

Measures to Reform the Tax Incentive System to Foster the Venture Industry

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Beom-Gyo Hong

Korea Institute of Public Finance

1924, Hannuri-daero, Sejong, 339-007, Korea

Tel: 82-44-414-2114 Fax: 82-44-414-2179

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I

Introduction

A venture business is a newly established small medium enterprise (SME) that is pioneering new markets with an ambitious entrepreneurial spirit. It possesses independent new technologies or ideas that are risky but that can generate large amounts of expected returns if successful.¹⁾ In order to foster venture businesses and ensure their sustainable growth, investors must be able to easily withdraw their invested funds from venture businesses and reinvest. That way, venture businesses can obtain smooth supply of funding.

The Korean government has made various efforts for realizing a supportive environment for the venture industry. After enacting Act on Special Measures for the Promotion of Venture Businesses in September 1997, tax incentives for the venture industry expanded and became more sophisticated with the enactment of Restriction of Special Taxation Act, Corporate Tax Act, Income Tax Act, and Local Tax Act. About fifteen years have passed since the Act on Special Measures for the Promotion of Venture Businesses came into effect and it is time to evaluate the effectiveness of the existing tax incentives and reset the policy direction for the future. As Park Geun-hye administration's key policy on "creative economy with focus on creation of jobs" is to foster venture capital investment, the importance of the venture industry is increasing all the more.

1) Kim and Kim (2000), p. 186; Kim (2013), p. 13.

With the goal of finding out how tax incentives should be reformed for venture businesses in the future, this study examines tax incentives for venture businesses in Korea and other countries and draw policy implications. Furthermore, a research on the situation of tax incentives for venture businesses and venture capital is conducted and the effectiveness of the incentives is empirically analyzed. Based on the research results, possible tax policy direction that can foster the venture industry in the future is proposed in the conclusion.

It is hoped that the findings in this paper will be utilized as basic materials for setting the future policy direction of tax incentives for venture businesses. When designing and drafting policies for tax incentives, it is recommendable that policymakers draw public consensus based on research such as from this paper.

II

The Venture Industry²⁾

1 Venture Business³⁾

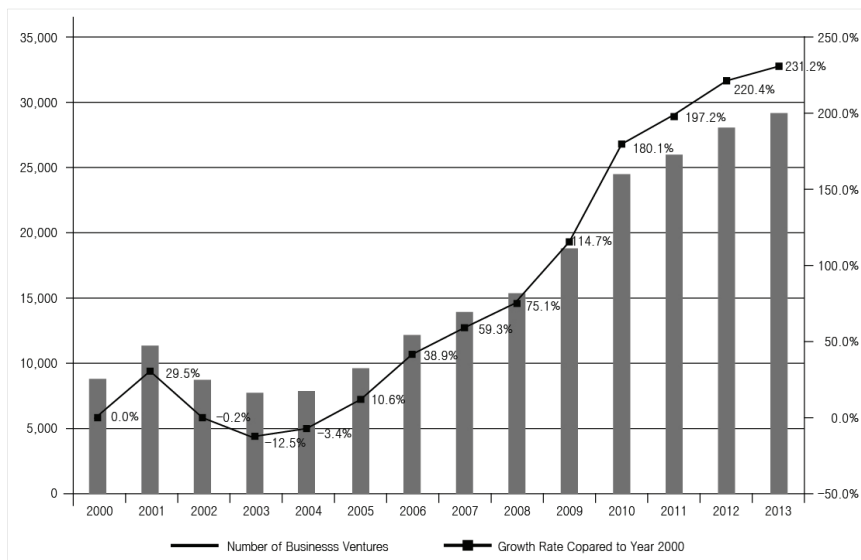
A. Number of Venture Businesses in Korea

The number of venture businesses in Korea dropped in 2002 and 2003 amid the burst of IT venture bubble. However, with the government's promotion policy, the number began to rise in 2004. By 2013, there were 29,135 venture businesses, which was an increase by more than fourteen times compared to 1998 (2,042 ventures), showing an annual growth rate of 19.4% since 1998. The exponential growth was due to the advancement in IT technology, which was expedited by the expansion of smartphone and Park Geun-hye administration's emphasis on supporting venture capital investment as part of its "creative economy" policy.

2) Kim (2013), pp. 13–21.

3) According to Article 2.2 of the Act on Special Measures for the Promotion of Venture Businesses, among SMEs with outstanding capability in innovation in technology management, the companies that meet the criteria of venture businesses

[Figure II-1] Changes in the Number of Venture Businesses in Korea, 2000-2013



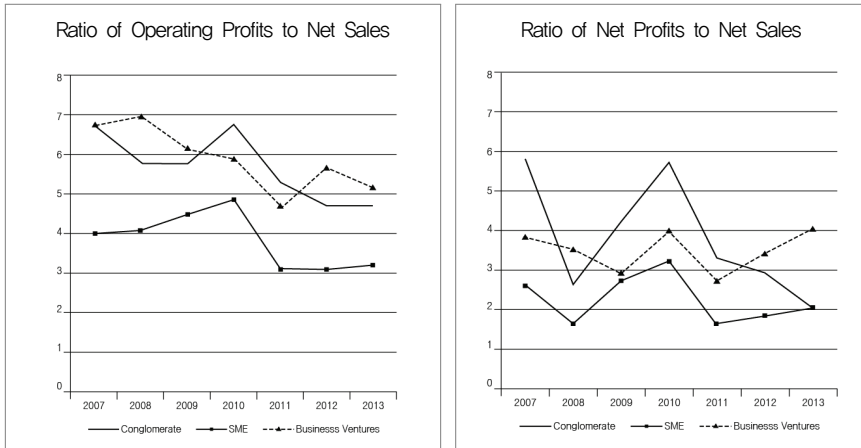
Source: Small and Medium Business Administration, *In-Depth Survey of Venture Businesses*, each year Kim (2013), p. 14, updated

B. Business Performance

According to the Small and Medium Business Administration (SMBA), in 2012, the ratio of operating profit to net sales was 5.2% for venture businesses, 3.2% for SMEs, and 4.7% for conglomerates, indicating that venture businesses were performing the best among all types of companies. Venture businesses also had the highest percentage for ratio of net profit to net sales. Although the profitability of venture businesses continuously decreased after 2008 due to deepening competition and economic recession, it bounced up hugely in 2012 compared to SMEs and conglomerates as the information and communication sector took a favorable turn.

[Figure II-2] Comparison of Business Performance among Conglomerates, SMEs, and Venture Businesses, 2007-2013

(Unit: %)



Note: 1. Ratio of operating profits to net sales = (operating profits / net sales) x 100

2. Ratio of net profits to net sales = (net profits / net sales) x 100

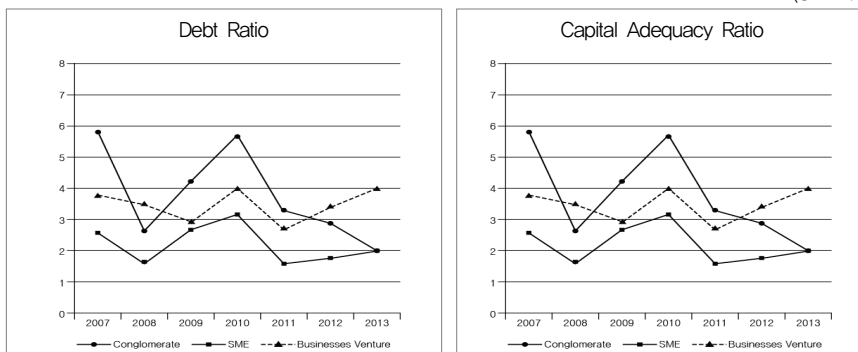
Source: Bank of Korea Economic Statistics System, *Business Management Analysis*, each year SMBA, *In-Depth Survey of Venture Businesses*, each year Kim (2013), p. 16, updated

C. Financial Status

According to the SMBA, in December 2013, venture businesses had a debt ratio that was higher than conglomerates but lower than SMEs. On the other hand, venture businesses had a capital adequacy ratio that was higher than conglomerates but lower than SMEs. Venture businesses' debt ratio showed a decreasing trend after 2008, and then during the last two years, the percentage has remained in the mid-40% range. In particular, while the debt ratio of venture businesses increased only 4.6%p in 2011 compared to 2010, there were huge increases by 42.2%p for conglomerates and 42.8%p for SMEs.

[Figure II-3] Comparison of Debt Ratio and Capital Adequacy Ratio among Conglomerates, SMEs and Venture Businesses, 2007-2013

(Unit: %)



Source: Bank of Korea Economic Statistics System, *Business Management Analysis*, each year SMBA, *In-Depth Survey of Venture Businesses*, each year Kim (2013), p. 16, updated

2 Venture Capital⁴⁾

A. New Venture Capital Investment⁵⁾

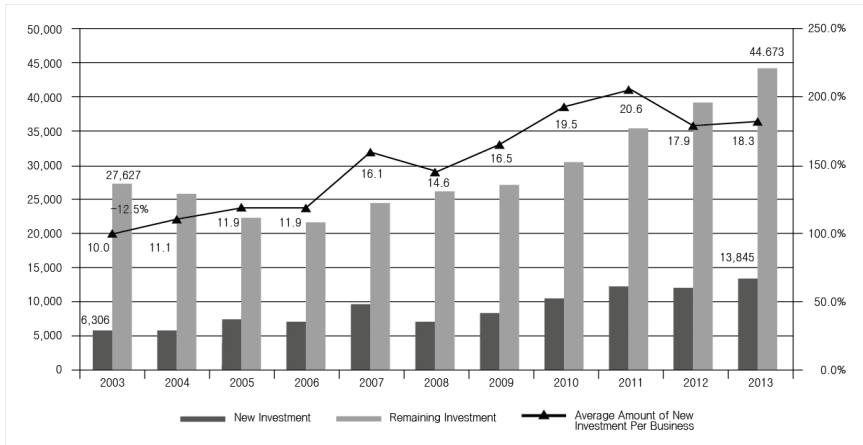
The amount of new venture capital (VC) investment has more than doubled over the last decade, from KRW 630.6 billion in 2003 to KRW 1.4 trillion in 2013. The average amount of new investment made per venture business has grown from KRW 1.0 billion in 2003 to KRW 1.8 billion in 2013. Additionally, the amount of investment remaining in businesses and not

4) There are various definitions of venture capital depending on investment target, the characteristics of businesses, investment methods, the types of investors, and the business environment of venture capital among others. The Organization for Economic Cooperation and Development (OECD) defines venture capital as “capital provided to young, unlisted firms with high growth potential,” while Jinsoo Kim (2011) defines it as a financial activity and/or an institution that seeks to realize capital gains by providing starting capital to venture businesses

5) Amount of VC that was provided to startups (companies that are less than seven years old) and venture businesses by VC companies investment associations

[Figure II-4] New Venture Capital Investment by Year, 2003-2013

(Unit: KRW 100 million)



Source: Korea Venture Capital Association (KVCA)
Kim (2013), p. 17, updated

reclaimed by investors has been steadily increasing since 2006, reaching KRW 4.4673 trillion by 2013.

B. New Investment Patterns by Business Stage

In the early 2000s, most of the VC investments were concentrated in venture businesses in early and expansion stages that were less than seven years old. Since 2008, however, the amount of investment in later stage venture businesses has been steadily increasing. More specifically, in 2003, KRW 246 billion and KRW 328.1 billion were invested in early⁶⁾ and expanding stages of venture businesses, accounting for 39% and 52% of total VC investment.

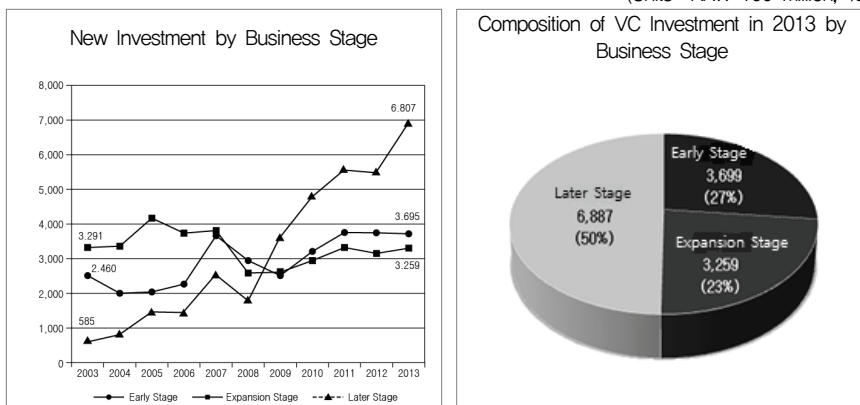
In contrast, the investment in later stage⁷⁾ venture businesses amounted to only KRW 56.5 billion (9%). In particular, from 2003 to 2006, over 50%

6) Early stage (start/seed): nascent (newly-founded, prospective) startups

7) Later stage: stable (quoted, return-generating) businesses

[Figure II-5] New VC Investment Statistics by Business Stage

(Units: KRW 100 million, %)



Source: KVCA Venture Capital Information Center Kim (2013), p. 19, updated

of VC investment went to expanding⁸⁾ venture businesses due to the burst of the venture bubble. Since 2009, later stage businesses have emerged as the most attractive recipients of investment, claiming KRW 688.7 billion, or almost 50% of the total VC investment made in 2013.

