## S A R V H

## Copyright White Paper

- A view from the perspective of copyright industries (Vol.3)-

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Japan Copyright Institute
Copyright Research and Information Center

## Preface

This third edition of the Copyright White Paper, subtitled "Economic Aspects of the Copyright Industry," has been released more than eight years since the publication of the first edition in November 2000 and the second edition in March of 2005. As reports of this nature are more valuable when published in series rather than as one-off publications, our initial intention was to release a revised white paper every three years. We regret that due to circumstances beyond our control, however, many years have passed before we were finally able to release this new edition.

The preface to the November 2000 edition notes a comment by Taichi Sakaiya, the then-Minister of Economic Planning, which was published in the Economic Survey of Japan 2000: "...Japan, a leader in developing a hardware-focused industrial society based on standardized mass production, remained the most advanced country in the world in the development and application of control technology. It lagged behind in the informatization process, however, due to its failure to transform social mindsets, practices and frameworks that were focused on the standardized mass production system."

Japan's economic growth rate, $3.8 \%$ in 1991, fell to $-2.8 \%$ in 1998. The expansion of the Internet reversed this economic trend, as sales of personal computers finally surpassed those of televisions in 1999 and the popularity of cell phones began to grow dramatically. To support this development, the first edition of this white paper reported that Japan's copyright industry represented $2.3 \%$ (later revised to $2.5 \%$ after further review) of the GDP in 1998.

The Basic Law for Building an Advanced Info-Communications Network Society was established in December 2000, shortly after the publication of the first edition. The government also launched the IT Strategy Headquarters in January 2001, indicating the pivotal role that IT businesses had acquired in key national strategies. At that time, while Japan's declining production output finally bottomed out and the economy pulled out of recession, the recovery was still slow and modest. Against this backdrop, the IT industry became a driving force behind national economic and industrial growth.

Pursuant to Article 8 of the Basic Law on Science and Technology, in June 2004 the Ministry of Education, Culture, Sports, Science and Technology released the third annual report on progress in science and technology industries for 2003. The report refers to the $21^{\text {st }}$ century as a century of intelligence that sees the establishment of a knowledge-based society. Through the publication of our white papers, we share the same intention with the ministry; being able to promote and contribute to the establishment of such a society. In the second edition, we reported on the increasingly strong role the copyright industry plays in Japan's economy, noting that the industry represented 3.0 \% of the GDP in 2002. The industry achieved a remarkable annual
growth rate of $7.1 \%$ over the eight years between 1994 and 2002, while the GDP managed only $1.8 \%$ in average annual growth. In 2007, the industry represented $3.4 \%$ of the GDP and recorded an average annual growth rate of $5.2 \%$, while the rate of GDP growth again remained at $1.8 \%$. In 2008, the government's intellectual property strategy headquarters recommended a study on a legal system that could flexibly address the needs of the digital business market and innovative business models.

With the publication of this third edition of the Copyright White Paper, the following facts must be mentioned.

The first edition was published in 2000 and the second edition was published in 2005. As these types of reports are intended to be published sequentially, it is ideal for all the reports to be created in an identical format. The U.S. and countries in the EU, Asia and Oceania also publish reports on the economic impact of the copyright industry. Cross-national comparisons would be easier if an international reporting format standard was established. In reality, however, each country used its own system and formulas that were not always compatible in terms of comparative study. In order to address the need for a uniform system, in 2003 the World Intellectual Property Organization (WIPO) created the Guide on Surveying the Economic Contribution of the Copyright-based Industries. Regrettably, we only became aware of the WIPO guidelines when the process for the second edition was already well under way and were unable to reflect them in our report at that time. The third edition, however, was prepared using these guidelines. A translation of the WIPO guidelines, as well as five reports on the correlation between the copyright industries and economies in other countries, was released as a supplementary volume of the second edition in March 2005. It should be noted that our third edition also includes the WIPO guidelines (translated by Masahiro Miura) and reports from the U.S. (translated by Koji Abe) and the EU (translated by Hiroko Takarada), all of which were prepared using the WIPO guidelines.

We also followed WIPO's recommendation to regard copyright management organizations as an industry and included in the third edition are reviews on its estimated economic value (value added) and impact on employment.

Due to timing issues, the third edition does not refer to the global economic downturn triggered by the credit crisis in the U.S. caused by the subprime loan collapse. The negative impact on Japan's economy was of course inevitable, as the real annualized GDP growth rate between October and December 2008 was posted at a shocking $-12.1 \%$. As the economic recovery is projected to take three years, the government is said to have prepared a three-year emergency plan in March 2009, which will also have an impact on employment figures. Once again, however, reviews on these issues are not included in the third edition for the aforementioned reason.

As was the case with the supplementary volume of the second edition, we intend to follow up on the third edition with translations of reports from the Philippines, the U.S., Canada, Hungary and various Arab nations, etc.

The publication of the third edition, as was the case with the first and second editions, is in no small part attributable to the significant assistance provided by Nomura Research Institute, Ltd., which included the collection and organization of the base materials. We would like to note our deep appreciation for their contribution.

We would also like to express our gratitude to the Society for Administration of Remuneration for Video Home Recording (SARVH) for providing financial assistance for the publication of the third edition of the Copyright White Paper through its common purpose fund, which promotes awareness of copyrights and related legal systems.

June, 2009
Koji Abe
Director of the Japan Copyright Institute Copyright Research and Information Center

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Copyright White Paper

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## Part I: Study Overview

## Part I: Study Overview

## Chapter 1: Copyright White Paper Third Edition: Study Results Summary

## I. Summaries of previous Copyright White Papers

The first edition, published in 2000, primarily focused on clarifying the copyright industry's role within the framework of the national economy by identifying the industry's share of the GDP through statistical data analysis based on effective economic evaluation methods.

The second edition released in 2005 focused on analyzing the annual trends of various indices and the results of a comparative study based on the same methods used in the first edition.

|  | Copyright White Paper, First Edition | Copyright White Paper, Second Edition |
| :---: | :---: | :---: |
| Year published | 2000 | 2005 |
| Studied period | 1994 to 1998 (5 years) | 1994 to 2002 (9 years) |
| Subtitle | Industrial aspects of copyright | Growing status of copyright industry |
| Key points | - First quantitative analysis of copyrighted works, which play vital roles in people's lives from both industrial and purely cultural perspectives <br> - Copyright industry represents $2.3 \%$ of GDP (1998)* <br> - Study helped establish evaluation benchmarks of economic value (value added) | - The copyright industry has become increasingly important to the national economy, representing $2.9 \%$ of GDP (2002)* <br> - The copyright industry continued to achieve high growth while the national economy showed only modest growth during the research period <br> - The market scale of the copyright industry far exceeds essential industries such as electricity, iron and steel and automobiles |
| Estimated figures (see note) | 1998 <br> - Value addedः 12.3 trillion yen <br> - GDP: 490.5 trillion yen <br> - Copyright industry accounts for $2.5 \%$ of GDP | 2002 <br> - Value addedः 15.4 trillion yen <br> - GDP: 507.3 trillion yen <br> - Copyright industry accounts for $3.0 \%$ of GDP |

(At market prices in calendar year of 2000)

Note: The value added figures and GDP originally reported were later revised after further review to those indicated in the table; $2.5 \%$ (1998) and $3.0 \%$ (2002).

* Statistical amounts declared in the white papers are based on two types of values: real value and nominal value. It should be stipulated that 2000 is being used as the base year for the deflator to calculate the real value, and it should be noted "(At market prices in calendar year of 2000)".


## II. Key issues raised in Copyright White Paper, second edition, concerning future studies

While the second edition was being developed, it was acknowledged that WIPO had developed study guidelines for the copyright industry (the Guide on Surveying the Economic Contribution of the Copyright-Based Industries; hereinafter the WIPO guidelines). The reports from EU countries were created in conformity with the WIPO guidelines (translated reports are available as a supplementary volume to the second edition).

The WIPO guidelines suggest that the copyright industry's role be assessed in broader terms to include its contributions to national economies, such as providing employment, in addition to the value added by the industry and it was recognized that the third edition and future publications should reflect this new approach.
(Note) Definition of copyright industries in the WIPO guideline (see page 193 for more details)

The WIPO guideline has defined the copyright industries in a broader sense, that is, the copyright industries include the industrial segments that "inter-dependently" relate to the copyright industries as well as those that directly engage in dealing with copyright products. Specifically, the copyright industries include the business entities that manufacture/ produce hardware devices indispensable to use of copyright products as well as component units (parts) of such devices. The former is defined as the "core-copyright indutries", and the latter is the "inter-dependent copyright industries" in the WIPO guideline. According to the definition of the WIPO guideline definition, the study reported in the first and second editions of the white paper focused on "added values" of the "core-copyright industries."

Although the concept to define the copyright industries defined in the first and second editions of the Copyright White Paper was same with the one for the definition of the "core-copyright industries" in the WIPO guideline, the classification system of industrial segments are different as the former has different industrial structures from the latter.

In the White Paper (series), the classification of the "core-copyright industries" will be referred as the "JCI classification" hereinafter after the abbreviation of the Japan Copyright Institute's international name JCI (Japan Copyright Institute), whereas the classification in the WIPO guideline will be the "WIPO classification."

## III. Copyright White Paper, third edition: areas of study

## 1. Compliance with WIPO guidelines

In the third edition of the Copyright White Paper, in compliance with the WIPO guidelines, the areas of study have been expanded to include employment, as well as foreign trades, in addition to value added. Value added and employment estimates also use the WIPO guideline aggregate method for the purpose of cross comparison.


Regarding the survey on added value and foreign trades, the areas of study have been expanded to include the "inter-dependnent copyright industries" in addition to the "core-copyright industries" under the definitions in the WIPO guideline.

In this white paper, the first section of the second chapter reports the overall study results, and the second section focuses on the study results under JCI classifications while the third section reports the study results under WIPO classification.

## 2. Newly-added areas of study

In the third edition of the Copyright White Paper, the photography business has been newly included in the copyright classification system (the JCI classifications). Although the photography business was excluded from the studies for the first and second editions due to limitations in data collection, the third edition now includes this sector as the necessary data is now available and is in compliance with the new study guidelines (see page 20 for more details). Accordingly, the JCI classification system now consists of fifteen business areas.

# Chapter 2: Copyright White Paper third edition: study results summary 

## I. JCI-classified Copyright Industries: study results summary

- Status of copyright industry grows with evolution to high value added sector
[Summary of results]
The total value added in Japan's copyright industry reached 19.326 trillion yen in 2007 (unless otherwise specified, all figures are for 2007), representing $3.4 \%$ of the domestic economy. The industry's share in the national economy has grown over the last decade by 0.9 points ( $2.5 \%$ in 1998) and the market scale of the copyright industry far exceeds any other essential industry (total value added: base year=2000).

The industry has also become vital in terms of employment, as it accounts for $3.0 \%$ of all domestic jobs. With a 0.4 point increase over the last decade ( $2.6 \%$ in 1998), the industry is increasingly recognized as a reliable generator of jobs.

The total value added by the industry significantly outpaces employment growth, indicating that the industry has become a high value added sector.

The total value added in the manufacturing sector, which is closely tied to the copyright industry (defined as an "inter-dependent copyright industry"), accounted for $1.3 \%$ of the GDP in 2007. This gives a combined share with the aforementioned core copyright industry of $4.7 \%$ (2007), clearly highlighting the larger role that the industry plays in the national economy.

Generating a wide range of economic effects in the manufacturing sector, Japan's copyright industry has evolved into a high value added business sector, becoming increasingly vital to the national economy.

Additionally, the total service transactions of the industry represent $2.2 \%$ of the credits (exports) and $7.7 \%$ of the debits (imports) in the domestic import and export market. Imports have achieved higher growth than exports over the last decade and this trend has also been seen in the goods trading and manufacturing sectors, which are closely tied to the copyright industry.

## II . JCI-classified Core Copyright Industries: study results summary

## 1. Total value added and workforce

The total value added in Japan's copyright industry reached 19.326 trillion yen (base year 2000; the same hereafter) with a workforce of 1.909 million in 2007, representing $3.4 \%$ and $3.0 \%$ of the domestic economy, respectively. As the level of the total value added share exceeds that of the workforce, the industry is considered a high value added sector.

The average annual growth rate for the total value added by the industry over the ten years data was collected (1998 to 2007; the same hereafter) was more than five times that of the workforce, thus indicating the recent shift in the copyright industry toward a higher value-added model.

Figure 2-1 Total value added and workforce in core copyright industry

|  |  | 1998 |  | 2007 |
| :--- | :--- | ---: | ---: | ---: |
| Average annual <br> growth <br> /total increase |  |  |  |  |
| Total <br> added | value | Amount(in Bil. yen) | 12,276 | 19,326 |
|  | GDP ratio(\%) | $2.5 \%$ | $3.4 \%$ | +0.9 point |

(At market prices in calendar year of 2000)

## 2. Foreign trade

The total foreign trade of services in Japan's copyright industry reached 319 billion yen in credits (exports) and 1,036 billion yen in debits (imports) in 2007, representing $2.2 \%$ and $7.7 \%$ of Japan's international service transactions, respectively. Over the ten years data was collected, the net balance of imports versus exports has increased, as debits (imports) have expanded and credits (exports) have shrunk.

The total foreign trade of goods in Japan's copyright industry reached 214 billion yen in exports and 249 billion yen in imports in 2007, representing $0.3 \%$ and $0.5 \%$ of Japan's international goods transactions, respectively. Over the ten years data was collected, the pattern of exports being higher than imports has reversed, with exports shrinking at a higher rate than imports.

