provides transport services within the enterprise, which is internal transactions, where no invoices can be issued, any transport industry related input tax could not be claimed. After separation, input-credits are possible. In reality, this is a distortion to the normal operation of the enterprise. Another issue is that the transport service providers not only cannot claim input-credits, it would have to pay sales tax at 3%.

However, there are issues for levying a VAT on the transport industry. The characteristics of the transport industry are that in its cost structure, a large percentage are fixed assets, whereas labour costs and raw material costs amount to a relatively smaller proportion. Currently the sales tax rate for transport is 3%. According to the research of Shao Ruiqing et el, if allowing input-credits for newly-acquired fixed assets, then when applying the 17% general VAT rate, the average real tax burden of transport industry enterprises that are surveyed, including road transport, internal river transport, seaside transport and loading at dock are still as high as 6.86%; when applying the 13% beneficial rate, the average tax burden is 3.83%; when applying the low tax rate of 10%, the real tax burden is 1.42%. If the beneficial rate of 13% is implemented, the real tax burden of road transport enterprises is 4.39%, internal river transport enterprises is 4.18%, seaside transport enterprises is 3.11%, dockside loading enterprises at 4.33%; the actual tax burden for enterprises are all higher than the current tax burden level, the percentage increase of the whole industry is 32.07%, and the average rate of increase between the type of transport is relatively balanced. The turnover tax as part of turnover ratio for road transport enterprises has increased by 28.73%, internal river transport by 37.05%, seaside transport by 37.61%, and dockside loading by 24.43%.[16]

In order to be neutral i.e. maintaining the tax burden of the transport industry after the change to a VAT at the current level, a low tax rate of 12% needs to be selected. This will lead to multiple rates for the VAT where the effects of the VAT are difficult to measure, and hence, it will give rise to tax administration difficulties. For example, in the year where the fixed asset is purchased, the input tax would exceed output tax, therefore tax refund is required (inputs are taxed at 17%, turnover at 12%). Furthermore, at the beginning of the reform, if input-credits are allowed for existing fixed assets, the public finance reform costs would be relatively large. On the other hand, if input-credits are not allowed, it will be hard for new and old enterprises to compete equally, as new enterprises are in a beneficial position, leading to a series of social problems.

3 Issues from Levying a VAT on the Construction and Real Estate Industries

If a VAT is levied on the construction and real estate industries, the major issues are:

Firstly, the distinction between commercial and residential real estate. Real estate can be differentiated as commercial (as through put), or residential (as consumption). There can be input-credits for the former. As the latter is a final consumption, it should bear all the tax, but when residential real estate is for investment purposes, input-credits should be allowed. Therefore, levying a VAT on the construction and real estate industries will face the above issue first, and the differentiation is not a simple matter.

Secondly, there are layers of sub-contracting in construction. In order to not break the input-credit chain in the construction industry, where the tax burden is balanced, all sub-contractors at all levels would have to be normal VAT tax payers. In China, there are a large number of small scale construction teams, giving rise to VAT tax payers. In China, there are a large number of small scale construction teams, giving rise to VAT administration issues. Many small-scale sub-contractors often disappear before they pay any VAT. Self construction for the purpose of lease or sale would not receive input-credits as the constructor could not be characterised as a normal tax payer. Further, the construction industry is an important area for the government to apply other economic policies, such as the difference between normal buildings and social security housing. Should social security housing be exempt or taxed? If tax is applied equally, the price of this housing would increase. However, if not taxed, then the same constructor would be required to differentiate between the inputs for taxable and exempt construction, and such a differentiation is also not a simple task.

Thirdly, similar issues facing the transport industry would also occur. For example, if the 17% standard rate is levied, the tax burden for the construction and real estate industry will dramatically increase. The research of Guo Xinnan et al based on the Qinghai Province looked at the VAT tax burden situation on different types of construction industries, please see table 2. Table 2 illustrates that if following the continuing neutrality principle of not changing the tax burden utilised through China's tax reforms, then the 17% standard tax rate is not suitable. A low tax rate would be required, and the optimal is to implement multiple low tax rates. This will destroy the simplicity of the VAT, leading to complexity in tax administration from differentiating tax items for different tax rates and input-credit rates. Also, small scale constructors still face taxes in the manner of a sales tax — tax on full turnover value.

