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Capital Investment in National University Corporations in Japan

1. Pre-reform: The funding System and Capital Investment in the National School Special Account

The Japanese Finance Law stipulates that a special account may be established when an account needs to be separated from the general account as it gains special revenue. This stipulation applied to the National School Special Account, which gained special revenue from such sources as tuition fees and university hospital operation. The National School Special Account, which had been in existence until the end of the World War II, was restored in 1964 after the economic and financial chaos of the post-war period had subsided, and was designed, in the main, to promote facilities development in the national universities by employing special functions beyond the scope of the general account. The whole revenue and expenditure of all national universities was deemed and treated as a single entity in the special account.

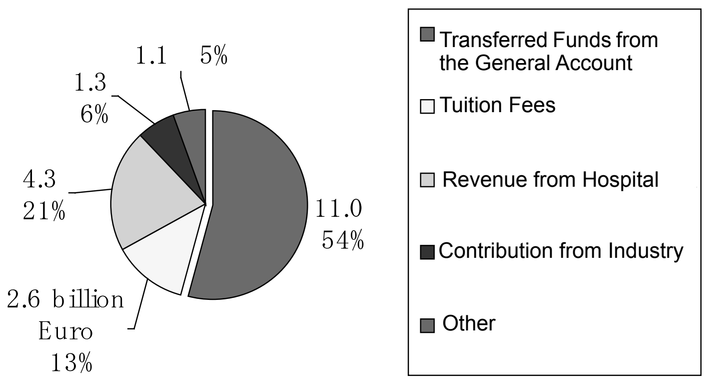
The functions of the special account were as follows.

A. In the general account, the fiscal year followed strictly the one-year rule so that any surplus was recaptured by the National Treasury, whereas the special account could be used to save any surplus for future facility development.
B. The properties of all national universities belonged to the National School Special Account. The revenue raised from the disposal of the properties could be saved in the special account for future facilities development.
C. In the special account, loans could be made to finance large projects to develop university hospital facilities. The revenues from hospital operation and / or disposal of lands were applied to the debt. In practice, the Fiscal Loans Program was the source from which the special account drew loans. This program was a scheme to finance public projects by the loans made available through government bonds issued by the Finance Ministry.

D. As the surplus in the special account increased, expenditure could be increased, unlike in the general account where the level of expenditure was fixed, as prescribed in the budget.

These functions of the special account made it possible to use the funds in a flexible way for facilities development projects frequently taking more than one year to complete. However, while the special account as a whole enjoyed a high level of flexibility, individual national universities were not free from rigid accounting rules, since the funds allocated by the Education Ministry to each university were itemized and could be used only for the purposes designated. It should also be noted that the special account was not expected to break even. A substantial part of the funds in the special account were transferred from the general account. These transferred funds accounted for over 50 per cent of the total revenue of national universities in 2003, as shown in Figure

Figure 1. Revenue of the National School Special Account 2003 FY (billion euro)



2. Change of Funding Scheme with the Introduction of the National University Corporation System

On April 1, 2004, almost all of the functions of the National School Special Account were incorporated in the new National University Corporation System at the individual institution level as follows.

A. Surpluses can be saved at the individual institution level, unlike in the old special account where surpluses were aggregated and retained as a whole.
B. Individual institutions can retain the revenue raised from the disposal of properties, whereas in the old special account, the revenues were aggregated and retained as a whole.
C. Individual institutions can make loans to finance facility development. However, the Education Ministry imposed the restriction that only those facilities such as hospitals, student lodgings and veterinary clinics be financed through loans, as these facilities are expected to raise revenue for repayment.
D. Individual institutions can increase the expenditure level at their own discretion if revenue exceeds the budgeted expenditure.

The allocation of funds provided by the Education Ministry is now a block grant to each institution, which frees the institution from operating under an itemized budget. However, the Education Ministry's Capital Development Fund stands as an exception. This fund, which constitutes the core funding in capital investment, is provided separately from the block grant and must be spent under strict accounting rules including the one-year rule and itemized budget. The Education Ministry decided to take the policy that the Ministry itself would be directly responsible for facilities development of national universities, as such development should be in line with medium- to long-term strategies for the promotion of education and research across the national higher education sector. The Education Ministry therefore maintains direct control over the main fund for facilities development.

If the government had originally wished to offer maximum freedom to individual universities in facilities development, funds for saving corresponding to the amount of depreciation would have been needed. This was not the case in the reform.