Figure 2-2 Foreign Trade of Services in core copyright industry

|  |  | 1998 |  | 2007 |  | Average annual <br> growth <br> /total increase |
| :--- | :--- | ---: | ---: | ---: | :---: | :---: |
| Exports | Amount(in Bil. yen) | 249 | 319 | $2.8 \%$ |  |  |
|  | Total trade ratio(\%) | $3.3 \%$ | $2.2 \%$ | -1.1 point |  |  |
| Imports | Amount(in Bil. yen) | 860 | 1,036 | $2.1 \%$ |  |  |
|  | Total trade ratio(\%) | $6.6 \%$ | $7.7 \%$ | +1.1 point |  |  |
| Balance of <br> payments | Amount(in Bil. yen) | -612 | -717 |  |  |  |

(At market prices in calendar year of 2000)

Figure 2-3 Foreign Trade of Goods in core copyright industry

|  |  | 1998 | 2007 | Average annual <br> growth <br> Itotal increase |
| :--- | :--- | ---: | ---: | ---: |
| Exports | Amount(in Bil. yen) | 301 | 214 | $-3.7 \%$ |
|  | Total trade ratio(\%) | $0.7 \%$ | $0.3 \%$ | -0.4 point |
| Imports | Amount(in Bil. yen) | 268 | 249 | $-0.8 \%$ |
|  | Total trade ratio(\%) | $0.9 \%$ | $0.5 \%$ | -0.4 point |
| Balance of <br> payments | Amount(in Bil. yen) | 33 | -35 |  |

(At market prices in calendar year of 2000)

## III. JCI-classified Inter-dependent copyright industry: study results summary

## 1. Total value added and workforce

In 2007, the total value added and the workforce in the inter-dependent copyright industry accounted for $1.3 \%$ and $0.4 \%$ of the domestic economy, respectively. While the significant increase in total value added in the inter-dependent copyright industry reflected that of the core copyright industry, the workforce supporting the manufacturing process was greatly reduced. As low value-added manufacturing is being outsourced overseas, Japan's domestic production is becoming increasingly specialized in high value-added products. The shift in the inter-dependent copyright industry toward a higher value-added model is progressing more rapidly than in the core copyright industry.

Figure 2-4 Total value added and workforce in inter-dependent copyright industry

|  |  | 1998 | 2007 | Average annual growth /total increase |
| :---: | :---: | :---: | :---: | :---: |
| Total value added | Amount(in Bil. yen) | 3,715 | 7,468 | 8.1\% |
|  | GDP ratio(\%) | 0.8\% | 1.3\% | +0.5point |
| Workforce | Employed workforce $(1,000)$ | 399 | 275 | -4.1\% |
|  | \% in total workforce | 0.6\% | 0.4\% | -0.2point |

(At market prices in calendar year of 2000)

## 2. Foreign trade

The total foreign trade of goods in Japan's inter-dependent copyright industry reached 5.393 trillion yen in exports and 3.817 trillion yen in imports in 2007, representing $6.7 \%$ and $7.1 \%$ of Japan's international transactions, respectively. Over the ten years for collecting data, imports have seen rapid growth while exports have decreased.

Figure 2-5 Foreign Trade of Goods in inter-dependent copyright industry

|  |  | 1998 |  | 2007 |
| :--- | :--- | ---: | ---: | ---: |
| Average annual <br> growth <br> /total increase |  |  |  |  |
| Exports | Amount(in Bil. yen) | 5,589 | 5,393 | $-0.4 \%$ |
|  | Total trade ratio(\%) | $13.2 \%$ | $6.7 \%$ | -6.5 point |
| Imports | Amount(in Bil. yen) | 2,743 | 3,817 | $3.7 \%$ |
|  | Total trade ratio(\%) | $8.8 \%$ | $7.1 \%$ | -1.8 point |
| Balance of <br> payments | Amount(in Bil. yen) | 2,847 | 1,576 |  |

(At market prices in calendar year of 2000)

## IV. Compliance with WIPO guidelines: study results summary

In 2007, the total value added and the workforce in Japan's core copyright industries defined according to the WIPO classifications accounted for $3.0 \%$ and $2.2 \%$ of the domestic economy, respectively. The figures are smaller than those for the JCI-classified copyright industries. Similar discrepancies can be found in the inter-dependent copyright industry categories. This is due to the fact that, when considering Japan's economic actuality, the range of business sectors included under the WIPO copyright industry classifications is more limited than the range under the JCI classifications (see page 199 for more details).

Figure 2-6 WIPO-classified total value added and workforce in core copyright industry

|  |  | 1998 | 2007 | Average annual <br> growth <br> /total increase |
| :--- | :--- | ---: | ---: | ---: |
| Total <br> added | value | Amount(in Bil. yen) | 10,609 | 17,123 |
|  | GDP ratio(\%) | $2.2 \%$ | $3.0 \%$ | +0.8 point |
| Workforce | Employed <br> workforce(1,000) | 1,168 | 1,435 | $2.3 \%$ |
|  | \% in total workforce | $1.8 \%$ | $2.2 \%$ | +0.4 point |

(At market prices in calendar year of 2000)

Figure 2-7 WIPO-classified total value added and workforce in inter-dependent copyright industry

|  |  | 1998 |  | 2007 |
| :--- | :--- | ---: | ---: | ---: |
| Average annual <br> growth <br> gral increase |  |  |  |  |
| Total <br> added | value | Amount(in Bil. yen) | 3,417 | 6,674 |
|  | GDP ratio(\%) | $0.7 \%$ | $1.2 \%$ | +0.5 point |
| Workforce | Employed <br> workforce(1,000) | 358 | 228 | $-4.9 \%$ |
|  | \% in total workforce | $0.5 \%$ | $0.4 \%$ | -0.1 point |

(At market prices in calendar year of 2000)

## Part II: Study Results and Estimation Method of JCI-classified Copyright Industries

## Part II: Study Results and Estimation Method of JCI-classified Copyright Industries

## Chapter 3: Overview of JCI-classified Core Copyright Industries

## I. Overview of JCI-classified Core Copyright Industries

## 1. Scale of JCI-classified copyright industry

In fiscal 2007, the copyright industry in Japan reached an estimated scale of 50,111 billion yen in terms of the value of products and 19,326 billion yen in terms of the value added (based on market prices in calendar year of 2000). By "JCI-classified industry", (which is a classification sector of the copyright industry under the classification criteria defined by the Japan Copyright Institute), the computer software industry ranked first in terms of the value added, with $61.4 \%$ of share in total, followed in order by the printing industry ranks second, followed in order by the broadcasting and advertising industry.

Figure 3-1 Scale of JCI-classified core copyright industry (Fiscal 2007)
(Billion yen)

|  |  | Value of <br> Products |  | Value-added |  |
| ---: | :--- | ---: | ---: | ---: | :---: |
|  |  | Value | Share |  |  |
| 1 | Printing and Publishing | 5,738 | 1,562 | $8.1 \%$ |  |
| 2 | Computer Software | 26,987 | 11,857 | $61.4 \%$ |  |
| 3 | Broadcasting | 4,104 | 1,418 | $7.3 \%$ |  |
| 4 | Transmission | 2,390 | 769 | $4.0 \%$ |  |
| 5 | Advertising | 3,628 | 759 | $3.9 \%$ |  |
| 6 | Music | 625 | 155 | $0.8 \%$ |  |
| 7 | Motion Picture | 1,002 | 324 | $1.7 \%$ |  |
| 8 | Photography | 439 | 268 | $1.4 \%$ |  |
| 9 | Legitimate Theater | 686 | 176 | $0.9 \%$ |  |
| 10 | Game Software | 979 | 433 | $2.2 \%$ |  |
| 11 | Entertainment Facilities | 1,583 | 557 | $2.9 \%$ |  |
| 12 | Design | 677 | 413 | $2.1 \%$ |  |
| 13 | Architecture | 848 | 461 | $2.4 \%$ |  |


| 14 | Libraries and Museum | 419 | 172 | $0.9 \%$ |
| :--- | :--- | ---: | ---: | ---: |
| 15 | Authors and Artists | 6 | 3 | $0.0 \%$ |
| Copyright Industry |  | 50,111 | 19,326 | $100.0 \%$ |

## 2. Positioning of the copyright industry in the national economy

The total of 19,326 billion yen in value-added produced by the copyright industry in fiscal 2007 represents $3.4 \%$ of the gross domestic product (GDP).

As the industry produced value-added of 12,276 billion yen in fiscal 1998, the average annual growth was $5.2 \%$ over the intervening years. Over the same period (fiscal 1998-2007), the GDP increased at a corresponding rate of $1.8 \%$. As a result, the proportion of the copyright industry in the GDP substantially rose from the level of $2.5 \%$ recorded in fiscal 1998. In addition, it has increased by 0.4 point from that of $3.0 \%$ in the previous study (fiscal 2002.)

Figure 3-2 Positioning of the JCI-classified core copyright industry in the national economy

(Billion yen)

|  |  |  | $\begin{array}{c}\text { Average annual } \\ \text { Growth rate }\end{array}$ |  |
| :--- | ---: | ---: | ---: | ---: |
| $\begin{array}{l}\text { a) JCI-classified core } \\ \text { copyright industry }\end{array}$ | 1998 | 2002 | 2007 | $5.2 \%$ |
| b) GDP | 490,499 | 507,265 | 575,343 | 15,430 | 19,326$)$

(At market prices in calendar year of 2000)
Source: GDP, "Annual Report on National Income" (Economic and Social Research Institute, Cabinet Office, Government of Japan) (fixed for fiscal 2007)

## 3. Positioning of the JCI-classified core copyright industry as a business industry

In fiscal 2007, the value-added produced by Japan's copyright industry amounted to 19,326 billion yen. As compared to the corresponding amount of value-added generated in other major industries, this was more than four times as much as in the iron and steel industry (a leading key manufacturing industry; 4,466 billion yen), and far higher than those in other key industries such as the telecommunication industry ( 10,037 billion yen) and the electrical power industry ( 9,921 billion yen) and the transport equipment industry including automobiles ( 17,124 billion yen.)

As for growth capability, the copyright industry grew at average annual rate of $5.2 \%$ over fiscal years 1998 - 2007. Although this is not as high as that in the transportation equipments including automobiles, which has indicated a remarkable growth in these years (average annual growth rate: 6.5\%), it approaches that level.

Figure 3-3 Comparison with other major industries for value-added

| (Billion yen) |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: |
| 1998 | 2007 | Average Annual <br> Growth Rate | Industry Scale <br> GDP share |  |
| Agriculture | 6,450 | 6,459 | $0.0 \%$ | $1.1 \%$ |
| Food | 14,716 | 14,281 | $-0.3 \%$ | $2.5 \%$ |
| Iron and steel | 4,517 | 4,466 | $-0.1 \%$ | $0.8 \%$ |
| Transportation Equipment | 9,731 | 17,124 | $6.5 \%$ | $3.0 \%$ |
| Electric Power | 8,843 | 9,921 | $1.3 \%$ | $1.7 \%$ |
| Telecommunication | 10,037 | 12,829 | $2.8 \%$ | $2.2 \%$ |
| Copyright Industry | 12,276 | 19,326 | $5.2 \%$ | $3.4 \%$ |

Note: Figures for GDP share are as of fiscal 2007
Source: GDP, "Annual Report on National Income" (Economic and Social Research Institute, Cabinet Office, Government of Japan) (fixed for fiscal 2007)

## 4. Growth factors for JCI-classified core copyright industry

A look at the growth in the copyright industry by industrial sector reveals that nearly 90 percent (i.e., 88.7\%) of this growth derives from the computer software sector. In addition, the transmission sector accounts for $6.5 \%$, followed by broadcasting at $3.7 \%$, and advertising sector at $3.0 \%$.

Looking at change of share in the overall values, the computer software segment has remarkably increased its share from $45.7 \%$ to $61.4 \%$. Conversely, the corresponding rate of the printing and publishing sector has significantly decreased from $14.6 \%$ to 8.1\%.

Figure 3-4 Trend of value-added by JCI-classified copyright industry
(Billion yen)

|  |  | 1998 |  | 2007 |  | Increase in the value <br> added | Rate of contribution |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Value | Share | Value | Share |  |  |
| 1 | Printing and Publishing | 1,795 | 14.6\% | 1,562 | 8.1\% | -233 | -3.3\% |
| 2 | Computer Software | 5,605 | 45.7\% | 11,857 | 61.4\% | 6,252 | 88.7\% |
| 3 | Broadcasting | 1,160 | 9.5\% | 1,418 | 7.3\% | 257 | 3.7\% |
| 4 | Transmission | 310 | 2.5\% | 769 | 4.0\% | 459 | 6.5\% |
| 5 | Advertising | 545 | 4.4\% | 759 | 3.9\% | 215 | 3.0\% |
| 6 | Music | 179 | 1.5\% | 155 | 0.8\% | -24 | -0.3\% |
| 7 | Motion Picture | 396 | 3.2\% | 324 | 1.7\% | -72 | -1.0\% |
| 8 | Photocopy | 347 | 2.8\% | 268 | 1.4\% | -80 | -1.1\% |
| 9 | Legitimate Theater | 182 | 1.5\% | 176 | 0.9\% | -7 | -0.1\% |
| 10 | Game Software | 234 | 1.9\% | 433 | 2.2\% | 198 | 2.8\% |
| 11 | Entertainment Facilities | 506 | 4.1\% | 557 | 2.9\% | 51 | 0.7\% |
| 12 | Design | 286 | 2.3\% | 413 | 2.1\% | 127 | 1.8\% |
| 13 | Architecture | 538 | 4.4\% | 461 | 2.4\% | -77 | -1.1\% |
| 14 | Libraries and Museums | 185 | 1.5\% | 172 | 0.9\% | -12 | -0.2\% |


| 15 | Authors and Artists | 7 | 0.1\% | 3 | 0.0\% | -4 | -0.1\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Copyright Industry |  | 12,276 | 100.0\% | 19,326 | 100.0\% | 7,050 | 100.0\% |

(At market prices in calendar year of 2000)
Note: Rate of contribution = increase in the value-added in one sector/ increase in the value-added in the overall industry

## II. Preconditions in estimation of the scale of the core copyright industry

## 1. Indicators for the scale of the core copyright industry

This survey is aimed at clarifying the positioning of the copyright industry in the domestic economy. Accordingly, the primary objective is to calculate the industry's share in the GDP, which is the most generally used indicator for the scale of a national economy.