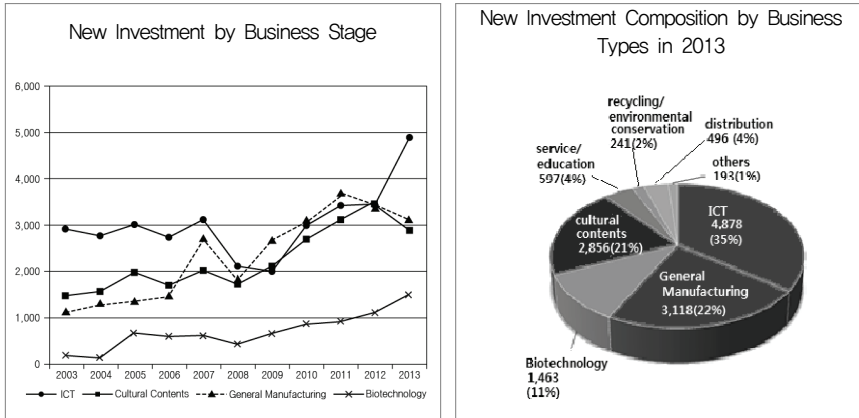
C. New Investment Patterns for Each Sector

In 2013, the venture businesses in the information and communication technology (ICT) sector claimed the biggest share (KRW 487.8 billion or 35.2%) of all new VC investments made. Next in rank was general manufacturing (KRW 311.8 billion or 22.5%), followed by cultural content (KRW 285.6 billion or 20.6%). New investments made to the venture businesses in the ICT and biotechnology sectors have been steadily increasing. Investment in the cultural content sector also grew steadily since 2008, although the increasing trend seemed to waver in 2013.

8) Expansion: stable (producing, marketing) businesses

[Figure II-6] New VC Investment Provided for Each Sector

(Units: KRW 100 million, %)



Source: KVCA-Venture Capital Information Center
Kim (2013), p. 20, updated

D. Investment Withdrawal

In the VC investment withdrawal market in Korea, over-the-counter sales and redemption (49.8%) represented the biggest withdrawal pattern in 2013. The next in order was withdrawal of project investments⁹⁾ (23.5%) and withdrawal through IPOs¹⁰⁾ (15.7%). It should be noted that withdrawal through M&A (0.3%) is extremely rare and has been on a steady decline along with IPOs since 2008. This is because since most of the withdrawal of VC investment is conducted through over-the-counter sales and redemption, venture businesses are not receiving proper evaluations on their status.¹¹⁾

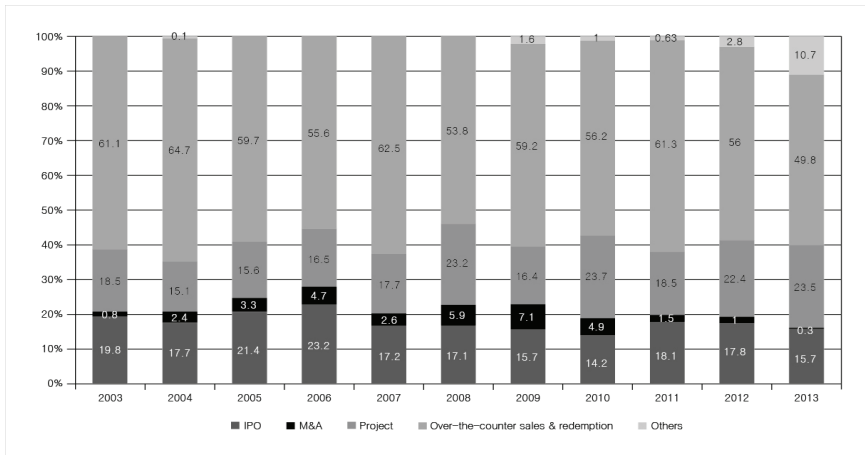
9) Project investment: an investment that distributes profits to investors after receiving needed funds from the investors for a certain project as an investment contract

10) IPO (Initial Public Offering): the first sale of stock by a company to the public through a stock market such as KOSDAQ.

11) Kim (2013), p. 21

[Figure II-7] Annual Withdrawal of VC Investment

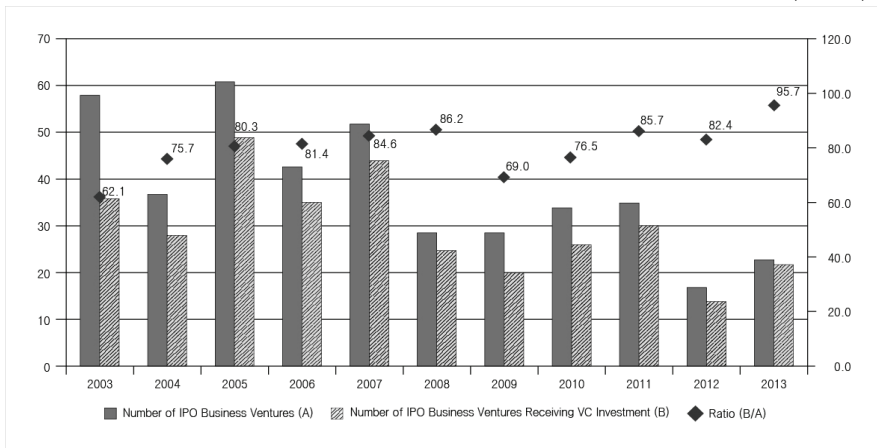
(Unit: %)



Source: KVCA-Venture Capital Information Center
Kim (2013), p. 22, updated

[Figure II-8] IPOs on the KOSDAQ

(Unit: %)



Source: KVCA-Venture Capital Information Center
Kim (2013), p. 22, updated

In 2013, there were 1,009 companies listed on the Korea Securities Dealers Automated Quotations (KOSDAQ) market, and 37 of them were IPOs. Of the 37 companies, 23 (77.3%) were venture businesses. Of the 23 IPO venture businesses, 22 (95.7%) were receiving VC investment from VC companies, VC investment associations, and the Korea Venture Fund (KVF). In 2012, the number of IPOs was 22, which was a huge drop from 63 in 2011 (decrease by 64.1%). However, in 2013, the number increased to 37.



III

Tax Incentives for the Venture Industry

After the enactment of the Act on the Special Measures for the Promotion of Venture Businesses in August 1997, various tax incentives were implemented to support venture businesses. Further assisted by the worldwide boom in venture businesses, the venture industry in Korea has grown significantly. Tax incentives that could effectively support venture businesses are financial support, credit guarantees, provision of technical professionals, relief from income and corporate taxes, and tax exemption on capital gains and dividend incomes as well as on acquisition and registration taxes, and so on. Tax incentives that can foster the venture industry will be the main topic of this chapter.

1 Tax Incentives

Tax incentives to promote the venture industry are stipulated extensively in the Restriction of Special Taxation Act, the Corporate Tax Act, the Income Tax Act and the Local Tax Act among others, and they can be divided into those that support VC investors and venture businesses.

A. Tax Incentives for Venture Capital Investors

Tax incentives for VC investors can be largely divided into those for VC companies and individual investors investing in VC companies. The incentives are provided throughout investment, holding and transfer stages.

〈Table III-1〉 Tax Incentives for VC1) Investors by Investor Type and Stage of Investment

Investor Type	Stage of Investment	
Individual (Angel)	Investment	① Income tax deduction for those contributing to SME start-up investment associations
	Transfer	② Special tax provision for those making contributions to founders of venture businesses (tax exemption on capital gains on disposition of stocks)
Association	Investment	① Income tax deduction for those contributing to SME start-up investment associations
	Holding	② Special case on withholding dividend income and imputed income for VC investment associations ③ Special case on income calculation for VC investment associations (recognize interests and dividend incomes as necessary expenses)
	Transfer	④ Special tax provision for those making contributions to the founders of venture businesses (tax exemption on capital gains on disposition of stocks) ⑤ Exemption on security transaction taxes when transferring stocks that were invested in venture businesses
Corporation	Transfer	① Special tax provision for those making contributions to the founders of venture businesses: tax exemption for fund-operating corporations ²⁾ that acquired capital gains through VC investment associations
VC company	Holding	① Exemption on corporate income tax for dividend incomes generated by investing in venture businesses
	Transfer	② Tax exemption on capital gains of SME start-up investment companies ③ Exemption on security transaction taxes when transferring stocks that were invested in venture businesses

Notes: 1) VC investors can be divided into those who invest in venture businesses via VC companies and those who invest directly through Venture Capital Fund

2) As defined in Article 56.2 of 「Enforcement Regulations of the Corporate Tax Act」

1) Investment Stage

A representative tax incentive for VC investment during investment stage is income tax deduction provided for making contributions to SME start-up investment associations. The incentive was introduced in 1999 to enhance the effectiveness of directly investing in venture businesses.

In the case of investing in SME start-up investment associations, income tax deduction rates are 10% of the invested amount, with 50% of total income as a ceiling. In particular, if individuals invest in VC companies, their invested money can be exempted from global income tax for certain percentages. Exempted amounts is 50% of investment if the investment is less than KRW 50 million, and 30% if investment is more than KRW 50 million.

〈Table III-2〉 Tax Incentives for VC Investment in Investment Stage

Type	Description	Relevant Legislation									
Income Tax Deduction for Investing in SME Start-Up Investment Associations	<ul style="list-style-type: none"> ■ A certain proportion of an investor's global income is to be deducted according to the law, in one tax year of the investor's choice from the periods between the tax year in which the investor made the investment and the second tax year after the investment is made. ■ Income deduction rates and ceiling <table border="1" data-bbox="334 1160 831 1278" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 33%;">Classification</th> <th style="width: 33%;">Deduction Rate</th> <th style="width: 33%;">Ceiling</th> </tr> </thead> <tbody> <tr> <td>Cooperation</td> <td>10%</td> <td>Global</td> </tr> <tr> <td>Individual*</td> <td>30% / 50%</td> <td>Income×50%</td> </tr> </tbody> </table> <p>Note: * refers to cases where individuals invest in venture businesses directly or through investment associations for individual investors.</p> <ul style="list-style-type: none"> ■ Mandatory holding period: no income tax deduction will be allowed if an investor withdraw or transfer his or her investment within three years. 	Classification	Deduction Rate	Ceiling	Cooperation	10%	Global	Individual*	30% / 50%	Income×50%	Article 16 of Restriction of Special Taxation Act; Article 14 of the Enforcement Decree of the Restriction of Special Taxation Act
Classification	Deduction Rate	Ceiling									
Cooperation	10%	Global									
Individual*	30% / 50%	Income×50%									

2) Holding Stage

In the holding stage, there are tax benefits such as exemption on corporate income tax for dividend incomes generated by investing in venture businesses and special case on withholding dividend income and imputed income for VC investment associations and special case on income calculation for VC investment associations.

The dividend incomes obtained from the founders of venture businesses, new technology project business operators, venture businesses, new technology startup professional companies, or companies listed on the Korea New Exchange

〈Table III-3〉 Tax Incentives for VC Investment in the Holding Stage

Type	Description	Relevant Legislation
Exemptions of Corporate Income Taxes on Dividend Income Generated by Investing in Venture Businesses	<ul style="list-style-type: none"> For the dividend incomes of SME start-up investment association, VC investment limited liability companies, and new technology project financial business operator that are obtained from founders of venture businesses, venture businesses, or new technology startup professional companies, corporate income taxes are exempt. 	Article 13.3, Restriction of Special Taxation Act
Special Cases on Withholding Taxes on Dividend Income for Investment Associations	<ul style="list-style-type: none"> Before SME start-up investment associations, the Korea Venture Fund, agricultural and food investment associations, new technology project investment associations, corporate restructuring associations, or associations for investment in parts and materials production distribute dividend incomes to their members, income tax will be withheld. 	Article 14.4, Restriction of Special Taxation Act
Special Cases on Withholding Taxes on Imputed Income for Investment Associations	<ul style="list-style-type: none"> For the interest and dividend incomes that are imputed, investment associations are to withhold income tax or corporate tax prior to distributing to their members. 	Article 14.5, Restriction of Special Taxation Act
Special Cases on Income Calculation for Investment Associations	<ul style="list-style-type: none"> The amount of interest or dividend incomes generated by an investment association is the amount of total income of the association minus expenses. 	Article 14.6, Restriction of Special Taxation Act

Source: Kim (2013), p. 28.

