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The impact of depreciation policy on corporate cash outflow from investing activities

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by

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ABSTRACT

This paper mainly studies the impact of accelerated depreciation policy in 2014 on cash flow expenditure of enterprise investment. Aiming at the Information transmission, software and information technology services industry, which is the primary focus of this new policy, we find that corporate cash outflow from investing activities has an obvious increase after the implementation of policy. However, policy incentive effect in this industry only focuses those companies who are in the growing stage but not those whose fixed-asset investment has reached saturation point, because there is no indication that the limit of cash expenditure on investment has been breached in this industry. At the same time, empirical research also points out the cash outflow from investing activities has positive relationships with company's profitability, cash flow, and firm scale, while negative relationship with firm's debt ability. However, it remains to be seen what effect the policy will have on a wide range of industries.

Keywords: new policy; accelerated depreciation; cash outflow; investing activity

JEL Classification: G11; G38; H2

I. INTRODUCTION

This paper discusses the impact of depreciation policy introduced in 2014 on cash expenditure of corporate investment. After the outbreak of the global financial crisis, the economic growth rate around the world is declining. A key legacy of the 1997-98 Asian financial crisis is the continued decline in investment rates in the crisis-hit east Asian countries (Park, Shin & Jongwanich, 2009). Such phenomenon is mainly caused by two reasons. First, the internal capital of the enterprise is insufficient so the ability to attract investment is limited; Secondly, external financing is difficult and expensive. In this case, it is necessary to solve the problem of capital shortage for enterprises as soon as possible, so as to realize technological innovation and industrial optimization and upgrading.

Under the background that the development of computer hardware is approaching the current physical limit, the Information transmission, software and information technology services industry has become the fastest developing part in the information industry. The rise of the mobile Internet has led to technological innovations in information and communication, business and finance, culture and entertainment, and also to technological changes in software and information technology services. On one hand, electronic information industry plays an important role in the national economy. On the other hand, its development is faced with many difficulties, as the development of emerging industries, the enterprise tax burden is heavy, financing difficulties, especially since 2014, the economy on a downward trend, the investment capacity of the enterprise itself, the external financing costs higher factors restricting the development of enterprises and industrial transformation and upgrading.

In order to reduce the financial burden, improve the cash flow of enterprises, and promote investment and innovation, Chinese government issued No.75 document on October 20, 2014. The content of this document improves and explains the accelerated depreciation income tax policy on the existing basis. For all companies in six main industries of biological medicine

manufacturing industry, special equipment manufacturing industry, railway, shipbuilding, aerospace and other transport equipment manufacturing, computer, communications, and other electronic equipment manufacturing industry, instrument manufacturing, information technology services industry, the new fixed assets purchased after January 1, 2014 can be depreciated by adopting accelerated depreciation or the depreciation period may be shortened. Compared with the previous depreciation policy, the current policy has a wider application scope and looser restrictions, enabling more enterprises to benefit from it. In terms of the current international situation, in order to gain a better position in today's global economic competition, the balance of its policies should be tilted toward the supply side. Therefore, it is necessary to consider its macro policies from the perspective of the supply side, so as to occupy a place in the new pattern of global development. On the other hand, although the fundamentals of China's economic situation are still favorable, since the "new normal", China's fixed asset investment has declined, and domestic and foreign demand has slowed down, and labor costs have risen and other problems have restricted the development of enterprises. This leads to the accelerated depreciation tax policy of concern and research.

The policy of accelerated depreciation of fixed assets, as a preferential tax policy, directly affects the tax burden of enterprises. A major area of contention for tax allocation stems from accelerated depreciation under taxation and financial reporting under the straight-line depreciation method. In this case, the difference is whether there is a deferred income tax liability (Livingstone, 1967). Although the accelerated depreciation policy can only play the role of deferred tax payment, and the tax paid by enterprises will remain unchanged in the long run, the enterprises in the initial stage of investment have a large demand for capital, and the tax reduction can alleviate the situation of capital shortage, which is of great significance to the small and medium-sized enterprises that are relatively short of capital. Accelerated depreciation of fixed assets tax preferential policies of the government to the enterprise provides an "interest-free loans", make it

in the early stages of the purchase of fixed assets, and pay less tax. Later when the equipment is able to generate enough economic interests to pay more tax, this will reduce the corporate tax burden and thus improve the enthusiasm of enterprises to carry out investment in equipment.

