macao Greater Bay Area. Retrieved from: <https://www.info.gov.hk/gia/general/201903/01/P2019030101005.htm>.
- Lam, C. (2019c, April). *Hong Kong's Role in the Guangdong - Hong Kong - Macao Greater Bay Area*. Paper presented at the Symposium on the Guangdong-Hong Kong-Macao Greater Bay Area, Tokyo. Retrieved from: <https://www.bayarea.gov.hk/en/symposium/index.html>.
- Lee, E. S. (1966). A theory of migration. *Demography*, 3(1), 47-57.
- Lei, L. N. (2014). *Tax Law in Macau*. Beijing: Social Sciences Academic Press.
- Lin, N. X. (2019, February). *Opening Speech*. Speech presented at the Symposium on the Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area, Hong Kong. Retrieved from: <https://www.bayarea.gov.hk/en/symposium/index.html>.
- Liu, H. (1997). *Direito Fiscal [Comparative Study of Tax Law]*. Macao: Macao Foundation.
- Liu, Z. (2015). *Aomen ren cai kai fa yu pei yang yan jiu [Research on Talent Development and Cultivation in Macao]*. Macao: Macau Economic Association.
- Ma, X. R. (2019, February). *Opening Speech*. Speech presented at the Symposium on the Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area, Hong Kong. Retrieved from: <https://www.bayarea.gov.hk/en/symposium/index.html>.
- Makower, H., Marschak, J., & Robinson, H. W. (1938). Studies in mobility of labour: A tentative statistical measure. *Oxford Economic Papers*, (1), 83-123.
- Mandatory Provident Fund Schemes Authority of the Hong Kong SAR Government. (2019, March 19). Contributions. Retrieved from: [http://www.mpfa.org.hk/eng/mpf\\_system/system\\_features/contributions/index.jsp](http://www.mpfa.org.hk/eng/mpf_system/system_features/contributions/index.jsp).
- Messere, K., Kam, F. D., & Heady, C. (2003). *Tax Policy Theory and Practice in OECD Countries*. New York: Oxford University Press.
- Miner, J. B. (2005). Motivation-hygiene theory: Frederick Herzberg. In *Organizational Behavior: Essential theories of motivation and leadership* (pp. 61-74). New York: ME Sharpe.
- Mohdali, R., Isa, K., & Yusoff, S. H. (2014). The impact of threat of punishment on tax compliance and non-compliance attitudes in Malaysia. *Procedia-Social and Behavioral Sciences*, 164, 291-297.
- Murphy, K. M., Shleifer, A., & Vishny, R. W. (1991). The allocation of talent: Implications for growth. *The Quarterly Journal of Economics*, 106(2), 503-530.
- Musgrave, R. A., & Musgrave, P. B. (1989). *Public Finance in Theory and Practice*. New York: McGraw-Hill Book Company.

- National Development and Reform Commission, Ministry of Foreign Affairs, & Ministry of Commerce of the People's Republic of China. (2015). *Vision and Actions on Jointly Building Silk Road Economic Belt and 21st-Century Maritime Silk Road*. Retrieved from: [http://www.ndrc.gov.cn/gzdt/201503/t20150330\\_669392.html](http://www.ndrc.gov.cn/gzdt/201503/t20150330_669392.html).
- National Development and Reform Commission of the People's Republic of China, People's Government of Guangdong Province, Government of the Hong Kong Special Administrative Region, & Government of the Macao Special Administrative Region. (2017). *Framework Agreement on Deepening Guangdong-Hong Kong-Macao Cooperation in the Development of the Greater Bay Area*. Retrieved from: <https://www.bayarea.gov.hk/en/outline/plan.html>.
- Niu, C. H., & Zhang, Y. H. (2013). *Qu yu ren cai ju ji xiao ying yan jiu [Research on Regional Talent Aggregation Effect]*. Beijing: Intellectual Property Publishing House.
- Organisation for Economic Co-operation and Development. (2017), Model Tax Convention on Income and on Capital: Condensed Version 2017, OECD Publishing, Paris, [https://doi.org/10.1787/mtc\\_cond-2017-en](https://doi.org/10.1787/mtc_cond-2017-en).
- Organisation for Economic Co-operation and Development. (2018). The OECD Classification of Taxes and Interpretative Guide. In *Revenue Statistics 2018* (pp. 159-187). Retrieved from: [https://doi.org/10.1787/rev\\_stats-2018-8-en](https://doi.org/10.1787/rev_stats-2018-8-en).
- Pan, C. (2014). *Zhong guo ren cai fa zhan bao gao [The Report on the Development of Chinese Talents, also known as the Blue Book of Chinese Talent]*. Beijing: Social Sciences Academic Press.
- Pereira, A. M., & Rodrigues, P. G. (2001a). Tax parameters in the Portuguese Economy-Part I: Indirect taxes. *Quarterly Economic Bulletin-Banco de Portugal*, 7(1), 47-57.
- Pereira, A. M., & Rodrigues, P. G. (2001b). Tax parameters in the Portuguese economy: part II-direct taxes. *Quarterly Economic Bulletin-Banco de Portugal*, 7(2), 31-43.
- Poghosyan, T. (2018). *Regional Labor Mobility in Finland*. International Monetary Fund.
- PricewaterhouseCoopers. (2017). *New opportunities for the Guangdong-Hong Kong-Macao Greater Bay Area*. Retrieved from: <https://www.pwccn.com/en/research-and-insights/greater-bay-area/publications.html>
- PricewaterhouseCoopers. (2018). *Talent policy defines future success of the Guangdong-Hong Kong-Macao Greater Bay Area: Executive Summary*. Retrieved from: <https://www.pwccn.com/en/research-and-insights/greater-bay-area/publications.html>.
- Quivy, R., & Campenhoudt, L. V. (2008). *Manual de Investigação em Ciências Sociais*. Lisboa: Gradiva.
- Ravenstein, E. G. (1885). The laws of migration. *Journal of the Statistical Society of London*, 48(2), 167-235.

- Safonova, M. F., Reznichenko, D. S., Melnichuk, M. V., Karaev, A. K., & Litvinova, S. F. (2016). Taxes harmonization features in the European Union countries. *International Journal of Economics and Financial Issues*, 6(8S), 154-159.
- Slemrod, J. (2001). A general model of the behavioral response to taxation. *International Tax and Public Finance*, 8(2), 119-128.
- South China Market of Human Resources, Guangzhou Human Resource Service Association, Guangzhou Talent Institute, Guangzhou Southern Human Resources Evaluation Centre. (2018). Nan fang ren cai 2018-2019 nian du Guangdong di qu xin chou diao cha bao gao [Southern Talents 2018-2019: Salary Survey Report in Guangdong]. Guangdong: Guangdong People's Publishing House.
- State Council of the People's Republic of China. (2010). *National Outline of the Blueprint for Mid- and Long-term Development of Talents (2010-2020)*. Retrieved from: [http://www.gov.cn/jrzq/2010-06/06/content\\_1621777.htm](http://www.gov.cn/jrzq/2010-06/06/content_1621777.htm).
- State Council of the People's Republic of China. (2019). *Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area*. Retrieved from: <https://www.bayarea.gov.hk/en/outline/plan.html>
- Statistics and Census Service (2019a). *Employment Survey 2018*. Macao: DSEC.
- Statistics and Census Service (2019b). *Demographic Statistics 2018*. Macao: DSEC.
- Statistics Bureau of Guangdong Province. (2018). *Guang dong tong ji nian jian* [Guangdong statistical yearbook]. Beijing: China Statistics Press.
- Stiglitz, J. E. (2000). *The Economics of the Public Sector*. Whitehouse Station: W.W. Norton.
- Tansley, C. (2011). What do we mean by the term “talent” in talent management?. *Industrial and Commercial Training*, 43(5), 266-274.
- Ta Kung Pao. (2019, June 23). Accumulated subsidies for individual income tax exceeds 200 million in Hengqin and Qianhai. Retrieved from: <http://www.takungpao.com.hk/news/232108/2019/0623/308411.html>.
- Tao, J. K. (1988). Guo ji shui shou yu guo ji de shui shou xie diao [International taxation and international tax coordination]. *Nankai Economic Studies*, 4(1), 55-63.
- Taxation Association of Macau. (n.d.). Retrieved from: <http://www.macautax.org/cms/professionaltaxs.html>.
- The Macao SAR Government. (2018). Policy Address for the Fiscal Year 2019 (Lei n.º 19/2018). Retrieved from: <https://bo.io.gov.mo/bo/i/2018/53/lei19.asp>.
- Thunnissen, M., & Van Arensbergen, P. (2015). A multi-dimensional approach to talent: An empirical analysis of the definition of talent in Dutch academia. *Personnel Review*, 44(2), 182-199.