〈Table III-4〉 Tax Incentives for VC Investment in the Transfer Stage

Type	Description	Relevant Legislation
<p>Corporate Tax Exemption on Capital Gain on Disposition of Stocks for SME Start-Up Investment Association</p>	<ul style="list-style-type: none"> ■ SME start-up investment associations, new technology project financial business operators, and VC investment limited liability companies that hold shares or equities in venture businesses are exempt from paying corporate income taxes on the capital gains they make when transferring stocks, provided the one of the following conditions are met: <ol style="list-style-type: none"> ① SME Start-Up Investment Association: invest in founders, venture businesses, or new technology startup professional companies ② New Technology Project Financial Business Operator: invest in new technology project business operators, venture businesses, or new technology startup professional companies ③ When investing through SME start-up investment associations, Korea Venture Fund, Agricultural and Food Investment Fund, New Technology Business Investment Cooperative, Corporate Restructuring Association, and/or Fund for Investment in Parts and Materials Production 	<p>Article 13, Restriction of Special Taxation Act; Article 11.2 of Enforcement Decree of the Restriction of Special Taxation Act</p>
<p>Special Tax Provision for Investing on the Founders of Venture Businesses (Tax Exemption on Capital Gain)</p>	<ul style="list-style-type: none"> ■ Individual investors and investment associations transfer shares that were obtained by investing in VC companies, the resulting capital gains are exempted from tax, provided one of the following conditions are met: <ol style="list-style-type: none"> ① Individual Investors: invest in SME start-up investment association, new technology project financial business operators, or venture businesses ② Investment Associations: invest in new technology project businesses operators, venture businesses, or new technology startup professional companies 	<p>Article 14.1, Restriction of Special Taxation Act</p>
<p>Exemption on Security Transaction Tax When Transferring Shares of Venture Businesses</p>	<ul style="list-style-type: none"> ■ If transferring shares that were obtained by directly investing in founders or venture businesses, security transaction tax is exempt. 	<p>Article 117.1, Restriction of Special Taxation Act</p>

(KONEX) before December 31, 2014 by investing in SME start-up investment association, VC investment limited liability companies, or new technology project financial business operators are exempt from the obligation to pay corporate income taxes. There are special provisions that obligate VC investment associations to withhold taxes before distributing dividend incomes that were generated before December 31, 2014 to members of the associations.

However, such withholding taxes are mandatory to only the dividend income that is imputed to SME start-up investment associations, the Korea Venture Fund, agricultural and food investment associations, new technology project investment associations, corporate restructuring associations, or associations for investment in parts and materials production. The amount of dividend and imputed incomes generated by an investment association and subject to the withholding tax requirement should be the amount of the association's total income minus expenses.

3) Transfer Stage

The Korean government is encouraging VC investment through investment associations by exempting income tax and security transaction tax for the capital gains on disposition of stocks of venture businesses. VC companies that hold shares of venture businesses are exempted from paying security transaction tax and corporate tax on their dividend incomes. Individual investors are also given benefits of exemption of income taxes when transferring stocks of venture businesses.

B. Tax Incentives for Venture Businesses

Besides providing tax benefits for VC investors, the Korean government also supports the establishment and management of venture businesses using legislations such as the Restriction of Special Taxation Act, the Corporate Tax Act, the Income Tax Act, and the Local Tax Act, by classifying venture businesses in stages of establishment or M&A.

〈Table III-5〉 Tax Incentives for Venture Businesses in Various Stages

Beneficiary	Stage	Tax Incentive
Business Venture	Establishment	① Tax credit for newly established venture businesses: reduction of or exemption from income tax, corporate tax and local tax
	M&A	① Special tax provision on stock exchanges to facilitate strategic alliance among venture businesses ② Special tax provision on the inheritance of losses carried forward at the time of M&A

1) Establishment Stage

(A) Tax Relief¹²⁾ from Income and Corporate Taxes

Newly established venture businesses are to pay 50% of the income or corporate taxes on the incomes they generate in the four years following the start of the tax year subsequent to the year in which the businesses begin to generate the incomes.

(B) Tax Relief from Local Tax

Venture businesses are exempt from property acquisition and registration taxes for the first four years as well as from stamp duties for the first two years following the date of their establishment. Moreover, for the first five years, they are to pay 50% of property taxes on all the business assets and properties they own and use for five years following their date of foundation.

More specifically, venture businesses that were incorporated before December 31, 2014 are exempt from paying acquisition tax on the assets and properties acquired in the four years following the date of their incorporation. However, the exemptions will not apply if the companies decide not to use their assets and properties for business operations for no acceptable reasons or dispose of or use the assets and properties for non-business-related purposes within two years of acquiring them.

12) Tax relief refers to reduction of or exemption from tax

Pursuant to Article 119.2 of the Restriction of Special Taxation Act, venture businesses are exempt from registration and license taxes on the following types of registrations:

- (a) Registration of incorporation of a business venture: includes increasing the amount of investment in the first four years following the registration of incorporation of a business venture before December 31, 2014.
- (b) Registration of a change of address: in case a business venture was established before December 31, 2014, registration of a change in address of the company or the CEO during the first four years of incorporation.

〈Table III-6〉 Tax Relief for Venture Businesses

Type of Tax		Duration of Tax Relief	Reduced Tax Rate	Relevant Legislation
Income and Corporate Taxes		For four years following the start of the tax year subsequent to the year in which the business begins to generate income.	50%	Article 6, Restriction of Special Taxation Act
Local Tax	Acquisition, Registration and License Taxes	For four years following the date of incorporation / certification of venture business.	100%	Articles 119.2 and 120.3, Restriction of Special Taxation Act
	Property Tax	For five years following the date of incorporation / certification of venture business.	50%	Article 121, Restriction of Special Taxation Act
	Stamp Duties	For two years following the date of incorporation /certification of venture business.	100%	Article 116.1.19, Restriction of Special Taxation Act
	Special Rural Development Taxes ⁵⁾	Special rural development taxes that may be levied with respect to the reductions / exemptions venture businesses receive on income / corporate / acquisition / registration taxes, etc.	100%	Article 4.3, Act on Special Rural Development Tax

- (c) Registration of incorporation: based on the Act on Special Measures for the Promotion of Venture Businesses, any registration of incorporation during the first one year of establishment as a business venture (the business must have been officially certified as a business venture before December 31, 2014).

Moreover, venture businesses that are to register as incorporated in six months following their certification as venture businesses are exempt from registration tax. In addition, venture businesses established before December 31, 2014 are exempted from 50% of property tax for five years following the date of their incorporation with respect to the assets and properties acquired for business operation (rented properties are not included). Furthermore, for two years following incorporation, venture businesses are exempt from paying stamp duties on the documents they file that are required by financial institutions providing loans for their operations.

2) M&A Stage

The Korean government also provides tax incentives for venture businesses undergoing M&A. To foster financially stable venture businesses, tax deferral is allowed for venture businesses until capital gains from stock exchanges or in-kind contributions are realized. Shareholders who hold shares of more than 10% of companies that are in strategic alliance with venture businesses (partner companies) can also have tax deferral on capital gains if before December 31, 2009, they exchange their shares for the shares of venture businesses or contribution in kind to venture businesses and receive stocks from the companies that are in equal value with the contribution and acquire capital gains in the process. The tax benefits for these shareholders are valid until they dispose the shares of the venture businesses.

In order for the shareholders to defer paying capital gains tax, however, the following conditions must be met. First, stock exchanges or in-kind contributions must have taken place between venture businesses and partner companies based on contracts to foster cooperative relationship. Second, the shareholders of partner companies must not have special relations with the largest

shareholders of venture businesses who own over 10% of the companies' shares. Third, contracts must be signed between venture businesses and partner companies that obligate the shareholders of partner companies and the venture businesses to retain the stocks obtained from stock exchanges or other methods for over one year.

Moreover, since 2007, the Korean government introduced a special provision allowing companies to inherit losses carried forward if implementing M&A with venture businesses. However, as existing special provisions on corporate taxation for M&A already provided similar effects, the provision was abolished after 2012.

〈Table III-7〉 Tax Incentives for the M&A of Venture Businesses

Type	Description	Relevant Legislation
Special Tax Provisions on Stock Exchanges for Strategic Alliance among Venture Businesses	<ul style="list-style-type: none"> ▪ Shareholders who hold shares of more than 10% of companies that are in strategic alliance with venture businesses (partner companies) can have tax deferral on capital gains if they exchange their shares for the shares of venture businesses or contribution in kind to venture businesses and receive stocks from the companies that are in equal value with the contribution and acquire capital gains in the process. The tax benefits for these shareholders are valid until they dispose the shares of the venture businesses. 	Article 46,2, Restriction of Special Taxation Act
Special Tax Provisions on the Inheritance of Losses Carried Forward in the Process of M&A of Venture Businesses	<ul style="list-style-type: none"> ▪ If a corporation implements M&A with a venture business, the merged corporation can deduct the amount of loss of a non-M&A-corporation when calculating each year' s tax base. 	Article 47,3, Restriction of Special Taxation Act

Source: Kim (2013), p. 26.

2 Summary and Policy Implications

There is a broad range of legislation in Korea that provides tax incentives for venture businesses, including the Restriction of Special Taxation Act, the Corporate Tax Act, the Income Tax Act, and the Local Tax Act, among others. The legislation can be roughly divided between those for VC investors and venture businesses.

The tax incentives for VC investors can, in turn, be classified into three groups depending on the stages of investment, holding, and transfer. The main purpose of the tax incentives is to encourage and increase direct investment from individual VC investors in venture businesses. Accordingly, income deduction rates and income deduction ceilings have been continuously revised since 1998, and the government is expanding the level of support to VC investors to ensure stable source of financing for venture businesses and create jobs through growth in the venture industry.

In the holding stage, investors can benefit from exemption on corporate income tax for dividend incomes gained from investing in venture businesses and special cases on calculation of incomes of investment associations such as special cases on withholding tax on dividend incomes of investment associations. Finally, in the transfer stage, investors and investment associations can benefit from exemptions on income tax for the capital gains on disposition of stocks of venture businesses as well as from security transaction tax.

On the other hand, tax incentives for venture businesses can be classified into two groups depending on the stages of venture businesses: establishment and M&A stages. Since 1999, most of the tax incentives provided for the venture businesses in the establishment stage concerned revising the eligibility requirement, and the content of the incentives were not changed that much. Similarly, few dramatic changes have occurred in the M&A stage. In 2014, special provisions were made to allow reinvestment on venture businesses after selling existing companies to foster an encouraging environment for venture businesses.

The two main characteristics of the tax incentives for fostering venture businesses in Korea are as follows. First, the Korean government provides these incentives not only for SMEs, but also for venture businesses that meet certain

criteria. Second, most of the incentives revolve around VC investors. As Kim and Kim (2000) note, tax incentives for investors are favored because “the government’s direct support for venture businesses can undermine the efficiency of resource allocation and cause budget waste by causing proliferation in the number of venture businesses without potential for growth.”¹³⁾ For this reason, most of the advanced countries also support venture businesses with indirect tax incentives rather than direct ones, which will be discussed in the following chapter.

13) Kim and Kim (2000), p. 267.

IV

Tax Incentives in Major Advanced Countries to Foster the Venture Industry

This section provides a summary of comparison of tax incentives for venture businesses and venture capital in major advanced countries (<Table IV-1>). Each country's tax incentives can be classified into those for corporations and VC investors (shareholders). While R&D tax incentives may be difficult to be categorized as a direct support for venture businesses, it has been implemented in all of the five investigated countries (US, UK, Israel, Japan and Taiwan). Also, lowered corporate income tax has been carried out in three countries (UK, Israel and Taiwan). Additionally, Taiwan provides for investment income deductions, and Japan for income deductions on certain equipment investment.