The part of empirical results will be showing that whether this policy has really significant and positive policy effect on the corporate decision regarding the investment. If the investing cash expenditure has an obvious increase after the implementation of new policy, which means the coefficient of dependent variable is positive and significant, then the answer is sure. Based on the fact that corporate can depreciate the fixed assets more under new depreciation policy, it can be expected that managers will be received more incentives to use remain cash to invest to gain long-term benefit. Obviously, such behavior can foster the circulation of capital throughout the capital market, and the effective and reasonable investment will also bring unprecedented promotion for the development of enterprises.

Accelerated depreciation tax policy for the special depreciation method of six industries is a significant measure for enterprises that not only benefits the current, but also benefits the long term. This policy can alleviate the financial shortage in the early stage of corporate growth, thus stimulating the vitality or innovation of enterprises and promoting the sustained and stable economic growth. Moreover, this policy is of great significance to the improvement of the quality and efficiency of the supply side. Its scope of application keeps expanding, with the purpose of making the supply side more powerful in regulating the economy, so as to achieve the macro balance between supply and demand. The regulation effect of this policy on the market in the early stage of the policy is not obvious, but with the sustainability of the policy increasingly prominent, it will vigorously promote the structural transformation and upgrading of the industry, showing a positive trend for the economic development.

The remainder of the study proceeds as follows. Section 2 provides the literature review and develops the hypothesis. Section 3 describe the research design, and Section 4 interprets the

empirical results. Finally, Section 6 gives the conclusion and corresponding limitation for the research.

II. LITERATURE REVIEW

Depreciation is an idea of “generally accepted accounting principle” for most accountants nowadays. More specifically, it is an expense caused by the diminishing value of a fixed asset. Fixed assets are the tangible assets used by an enterprise to generate income. Depreciation is the process of allocating costs over the life of an asset. This distribution takes the cost of the asset (depreciation expense) into the accounting period of the economic life of the asset and reduces the net value of the fixed asset. Different companies or countries use different methods of depreciation accounting and valuation to make financial statements comparable (Woodward, 1956; Aparicio & Soriano, 2008).

Over time, many companies are beginning to use different methods of asset depreciation in financial reporting and taxation to seek more profits for their companies. Before 1954, almost all firms used straight-line depreciation method for both financial statement and tax reporting purposes. However, the Internal Revenue Code of 1954 permitted firms to use a form of accelerated depreciation method for tax reporting purposes. Many large firms took full advantage of the new provisions and adopted accelerated depreciation method for tax purposes and a substantial number of these same firms decided at the same time to adopt the accelerated schedules for financial statement purposes (Archibald, 1976). Furthermore, Myers (1965) indicates that four possible methods of depreciation and related tax treatment are applicable. After 1980, taxpayers can select the method and rate at which capital assets may be depreciated regarding the capital recovery of corporate assets. More specifically, taxpayer can either choose accelerated or straight-line depreciation method, elect Section 179 expensing, or elect full or reduced investment tax credit (Richardson & Nixon, 1983). Voss (1968) specifically explains the mechanism of the

difference in the amount of tax payment. For businesses that choose to use the accelerated depreciation method over the straight-line method, there is only one approved way to record the difference between book tax costs and tax obligations. This method relies on deferred credit accounts, where the difference between tax payments (using the straight-line depreciation method) and the actual taxes paid is recorded. This gives the paper to explore the significance of the new accelerated depreciation policy. Because of the difference in the taxable amount caused by depreciation differences, managers are given different levels of incentives to use the saved funds to create profit space and revenue prospects for their companies