- Tiebout, C. M. (1956). A pure theory of local expenditures. *Journal of Political Economy*, 64(5), 416-424.
- Tresch, R. W. (2010). *Public Sector Economics: Critical Concepts in Economics*. London: Routledge.
- Tuan, C., & Ng, L. F. (2001). Regional division of labor from agglomeration economies' perspective: some evidence. *Journal of Asian Economics*, 12(1), 65-85.
- United Nations Economic Commission for Europe. (2018). *Measuring International Labour Mobility*. New York: United Nations. Retrieved from: <https://www.unece.org/index.php?id=51145&L=0>.
- Utz, S. G. (1993). Tax harmonization and coordination in Europe and America. *Connecticut Journal of International Law*, 9, 767.
- Vermeend, W., Timmer, J. W., & Ploeg, F. V. (2009). *Taxes and the Economy: A Survey of the Impact of Taxes on Growth, Employment, Investment, Consumption and the Environment*. Cheltenham, UK: Elgar.
- Vertovec, S. (2002). Transnational networks and skilled labour migration. In *Transnational Networks and Skilled Labour Migration*. Oxford: University of Oxford. Transnational Communities Programme.
- Vogel, K. (1986). Double tax treaties and their interpretation. *International Tax & Business Lawyer*, 4, 1.
- Yan, S. (2012). *Beijing Gao duan ren cai ju ji zhi dou yan jiu [Research on the Capital of High-End Talent - Beijing]*. Beijing: Intellectual Property Publishing House.
- Yang, C. (2006). The Pearl River Delta and Hong Kong: an evolving cross-boundary region under "One country, two systems". *Habitat International*, 30(1), 61-86.
- Yuen, T. (2019, April). *Development of the Guangdong - Hong Kong - Macao Greater Bay Area*. Paper presented at the Symposium on the Guangdong-Hong Kong-Macao Greater Bay Area, Tokyo. Retrieved from <https://greaterbayarea-sympo.com/en/>.
- Zagler, M. (2010). *International Tax Coordination: An Interdisciplinary Perspective on Virtues and Pitfalls*. Routledge.
- Zhan, P., Li, S., & Xu, X. (2019). Personal income tax reform in China in 2018 and its impact on income distribution. *China & World Economy*, 27(3), 25-48.
- Zeng, L. (2001). *Ren cai liu dong zhi nan: Cheng gong mou zhi ji shu [The Guide of Talent Flow]*. Beijing: Enterprise Management Publishing House.
- Zimmermann, K. F. (2005). European labour mobility: challenges and potentials. *De Economist*, 153(4), 425-450.

# APPENDICES

## Appendix A: The Transcript of the Group Interview

28<sup>th</sup> May, 2019

### Participant

<i>Roberto Chan Ka Long</i>	-RC (interviewer)
Benjamin Sou	-BS
Kathy Wong	-KW
Kin Sun Chan	-KS

00:00 RC: First of all, this study mainly focuses on regional talent flow in the Greater Bay Area (Hereafter referred to as GBA). Certainly, there are various forms of talent flow with different purposes, such as starting a business, employment, etc.

00:12 BS: That reminds me one thing. If you are writing topic like this in the EU, you should be more cautious because there are different understandings of talent. There is only the concept of staff turnover in the EU. Regarding labour mobility, in academic study, the division of personnel can be divided into 4 to 6 levels. The highest level is figure while staff is the lowest. Talent (Talented worker) is from the middle to the top. If you are talking about the flow of resource. In the EU, it is the area with the highest degree of flow of factors over the world. Instead of merely talents, it's a flow of people, and flow of all kinds of labour force.

01:37 RC: Yes! Actually I did consider this problem, that's why I am still trying to define the concept. The truth is, we cannot find this term in most related foreign literatures, or it is more usual to use the concept of human capital. In this case, I would prefer a more eclectic way, which is to calculate the effective tax rate in each place according to the characteristics of talented worker in the Greater Bay Area, such as income, family, education level, etc., given that we are studying the impact of taxation on talents. Certainly, the comparison of effective tax rates cannot reflect the comprehensive impact of different taxation. Therefore, we also

conducted interviews with those relatively skilful and senior workers in different industries, finding out the actual impact in their perception. However, after around ten interviews, the interviewees also said that they may consider tax as a factor, but it is not so important to them. So I am still thinking how to go on in this part.

**02:56 KW:** It is because the Greater Bay Area is not the same as the European Union. Instead of encouraging a completely free bilateral flow as the EU, most related policies in the GBA only prefers a unilateral flow of talented workers from Hong Kong and Macau to the Guangdong Province. If we attempt to explain this from the political perspective, the intention of each place is also different. In other words, the related policies that proposed in the GBA are not for those who come from the mainland China intending to seek a job in the Hong Kong or Macau, but instead for people from the two SARs come back to contribute the country.

**03:46 RC:** Yes! I would mention little bit the political consideration in my thesis. Since the current talent flow is relatively single, mainly from Hong Kong and Macau to mainland China, the following study will largely focus on this context. On the other hand, regarding the impact of different taxation, we would first review the three tax systems in the GBA. Since what we are discussing is individual taxation on employment, including the professional tax in Macau, the salaries tax in Hong Kong, and the individual income tax in China. All of them will be summarized and then be further compared. However, doing comparison between different tax laws is really complicated, so let's see if we can, in the first place, briefly discuss about the similarities and differences in the labour income taxation in the GBA.

**04:51 KW:** Well, so the first thing you want to know is the differences in the income taxation in GBA. In mainland China, progressive tax rate is being applied, from 3% to 45%. It is actually quite high when the tax rate can reach 45%. Besides, there are some new tax policies, such as the arrangement for people from Hong Kong and Macau coming back the mainland, we will talk about it later on. In Hong Kong, it is called salaries tax, whose tax rate varies from 2% to 17%. The ceiling is up to 15% while you are choosing to adopt the flat rate, instead of progressive rate.

**06:05 RC:** The standard tax rate, you meant?

**06:06 KW:** Exactly! The standard rate with a ceiling of 15%. In Macau, it is called professional tax. The progressive tax rate varies from 7% to 12%, with an exemption of 144,000 MOP. To be honest, it is very hard to only see the statutory rate because there are still many tax benefits.

For instance, the taxable income can be deducted by 25% before applying the tax rate, and after that, the calculated tax payable can also have a credit of 30% deduction. Besides, there are still a set of tax benefits introduced in terms of the annual budget of government. In short, the tax burden in Macau is really low. No matter how you calculate, it is around 6% at all.

07:14 RC: You meant the effective tax rate?

07:16 KW: Yes! The burden is obviously low. In Hong Kong, taxpayers also have exemptions, like single, family, etc.

07:29 RC: And the taxpayers in Hong Kong can choose to be taxed by using family unit or personal unit.

07:35 KW: That's true.

07:38 RC: In this case, the effective tax rate should be different as well.