Tax incentives for VC investors (shareholders) vary widely from country to country. The US has special tax provisions on capital losses and gains from selling the shares of unlisted companies and tax benefits that encourage individual investors to invest in venture businesses. The UK is implementing preferential tax measures for Venture Capital Trust (VCT) investors, Enterprise Investment Scheme (EIS) shareholders, and Seed Enterprise Investment Scheme (SEIS) investors. Israel is operating non-taxable transfer income to attract foreign investment for venture businesses. Japan used to carry out preferential tax measures to promote investment by VC companies and individual investors, while Taiwan provided tax incentives for investment in emerging, major, and strategic industries under a sunset clause.

Thus, it is clear that most countries are carrying out tax incentives with

focus on VC investors. Korea also has tax incentives that put importance on VC investors, except that it offers a wide variety of tax incentives for each different stage of VC investment venture businesses. Also, most of the tax incentives for venture businesses do not apply only to venture businesses, as the incentives are provided comprehensively to all relevant companies as a part of the purpose of a policy to promote R&D and capital and equipment investment. As was noted in the report of the OECD (2013), of the 32 OECD member states, only nine countries—Korea, Ireland, Israel, Italy, etc.—provide direct tax benefits for young innovative companies (YICs) in the early stages of their operations.¹⁴⁾

14) Kim (2013), pp. 52–53.

〈Table IV-1〉 Summary of Tax Incentives for Venture Businesses and Venture Capital for Each Country

Category	US	UK	Israel	Japan
Tax Incentives for Venture Businesses	<p>① Progressive Corporate Tax Rates: alleviate tax burdens of SMEs by applying progressive tax rates according to different ranges of income</p> <p>② S Corporation⁽¹⁵⁾ System: corporate tax exemptions on S corporations; sum up ordinary income and capital losses from selling shares for shareholders of S-corporation, and preferential tax measures for investment in Small Business Investment Companies (reduced capital gain tax rates; summing up of capital losses and ordinary income; and special taxes for investment in Specialized Small Business Investment Companies)</p> <p>③ Partnership: elimination of double taxation</p>	<p>① Reduced Corporate Tax Rates: apply sliding rate⁽¹⁶⁾</p>	<p>① Tax Benefits under Law for the Encouragement of Capital Investment: impose corporate tax rate of 6% to companies located in Priority Area A; corporate tax rate of 12.5% to companies in the Priority Area but not in the "A" area; accelerated depreciation on assets that generate income.</p>	<p>① Tax Incentives to Promote Capital Expenditure on Productivity Enhancing Equipment: special depreciation of up to 100% or 5% tax credit on acquired price (only for those that were acquired before March 2016).</p> <p>② Tax Incentives to Promote Capital Expenditure for SMEs: special depreciation of up to 30% or 7% tax credit on acquired price</p>
		<p>② R&D Tax Incentives: additional income deduction on SMEs (22.5%); deductions on pre-adjustment R&D expenses; and complete depreciation of capital assets in the year of acquisition</p>	<p>② Exemption of R&D Expense: R&D expenses for companies working in the sectors of industries, agriculture, transportation, and energy can be exempted in the year of the expenses occur (subject to the approval of the Office of the Chief Scientist).</p>	<p>③ General Tax Credit on R&D Expense: corporate tax credit on experimental and research costs—tax credit of 12% is possible in the case of SMEs</p>
Tax Incentives for VC Investors (shareholders)	<p>⑤ Special Tax Provisions on Capital Losses from Selling Shares of Unlisted Companies: sum up with ordinary income, up to USD 3,000</p>	<p>③ Preferential Tax Measures for Venture Capital Trust⁽¹⁷⁾ Investors: tax credit up to 30% of annual amount of investment with GBP 200,000 as maximum; tax exemptions on</p>	<p>③ Preferential Measures to Attract Foreign Investment to VC Companies: tax exemptions on capital gains on the investment made to VC companies</p>	<p>④ Tax Incentives to Promote VC Investment: subsidies to compensate for losses resulting from investment in venture businesses (up to 80% of book value of venture equity)</p>

〈Table IV-1〉 Continued

Category	US	UK	Israel	Japan
<p>Tax Incentives for VC Investors (shareholders)</p>	<p>⑥ Special Tax Provisions on Capital Gains from Selling Shares: tax exemption of 50% of capital gains for over five years</p> <p>⑦ Tax Incentives for Individual Investors: tax exemption of 50% of capital gains for over five years</p>	<p>dividend income; and capital gains tax exemption when disposing ordinary shares</p> <p>④ Preferential Tax Measures for Enterprise Investment Scheme¹⁸⁾ Shareholders: tax credit up to 30% of annual amount of investment with GBP 1 million as maximum; capital gains tax exemption when disposing shares; sum up ordinary income with capital losses from selling shares; and postpone paying capital gains tax</p> <p>⑤ Preferential Tax Measures for Seed Enterprise Investment Scheme¹⁹⁾ Investors: tax exemption on 50% of invested amount; exemption on 50% of capital gains tax (2013-14); and sum up ordinary income and capital losses from selling shares</p>		<p>⑤ Tax Incentives for Individual Investors: preferential tax measures given at the time of investment and disposal</p> <p>— At the time of investment: deduct the amount of investment from other capital gains generated at the same year.</p> <p>— At the time of disposal: in the case of capital gain, compress the gain into 1/2 and in the case of taxation / capital loss, provide tax credit by deferring the losses during the next three years</p>

15) S Corporation: an incorporated enterprise of a small size

16) Sliding rate: deduct 1/400 of corporate income tax when a corporation's income is GBP 300,000 to 1,500,000

17) Venture Capital Trust: introduced in 1995 to encourage individual investors to indirectly invest in high risk, unlisted SMEs. It is similar to investment trusts, and is managed by fund managers in large investment companies

18) Enterprise Investment Scheme: introduced in 1994 to assist highly risky SMEs in obtaining funds. It provided various preferential tax measures to investors investing in highly risky SMEs

19) Seed Enterprise Investment Scheme: a preferential tax measure provided to attract investment in small businesses in seed stage (nascent stage)



V

Survey on Tax Incentives for Venture Businesses and Venture Capital

This section discusses the results of surveys conducted to determine the effectiveness of tax incentives for venture businesses and venture capital.

1 Survey overview

The purpose of the survey is to enhance the effectiveness of tax incentives and draw implications for policymaking for the venture industry by understanding the status of tax incentives for venture businesses and venture capital. The survey sample consists of 817 venture businesses and 23 VC companies or organizations across 17 major cities and provinces in Korea. The survey was conducted through multiple channels including online and telephone poll and interviews using a structured questionnaire from July 30, 2014 to September 19, 2014.

The questionnaire was designed so that while conducting a survey on ‘Effective Tax Incentives’, if a respondent chose the top three most effective incentives, the person would receive 100 points out of 100 in the score, thereby allowing for weights in the calculation of scores.

2 Findings

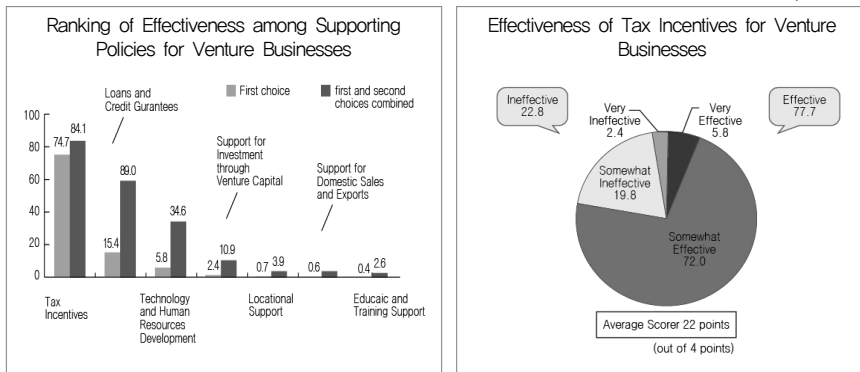
817 venture businesses and 23 VC companies were invited as respondents and the results were separated for venture businesses and VC companies.

A. Venture Business

According to the results of the survey on venture businesses, most of the respondents believed that providing ‘tax incentives’ (84.1%) was the most effective method to support venture businesses. Next in rank were ‘loans and credit guarantees’ (59%) and ‘support for technology development and human resource’ (34.6%). Concerning the effectiveness of tax incentives for venture businesses, 77.7% responded that the system was effective, while only 22.3% thought it was not.

[Figure V-1] Effectiveness of Tax Incentives for Venture Businesses

(Unit: %)

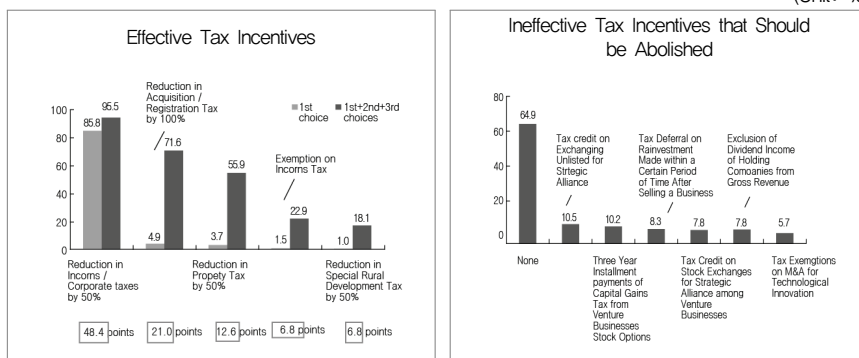


When only the first choices of respondents were considered, 85.8% of the respondents selected the relief from income tax and corporate tax as the most effective tax incentive. When respondents’ first, second and third choices were considered together, 99.5% indicated that relief from income tax and corporate tax was the most effective, which was followed by relief from

acquisition tax and registration tax (71.6%), relief from property tax (55.9%), and tax exemptions for people directly engaged in research activities for up to KRW 200,000 of personal income per month (22.9%). Furthermore, 64.9% believed that there are no ineffective tax incentives that should be abolished. 10.5% replied that special tax provision on exchanges of unlisted stocks for strategic alliance should be eliminated, while 10.2% said three-year installment payments of income tax on capital gains from venture businesses' stock options should be abolished.

[Figure V-2] Effectiveness of Tax Incentives for Venture Businesses

(Unit: %)



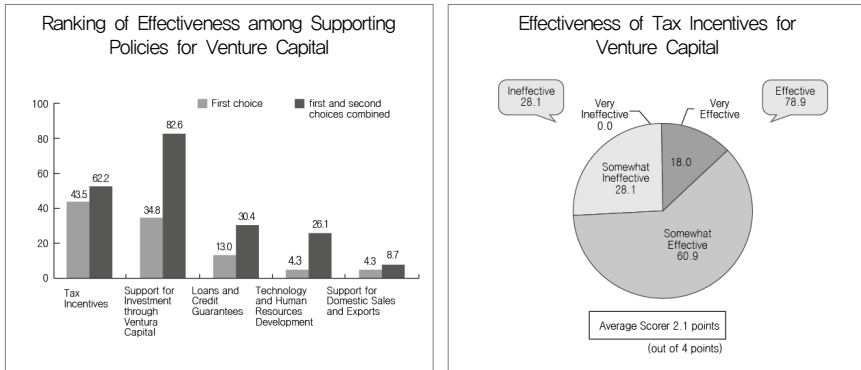
Note: 1. Only the five most frequently selected answers are presented
 2. Exemption on Income Tax*: tax exemptions for people directly engaged in research activities for up to KRW 200,000 of personal income per month

B. Venture Capital Company

According to the results of the survey on VC companies, when only the first choices of respondents were considered, 43.5% of the respondents selected tax incentive as the most effective policy that can support venture businesses. When respondents' first and second choices were considered together, 82.6% replied that investment support through venture capital was the most effective. Similar to the survey conducted with venture businesses, 73.9% of the respondents answered that tax incentives were effective, while 26.1% disagreed.