Since taxable income needs to be obtained by deducting depreciation expense, the choice of depreciation method will affect how much tax a business needs to pay. Therefore, managers can artificially choose a specific method of depreciation to minimize the present value of future taxes (Berg et al., 2001). The accelerated depreciation method is a good way to be adopted for the depreciation of newly acquired assets for this purpose. The amount of depreciation expense in the early life of assets is higher, and managers can therefore pay less taxes in the first few years of depreciation because of lower taxable income. However, the tax that needs to be paid is just delayed and the overall amount doesn't have any change (Brigham, 1967). Berg and Moore (1989) states from their study that when future cash flows from operations are not known and fixed but only in probabilistic relationship, the straight-line depreciation method is the preferred method for lowering the company's present value of tax liability in many real situations. However, the research topic of this paper seems to be able to answer the contradiction between the two, that is, whether enterprises prefer to get a sum of money to invest in the company in advance by forming deferred income tax liabilities, or whether they are unwilling to disclose such liabilities in the company's statements, so as to prevent a lot of decision-makers from thinking that the risk of the company is too high.

Tax policy has been widely used by governments as a means of influencing firms' investment decisions (Kay & Rister, 1976). In fact, the method of depreciation chosen for tax purposes affects the time of tax payment and therefore the net present value after tax of the investment project (Waegenaere & Wielhouwer, 2001). The study from Jackson et al. (2010) illustrates that managers like to sell used capital assets in higher price depreciated by accelerated method than straight-line method. This situation even happens when managers know all the fair-value information of the assets. The research from Jackson et al. (2009) points out the depreciation choice makes significant influence on managers' capital investment decisions. Using accelerated depreciation method makes larger capital investments for the company than use straight-line depreciation method. In addition, the results also show there has been a transition from accelerated depreciation to straight-line depreciation in external financial reporting for companies over the recent two decades, and the degree of investment becomes smaller compared with the pre-changed periods. Another research indicates that financial constraints within the company would impact corporate investment behavior closely. Enterprises with less financial constraints tend to invest too much and their sensitivity to investment cash flow is affected by agency costs, while enterprises with more financial constraints tend to underinvest and their sensitivity to investment cash flow is affected by information asymmetry (LIAN & Cheng, 2007).

A study was conducted by Edame and Okoi (2014) to investigate the impact of taxation on investment and economic growth in Nigeria during 1980-2010. The results show that the increase of both personal income tax and corporate income tax will lead to the decrease of investment in Nigeria. The results of this past study are closely related to the theme of this paper. Because the essence of the new accelerated depreciation policy is to reduce the amount of taxable income on the company's financial statement by adding more depreciation expenses, so as to reduce corporate income tax. Therefore, if we further infer from this result, the new accelerated

depreciation policy should enable enterprises to increase their investment, that is, increase the cash outflow related to investment activities.

Predicting capital depreciation is essential when managers invest in equipment or construction to obtain future cash flows. However, the law of capital depreciation is not necessarily geometric in the traditional sense. In fact, the law of capital depreciation can't be determined by any single mode (Terregrossa,1997). Japanese managers tend to smooth the net income by depreciation changing under certain operating conditions, including control the capital intensity, firm size and financial risk. (Herrmann & Inoue, 1996).

There seems to be a relationship between depreciation at tax level and company profitability and related investment issues. The accelerated depreciation tax policy has the policy-oriented ability to promote enterprise investment. Through preferential policies, it can promote enterprises to purchase new fixed assets and increase investment in fixed assets, which is conducive to promoting enterprises to update equipment and technology and enhancing the development potential of enterprises. We can theoretically conclude that the accelerated depreciation tax policy is conducive to reducing the initial tax burden of enterprises and promoting the investment in fixed assets. In addition, six industries that are applicable to the accelerated depreciation policy have been introduced above. Therefore, this paper takes the information technology service enterprise as an example and puts forward the following hypothesis:

The issue of new depreciation policy in 2014 can have a positive and significant impact on corporate cash outflow from investing activities.

