Does Government Subsidy Guide Private Universities towards Favorable Directions?: A Preliminary Analysis on Financial Data of Private Universities

Li, Jianmin*

With the decreasing college-aged population and the transforming policy environment in Japan, private universities are confronted with management crises, such as bankruptcy, mergers, etc. As the second largest source of funding, government subsidies for private universities is considered to have contributed to enhancing educational conditions and the soundness of financial management in the first two decades since its establishment but has a tenuous effect on the alleviation of students’ economic burden. In this paper a statistical method is employed with the presupposition that private universities as a kind of organization rely on their external resources to make decisions. During the analysis, we have focused on the influence of government subsidies, with suppositions that there exist differences in government subsidy ratio among different types of private universities, and that in certain aspects government subsidy hinders private universities from achieving independence, and that the ratio increase of government subsidies should be favorable for alleviating students’ economic burden. Through the analysis of financial data collected, we found that government subsidies did not show positive effects on promoting independence, and that its influence on alleviating students’ economic burden proves to be complicated as correlation coefficients of government subsidy ratio and tuition & fees per capita, and No.3 Capital Fund which is considered to be prepared for research and scholarship, are negative. Such results show that regulations accompanied with subsidies are constrictive to private universities to some degree. However, besides the financial status, there are several other factors to consider when discussing management behavior of individual private universities, such as the higher education market, policy issues, and internal governance. In brief, government subsidies have complicated influences on private universities and such complication reflects these uncertainties.

1. Introduction

The management environment for private universities deteriorates continually after the sec-
ond wave of baby boom around 1990s in Japan. From the late 1990s on, universities bankruptcies have drawn extensive attentions. Although researchers have pointed out that these universities bankruptcies could not fully demonstrate that the whole private higher education is on the verge of financial crisis (Urata, 2009), we could not deny that traditional higher education market is shrinking. Moreover, newly established universities and promoted junior colleges (up to 4-year colleges or universities) have enriched providers in higher education market. Thus, the shrinking market and swelling providers will inevitably compel Japanese private higher education into an age of intense competition, market selections and mergers. Under such environment, the protection of students’ benefits proves to be an important issue.

Established in 1970, the government subsidy for private higher education was legalized by Law of Promotion and Subsidization of Private Schools in 1975. Around the establishment, there were furious debates on whether or not government subsidy violates Article 89 of the Constitution. However, although the strict interpretation of Article 89 had been taken as official opinion during post-war occupation period, with the end of that period and Japan’s quick growth in economy later, social consciousness towards private schools tended to change gradually, and consequently gave impetus to the re-interpretation of Article 89 to legitimize government financial subsidies for private schools. Law of Promotion and Subsidization of Private Schools has paved way for government financial expenditure on private education, and simultaneously it also made private schools under government control. Such carrot and stick policy toward private schools was expected to have a double-edged influence on them, i.e. to enhance the development of private school as well as to restrain them from unfavorable behaviours. During the long period of 1975–2007, government subsidies for private universities have undergone a twisting way, i.e. the ratio of government subsidies in private universities’ total income kept rising during the first decade since establishment and after reaching the summit (29.5%) in 1980 the ratio began to decrease continuously. Although currently (FY2008) the subsidies account only 11% of total income of private universities, they are considered to have an important influence on private universities.

Law of Promotion and Subsidization of Private Schools prescribed three purposes of government subsidies, i.e. to alleviate students’ economic burden, to enhance educational conditions and to insure managerial stability of private schools. As to the effectiveness of government subsidies, previous researches (e.g. Maruyama, 1988&1994) have investigated whether the three purposes have been realized or not, taking all types of private universities as a whole. And positive results in the aspects of enhancement of educational conditions and stabilization of management have been found, without obvious effectiveness seen in the aspect of alleviating students’ economic burden. Such purpose-achievement pattern of analysis does contribute to strengthening the policy meaning of government subsidy, but the interactive process between government subsidy and private universities as organizations tends to be undervalued. Besides, concerning to alleviation of students’ economic burden, Maruyama’s research showed that government subsidies have theoretically played a constrictive role in tuition rise during 1970–75, but he also suggested that the temporary stagnation of tuition rise might also be due to the campus dispute—the external factors. However, the internal factors should not be neglected, i.e. the mechanism of government subsidies’ influences on private universities should also be emphasized. Regarding such previous research, the attempt of analyzing government subsidies’ influence on individual university’s managerial behaviors could be seen since 1990s (e.g. Yonezawa, 1992&1995). Based on previous research Yonezawa (2010) has focus on the managerial behaviours of private university, and analyzed the massification process of higher education, taking government subsidy as a policy instrument. To
insure the implementation of public subsidy policy, it is necessary to take public regulations on student scale (Yonezawa, 2010, 226). In other words, managerial behaviours of private universities have been influenced simultaneously by the double-edged government subsidy and it was government subsidy that contributed to elite private universities’ formation. However, as Yonezawa’s research took the period of 1960–1992 as objective period, it has mentioned little on higher education market, policy and changes in private education sector afterward. In addition, cases analyzed in his research were mostly huge and strong private universities, thus, the representativeness of case selection is left in question. Relating to universities’ managerial behaviours since the late 1980s, Morozumi (2010) has investigated the relationships between management structure and expansion on the basis of massive data over a long span and case studies on 40 private universities of different types. Her discussion has extracted determining factors of private universities managerial behaviours from financial and organizational characteristics, and to some degree clarified the mechanism of private university management and its problem under deregulated higher education market. However, private universities are not only subdued to the market, but also the government policy. Thus, policy environment including government subsidies should also be considered when analysing private universities’ behaviours. What’s more, researches by Yonezawa and Morozumi have approached managerial behaviours of private universities and government policy from a perpendicular perspective, i.e. analysing changes and problems based on chronic data, in comparison, horizontal analysis based on particular point of time still demand further enrichment.