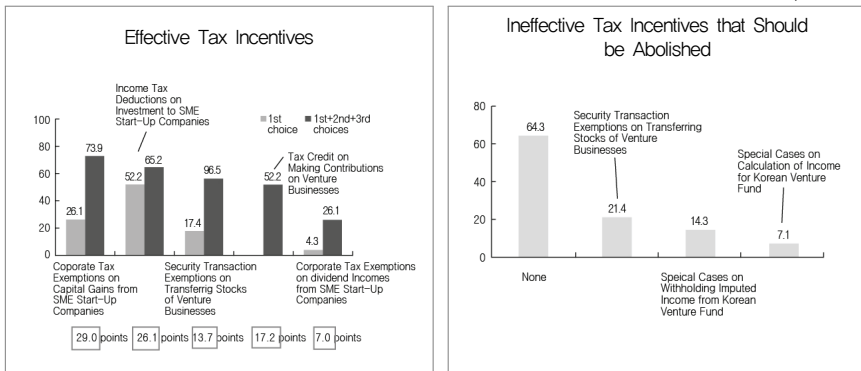
[Figure V-3] Effectiveness of Tax Incentives for Venture Capital

(Unit: %)



[Figure V-4] Effectiveness of Tax Incentives for Venture Capital

(Unit: %)



Note: Only the five most frequently selected answers are presented

When only the first choices of respondents were considered, 52.2% said that tax exemption for making contributions in SME start-up investment associations was the most effective. When respondents' first, second and third choices were considered together, 73.0% replied that corporate tax exemption on capital gains from SME start-up companies was the most effective, followed by income tax exemption on making contributions on SME start-up investment

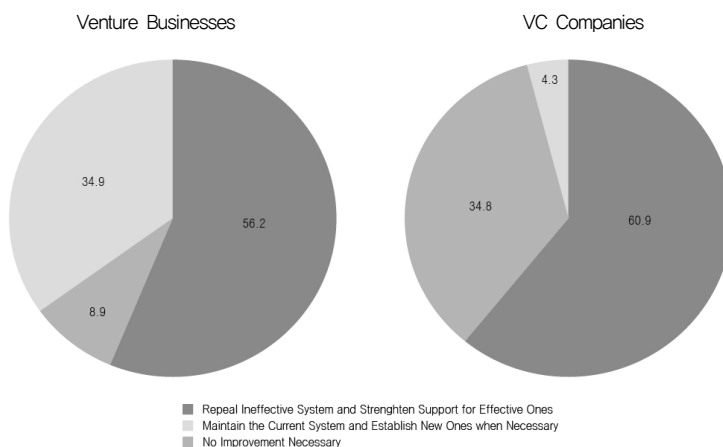
associations (65.2%), security transaction exemption on transferring stocks of venture businesses (56.5%), and special tax provision for making contribution on venture businesses (52.2%). On the other hand, 64.3% believed that there is no ineffective tax incentive that should be abolished, while 21.4% answered that security transaction exemptions on transferring stocks of venture businesses should be eliminated.

3 Policy Implications

56.2% of the venture businesses and 60.9% of the VC companies in the survey replied that in order to improve tax incentives in the future, ineffective tax incentives should be repealed and effective ones should be strengthened. These results reveal that policymakers should reorganize tax incentives for the venture industry to be more effective in terms of financial conditions and taxation equity, while giving more attention to any incentives where eligibility requirements need to be loosened up.

[Figure V-5] Future Direction for Improving Tax Incentives

(Unit: %)



VI

Empirical Analysis of the Effectiveness of Tax Incentives for Venture Businesses

1 Research Design

A. Data Collection and Sample Selection

In order to evaluate the effectiveness of tax incentives for venture businesses, this report seeks to investigate whether effective corporate tax rates of venture businesses are lower than companies that are not venture businesses, and how tax incentives affects the performance of venture businesses.

First, this study compared the effective corporate tax rates applied to venture businesses and other types of companies. The venture businesses that were listed on the KOSDAQ market of the Korea Exchange (KRX) were used as samples, as have Lee and Kim (2010) and other previous studies have done so in the past. This was because the venture businesses listed in KRX tend to be more stable and persistent compared to average venture businesses, their financial statements have high ratings of credibility, and it is easy to collect needed materials from them since they are obligated to publicly disclose their financial data.²⁰⁾ The reason the sample was limited to the companies listed on the KOSDAQ was because to be categorized as a venture business, a company needs to be a SME, and the proportion of SMEs in KOSDAQ is a lot bigger

²⁰⁾ Kim (2012), p. 120.

than in stock markets. As the Act on Special Measures for the Promotion of Venture Businesses took effect on October 1, 1997, the proper sampling period would have been after 1998. However, deferred income tax accounting was introduced in 1999, and as a result, the concept of corporate tax expense after 1999 was different from the one before 1999. As corporate tax expense is an important variable in calculating effective corporate tax rates, the period of 1999-2013 was selected as the main research period.

Second, this study also analyzed how tax incentives affect the performance of venture businesses by using corporate panel data. Subjects were selected based on the survey conducted in May 2013 on 817 venture businesses about the utilization of tax incentives. Among the 817 businesses, 423 were receiving tax incentives, while 394 were not. The sample period was extended to 1990-2013 to include the period before the introduction of the Act on Special Measures for the Promotion of Venture Businesses.

The financial data of the businesses needed for the empirical analysis were obtained from KIS-VALUE database of NICE Credit Evaluation Information Incorporated. As with the previous studies, the following types of businesses were excluded from the sample: (1) financial companies that had different tax incentives policies or financial statement forms compared to general companies, for the purpose of maintaining the homogeneity of the businesses in the sample; (2) companies that did not settle their accounts on December 31, for the purpose of unifying the analysis and increase the probability of comparison; and (3) businesses that did not provide financial statements and data necessary for the analysis. In addition, companies whose corporate tax expenses and net incomes before tax were zero or negative were excluded because it is difficult to interpret economically to find effective corporate tax rates. Furthermore, to prevent outliers from distorting the analysis, the values of variables in the top and bottom 1% of the sample were winsorized.

B. Method of Analysis and Measurement of Variables

1) Effective Corporate Tax Rate

(A) Method of Analysis

An effective corporate tax rate refers to a ratio of corporate tax to profit in a company.²¹⁾ Effective corporate tax rates were derived based on the financial data of venture businesses, and the calculated rates were used to analyze the effectiveness of tax incentives for venture businesses. T-tests and analysis of variance (ANOVA) were conducted for differences in effective corporate tax rates for each type of company. ANOVA analysis was used also for the differences in effective corporate tax rates by year.

(B) The Concept of Effective Corporate Tax Rate and Calculation

Estimating a company's tax burden is important not only for policymakers for evaluating existing tax policies or setting up new directions for tax policies, but also for accounting researchers, and effective corporate tax rates have been used the most often as indicators that show tax burden of each company.²²⁾ Studies that use effective corporate tax rates employ various proxy variables to measure the rates.

This study estimated effective corporate tax rates by dividing each company's corporate tax expense by its net income before tax. It is desirable that corporate tax expenses are measured based on actual tax data. But since it is difficult to obtain such data, the expenses were estimated based on accounting documents. The following equation was used to calculate effective corporate tax rates:

$$\text{Effective Corporate Tax Rate} = \frac{\text{Corporate Tax Expense on Income Statement}}{\text{Net Income Before Charging Tax}}$$

2) Business Performance

In order to determine how tax incentives in Korea affect the performance of venture businesses, a model was set up based on the Cobb-Douglas production function after referring to the studies of Asteriou and Hall (2007) and Mayende (2013). In the Cobb-Douglas production function, output (Q) is determined by

21) Lee and Jeon (1997), p. 853.

22) Lee and Jeon (1997), p. 851.

factors such as capital (K), labor (L) and other factors of production.²³⁾ To empirically analyze the research conducted, the following equation was established based on the Cobb-Douglas production function:

$$Q_t = f(K_t, L_t) \quad (1)$$

$$Q_t = AK_t^\alpha L_t^\beta \quad (2)$$

$$Q_{it} = AL_{it}^\alpha K_{it}^\beta T_{it}^\gamma Z_{it}^\phi \quad (3)$$

Q_{it} : output

L_{it} : labor

K_{it} : capital

T_{it} : tax incentive (a dummy variable that shows whether a company has received tax incentives or not)

Z_{it} : firm specific variable

Sales and added values were used for the output (Q). The values of tangible assets of companies were utilized to measure capital (K)²⁴⁾ and the number of employees of each company was used to measure labor (L). By putting Equation (3) under natural logarithm, Equation (4) was derived:

$$\ln Q_{it} = C_0 + \alpha \ln L_{it} + \beta \ln K_{it} + \gamma \text{Taxincentive} + \phi Z_{it} + \eta_t + \epsilon \quad (4)$$

The performance of venture businesses may be affected by panel specific variables (η_t) that were not analyzed. In this case, Fixed Effects model or Random Effects model can be used for estimation. If there is no correlation between explanatory variables and panel specific variables, the Random Effects model should be chosen. If there is correlation, then the Fixed Effects model should be chosen. In general, when conducting regression analysis using panel data, one can decide whether to choose the Fixed Effects model or the Random Effects model after implementing a Hausman test.²⁵⁾ After carrying out the Hausman

23) Ji et al. (2011), p. 371.

24) Ji et al. (2011), p. 371.

test, the Random Effect model was chosen for this study.

<Table VI-1> **Definitions and Measurements of Variables**

Variable		Definition
Dependent Variable	Log_Sale	Log (sales)
	Log_Value_added	Log (added value)
Explanatory Variable	Log_Labor	Log (number of employees)
	Log_Capital	Log (value of tangible assets)
	Tax Incentive	"1" for companies that receive tax incentives, "0" for not receiving
	Venture_Policy	"1" for the period after 1999 when the Act on Special Measures for the Promotion of Venture Businesses was introduced, "0" for the period before 1999
Firm Specific Variable	Age	Number of years a company has been in operation
Industrial Dummy		Included
Year Dummy		Included

2 The Results of the Empirical Analysis

A. Descriptive Statistics

<Table VI-2> lists the descriptive statistics of the main variables used in the empirical analysis. Venture businesses had the lowest average effective corporate tax rate (here, effective corporate tax rates were used as indicators to evaluate the effectiveness of tax incentives).

<Table VI-3> shows the correlation between dependent variables (sales and added value) and explanatory variables that are used in analyzing the performance of companies. The sales and added values of venture businesses mostly have positive correlation with explanatory variables at the significance level of 1%.

〈Table VI-2〉 Descriptive Statistics

Panel A: Effective Corporate Tax Rate

	Type of Company	Number of Sample	Average	Standard Deviation	Minimum Value	Maximum Value
Effective Corporate Tax Rate	Venture Business	1,062	16.00	9.06	0.47	50.53
	SME	2,416	20.33	9.70	1.56	62.04
	Conglomerate	2,950	22.23	9.94	1.46	61.77
	Total	6,428	20.49	9.95	0.47	62.04

Panel B: Variables for Analyzing the Performance of Companies

Variable	Number of Sample	Average	Standard Deviation	Minimum Value	Maximum Value
Log_Sale	1,876	23.09	1.14	19.31	25.40
Log_Value_added	1,837	21.61	1.03	18.72	23.78
Log_Capital	1,749	20.90	1.82	13.39	23.87
Log_Labor	1,876	20.10	1.05	16.93	22.13
Age	1,871	12.82	6.84	2.00	45.00

〈Table VI-3〉 Analysis of Correlation

Variable	Log_Sale	Log_Capital	Log_Labor	Age
Log_Sale	1.0000			
Log_Capital	0.2073 ^{***}	1.0000		
Log_Labor	0.2860 ^{***}	0.4147 ^{***}	1.0000	
Age	0.1144 ^{***}	0.0639 ^{***}	0.0595 ^{***}	1.0000

Variable	Log_Value_add	Log_Capital	Log_Labor	Age
Log_Value_add	1.0000			
Log_Capital	0.5268 ^{***}	1.0000		
Log_Labor	0.8013 ^{***}	0.4147 ^{***}	1.0000	
Age	0.0802 ^{***}	0.0639 ^{***}	0.0595 ^{***}	1.0000

B. Findings

1) Differences in Effective Corporate Tax Rates

(A) Differences in Effective Corporate Tax Rates by Year

<Table VI-4> shows annual effective corporate tax rates from 1999 to 2013. The rates have been fairly stable at around 20% since 2011. The average effective corporate tax rate dropped sharply by 4.7%p in 2009, from 22.3% in 2008 to 17.7% in 2009. This is because the government adjusted the standard range of tax base upward from KRW 100 million to KRW 200 million, and cut down corporate tax rate to 11% for profits less than KRW 2 million and 22% for profits over KRW 2 million.²⁶⁾

<Table VI-4> Average Effective Corporate Tax Rate by Year

(Unit: %)

Year	Average Effective Corporate Tax Rate	ANOVA (F-value)
1999	22.4	8.99***
2000	22.5	
2001	22.5	
2002	21.5	
2003	20.2	
2004	20.0	
2005	19.2	
2006	20.2	
2007	20.9	
2008	22.3	
2009	17.7	
2010	18.7	
2011	20.4	
2012	19.6	
2013	20.3	

Note: 1) effective corporate tax rate = corporate tax expenses / net income before tax

2) ***: significant at the level of 1% (two-tailed test)

26) During January 1, 2005~December 31, 2007, the corporate tax rate was 13% for profits less than KRW 100 million and 25% for profits over KRW 100 million

(B) Differences in Effective Corporate Tax Rates between Venture Businesses and Other Companies

From 1999 to 2013, a T-test was performed on the differences in effective corporate tax rates (= corporate tax expenses / net income before tax) between venture businesses and general companies (SMEs, conglomerates), with the KOSDAQ companies listed on Korea Exchange as the population. <Table IV-5> shows the result of analyzing the differences in effective corporate tax rates. During the period, the size of average effective corporate tax rates for each group was in the order of venture businesses < non-venture-business SMEs < non-venture-business conglomerates. The result showed that the effective corporate tax rates of venture businesses, SMEs and conglomerates were all significant at the level of 1%. The ANOVA analysis also showed that the rates were significant at the level of 1%.