III. RESEARCH DESIGN

This paper assumed that the implementation of the new depreciation policy in 2014 will have a high correlation with investment decisions. On the premise of it, this paper empirically

tests whether the new policy on accelerated depreciation has realized the policy intention, that is, whether it is conducive to encouraging investment for managers. In addition to studying the impact of policy promulgation on cash flow of investment activities, this paper also needs to consider a series of other control variables that may affect dependent variables. Thus, this paper uses the following model:

$$COI = \alpha + \beta_1 PO + \beta_2 CF + \beta_3 TA + \beta_4 LEV + \beta_5 ROE$$

Where COI represents the cash outflow from investing activities within organization. Investment cash outflow is always negative for a company, but it is a sign of future growth. If the amount is small for a long time, the company tends to have no ability to expand; “PO” is the dummy variable brought into this model to distinguish the policy impact before and after the actual timing of the policy issue, which is at the beginning of 2014. Base on this fact, this model assumes “0” represents years in 2012 and 2013, and “1” represents years in 2015 and 2016. Considering that the effect of the policy is lagging behind, the year 2014 will not be included in the research period. Since the hypothesis assumes that the effect brought by new accelerated depreciation policy in 2014 would increase the investment of whole information and technology service industry, it is expected that β_1 should be positive and significant.

In addition to the variable of whether policies are issued or not, we need to consider and control for other factors that may also affect the cash usage of enterprises' investment activities. Saddour (2006) studies the determinants of French enterprises' cash holdings from 1998 to 2002. The results show that the debt level of French companies is closely related to the cash investment level. In addition, the study also found that the cash level of growth companies is higher than that of mature companies. For growth companies, there is a correlation between cash and the size of the company, the level of current assets and short-term debt. The cash level of mature companies is related to such factors as enterprise scale, profitability and R & D expenditure. The model of this paper is improved on the original model and four control variables which are closely related

to the level of investment cash outflow are added. As listed above in the formula, “TA” is the natural logarithm of total assets in the company, representing corporate scale; “CF” represents cash flow, and it can reflect the effectiveness and efficiency of corporate business activities; “LEV” represents corporate financial leverage. The paper uses one of the factors in Du Pont analysis, which is equity multiplier, to determine how big and serious corporate financial risk is; “ROE” is return on equity, representing the profitability of business. Except that variable “LEV” should form a negative relationship with corporate cash outflow from investing, it is expected that other four control variables both have the positive relationship with the dependent variable. Here are the more detailed explanations about them. As mentioned also in appendix, the paper provides specific measurements for these variables.

Firm size

In this paper, enterprise's final logarithm of total assets measures the size of the enterprise. Kadapakkam, Kumar & Riddick (1998) concludes that in the samples of all companies in six countries, the internal financing of enterprises is closely related to investment, and the sensitivity of cash flow-investment is higher for large companies, but lower for small companies. The strength of large enterprises is stronger, itself has more sufficient funds for business investment, and easier to raise money from outside. As a result, large enterprises operating conditions are running well, and income should be relatively stable.

Cash flow

The cash flow of an enterprise is expressed in this paper as the proportion of the net cash flow from operating activities in the operating income of the current period. The net income from operating activities, that is, the net cash flow generated by operating activities, can be used to determine the current operating conditions of the enterprise. The better operating condition means that the net cash flow after the payment of interest and dividends will increase, and the more available funds the enterprise will have. Corporate overinvestment is concentrated in companies

with the highest levels of free cash flow (Richardson, 2006). In other words, the enterprise has more self-owned funds that can be used to increase the investment of the enterprise. Therefore, the cash flow of the enterprise should be proportional to the investment of the enterprise.

Financial leverage

Firm investment decisions are shown to be directly related to corporate financial risk (Cleary, 1999). In this paper, equity multiplier is used to measure the financial leverage of enterprises, that is, the ratio of total assets to total equity. It is mainly used to measure the proportion of a company's total assets that is financed by borrowing. Enterprises by borrowing the interest expense can be in pre-tax deduction, and enterprises' rights and interests multiplier is higher, its debt, the greater the pre-tax deduction of interest expenses in order to reduce the expenditure of cash flow of the enterprise, but because of the increase in debt and interest expense increase will make the enterprise faced with the larger financial risks and reimbursement pressure, therefore asset-liability ratio will affect the enterprise investment, negatively related with the enterprise investment.