In regard of such historical, policy and research background, this paper will mainly focus on the relationship between government subsidy and private universities’ managerial behaviors based on financial data of single fiscal year, with special attention to the influences of government subsidy on private universities’ independency and the alleviation of students’ economic burden, taking the perspective that private universities and higher education policy are interactive. Also through such investigation, we hope to obtain some enlightenment in the aspect of government subsidy’s ideal.

2. Hypothesis

(1) Financial Status and Managerial Behaviors of Private Universities

There are varieties of factors affecting managerial behaviours of private universities. It is considered that private universities as management organizations take their actions basically in view of higher education market, policy environment, founding spirits, and financial status of private universities. Although financial status plays an important role in private universities’ decision making, it is also necessary to take the other three factors into account when analyzing managerial behaviours of individual private university. First, changes in higher education market compel private universities to adjust to it. Decreasing traditional higher education population is shaping higher education market from “seller’s market” into “buyer’s market”3, hence private universities have few choices but conforming to it. Second, changes in higher education policies in the last decade of reformation have influences on management environment of private universities. Since the late 1990s, under the background of neoliberal reform which emphasizes competition and efficiency, the so-called “market mechanism” has been introduced into higher education policy, and competitions between national and private universities as well as intra-private universities become fiercer.
Accountability is also strongly demanded, accompanying deregulation of private sector since the beginning of 1990s. As a result, the MEXT took several countermeasures to re-regulate private universities, such as requiring private universities to disclose financial information, enhancing quality assurance system etc.. Third, founding spirits and missions of private universities may direct their behaviours off their financial status. As private universities are not profit-seeking companies, it is generally considered that maintaining budget balance would be sufficient for running. Of course, optimistic financial status will contribute to the development of private universities, but seeking surplus wholeheartedly is incompatible to private universities’ missions. Therefore, there exists such possibility that analysis based on financial status doesn’t correspond to the real situations.

(2) Research Hypothesis

As this paper focus mainly on the relationship between government subsidy and the other financial incomes, which is considered to have influences on private universities’ management, we would approach private universities from the perspective of modern organization. Namely, private university is one form of NPOs, of which the ultimate aim is not maximizing their profits. Therefore, on the premise that financial incomes as external resources would influence private universities as organizations, we will develop analysis in accordance with following hypothesis.

Hypothesis 1: The magnitudes of influences on different type of private universities are different.

According to the prescription of Law of Private School Promotion and Subsidization of Private Schools (1975), the state could provide financial subsidy to school corporations running universities or technical colleges, in the aspect of current expense concerning education and research, within 1/2 of total expenditure. However, the subsidy ratio continued to stagnate at a low level over a long period. Thus difference between reality and ideal vision is taken as an argument in requiring ante-up. But the problem is that the subsidy ratio differences between universities might be neglected and we suppose that the type of private universities would contribute to the magnitude difference of subsidies’ influences.

Hypothesis 2: the larger the ratio of government subsidy for private universities is, the weaker the ability of obtaining external resources except tuition and fees will become.

Accompanying the commencement of current expense subsidy including personnel expenditure since 1970, it is considered that fund raising burden has been lessened. According to methods of subsidy calculation, as long as the number of students and faculties could be ensured in accordance with their quorums, generally private universities could obtain subsidies. In other words, other external resources seem to become less important. In addition, the financial structure of private universities has not been taken as a big problem until neoliberal reform in 1980s, as higher education market during that period remained seller’s market. However under the background of higher education market’s transformation and deregulation, fund raising has become a vital issue. For example, in 2009 in the revision of allocation standards for special subsidies, private universities’ effort in improving management has been incorporated in subsidiary items, which implies that the MEXT began to pay attention to private universities’ aspirations in management. Nevertheless, we consider that the existence of government subsidies may restrain private universities from obtaining external resources.
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Hypothesis 3: the larger the ratio of government subsidy for private universities is, the more favorable it becomes for alleviating students’ economic financial burden.