<Table VI-5> Differences in Effective Corporate Tax Rates between Venture Businesses and Non-Venture-Businesses

Period	Type of Company	Number of Sample	Average	T-Value	ANOVA (F-value)
1999 ~ 2013	Venture Business	1,062	16.00	-16.4242***	161.25***
	Non-Venture-Business	5,366	21.38		
	Venture Business	1,062	16.00	-12.3789***	
	SME	2,416	20.33		
	Venture Business	1,062	16.00	-17.9202***	
	Conglomerate	2,950	22.23		

Note: 1) effective corporate tax rate = corporate tax expenses / net income before tax

2) ***: p < 0.01, **: p < 0.05, *: p < 0.1 (two-tailed test)

2) Influences on Business Performance

In order to analyze how tax incentives affect business performance, companies were divided into two groups depending on whether they received tax incentives or not. The second and fourth columns in [Table VI-6] are for companies that have received any tax incentives, and the third and fifth columns are for companies that received 50% of corporate tax reductions. As can be

seen from <Table VI-6>, capital and labor give positively significant influence on the performance of companies. When capital and labor increased 1%p, the companies that received 50% reduction in corporate tax had increases in their sales by 0.0296%p and 0.887%p each, while the companies that received tax incentives had increases in performance by 0.234%p compared to those that did not receive any support. It was found that the tax incentives for venture businesses had positive influence on business performances with the level of significance at 1%.

<Table VI-6> The Result of Analysis on the Influence Tax Incentives Have on Business Performances

Variable	Model 1(Log_Sale)		Model 2 (Log_Value_added)	
	(1)	(2)	(1)	(2)
Constant	15.68*** [0.669]	15.85*** [0.668]	13.40*** [0.653]	13.50*** [0.651]
Log_Capital	0.0282** [0.0134]	0.0296** [0.0134]	0.290*** [0.0135]	0.292*** [0.0135]
Log_Labor	0.883*** [0.0301]	0.887*** [0.0301]	0.0888*** [0.0295]	0.0909*** [0.0295]
Tax_Incentive	0.393*** [0.119]	0.234** [0.103]	0.291*** [0.100]	0.209** [0.0858]
Venture_Policy	2.580*** [0.488]	2.566*** [0.488]	1.682*** [0.505]	1.665*** [0.506]
Age	0.0140* [0.00850]	0.0038 [0.00743]	0.0108 [0.00718]	0.00455 [0.00620]
Year dummies	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes
Frequency (N)	1,871	1,871	1,832	1,832
Number of businesses	259	259	259	259

Note: 1) Refer to [Table VI-1] Definitions and Measurements of Variables at p. 30.
2) Standard errors in brackets, *** p < 0.01, ** p < 0.05, * p < 0.1

4 Summary

In this chapter, the effectiveness of tax incentives for venture businesses was analyzed and it was found that tax incentives were effective in terms of policies. First, by targeting the venture businesses listed on the KOSDAQ from 1999 to 2013, effective corporate tax rates between venture businesses and other companies were compared to evaluate the effectiveness of tax incentives. According to the analysis conducted with a T-test and ANOVA, it was discovered that the size of effective corporate tax rates was in the order of venture businesses < non-venture-business SMEs < non-venture-business conglomerates, and they were different at the level of significance of 1%.

Second, the analysis on the influence tax incentives have on the performance of venture businesses indicated that all of the tax incentives had positive influence at the level of significance of 1%, and that the venture businesses receiving tax incentives had increases in business performance by 0.2~0.4%p compared to those that did not receive any incentives.

VII

Measures to Reform Tax Incentives to Foster Venture Businesses

1 The Validity of Tax Incentives for the Venture Industry²⁷⁾

Since the enactment of the Act on Special Measures for the Promotion of Venture Businesses in August 1997, the Korean government has introduced a number of supporting tax incentives such as policy finance and tax benefits to stimulate the growth of venture businesses. There are opposing views on the validity of the tax incentives. Proponents argue that as the optimization in VC investment is not possible due to market failure, there should be support for venture businesses to correct the situation. On the other hand, opponents claim that the incentives can cause market distortion. This is because newly established venture businesses lack abilities in paying mortgages and are at a stage where their performances cannot be verified. Therefore, they cannot get attention from the market and it is very difficult for optimization of investment to occur.

According to Kim and Kim (2002) and the OECD (2004), indirect policy support is needed because optimization of investment for venture businesses has not been achieved due to the following reasons. First, because of the risk-averse tendency in the financial market, commercialization of new technology is not easy. Also, since the development speed of technology is fast, investors prefer existing conglomerates and mature companies to venture businesses where the

27) Kim and Kim (2000), pp. 34–37; Kim (2013), pp. 25–26.

possibility of failure is very high. Second, the characteristic of information asymmetry between businessmen and potential investors, in which businessmen have more information about the nature of the products and the process of production of companies, is also a fundamental cause for market failure.²⁸⁾ Such characteristics of venture businesses lower the profits of venture businesses and discourage investors from investing in venture businesses. Thus, the main purpose of tax incentives for venture businesses is to contribute in the growth and stabilization of venture businesses by correcting such market failure.

2 Desirable Direction of Tax Policies²⁹⁾

The foundation for fostering venture businesses have been established since the enactment of the Act on Special Measures for the Promotion of Venture Businesses in August 1997, but the optimization of investment for venture businesses has not yet been achieved. Young Innovative Companies are important in terms of job creation and economic growth, but they lack ability to pay mortgages and have not been verified on their performances, and so it is not easy for them to raise funds. Moreover, since the financial crisis in 2008, the capital market for nascent startups is facing a greater hardship. This is because financial companies are reluctant to provide loans to Young Innovative Companies, and VC companies mostly invest in mature companies to minimize risk. Consequently, the OECD member countries have been seeking various measures such as tax incentives and deregulation in the market for nascent startups to correct market failure and alleviate difficulties in raising funds.³⁰⁾

As was discussed earlier, the tax incentives for the venture industry in Korea can be divided into direct tax incentives for venture businesses and indirect tax incentives to individual investors (angel investors), corporate venture investors, and the investors that invest in VC companies. Thus, the system is carried out with VC investors at the center. While it may be difficult to say

28) Son (2006), p. 10.

29) Kim and Kim (2000), pp.269–271; Kim(2013), pp. 51–53.

30) Kim (2013), p. 52.

that tax incentives are applied extensively as they are applied only when a venture business satisfies certain requirements, since they are tacked onto tax incentives for SMEs, the level of support is not lacking.

According to the OECD (2013), major advanced countries tend to provide more indirect tax incentives than direct ones to promote the establishment and continuous growth of new venture businesses. Among the 32 OECD member countries that participated in the research, only nine countries such as Korea, Ireland, Israel and Italy offered financial support such as reduction of tax and social security contribution for Young Innovative Companies. In contrast, many countries were implementing tax incentives for the purpose of encouraging VC investment to nascent venture businesses. Among the OECD member countries, fifteen countries (Korea, Canada, Ireland, Israel, Italy, Japan, Turkey, UK, etc.) were providing tax deduction when investing in venture businesses. Thus, tax deduction for newly established companies was the main form of tax incentives. In the case of Korea, tax benefits such as financial support for Young Innovative Companies and tax deduction for investors investing in nascent venture businesses were expanded recently. During the last five years, five countries (Korea, Belgium, Ireland, Japan and UK) expanded the benefits of tax deduction for investors investing in nascent venture businesses.³¹⁾

Direct government support for venture businesses can impede efficient resource allocation by mass producing venture businesses without growth potential and waste budget.³²⁾ Therefore, it is advisable that the government set up the direction of tax policies with focus on providing benefits to VC investors rather than giving direct support to venture businesses. Moreover, as VC investment can be divided into stages of investment, withdrawal and reinvestment, tax incentives should be effectively managed by considering the characteristic of each stage of VC investment. The tax incentives for VC investment will contribute in the growth and stabilization of venture businesses by assisting the investment on venture businesses to reach socially optimal level, and they will ultimately play important roles in economic growth and job creation.

31) Kim (2013), pp. 52–53.

32) Kim and Kim (2002), p. 267.

3 Measures to Reform Tax Incentives to Foster Venture Businesses: Selection and Concentration Strategy

The basic objective of tax incentives for the venture industry is to foster areas that generate positive externalities in technology and innovation by correcting market failure that prevent the optimization of investment. Market failure occurs in the area of investing in newly established venture businesses because VC investors tend to prefer investing in relatively mature venture businesses that have been recognized for their technology in the market and are in need of funds in the process of expanding, rather than young venture businesses that only have technology. This is because it is comparatively easy to withdraw investment from the mature companies. Thus, it is almost impossible for nascent venture businesses to attract investment. That is, because the optimization of investment on venture businesses have not been achieved, the government supports venture businesses directly as well as indirectly by using various means such as tax incentives and policy finance. However, as the support from the government can cause market distortion, consistent monitoring of the support is necessary to achieve effective policy objectives.

About fifteen years have passed since the government introduced the Act on Special Measures for the Promotion of Venture Businesses. It is time to abolish any tax incentives that are ineffective in terms of financial conditions or promotion of venture businesses and reinforce or establish effective ones that can assist in achieving policy goals.

The survey on tax incentives for venture businesses and venture capital showed that 56.2% of venture businesses and 60.9% of VC companies agreed that ineffective incentives should be abolished and the support for effective ones should be strengthened. These results indicate that while tax incentives for the venture industry should be reformed in terms of financial conditions and taxation equity, the government needs to focus and support the ones that need expansion in eligibility requirement and the number of recipients.

Therefore, this chapter seeks to find the desirable direction of tax policies that can reactivate the economic growth and foster the venture industry that is the centerpiece in realizing Park Geun-hye Administration's "creative

economy”, while taking into consideration of the country’s finance and tax revenues at the same time.

A. Abolishing or Streamlining Ineffective Tax Incentives

With the passing of Financial Intelligence Unit Act, under which the tax authority’s ability to access financial information has radically decreased than originally planned, and insufficient amount of tax revenues collected during the last three years, it will not be easy to finance national tax income of KRW 48 trillion over the next five years (KRW 48 trillion corresponds to 36% of the government’s budgetary plan for the national agenda). The government can raise funds by raising tax rates or issuing government bonds. But increasing tax rates can worsen the burdens on hardworking taxpayers of the current as well as the future generations.³³⁾ Therefore, in order to raise the necessary funds without raising tax rates or issuing government bonds, there is an increasing need to continuously modify and utilize existing tax relief provisions that are ineffective or have already achieved original purposes.³⁴⁾ In particular, Korea provides a wider range of tax incentives for venture businesses and VC investors than other major countries in the world <Table IV-1>.

Thus, abolishing tax incentives that are ineffective in terms of fostering the venture industry is advisable. The top priority of tax incentives should be to encourage smooth inflow of funds to venture businesses by improving the ecosystem for venture capital. Two criteria can be suggested to assist in deciding which tax incentives should be abolished or streamlined. First, for any tax incentives to which a sunset clause apply, the incentives should end in principle, but only after examining their effectiveness thoroughly. Only the tax incentives that have proven their actual effects through thorough review process should be allowed to be extended. In Korea, sunset clause applies to about 44% (amounting to KRW 13.1 trillion out of KRW 29.8 trillion) of national tax incentives. But when the time comes to apply the clause, it is not easy to do

33) Kim (2014), p. 4.