Profitability

This paper uses return on equity to represent the profitability of an enterprise. With the increasing public curiosity about the capital market, ROE is an important indicator of whether stakeholders make investment decisions in the capital market because ROE using net income as a benchmark in measuring profitability (Ichsani & Suhardi, 2015). Those enterprises with strong profitability are mostly in the growth stage, and these enterprises prefer equity financing in the capital market. And the more profitable a company is, the more net profit it will have and the more retained earnings it will have, so the company will have more disposable funds to invest. Lesakova (2007) also indicates several important factors related to company's profitability and management level. If the management wants to improve its return on net assets, three important levers are conducive to improving its financial performance, which are profit rate, asset turnover rate and

financial leverage. Whether a company is a large company or a small company, careful management of these levers can have a positive impact on the company's profits. In addition, identifying and maintaining the appropriate value of leverage is a challenging management task involving an understanding of the nature of the company's business and the interdependencies between leverage. All in all, return on equity should be positively correlated with fixed asset investment.

In the next section, the methods of descriptive statistics, correlation analysis and multiple regression analysis will be used in the paper to test and prove the data, and analyze how accelerated depreciation policy of fixed assets in China affects investment decisions of enterprises in Information transmission, software and information technology services industry in the following section.

IV. EMPIRICAL RESULTS

This paper measures the effect of new depreciation policy on corporate investing cash outflow, and all empirical financial data are obtained from CSMAR database. In terms of time interval, 2012,2013 (two years before the implementation of new depreciation policy) and 2015, 2016 (two years after the implementation of new depreciation policy) acts as the research periods. This paper eliminates the year of 2014 to ensure policy effect stabilize over time. As for the sample selection, all Shanghai a-share and Shenzhen a-share listed non-ST companies were taken as study samples, which are around 300 companies in total. ST stock is deleted because this kind of stock has high degree of delisting risk and by eliminating such stocks the research can prevent the occurrence of greater capital risk. In addition, as mentioned above, Information transmission, software and information technology services industry is the main industry this paper focuses as it is one of the industries that receives the most discount from the policy issue. To clearly compare the effects before and after the corresponding time point, this paper creates the dummy variable

“PO”. “0” represents the period before the policy and “1” represents the period after the policy. Considering that the effect of the current year's (2014) policy implementation is lagging behind, this year is excluded. Next, this paper uses methods of descriptive statistics, correlations analysis and multiple regression analysis to show the relations between all variables.

Before analyzing the template data, this paper needs to confirm whether there is collinearity between the variables in the model. Multicollinearity indicates that there is some relationship between independent variables. Regression analysis cannot therefore derive the simple effect of each independent variable on the dependent variable, which causes analysis error. Therefore, the multicollinearity test of variables is carried out first, and the results are as follows:

Variable	VIF	1/VIF
TA	1.180	.849
PO	1.120	.893
ROE	1.100	.907
CF	1.040	.909
EM	1.110	.965

Note: TA is the natural logarithm of a company's total assets; PO is dummy variable representing whether the new policy is carried out or not; ROE is return on equity calculated by net income divided by total stockholder's equity; CF is calculated by corporate's operating cash flow divided by its' operating income. EM is equity multiplier calculated by total assets divided by total equity.

When conducting multicollinearity test, we mainly observe the variance inflation factor and tolerance of independent variables, because the panel data in this model is self-varying. The variance inflation factor VIF of quantities is all less than 10, and the tolerance of 1/VIF is all greater than 0.1, so there is no multicollinearity.