It is thought that in order to alleviate students’ economic burden, it is important to keep tuition at a low level, as well as to consolidate scholarship system. In financial system of private universities, No.3 Capital Fund has been established to appropriate a budget for soft investment to enhance educational conditions such as research and scholarship (Nakano, 2001, 69). It is not hard to infer attitudes of private universities towards education and research from the scale of this fund. The larger its scale is, the possibility to invest in education and research, and to consolidate scholarship would increase. Besides, one aim of government subsidy is to alleviate students’ economic burden, thus, we consider that the larger government subsidy ratio is, the more favorable it should be for alleviating students’ economic burden.

3. Method

(1) Data

Financial data of private universities used in this paper are collected from each private university’s homepage. According to the MEXT’s survey, there are 596 school corporations (89.6% of the total) disclosing their financial information of FY2008, of which 500 are university corporations. Although 427 school corporations disclose their financial information through homepages, there exist some school corporations disclosing financial information without receiving government subsidy. Consequently, we have only collected financial information of 415 school corporations.

Furthermore, the data of current expenditure subsidies for private universities, namely general subsidies and special subsidies, refer to subsidies allocation (FY2008) disclosed by the Promotion and Mutual Aid Corporation for Private Schools of Japan. Additionally, “subsidy income” of private universities includes subsidies both from central government and local authorities.

In the aspect of types of private universities, typology in “Finance of Private Schools Today” was referred to. In this paper, we divided private universities into comprehensive universities and single-department colleges, and further divided them by departments such as medical and dental, pharmaceutical, science and technology, arts and the others.

<table>
<thead>
<tr>
<th>Type</th>
<th>Graduate schools</th>
<th>Comprehensive universities</th>
<th>Single-department colleges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>5</td>
<td>19</td>
<td>21</td>
</tr>
<tr>
<td>National</td>
<td>—</td>
<td>80</td>
<td>127</td>
</tr>
<tr>
<td>Total</td>
<td>—</td>
<td>13</td>
<td>9</td>
</tr>
</tbody>
</table>

Note: the data of “national” are based on “Finance of Private Schools Today” (FY2007 edition)
(2) Approach

According to Accounting Standards for School Corporation, private schools are under obligations to formulate statement of cash flow, income and expenditure statement and balance sheet, of which the first one indicates the liquidity of private universities’ current expenditure, the middle one indicates their business condition and the last one indicates financial position. As private universities differ from enterprises, and stability and soundness should be emphasized more than liquidity and profitability, this paper would focus on financial information in income and expenditure statement and balance sheet. From the perspective of Resource Dependency Theory (RDT), we would firstly analysis subsidy ratio and then its relationship with other fiscal items.

A. Subsidy ratio is taken as the index for the magnitude of government subsidies’ influence. The scale of this ratio indicates the importance of government subsidy as an income, i.e. dependency on subsidy.

- Subsidy ratio = subsidy income ÷ total income × 100%

B. If subsidy ratio is taken as index for dependency on government, then donations, dividends of assets and business income etc could be seen as index for independency. Therefore, we would investigate the relationship between subsidy ratio and these fiscal items.

- Correlation coefficient between subsidy ratio and donations
- Correlation coefficient between subsidy ratio and dividends of assets
- Correlation coefficient between subsidy ratio and business income

C. Furthermore, influences on private universities in the aspect of lessening students’ economic burden would be verified through investigation of tuition & fees per capita and No.3 Capital Fund.

- Tuition & fees per capita = total income of tuition & fees ÷ number of students
- Correlation coefficient between subsidy ratio and Tuition & fees per capita
- Correlation coefficient between subsidy ratio and No.3 Capital Fund

As there are graduate schools and medical/dental universities among the collected 415 private universities, during the process of B and C these types of universities are excluded.

4. Analysis Results

(1) Subsidy and its influence

Government subsidies have comprised a comparatively large share of private universities’ total income as the second largest income, but there exist differences in the subsidy ratio according to private universities’ types. The average ratio of current expense subsidy for private univer-
sities and colleges is 6.45%, but in comprehensive universities of medical & dentistry and single-department colleges this ratio appears to be lower while in single-department colleges of pharmacy, comprehensive and single-department universities of science and technology it is higher than the average. The ratio in comprehensive and single-department of arts and other departments doesn’t conform closely to the national tendency as Table 3 shows. Besides, it should also be noticed that there exists difference as much as 8.35% between subsidy income and current expense subsidies for private universities and colleges.

Table 3  Subsidy income and current expense subsidy for private universities & colleges ratios (FY2008, Comprehensive vs. Single-department)

<table>
<thead>
<tr>
<th>Type</th>
<th>Graduate school</th>
<th>Comprehensive universities</th>
<th>Single-department colleges</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Medical/dental</td>
<td>Pharmaceutical</td>
<td>Science and technology</td>
</tr>
<tr>
<td>Current expense subsidy ratio</td>
<td>7.04</td>
<td>4.64</td>
<td>6.24</td>
</tr>
<tr>
<td>Subsidy income ratio</td>
<td>10.74</td>
<td>9.93</td>
<td>12.01</td>
</tr>
<tr>
<td>National</td>
<td>—</td>
<td>7.6</td>
<td>10.7</td>
</tr>
</tbody>
</table>

Note 1: the “national” data are based on “Finance of Private Schools Today” (2007 edition)
Note 2: University Corporation is taken as calculation unit.