It goes without saying that, in a calculation of the industry's share in the GDP, the denominator will be the GDP as the total amount of value-added produced in Japan. Consequently, estimation of the scale of the copyright industry must also be based on value-added.

1) Definition of value-added

The term "value-added" is defined as follows in National Economic Accounting:
Value-added $=$ Output at producers' values* - Intermediate input
*Value of products, sales proceeds, business income, etc.

Output at products' value is an expression of the value of goods and services produced at market prices. In other words, it indicates the value of all goods and services produced in the country in terms of market prices. Intermediate input indicates the intermediate products utilized for the production.

Accordingly, the "value-added" generated in a specific industrial segment is separately calculated without double counting even when aggregated the value-added generated in various industrial segments since the output at producers' values realized in other industrial segments has been excluded in this calculation.

* Market prices: prices are determined when products are traded in the market. Market prices mean values evaluated at the market. Therefore, no value-added will be accounted unless the products are traded in the market.

2) Composition of value-added

Value-added is calculated in the "Annual Report on National Income Statistics" (Economic Planning Agency), which naturally does not have a separate class for the
copyright industry. Therefore, copyright industry value-added must be estimated using other statistical data and various surveys.

However, other statistics generally do not present data directly for value-added, and this makes it necessary to compile data needed for calculation of value-added.

The Value-added is also calculated by the following formula (2) as well as the one indicated above (1)..
Value-added (1) = Output at producers' values - Intermediate input
Value-added (2) = Operating surplus + Compensation of Employees + Consumption of Fixed capital + (Indirect taxes - Subsidies)
(Value-added (1) $=$ Value-added (2))

If data on value-added is no available, value-added is basically calculated by the formula (2) using "Operating surplus" and "Compensation of Employees". In this formula, deduction of consumption of fixed capital yields the net value-added, and deduction of subsidies from indirect taxes, net indirect taxes.

Besides wages, allowances, bonuses, and other such cash payments, compensation of employees includes all sorts of fringe benefits and employee contributions to social security funds (health insurance associations, pension funds, etc.) and to other payments (retirement lump-sum grants, retirement pensions, etc.).

## (Reference information) GDP and GNP

[Gross domestic product (GDP)]
The concept "domestic" is restricted in scope to economic principals residing within the national borders, and concerns mainly production activities. For example, it includes the Japanese subsidiaries of foreign firms as principals engaged in production activities within Japan, and excludes the subsidiaries of Japanese firms in other countries.

The gross domestic product is the total amount of value-added created as a result of the production activities of resident producers, i.e., companies, general governments, and private non-profit institutions serving households.
[Gross national product (GNP)]
The concept "national" is restricted in scope to principals residing within the national borders, i.e., companies, general governments, private non-profit institutions serving households, and individuals. The individuals in question are basically all those who have resided for at least one year in the country in question, regardless of their nationality.

The gross national product is the total amount of income received by these resident principals, and adds net factor income received from other countries (compensation of employees, investment return, and other property income and entrepreneurial income) to the gross domestic product.

> *Factor income: value of products minus intermediate input, consumption of fixed capital, and indirect taxes

Source: "Annual Report on National Income Statistics" (Economic and Social Research Institute, Cabinet Office, Government of Japan)

## 2. Classification of the core copyright industries

Due to the addition of the photography sector, the copyright industry was divided into 15 sectors instead of the 14 in the second edition. Copyright industry activities in the photography sector consist of economic activities related to trading commercial photos and providing services to take photos at photo studio.

Figure 3-5 Copyright industry classification (JCI classification) criteria

| Classification for Copyright Industry |  |
| :---: | :---: |
| 1)Printing and Publishing | (1)Newspaper publishing <br> (2)Book and Journal Publishing <br> (3)Printing (Newspaper and Book) |
| 2)Computer Software | (1)Software <br> (2)Data Processing/ Providing Service |
| 3)Broadcasting | (1)Public Broadcasting (Radio and Television) <br> (2)Private Broadcasting (Radio and Television) <br> (3)Cable Broadcasting |
| 4)Transmission | (1)Internet Transmission <br> (2)Mobile Telephone Networks Transmission |
| 5)Advertising | (1)Commercial art and Graphic design (2)Display |
| 6)Music | (1)Records, CDs and Tapes <br> (2)Record and CD rental <br> (3)Music Publishing |
| 7)Motion Picture | (1)Movie, Home video and TV program production (2)Video Rental |
| 8) Photography | (1) Photos |
| 9)Legitimate Theater | (1)Movie Theater <br> (2)Theater <br> (3)Theatrical company, band and orchestra |
| 10)Game Software | (1)Game software |
| 11)Entertainment Facilities | (1)Amusement Arcade <br> (2)Karaoke Box <br> (3)Theme Park |
| 12) Design | (1)Design |


| 13)Architecture | (1)Architectural Design |
| :--- | :--- |
| 14)Libraries and Museums | (1)Libraries <br> (2)Museums and Art galleries |
| 15)Authors and Artists | (1)Authors and Artists, Musician |

* In this survey, all products which are traded in the wholesaling and trading industries such as books, records, etc., do not include an increase of value added in the trading processes (namely, several market places are involved in trading goods from shipment by a manufacturer to sales at a retail shop).


## III. Estimation method of the scale of the core copyright industries

## 1. Data used in estimation

The Research Institute intends to make general publication of the results of this survey and to implement it on a regular basis. The data employed in estimation therefore must be equipped with reliability secured by an official nature and survey continuity.

## 1) JSIC (Standard Industrial Classification for Japan)

Data equipped with the aforementioned reliability and continuity are drawn from national specified statistics and other statistical documents prepared by official entities. These statistics are compiled in line with the JSIC established by the Statistics Bureau, Management and Coordination Agency.

The various statistical work performed in this survey followed the JSIC (the latest installment was published in March 2002).
2) Basic statistics

Many of the copyright industries under JCI classification are categorized in the manufacturing or service sector in the JSIC. The estimates in this study are based on the "Census of Manufactures", which is one of the documents of national specified statistics for economic activities in the manufacturing sector, and the "Survey on Service Industries", which sets forth corresponding statistics for the service sector. These two sources are collectively referred to as "basic statistics".

- Census of Manufactures (Ministry of Economy, Trade and Industry)
- Survey on Service Industries (Ministry of Internal Affairs and Communications)

3) Supplementary statistics

While the basic statistics are compiled in accordance with the JSIC, the "Survey on Service Industries" handles data only down to the JSIC group level. In addition, in the case of some classes, the JSIC includes economic activities outside the scope of the copyright industry. Consistency in compilation consequently demands supplementation
with other statistics.
Because of their use to supplement the basic statistics, these sources are collectively referred to as "supplementary statistics".

As in the case of the basic statistics, efforts were made to use supplementary statistics judged to have the best potential as regards official reliability and regular implementation.

- Annual Report on National Income Statistics (Economic and Social Research Institute, Cabinet Office, Government of Japan)
- Survey of Selected Service Industries (Ministry of Economy, Trade and Industry)
- Statistics from Analysis of Corporate Financial Statements (Teikoku Databank, Ltd.)
- Survey on the Telecommunications Industry (Ministry of Internal Affairs and Communications)
- Survey of Information and Communication Industry (Ministry of Internal Affairs and Communications)
- White Paper on the Printing Industry (Japan Association of Graphic Arts Technology)
- Leisure White Paper (Japan Productivity Center for Socio-Economic Development)
- CESA Game White Paper (CESA: Computer Entertainment Software Association)
- Karaoke White Paper (All-Japan Karaoke Industrialist Association)
- RIAJ Year Book -A brief description of the Japanese Recording Industry(Recording Industry Association of Japan)
- Survey on CD rental store (Recording Industry Association of Japan)
- Statistics on Construction undertaken (Ministry of Land Infrastructure and Transport)
- Cost Analysis Information for Building Works (Management Research Society for Construction Industry)
- Statistics on Libraries in Japan (Japan Library Association)
- Museum White Paper (Japan Association of Museums)
- Radio \& Television Yearbook (Japan Broadcasting Corporation: NHK)
- Japan Commercial Broadcasting Yearbook (The National Association of Commercial Broadcasters in Japan)
- Public Welfare and Health Cost Survey (Japan Business Federation)
- Data provided by JASRAC (Japanese Society for Rights of Authors, Composers and Publishers: JASRAC)
- Data provided by MPA (Music Publishers Association of Japan: MPA)
- Survey on Amusement Industries (JAMMA, AOU, NSA)
- Financial Statement Report (Ministry of Finance)


## 2. Estimation policy

Japan's basic statistics are compiled using formulas that are in compliance with the Japan Standard Industry Classification (JSIC). The Manufacturing Census uses the T-category classification and the Survey of Service Industries uses the S-category classification, both of which are components of the JSIC system.

Figure 3-6 Estimation policy

| Type | Situation (for the industry in question) | Estimation method |
| :---: | :---: | :---: |
| 1) Basic statistics type | There is an agreement between the copyright industry classification used in this survey and the JSIC classes. | Estimation of both the Value of products and value-added from the basic statistics. |
| 2) Basic statistics plus supplementary <br> statistics type | There is not an agreement between the copyright industry classification used in this survey and the JSIC classes, but a single industrial class in the basic statistics consists of industries with an analogous cost structure. | Estimation of the Value of products through extraction from the supplementary statistics, and estimation of value-added from the basic statistics. |
| 3) Supplementary statistics type | There is not an agreement between the copyright industry classification used in this study and the JSIC classes, and no single industrial class in the basic statistics bears a relation to the subject industries. | Estimation of the Value of products through extraction from the supplementary statistics; estimation of value-added by application of the Value-added rate (derived from financial statement reports) for representative firms in the industries. |
|  | (Special type) <br> There are no data for estimation of value-added by the methods noted above. | Estimation of the Value of products from the supplementary statistics; estimation of value-added by application of the Value-added rate for the service industry as a whole. |

`Value-added Rate: the rate of value-added in the value of products

1) Basic statistics

The basic statistical data used in this study to identify the scale of the copyright industry is from the Manufacturing Census and the Survey of Service Industries, which include production value and total value added figures. Such figures can be used directly to calculate the production value and the total value added for this study when the JCI classifications match the JSIC classifications for the data. The printing sector of the copyright industry in this study, for example, matches Category 1610: Printing in the Manufacturing Census and the data can be used as is.

## 2) Basic statistics plus supplementary statistics (Combined statistics)

When the JCI classifications for this study and the JSIC classifications for the basic statistics do not match, the value-added rate of a business category with a similar cost structure in the basic statistics can still be applied for this study. For example, value-added rates for the rental recording and video sectors can be calculated using Category 88A: Audio Visual Recordings Rental in the Survey of Service Industries.

## 3) Supplementary statistics type

When there is no consistency between the classification used in the basic statistics and JCI classification, and it is not possible to make an estimate with manipulating the data of the former, the Value of products is estimated using supplementary statistics.

In case that no industry sector with an analogous cost structure is available in the basic statistics, the value-added rate is estimated using supplementary statistics or financial statement report of a leading enterprise in the concerned industry (more specifically, listed enterprises, those preparing for listing, and those that otherwise make continuous disclosure.) However, when there is no enterprise making continuous disclosure in the industry, the value-added rate for the entire service sector was used for that in said industry.

## 3. Preconditions of statistics

All estimates are calculated on a fiscal year basis.

## 4. Key issues and suggestions concerning future studies

Despite the fact that Japan's national policy advocates intellectual property driven nation building, statistical data concerning the copyright industry has, in fact, several flaws. The following issues were noted while conducting the study in order to more precisely identify the scale of the copyright industry.

1) Issues derived from the characteristics of Survey of Selected Service Industries

The study uses data from the Survey of Selected Service Industries to analyze various business sectors. Supplemental estimates to complete figures in the basic statics, such as the Survey of Service Industries, were not conducted, however. As such, the study report cites the raw total figures for annual sales and employment. This poses a problem as such figures can fluctuate widely as the number of establishments surveyed changes.
2) Issues derived from changes of target business sectors in Survey of Selected Service Industries

The target business sectors in the Survey of Selected Service Industries change every year due to on-going consolidation or the elimination of existing sectors or the establishment of new categories. For example, the information service sector, which existed up until 2005, was divided into two sectors: software and information processing/providing services in 2006. Sectors such as movie and performance theaters were eliminated in 2004. As the restructuring and alteration of business sectors is frequently implemented, the consistency of surveys is not ensured, thus making convoluted methods of estimation inevitable.
3) Issues derived from classification in Balance of Overseas Payments

As Balance of Overseas Payments provides only statistics by service type, it is not possible to obtain further detailed data such as estimates of value-added and workforce by industry.