3. Funding Scheme for Facilities Development of National Universities

(1) Funds available for the development of facilities at national universities are as follows.

A. Funds for maintenance

Fund for maintenance works are included in the operational block grant. They are calculated based on aggregated space of each university. In 2008 FY, the fund amounts to 0.31 billion euro, which accounts for only 4 per cent of the total block grant.

Universities have complete freedom as to whether they actually allocate the fund for maintenance works or not.

B. Funds for major refurbishments and building new facilities

a. Facilities Development Fund (subsidy without matching)

For major refurbishments and building new facilities, the Education Ministry provides facilities development funds designated for specific purposes. In the National University Corporation System, depreciation of facilities is recognised and registered in the financial statement. However, no funds are saved by the corporation matching the depreciation. The idea behind this is that facilities development is the responsibility of the government since it should be in line with the policy for designing the development of university education and research activities.

The Education Ministry receives applications to draw from the fund every year. These applications are reviewed by a committee consisting of external experts. The Ministry selects projects for refurbishment or the construction of new facilities according to the results of the review based upon a set of criteria. The major items of the criteria are:

i) Assessment of the efforts made by the university as a whole
- reform of facilities management system
- organization for facilities management
- efforts to maximise the utilisation of existing space
- efforts to maintain the existing facilities
- efforts to introduce new external funds
- efforts for fair and efficient management of facilities development
- self evaluation of facilities development projects in the past

ii) Assessment of the proposed project
- compatibility with the master plan for facilities development
- need and urgency of the project
- impact on education and research activities
- efforts to reduce costs

In 2008 FY, the total cost of projects proposed amounted to 2.4 billion euro. Only 12 per cent, or 0.3 billion euro, out of the total cost was selected for funding. This is around one quarter of the total value of annual depreciation of all facilities owned by national universities, standing at 1.3 billion euro.

b. Loans

Following introduction of the National University Corporation System, loans became available for projects aimed at development of revenue-producing facilities such as university hospitals. Currently, the Fiscal Loans Program plays an important role in making the loans, as it can draw funds from the financial market at a lower interest rate than commercial finance.

In practice, the Education Ministry makes the loans in cooperation with the Centre for National University Finance and Management (CNUFM) reviewing the projects proposed by universities. The CNUFM acts as an agent representing all national universities applying for loans from the Finance Ministry, and arranges and controls the repayment plans for individual universities. In this way, universities save huge amounts of time and money involved in the negotiation and administration of the loans. In 2008 FY, loans from the Fiscal Loans Program amounted to 0.43 billion euro, which is far more than the amount of the finance provided by the facility development funds.

Meanwhile, CNUFM issues its own bonds in accordance with government policy. Independent administrative corporations like CNUFM are required to finance their activities through issuing their own bonds when they use the Fiscal Loans Program. This policy is designed to expose the management of independent administrative corporations to the market mechanism. In fact, transparency of the financial conditions of CNUFM has been greatly improved by the disclosure of financial and managerial information to stake-holders in the financial market, despite the fact that CNUFM currently issues only 31 million euro worth of bonds annually. In terms of the amount of bonds it issues, it occupies only a complementary position in the financing of loans for universities. Just as with the Fiscal Loans Program, CNUFM makes a contract with an individual university for a loan and administers repayments over the entire life of the loan.

C. Transferred Funds

Under the National University Corporation Law, national universities are required to contribute half of the revenue raised from the sale of unused properties such as land. The rest of the revenue may be retained by the universities for their own use. CNUFM distributes the revenue to other universities taking into consideration the fact that there existed huge differences in the amount of properties bestowed to each university at the time of the establishment of the corporation.

Table 1 is a summary of above-mentioned funding scheme for capital investment.