Table 4 Subsidy income and current expense subsidy for private universities & colleges ratios (FY2008, by departments)

<table>
<thead>
<tr>
<th>Type</th>
<th>Graduate schools</th>
<th>Medical and dental</th>
<th>Pharmaceutical</th>
<th>Science and technology</th>
<th>Arts and others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of University</td>
<td>5</td>
<td>27</td>
<td>29</td>
<td>106</td>
<td>248</td>
</tr>
<tr>
<td>Subsidy income ratio</td>
<td>10.74</td>
<td>8.79</td>
<td>11.89</td>
<td>13.93</td>
<td>16.25</td>
</tr>
<tr>
<td>Current expense subsidy ratio</td>
<td>7.04</td>
<td>4.5</td>
<td>7.11</td>
<td>7.01</td>
<td>6.32</td>
</tr>
</tbody>
</table>

Note: the “national” data are based on “Finance of Private Schools Today” (FY2007 edition)

(2) Subsidy income ratio and independency of private universities

Subsequently, we have investigated the relationship between subsidy income ratio and the other fiscal items. During this process, items in income and expenditure statement are used. As Table 5 shows, the correlation coefficients between subsidy income and tuition & fees, commission receipt, personnel expenses etc are comparatively large. However, when it comes to the correlation coefficients between subsidy income ratio and donations, dividends of assets and business income by type of private universities, there exist obvious differences.
In order to verify whether and how the government subsidy has contributed to alleviating students' economic burden, relationships between subsidy income and tuition & fees etc are investigated. As shown by Table 7, there exist weak correlations between subsidy income ratio and tuition & fees, tuition & fees per capita and No.3 Capital Fund ($0.2 < |r| < 0.4$). As each coefficient is minus, if the third variable’s influences are not considered, the larger the subsidy income ratio is, the cheaper tuition & fees per capita should tend to be. However, it is impossible that government subsidy and students’ economic burden

Moreover, through the analysis of fiscal items besides tuition & fees and commissions, such as donations, dividends of assets and business income, government subsidy’s influences on private universities are reflected to some extent. According to Table 6 listed below, the correlation coefficient between subsidy income ratio and donations turns out to be of little statistical meaning in total or sub-classification. In the aspect of business income, although the correlation coefficient reveals that there exists little correlation, weak correlation could be observed in universities of arts & other departments and single-department. In the aspect of dividends of assets, weak correlation could be observed except in single-department universities.