For example, in Balance of Overseas Payments, payments in the sector of culture-performance and legitimate-theater service are divided broadly into two categories, that is, "expense related to operating culture-performance or legitimate theater" and "production cost, rental charge, and operating/broadcasting fee of audio/visual media including films and tapes". In JCI classification, this balance
represents the aggregation of payments accounted in two different sectors of "Legitimate Theater" and "Motion Picture". As it was not possible to analyze such data in detail, however, estimation of service-imports/exports by industry was unavailable.

In addition, there is another issue of unclear expressions in the statistics items. For example, the "Industrial Right" of the item of "Usage Charge of Industrial Right \& Mining Right" in Balance of Payments means the industrial property rights (that is, patent, utility model, design, and trademark rights.) On the other hand, as the word of "Industrial Right" is not common in the copyright business area, even experts in this area are difficult to define it. It is desirable to use an item, which is recognizable in each industry.
4) Issues derived from the item classification of Foreign Trade Statistics

Items of Foreign Trade Statistics are not classified under the concept of copyrighted works. For example, in the item of "Disk, Tape, Nonvolatile Semiconductor Storage, Smart-card and Other Media", both recorded and unrecorded media are included. In this case, it was not possible to isolate the data on recorded media since no supplementary statistics was available.

Considered the points indicated in the above items 3) and 4), it is desirable to redefine the items used in Balance of Payments and Foreign Trade Statistics reflected the current conditions of copyright industry.

## 5. Types of estimation method for each industry sector

Figure 3-7 shows the relationship between JCI classification and the types of estimation method employed for each contingent industry.

Figure 3-7 Types of Estimation Method by JCI classification sector

| JCI classification | Description | Estimation type |
| :---: | :---: | :---: |
| 1)Printing and Publishing | (1)Newspaper publishing | Supplementary |
|  | (2)Book and Journal Publishing | Supplementary |
|  | (3)Printing (Newspaper and Book) | Combined type |
| 2)Computer Software | (1)Software | Basic |
|  | (2)Data Processing \& Information Provision | Basic |
| 3)Broadcasting | (1)Public Broadcasting (Radio and Television) | Supplementary |
|  | (2)Private Broadcasting <br> (Radio and Television) | Supplementary |
|  | (3)Cable Broadcasting | Supplementary |
| 4)Transmission | (1)Internet Transmission | Supplementary |
|  | (2)Mobile Telephone Networks Transmission | Supplementary |
| 5)Advertising | (1)Commercial art and Graphic design | Supplementary |
|  | (2)Display | Supplementary (Special) |
| 6)Music | (1)Records, CDs and Tapes | Supplementary |
|  | (2)Record and CD rental | Combined |
|  | (3)Music Publishing | Supplementary |
| 7)Motion Picture | (1)Movie, Home video and TV program production | Supplementary |
|  | (2)Video Rental | Combined |
| 8) Photography | (1) Photography | Basic |
| 9)Legitimate <br> Theater | (1)Movie Theater | Combined |
|  | (2)Theater | Supplementary |
|  | (3)Theatrical company, band and orchestra | Combined |
| 10)Game Software | (1)Game software | Supplementary |
| 11)Entertainment <br> Facilities | (1)Amusement Arcade | Basic |
|  | (2)Karaoke Box | Supplementary |
|  | (3)Theme Park | Combined |
| 12)Design | (1)Design | Basic |
| 13)Architecture | (1)Architectural Design | Combined |


| 14)Libraries and <br> Museums | (1)Libraries | Combined |
| :---: | :--- | :--- |
| 15)Authors and <br> Artists | (1)Auseums and Art galleries | Supplementary (Special) |

* Treatments of data in case where statistics is not issued, disclosed, or tallied.

This survey was conducted in order to measure the scale of copyright industry for ten years from fiscal year 1998 to 2007. However, it was not always all data were available in each fiscal year for all sectors due to lack of issued (or disclosed) data or tallied data. In such case, we have applied either method as indicated below as a supplemental measure to cover statistics, which were not issued (or disclosed), or tallied, in each industry, and/or in each fiscal year.

* Used an average of annual growth rates, which were available during the concerned fiscal years.
* Used an average of annual growth rates in the industries, with which the concerned industry is likely to indicate a similar growth rate.

1）Printing and Publishing Industry
（1）Newspaper publishing（Supplementary statistics type）

O Statistics used in estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey of Selected Service Industries <br> （Newspaper \＆Publishing industries） | $\times$ | $\times$ | $\checkmark$ | $\times$ | $\times$ |
| Statistics from Analysis of Corporate <br> Financial Statements | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Total Sales of Newspaper Companies（NSK） | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

－Estimation of Value of products
〔Formula〕Value of products＝Value of Shipment $\underline{\text { A }}$
a Annual Sales：
Annual Sales of Newspaper Industry in＂Survey of Selected Service Industries＂

O Estimation of Value－added
〔Formula〕Value－added $=$ Sales $\underline{A}-$ Operating expenses $\underline{B}+$ Compensation of Employees $\underline{C}+$ Depreciation expense $\underline{D}+$ Indirect taxes $\underline{E}$
A Sales：
Annual Sales Newspaper Industry in＂Survey of Selected Service Industries＂
B Operating expenses：
Annual Operating Expenses of Newspaper Industry in＂Survey of Selected Service Industries＂
$\underline{\text { C }}$ Compensation of Employees：
Total Wages \＆Salaries Paid of Newspaper Industry in＂Survey of Selected Service Industries＂
D Depreciation expense
$〔$ Formula〕Depreciation expense $=$ Value of products $\underline{\operatorname{a}} \times$ Depreciation rate $\underline{b}$
a Value of products：
Annual Sales Newspaper Industry in＂Survey of Selected Service Industries＂ b Depreciation rate：

Depreciation ratio to sales of Newspaper Industry in＂Census of Manufactures＂

E Indirect taxes：
Annual Sales Newspaper Industry in＂Survey of Selected Service Industries＂$\times$ 5\％

O Compensation for statistical data
The＂Survey of Selected Service Industries＂is published once every five years，and the fiscal 2005 edition is the most recent．Data for fiscal 2003， 2004 and 2006 and preceding years are estimates made by applying the change rate of the scale of newspaper industry market over the previous fiscal year，based on the data disclosed by NSK．

Figure 3－8 Market scale and the rate of change over the previous year in the newspaper industry

|  | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Total Sales of <br> Newspaper Companies <br> （in 100 million yen） | 23,576 | 23,797 | 24,188 | 23,323 | 22,182 |
| Year－on－year change | $99 \%$ | $101 \%$ | $102 \%$ | $96 \%$ | $95 \%$ |

Source：Material issued by NSK（HP of NSK）

These figures were used for a calculation of the value of products and value－added in fiscal 2006，for example，by means of the formulas noted below．This was also done for other fiscal years for which data were not available．

〔Formula〕Value of products in $2006=$ Value of products in $2005 \times$ Rate of Change〔Formula〕Value added in $2006=$ Value added in $2005 \times$ Year－on－year rate
（2）Book \＆Journal Publishing（Supplemental statistics type）

Statistics used in estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey of Selected Service Industries | $\times$ | $\times$ | $\checkmark$ | $\times$ | $\times$ |
| Statistics from Analysis of Corporate <br> Financial Statements | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Publishing index（AJPEA） | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

$\bigcirc$ Estimation of Value of products
$〔$ Formula〕Value of products $=$ Value of Shipment $\underline{A}$
A Annual Sales：
Annual Sales of Book \＆Journal Publishing Industry in＂Survey of Selected Service Industries＂

Estimation of Value－added

〔Formula〕Value－added $=$ Sales $\underline{A}-$ Operating expenses $\underline{B}+$ Compensation of Employees $\underline{C}+$ Depreciation expense $\underline{D}+$ Indirect taxes $\underline{E}$
A Sales：
Annual Sales of Book \＆Journal Publishing Industry in＂Survey of Selected Service Industries＂
B Operating expenses：
Annual Operating Expenses of Book \＆Journal Publishing Industry in ＂Survey of Selected Service Industries＂
C Compensation of Employees： Total Wages \＆Salaries Paid of Book \＆Journal Publishing Industry in ＂Survey of Selected Service Industries＂
D Depreciation expense
〔Formula〕Depreciation expense $=$ Value of products $\underline{a} \times$ Depreciation rate $\underline{b}$
a Value of products：
Annual Sales of Book \＆Journal Publishing Industry in＂Survey of Selected Service Industries＂
b Depreciation rate：
Depreciation ratio to sales of Book \＆Journal Publishing Industry in＂Statistics from Analysis of Corporate Financial Statements＂
E Indirect taxes：
Annual Sales Newspaper Industry in＂Survey of Selected Service
Industries＂$\times 5 \%$

O Compensation for statistical data
The＂Survey of Selected Service Industries＂is published once every five years，and the fiscal 2005 edition is the most recent．Data for fiscal 2003， 2004 and 2006 and preceding years are estimates made by applying the change rate of the scale of book \＆ journal publishing industry market（estimated sales value）over the previous year data in Publishing Index．

Figure 3－9 Market scale and the rate of change over the previous fiscal year in the book \＆journal publishing industry

|  | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Total Sales of Publishing <br> Companies <br> in 100 million yen） | 22,278 | 22,428 | 21,964 | 21,525 | 20,853 |


| Year－on－Year change（\％） | $96 \%$ | $101 \%$ | $98 \%$ | $98 \%$ | $97 \%$ |
| :--- | :--- | :--- | :--- | :--- | :--- |

Source：Publishing Index（AJPEA）

These figures were used for a calculation of the value of products and value－added in fiscal 2006，for example，by means of the formulas noted below．This was also done for other fiscal years for which data were not available．

〔Formula〕Value of products in $2006=$ Value of products in $2005 \times$ Year－on－year rate〔Formula〕Value added in $2006=$ Value added in $2005 \times$ Year－on－year rate
（3）Printing（Newspaper \＆Book）（Supplemental statistics type）

In the＂Census of Manufactures＂，Sector 161 （Printing Industry）includes not only the printing of newspapers，books，and magazines but also items that have no relation with copyright，such as business forms and product packages．As such，the subtotal for newspapers，books，and magazines must be isolated．This was done by using their shares of the total sales of demanded printing products in the industry．

Statistics used in estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Census of Manufactures | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| White Paper on the Printing Industry | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Statistics from Analysis of Corporate <br> Financial Statements | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

O Estimation of Value of products
［Formula］Value of products $=$ Value of Shipments $\underline{\mathrm{A}} \times$ ratio of newspaper and book publishing B

A Value of Shipments
［Value of Shipments］in Sector 161 （printing）in the＂Census of Manufactures＂
B ratio of newspaper，book and journal publishing
The＂White Paper on the Printing Industry＂presents the value of printing products demanded by major customer of the printing industry．＂These data were used to estimate the share of newspaper \＆publishing sector in the entire printing industry．
[Formula] Ratio of newspaper and publishing $\underline{B}=[$ Value of products (newspaper) $\underline{a}+$ Value of products (publishing) $\underline{b}$ / Value of products(all) $\underline{c}$ a Value of products(newspaper)
[Value of printing industry products in each major customer industry] in Publishing industry in Newspaper industry in the "White Paper on the Printing Industry"
$\underline{b}$ Value of products(publishing)
[Value of printing industry products in each major customer industry] in Publishing industry in the "White Paper on the Printing Industry"
c Value of products(all)
[Sum] of [Value of printing industry products in each major customer industry] in the "White Paper on the Printing Industry"
$\bigcirc$ Estimation of Value-added
Value-added was estimated by proportional distribution of only that portion of the total value-added in the printing industry deriving from books and magazines.
[Formula] Value-added(printing related to newspaper, publishing)=Value-added(total in the printing segment) $\times$ Rate of newspaper and publishing

- Ratio of newspaper and publishing
[Rate of newspaper and publishing] obtained by Estimation of Value of products
- Value-added(total in the printing segment)
[Formula] Value-added $=$ [Compensation of Employees $\underline{A}+$ Operating surplus $\underline{B}+$ Depreciation expenses $\underline{\mathrm{C}}+$ Indirect taxes $\underline{\mathrm{D}]}$

A Compensation of Employees
[Total cash wages and Salaries Paid] in Sector 161 (printing) in the "Census of Manufactures" $\times$ Payment correction rate
*Payment correction rate: see page 94 for details in estimation of value-added ( "Census of Manufactures") .
B Operating surplus
[Formula] Operating surplus $=$ Value of products $\underline{\mathbf{a}} \times(1$-Sales cost ratio $\underline{\mathrm{b}}$
-Rate of SG\&A c)
a Value of Shipments
[Value of Shipments] in Sector 161(printing) in the "Census of
Manufactures"

```
        b}\mathrm{ Sales cost ratio
        [Sales cost ratio] in Sector 274(printing) in the "Statistics from Analysis
    of Corporate Financial Statements"
c Rate of SG&A
    [Rate of SG&A expenses] in Sector 274(printing) in the "Statistics from
    Analysis of Corporate Financial Statements"
    C Depreciation expenses
    [Formula] Depreciation expenses = Disposals of tangible fixed assets d}
    Depreciation of tangible fixed assets e
            d Disposals of tangible fixed assets
            [Disposals of tangible fixed assets] in Sector 161(printing) in the
            "Census of Manufactures"
            e Depreciation of tangible fixed assets
            [Depreciation of tangible fixed assets] in Sector 161 (printing) in the
            "Census of Manufactures"
    D Indirect taxes
        [Formula] Indirect taxes = Value of products \underline{f}\times\mathrm{ Indirect taxes rate g}
            f Value of products
                            [Value of Shipments] in Sector 161 (printing) in the "Census of
                    Manufactures"
            g Indirect taxes rate
            Consumption tax rate of 5%
```

[^0]2) Computer Software
(1) Software (Basic statistics type)

Statistics used in estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey on Service Industries | $\times$ | $\times$ | $\times$ | $\times$ | $\times$ |
| Survey of Selected Service Industries <br> (Information Services) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\times$ | $\times$ |
| Survey of Selected Service Industries <br> (Software Services) | $\times$ | $\times$ | $\times$ | $\checkmark$ | $\checkmark$ |
| Statistics from Analysis of Corporate <br> Financial Statements | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

Note: For Survey on Service Industries, the most recent edition available to the public is the one for fiscal 1999. Under such condition, it is appropriate to use the data in Survey of Selected Service Industries. However, review on the data raised the concerns on the reliability of such data. Therefore, we made estimation based on the data for fiscal 1999 in the former statistics and used the data of the latter for calculating year-on-year rate.