TABLE 2: TAX BURDEN RATIO AFTER LEVYING VAT ON THE CONSTRUCTION INDUSTRY (QIANGHAI PROVINCE AS EXAMPLE)

VAT RATE ENTERPRISE TYPE	17%	13%	11%	10%
AVERAGE	7.32	4.29	2.70	1.88
BUILDING CONSTRUCTION	8.27	5.52	3.65	2.83
INSTALMENT	7.15	4.12	2.53	1.71
ROADS & BRIDGES	7.83	4.80	3.21	2.39
PLUMBING & ELECTRICITY	6.20	3.17	1.58	0.76
DECORATING	10.30	7.28	5.68	4.86

Fourthly, there are no VAT invoices for the purchase of base materials, therefore no input-credits. Construction enterprises not only require the three principle materials of steel, concrete and timber, they also require a large amount of base materials, which are sand, gravel and brick. These base materials are often supplied by local small scale enterprises. Because the construction and installing industries cannot receive VAT invoices, they are therefore not able to claim the input-tax paid on base materials under a specified VAT rate (assuming it will not change the tax burden). Hence, the tax burden of enterprises may still increase.[18]

Furthermore, if also incorporating real estate into the VAT, there is also the question of whether the land capital gains tax should continue to exist. Currently, the land capital gains tax base in China is the realised capital gain of real estate, which is levied on a four-bracket progressive scale between 30% – 69%. Due to the buoyant nature of the Chinese real estate market in recent years, land value increased significantly, the policy behind land capital gains tax is to balance the return from land and promote the development of land. If a VAT is levied on real estate, then two taxes on the increase in value would exist at the same time, which have almost identical tax bases. If the two taxes are combined, the land capital gains tax will lose its function in balancing returns from land, significantly increasing the profits of land developers, leading to dissatisfaction in the community.

4 Exemption Mechanisms and Replacement Methods for the Financial Services Sector

The financial services and insurance industries account for a large proportion of the services sector, but how to levy a VAT on the financial services sector is a challenge around the world. Theoretically, the financial services and insurance industries should pay VAT and claim input-credits like other industries, issue VAT invoices to service receivers, thus the financial services and insurance industries like other industries are just withholders of VAT. Those taxpayers who receive financial services or insurance services could claim input-credits for the VAT they paid on the financial service or insurance service, and the tax is finally borne by the consumer. Only then is such a tax system equitable. However, in reality, the turnover tax base and input tax base of the financial services and insurance industries have their special features, which are difficult to identify by using the general rules suitable for production type enterprises.

Firstly, the financial services sector not only includes the income from real resources, there is a risk premium from bearing risk; in general, turnover taxes can only be levied on income from real resources, it should not be levied on the risk premium, [19] because the risk premium may have to be paid out when the risk realises in the future. In reality these two types of income cannot be distinguished. As Alan Tait said: "because the price paid by the user of the services (interest rate, policy premium and so on) embodies both the price of the services and other considerations, it cannot be used as a basis for a VAT".[20]

Secondly, it is not possible to ascertain the input tax and output tax at a point in time (e.g. transfer of title, receiving of fund) like goods transactions. For example, a loan that calculates interest based on annual interest rate may have different incidences for interest depending on the length of the loan, the method of payment may also vary, thus it is difficult to generalise a taxing point. It is impossible to collect tax from financial services receivers through an invoice in the same way as normal goods transactions. If this has to be done, the law or regulation would be overly complex and the tax administration cost would be very high. Therefore, the standardised calculation methods for input and output tax are not suitable for the financial services and insurance industries. Theoretically and practically, each country has engaged in research in an attempt at implementing a VAT on the financial services and insurance services. For example, Israel uses a "summation" method, to add up the value add amounts of the financial services and insurance industries such as wages and salary, profit, etc, then multiplied by the tax rate to calculate VAT. This method is based on realisation, not an accrual of rights. It extends fair treatment to the financial services and insurance industries, but it still is an individual tax type, not incorporated into the standard VAT system, and thus the aim to achieve an ideal VAT without breaking the input-credit chain is still not achieved. France chooses to use a method of tax base approximation based on ascertained time, where the banking industry has a choice to pay a 0.21% tax on interest differential or a 0.14% VAT (where there is input-credit). However, since the tax base is based on a particular date in the year, a distortion arises as banks artificially arrange seasons.