Table 1. Funding for Capital Investment

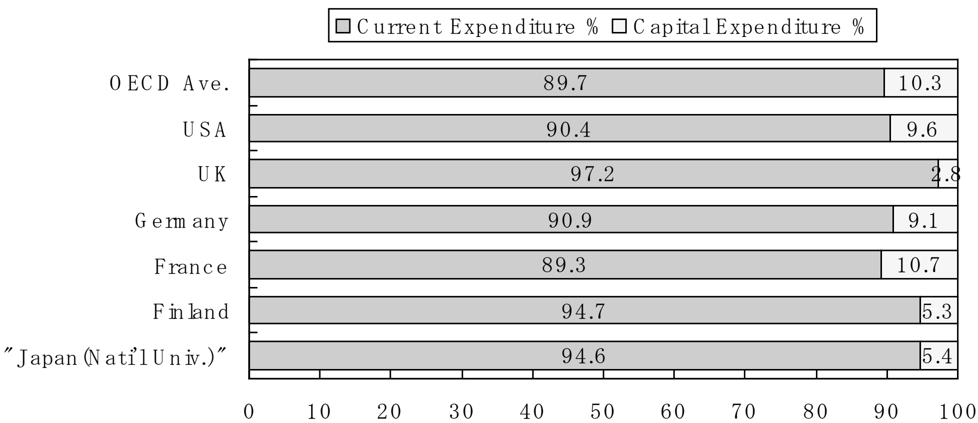
Capital expenditure for maintenance (block grant)	307 mil euro	29%
Capital development funds	259 mil euro	24%
Loans	432 mil euro	40%
Transferred funds	58 mil euro	5%
Total	1,056 mil euro	100%

(2) Role of CNUFM

CNUFM was established on April 1, 2004 to support national universities, inheriting the functions of the former Centre for National University Finance. Its roles fall into two categories. One is to act as an agent to make loans for national universities' facilities development, as described above. Currently, CNUFM makes two types of loans: 25 year loans for facilities and 10 year loans for major equipment. It holds university properties in pledge guarantee as security when making contracts with universities for loans. Its other role is to provide managerial support for national universities based upon research activities and information collected. In the past four years, in addition to active research projects, CNUFM has successfully established a Financial Data Service and managerial consulting system.

4. Issues Surrounding Facility Development of National Universities

Figure 2. Share of Capital Expenditure in the Total Expenditure for Tertiary Education



Source: OECD, "Education at a Glance 2006", p253. Ministry of Education, Culture, Sports, Science and Technology, "Policy for Capital Investment in National University" 2006, p 16.

National universities have been suffering from under investment for many years due to the long-lasting financial crisis resulting from the lingering sluggish economy. Figure 2 is a comparison of selected member coutries of the Organization for Economic Cooperation and Devepment (OECD) of the share of capital expenditure in the total expenditure; national universities in Japan are clearly suffering from under-investment.

The backlog of appropriate maintenance works has resulted in a significant number of decrepit facilities. The development of space of educational facilities has not kept up with the pace of increased numbers of students, especially in graduate schools which rapidly expanded in size around the turn of century.

The Education Ministry drew up a "Five-year Plan for Facilities Development", the first of which started from 2001. In this first stage (2001-2005), priorities were attached to the expansion of space for graduate education and major refurbishment with particular emphasis on improving earthquake-resistance. The total space of all national universities is around 25 million ㎡. The plan covered 6 million ㎡, about one quarter of the total space, which required about 14 billion euro, including 3.9 million ㎡ for refurbishment and 1.2 million ㎡ for expansion of space and other facilities developments for hospitals and COE research laboratories. During the five-year period, in actuality 4.2 million ㎡, or 12.1 billion euro, was covered thanks to supplementary budgets. However, only 54 per cent, or 2 million ㎡, of the funded refurbishment was achieved. The achievement rate as a whole was 70 per cent, or 4.2 million ㎡ as shown in Table 2.

The second stage plan (2006-2010) prioritised refurbishment in order to reduce the backlog that had accumulated even during the first-stage period. During the five years from 2006 to 2010, the plan targets 5.4 million ㎡ out of 25 million ㎡ at an estimated total cost of 8.3 billion euro. This includes 4 million ㎡ out of 7 million ㎡ in need of refurbishment. For the first two years, 3 billion euro has been appropriated, which accounts for 35 per cent of the total cost. This refurbishment is already behind schedule. (See Table 2)

Table 2. Capital Investment Plan for National Universities

First Stage Plan (2001-05)		**Second Stage Plan (2006-10)**	
Target	Actual result	Target	Actual result (2006-07 only)
6 mil m²	4.2 mil m²(70%)	5.4 mil m²	2.1 mil m²(38%)
14 bill euro	12.1bill euro (86%)	8.3 bill euro	3 bill euro (36%)

This chronic under investment is reflected in the survey results of subjective satisfaction ratings for facilities conditions. In 2006, all executive directors of facilities development were asked how satisfied they were with various aspects of facilities' conditions. They rated new building facilities, refurbishments and maintenance especially low; 60 per cent to 80 per cent of the directors responded that they were unsatisfied or rather unsatisfied with these aspects. This result implies that capital investment has not been meeting the basic needs required for maintaining the functions of facilities, not to mention for building new ones.