Table 5  Correlation coefficients between fiscal items of private universities

<table>
<thead>
<tr>
<th>Fiscal items</th>
<th>T</th>
<th>Com</th>
<th>Don</th>
<th>SI</th>
<th>DA</th>
<th>SA</th>
<th>BI</th>
<th>MI</th>
<th>PE</th>
<th>ERE</th>
<th>ME</th>
<th>No.3</th>
<th>SIR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition &amp; fees</td>
<td>1</td>
<td>.903**</td>
<td>.224**</td>
<td>.840**</td>
<td>.676**</td>
<td>.032</td>
<td>.229**</td>
<td>.806**</td>
<td>.815**</td>
<td>.762**</td>
<td>.569**</td>
<td>.587**</td>
<td>- .306**</td>
</tr>
<tr>
<td>Commission</td>
<td>.903**</td>
<td>1</td>
<td>.188**</td>
<td>.740**</td>
<td>.585**</td>
<td>.025</td>
<td>.136**</td>
<td>.724**</td>
<td>.698**</td>
<td>.655**</td>
<td>.482**</td>
<td>.473**</td>
<td>- .250**</td>
</tr>
<tr>
<td>Donations</td>
<td>.224**</td>
<td>.188**</td>
<td>1</td>
<td>.334**</td>
<td>.280**</td>
<td>-.004</td>
<td>.145**</td>
<td>.365**</td>
<td>.378**</td>
<td>.421**</td>
<td>.187**</td>
<td>.288**</td>
<td>- .150**</td>
</tr>
<tr>
<td>Subsidy income</td>
<td>.840**</td>
<td>.740**</td>
<td>.334**</td>
<td>1</td>
<td>.646**</td>
<td>.032</td>
<td>.360**</td>
<td>.835**</td>
<td>.927**</td>
<td>.875**</td>
<td>.591**</td>
<td>.523**</td>
<td>- .158**</td>
</tr>
<tr>
<td>Dividends of assets</td>
<td>.676**</td>
<td>.585**</td>
<td>.289**</td>
<td>.648**</td>
<td>1</td>
<td>.127**</td>
<td>.149**</td>
<td>.583**</td>
<td>.643**</td>
<td>.601**</td>
<td>.472**</td>
<td>.749**</td>
<td>- .294**</td>
</tr>
<tr>
<td>Sale of assets</td>
<td>.032</td>
<td>.025</td>
<td>-.004</td>
<td>.032</td>
<td>.127**</td>
<td>1</td>
<td>.041</td>
<td>.045</td>
<td>.050</td>
<td>.057</td>
<td>.041</td>
<td>.120*</td>
<td>- .115*</td>
</tr>
<tr>
<td>Business income</td>
<td>.229**</td>
<td>.136**</td>
<td>.145**</td>
<td>.360**</td>
<td>.149**</td>
<td>.041</td>
<td>1</td>
<td>.414**</td>
<td>.409**</td>
<td>.464**</td>
<td>.298**</td>
<td>.061</td>
<td>- .113*</td>
</tr>
<tr>
<td>Miscellaneous income</td>
<td>.806**</td>
<td>.724**</td>
<td>.365**</td>
<td>.835**</td>
<td>.583**</td>
<td>.045</td>
<td>.414**</td>
<td>1</td>
<td>.836**</td>
<td>.806**</td>
<td>.559**</td>
<td>.528**</td>
<td>- .244**</td>
</tr>
<tr>
<td>Personnel expenses</td>
<td>.815**</td>
<td>.698**</td>
<td>.378**</td>
<td>.927**</td>
<td>.643**</td>
<td>.050</td>
<td>.409**</td>
<td>.836**</td>
<td>1</td>
<td>.954**</td>
<td>.644**</td>
<td>.530**</td>
<td>- .325**</td>
</tr>
<tr>
<td>Education &amp; research expenses</td>
<td>.762**</td>
<td>.658**</td>
<td>.421**</td>
<td>.873**</td>
<td>.601**</td>
<td>.057</td>
<td>.464**</td>
<td>.806**</td>
<td>.954**</td>
<td>1</td>
<td>.600**</td>
<td>.488**</td>
<td>- .307**</td>
</tr>
<tr>
<td>Management expenses</td>
<td>.569**</td>
<td>.482**</td>
<td>.187**</td>
<td>.591**</td>
<td>.472**</td>
<td>.041</td>
<td>.298**</td>
<td>.559**</td>
<td>.644**</td>
<td>.600**</td>
<td>1</td>
<td>.278**</td>
<td>- .326**</td>
</tr>
<tr>
<td>No.3 Capital Fund</td>
<td>.587**</td>
<td>.473**</td>
<td>.288**</td>
<td>.523**</td>
<td>.740**</td>
<td>.120*</td>
<td>.298**</td>
<td>.559**</td>
<td>.644**</td>
<td>.600**</td>
<td>1</td>
<td>.278**</td>
<td>- .223**</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed). * . Correlation is significant at the 0.05 level (2-tailed).

Notes: T = Tuition & fees; Com = commission; Don = Donations; SI = subsidy income; DA = dividends of assets; SA = sale of assets; BI = business income; MI = miscellaneous income; PE = personnel expenses; ERE = education & research expenses; ME = management expenses; No.3 = No.3 Capital Fund; SIR = subsidy income ratio. 6 extremes of subsidy income ratio are excluded.

Table 6  Correlation Coefficients between Subsidy Income Ratio and Donations etc.
(by private universities’ type)

<table>
<thead>
<tr>
<th></th>
<th>Donations</th>
<th>Dividends of assets</th>
<th>Business income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science &amp; Technology</td>
<td>-103</td>
<td>-2.275**</td>
<td>-174</td>
</tr>
<tr>
<td>Arts and others</td>
<td>-130*</td>
<td>-2.267**</td>
<td>-2.216**</td>
</tr>
<tr>
<td>Comprehensive</td>
<td>-.093</td>
<td>-3.312**</td>
<td>-122</td>
</tr>
<tr>
<td>single-department</td>
<td>-.176*</td>
<td>-1.188*</td>
<td>-2.250**</td>
</tr>
<tr>
<td>Total</td>
<td>-.150**</td>
<td>-.2.294**</td>
<td>-.113*</td>
</tr>
</tbody>
</table>

Note 1: Universities and colleges of medicine, dentistry and pharmacy are included in Total.
Note 2: Universities and colleges classified by departments are not further divided by comprehensive and single-department.
Note 3: **. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed).

(3) Subsidy and students’ economic burden

In order to verify whether and how the government subsidy has contributed to alleviating students’ economic burden, relationships between subsidy income and tuition & fees etc are investigated. As shown by Table 7, there exist weak correlations between subsidy income ratio and tuition & fees, tuition & fees per capita and No.3 Capital Fund ($0.2 < |r| < 0.4$). As each coefficient is minus, if the third variable’s influences are not considered, the larger the subsidy income ratio is, the cheaper tuition & fees per capita should tend to be. However, it is impossible that govern-
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5. Discussions

On the basis of previous analysis, this part will focus on the discussion of hypothesis. Namely, the explanation to differences of government subsidy ratio and possible influences; the dilemma of private universities’ independency and slim donations; alleviation of students’ economic burden.