Other scholars propose different methods[21], but the feasibility is relatively low. From 2005, New Zealand no longer exempts financial services but has a different method. Supplies of financial services to private customers continue to be exempt; zero-rating is applied to business-to-business supplies of financial services if certain criteria are met, allowing the financial services providers to claim input tax credits. Those criteria include financial services supplies made to GST-registered customers where the customer makes taxable supplies equal to or exceeding 75% of their total supplies in a 12-month period.[22] This means the financial institution needs to check each transaction to see whether it meets the criteria for zero rating. It also needs to separate its input tax between transactions that meet the criteria, and transactions that do not meet the criteria. The administrative complexity can be imagined. Furthermore, New Zealand is a small country, its financial sector is concentrated, there are only 18 banks, and the 5 large banks have a combined market share of 87%. The practice in New Zealand is difficult to adopt. Therefore, exemptions for financial services are the dominant practice amongst countries that implement a VAT. [23]

There are problems with exemption. One, in the eyes of the general public, exempting the financial services and insurance industries does not meet the requirements of equity. Two, to the economist, exemption does not meet the requirements of efficiency and equity, because economically, only when taxes are levied on those goods and services that are substitutes to leisure, will it not lead to the situation where leisure is preferred above the consumption of labour or goods, thus avoiding welfare loss. Therefore exemptions can only be applied to necessities, for the reason of equity. Neither the financial services nor the insurance industry fulfil the economic conditions of exemption. Three, to the tax administrator, exemption will lead to reducing revenue, and the loss of administrative information. Four, to the tax specialist, exempting the financial services and insurance industries means that they cannot claim input-credits; which increases its tax burden, leading to a decreased competitiveness.

According to Alan Tait, for the financial services sector, "there is not a satisfied way to impose the VAT on the sector and allow a credit for users of financial services. An exact calculation of value added in the sector, even on an annual basis, is extremely difficult. In view of these problems, little seems to be lost and much gained in terms of simplicity if the sector is exempted from VAT and a separate tax is imposed that produces a yield approximately equal to that which would be produced by application of the VAT." [24] The author agrees wholeheartedly with Tait. In 2010, the total sales tax paid by the financial services and insurance industries was RMB 168.804 billion, of which banks account for RMB 122.617 billion, insurance RMB 24.182 billion, securities RMB 9.83 billion. The sales tax paid by the financial services sector account for 15.13% of total sales tax of RMB 1,116.014 billion. The amount collected by local tax administrations is RMB1,098.050 billion, which goes to the revenue of local governments. The SAT collects RMB17.966 billion, of which 14.524 billion is collected by the SAT at the central level. If the financial services and insurance industries are exempt, fiscal revenue, especially that of the local government, will be significantly decreased, and it is not possible to replace through other means. It is impossible to discard such a large revenue source. If incorporating the financial services sector into the VAT, not only will the above issues be encountered, a special question of tax rate design will arise. Pure financial services mainly give rise to income from services (reflected in the savings and loan differential, brokerage commissions, services fees, etc). The input amount is low. If the standard 17% rate is used, the turnover tax burden of the financial services sector would be significantly increased, inevitably increasing prices of financial services, especially interest rates would be changed. If this is done, different aspects of the macro-economy would be affected. If a lower rate is designed for the financial services sector, the issue of multiple VAT rates would arise again. Therefore, after comparison, it is better for the financial services sector to remain at the status quo, where the sales tax is levied. In reality, the current sales tax on the financial services sector in China is already levied on the value added, sales tax of banks based on loan interest, and loan interest is a value added amount in the national accounts. The tax base of the buying or selling of financial instruments (including share, debt, foreign exchange etc) by banks or non-bank financial institutions is the residual of sales price less purchase price. Therefore the sales tax does not discriminate specialisation in the financial services sector.