- Estimation of Value of products
[Formula] Value of products = Income in operating business $\underline{A}$
- A Income in operating business
[Incomes] in Sector 821 (software business) in the "Survey on Service Industries"

O Estimation of Value-added
-Fiscal 2003-2005
〔Formula〕Value-added $=$ Sales $\underline{A}-$ Operating expenses $\underline{B}+$ Compensation of
Employees $\underline{C}+$ Depreciation expense $\underline{D}+$ Indirect taxes $\underline{E}$
A Sales:
Estimated Value of products
B Operating expenses:
Annual Operating Expenses of Software Industry in "Survey of
Selected Service Industries, Information Service Industry"
C Compensation of Employees:
Total Wages \& Salaries Paid of Software Industry in "Survey of Selected Service Industries, Information Service Industry"

```
D Depreciation expense
    〔Formula`Depreciation expense = Value of products a }\times\mathrm{ Depreciation
                                    rate \underline{b}
    a Value of products:
        Estimated Annual Sales
    b Depreciation rate:
            Depreciation rate on sales of Software Industry in Statistics
                from "Analysis of Corporate Financial Statements,
                Information Service Industry"
    E Indirect taxes:
                Annual Sales Software Industry in "Analysis of
                Corporate Financial Statements, Information Service
                Industry" > 5%
```

-Fiscal 2006-2007
[Formula] Value-added = Sales $\underline{A}$ - Operating expenses $\underline{B}+$ Compensation of Employees $\underline{C}+$ Depreciation rate $\underline{D}+$ Indirect taxes $\underline{E}$

A Sales
[Annual Sales] of Software Industry in the "Survey of Selected Service Industries, Information Service Industry"

## B Operating expenses

[Annual Operating Expenses] of Software Industry in the "Survey of Selected Service Industries, Information Service Industry"
$\underline{\text { C Compensation of Employees }}$
[Total Wages \& Salaries Paid] of Software Industry in the "Survey of Selected Service Industries, Information Service Industry"

D Depreciation expenses
[Depreciation Expenses] of Software Industry in the "Survey of Selected Service Industries, Information Service Industry"

## E Indirect taxes

[Annual Sales] of Software Industry in the "Survey of Selected Service

Industries, Information Service Industry" $\times 5 \%$ <br> Compensation for statistical data}
-Fiscal 2003-2005
The "Analysis of Corporate Financial Statement, Information Service Industry" was published once every fiscal year until fiscal 2005. Value of products in the software industry in fiscal 2003, 2004 is estimated by using the year-on-year rate of annual sales in the software industry of the Survey of Selected Service Industries, Information Service Industry."

Figure 3-10 Annual Sales and the rate of change over the previous year in Software

|  | Industry |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | :---: | :---: | :---: |
|  | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
| Annual Sales <br> (in million yen) | $6,692,500$ | $7,421,100$ | $9,471,800$ | $9,685,900$ | $8,805,141$ | $9,243,642$ | $9,273,371$ |
| Year-on-year <br> change(\%) | $106 \%$ | $111 \%$ | $128 \%$ | $102 \%$ | $91 \%$ | $105 \%$ | $100 \%$ |

Source: Survey of Selected Service Industries, Information Service Industry

These figures were used for a calculation of the value of products and value-added in fiscal 2003, for example, by means of the formulas noted below. This was also done for other fiscal years for which data were not available.
[Formula] Value of products(2003)=Value of products(2002) $\times$ Rate of change [Formula] Value-added(2003)=Value-added $(2002) \times$ Rate of change
-Fiscal 2006-2007
The "Analysis of Corporate Financial Statement, Software Industry" is published once every fiscal year since fiscal 2006. Value of products in the software industry for fiscal years 2006 and 2007 is estimated by using the rate of change of annual sales in the software industry of the Survey of Selected Service Industries, Software Industry."

Figure 3-11 Annual sales in the software industry and the rate of change over the
previous fiscal year

|  | 2006 | 2007 |
| :--- | ---: | ---: |
| Annual Sales (in million yen) | $10,476,004$ | $10,297,504$ |
| Rage of change(\%) | $113 \%^{(*)}$ | $98 \%$ |

[^1](*) As the data is unavailable for fiscal 2005 in Survey of Selected Service Industries, Software Industry, the data of fiscal 2005 in Survey of Selected Service Industries, Information Service Industry was applied to calculate the rate of change in fiscal 2006. The data for fiscal 2007 was also calculated by means of the same formulas.

These figures were used for a calculation of the value of products and value-added in fiscal 2006, for example, by means of the formulas noted below. This was also done for fiscal 2007.
[Formula] Value of products(2006)=Value of products $(2005) \times$ Rate of change
[Formula] Value-added(2006)=Value-added (2005) $\times$ Rate of change
(2) Data Processing/ Providing Service (Basic statistics type)

Statistics used in estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey on Service Industries | $\times$ | $\times$ | $\times$ | $\times$ | $\times$ |
| (*) <br> (Invery of Selected Service Industries | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\times$ | $\times$ |
| Survey of Service Industry) <br> Processing \& Providing Service Industry) | $\times$ | $\times$ | $\times$ | $\checkmark$ | $\checkmark$ |
| Statistics from Analysis of Corporate <br> Financial Statements | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

Note: For Survey on Service Industries, the most recent edition available to the public is the one for fiscal 1999. Under such condition, it is appropriate to use the data in Survey of Selected Service Industries. However, review on the data raised the concerns on their reliability. Therefore, we made estimation based on the data for fiscal 1999 in the former statistics and used the data of the latter for calculating year-on-year rate

O Estimation of Value of products
[Formula] Value of products $=$ Income in operating business $\underline{\text { A }}$

- A Income in operating business
[Incomes] in Sector 822 (data processing \& providing services) in the "Survey on Service Industries"


## O Estimation of Value added

-Fiscal 2003-2005

〔Formula〕Value－added in data processing \＆providing services
$=$ Value－added in data processing services + Value－added in data providing services
＊Process to estimate Value－added is the same for both data processing services and data providing services．Accordingly，data processing services industry is taken as an example for calculation process．

〔Formula〕Value－added $=$ Sales $\underline{A}-$ Operating expenses $\underline{B}+$ Compensation of Employees $\underline{C}+$ Depreciation expense $\underline{D}+$ Indirect taxes $\underline{E}$
A Sales：
Estimated Value of products
B Operating expenses：
Annual Operating Expenses of Data－Processing Services in ＂Survey of Selected Service Industries，Information Service Industry＂
$\underline{\text { C Compensation of Employees：}}$
Total Wages \＆Salaries Paid in Data－Processing／Providing Services in＂Survey of Selected Service Industries，Information Service Industry＂

D Depreciation expense
〔Formula〕Depreciation expense $=$ Value of products $\underline{a} \times$ Depreciation rate $\underline{b}$
a Value of products：
Estimated Annual Sales
b Depreciation rate：
Depreciation ratio to sales of Data－Processing／Providing Services in Statistics from the＂Analysis of Corporate Financial Statements，Information Service Industry＂

E Indirect taxes：
Annual Sales of Data－Processing／Providing Services in the＂Survey of Selected Service Industries，Information Service Industry＂$\times 5 \%$
－Fiscal 2006－2007
〔Formula〕Value－added $=$ Sales $\underline{A}-$ Operating expenses $\underline{B}+$ Compensation of Employees $\underline{C}+$ Depreciation expense $\underline{D}+$ Indirect taxes $\underline{E}$
A Sales：
Annual Sales in the＂Survey of Selected Service Industries，Data
Processing \＆Providing Service Industry＂
B Operating expenses：

Annual Operating Expenses in the "Survey of Selected Service Industries, Data Processing \& Providing Service Industry"
$\underline{\text { C Compensation of Employees: }}$
Total Wages \& Salaries Paid in the "Survey of Selected Service Industries,
Data Processing \& Providing Service Industry"
D Depreciation expense
Depreciation expense in the "Survey of Selected Service Industries,
Data Processing \& Providing Service Industry"
E Indirect taxes:
Annual Sales in the "Survey of Selected Service Industries, Data Processing \& Providing Service Industry" $\times 5 \%$

O Compensation for statistical data
-Fiscal 2003-2005
"Survey of Selected Service Industries, Information Service Industry" was conducted and published once every fiscal year until fiscal 2005. Data for fiscal 2003 and 2004 are estimated by using the rate of annual sales change over the previous year in "Survey of Selected Service Industries, Information Service Industry."

Figure 3-12 Annual Sales and the rate of change over the previous year in Software

|  | Industry |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
| Annual Sales <br> in million yen) | $2,112,700$ | $2,332,500$ | $3,289,000$ | $3,399,800$ | $4,108,736$ | $3,940,711$ | $4,225,541$ |
| Year-on-year <br> change(\%) | $91 \%$ | $110 \%$ | $141 \%$ | $103 \%$ | $121 \%$ | $96 \%$ | $107 \%$ |

Source: Survey of Selected Service Industries, Information Service Industry

These figures were used for a calculation of the value of products and value-added in fiscal 2003, for example, by means of the formulas noted below. This was also done for other fiscal years for which data were not available.
[Formula] Value of products $(2003)=$ Value of products $(2002) \times$ Rate of change
[Formula] Value-added(2003)=Value-added $(2002) \times$ Rate of change
-Fiscal 2006-2007
"Survey of Selected Service Industries, Data Processing \& Providing Services" is
conducted and published once every fiscal year since fiscal 2006. Data for fiscal 2006 and 2007 are estimated by using the rate of annual sales change over the previous year in "Survey of Selected Service Industries, Data Processing \& Providing Services."

Figure 3-13 Annual Sales and the rate of change over the previous year in
data-processing \& providing service industry

|  | 2006 | 2007 |
| :--- | ---: | ---: |
| Annual Sales (in million yen) | $4,058,359$ | $4,199,998$ |
| Rate of change(\%) | $96 \%^{(*)}$ | $103 \%$ |

Source: Survey of Selected Service Industries, Software Industry
(*) As the data is unavailable for fiscal 2005 in Survey of Selected Service Industries, Data-Processing \& Providing Service Industry, the data for fiscal 2006 were calculated based on the data for fiscal 2005 in Survey of Selected Service Industries, Information Service Industry.

These figures were used for a calculation of the value of products and value-added in fiscal 2006, for example, by means of the formulas noted below. This was also done for fiscal 2007.
[Formula] Value of products(2006)=Value of products(2005) $\times$ Rate of change [Formula] Value-added(2006)=Value-added(2005) $\times$ Rate of change

3）Broadcasting
（1）Public Broadcasting（Supplementary statistics type）

Statistics used in estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Radio \＆Television Year book | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

－Estimation of Vale of products
〔Formula〕Value of products＝Income in operating business A
A：Income
Income in operating business in the $\mathrm{P} / \mathrm{L}$ statement of Radio \＆Television Yearbook
－Estimation of Value－added
〔Formula〕Value－added＝Employer＇s income $\underline{A}+$ Operating surplus $\underline{B}+$ Depreciation expense $\underline{\mathrm{C}}+$ Indirect tax $\underline{\mathrm{D}}$

A Employer＇s income：
Employment costs + Labor costs in the P／L statement of Radio \＆Television Yearbook
B Operating surplus：
Operating profit in the P／L statement of Radio \＆Television Yearbook
C Depreciation：
Depreciation expense in the $\mathrm{P} / \mathrm{L}$ statement of Radio \＆Television Yearbook
D Indirect tax
Ordinary revenue in the $\mathrm{P} / \mathrm{L}$ statement of Radio \＆Television Yearbook $\times 5 \%$
（2）Private Broadcasting（Supplementary statistics type）
$\bigcirc$ Statistics used in estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey on the Telecommunication Industry | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | NA $^{*}$ |
| Japan Commercial Broadcasting Yearbook | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

＊The edition for fiscal 2007 will be published in June 2009.