Below are the relative results obtained through the descriptive statistics for exploring the relationship between the new depreciation policy and the situation of cash disbursement from investing activities:

Table 1 (Years before policy effect)

Variable	Obs	Mean	Std.Dev.	Min	Max
LEV	333	1.621	1.22	-.137	17.658
ROE	303	.0762	.086	-.548	.3219
CF	333	.085	.226	-1.97	.775
TA	333	21.01	.966	16.757	27.00
COI	333	18.35	1.82	7.8111	25.23
PO	333	0	0	0	0

Table 2 (Years after policy effect)

Variable	Obs	Mean	Std.Dev.	Min	Max
LEV	424	1.638	1.024	1.041	17.499
ROE	370	.079	.133	-.998	.954
CF	424	.127	.3299	-3.005	4.55
TA	424	21.61	1.001	18.96	27.14
COI	424	19.44	1.74	13.72	25.358
PO	424	1	0	1	1

Note: TA is the natural logarithm of a company's total assets; PO is dummy variable representing whether the new policy is carried out or not; ROE is return on equity calculated by net income divided by total stockholder's equity; CF is calculated by corporate's operating cash flow divided by its' operating income. EM is equity multiplier calculated by total assets divided by total equity.

Since this paper focuses on the investment performance of companies at different points in time, that is, before and after the policy release, comparison is necessary. Two tables of descriptive science respectively describe the observed indicators of each variable before and after the implementation of the policy. It is worth notifying that the variance coefficient of “COI”, which is the dependent variable, before policy effect is equal to 0.099 (standard deviation of 1.82 divided by mean of 18.35). However, it becomes 0.090 after the policy effect according to the second table. The decrease of the variance coefficient suggests the smaller volatility and higher degree of aggregation of all independent variables relative to the mean. Meanwhile, the mean of “COI” in second table is higher than the one in the first table, which means companies expand their invest as time goes by. Combining these two findings, it is not hard to get the theory that the issue of policy significantly increased the enterprise's investment cash expenditure in Information transmission, software and information technology services industry, and this kind of phenomenon

is relatively common and frequent. At the same time, two tables collectively reflect that the maximum amount of cash disbursement from investing activities does not have any big change, while the minimum amount increases about six units. From this discovery, it can be inferred that there may be a limitation to corporate investment. Policies can support such nascent businesses, helping them to grow early enough to invest and expand. However, when the cash flow of investment expenditure reaches a certain amount, the investment incentive effect of the policy is not as significant as before. Finally, through the observation of the mean value of the control variables, we can find that other four factors have not changed significantly before and after the policy promulgation, except that the cash flow of enterprises in the whole industry has increased a large part.

Besides the descriptive statistic, this paper also relies on correlation analysis to study the dependence among random variables. By observing, we can find out whether there is a promoting relationship or an inverse relationship between any two variables.

Matrix of correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)
(1) COI	1.000					
(2) PO	0.301	1.000				
(3) CF	0.153	0.058	1.000			
(4) TA	0.632	0.323	0.110	1.000		
(5) ROE	0.159	0.013	0.276	0.149	1.000	
(6) LEV	-0.040	0.027	-0.078	0.158	0.022	1.000

Note: TA is the natural logarithm of a company's total assets; PO is dummy variable representing whether the new policy is carried out or not; ROE is return on equity calculated by net income divided by total stockholder's equity; CF is calculated by corporate's operating cash flow divided by its' operating income. EM is equity multiplier calculated by total assets divided by total equity.

From the correlation analysis, first we can see that the relationship between coefficient “PO” and “COI” is positive, which means the implementation of policy has a positive relationship with corporate investing cash expenditure. Thus, the data can support the hypothesis that more