In summary, simply considering the major services industries, the multiple difficulties in system design and implementation, from replacing the sales tax by the VAT may give rise to more issues than remaining at the status quo. If the reform principle of achieving neutrality i.e. no change in tax burden is to be continued, then expanding the scope is worse than not expanding. If the principle can be changed, then there are fewer obstacles to extend to the transport industry, the construction and the real estate industries. It is best for the financial services sector to continue at the status quo, i.e. levy sales tax. Tax reform for the sale of equity sometimes will give rise to greater inequality, because the taxpayer can adapt to any tax system design through rearranging their resources, as long as there is satisfactory competition and information symmetry. When the tax system is unchanged, competition will lead to equivalent post-tax profits, naturally there will be horizontal equity, in contrast, changing the tax system will lead to inequality. Although the original tax system has flaws, maintaining neutrality i.e. the stability of the tax system is still the optimal choice.

NOTES

1 This paper was first presented in the 2011 International Conference on China VAT Reform. A Chinese version of this article has been accepted by Taxation Research 《税务研究》。

2 Strictly speaking, the services sector does not include construction, it includes all industries except agriculture, industry and construction, i.e. what is internationally categorised as the tertiary sector, which can be further categorised into four sectors: first is circulation, including transport, post and telecommunication, commercial food and beverages, material supply and marketing and warehousing; second is services provided for the requirement of production and living, including financial services, insurance, public facilities, residence services, travel, consulting and information services and technical support services, etc; third is services that improve the level of sciences and culture and the quality of life, including education, culture, TV and radio, research, welfare, etc; fourth is services for social public needs, including government departments, social groups, the military and police etc. In China's current tax laws, the third and fourth sectors above are not taxed. Therefore in this paper, the services sector refers to the industries where the sales tax is levied, including transport, construction and real estate, financial services and insurance, post and telecommunication, culture and sports, entertainment, restaurants and hotels, agency, travelling, warehousing, leasing, advertising, other services (bathing, hairdressing, colouring, photography, visual arts, paper mounting, copying, typing, carving, calculating, testing, pathology, sound and video recording, photocopying, blueprinting, designing, drawing, surveying, prospecting, packaging, consulting, etc), transfer of intangible assets, sales of fixed assets.

3 Gong Wenhui, 'Thoughts on Combining the VAT and Sales Tax' (2010) *Tax Research* Issue 5. 龚辉文，《关于增值税、营业税合并问题的思考，《税务研究》，2010年第5期； Wei Lu, 'The Development of the Services Sector and the Reform of the Tax System for Goods and Services in China' (2010) *University Journal of Zhongnan University of Economics and Law* Issue 4《服务业发展与我国货物和劳务税制改革》，《中南财经政法大学学报》，2010年第4期。

4 Wei Lu, above n 3.

5 Ping Xinqiao, Zhang Haiyang et el, 'Tax Burden of Sales Tax and the VAT' (2010) *Comparatives of Economic and Social Systems* Issue 3. 平新乔 张海洋等，《增值税与营业税的税负》，《经济社会体制比较》，2010年第3期。

6 Wei Lu, above n 3.

7 Jiang Kang, Shi Wenpo, 'Thoughts on Expanding the Scope of the VAT' (2010) *China Public Finance* Issue 19. 贾康、施文泼，《关于扩大增值税征收范围的思考》，《中国财政》，2010年第19期。

8 Wei Lu, above n 3.

9 Jia Kang, Shi Wenpo, above n 7. 贾康、施文泼，《关于扩大增值税征收范围的思考》，《中国财政》，2010年第19期.

10 Department of Services Trade, Ministry of Commerce, 1997-2009, *Itemised Table of Services Imports in China*, 商务部服务贸易司，《1997-2009年中国服务贸易进口分项目表》，http://tradeinservices.mofcom.gov.cn/c/2010-05-26/82544.shtml.

11 Jia Kang, Shi Wenpo, above n 7.

12 Yang Bin, Debates of Tax Reform in China, *China Public Finance and Economics Press* (2007) 杨斌《中国税改论辩》，中国财政经济出版社，2007年版第页。

13 Han Shaochu, 'Take the Opportunity to Push for the Third Wave of Reform of the VAT' (2009) Public Finance and Tax, Issue 12. 韩绍初，《抓住时机推进增值税制度第三次改革》，《财政与税务》，2009年第12期；Han Shaochu, 'Characteristics of a Modern VAT and A Few Recommendations for the VAT Reform in China' (2010) *Cross Border Tax* Issue 9. 韩绍初，《现代型增值税的特点及对我国增值税制改革的建议》，《涉外税务》，2010年第9期。

14 Cai Chang, 'Discussions on the Issue of VAT 'Scope Expansion' (2010) 5 *Tax Research*. 蔡昌，《对增值税"扩围"问题的探讨》，《税务研究》，2010年第5期。

15 http://ec.europa.eu/taxation_customs/common/consultations/tax/2010_11_future_vat_en.htm.