First of all, as the previous analysis showed that there exist obvious differences either in government subsidy ratio or current expenses subsidy ratio between private universities of different types, especially between private universities of arts and those of science and technology, as well as between private universities of comprehensive and single-department (Table 3). Besides, there are some private universities not receiving government subsidies (except those having not finished the first educational circle), which would naturally shoulder less government control theoretically. There are various reasons to these differences. One is due to the stipulations of distribution standards of government subsidies. At the very beginning, full-time faculty’s salary was subsidised differently according to department, for instance, the prescribed subsidizing rate for faculty in universities of medicine and dentistry was 30%, universities of science and technology 20%, universities of arts and the others 10% (Ogata, 1971) in 1970. Although subsidizing rate was reset at 50% in 1975 (Koniyuuba, 2006), another new mechanism, i.e. inclining distribution, was introduced, which tended to control universities of medicine, dentistry, science and technology more tightly than those of arts and others. Also differences in department structure of each private university have contributed to their subsidy ratio. As the standard units of government subsidies are differentiated among private universities of various types, departments’ establishment has a large influence on government subsidies. Besides, the instinct way of school management in Japan, which allows one school corporation to run several educational institutions of different levels, further affects government subsidy ratio.

Just because of such differences in government subsidy ratios, when changes appear in government subsidies for private universities, the policy influence for each private university is not exactly the same, which leaves the effectiveness of government subsidy in doubt. Also, for private

Table 7 Correlation Coefficients between Subsidy Income Ratio and Tuition & fees per capita etc (by private universities’ type)

<table>
<thead>
<tr>
<th></th>
<th>Tuition &amp; fees</th>
<th>Tuition &amp; fees per capita</th>
<th>No. 3 Capital Fund</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science &amp; Technology</td>
<td>-.302**</td>
<td>-.229*</td>
<td>-.167</td>
</tr>
<tr>
<td>Arts and others</td>
<td>-.492**</td>
<td>-.355**</td>
<td>-.260**</td>
</tr>
<tr>
<td>Comprehensive</td>
<td>-.337**</td>
<td>-.273**</td>
<td>-.241**</td>
</tr>
<tr>
<td>Single-department</td>
<td>-.408*</td>
<td>-.408**</td>
<td>-.221**</td>
</tr>
<tr>
<td>Total</td>
<td>-.306**</td>
<td>-.366**</td>
<td>-.223**</td>
</tr>
</tbody>
</table>

Note 1: Universities and colleges of medicine, dentistry and pharmacy are included in Total.
Note 2: Universities and colleges classified by departments are not further divided by comprehensive and single-department.
Note3: **. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed).

On the basis of previous analysis, this part will focus on the discussion of hypothesis. Namely, the explanation to differences of government subsidy ratio and possible influences; the dilemma of private universities’ independency and slim donations; alleviation of students’ economic burden.

First of all, as the previous analysis showed that there exist obvious differences either in government subsidy ratio or current expenses subsidy ratio between private universities of different types, especially between private universities of arts and those of science and technology, as well as between private universities of comprehensive and single-department (Table 3). Besides, there are some private universities not receiving government subsidies (except those having not finished the first educational circle), which would naturally shoulder less government control theoretically. There are various reasons to these differences. One is due to the stipulations of distribution standards of government subsidies. At the very beginning, full-time faculty’s salary was subsidised differently according to department, for instance, the prescribed subsidizing rate for faculty in universities of medicine and dentistry was 30%, universities of science and technology 20%, universities of arts and the others 10% (Ogata, 1971) in 1970. Although subsidizing rate was reset at 50% in 1975 (Koniyuuba, 2006), another new mechanism, i.e. inclining distribution, was introduced, which tended to control universities of medicine, dentistry, science and technology more tightly than those of arts and others. Also differences in department structure of each private university have contributed to their subsidy ratio. As the standard units of government subsidies are differentiated among private universities of various types, departments’ establishment has a large influence on government subsidies. Besides, the instinct way of school management in Japan, which allows one school corporation to run several educational institutions of different levels, further affects government subsidy ratio.

Just because of such differences in government subsidy ratios, when changes appear in government subsidies for private universities, the policy influence for each private university is not exactly the same, which leaves the effectiveness of government subsidy in doubt. Also, for private
universities, their attitudes toward government subsidies are divided to some degree due to their ratios of government subsidy income, which in fact is not considered to be conducive to demanding for government subsidy increase.