07:43 KW: Yes, but the situation in Hong Kong is slightly different with Macau. There are more other exemptions else. For example, interests of housing mortgage loan can be exempted. What's more, as you said so, individual can be a taxpayer, or using family as a unit. If you talk about the differences in the tax laws, it is basically like this. If you want to compare the tax burden, it is surely highest in mainland China, and lowest in Macau. Hong Kong is also considered to be low, but not as low as in Macau. It is because the gaming income has made the Macau government's surplus, and the treasury is relatively abundant, which allows a low tax system.

08:41 RC: Do you think that these differences, which mainly reflected on after-tax income, affect regional talent flows in the GBA? As mentioned before, people from Hong Kong and Macau usually consider the factors, like income, family, quality of life, social welfare, etc., when they are deciding whether or not return to the mainland or other places in the GBA. Taxation is rarely mentioned as one of the factors, or seems not so important. What is your opinion?

09:31 KW: What we are discussing is talents, right? Talents are different with those low-end workers. We should not apply them into the concept, like I move to another place for much earnings only because I cannot do the same thing here. What I think is, in the GBA, the starting points of talents are not too low. They should have already had certain level of earnings in Hong Kong and Macau. If an individual is seen as a talent, he or she should not have any difficulties

to find a job. If you tell me you are attracting them by income, I don't think the income over there can be higher enough to attract them, but can't do the same thing in Hong Kong or in Macau.

10:37 RC: And reviewing the related policies, the SAR governments also proposed many tax benefits in order to attract more talents. In fact, we can see these tax measures in two aspects. On the one hand, for encouraging the people from Hong Kong and Macau back to the other regions of GBA, there are Hong Kong taxation for Hong Kong people, or Macau taxation for Macau people. On the other hand, government taxation can be also seen as an instrument to attract talents from the mainland China.

11:01 KW: Now the point is, those mentioned well-paid talents cannot have a job with equal income in mainland China. Under this situation, tax plays an important role. It is just like, you never expect to receive 60k in the mainland when you can only have 30k in Macau, you have never had such an expectation. If you tell me, there are huge income gap between the SARs and the mainland, it doesn't matter how high the tax is. However, what we can see right now is, the gap seems not so huge, just like 30%, 40%, or even 50%. In this case, you let them to pay such heavy taxes, it surely doesn't work. However, if the tax burden in both regions are more or less the same, considering that there is someone who want to seek opportunities, or bigger platform and space for their talents, he or she may choose to go there. Regarding the effects of taxes, I think we should look at the income gap as well. If the gap is large, it doesn't matter, but if not, taxes are very important as a potential motive to migrate.

12:26 RC: Can I conclude that today most government tax measures, in this regards, want to pursue a convergence of taxation, or even a single tax system in the GBA?

12:34 KW: Either way, what you need to do is to do something to let them perceive that they have earned something. If they even earn less in comparing with the current status, this way is obviously not that attractive for them. Even though you said that the prospects and future development will become attractive, the income gap still matters in a large extent. If they just earn slightly less after the taxation, it is still acceptable due to the consideration of prospects, but it will be much difficult if the gap is too significant.

13:16 RC: And there may also involve certain political factors. It's like when I talk to different fields of people, I asked them a question like, "if I told you the tax burden were the same in the GBA, would the negative impacts that caused by the differences in tax systems still have



existed?” Most of them answered me, “no!” In fact, I think it’s reasonable and fair, because they may just concern about the income, and gave me the answer in that perspective. When they’re just taxed as much as they are now paying in Macau, it’s really the same. But what if we are looking at the perspective of government, public finance, or socio-economics? What are your opinions on tax convergence? Does it make sense?

13:58 BS: Just now Ms. Wong mentioned a very important remark, which is the platform scale. I am going to explain three to four points for you. First, I have seen an index of start-up regarding the young entrepreneurs in mainland China. It is really practical because they are the group of people who has exactly entered into the GBA. Among them, you would find that almost nobody cares about tax burden, but pay more attention on the market, the adaptability of their products and services, and the business law system. Of course, taxation is important, but it is not the only difficulty they are now facing. For example, the administrative process is too complicated. They can’t understand how come seven approvals are required in the mainland when they just need one in Hong Kong or in Macau. As a consequence, the Hengqin government ended up just requiring one. What I want to say is, when we put many complicated things together, it doesn’t mean tax is not important, but just most of these things are also important, or even more important. Well, if you are mentioning the tax convergence, I have to indicate that Hengqin is already assigned as a pilot zone for institutional innovation. In fact, there is something you can do while there is also something else you can’t. For example, tax is not the matter that Zhuhai can manage. There is a specific national authority in charge. If you ask me if tax burden in the GBA should be unified with the two SARs - the two jurisdictions with the almost lowest tax rate over the world. To be honest, I never think of it, and can’t see the possibilities of such adjustments in the short run. Imagining the administrative process in the mainland, do you have idea that how long a tax process takes? It is not something that can be done overnight. The third one is about the national policies, like the CEPA [The Mainland and Macao Closer Economic Partnership Arrangement]. Until today, even focusing on the GBA, there is a specific paragraph in the CEPA for facilitating resource flows. In this regards, as we said so, the EU is already the top of the world, which reaches the fourth level and even will be the fifth level of regional integration if there is a more comprehensive monetary union. However, take a look at the rest of the world, including Southeast Asia or North America, which just signed a new trade agreement in place of the North American Free Trade Agreement (NAFTA). Both of them stop at the second level, as a free trade zone. The same situation is also in the

trade agreement between China and Taiwan. The ECFA [Economic Cooperation Framework Agreement] was forced to conclude in the trade in services agreement because of the Sunflower Student Movement in Taiwan. The situation in Macau is relatively better. After having signed the CEPA with the mainland, there are around two thousand products have been tax-free. In this situation, when certain service industries want to start businesses in the mainland, what they need to do is to finish certain procedures in the IPIM [*Instituto de Promoção do Comércio e do Investimento de Macau*]. In other words, for such business, the CEPA has already offered some opportunities to them, but one thing you have to notice, you still have to complete the administrative procedures, and after entering into the mainland, what about the market adaptability of your products and services? So what do we want now? It's not like to be another EU because no economies are capable to do that right now. The second level of regional integration just means a free trade zone, which is only the convenient flow of resources, instead of a completely free flow of resources. The difference is very critical even though there is just one word more in the former. In Europe, you can see everyone can seek a job in other member states. There is a single market. However, we can't do that. There are still customs between the three places, so you can see, as we discussed, there are still like three separated markets in the GBA. Under this situation, the resources are actually impossible for a free flow, but only a convenient flow. What is convenient flow of resources? According to the WTO, the mentioned flow of talented workers is considered a part of it. Then so what if talents entered into the market of GBA? Now we see, most of them are service industries. If we connect it to the free trade zone, it is free trade in services. In the cooperation with the mainland China in this regards, the mechanisms of Macau work best, the second is Hong Kong, Taiwan is the last one. In fact, all of them have also signed such free trade agreements with the mainland China, but it is still questionable how much these businesses can earn after entering into the GBA. For example, someone may not have a very high income, what drives them into the GBA is the platform or the market, which have enormous potentials. I have a friend who wanted to be an engineer in Macau as a skilled migrant, but there were some matters during the application process, and finally he got back to Shenzhen. Last year, when I visited him in Shenzhen, I found that he does not only have his own companies, but the related business also become much large-scale. I have to confess, he can successfully have such a large business as an engineer in Shenzhen, which is very difficult to achieve the same situation in Hong Kong or Macau. Therefore, I totally agree with one thing, which is to weigh the tax burden with all other factors. Just through this way, you can see why there are someone willing to get back, but the others say no. If you are just

nobody, and your business can't even see as a professional service, then you would be very hard to access the market of GBA, not to mention the heavy taxation behind. But if you are really a professional, under the protection of CEPA, you can be relatively easier to start your business there, such as lawyer, accountant, doctor, etc. Therefore, after matching all the relevant factors together, you would have a quite different view on this issue. Tax burden is very important, but also has to be weighed with different contexts. The last point I want to say is the development opportunities. I have a friend who was graduated from the Tsinghua University in field of electronic panel. He chose to start his business in Shenzhen as a supplier of Foxconn. But why did he choose the mainland? You can see, most of these panels are producing for electronic products over the world, like iPhone. As a downstream company, it is impossible for him to produce panels in Macau, it's just unrealistic. He is a genuine Macau citizen, but end up willing to get back to the mainland, that's why I said development opportunities are very important. If there are many opportunities, you would go there to explore, but why do you get back if not? There are associations between workers' skill level and taxation. If the tax burden can be offset by your expected earnings, why don't you get back? However, if what you are doing is just small business, and even don't know the local laws or business systems, you will be very difficult to survive under such high taxes.