[16] Shao Ruiqing, Wu Shanling and Lao Zhi, 'Analysis of the Tax Types and Tax Rates of Levying VAT on the Transport Industry' in Yu Chuan et el (eds), *A Selection of Papers from the Second Jinqiao New Century Finance and Accounting Conference of the Chinese Transport Industry* (2004). 邵瑞庆、巫珊玲、劳知，对交通运输业实施增值税的税型税率分析，于川等主编，金桥新世纪第二届中国交通运输业财务与会计学术研讨会论文选》，中国财政经济出版社，2004年版。

[17] Guo Xinnan, Cai Shuchun and Tang Zhongcai, 'The Difficulties and Issues from Levying a VAT on the Transport Industry' (2000) 3 *Tax Research*. 郭梓楠 蔡树春 汤仲才，《建筑业改征增值税的难点与影响因素》，《税务研究》，2000 年第3 期。

[18] Tan Senlin, 'The Effects on Construction Enterprises from Levying VAT on the Construction Industry' (2004) 7 *Friend of the Accountant*. 谭森林《建筑业改征增值税对施工企业之影响》，《会计之友》，2004年第7期。

[19] Alan J Auerbach and Roger H Gordon, 'Taxation of Financial Services under a VAT' (2002) 92(2) *American Economic Review* 411–16.

[20] Alan Tait, *Value-Added Tax: International Practice and Problems*, International Monetary Fund, Washington DC (1988) 93. 爱伦・A・泰特，《增值税国际实践和问题》，中国财政经济出版社，1992年版，第97页。

[21] T Edgar, 'Exempt Treatment of Financial Intermediation Services Under A Value-added Tax: An Assessment of Alternatives' (2001) 49(5) *Canadian Tax Journal* 1132–1219.

[22] Michael Dineen, Eugen Trombitas and Rachael Johnson, 'New GST Rules Affecting Financial Service Providers in New Zealand: How These Changes Will Affect the Financial Services Sector and How to Ensure You Are Prepared When the New Rules Come into Effect' (2004) August-Sept *Journal of Banking and Financial Services* <http://moneywatch.bnet.com>

[23] T Edgar, above n 21.

[24] Alan Tait, above n 20.

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The Relationship Between VAT Base Expansion and Intergovernmental Fiscal Relations

From the Perspective of the Dual Processes of Industrialisation and Urbanisation

LIN JIANG & SUN HUI

In this paper, the relationship between VAT base-expansion and inter-governmental financial relations is discussed from the perspective of the dual processes of industrialisation and urbanisation.

First, this article theoretically analyses the VAT base-expansion and its real world implications and then evaluates the intergovernmental fiscal relationship. Lastly, an empirical simulation of the effect of base-expansion on local fiscal revenue and expenditure in this dual process is performed. Based on this conclusions are drawn and relevant policy suggestions are put forward.

INTRODUCTION

The tax reform of 1994 has lead to the coexistence of Value Added Tax (VAT) and business tax in China. The VAT tax base is the value added in the secondary sector, and the wholesale and retail activities in the tertiary sector, while the tax base of the business tax is the turnover of the construction industry (which belongs to the secondary sector) and other fields besides wholesale and retail activities in the tertiary sector. The disunity of this tax policy on goods and services leads to double taxation caused by tax type differences[1], which hinders the development of the tertiary sector and its improvement as well as structural economic transformation. As the process of urbanisation and industrialisation has advanced in China, specialisation has increased, particularly in the service sector, and the boundary between goods and services has become unclear, which brings about many difficulties in the collection of VAT and business tax and also leads to administrative conflict between the national tax bureau and local tax bureaus.