Apart from previous hypothesis, another important issue has been observed, i.e. the large gap (8.35%) between subsidy income ratio and current expense subsidy ratio. Such gap could possibly be caused by the gradual expanding of local authorities’ influence and the unique management of school corporations in Japan. The data used in this paper are collected from information disclosed by university corporations, and the fiscal item “subsidy income” in financial statements includes subsidies both from state and local authorities. Besides, school corporations in Japan are allowed to run plural private schools of various levels, thus such gap could be explained partly by local government subsidy for basic education. But recently local authorities’ involvement in higher education field proves to be an unnegligible issue in future discussion.

Secondly, it is no exaggeration to say that private universities are facing dilemma in dealing with independency. For private universities to achieve independency, insurance of instinct financial resources except tuition & fees is very important, thus it is an ideal status to diversify financial income of private universities. However, although the correlation coefficient between subsidy income ratio and dividend of assets appears to be very small, subsidy didn’t show positive effect on promoting independent sources of income and it does have negative influence on certain types of universities’ some financial items. In other words, respect for autonomy of private universities has been established as a premise for government subsidy in stipulations, while in practice government subsidy has played a restrictive role through accompanied regulations.

Besides, from Table 6, we find that there hardly exists correlation between subsidy income ratio and donations, as coefficient is too small or without statistical meaning. We consider that the main reason to this lies in the nature of donations. Generally donations are gifts without return consideration, which are based on charitable and voluntary consideration. In Japan although some large-scale enterprises have engaged in contributions to school corporations, the cultural environment of donations is widely recognized as insufficient. In addition, some deplorable affairs of private universities, although such private universities only take a negligible share of the whole, have severe damage to private universities’ images and reputations, which places private universities’ accountability in question and proves not to be conducive to donation raising.

Thirdly, government subsidy’s effect on alleviating students’ economic burden appears too slight to be observed, and it might have played a complicated role in this aspect. As weak negative correlation between subsidy ratio and tuition & fees per capita has been observed in Table 7, the increase of subsidy ratio should bring the alleviation of students’ economic burden. However, as the correlation coefficient is comparatively small and in certain types of private universities it is too small to demonstrate the existence of correlation, its effect on helping to alleviate students’ economic burden proves to be tenuous. And on the basis of such unobvious effects it becomes possible to criticize government subsidy for private universities and colleges as a waste of tax. Besides, the role of government subsidy in alleviating students’ economic burden appears to be complicated. If we consider that government subsidy contributes to reducing students’ economic burden on the basis of negative correlation between subsidy income ratio and tuition & fees per capita, then the correlation coefficient between subsidy income ratio and No.3 Capital Fund which should be prepared for enhancing soft infrastructure such as education, research, scholarship etc., should be positive. However, the analysis result doesn’t support such assumption. In other words, regardless of external factors such as campus dispute, the internal problem of government subsidy has also con-
tributed much to its tenuous effect on alleviating students’ burden.

6. Conclusion

This paper investigated relationships between government subsidy and some fiscal items in income and expenditure statement and balance sheet, and clarified the magnitude of its influence and its detailed forms to some extent. Firstly, through the analysis of government subsidy income ratio, its influences on different types of private universities have been observed. Furthermore, correlation between government subsidy ratio and donations, dividends of assets, and business income, government subsidy’s restrictive effect on independency of private universities has been reflected to some degree. Lastly, through the analysis of correlation between subsidy ratio and tuition & fees per capita etc, government subsidy’s role in alleviating students’ economic burden has been investigated. Additionally, as previous literatures suggest, government subsidies have influenced private universities through regulations. And during this process external factors such as private university’s spirits and missions, higher education market etc, have also played particular roles, which have inevitably diluted the effect of government subsidy.

Through above discussions we could see that the influences of government subsidy on private universities are complicated and such complication is considered due to policy changes and the innate uncertainty of government subsidy. Although previous researches have verified the effectiveness of government subsidy in the first two decades since establishment, the so-called deregulation trend since the middle 1980s in Japan has incited re-recognition of government subsidy’s legitimacy and also has a close relation with its deterioration afterward. For example, Usuta (1984) has pointed out that the cut in government subsidy was not simply a fiscal problem, but a measure toward neoliberal reform conducted by Minister Nakasone. And later Yano (1989) has also suggested that “the biggest problem of government subsidy for private universities is that the ideal of subsidy has been swayed by social-political caprices without being firmly established”. In 1990s, the higher education policy started to transform, and provided favorable opportunities for private universities to expand, while at the same time, government subsidies were encountering severe social critique that the calculation method was ambiguous and as a result some private universities tried to seek profit through excess matriculation (Toyo Keizai, 1997). Since the late 1990s on, the deterioration of government subsidy toward policy instrument speeded up, the purpose of alleviating students’ economic burden was again placed behind private universities’ management. With the policy inclination emphasizing stability and quality of private schools, government subsidy gradually drifts away from what it should be.