34) The Korean government plans to raise KRW 18 trillion (36%) of the KRW 48 trillion it needs to implement campaign promises over the next five years by reorganizing tax incentives

so because of resistance from interested parties.³⁵⁾

〈Table VII-1〉 Results of the Survey on the Perception, Utilization and Effectiveness of Tax Incentives for Venture Businesses (Ranking)

(Unit: %)

Tax Incentive	Perception and Utilization		Effective Tax Incentive	Ineffective Tax Incentive
	Perception	Utilization		
50% Reduction on Income / Corporate Taxes	1	1	1	13
100% Exemption on Acquisition / Registration Taxes	2	2	2	11
50% Reduction on Property Tax	4	4	3	12
100% Exemption on Special Rural Development Tax	5	5	4	9
Special Tax Provision on Stock Exchanges for Strategic Alliance among Venture Businesses	9	8	5	4
Special Tax Provision on Inheritance of Losses Carried Forward during M&A of Venture Businesses	8	10	6	7
Special Tax Provision on Unlisted Stock Exchange for Strategic Alliance	12	12	7	1
Tax Deferral Provided if the Fund Acquired from Selling a Company is Used for Reinvestment During a Given Period of Time	13	13	9	3
Income Deduction for Technology Innovating M&A	10	9	8	6
Special Tax Provision on Facilities for the Collective Location of Venture Businesses	6	6	10	10
Exclusion of Dividend Income of Venture Business Holding Companies from Gross Revenues	11	7	11	5
Income Tax Exemption (up to KRW 200,000 a month per researcher)	3	3	12	8
Three-year Installment Payment of Income Taxes on Capital Gains from Exercising Venture Businesses' Stock Options	7	11	13	2

35) Jeon et al. (2014), p. 5

<Table VII-2> Results of the Survey on the Perception, Utilization and Effectiveness of Tax Incentives for VC Companies (Ranking)

(Unit: %)

Tax Incentive	Perception and Utilization		Effective Tax Incentive	Ineffective Tax Incentive
	Perception	Utilization		
Income Deduction for Investing in SME Start-Up Investment Associations	1	1	2	—
Corporate Tax Exemption on Capital Gain on Disposition of Stocks for SME Start-Up Investment Association	4	3	1	—
Exemptions of Corporate Income Taxes on Dividend Income Generated by Venture Businesses	2	4	5	—
Special Tax Provisions on Contribution for Venture Businesses	1	4	4	—
Special Cases on Withholding Taxes on Dividend Income from Korean Venture Fund and Others	5	5	6	—
Special Cases on Withholding Taxes on Imputed Income from Korean Venture Fund and Others	6	5	8	2
Special Cases on Income Calculation for Korean Venture Fund and Others	7	5	7	3
Exemptions on Security Transaction Tax When Transferring Shares of Venture Businesses	3	2	3	1

Second, while on the one hand, tax incentives should be based on the demand of the people concerned by launching a fact-finding survey on venture businesses and VC investors <Tables VII-1> and <Table VII-2>, on the other hand, it also has to accompany a thoroughgoing feasibility evaluation procedure that analyzes the effects of tax incentives on other industries and the national economy. While conducting a survey on ‘Effective Tax Incentives’, respondents who chose top three items were given 100 points out of 100 to provide relative weights. By doing so, this study sought to overcome the limitation of its survey.

The first and foremost objective of tax incentives for venture businesses and investors should be in establishing a virtuous cycle of 「establish a venture business → grow → withdraw investment → reinvest」 to expand the growth engine of venture businesses.

B. Reinforcing the Support for Effective Tax Incentives

As was mentioned earlier, while tax incentives for the venture industry should be reformed in terms of financial conditions and taxation equity, it is desirable to be more selective in tax incentives so that more support can be focused in specific areas. Detailed methods on how to do so will be explained below by separating tax incentives for venture businesses and VC companies.

1) Venture Business: Expansion on the Number of Venture Businesses Benefiting from the Relief from Income Tax and Corporate Tax

The Korean government provides various tax incentives for venture businesses under the Restriction of Special Taxation Act, the Corporate Tax Act, the Income Tax Act, and the Local Tax Act by dividing the stages of venture businesses into establishment and M&A. According to these provisions, venture businesses can benefit from 50% reduction on income and corporate taxes for five years following the year in which they first began to generate income. They are also exempt from acquisition and registration taxes for the first four years as well as from stamp duties for the first two years following the date of their establishment.

However, as the tax incentives are offered only to newly established venture businesses, they need to be further extended to general venture businesses as well. Since 1999, the tax relief from income and corporate taxes is applied only to venture businesses that have been certified officially as venture businesses within three years after their incorporation. As a result, the venture businesses that were certified after three years are ineligible to the benefit.

In the 「Survey on Tax Incentives for Venture Businesses and Venture Capital」, 85.8% of the respondents said that the most useful tax incentive was tax relief from income and corporate taxes. When asked what tax incentives

need further expansion of support, 79.8% chose tax relief from income and corporate taxes as the first choice. Also, the venture businesses receiving tax incentives had increases in business performance by 0.2~0.4%p compared to those that did not receive any support.

Therefore, the expansion in the number of recipients of relief from income and corporate taxes can be a means to enhance the effectiveness of tax incentives for venture businesses. However, expanding the 50% reduction on corporate and income taxes to general venture businesses can lead to the proliferation of venture businesses without growth potential, undermine the efficiency of resource allocation and cause budget waste. It is thus necessary that the scope of recipients and the level of support are decided by taking efficiency and financial condition into consideration.

In Korea, a venture business is defined as a company that satisfies “Requirements of Venture Businesses” in Article 2.2 of the Act on Special Measures for the Promotion of Venture Businesses and fulfills the necessary conditions of a venture business as a SME that possesses an outstanding ability in technology and management innovation. In 1998, a venture business certification program was introduced to effectively support venture businesses.³⁶⁾ The program certifies the venture businesses that meet the requirements of Article 2.2 and provide them with human and material resources in their early stage when it is difficult for them to enter the market.

Under the venture business certification program, it is expected that even if the recipients of tax benefits is extended to general venture businesses, the efficiency of resource allocation and budgetary waste will not be aggravated, as reckless support to venture businesses without growth potential will be prevented beforehand.

36) Since its introduction in 1998, the venture business certification program underwent a number of revisions and then was completely reorganized on June 4, 2006. The new program requires businesses to provide corporate cosigners capable of rendering technological assessment guarantees (loans) in order to qualify as venture businesses. The program no longer requires new technology businesses to seek mandatory certifications as venture businesses

2) Venture Capital Investor

VC investors have ability to provide support in finance, management, operation and technical training to venture businesses that lack funds and have vulnerable management system.³⁷⁾ Encouraging VC investment is crucial for ensuring the sustainable and stable growth of venture businesses. VC investors provide much-needed investment for venture businesses and also help minimize personal risk associated with business failure. Thus, VC investors pave the grounds upon which creative and aspiring entrepreneurs can attempt to realize new technology businesses that are highly risky but also highly profitable.³⁸⁾

In the *World Competitiveness Reports* of the World Economic Forum (WEF), released every year, Korea's index for venture capital availability was 2.19 and ranked 56th among 62 surveyed countries.³⁹⁾ VC availability is an indicator of the level of difficulty innovative but highly risky venture businesses face in attracting investment. The higher the score (out of seven points), the greater the VC availability is in a given country. Korea's score is noticeably lower than other countries, which implies that the venture businesses in Korea are having difficulties raising funds through VC. The Korean government needs to strengthen the policies on tax incentives to increase the availability of VC, so that the investment made to venture businesses may reach a socially optimal level. One of the possible solutions is expanding tax benefits and introducing tax deferral on capital gains when reinvesting to encourage professional angel investors.

(A) Expansion of Tax Benefits to for Professional Angel Investors⁴⁰⁾

Nascent venture businesses do not require much capital, but they still struggle financially because they lack the ability to put up the required securities for loans and have not yet been verified of their performances. As a part of the VC market, angel investors (meaning individual independent investors) play

37) Kim (2013), p. 36.

38) Kim and Kim (2000), p. 272.

39) Kim (2013), p. 35.

40) Kim (2011), pp. 21–22; Kim (2013), pp. 63–64.

important roles in providing funds to venture businesses in early stage.

Korea has been expanding the scope of tax incentives since 2011 to encourage angel investors to invest more in venture businesses so that venture businesses may overcome their financial difficulties and more jobs will be created through them. Recently, tax deduction rate⁴¹⁾ and the ceiling of deduction was increased up to 50%, and investment targets were expanded from existing venture businesses to startup companies with outstanding technology. To improve the effectiveness of income deductions on angel investors, exceptions were allowed where for angel investments of individual and investment associations, comprehensive ceiling of special deduction of KRW 25 million is not applied.

In order to maximize profits and minimize risk from investing in nascent startups, the number of professional angel investors who have expert knowledge in investing companies must increase.⁴²⁾ In July 2014, Korea revised and implemented the Act on Special Measures for the Promotion of Venture Businesses to introduce a program fostering angel investors.⁴³⁾

Therefore, to promote investment in venture businesses, a measure to expand tax benefits for professional angel investors who satisfy certain requirements⁴⁴⁾ should be taken into consideration.⁴⁵⁾ It is not easy even for professional angels who possess great amount of funds as well as professional knowledge and experience to make investment in highly risky venture businesses. Moreover, as the investment sizes of professional angel investors tend to be bigger than general angel investors, tax benefits for the professional angel investors are expected to greatly enhance the effectiveness of tax incentives.

41) Changes in income deduction rates for angel investors under the Restriction of Special Taxation Act: 20% in December 1997; 30% in September 1999; 15% in January 2002; 10% in January 2007; 20% in December 2011; 30% in January 2013; 50% on up to KRW 50 million, and 30% on over KRW 50 million now

42) Park, Jeon and Ju (2012), p. 20.

43) Article 2.2 of the Act on Special Measures for the Promotion of Venture Businesses and Article 2.3 of the Enforcement Decree of the Act on Special Measures for the Promotion of Venture Businesses

44) In order to be recognized as a professional angel investor, one must have invested at least KRW 100 million in a venture business by purchasing new shares or participating in equity during the last three years. Moreover, one must be capable of mentoring and consulting venture businesses. The qualifications for professional angel investors are reviewed and renewed every two years on the basis of investment performance

45) Kim (2013), pp. 47–50.

A professional angel investor system can assist newly established venture businesses to raise funds as investors who have capital, experience and know-hows about venture businesses are the centerpiece of the system. And the tax law that allow for income deduction for investing in SME start-up investment associations can be a useful tool in promoting the professional angel investor system. The income deduction program allows individual investors to deduct the investment they made from income tax, in one tax year of the investor's choice from the periods between the tax year in which the investor made the investment and the second tax year after the investment is made. However, if the deducted amount exceeds 50%⁴⁶⁾ of global income, deduction is not allowed for the excessive amount and there is mandatory holding period as no income deductions will be allowed if investors withdraw or transfer their investments within three years.⁴⁷⁾

This study proposes two tax incentives as ways to induce greater amounts of investment from professional angel investors for venture businesses. First, raise income tax deduction rates to increase the amount of income deduction for professional angel investors. Second, lengthen the period for which professional angel investors can benefit from income deductions. That is, (1) eliminate the tax year limits on the income deductions that professional angel investors may claim, or (2) extend the number of tax years during which professional angel investors may claim income deductions.

(B) Introduction of Tax Deferral on Capital Gains When Making Reinvestment⁴⁸⁾

Venture businesses in Korea are facing difficulties because of economic downturn and inadequate availability in funds with the virtuous cycle of 「establish a venture business → grow → withdraw investment → reinvest」 not working properly. Also, the VC investment withdrawal market is not faring well.

46) Changes in income deduction limits on angel investments under the RSTA: 50% in December 2001; 30% in December 2008; 40% in December 2011; and 50% present

47) Article 16 of the Restriction of Special Taxation Act, and Article 14 of the Enforcement Decree of the Restriction of Special Taxation Act

48) Kim (2011), pp.21–22; and Kim (2013), pp. 63–64.

In the KOSDAQ market, it took 12.2 years in average for a company to be listed due to stagnation in the IPO market in 2012. In Korea Exchange KOSDAQ market, the number of newly listed companies plummeted from 178 in 2000 to 37 in 2013.

In order to encourage investment in venture businesses, the virtuous cycle of VC investment must be settled where existing investment is reinvested to nascent venture businesses that have potential for growth. The tax incentives in Korea exempt VC investors from capital gains tax when they transfer or sell their equities or securities in venture businesses after holding them for at least three years.⁴⁹⁾ Thus, allowing tax deferral on capital gains when using the investment made to venture businesses and investment associations to reinvest can be a good method in securing the growth engine of venture businesses. Da Rin et al. (2006) demonstrated that reducing capital gains tax can increase VC investment for venture businesses in early stage, which shows that capital gains tax are indeed important factors of consideration for angel and VC investors trying to decide whether to withdraw or reinvest the returns on their investments.