The more prevalent international practice is to have a comprehensive goods and services tax that expands the tax base of VAT to that of the current business tax in China (VAT base-expansion). VAT base-expansion integrates goods and services tax policies completing the input credit chain consequently stimulating tertiary sector development and encouraging the dual process of industrialisation and urbanisation. Thus the introduction of a comprehensive goods and services tax in China is inevitable, however this may bring about some potential issues: As the business tax is the main tax type for local governments encouraged by the dual process, the tax base continues to expand, bringing extra revenue for local government. As a result, if its tax base is incorporated into the VAT, is this feasible? Will local governments be able to bear the potential fiscal revenue loss? And how can the fiscal relationship between central and local governments be readjusted? This paper examines these issues, analysing the reform of VAT and business tax in China from the perspective of the dual process of industrialisation and urbanisation. The purpose of this analysis is to determine how to find a breakthrough in the VAT base expansion reform to adequately deal with the fiscal relationship between the central and local governments.

1 The Necessity of VAT Base Expansion: Theory and Reality

a Brief History of the Implementation of VAT in China

In 1979, China started the first Pilot of a VAT, and in 1984, it became a formal tax type. Since then it has experienced multiple base expansion reforms in 1986, 1987, 1988, 1989 and 1994, [2] to the current tax base that included most goods and manufacturing-based services and imported goods. In particular, the reform of 1994 adapted to the needs of structural change, as it positioned the VAT within the scope of the turnover stage and processing, maintenance and repair activities, incorporating the majority of services into the scope of the business tax, beginning to address the conflict of double taxation and tax burden imbalance. This follows international precedent and suits the economic development levels and administrative capacity of China. However, the scope of the VAT is still too narrow overall, its advantages of neutrality and fairness are not evident and the issue of double taxation as well as tax burden imbalance are still not resolved.

b Literature Review

There is significant and long-standing international literature regarding the expansion of the VAT base. Representative perspectives include those of: Alan A Tait[3] who, based on the comparison of countries, suggested it is essential to expand the tax base from manufacturing to each link of the process from production to retail. This is because if the tax base only includes imports and manufacturing, the tax base will be too small and vertically-integrated enterprises will shift profit to its downstream entities to escape the VAT tax base. Tait further advises that when labour is used as an input, VAT should also be levied on it. The opposite point of view of VAT is that the VAT has high administrative costs and will lead to the loss of tax revenue, thus its implementation should be selective. This perspective is supported by Kay and King (1979)[4], who commented that the VAT is neutral and good; however, in practice, this has limitations as its administrative costs are high and it is relatively taxing on administrative and enforcement levels. Further, Due (1985)[5] suggests that the VAT is likely to cause tax fraud, and advised the Norwegian government to restore retail tax instead of the VAT that had been in place since 1970. Additionally, Fedeli Silvia (1999) concluded from income and value added tax empirical research that most tax evasion is likely to happen in the final links of the value-added chain.

Since the tax reform of 1994, there has been substantial discussion about the VAT base expansion in China. The majority of scholars thought that the VAT base should be expanded, including: Liu Hanbing and Chen Guofu (2001), Pan Mingxing (2002), Yang Jingzhong (2007), Yu Junlin (2008), Xia Jiechang (2006), Zhang Furong (2007), Cai Chang (2008, 2010), Liu Wei & Zhang Feng (2000). All of these scholars agree that the practice of VAT base-expansion will reduce double taxation and tax discrimination, however they do not consider the changes to the revenue-sharing structure of the central and local governments, or the costs of the reform. Scholars considering the administrative cost and fiscal conditions, including: Li Lingen (2001), Tong Jinzhi (2001), Xiong Rong (2003), Ma Guoqiang (2002), Han Shaochu (2009), Guo Tianyong (2009) as well as Liu ShangXi (2009), advise that the tax base of VAT should be gradually expanded, but there are areas of limitation. For example, Guo Tianyong (2009) calculated that if the business tax decreases by 1% it will lead to an increase in financial industry profits of 3%, concluding that the financial business tax rate should be decreased to around 2%–3% and that VAT on the financial industry should be postponed and the tax should be adjusted to be levied on net turnover. Further, Liu Shangxi (2009) suggested that the degree of VAT base expansion reform should be similar to that of the split tax system reform of 1994, the whole fiscal and tax system needs to be readjusted, thus requiring a gradual reform process. These theoretical and empirical explorations are helpful for subsequent research.