As to alleviation of students’ economic burden, government subsidy was expected to play an active role in this aspect, however, in practice the tuition level in private universities continues to increase year by year. Tuition & fees income from students remains to be the biggest share of private universities’ total income, and radical reform in financial structure of private universities has not taken place yet. As a result, under the background of re-marketisation of higher education, the effect of government subsidy in respect of alleviating students’ economic burden has been further blurred. Besides, the autonomy of private university also played a complicated role in the process of transforming government subsidy into students’ benefits. As private universities hold the discretion in tuition level, their own scholarships etc, the issue that how government subsidy transforms into students’ benefit still demands further discussion and the review of government subsi-
dies’ internal effectiveness, i.e. the conformity of the three purposes prescribed is also necessary. In other words, the equality of higher education and educational rights have been downplayed as government subsidy has transformed into a kind of policy instrument for controlling private universities, which could not be circumvented in discussing government subsidy’s reformation in the new age.

Notes
1. As researchers have pointed out, opinions pertaining to this issue mainly focus on the interpretation of Article 89. The negative opinion asserted that private schools (including private universities) were not under the control of public authority, therefore they could not receive public financial support. On contrary, the positive opinion which was based on broad understanding of “public” took private schools as a constituent of public education, as these schools were also under control of Basic Act on Education and other relative laws. Thus, the understanding of “public” turned out to be a key concept in judging whether or not government subsidy for private schools violates the Constitution.
2. The content of Article 89: No public money or other property shall be expended or appropriated for the use, benefit or maintenance of any religious institution or association, or for any charitable, educational or benevolent enterprises not under the control of public authority.
3. Seller’s market refers to any type of market for goods or service where demand exceeds supply. In higher education market, it denotes such a market that higher education service demand surpasses its provision, and may allow price rises. Under such market, universities as providers are usually free from enrollment problems, and what they need to do is just to organize education and to keep it run smoothly. While, in opposition to seller’s market, under buyer’s market goods or service supply exceeds demand, and consequently resulting in intense competition, low price, and possibly higher quality.
4. According the definition of The Promotion and Mutual Aid Corporation for Private Schools of Japan, “University Corporation” denotes the school corporation running universities. Such school corporations may also run junior colleges and other educational institutions.
5. Ratio of current expense subsidy for private universities = amount of current expense subsidy / total income × 100%
6. In sub-classification, either coefficient is of statistical meaning, while as coefficient in total is smaller than 0.2 (|r| < 0.2), it is generally believed that the two are uncorrelated.
7. Such divergence on government subsidy among private universities have been seen in six decades ago, when Waseda University, Keio University and several other private universities withdrew from Association of Private Universities of Japan. However, even in today the divergence is still considered to exist.
8. We find that subsidy income ratio is 8.35% higher than current expense subsidy ratio, and the differences are bridged by other state subsidies and subsidies from local authorities. Although current expense subsidy takes more than 90% of state subsidy for private universities, there exist several types of state subsidies such as subsidy for research equipment, research device, subsidy for university reform, interest subsidy for enhancing facilities, etc.
9. For instance, in 1965 among the total income of private universities, 4.09 billion Yen (1.9%) was subsidy income, in which 3.082 billion Yen was state subsidy (Special subsidy of Science for private universities and colleges took up 1.947 billion Yen; subsidy of research devices for private universities was 1.135 billion Yen. For details, please refer to “Survey Report of Financial Status of School Corporation (FY Showa 40)” for purchasing equipment and facilities. While, in 1969, the subsidy income amounted to 10.436 billion Yen (2.8%), and 8.076 billion Yen was from state subsidy (Among state subsidies, 3.3 billion Yen was subsidy of education and research expense for private universities, 3.021 billion Yen was subsidy of science education facilities consolidation for private universities, 1.775 billion Yen was subsidy of research equipment consolidation for private universities. For details, please refer to “Survey Report of Financial Status of School Corporation (FY Showa 44)”)). It is obvious that subsidy income of private universities in 1960s was mainly provided by state, as a result it could be inferred that the influence of local authorities was rather limited. However, comparing to private universities’ financial status in 2008, ratio of subsidy from local authorities become larger, and accordingly local authorities are considered to become more influential in private universities.
10. In 1984, the budget for government subsidy for private schools was cut by 10%, with the claimed reason that the state was facing fiscal problems. However, at the very beginning the cut rate was not 10% for all types of private schools, but lower and differentiated between universities (5%) and high schools (3%). Later, due to the interference of Bunryouzoku in LDP, the cut rate was raised up to 10% according to Usuda(1984). Simultaneously, a new wave of review on government subsidy was started.
11. The temporary quota policy since 1986 and the deregulation of University Establishment Standards in 1991, together gave impetus to expansion of private universities. Since then on, many private universities were engaged in coping with expansion, which implanted a dangerous root in educational quality, and invited extensive social criticism of private universities and government subsidy. Since the late 1990s on, higher education policy started to emphasize quality assurance.
12. In 1998, Japan Private School Promotion Foundation was restructured and government subsidy for private schools descended into a policy instrument (for example, part of government subsidy was distributed directly by MEXT during 2002–2007; the rapid increase of special subsidy since middle 1990s) and a general fiscal item.

References