O Estimation of Value of products
〔Formula〕Value of products $=$ Incomes $\underline{A}$

A Income in operating business：
Sales in private broadcasting business in＂Survey on the
Telecommunication Industry＂

## O Estimation of Value－added

〔Formula）Value－added $=$ Value of products $\times$ the rate of value－added
－Value of products：
Value of products，which is calculated in the above item of＂Estimation of Value of products
－The rate of Value－added
〔Formula〕Rate of Value－added＝Employment cost ratio $\underline{\text { A }}+$ Operating profit ratio $\underline{B}+$ Depreciation rate $\underline{C}+$ Consumption tax rate $\underline{D}$
A Employment cost ratio：
Employment cost ration in private broadcasting industry in＂Survey on the Telecommunication Industry＂
B Operating income ratio
Operating income ratio in private broadcasting industry in＂Survey on the Telecommunication Industry＂
$\underline{C}$ Depreciation rate：
Depreciation rate in private broadcasting industry in＂Survey on the Telecommunication Industry＂
D Consumption tax rate：
5\％
－Compensation for statistical data
The＂Survey on the Telecommunication Industry＂is published once every fiscal y ear．The edition for fiscal 2006 is the most recent．The data for fiscal 2007 were estimated by applying the rate of change over the previous year based on operating incomes in Japan Commercial Broadcasting Yearbook．

Figure 3－14 Operating income of private broadcasting companies and the rate of
change over the previous year

|  | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | ---: | ---: | :---: | :---: | :---: |
| Operating income <br> （in million yen） | $2,506,295$ | $2,598,547$ | $2,598,724$ | $2,591,069$ | $2,566,568$ |
| Rate of change（\％） | $101.4 \%$ | $103.7 \%$ | $100.0 \%$ | $99.7 \%$ | $99.1 \%$ |

Source：Japan Commercial Broadcasting Yearbook

These figures were used for a calculation of the value of products and value－added in fiscal 2007 by means of the formulas noted below．
［Formula］Value of products $(2007)=$ Value of products $(2006) \times$ Rate of change
［Formula］Value－added（2007）＝Value－added（2006）$\times$ Rate of change
（3）Cable Broadcasting（Supplementary statistics type）

Statistics used in estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey on the Telecommunication Industry | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | NA $^{*}$ |
| Japan Commercial Broadcasting Yearbook | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

＊The edition for fiscal 2007 will be published in June 2009.
－Estimation of Value of products
〔Formula〕Value of products＝Incomes $\underline{\text { A }}$
A Income in operating business：
Sales in cable broadcasting business in＂Survey on the
Telecommunication Industry＂

## O Estimation of Value－added

〔Formula）Value－added $=$ Value of products $\times$ the rate of value－added
－Value of products：
Value of products，which is calculated in the above item of＂Estimation of Value of products
－The rate of Value－added
〔Formula〕Rate of Value－added $=$ Employment cost ratio $\underline{A}+$ Operating profit ratio $\underline{B}+$ Depreciation rate $\underline{\mathrm{C}}+$ Consumption tax rate $\underline{\mathrm{D}}$
A Employment cost ratio：
Employment cost ration in cable broadcasting industry in＂Survey on the Telecommunication Industry＂
B Operating income ratio
Operating income ratio in cable broadcasting industry in＂Survey on the Telecommunication Industry＂

C Depreciation rate：

Depreciation rate in cable broadcasting industry in "Survey on the Telecommunication Industry"
D Consumption tax rate:
5\%

- Compensation for statistical data

The "Survey on the Telecommunication Industry" is published once every fiscal year. The edition for fiscal 2006 is the most recent. The data for fiscal 2007 were estimated by applying the rate of change over the previous year, which was calculated with operating incomes in Japan Commercial Broadcasting Yearbook.

Figure 3-15 Operating income of private broadcasting companies and the rate of

> change over the previous year

|  | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Operating income <br> (Million yen) | $2,506,295$ | $2,598,547$ | $2,598,724$ | $2,591,069$ | $2,566,568$ |
| Rate of change(\%) | $101.4 \%$ | $103.7 \%$ | $100.0 \%$ | $99.7 \%$ | $99.1 \%$ |

Source: Japan Commercial Broadcasting Yearbook

These figures were used for a calculation of the value of products and value-added in fiscal 2007 by means of the formulas noted below.
[Formula] Value of products(2007)=Value of products(2006) $\times$ Rate of change [Formula] Value-added(2007)=Value-added $(2006) \times$ Rate of change
4) Transmission
(1) Internet Transmission (Supplementary statistics type)

Statistics used in estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey on the Telecommunication Industry | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | NA* $^{*}$ |
| Survey of Information and Communication <br> Industry | $\times$ | $\times$ | $\times$ | $\times$ | $\times$ |

Note: The edition for fiscal 2007 will be published in June 2009.

The figures in "Survey of Information and Communication Industry" are used to make estimation for fiscal $1998-2000$.
$\bigcirc$ Estimation of Value of products
[Formula] Value of products $=$ ASP sales $\underline{A}+$ portal site sales $\underline{B}$
A ASP sales
[ASP sales] of Internet incidental services and ASP in the "Survey on the Telecommunications Industry"
B Portal site sales
[Portal site sales] of Internet incidental services and portal sites in the "Survey on the Telecommunications Industry"

* ASP (Application service provider)
$\bigcirc$ Estimation of Value-added
[Formula] Value-added $=$ Value of products $\times$ Value-added rate
- Value of products
[Value of products (ASP) + Value of products (Portal Sites)] obtained in the estimation of Value of products
- Value-added rate
[Formula] Value-added rate $=$ Value-added $\underline{A} /$ Value of products $\underline{B}$
A Value-added
[Formula] Value-added $=$ Compensation of Employees $\underline{a}+$ Operating
surplus $\underline{b}+$ Depreciation expenses $\underline{c}+$ Indirect taxes $\underline{d}$
a Compensation of Employees
[Personnel expenses] of Internet incidental services in the "Survey
on the Telecommunications Industry"
$\underline{b}$ Operating surplus
[Operating revenue] of Internet incidental services in the "Survey on the Telecommunications Industry"
c Depreciation expenses
[Depreciation expenses] of Internet incidental services in the "Survey on the Telecommunications Industry"


## d Indirect taxes

[Sales] of Internet incidental services in the "Survey on the Telecommunications Industry" $\times 5 \%$

## B Value of products

[Sales] of Internet incidental services in the "Survey on the Telecommunications Industry"

## Compensation for statistical data

The "Survey on the Telecommunications Industry" was implemented since fiscal 2001, and no data are available for fiscal 2000 and preceding years. For fiscal 2000 and preceding years, estimates were made using the rate of change relative to the previous year in the scale of the market of the entire telecommunications industry in the "Survey of Information and Communication Industry", the predecessor of the "Survey on the Telecommunications Industry".

Figure 3-16 Sales of overall transmission industry and the rate of change over the

|  | previous year |  |  |
| :--- | ---: | ---: | ---: |
| Sales (in 100 million yen) | 1998 | 1999 | 2000 |
| Rate of change(\%) | 180,947 | 197,106 | 211,790 |

Source: Survey of Information and Communication Industry
These figures were used for a calculation of the value of products and value-added in fiscal 2000, for example, by means of the formula noted below. This was also done for other fiscal years for which data were not available.
[Formula] Value of products (2000) = Value of products (2001) / Rate of change [Formula] Value-added (2000) = Value-added (2001) / Rate of change

The data for fiscal 2001 and preceding years are estimated by applying the growth rate of the overall market scale relating to the previous year, which is available in

Survey on the Telecommunication Industry..

Figure 3-17 The Sales of Overall Telecommunication Industry and the rate of change relative to the previous year

|  | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| :--- | :--- | ---: | ---: | ---: | ---: | :---: |
| Sales (100 million yen) | 226,453 | 196,417 | 196,386 | 180,888 | 180,988 | 187,018 |
| Rate of change(\%) | $106.9 \%$ | $86.7 \%$ | $100.0 \%$ | $92.1 \%$ | $100.1 \%$ | $103.3 \%$ |

Source: Survey on the Telecommunication Indusry

These figures were used for calculation of Value of products and Value-added in fiscal 2006, for example, by means of the formulas noted below. This was also done for other fiscal years for which data were not available.
[Formula] Value of products $(2006)=$ Value of products $(2005) \times$ Rate of change [Formula] Value-added $(2006)=$ Value-added $(2005) \times$ Rate of change
(2) Mobile Telephone Network Transmission (Supplementary statistics type)

Statistics used and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey on the Telecommunication Industry | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | NA* $^{*}$ |
| Survey of Information and Communication <br> Industry | $\times$ | $\times$ | $\times$ | $\times$ | $\times$ |

Note: The edition for fiscal 2007 will be published in June 2009.

The figures in "Survey of Information and Communication Industry" are used to make estimation for fiscal $1998-2000$.
$\bigcirc$ Estimation of Value of products
[Formula] Value of products $=$ Sales $\underline{A}$
A Sales
[Sales] noted under Type I Telecommunication Careers in the "Survey on the Telecommunications Industry"
$\bigcirc$ Estimation of Value-added
[Formula] Value-added $=$ Value of products $\times$ Value-added rate

- Value of products
[Value of products] obtained in the estimation of Value of products
- Value-added rate
[Formula] Value-added rate $=$ Value-added $\underline{\text { A }} /$ Value of products $\underline{B}$
A Value-added
[Formula] Value-added $=$ Compensation of Employees $\underline{a}+$ Operating surplus $\underline{b}+$ Depreciation expenses $\underline{\mathrm{c}}+$ Indirect taxes $\underline{d}$


## a Compensation of Employees

[Employment cost] noted under Type I Telecommunication Careers in the "Survey on the Telecommunications Industry"

## b Operating surplus

[Operating revenue] noted under Type I Telecommunication Careers in the "Survey on the Telecommunications Industry"
c Depreciation expenses
[Depreciation expenses] noted under Type I Telecommunication Careers in the "Survey on the Telecommunications Industry"

## d Indirect taxes

[Sales] noted under Interneased services in the "Survey on the Telecommunications Industry" $\times 5 \%$
B Value of products
[Sales] noted under Type I Telecommunication Careers in the "Survey on the Telecommunications Industry"

O Compensation for statistical data
The "Survey on the Telecommunications Industry" was implemented since fiscal 2001, and no data are available for fiscal 2000 and preceding years. For fiscal 2000 and preceding years, estimates were made using the rate of change relative to the previous year in the scale of the market of the entire telecommunications industry in the "Survey of Information and Communication Industry", the predecessor of the "Survey on the Telecommunications Industry".

Figure 3-18 Sales of Telecommunication Industries and the rate of change over the

| previous year |  |
| :--- | :---: | :---: | :---: |
|  1998 1999 <br> Sales (100 million yen) 180,947 197,106 <br> 2000   <br> Rate of change(\%) $103.9 \%$ $108.9 \%$ | $107.4 \%$ |

Source: Survey of Information and Communication Industry

These figures were used for calculation of Value of products and Value-added in fiscal 2000, for example, by means of the formulas noted below. This was also done for other fiscal years for which data were not available.
[Formula] Value of products (2000) = Value of products (2001) / Rate of change [Formula] Value-added (2000) = Value-added (2001) / Rate of change

The data for fiscal 2001 and subsequent years are estimated by applying the rate of change in the overall market scale relating to the previous year, which is available in Survey on the Telecommunication Industry..

Figure 3-19 The Sales of Overall Telecommunication Industry and the rate of change
relative to the previous year

|  | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| :--- | ---: | ---: | ---: | ---: | ---: | :---: |
| Sales <br> (100 million yen) | 226,453 | 196,417 | 196,386 | 180,888 | 180,988 | 187,018 |
| Rate of change(\%) | $106.9 \%$ | $86.7 \%$ | $100.0 \%$ | $92.1 \%$ | $100.1 \%$ | $103.3 \%$ |

Source: Survey of Information and Communication Industry

These figures were used for calculation of Value of products and Value-added in fiscal 2000, for example, by means of the formulas noted below. This was also done for other fiscal years for which data were not available.
[Formula] Value of products (2006) = Value of products (2005) $\times$ Rate of change [Formula] Value-added (2006) $=$ Value-added (2005) $\times$ Rate of change
5) Advertising
(1) Commercial art and Graphic Design [Supplementary statistics type]

Statistics used in the estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey on Service industries | $\times$ | $\checkmark$ | $\times$ | $\times$ | $\times$ |
| Survey of Selected Service Industries <br> (Advertising agency) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Financial statement report of advertising <br> Agencies | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\times$ | $\times$ |
| Financial statement report of advertising <br> Production | $\times$ | $\times$ | $\times$ | $\times$ | $\times$ |

The figures in Financial statement report of advertising agencies are used to make estimation for fiscal 1998-2002.

## Estimation of Value of products

There are no statistical data for the value of products in the advertising production industry. It was consequently estimated by extracting the portion of advertising production expenses from the value of products in the advertising agency industry. The rate of advertising production cost in the advertising agency industry was estimated from the cost structure of advertising agency business.

Figure 3-20 Relationship between Cost and Sales of Advertising agency

(*) This is equivalent to incomes of advertising production industry
[Formula] Value of products $=$ Incomes of advertising agencies industry $\underline{A} \times$ advertising production cost rate $\underline{B}$

A Incomes of advertising agencies industry
[Incomes] in Class 891(advertising agencies) in the "Survey on Service industries"
B advertising production cost rate
Advertising production cost rate was estimated by calculation of a weighted average of advertising production cost rate in each financial statement report.

## [Formula]

Advertising production cost rate $\underline{B}=$ Sum of Advertising production cost $\underline{\text { a }}$ / Sum of Sales $\underline{b}$
a Sum of Advertising production cost
$\Sigma$ [Advertising production cost] in the "Financial Statement (Advertising agency companies)"
b Sum of Sales
$\Sigma$ [Sales] in the "Financial Statement (Advertising agency companies)"
*This Value-added rate was calculated on the data in the financial statement reports released by enterprises making continuous disclosure of income statements.