Another aspect of this paper is about the fiscal relationship problems between the central and local government. Since the reform in 1994, the fiscal ability of local government compared to its administrative authority has been limited. There are two research perspectives. The first is that the local government doesn't have enough fiscal power as supported by Jia Kang & Bai Jing Ming (2002), Yang Zhiyong (2008), Tian Fa & Zhou Chenying (2009), Zhong Gaozheng & Zeng Kanghua (2009). The second is that the local government does have enough fiscal power as argued by Ping Xingqiao (2007)[6], Chen Zhiyong & Chen LiLi (2010), Li Baochun (2010), Li Shangpu & Luo Biliang (2010),Yang Zhiyong (2010), Wu Qun & Li YongLe (2010) as well as Shao Yuan (2010). In general the two types of literature both have flaws. The former either only considers local level income or neglects to consider that non-budgetary income makes up a large portion of local level income. This is not comprehensive and is impractical in the current economic environment. The latter adopts the concept of comprehensive budget management, such as Shao Yuan (2010) who suggests that the local government has the ability to receive income from land tax, the transfer of land usage rights, and land financing, which is sufficient for the local government to provide public services. It is noted that the sample is too small to support the latter argument, and doesn't reflect the current local government fiscal ability.

c A Brief Comment

A review of the course of VAT base-expansion shows that the VAT base has been gradually expanded with economic development especially the development of tertiary sector industry. In China, the changes in the value added tax and business tax revenue level directly relates to the industrialisation and urbanisation processes. Furthermore, the reform of the tax system is always closely related to intergovernmental relations. One very important premise is to make sure that the central government has sufficient fiscal resources to maintain macroeconomic control. During the dual process, the tertiary sector industry (mainly services industry) has been developed vigorously, and construction and real estate have been very prosperous and therefore it is essential to engage in VAT base-expansion. However, one major reform difficulty is how to deal with the fiscal capacity of central and local governments. Thus, the main topic of this paper is empirical analysis on the relationship between the VAT base expansion and the intergovernmental fiscal distribution from the perspective of the dual process.

d Necessity and Feasibility

As suggested previously, now there is a consensus on the disadvantages of the coexistence of VAT and business tax. In theory, VAT base-expansion is an objective requirement of China's current economic structure. It is also necessary to complete the link between production and circulation as the current VAT and business tax system has systematic defects and regulatory inadequacies. Internationally, emphasis has been placed on reform that promotes comprehensive, extensive as well as neutral tax policy. China, similarly, places focus on these characteristics, and the attainment of these characteristics is a requirement for completion of its VAT tax reform. Therefore, VAT base expansion reform is imperative and only when the scope includes primary and tertiary sectors will there be a comprehensive VAT where the turnover tax system forms a desirable situation of combining with VAT general adjustment and the consumption tax special regulation. As far as the entire tax system is concerned, in terms of expanding the scope, goals such as tax efficiency, fairness and revenue growth can be achieved.

At present, there is the capacity to expand the base of VAT. First, tax administrative means and tools provide the infrastructure, especially with significant developments in the software and hardware for tax collection and administration, such as, the widespread use of computers, tax business and banking information sharing, and the national implementation of a system of tax agents. Secondly, the gradual move towards a free market economy and the degree of monetisation are the 'soft' conditions for expanding the scope. This means that all transactions can be quantified and it will no longer be difficult to ascertain the tax burden for VAT tax payers. The characteristics of tax exclusive pricing and the possibility of it being shifted can now be addressed due to the shift towards a market economy. Finally, improvements in the legal system leading to increased voluntary compliance also support an expansion of the VAT tax base.