Table 3. Subjective Ratings on Satisfaction with Facility Conditions

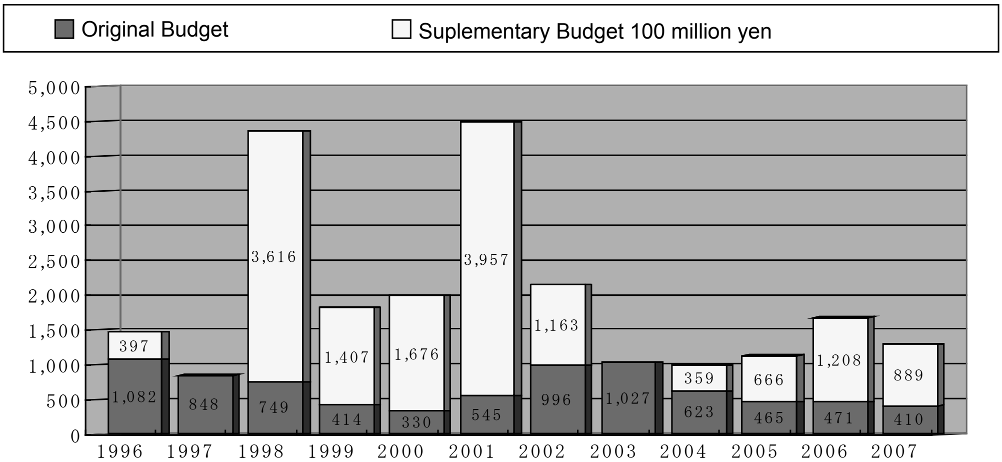
	Satisfied	Rather Satisfied	Neutral	Rather Un-satisfied	Un-satisfied	Total
Building new facilities	6.0%	14.3%	15.5%	35.7%	28.6%	100%
Refurbishment	1.2%	8.3%	8.3%	46.4%	35.7%	100%
Maintenance	0.0%	9.5%	28.6%	40.5%	21.4%	100%
Space	1.2%	14.5%	28.9%	47.0%	8.4%	100%
Amenities	0.0%	13.1%	20.2%	42.9%	6.0%	100%
Scenic condition	2.4%	28.6%	20.2%	42.9%	6.0%	100%
Function	0.0%	15.5%	25.0%	50.0%	9.5%	100%

Source: Comprehensive Study on the Actual Conditions of Finance and Management of National University Corporations, Ikuo Amano et al; a research project supported by a JSPS Grants-in-Aid for Scientific Research, March 2007, p348.

Although the necessary amount of capital investment has not been secured, the 5-year plans have successfully highlighted the poor conditions and urgency, or even crisis, in capital investment. To some extent, the plans have contributed to the spreading of an understanding of the need to increase capital investment. At the same time, the national plan has made it possible for national universities to make their master plan in line with the national strategy. Further efforts are required to harness the support of the general public for capital investment in national universities.

As shown in Figure 3, in recent years, the total amount of the capital investment would have been much smaller if there had not been a supplementary budget introduced with the specific purpose of, for example, boosting the economy. The dependency on such supplementary funding makes it extremely difficult to advance capital investment as planned. It also distorts the priorities of the universities in favour of those projects which meet the objectives of the specific purpose of the supplementary budget. For instance, if the supplementary budget is designed to boost the economy by promoting advanced research, facilities development funds (subsidies) would tend to be allocated to those projects building or refurbishing facilities such as laboratories and work space for university-industry collaborations. Too much dependence on the supplementary budget would undermine balanced development of facilities according to the priorities of the universities.

Figure 3. Trend of Budget for Capital Investment (Excluding the funds for maintenance and loans)



(2) Funds for maintenance

In the current scheme, funds for maintenance, the "Basic Funds for Educational Facilities", are allocated as a part of the operational block grant. For 2008 FY, the fund amounts to 0.3 billion euro, which accounts for only 4 per cent of the total block grant of 7.4 billion euro for 87 national universities.