O Estimation of Value-added
Value-added was estimated by applying the Value-added rate (i.e., share of the value of products occupied by value-added in the advertising production companies) based on financial statement reports.
[Formula] Value-added $=$ Value of products $\times$ Value-added rate

- Value of products
[Value of products] obtained by Estimation of Value of products
- Value-added rate
[Formula] Value-added rate $=\Sigma$ [Value-added(each company A $\left.{ }^{\text {}}\right]$ ] $\Sigma$ [Incomes(each company B)]
A Value-added (each company)
[Formula] Value-added $=$ Compensation of Employees $\underline{a}+$ Operating surplus $\underline{b}+$

```
Depreciation expenses \(\underline{\mathbf{c}}+\) Indirect taxes \(\underline{d}\)
    a Compensation of Employees
    [Employment cost]+[labor cost] in the "Income statements"
    b Operating surplus
    [Operating profit] in the "Income statements"
    c Depreciation expenses
    [Depreciation expenses] in the "P/L statements"
    d Indirect taxes
    [Sales] in the "P/L statements" \(\times 5 \%\)
B Value of products (each company)
    [Sales] in the "P/L statement"
    *This Value-added rate was calculated on the basis of financial statement
    reports released by enterprises making continuous disclosure of income
    statements.
```

Compensation for statistical data
The "Survey on Service Industries" is published once every five years, and the fiscal 2004 edition was the most recent. Data for fiscal 2003 and the fiscal years after 2005 are estimates made by application of the rate of change in the yearly sales in the section on the advertising industry in the "Survey of Selected Service Industries".

Figure 3-21 Annual sales of advertising agency industry and the rate of change relative
to the previous year

|  | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | ---: | ---: | ---: | :---: |
| Annual sales <br> (million yen) | $5,291,790$ | $5,580,793$ | $5,710,132$ | $5,803,814$ | $5,868,555$ |
| Rate of change(\%) | $101.3 \%$ | $105.5 \%$ | $102.3 \%$ | $101.6 \%$ | $101.1 \%$ |

Source: "Survey of Selected Service Industries (Advertising)"

These figures were used for a calculation of the value of products and value-added in fiscal 2005, for example, by means of the formulas noted below. This was also done for other fiscal years for which data were not available.
[Formula] Value of products $(2005)=$ Value of products $(2004) \times$ Rate of change
[Formula] Value-added (2005) $=$ Value-added $(2004) \times$ Rate of change
(2) Display [Supplementary statistics type (Special)]

Statistics used in the estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey on Service Industries | $\times$ | $\checkmark$ | $\times$ | $\times$ | $\times$ |
| Survey of Selected Service Industries | $\checkmark$ | $\times$ | $\times$ | $\times$ | $\times$ |
| Statistics from Analysis of Corporate <br> Financial Statements | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

Estimation of Value of products
[Formula] Value of products $=$ Incomes $\underline{A}$
A Incomes
[Total Annual Sales] in the "Survey of Selected Service Industries (Display)"

Estimation of Value-added
[Formula] Value-added $=$ Value of products $\times$ Value-added rate

- Value of products
[Value of products] obtained by Estimation of Value of products


## (Value-added rate)

[Formula] Value-added rate $=$ Value-added $/$ Value of products

- Value-added
[Formula] Value-added $=$ Value of products $\underline{A}^{-}$Intermediate Input (Ordinary expenses $\underline{B}$-Depreciation expenses $\underline{C}$ )

A Value of products
[Incomes] in the entire service sector in the "Survey on Service Industries" B Ordinary expenses
[Total expenses] in the entire service sector in the "Survey on Service Industries"
C Depreciation expenses
[Formula] Depreciation expenses $=$ Value of products $\underline{\text { a }} \times$ Ratio of depreciation expenses $\underline{b}$
a Value of products
[Incomes] in the entire service sector in the "Survey on Service Industries"
b Depreciation expenses rate
[Average ratio of depreciation expenses to Sales] in the entire service sector in the " Statistics from Analysis of Corporate Financial Statements "

- Value of products
[Incomes] in the entire service sector in the "Survey on Service Industries"


## Compensation for statistical data

The "Survey of Selected Service Industries(Display)" is published once every three years. The reports for fiscal 1997, 2000 and 2003 are the most recent. Data for fiscal 2004 and subsequent years were estimated by means of linear compensation based on the figures for fiscal years of 2000 and 2003

Figure 3-22 Annual Sales and the rate of change over the previous year in the display industry

|  | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Annual Sales <br> (million yen) | 416,928 | 436,349 | 456,674 | 477,946 | 500,209 |
| Rate of change | - | $104.7 \%$ | $104.7 \%$ | $104.7 \%$ | $104.7 \%$ |

Source: "Survey of Selected Service Industries (Display)"

These figures were used for a calculation of the value of products and value-added in fiscal 2005, for example, by means of the formulas noted below. This was also done for other fiscal years for which data were not available.
[Formula] Value of products(2005) = Value of products $(2004) \times$ Rate of change [Formula] Value-added $(2005)=$ Value-added $(2004) \times$ Rate of change
6) Music
(1) Records, CDs and Tapes [Supplementary statistics type]

Statistics used in the estimation and data available years

| Statistics |  | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| RIAJ Year Book |  | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Financial statement <br> companies | report of record | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

Estimation of Value of products
[Formula] Value of products
[Formula] Value of products $=$ Value of products (Audio records) a + Value of products (Audio and visual records) $\underline{b}$
a Value of products(Audio records)
[Value of products (Audio record)] in the "RIAJ Year Book"
$\underline{b}$ Value of products (CD derivative audio)
[Value of products (CD derivative audio)] in the "RIAJ Year Book"

## Estimation of Value-added

Value-added was estimated by applying the Value-added rate (i.e., share of the value of products occupied by value-added in the record companies) based on financial statement reports.
[Formula] Value-added $=$ Value of products $\times$ Value-added rate

- Value of products
[Value of products] obtained by Estimation of Value of products
- Value-added rate
[Formula] Value-added rate $=\Sigma$ (Value-added of each company A) / $\Sigma$ (Value of products of each company B)

A Value-added of each company
[Formula] Value-added $=$ Compensation of Employees $\underline{a}+$ Operating surplus $\underline{b}+$
Depreciation expenses $\underline{c}+$ Indirect taxes $\underline{d}$
a Compensation of Employees
[Employment cost]+[Labor cost] in the "Income statements"
b Operating surplus
[Operating profit] in the "P/L statements"
c Depreciation expenses
[Depreciation expenses] in the "P/L statements"
d Indirect taxes
[Sales] in the "P/L statements" $\times 5 \%$
B Sales of each company
[Sales] in the "Income statements"
*This Value-added rate was calculated on the data in the of financial statement reports released by enterprises making continuous disclosure of income statements.
(2) Record and CD rental [Basic statistics plus supplementary statistics type]

In the "Survey on Service Industries", the record and video rental industries are in the same sector (Sector 88A, Audio and visual recordings rental). For this reason, the value of products was estimated by adding up average sales at rental record stores instead of employing data from the "Survey on Service Industries".

Statistics used in the estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey on Service Industries | $\times$ | $\checkmark$ | $\times$ | $\times$ | $\times$ |
| Survey on CD rental store | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Statistics from Analysis of Corporate <br> Financial Statements | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

## Estimation of Value of products

[Formula] Value of products $=$ Average sales of CD rental stores $\underline{a} \times$ Number of CD rental stores $\underline{b}$
a Average sales of CD rental stores
[Average monthly sales] in the "Survey on CD rental store" $\times 12$ (months)
b Number of CD rental stores
[Number of CD rental stores] in the "Survey on CD rental store"
$\bigcirc$ Estimation of Value-added
[Formula] Value-added $=$ Value of products $\underline{\text { A }}$ - Intermediate Input ( Ordinary expenses B-Depreciation expenses $\underline{\text { C }}$

A Value of products
[Incomes] in Sector 88A(Audio and visual recordings rental) in the "Survey on Service industries"

B Total expenses
[Ordinary expenses] in Sector 88A(Audio and visual recordings rental) in the "Survey on Service industries"
$\underline{\text { C Depreciation expenses }}$
[Formula] Depreciation expenses $=$ Value of products $\underline{a} \times$ Ratio of depreciation expenses $\underline{b}$
a Value of products
[Value of products] obtained by Estimation of Value of products
$\underline{b}$ Depreciation expenses rate
[Ratio of depreciation expenses] in Sector 749 (miscellaneous goods rental and leasing) in the "Statistics from Analysis of Corporate Financial Statements"
(3) Music Publishing [Supplementary statistics type]

The income of music publishing enterprises consists of the master rights royalty, secondary use fees for broadcasting, the remuneration for commercial rental, and compensation for private recording. As compensation for copyright management, a copyright royalty is received from the Japanese Society for Rights of Authors, Composers and Publishers (JASRAC). The sum of this income, i.e., the income paid to music publishing enterprises as a whole, was taken as the scale of the industry in this class.

Statistics used in the estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| RIAJ Year Book | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Data provided by JASRAC* | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Data provided by MPA* | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Financial statement report of music publishing <br> Companies | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

* JASRAC (Japanese Society for Rights of Authors, Composers and Publishers)
* MPA (Music Publishers Association of Japan)

Figure 3-23 Payment flow for Music Publishing company


* MPA (Music Publishers Association of Japan)
* JASRAC (Japanese Society for Rights of Authors, Composers and Publishers)Estimation of Value of products
[Formula] Value of products $=$ Copyright royalty $\underline{A}+$ Master rights royalty $\underline{B}+$ MPA distributed royalty amount $\underline{\mathbf{C}}$
A. Copyright royalty

Copyright royalty $=[$ total copyright royalty] in the " Data provided by JASRAC " $\times 80 \%(*)$

* Music publishing enterprises receive approximately $80 \%$ as compensation out of the total copyright royalty fees paid to JASRAC. In realty, however, they receive less since they re-distribute such compensation to other relevant parties including lyricists, composers, etc. Despite it, we multiplied with $80 \%$ for calculation in this survey.
B. Master rights royalty
[Formula] Master rights royalty $=$ Total Retail sales minus tax $\underline{\mathbf{a}} \times(1-$ Packaging charge rate $\underline{b}) \times$ Number of shipment $\underline{\mathrm{c}} \times$ Master rights royalty rate $\underline{d}$ + consumption tax
a Total Retail sales exclude tax
[(Value of Products (Album) / wholesale price rate(Album)) + (Value of
Products (Album) / wholesale price rate(Single) $)] \times(1-$ tax rate $)$
*Wholesale price rate (Album): 73\%
*Wholesale price rate (Single): 70\%
$\underline{b}$ Packaging charge rate (deduction)
$10 \%$ of Retail price
c Rate of concerned shipment
We assumed $80 \%$ in this survey.
d Master rights royalty rate
The range of the rate is from $12 \%$ to $15 \%$. We assumed $12 \%$ in this survey.
C. MPA distributed royalty amount

The MPA provided the value for that subtotal of the amount received from the Recording Industry Association of Japan (RIAJ) that was distributed to music publishers.Estimation of Value-added
Value-added was estimated by applying the Value-added rate (i.e., share of the value of products occupied by value-added in the music publishing companies) based on financial statement reports.
[Formula] Value-added $=$ Value of products $\times$ Value-added rate

- Value of products
[Value of products] obtained by Estimation of Value of products
- Value-added rate
[Formula] Value-added rate $=\Sigma$ [Value-added(each company A) $] / \Sigma[$ Incomes $($ each company B)]

A Value-added (each company)
[Formula] Value-added $=$ Compensation of Employees $\underline{a}+$ Operating surplus $\underline{b}+$
Depreciation expenses $\underline{c}+$ Indirect taxes $\underline{d}$
a Compensation of Employees
[Employment cost]+[Labor cost] in the "P/L statements"
b Operating surplus
[Operating profit] in the "P/L statements"
c Depreciation expenses
[Depreciation expenses] in the "P/L statements"
d Indirect taxes
[Incomes] in the "Income statements" $\times 5$ \%
B Sales (each company)
[Sales] in the "P/L statements"
*This Value-added rate was calculated on the data in the financial statement reports released by enterprises making continuous disclosure of income statements.
7) Motion Picture
(1) Movie, Home video and TV program production (Supplementary statistics type)

O Statistics used in estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey on Service Industries (Movie, Home <br> video, TV program production industry) | $\times$ | $\checkmark$ | $\times$ | $\times$ | $\checkmark$ |
| Annual Report on National Income Statistics | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Statistics from Analysis of Corporate <br> Financial Statements | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

## Estimation of Value of products

[Formula] Value of products $=$ Annual sales $\underline{A}$

- AAnnual sales
[Annual sales] in the sectors of motion picture, video production services and motion, picture, video distribution services in the "Survey on Selected Service Industries, Visual Information Production/ Distribution Services"

O Estimation of Value added
〔Formula〕Value-added $=$ Sales $\underline{A}-$ Operating expenses $\underline{B}+$ Compensation of Employees $\underline{C}+$ Depreciation expense $\underline{D}+$ Indirect taxes $\underline{E}$

## A Sales:

Annual sales in the "Survey on Selected Service Industries, Visual Information Production/ Distribution Services"

B Operating expenses:
Annual Operating Expenses in the "Survey on Selected Service Industries, Visual Information Production/ Distribution Services"
$\underline{C}$ Compensation of Employees:
Total Wages \& Salaries Paid in the "Survey on Selected Service Industries, Visual Information Production/ Distribution Services"
D Depreciation expense
Rate of depreciation expense to sales in Sector 791-1 "Movie Recording/ Production Service" and Sector 791-2 "Movie Distribution Service" in "Statistics from Analysis of Corporate Financial Statements."
E Indirect taxes:
Annual Sales of in the "Survey on Selected Service Industries, Visual Information Production/ Distribution Services" $\times 5 \%$

## O Compensation for statistical data

"Survey of Selected Service Industries, Visual Information Production/ Distribution Services" is conducted and published every three years. The recent years in which the surveys were conducted were fiscal years of 1998, 2001, and 2004, and 2007. For unavailable data, the figures in the surveys are used to make estimation by means of linear compensation.