corporates in Information transmission, software and information technology services industry utilize the new policy to retain more cash to spend money in investing activities. As for the relationship between the dependent variable and other five control variables, same as the tradition views, the increase of cash flow, total assets and return on equity will increase the investing cash expenditure, because they are both the symbols for the embodiment of corporate strengthen expansion. Also, as a sign of corporate debt ability, the increase of corporate financial leverage does decrease the company's investment cash flow expenditure. If corporate affords too many liabilities, it's hard for it to generate idle capital to invest in business. In addition, data shows that firm size is closely related to the corporate decision about the investment because the absolute value of its' coefficient, which is around 0.6, is the largest one comparatively, while it seems cash flow and corporate profitability have slight relationship with corporate investing cash disbursement from the display of their coefficients. Although the logical relationships have been revealed through the analysis of correlation, considering correlation analysis just concentrate on analyzing the interaction between only two lonely variables but not consider the effect brought as a whole model. In fact, a phenomenon is often associated with multiple factors. It is more effective and realistic to predict or estimate the dependent variable by the optimal combination of multiple independent variables than by using only one independent variable. Therefore, multiple regression analysis should be taken for further study.

Thus, next table displays the result of multiple regression analysis to concentrate on data analysis brought by comprehensive consideration of all variables in the model:

VARIABLES	(1) COI
PO	0.375*** (3.438)
CF	0.324* (1.811)
TA	1.067*** (19.145)
ROE	0.843* (1.793)
LEV	-0.239*** (-4.546)
Constant	-3.703*** (-3.185)
Observations	673
R-squared	0.436
Year FE	YES
Adjusted R-squared	0.431

t-statistics in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Note: TA is the natural logarithm of a company's total assets; PO is dummy variable representing whether the new policy is carried out or not; ROE is return on equity calculated by net income divided by total stockholder's equity; CF is calculated by corporate's operating cash flow divided by its' operating income. EM is equity multiplier calculated by total assets divided by total equity.

All valid observations in the model are 673. The coefficient of determination is 0.436 in this model, which means about 43% of the cash outflow of investment activities can be implemented by the variables in this model. In other words, this model has pretty high goodness of fit, the results are reliable.

On the other hand, data suggests that there is an extremely significant correlation between the explained variable and the explanatory variable because the corresponding p-value is smaller than 0.01. Also, the relationship between "COI" and "PO" passes the significant test and the regression coefficient is about 0.375, which interprets that after the implementation of policy, the cash disbursement from investing activities of companies in the information transmission, software and information technology services industry averagely increases .375 unit significantly.

This theory further strengthens the hypothesis. The new accelerated depreciation tax policy published in 2014 served its purpose conspicuously in information transmission, software and information technology services industry. It can help enterprises to accelerate the long-term investment, promote the update of fixed assets, and improve the enterprise investment structure.

At the same time, it is obvious to be discovered that five control variables also significantly impact the explained variable as their p-values are both smaller than 0.1, and the variables of “PO”, “TA” and “LEV” are extremely significant on the result. Overall, with the increase of total assets, cash flow and return on equity, the corporate’s cash disbursement from investing activities also has a significantly increase. So, it confirms many of the conclusions that have been made before in the literature that there is a significant positive relationship between the scale, operating efficiency and profitability of an enterprise and its investment level. Meanwhile, the data shows the corporate’s debt paying ability, which is interpreted by equity multiplier, has a negative relationship with corporate investing activities cash disbursement. It gives a reasonable explanation about when the debt burden of corporate increases, corporate cannot have enough ability to generate cash to invest a lot, thus the amount can be quite low at the record of corporate cash usage for long-term investment.

V. CONCLUSION

This paper focuses on the improvement and expansion of the accelerated depreciation income tax policy for fixed assets, through the review of relevant literature , in-depth theoretical analysis and empirical analysis to explore the impact of the new accelerated depreciation policy on the long-term investment of enterprises in Chinese electronic information industry, and provides suggestions for the further improvement and implementation of the policy. Overall, the hypothesis of this paper can be fully supported with a lot of statistic results provided above.

Generally speaking, the research results formed in this paper can be summarized into the following two aspects:

(1) The information transmission, software and information technology services industry, as a minority in all industries, its investment behavior can have a pretty high sensitivity to the investment incentive effect of policy. The firm's depreciation method choice is likely to play an essential role on managers' capital investment decision. The issue of the new depreciation policy has a strong function to push managers in certain industries to increase the investment willing. Thinking about it further, it can be expected that the problem of stagnant economic development will be effectively solved, because cash has become liquid, making it more active in capital markets.