24:08 KW: And since we are discussing talents, I believe in each country or region, unless there is labour shortage, the targeted labour they attract should be talented workers. Like what Mr. Sou mentioned, the development opportunities in the mainland actually refer to starting a business. It implies, no matter how high the taxes are, I just want to access the market in future. In other words, at the end of the day, such people want to start his own business in the GBA. Since today we are talking about the individual income taxation, we may first leave aside this part. People are not necessary to come back only for starting business. For example, certain skilled workers are seeking jobs in the GBA, or say through the form of employment. To be honest, the taxation in mainland China is really heavy, and taxpayers may be taxed on a worldwide income basis. If you choose to give up everything here and go back to the mainland with a usual residence over there, you will be considered as a tax resident in China. Your income derived from all over the world is also considered as the tax base, which is something that everyone can't imagine, and likewise doesn't want. What I said to lower the tax burden doesn't mean a single tax burden in the region, it has to be very clear that a single tax system in the GBA is not worth doing. Now we have three places in a country, which have three different tax

systems. If you want to make it unified by no matter following a particular tax system or having a new single tax system for everyone in the GBA, both seem not that workable. But the reduction of tax burden can be carried out through the forms of subsidisation, and such methods are actually on track now. You can see nowadays Qianhai and Hengqin are also attractive to talents mainly because of tax benefits, such as Hong Kong Taxation for Hong Kong people. But we have to notice, it doesn't mean that talents can pay Hong Kong taxes in the mainland. Instead, they still have to comply with the mainland taxes first, but the difference of tax burden will be compensated by the Hong Kong government later on. In fact, some policies are already introduced earlier this year. For instance, the citizen from Hong Kong and Macau who work in the GBA have tax liabilities in the mainland, but the difference of tax burden can be compensated in the following year, namely "pay first, compensated later". Until today, most of the people are satisfied with this measure as the form of government subsidization, instead of a complete unification. To be honest, I think that such measure is fair enough and relatively accepted by most of the people. But let's continue to go deeper into this issue, as I said, if we really give up everything in Macau and move into the mainland, I will be considered as a tax resident in the mainland since I have a usual residence in there. Under this situation, I would be taxed on a worldwide basis, which means all of my income abroad will also be taxed. I mean, obviously nobody wants to be in such situation, but it will involve in the question of fairness because, no matter where you migrate, Australia or even all over the world, you should also comply with the local tax systems after moving into there. You should have a balance between equity and efficiency in taxation. Let's imagine, if you become a complete tax resident in the mainland, but enjoy certain privileges that make you exempted from the worldwide taxation, it is actually quite weird and can't also meet the logic of a normal tax system. Now the point is, everyone is quite satisfied in the practice of such measure, which is not to introduce a new tax system or to follow a particular tax system, but to subsidize the difference of tax burden. If you are only talking about the individual income taxes, I don't see there are many controversies in such compensation measure. Instead, the main controversy should be the definition of talents. What is talent? What talents do you want? Now we can't see any single definition for that, but anyway the labour force that Guangdong and Shenzhen want are being considered as talents, which likewise should be seen as what the whole GBA want. It is because they are actually the most representative cities in the region. Therefore, there is no exact requirement for being a talent, or say, what kinds of talents these two cities want can actually be generalized to what the whole GBA wants. In fact, there are still certain controversies regarding the definition of

talents. If you are just a normal teenager, you might not be considered talents in the mainland. Because those who have average earnings in Hong Kong and Macau and want to try if they can earn much in the GBA should not be seen as talents. They are not the targeted of government talent policies. So, they may not worry about the high taxes while getting back to the mainland, given that their income is not likely to be too high.

31:32 BS: So they don't even have any tax liabilities.

31:33 KW: Yes! In particular, people from Hong Kong pay close attention to this issue, since most of them who are entering into the GBA are genuine professionals. At the beginning, they may not see the impact of taxes in the mainland, but after like one year later, they are likely to be scared after receiving the tax bill. In fact, they are defined as tax residents in mainland China once they have stayed in there for more than 183 days per year. Hence, they are trying any means possible to not fall on such trap. If you are considered as a tax resident in the mainland, then of course you have to comply with every tax laws over there. But it also has to mention, there are some revisions of the mentioned identification of tax resident in tax laws. In the past, no matter how many hours that individuals stay in the mainland, it was also counted as one day. But now, a day is counted only if individuals stay for totally 24 hours in a day.

32:36 BS: How about people get through the customs in the same day, and then come back in the following day?

32:43 KS: It is probably not counted as a day.

32:44 BS: And how about living in Luohu? If you get through the customs every day, then probably, you would never meet the required 183 days.

32:50 KW: It isn't counted as a day if you do that. Here exists, what we call, some grey areas or leeway. The revision of tax laws can make people from Hong Kong and Macau out of the tax trap.

33:00 KS: You meant extending the grey area?

33:02 BS: (to KS) And you don't have to pay tax in Hong Kong too, do you?

33:14 KS: I don't. Both Hong Kong and Macau are adopting territorial principle.

33:18 KW: Yes, the territorial principle.

33:19 KS: That's why we say there is a huge intimidation from the taxation in mainland China. Because of their residence-base taxation.

33:28 BS: Exactly!

33:29 KW: Yes! No matter where you work you have to pay tax, but if you are considered a tax resident in mainland China, if you have a usual residence in there, you will fall on the tax trap and be taxed on a worldwide basis. Even you say you are from Hong Kong or from Macau, your income from there should be taxed separately from the income sourced from the mainland. However, if you are a tax resident in mainland China in the meantime, your income from Hong Kong and Macau should be also taxed in the mainland.

34:01 KS: Besides, I think the most important thing is that there are so many regulations a taxpayer has to fulfil. Once you have missed something, you may have violated the laws.

34:12 KW: It is not the same thing. If the talents come back for a job, they actually don't have to worry about nothing. For instance, if you work for the big four accounting firms, there is a personnel department handling all the related procedure. They don't need to worry about nothing. But if they are not, if they are just working for certain small enterprises, which usually have no personnel department, that's a totally different story. First, they may not be seen as a talent. Second, they have to handle everything by themselves. What's worse is when they don't even know the related tax procedures. As a matter of fact, talents are not supposed to face such situation. They should have helps from their employers, or say personnel department. But after all, they would probably be scared while receiving the tax bill.

35:12 KS: Agree!