As the operational block grant has been sliced every year by 1 per cent, funds for maintenance have been cut at the same rate. Many universities also use the funds for other purposes than designated. The result of the aforementioned survey tells us that as many as 50 per cent of all national universities appropriated the funds for other purposes, as shown in Table 4, implying that maintenance works have not been sufficient to keep the facilities updated.

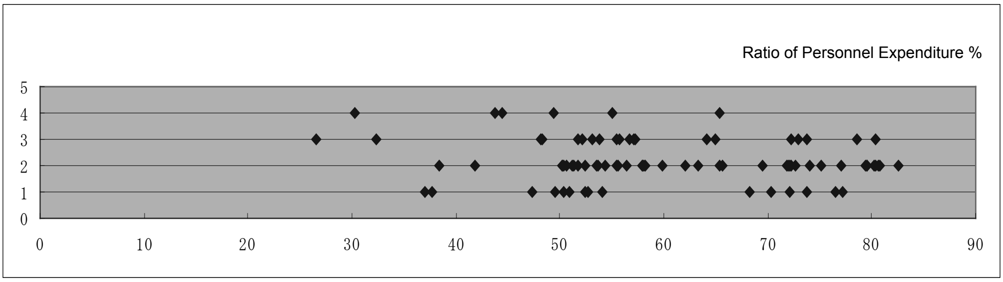
Table 4. Appropriation of Funds for Maintenance

1. Funds for maintenance are appropriated as designated.	18.1%
2. The funds are used for purposes other than those designated	50.6%
3. A part of the operational grant is added to the funds for maintenance	24.1%
4. Funds other than the operational grant is added to the funds for maintnance	7.2%
Total	100%

(Source) Comprehensive Study on the Actual Conditions of Finance and Management of National University Corporations, Ikuo Amano et al; a research project supported by JSPS Grants-in-Aid of Scientific Research, March 2007, p349

Furthermore, if we look at the result of the survey in light of the financial condition, it appears that those universities with a higher ratio of personnel expenditure tend to appropriate funds for maintenance to purposes other than those designated. Such universities chose the response of "The funds are used for purposes other than those designated" (No. 2 in Table 4), showing biased distribution toward a higher share of personnel expenditure. As can be seen in Figure 4, the more financially difficult and tight situation a university is in, the more it tends to spend the funds for purposes other than maintenance.

Figure 4. Survey Responses for Ratio of Personnel Expenditure in Relation to Appropriation of Funds for Maintenance (83 universities plotted)



* Numbers on Y axis correspond to choices in Table 4, from 1 to 4.
(Source) Data provided by Associate professor Kazunori Shima, CNUFM.

Once the principle that facilities development should be the responsibility of the government has been adopted, the funding system must also guarantee maintenance works as well. Therefore, funds for maintenance should be allocated separately from the operational grant.

(3) Improvement of the Facility Development Fund

The Education Ministry uses the Facility Development Fund to provide subsidies. Unlike the operational grant, the fund must follow strictly rigid accounting rules. Basically, the fund is be allocated on a yearly basis according to selections of the committee consisting of external experts. The selection procedure tends to pick up only a portion of the master plan of universities, leaving other parts unfunded. This undermines the universities' efforts to pursue facilities development planned over the longer perspective; that is, taking more than one year to complete. An alternative approach to the selection procedure would be to select a set of projects in the longer term (i.e., lasting more than one year) from each university in line with their master plan.

It should be also be pointed out that skills may differ greatly in the creation and presentation of applications for the funds due to the huge disparities in the number and skill set of staff members inherited by each university corporation from its former national university. Thus, some university corporations could fall considerably behind in the new National University Corporation System.

5. Conclusion

The funding system for capital investment reflects the principle of national university corporation system, which prescribes the extent of freedom and independence of the institutions from the government. The principle is that the strategy for the development of education and research across the national university sector lies with the central government, namely, the Education Ministry, whereas maximum freedom and independence in short-term operation should be bestowed on the individual institutions. Facilities development is one of the areas which is crucial to implementing the strategy. This is because the Education Ministry has direct responsibility for capital investment. However, it seems that some of the funding scheme for capital investment is not compatible with the principle, and that some major improvements could be made in the funding system to make it possible for universities to develop facilities in line with their master plan, and hence the national strategy in the longer perspective.

National university corporation system is to enter its second stage from 2010. This is the time to review the funding system for capital investment.