(2) The policy incentive effect shows that it is only to help those in the early stage of development, or the investment level is not high enterprises to increase the intensity of corporate cash investment. However, for those mature enterprises with sufficient capital investment, the promulgation of policies cannot make them break the threshold and expand their investment further. In other words, their cash investment may have reached saturation point. The new accelerated depreciation mechanism in the policy may have little incentive for them.

However, this study is subject to some limitations, which are caused by the comprehensiveness of data collection and its own research level. It is necessary to continuously sort out relevant funds and conduct in-depth research on relevant data in the future.

(1) The paper doesn't take all industries as a whole sample to carry out the research. As the policy indicates, the discount content is granted to six big industries. However, the research only focuses on information transmission, software and information technology services industry, which is one of the groups that be affected most under this policy. This does not guarantee that the same conclusion will be reached for those industries that benefit only slightly from the policy. In other words, the introduction of the policy can only change the willingness of a small number

of enterprises to invest, but this level of investment does not indicate a general increase in managers' willingness to invest for all industries as a whole.

(2) This paper doesn't distinguish the different types of depreciation methods managers use, so the extension of the conclusion is also limited. Because there must also have companies in our sample that use the straight-line depreciation method, it is difficult to explain whether the increase in cash expenditure on investments is due to more companies using accelerated depreciation, or to the fact that companies that have been using accelerated depreciation are depreciating their fixed assets more aggressively. Therefore, limited by the difficulties in data search, this paper does not select enterprises that use accelerated depreciation method to depreciate assets before and after the policy for analysis, but takes all enterprises in the industry as samples for analysis.

(3) This paper does not take into account the regional differences. Generally speaking, in China, the financial development level of different regions should be different, and the financing constraints of different financial development levels are also different. The lower the level of regional development, the greater the financing constraints, and thus more dependent on the initial tax savings brought by accelerated depreciation tax policy. The opposite is true in areas with high levels of development. Another possible factor is the advance of equipment. The quality of equipment in the central and western regions generally lags behind that in the eastern regions. Therefore, the central and western regions may have more power to increase investment, replace advanced production equipment, and take advantage of the advantages brought by accelerated depreciation tax policies. It is one of the regrets of this paper to observe the impact of policy promulgation from the perspective of time dimension but lack of regional division.

Finally, based on the theoretical analysis and empirical research above, this paper puts forward the following policy recommendations:

(1) The publicity of the policy should be intensified to encourage enterprises that apply the policy to implement the policy. In the above analysis, we found that the policy effect could not stimulate the enterprises with strong capital strength in the electronic information industry to make further investment, resulting in the effect of the policy could not be fully played. Therefore, relevant tax authorities should make enterprises realize the preferential benefits brought by this policy by increasing publicity, so as to actively use this policy.

(2) Optimize the investment mix and eliminate outdated production capacity, in line with the sustainable development goals. If the updated fixed assets of enterprises consume a lot of energy and pollute a lot, it is bound to deepen the damage to the environment, which is contrary to the goal of sustainable development. When enterprises encouraged by the policy implement the accelerated depreciation and taxation policy, they should actively innovate, introduce low-energy consumption and low-pollution technologies, purchase fixed assets in line with the objectives of environmental protection and the scientific outlook on development, and resolutely eliminate devices that consume high energy and cause high pollution.

(3) The use of information means to enhance the operation of accelerated depreciation tax policy convenience. Because accelerated depreciation tax policy is the tax law of the preferential, and the accounting standards to be in accordance with the accounting standards for enterprises, this will produce tax differences. This makes enterprises need to adjust the corresponding amount of taxable income in a number of final settlement years, which easily leads to tax-related risks. But the tax authority also has certain difficulty in the management, easy to cause the law enforcement risk. Therefore, this paper suggests that enterprises can establish corresponding investment management module in the accounting information system to form the function of automatic calculation and automatic generation of accelerated depreciation declaration form, so as to reduce the workload of financial personnel and financial risks.

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