35:13 KW: If you work for some small enterprises, which have no personnel department, which means you have to deal with every required procedure by yourself. I mean, honestly this kind of worker is not what the GBA needs. Instead of those who are just graduated or having two to three years of work experience, what the GBA wants are actually those who have certain qualifications, which usually refer to the professionals, such as who are working for the big four accounting firms. In my own opinion, a talented worker, at least, should be graduated from some prestigious universities, and have certain qualifications and seniorities after having worked for some big enterprises. This kind of talents usually cares about income taxes since their income can reach like 70k, 100k, or even more, instead of just around average income level. Considering such level of income has already reached the highest tax bracket in the mainland, they may choose not to go back in the face of that heavy tax burden. Why would they go back? Is the platform there really huge and potential? Probably, but the definition of talents

doesn't always intend to be a boss, and also not everyone can be a boss in big enterprises. Most of professionals who are contributing their talents don't want to be bosses of some unknown enterprises, but they are still seen as the talented workers. It has to indicate that, if you are talking about starting businesses, then it is another thing, which is corporation tax. But now if you are talking about talented employees, in such as the field of high technologies, innovation, etc., they are committed to the individual income taxes, instead of the corporation taxes. In fact, as in Macau, we [professionals] are levied on professional taxes, which are taxed as employees, instead of as employers. So for those talented workers, the most important point is how big the impact of taxation on their individual income is. Would they choose to go while falling down into the 45% tax rate or even being taxed worldwide? Certainly no. In fact, most of them don't have to worry about it because they usually have the personnel department helping them specifically and giving them many suggestions, in order to let them avoid to be a tax resident in China. However, it doesn't mean they don't need to pay tax in China. The income which is sourced in China should still be taxed. Considering that the income level of talents is fairly high, they surely don't want to afford such a heavy tax burden in China which they have duty to afford. But let's say, if Hong Kong taxation for Hong Kong people or Macau taxation for Macau people is possible, it would be totally a different story. Although they still have to pay the taxes first, but it will be returned in the following year. For example, as a Hong Kong citizen, my income sourced in Hong Kong is taxed according to the Hong Kong taxation while the income derived in mainland China is taxed in terms of the Chinese tax laws, but the latter can have a subsequent tax refund as a compensation of different tax burden. Assuming that the wage gap between the two places is not that far away, and that I am allowed to pay the Hong Kong taxes or the Macau taxes while working in the mainland, it seems reasonable to accept a job there. Let's imagine, when the income in China is just slightly lower than in Hong Kong or in Macau, but there are potential platforms for career development, which means I may have more chances in career promotion, what I am looking for at this moment is not the current income level, but actually the potential income in one day. For example, if I worked for the big four accounting firms in Macau, but right at this moment there is no vacancy for being a partner, should I go back to accept a job in the mainland? In the GBA, the big four accounting firms exist everywhere. In such a large platform, with such qualifications you are more likely to be a partner or even a senior partner over there. At that moment, you would earn as much as you are earning, or even higher. However, don't let them fall into the tax net in China. If they did, he'd rather not go back. By now, what we are discussing is talents, instead of those who just want to

try if they can do some business. Indeed, talents do really concern the impact of different taxation. We are going deep into this issue in different perspectives. For ordinary people, they may not concern tax issues so much. What they want is just doing some business in order to earn some money, which just have fairly moderate tax liabilities. However, tax is important if you are talking about a professional worker since the difference in tax burden is too far away. In Macau, the maximum effective tax rate just varies from 5% to 6%, but in China it can be a maximum of 45%. Is the current income enough to offset the rate of 45% in China in comparison with Macau or Hong Kong? I don't think so. I think the current arrangements are reasonable enough. At least, most of us are satisfied. We have to be clear that the arrangement, like Hong Kong taxation for Hong Kong people or Macau taxation for Macau people, is not a unification or convergence of different tax systems in the GBA. I even believe the unification should be the last thing that we should do, no matter in a political or just a professional perspective. Each place has its own tax system. You don't have to do this. Instead, the form of government subsidy is enough. Besides, if you have an undifferentiated competition in Hong Kong, Macau and Guangdong, it is actually a harmful competition. If you go down as a unified system, then everybody will compete, which we have no reason to do so. In fact, in the future, there may be more preferential treatment for talents from Hong Kong and Macau, but by now we still have not seen that benefit when the Greater Bay Area is just starting out. Before that day, it may not work if you are arguing for more benefits. I believe, at this moment, most of us are temporarily satisfied. For the benefits in future, it actually doesn't matter if the GBA is running well. Why not grant more preferential treatment in front of such a large interest? But for the time being, what is concerned, we are still arguing about what is called talent. It has to be defined clearly. Second, why should the difference in tax burden be made up for? Why do the governments give me back the compensation after I pay the taxes, instead of right away? Will the compensation be guaranteed? Or what if the governments don't make up after that? People are still arguing about such things. But if you ask whether it could work administratively, that directly pay the Hong Kong or Macau taxes in mainland China? To be honest, I don't think so. You may still have to pay the mainland' taxes first.

42:56 BS: It's a bit like a bonded warehouse in mainland China, and then to the Economic and Technological Development Zones, and then to the existing free trade zone. There is always a process. As what Kathy said, I think the most prominent point is, even in the bonded warehouse, you can only open a factory, where an office is not even allowed to exist. When you have



something to put into the warehouse, then put and pay the required national taxes. Tax refund will be made only when you pick up the goods. Gradually, this way didn't work, then you open the so-called high-tech development zone. Companies are also allowed to get in since you can't have no office in there. By now, it's further relaxed, internationally known as free trade zone, like Nansha, Hengqin, Qianhai. The free trade zones now basically do almost everything that the bonded warehouse cannot do before. How many years did it take before and after? At least twenty years. So as the tax arrangements you said just now, Hong Kong taxation for Hong Kong people and Macau taxation for Macau people, are all quite good. The problem is, it would take a period of time to become fully relaxed in the future with detailed regulations. The process of opening up in the mainland is very long. They want things to be done step by step, instead of some sudden changes. There is same arrangement in talent flow. In fact, it is also one of the difficult point in the GBA. Although you know talented worker which is a part of the people who should be able to go wherever they want to go, they still can't move freely here in the GBA yet.

45:17 KW: In fact, the same situation exists in the EU. People are already on the move, everyone can go to wherever they want, but here what they say is not specifically a talented worker. Instead, what every country wants are actually talented workers. If you tell me that you didn't, then it should be a shortage of labour forces, it's totally another thing. In this case, you should open the door and welcome the people who are willing to do hard work or any other jobs that the locals don't want to engage in. Anyway, you should accept these new immigrants. But you also have to know, you should not attract these people to rob the locals' jobs when the locals also need to be employed. What you attract should be those you need in the labour market. And if I do want to attract them, taxes are certainly important for them. It's like why Portugal is now able to attract so many other people from the EU for retirement? It is because if you choose to retire in Portugal, living there for more than half a year per year, then the pension they get in such as France may not need to pay taxes in France. Normally, pension is also taxable as an income, instead of the situation in Macau. If they can avoid to fall into such taxes and stay in Portugal for six months per year, you know how much it will be saved! Indeed, Portugal is a good place for retirement, with such policies and good climate. In this case, the talent flow is reached, in somehow, due to taxes. If a country really wants to attract talented workers, they have to rely on tax as an instrument. Especially in the EU, everyone worries about taxation.

Unlike the people in Macau, they don't have much feeling about this issue since the taxes are so low.

48:39 KS: It's hard to say, but it should be happy if you can pay taxes in Macau because you must be really well paid.

48:47 KW: The people from mainland China are also scared. Usually they may have two arrangements. They take high wages, but declare low, for what?

49:01 KS: As the “yin yang contracts (duplicate contracts)”.

49:04 BS: I lived in Canada for a while, and my friends told me a case that I think you could consider to use as a footnote. In there, companies are also scared, and you may have no idea of the methods they take. To be honest, I also wonder why in the World's Top 500 or the Top 1000, you can't find many Canadian companies. With the exception of Air Canada, there is almost no others on the list. Later I just realized how it turned out to be. In Canada, the highest tax rate can be 40%. When profit is almost at the top of the tax table, people may choose to sell the company. But how? For example, we both have a company, then we just exchange the shares. As long as everyone can still have earnings, everything is ok. In this case, the companies are just registered again, and restart to pay tax from the lowest tax rate, and once again sell it in the same circumstance. It's because you really have no way to go, people can't stand on such heavy taxes.