AN EMPIRICAL STUDY OF THE RELATIONSHIP BETWEEN VAT BASE-EXPANSION WITHIN THE DUAL PROCESSES OF INDUSTRIALISATION AND URBANISATION

From the international experience it is vital in the VAT reform process to adequately deal with the intergovernment fiscal relationship between central and local governments. Now, due to the special role of VAT and business tax in China's central and local fiscal relationship, the reform of VAT base-expansion is critical. The core issue is regarding the adjustment of the current tax revenue patterns in China's intergovernmental fiscal relationship. When reviewing the intergovernmental fiscal relationship in history, it has been a bargaining game with long term irregular and informal negotiations, leading to an unstable situation where the central government consistently takes most of the tax revenue and uses this revenue for the purpose of macroeconomic regulation.[7]

The Economic Indicators Under the Dual Process

International experience indicates that: the process of industrialisation and urbanisation will change a country's industrial structure, which affects tax base, tax structure, tax revenue as well as tax administration efficiency. When examining the actual situation in China, in 2009, there was an increase in business tax revenue, in the real estate and construction industries of 38.6% and 23.8% respectively. In 2008, as an example, 81.6% of VAT came from the secondary sector, of which 60% comes from manufacturing, 17.4% comes from wholesale and retail sales from the tertiary sector, and 1% comes from repairs and replacement services. As far as the business tax is concerned, 78.5% of all revenue comes from the tertiary sector industry, and 21.5% comes from the secondary sector. [8] Statistics show that the tax base of VAT has been larger than that of business tax, but the tax base of VAT has rarely been changed. Basically, it accounts for 48% to 51% of GDP, whereas the tax base of business tax has been growing steadily, increasing from 31.9% in 1994 to 38.4% in 2007. Therefore, the change of VAT and business tax reflects the dual process. In this process, the real estate and construction industries contribute substantially to local financial revenues. In 2008, as far as Guangdong is concerned, the contribution by these two sectors to increases in local government revenue is as high as 64.2%. Therefore, it is necessary to consider the dual process of industrialisation and urbanisation in order to study the relationship between VAT base-expansion and intergovernmental fiscal relations.

TABLE 1: DUAL PROCESS OF INDUSTRIALISATION AND URBANISATION, RELATED ECONOMIC DATA AND RANK

Region	The Rank of Per Capita GDP	Industrialisation Ranking	Urbanisation Ranking	Tax Revenue as a Percentage of Budgetary Income	VAT and Business Tax as a Percentage of Budgetary Income	Business Tax as a Percentage of Budgetary Income	VAT as a Percentage of Budgetary Income
Shanghai	1	1	1	94.3	46.6	32.4	14.2
Beijing	2	2	2	96.6	44.1	35.5	8.6
Regtianjingg	3	3	3	80.9	42.9	26.6	16.2
Zhejiang	4	5	4	92.7	47.8	29.7	18
Jiangsu	5	6	5	83.4	42	24.3	17.7
Guangdong	6	4	6	86.5	45.6	28.9	16.7
Shangong	8	10	9	78.4	37.3	20.2	17.1
Inner Mongolia	7	18	13	71.4	36.6	20.7	15.9
Liaoning	9	7	8	75	35.2	22.4	12.7
Fujian	10	8	7	84.5	42.1	27.2	14.9
Jilin	20	12	16	37.3	38.7	22.2	15
Hebei	11	17	10	79	43.7	22.9	20.8
Heilongjiang	13	9	12	72.7	39.7	17.3	22.4
Shanxi	21	11	11	75.7	43	17.3	26.3
Xinjiang	23	20	14	79.4	47.9	25.3	22.5
Hubei	12	13	17	75.6	38.9	23.9	15
Henan	14	25	22	73.6	36	20.8	15.3
Shanxi	19	14	21	77	43.6	25	18.6
Chongqi	22	16	18	62.4	35.1	25.1	10
Ningxia	24	15	27	81.8	51	31.7	19.3
Hunan	15	22	19	67.3	37.3	24.1	13.2
Qinghai	26	19	26	78.1	46.2	25.8	20.4
Hainan	25	27	15	83.2	45.5	36.1	9.4
Sichuan	16	24	23	70.3	37	25.8	11.2
Guangxi	18	28	25	66.8	36.2	23.5	12.7
Jiangxi	27	25	20	73.3	37.3	24.2	13.2
Anhui	17	23	24	72.9	37.9	24.5	13.4
Xizang	28	31	31	61	43	32	11
Yunnan	29	29	29	78.6	38.4	22.2	16.2
Gansu	30	26	28	61.4	34.4	20.1	14.3
Guizhou	31	30	30	75	38.9	23.1	15.9