The UK, where a wide range of systematic tax incentives for VC investors are provided for different types of investment, also allows for tax deferral on the capital gains that investors make when disposing stocks or other types of assets to reinvest in EIS⁵⁰⁾ qualified companies in three years. Moreover, if an individual investor invests in a qualifying company and holds the company's shares for more than three years since the date the stocks were issued, he or she can have income deduction for 30% of investment, with GBP one million as the maximum.⁵¹⁾ However, individual investors cannot benefit from income deduction if they dispose their shares in less than three years after investment. Mason (2009) argued that the EIS system had positive influence on invested companies and increased the amount of investment by over 50%.

49) Article 12, Enforcement Decree of the Restriction of Special Taxation Act

50) The system was introduced in 1994. It is a tax preferential system for individual investors who meet certain qualifications acquired newly listed stocks from qualified unlisted companies that have been certified by tax authorities. It applies when qualified individuals invest in the qualified shares issued by qualified companies

Therefore, the Korean government should consider introducing tax deferral on the capital gains that investors reap from venture businesses if they use the profits to reinvest in the shares of other venture businesses. However, there should also be exceptions that if investors violate certain conditions, they cannot receive the tax benefits.

51) Changes in the income deduction benefits for EIS investors:

Fiscal Year	Ceiling on the Invested Amount	Income Deduction Rate
1997–1998	GBP 100,000	20%
1998–1999	GBP 150,000	20%
2004–2005	GBP 200,000	20%
2006–2007	GBP 400,000	20%
2008–2009	GBP 500,000	20%
2011–2012	GBP 500,000	30%
2012–2013	GBP 1,000,000	30%

VIII

Summary and Conclusion

A venture business is a newly established small medium enterprise (SME) that is pioneering new markets with an ambitious entrepreneurial spirit. It possesses independent new technologies or ideas that are risky but that can generate large amounts of expected returns if successful.⁵²⁾ In order to foster venture businesses and ensure their sustainable growth, investors must be able to easily withdraw their invested funds from venture businesses and reinvest. That way, venture businesses can obtain smooth supply of funding. The policy goal of various tax incentives for venture businesses is to contribute in the growth and stabilization of venture businesses that have growth potential by settling the virtuous cycle of 「establish a venture business → grow → withdraw investment → reinvest」.

After enacting the Act on Special Measures for the Promotion of Venture businesses in September 1997, various tax incentives were carried out for venture businesses and VC investors to foster the venture industry. About fifteen years have passed since the Act came into effect and it is time to evaluate the effectiveness of the tax incentives and reset the policy direction for the future. In particular, as Park Geun-hye administration's key policy on “creative economy with focus on creation of jobs” is to foster venture capital investment, the importance of the venture industry is increasing all the more.

Tax incentives to promote the venture industry are stipulated extensively in Restriction of Special Taxation Act, Corporate Tax Act, Income Tax Act

⁵²⁾ Kim and Kim (2000), p. 186; Kim (2013), p. 13.

and Local Tax Act among others. They are carried out with VC investors at the centerpiece, and recently, tax benefits for individual investors have been expanded. While the tax incentives for venture businesses in Korea have been originally established to support SMEs, if requirements are satisfied, venture businesses can also receive tax benefits.

According to the survey conducted on 817 venture businesses and 23 VC companies, tax incentives were deemed to be the most effective supporting policy for venture businesses. 77.7% of venture businesses and 73.9% of VC companies answered that the incentives are effective. Furthermore, 56.2% of the venture businesses and 60.9% of the VC companies in the survey replied that in order to improve tax incentives in the future, ineffective ones should be repealed and effective ones should be strengthened.

An empirical analysis was conducted on the effectiveness of tax incentives for venture businesses and business performance, and the results are the following. First, after implementing T-tests and ANOVA on 6,428 companies for effective corporate tax rates during the period of 1999~2013, it was discovered that the rate was 16.0% for venture businesses, which was lower than non-venture-business SMEs (20.3%) and non-venture-business conglomerates (22.2%). Second, by making panel data from the companies that received tax incentives in the survey, it was found that the venture businesses receiving tax incentives had increases in business performance by 0.2~0.4%p compared to those that did not receive any support.

Based on these findings, this study concluded that tax incentives for venture businesses in Korea should be reformed so that ineffective measures are abolished while effective ones, such as relief from income and corporate tax and tax deferral on investment profits for VC investors, are reinforced and extended.

It is hoped that the findings in this paper will be utilized as basic materials for setting the future policy direction of tax incentives for venture businesses. When designing and drafting policies for tax incentives, it is recommendable that policymakers draw public consensus based on research such as from this paper.

Bibliography

- Asteriou, D., & Hall, S. G. (Eds.), *Applied Econometrics*. New York, NY: Macmillian Publishers Limited., 2007.
- Bank of Korea Economic Statistics System (<http://ecos.bok.or.kr>).
- Da Rin, D., G. Nicodano and A. Sembenelli,. "Public policy and the creation of active venture capital markets," *Journal of Public Economics*, 90, 2006, pp. 1699–1723.
- Ernst & Young, "Outline of tax reforms to stimulate investment," *Japan tax newsletter*, October 31, 2013.
- HMRC, "Venture Capital Trusts Statistics," Table 8.6, Official Statistics release
- _____. "Venture Capital Trusts: Introduction to National Statistics."
<http://webarchive.nationalarchives.gov.uk/+http://www.hmrc.gov.uk/statistics/vct.htm#1>.
- _____. "Enterprise Investment Scheme: Introduction to National Statistics,"
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/256400/eis-intro.pdf.
- Jang, G.H., *Tax Systems in Major Economies: United States (I)*, KIPF, 2009.
- Jeon, B.M. et al., "Improvement of Prior and Posterior Control of Tax Revenue Spending," KIPF, 2014.
- Jeong, W.O. and Roh, H.C., "Empirical Analysis of Tacit Taxes on the Capital Market," *SNU Management Institute Commentaries*, Vol. 37, No. 4, 2003.
- Ji, S.G. et al., "How Employees' Discretionary Authorities and Performance Rewards Affect Their Productivity," *Journal of International Accounting*, Vol. 37, 2011.
- Kerr, W.R., J. Lerner and A. Schoar, "The Consequences of Entrepreneurial Finance: A Regression Discontinuity Analysis," Harvard Business School Entrepreneurial Management Working Paper No. 10-086, 2010.
- Kim, D.G. and Lee, G.S., "Tax incentives for KOSDAQ-Listed Corporations," *Soongsil University Commentaries on Social Sciences*, Vol. 5, 2002.
- Kim, D.H., "Analysis of the Effectiveness of tax incentives for Startup Businesses," *Journal of Finance and Accounting Information*, Vol. 12, No. 1, January 2012.
- Kim, J.J., "Tax Policy Recommendations for Fostering Startup Businesses," *Studies on How to Realize the Creative Economy*, National Research Council for Economics, Humanities, and Social Sciences, 2013.
- _____. *Policy Suggestions for Sound Public Finance*, KIPF, 2014.
- Kim, J.J. and Kim, J.S., *Tax Policy Recommendations for Fostering Investment Associations*, KIPF, 1998.
- Kim, J.S., "Tax Policy Recommendations for Angel Investors," *Fiscal Forum*, KIPF, 2011.

- Kim, J.S. and Kim J.J., *Policy Recommendations for Stable Growth of Startup Businesses*, KIPF, 2002.
- _____, *International Comparison of Policy Measures for Venture Capital*, KIPF, 2000.
- KIPF, *Compendium on the Tax incentives for Startup (Angel) Investment in Japan*, 2010.
- Korea Venture Business Association (KOVA) (<http://www.venture.or.kr>).
- KOTRA International Business Portal, *Japan Introduces New Tax incentives for Startup Businesses*, May 13, 2014.
- KOTRA, *Comparison of Investment Environments in Korea, Singapore and Taiwan: Investment Institutes, Incentives, and Other Settings*, 2006.
- KVCA (<http://www.kvca.or.kr>).
- Library of Congress, Taiwan: Law on Industrial Innovation Adopted in Place of Expired Statute for Upgrading Industries, Apr 22, 2010.
- Lee, C.W. and Jeon, G.A., "Critical Review of the Effective Corporate Tax Rates as an Indicator of Tax Burden," *Journal of Management Studies*, Vol. 26, No. 4, 1997.
- Lee, H.S. and Kim, G.S., "Analysis of the Effectiveness of Tax incentives for Startup Businesses: Using Inherent Taxes," *Journal of Taxation*, Vol. 10, No. 3, 2010.
- Levenfeld, Platt, Romem, "Israel, Country Q&A," Private Equity 2009 Volume 2: Venture Capital, Cross-Border Handbooks.
- Mason, C., "Public Support for the Informal Venture Capital Market in Europe: A Critical Review," *International Small Business Journal*, vol. 27, 2009
- Mayende, "The Effects of Tax incentives on Firm Performance: Evidence from Uganda," *Journal of Politics and Law*, Vol. 6, No. 4; 2013
- Ministry of Economy State of Israel, "Taxation Benefits for Foreign Investors in Israeli Investment Funds," 2012.
- Ministry of Strategy and Finance, *Taxation Overview 2013*, August 2013.
- NVCA, *Venture Impact: The Economic Importance of Venture Capital-Backed Companies to the U.S. Economy*, 2011.
- OECD, *Entrepreneurship at a Glance*, 2012.
- _____, *OECD Work on Science, Technology and Industry 2013-14*, 2013.
- _____, *Policies for Seed And Early Stage Finance: Summary of The 2012 OECD Financing Questionnaire*, 2013.
- _____, *Venture Capital and Innovation*, 1996.
- Park, Y.R., Jeon, S.J., and Ju, J.W., "Structural Problems of the ICT Business Ecosystem and Possible Solutions," *KISDI Premium Reports*, KISDI, 2012.
- PwC, *Innovation: Government's Many Roles in Fostering Innovation*, 2010.
- Seo, B.W. and Mun, S.G., "Effectiveness of Tax incentives for Startup Businesses and Small-and-Medium Businesses in General: Policy Recommendations," *Journal of*

- Digital Convergence*, Vol. 12, No. 2, 2014.
- Shin, Y.I. and Lee, Y.H., *Trends and Implications of Tax Policies around the World amid Economic Crisis*, National Assembly Budget Office, 2010.
- Small and Medium Business Administration, *In-Depth Survey of Startup Businesses*
- Son, D.W. et al., *Evaluation of the Startup Business Policy and Future Recommendations*, Inha University, 2006.
- Song, C.S. and Park J.P., "Analysis of the Effectiveness of Korean Policy Measures for Startup Businesses," *Journal of Corporate Management*, Vol. 20, No. 5, October 2013.
- Venture-In (<http://www.venturein.or.kr>).
- http://www.mosf.go.kr/_bbs/rss.jsp?boardType=general&hdnBulletRunno=93&cvbnPat h=yes&sub_category=&hdnFlag=&cat=7&hdnDiv=185&&actionType=view&run no=59461&hdnTopicDate=2005-10-06&hdnPage=39.
- <http://www.investinisrael.gov.il/NR/exeres/3405B5DE-829B-4F0B-A70D-A48F88080067.htm>.
- <http://www.investinisrael.gov.il/NR/exeres/3405B5DE-829B-4F0B-A70D-A48F88080067.htm>.
- <http://www.israelbusiness.org.il/financialassistance/investmentincentives>.
- http://www.ivc-online.com/language/en-US/Research_Center/IVC_Publications/VC_Fund_Reports/VC_Fund_Raising.aspx.
- <http://asialawprofiles.com/Guide/489/Taiwan-legislation-guide.html>.
- http://www.loc.gov/lawweb/servlet/lloc_news?disp3_1205401939_text.
- <http://www.wantchinatimes.com/UploadFiles/Taiwan's%20Statute%20for%20Industrial%20innovation.pdf>.
- http://www.globalwindow.org/gw/overmarket/GWOMAL020M.html?BBS_ID=10&MENU_CD=M10103&UPPER_MENU_CD=M10102&MENU_STEP=3&ARTICLE_ID=5015454.
- <http://www.magma.co.uk/seis-government-statistics>.
- <http://www.magma.co.uk/seed-enterprise-investment-scheme-introduction>.
- http://www.nvca.org/index.php?option=com_content&view=article&id=344&Itemid=103.