50:19 KW: Especially in the European Union, taxes are one of the most concerned topic, whether it's ordinary people, rich, and professionals. The tax is too high. Why do so many people choose to leave, like in Australia as well, because the tax is just too high, I would rather go back after retirement. The reason we are not interested in it is because the Macau taxes is too low. After certain professional suggestions, you don't even have to pay. But if you are in Europe, you probably say such things all the time. Taxation touches everyone's nerves since there may exist large impact on everyone. In addition, when you deliberately don't pay the taxes or let's say tax evasion, you may just have to pay back these overdue taxes after the authority finds out. No one thinks it's a big deal. There is no criminal responsibility. But the same situation may make you into jail in foreign countries or in mainland China. I believe, over the world, there are not many places like Macau. The taxation is so simple and not criminal. So many people in other countries choose to leave because of taxes. On the one hand, they do not

want to pay such a heavy tax, but on the other hand, tax evasion is also a big deal, which is not easy for them to hide and is criminal that would put you into jail.

52:44 KS: Can I ask a little bit more on these topics? If that is the case, Macau's tax system seems to be a strong advantage in comparison with other cities in GBA. Then, does it exist some loopholes? Can some enterprises which are registered in Macau provide such related services in the GBA?

53:18 KW: Today are we talking about corporation or individual income? The former is another topic, but yes, what you said may work.

53:25 KS: How about the individual income?

53:28 KW: If you are talking about the individual income, that means they should have taken the Macau ID as a Macau resident, and then go back to work in mainland China. Of course, today a lot of so-called Macau resident are in such situation, but for them you have to see if they have residence in Macau. If they don't have any residence in Macau, which means they have one or more in the mainland, then this group of people will completely fall back into the taxation in the mainland China.

53:51 KS: I am also curious that this is how the mainland found that whether an individual has a residence in Macau? Through the information exchange? If it's done through self-declaration, then for example, suppose I have relatives and friends in Macau, what if I use their addresses?

54:11 KW: It's the same if you have 183 days per year in the mainland. If you have residence in both the two places and keep crossing the sides, sure you can do that if you think it's worth. But if you don't have residence in Macau, you will be forced to live in the mainland for more than 183 days, or if I have, but I don't stay for enough days in here, then you are still falling into the taxation in the mainland as a tax resident, which will be taxed worldwide.

54:39 KS: Because in recent, I have exchanged with some friends from mainland China. In fact, today as a new trend, a lot of freelance job is coming out due to the high tax burden in the mainland. Then I am just thinking like this, let's say there is a company intensively sending some talented workers to Macau for a resident ID card, then remotely get these talents back to work. Will it be able to significantly reduce their tax burden?

55:20 KW: Then you are hard to get caught if you have such operation. Some large enterprises help them to apply for such as investment immigration, skilled worker's immigration, and then

they come to get ID cards, but go back to work in the mainland. Don't forget! You also have to provide them residence. Although they get their remuneration here, it doesn't mean they have a place to live. They still need a place to stay for 183 days per year. Who pays the rent? Do you give them a dorm? How about their families? Does it make sense that they take these costs just for saving taxes? Sometimes, you think people can do things like this in operation, but actually it's not that easy. In Hong Kong and Macau, the rent is that expensive. If there is a place here he can live for 183 days per year, actually you can't save much. Besides, even he took the ID card in Macau, you would still be a tax resident in mainland China if there are 183 days per year you are in there. There is no difference. Now the key is whether you have residence in Macau. If you said I have my parents or relatives in Macau, then of course I come back, to visit them or just live with them. In this case, I may not have to, or deliberately not to stay in the mainland for 183 days. On the contrary, if I don't have any residence here, how come I take the costs to rent an apartment here for half a year over the two places? It's very difficult to have such a comprehensive plan. Sometimes, there is just no leeway for these arrangements.

57:21 KS: And the time costs for talents are also quite high.

57:34 KW: It is something you can't plan. These loopholes can actually be blocked after certain careful considerations. Like Macau and Zhuhai are so close, if I work in Macau but live in Zhuhai, I am actually taxed in the mainland. How can a resident of mainland China become a Macau resident? First you need to be here for 183 days, but if you don't have any residence in here, it is hard to spend so much for it just in order to avoid such little taxes. If you fail to stay here for enough days, then you are falling back into the taxation of mainland China.

58:35 KS: If you say so, we can also explain that, in recent, I have a lot of friends who used to run around the two places is trying to buy a property in Macau. In addition, there is one more thing that I want to conclude. Actually, my perception is that I agree with your perspectives. Tax may not necessarily have such a big impact as our imagination. Talents should have comprehensive views over their own careers. Tax is only one of the important parts. So let's take a step backward, I see the tax systems in the adjacent regions are quite different with that in Macau and Hong Kong. For example, although the income tax rate is low in Hong Kong and Macau, their indirect taxes are relatively high. Will it indirectly affect the talent flow? In that case, the Professional tax, the Salaries tax or the Profits tax seems not to be that important. As we discussed, the living cost are so high in Hong Kong and Macau, which in a certain extent can be reflected from the taxation.

1:00:04 BS: In fact, there is a point I mention every time, which is, you can't ignore the market. Why is Macau tax rate low? Because it has his own characteristics.

1:00:22 KS: Its economic characteristics.

1:00:23 BS: When the export trade was still the strongest industry in Macau, instead of gaming industry, actually it was not as strong as it looked like at the international level. Exports in Hong Kong were much stronger than you. In this case, why was the tax rate still that low at that moment? I think it's important to know that, if you want to retire, Macau is as good as Portugal. But if you want to work, there are just few opportunities for your career development since the market space is limited. If those large-scale enterprises are not willing to come to Macau also, or to do more investment in Macau, then why do talents come? I am taking the example of doctor as a professional. Certainly, Macau has this profession, but if you wanted to well feed a group of doctors, it would have been difficult because the market is too small. In this circumstance, a low tax rate is actually reasonable. What's more, after the interim review of gaming liberalization for games of fortune in Macau, what will happen if we have more casinos? Of course, it doesn't matter for Macau people, but what if it's not? Now, the gaming revenue has been down for four months. The statistics of May are yet out, but to be honest, I am not optimistic. First, the economy in mainland China is not good. The adjustment of economic structure in the mainland needs at least five years in order to see the effects. It means during these five years, the new structure keeps adjusting while the old structure may not function well either. Meantime, don't forget the trade war. In this situation, how good you want our casinos to be? The revenue must be affected! It may not matter in the short term, but what about the long term? There is a problem. The reason why we have a low tax rate and with a relatively narrow tax base in Macau, I think it's because of gaming industry. In the past, when the gaming industry was not that strong, we mainly wanted to attract certain foreign investment. Like in the 1960s, some British local policies were introduced in Hong Kong. At that moment, even the goods produced in their own colonies were set up barriers in the United Kingdom, a lot of manufacturers suddenly came to Macau. It's because with the Portuguese permission you can go to Portuguese-speaking countries with relatively lower tax burden. Therefore, people was doing everything possible to attract more foreign investment. Because if not, it was very difficult for Macau economic development to move on. There may not exist the other ways for Macau at that time. The differences in the tax system between Macau and mainland China are actually reflecting the different level of regional economic development.

1:03:32 KS: It's like an effect more than a cause!

1:03:33 BS: Yes! And you are a free port. Both Macau and Hong Kong are free ports. However, in the mainland, there are still two industries being protected, which are electronics industry and automotive industry. A Toyota costs hundred and fifty thousand here, but around three hundred thousand in the mainland. Why? Because there are taxes. Although both are a separate customs territory, each tax system has its own characteristics. Kathy explained these tax issues very well. For my understanding, if you are a talent, you have two choices. One, if you want to go back to mainland China, you have to rely on the arrangements which are similar to the bonded warehouse in the past. There is a tax refund mechanism. Even though it's still a question of when to withdraw the tax, but at least it will withdraw. The second is the definition of talent since there are more than one type of people entering into the GBA right now. You do not guarantee that people who buy a property in the mainland would become talents in one day. It's actually a dynamic concept. How's it going if they fall into the mainland's taxation?

1:05:05 KS: And the definition of talents is different in different places.

1:05:12 BS: Yes, if you said you are only focusing on talents, it is not a very big scope. But in fact, the concept of talent is floating. People who are not considered as talents today can be talent in one day, and who are considered as talents can become ordinary people tomorrow. Therefore, the way you are going to define talented worker should start from a professional point of view. How about make a list?

1:05:54 KW: In fact, both Hong Kong and Macau are very special. Normally the developed economies are with high taxes. Especially in Macau, there are great impacts from its own economic and industrial development. The government don't want to waste so many administrative resources to levy such a small tax. When the government's treasury is abundant, then just give us more welfare, which explains why the tax is such low.

1:06:26 BS: What if it's no longer abundant in one day?

1:06:30 KW: Yes, so I really think that there is great crisis on the Macau tax systems. But right now, the gaming industry temporarily makes us feel that there is no crisis, although the economic and industrial structure is very single. Now, the tax base is really narrow. We don't know how to do if the gaming industry collapses in one day.

1:06:49 BS: If there was a unified tax system, I would not worry that the tax burden in the mainland would lower to our current level. Instead, I would be afraid that we have to put up

ours. You see, there is a lot of crises appeared after the interim review. Like I always worry about what would happen if the existing six gaming exclusive concessions can't be maintained, or the gaming revenue just keeps falling, then how to do? And when the economic development of mainland China is also slowing down, how can the Macau economic development be good? I am just looking at the future from a phenomenon. It would be very dangerous if in one day Macau lose its advantage. So now in the perspective of tax, we may feel bad about tax systems in the mainland, but one day we might also have something weak.

1:08:43 KW: Actually, Macau is also in the transformation. Yes, it will be very difficult, but one day Macau will become a securities centre, which is already in policies and is under study now. Sooner or later, it will be implemented. That's to say, maybe Macau doesn't need talents for the time being. There are almost no high-end technical needs in Macau. We just need people to work, whoever he or she is. Considering that the taxes in Macau are that low, if people from the mainland look for jobs in Macau, he indeed saves a lot of taxes. You just can't find that many opportunities in here. But things will get change in the future. If we really have a securities centre in Macau, surely you will need talents. Any professional talents will be welcome, such as accountants, lawyers, banking and financial experts. You need all of them. But how can you attract them? Actually your taxation works. People from the mainland can have a much lower tax burden in Macau. Or if a foreigner comes to work in Macau, he is actually paid a very low tax as well. Let's take a step back, sooner or later, we can see such a securities centre will move back to Hengqin, rather than in Macau. Today all the commercial buildings are in Hengqin, what are they planning to do in the back? This is to make Hengqin into a new financial centre. Then if stock exchange does work in Macau one day, sooner or later, it would be moved to Hengqin. Personally, I estimate if that does happen, Hengqin needs a lot of talented workers. Not only people from Hong Kong and Macau, perhaps it also includes talents from other cities of mainland China. In this circumstance, you may have to re-think the policies and strategies for attracting talents in Hengqin. For example, let them enjoy certain special tax benefits, which is actually a very important tool to attract them. It depends on what kind of people they want. If we, people from Hong Kong and Macau, are the targets, then there are arrangements like Hong Kong taxation for Hong Kong people and Macau taxation for Macau people. Although it's just certain moderate incentives, at least you need to have that environment to make me go. But if they want to attract talents from other mainland's cities, assuming that the place is developed enough, they may have to concern taxes. If you can let them pay the Macau taxes in

Hengqin, I believe they will come. It's worth! Tax is really a very important means for that. The question now we're talking about is what kind of talent you want. You answer the question so that you can offer the related tax benefits to who you target. In fact, the contribution of taxes mainly relies on those high-income people all over the world. The part those low-income people contribute is just very limited. If you can reduce the tax burden, it's really attractive for them to come. By now, what we're talking about is talents, instead of low-skilled workers. Because for those low-skilled workers you are very hard to discuss tax with them, they don't care about this issue since they don't have to pay much tax. They just want to go back and see if they can do some business, which is not the target that the GBA wants to attract. In fact, the mainland is not short of people, or even already full of people. They don't specifically need this kind of people to start business in there since they already have many. Like some youths from Macau, they want to do business in there, but neither with experience nor technologies to bring back, then why are they needed? It's just your choice. They don't have to offer you any special benefits. Even the EU is the same, people come because you have something to attract them. If you are just an ordinary people, where you go actually doesn't matter. People are just worried that immigrants would take their jobs, and hence resisting their coming. Europeans, for example, the British are very resistant to such things, because there are many high wage jobs over there. Since it has a high tax rate in the whole EU in common, you can't specifically attract talents just by offering higher wage jobs since you can't guarantee the target, but tax benefit can, as an important means.

**1:15:23 RC:** A lot of our discussion just now can be concluded that the tax systems of the three places have their own characteristics, which is also necessary to have their differences. In this case, do you think that, in this prerequisite, what should be concerned in our regional tax coordination and cooperation in the future?

**1:15:52 BS:** In administrative aspect, first of all, you have to know the reason why you put a securities centre in Hengqin? It's because this place is not a normal area, but actually a demonstration region for institutional innovation. There are few things worth our attention. Two years ago, we already had a pact when the Jiangmen government has put forward a program on the agenda. After our studies, the design of program was sent to the provincial government, then to the central government. At that moment, there was no still no official outline of Greater Bay Area, so the program was enough adventurous. My suggestion is to establish a piece of enclave in Guanghai, which is governed by Macau people. We pay the rent in order to keep



developing the land, where is implemented all Macau policies, including the tax systems. In a certain extent, it's solving the problem that there are not enough lands in Macau for future development. I have to say this plan is really adventurous at that moment. So the reason we go through this here is because if we, in the future, move things like securities centre over the mainland, or implement the Macau tax system in Hengqin, it will absolutely have no problem. This is my feedback in the political and administrative perspectives. First, let's clarify what is the boundary of Macau. The Basic Law only refers to the Macau Peninsula, Taipa and Coloane. It doesn't mean that the south of Gongbei port is Macau. Why can't Hengqin implement the Macau tax system? It is actually not that difficult. What we need to do is just to break everyone mental perception of boundary. There is no political nor tangible customs between Macau and the mainland. You just need to agree with this place. We can always come up with a set of new administrative procedures. Like the University of Macau, it was rented at the beginning, but now it is just directly governed by us. So in fact this is not that difficult. And if you ask me whether it could happen in the whole GBA, I dare not give answers for that. Who knows what the future holds!

1:23:50 KS: It can be done even between countries. The most typical example is Singapore.

1:24:15 BS: One more concept is that, although tax issues are used to be stable, it doesn't mean that we can't have certain flexible measures to deal with it in Hengqin and even in GBA. It's because there is already a precedent.

1:24:32 KW: As a matter of fact, the supports of administrative perspective concern all of us. For talents, they are tired enough of complying taxation in one place, but now we are even talking two or more jurisdictions. This kind of thing is really troublesome. I believe there is a practical way of solving this problem. Today the recruitment of the defined talented worker, usually, is the job of personnel departments. In this case, if you want them to come, these departments should also help them to handle the differences in taxation, namely the declaration of taxes. In reality, if these talents are invited by certain large enterprises in the mainland as an example, the latter should also know tax systems in Hong Kong or Macau. On the other hand, although what you withhold or pay for him is the Hong Kong taxes, you are facing the mainland government. Or it should be like, you first pay the mainland tax for them, and then help them to get back tax refund from the mainland government. In this case, talents don't have to involve in the process. It's because they are not a legal expert, they may not necessarily know what to do about tax. Besides, if talents are really the target, they would not just work in some normal

companies which have no personnel department. If who we are discussed really conforms to the requirement of talents, the arrangements, like Hong Kong taxation for Hong Kong people and Macau taxation for Macau people, are eligible for them. In this case, local companies should help to fix these things, instead of by the talents themselves. If you are ordinary people who just graduated from universities, then you need to comply the tax laws as who you are.

1:26:45 KS: However, I would also like to ask about the methods you mentioned. In the real world, how many is there such kind of talents that are familiar with both the mainland and Macau tax systems? It's because people can sort out these things only when they know well the two tax systems at the same time.

1:27:07 KW: It's not hard at all. The tax systems in Hong Kong and Macau are much simpler than that of the mainland, which is not that difficult for you to get through. The related personnel departments should learn about it, it's not difficult at all. When the administrative procedures that they are used to handle in mainland China are much complicated, then why not they take this opportunity to open a network through learning the taxation in Hong Kong and Macau, such simple tax systems with simple administrative procedures. In fact, we all should know the tax systems of each other, instead of like knowing nothing about other jurisdictions.

1:27:58 BS: If you assume that each procedure has to be done twice, you must have two people for each, and then the administrative costs must be very high.

1:28:08 KW: The personnel department should have someone to specifically learn this kind of things once, then he will know how to do. It doesn't make sense that the talents themselves learn all the related tax systems. Sometimes, these professional problems should be handed to professionals. Then, it's not only the talents don't have to worry about certain special tax arrangements, but everything about tax. The personnel department should also help them with such things, but not by the talents themselves. If you are just an ordinary people, then it's another story.

1:28:53 KS: And for the enterprises, it is less cost-effective in such case.

1:29:01 KW: Assuming that I was a talent, you would not have made me feel bothered if you really wanted to attract me. This is what is said in the administrative aspect, not the political aspect. I do attract talents back as solving the main problem. On the one hand, I have subsidies on taxation. On the other hand, I get supports over the administrative process, instead of all by myself. How do I pay tax in the mainland? How can I repay tax or have my tax refund? We all

are worried about that since there is criminal responsibility in the mainland. In Hong Kong, it's still serious than in Macau while the only consequence in Macau is just to repay the overdue tax.

1:30:04 KS: It's also criminal, isn't?

1:30:08 KW: Yes, if there is any fraud or if you cheat. Negligence is not necessarily criminal.

1:30:11 KS: But I want to ask one more thing. Now, for example, like the Taxation Association in Macau, are there any similar associations in mainland China? Do they realize that they have to do what you said just now? It's because if they don't, or likewise even if the large enterprises don't, it's really hard to go to that step.

1:30:41 KW: In fact, a lot of things is being discussed now, but what we are just discussing is one of them. Because there is a four-place alliance, which includes the Taxation Association of Macau, the Chinese Tax Institute, the Hong Kong Tax Institute, and even the counterpart in Taiwan. We take turns organizing a lot of functions, which invites many government officials. Even in Macau, there were around fifty chiefs of the Chinese tax authorities participating. In fact, we have talked a lot with our counterparts in the mainland. I have been the president of the Taxation Association of Macau for 14 years. We have been constantly communicating with government officials of tax authorities. Actually, the main point is we have to know our own requests, and then let them know what we want, so that they can improve soon after. Now we have just done introducing the arrangements like Hong Kong taxation for Hong Kong people and Macau taxation for Macau people, which are measures to achieve policy purpose by using subsidies, How about the subsequent arrangement? We all feel troublesome. First, I may be afraid that I can't get back my tax refunds. Second, I don't know how to declare tax. How can these arrangements become better? If you put it in the agenda, of course there is something in our own consideration, but meantime, we have to see whether the mainland can make it. In my professional perspective, I hope we can make it. But in fact it's not that easy. Because how can personnel department know? And also, if the personnel department wants to have talented workers, it's not just one or two workers they want, so it's worth learning different tax systems. It's not that difficult. But for example, as an engineer, he is not supposed to know tax. It's a large mental burden for them to comply a new tax system that he is not familiar. How hard is it for those big enterprises to offer such services? Like in Macau, there is already a formula for people to count their tax payable. You just need one to two lessons for the related training.

1:33:21 KS: Or it can be standardized as a software.

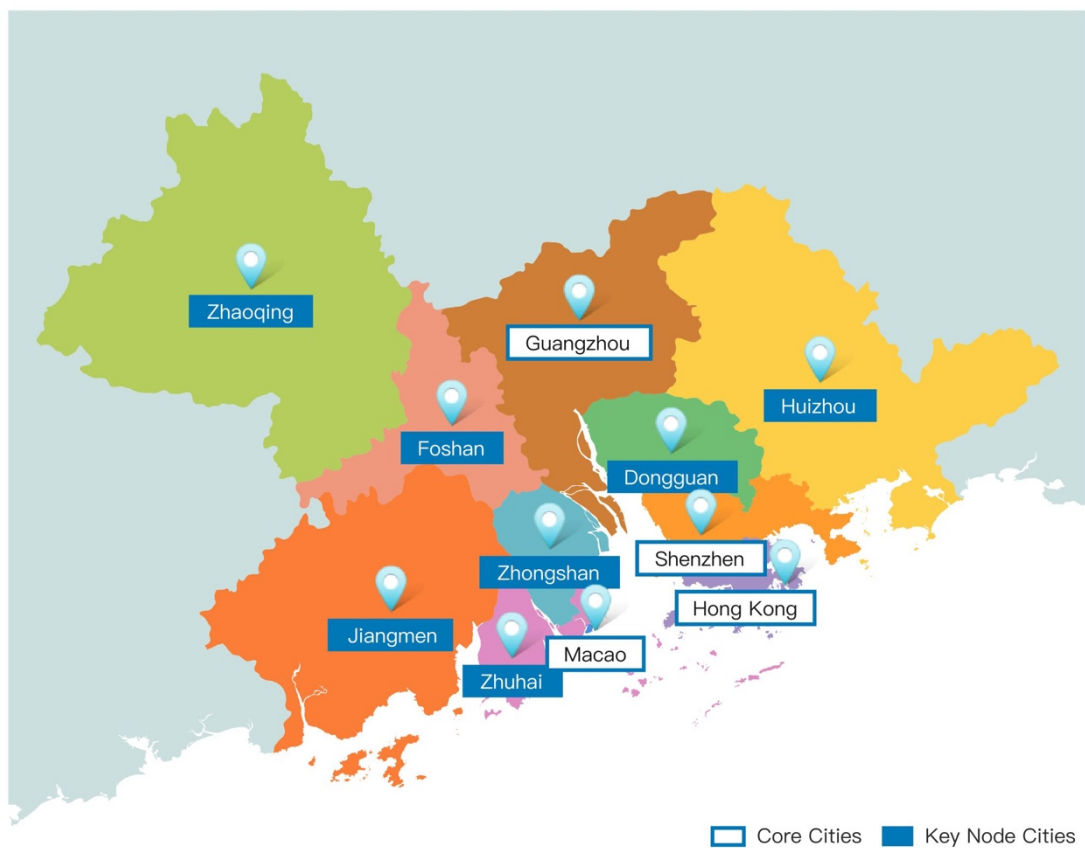
1:33:23 KW: Yes, this also makes people from the mainland more familiar with the tax systems of Hong Kong and Macau. What's more, it will make the future integration much easier.

1:33:33 RC: OK! I believe it's almost the end today. Are there any other comments you want to make?

1:33:43 KW: Nothing special, unless you have something to come up with.

1:33:46 RC: Well! Thank you once again for all your presence and help today. Thank you very much!

## Appendix B: Map of the Guangdong-Hong Kong-Macao Greater Bay Area (GBA)



Source: Reprinted from *GBA Cities*, by Constitutional and Mainland Affairs Bureau of Hong Kong, n.d., Retrieved on September 26<sup>th</sup>, 2019, from <https://www.bayarea.gov.hk/en/about/the-cities.html>.