Figure 3-24 Annual Sales of Visual Information Production/ Distribution Services and
the rate of change over the previous year

|  | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | ---: | ---: | ---: |
| Annual Sales <br> (in million yen) | 552,901 | 563,011 | 560,508 | 558,016 | 555,535 |
| Year-on-year change(\%) | $101.8 \%$ | $101.8 \%$ | $99.6 \%$ | $99.6 \%$ | $99.6 \%$ |

Source: Survey of Selected Service Industries, Visual Information Production/ Distribution Service Industry

These figures were used for a calculation of the value of products and value-added in fiscal 2005, for example, by means of the formulas noted below. This was also done for other fiscal years for which data were not available.
[Formula] Value of products(2005)=Value of products $(2004) \times$ Rate of change [Formula] Value-added(2005)=Value-added (2004) $\times$ Rate of change

## (2) Video rental (Combined type)

In the "Survey on Service Industries", the record and video rental industries are in the same Sector 88A (audio and visual recordings rental). The value of products in the video rental industry was therefore estimated by subtracting the value of products in the record rental industry from the total in Sector 88A.

Value-added was estimated by applying the share of the total value of products occupied by value-added in Sector 88 A , because the record rental and video rental industries have an analogous cost structure.

## Statistics used in the estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey on Service industries | $\times$ | $\checkmark$ | $\times$ | $\times$ | $\times$ |
| Statistics from Analysis of Corporate <br> Financial Statements | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

Estimation of Value of products
[Formula] Value of products = Value of products (record and CD rental + Video rental) $\underline{A}$ - Value of products (record and CD rental) $\underline{B}$
A Value of products(record and CD rental + Video rental)
[Incomes] in Sector 88A(audio and visual recordings rental) in the "Survey on Service industries"

B Value of products(record and CD rental)
[Value of products] of record rectal industry in this survey $\rightarrow 6$ ) (2)

Estimation of Value-added
[Formula] Value-added $=$ Value of products $\underline{\text { A }}$ - Intermediate Input ( Ordinary expenses B-Depreciation expenses $\underline{C}$ )
A Value of products
[Incomes] in Sector 88A(audio and visual recordings rental) in the "Survey on Service industries"
B Ordinary expenses
[Total expenses] in Sector 88A(audio and visual recordings rental) in the "Survey on Service industries"
C Depreciation expenses
[Formula] Depreciation expenses $=$ Value of products $\underline{a} \times$ Ratio of depreciation expenses $\underline{b}$
a Value of products
[Value of products] obtained by Estimation of Value of products
b Depreciation expenses rate
[Ratio of depreciation expenses] in Sector 749(miscellaneous goods rental and leasing) in the "Statistics from Analysis of Corporate Financial Statements"
8) Photography
(1) Photograph business (Basic statistics type)

Although the photography industry consisted of only one sector, that is, Sector 743 Photograph Business n the Survey on Service Industries for fiscal 1999, this industry was divided into two sub-categories, that is, Sector 808 Photograph Business and Sector 83D Photo Developing/ Projecting Business since the 2004 Survey edition in accordance with implementation of business service segregation. As the figures in the former survey demonstrate the aggregations of two current sectors of "Photograph Business" and "Photograph Developing/ Projecting Business", there is the need to isolate the data on "Photograph Business."

Statistics used in the estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Survey on Service industries |  | $\times$ | $\checkmark$ | $\times$ | $\times$ | $\times$ |
| Financial statement report of record <br> companies | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |

Estimation of Value of products
Figure 3-25 Industrial structure of Photography Industry

－Fiscal 1999
［Formula］Value of products $=$ Income $\underline{A} \times$ Proportion of Photograph Business $\underline{B}$
A Incomes：
［Incomes］of Sector 743 Photograph Business in the＂Survey on Service Industries＂
B Proportion of Photograph Business in the industry：
［Formula］Proportion of Photograph Business＝Value of products in
＂Photograph Business＂a／（ $\underline{a}+$ Value of products in Photo Developing／ Projecting Business $\underline{\text { b }}$ ）
a Incomes of Sector 808 Photograph Business in the Survey on Service Industries（fiscal 2004）
b Income of Sector 83D Photograph Developing／Projecting Business in the Survey on Service Industries（fiscal 2004）
－Fiscal 2004
［Formula］Value of products $=$ Income $\underline{A}$
A：Incomes
［Incomes］of Sector 808 Photograph Business in the＂Survey on Service Industries＂

O Estimation of Value－added
［Formula］Value－added $=$ Value of products $\times$ Value－added rate
－Value of products
［Value of products］obtained by Estimation of Value of products
－Value－added rate
［Formula］Value－added rate $=$ Value－added rate $/$ Value of products
Value－added：
〔Formula〕 Value－added $=$ Value of products $\underline{A}$－Intermediate input（Ordinary expenses $\underline{B}$－Depreciation expenses $\underline{C}$ ）

A Value－added：
［Income］in Sector 808 Photograph Business in the Survey on Service Industries
B Ordinary expenses
〔Ordinary expenses〕 in Sector 808 Photograph Business in the Survey on
Service Industries
$\underline{\text { C Depreciation expenses }}$
［Formula］Depreciation expenses $=$ Value of products $\underline{a} \times$ Rate of Depreciation $\underline{b}$
a Value of products
Incomes in Sector 808 Photograph Business in the Survey on Service Industries
b Rate of depreciation:
Weighted average of the depreciation rate to sales in Sector 781-1 Photograph Business and Sector 781-2 Commercial Photograph Business in the Survey on Service Industries

- Compensation for statistical data

The "Survey on Service Industries" is conducted once every five years. The most recent edition was fiscal 2004. For the year in which the survey is not conducted, the figures are calculated by means of linear compensation.

Figure 3-26 Incomes and the rate of change over the previous year
in the photography industry

|  | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Annual Sales <br> (million yen) | $(501,721)$ | 469,987 | $(440,260)$ | $(412,414)$ | $(386,329)$ |
| Rate of change | $93.7 \%$ | $93.7 \%$ | $93.7 \%$ | $93.7 \%$ | $93.7 \%$ |

Source: "Survey on Service Industries"

These figures were used for a calculation of the value of products and value-added in fiscal 2005, for example, by means of the formulas noted below. This was also done for other fiscal years for which data were not available.
[Formula] Value of products(2005) = Value of products $(2004) \times$ Rate of change [Formula] Value-added $(2005)=$ Value-added $(2004) \times$ Rate of change

## 9) Legitimate Theater (Combined type)

In the "Survey on Service Industries", Sector 841 (motion picture theater) includes not only income from admission but also income from sales of goods, etc. The subtotal for admission income therefore must be extracted (by proportional distribution).

O Statistics used in the estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey on Service industries | $\times$ | $\checkmark$ | $\times$ | $\times$ | $\times$ |
| Survey of Selected Service Industries <br> (Movie theater) | $\times$ | $\checkmark$ | $\times$ | $\times$ | $\times$ |
| Statistics from Analysis of Corporate Financial <br> Statements | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

Estimation of Value of products
[Formula]
Value of products $=$ Total income of movie theater $\underline{A} \times$ admission income rate $\underline{B}$
A Total income of movie theater
[Incomes] in Sector 841(motion picture theaters) in the "Survey on Service industries"

B Admission income rate
The section on cinema theaters in the "Survey of Selected Service Industries (movie theater)" presents data for theatre income organized by item. These data were used to estimate the share of the total occupied by admission income and to calculate the amount of this income.
[Formula] admission income rate $=$ admission income $\underline{\mathrm{a}} /$ Total revenues $\underline{\mathrm{b}}$ a Admission income
[Admission income] in the "Survey of Selected Service Industries (movie theater)"
b Total income
[Total income] in the "Survey of Selected Service Industries (movie theater)"

## Estimation of Value-added

Value-added was estimated by subtracting the data for movie showing from the Value-added total in Sector 841 (motion picture theater)

```
[Formula]
Value-added(Admission)=Value-added(Admission and Stand)}\times\mathrm{ Admission rate
    - Admission income rate
        [Admission income rate] obtained by Estimation of Value of products
    - Value-added (include value-added from sales of goods)
    [Formula] Value-added (include value-added from sales of goods)=Value of products
    A- Intermediate Input (Total expenses \underline{B}-Depreciation expenses \underline{C}
    A Value of products
        [Incomes] in Sector }841\mathrm{ (motion picture theaters) in the "Survey on Service
        industries"
    B Total expenses
        [Total expenses] in Sector }841\mathrm{ (motion picture theaters) in the "Survey on
        Service industries"
        C Depreciation expenses
        [Formula] Depreciation expenses = Value of products a}\times\mathrm{ Ratio of
        depreciation expenses \underline{b}
            a Value of products
                [Value of products] obtained by Estimation of Value of products
            b Depreciation expenses rate
            [Ratio of depreciation expenses] in Class 792(motion picture theaters) in
                the "Statistics from Analysis of Corporate Financial Statements"
```

Compensation for statistical data
The "Survey on Service Industries" is published once every five years, and the fiscal 2004 edition was the most recent. Data for fiscal 2003 and the fiscal years after 2005 are estimates made by application of the rate of change between 1999 and 2004 in the movie theater admission revenue in the section on movie theaters in the "Survey on Service Industries".

Figure 3-27 Admission income of movie theaters and the rate of increase relative
to the previous year

|  | 2003 |  |  |  |  |  | 2004 | 2005 | 2006 | 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: | :---: | :---: | :---: | :---: | :---: |
| Admission income <br> (million yen) | $(273,320)$ | 275,533 | $(277,764)$ | $(280,013)$ | $(282,280)$ |  |  |  |  |  |
| Rate of change(\%) | $100.8 \%$ | $100.8 \%$ | $100.8 \%$ | $100.8 \%$ | $100.8 \%$ |  |  |  |  |  |

[^2]These figures were used for a calculation of the value of products and value-added in fiscal 2005, for example, by means of the formulas noted below. This was also done for other fiscal years for which data were not available.
[Formula] Value of products(2005) = Value of products(2004) $\times$ Rate of change
[Formula] Value-added $(2005)=$ Value-added $(2004) \times$ Rate of change
(2) Theater [Supplementary statistics type]

Statistics used in the estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey of Selected Service Industries <br> (Legitimate theater) | $\times$ | $\checkmark$ | $\times$ | $\times$ | $\times$ |
| Statistics from Analysis of Corporate Financial <br> Statements | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

## Estimation of Value of products

[Formula] Value of products = Admission income $\underline{\text { A }}+$ Renting Income $\underline{\mathbf{B}}$

- AAdmission income
[Annual Sales] as income of admission fee to theaters in Survey of Selected Service Industries (Legitimate theater)


## B Renting income:

[Annual sales] as income of renting theaters in the Survey of Selected Service Industries, Legitimate theater
O Estimation of Value added
〔Formula〕Value-added $=$ Sales $\underline{A}-$ Operating expenses $\underline{B}+$ Compensation of Employees $\underline{C}+$ Depreciation expense $\underline{D}+$ Indirect taxes $\underline{E}$

## A Sales:

Annual sales in the "Survey on Selected Service Industries, Legitimate theater"
B Operating expenses:
Annual Operating Expenses in the "Survey on Selected Service Industries, Legitimate theater"
C Compensation of Employees:
Total Wages \& Salaries Paid in the "Survey on Selected Service Industries, Legitimate theater"

D Depreciation expense
[Formula] Depreciation expense $=$ Value of products $\underline{\mathbf{a}} \times$ Depreciation Rate $\underline{\mathbf{b}}$
a Value of products:

Annual sales in the Survey on Selected Service Industries, Legitimate theater
b Depreciation rate
Ratio of depreciation expenses to sales in sector 801(Legitimate theater) in the Statistics from Analysis of Corporate Financial Statements.
E Indirect taxes:
Annual Sales of in the "Survey on Selected Service Industries, Legitimate theater" $\times 5 \%$

O Compensation for statistical data
"Survey of Selected Service Industries, Legitimate theater" is conducted and published every three years. Fiscal 2004 was he most recent year in which the survey was conducted. The data for fiscal 2003 and the fiscal years after 2005 are estimates made by using the change rate between 2001 and 2004 in terms of the movie theater admission revenue, which are available in the "Survey of Selected Service Industries, Legitimate Theater."

Figure 3-28 Annual Sales of Visual Information Production/ Distribution Services and the rate of change over the previous year

|  | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Market scale <br> (in million yen) | $(103,799)$ | 109,285 | $(115,061)$ | $(121,142)$ | $(127,545)$ |
| Year-on-year change(\%) | $105.3 \%$ | $105.3 \%$ | $105.3 \%$ | $105.3 \%$ | $105.3 \%$ |

Source: "Survey of Selected Service Industries, Legitimate Theater"

These figures were used for a calculation of the value of products and value-added in fiscal 2005, for example, by means of the formulas noted below. This was also done for other fiscal years for which data were not available.
[Formula] Value of products(2005)=Value of products(2004) $\times$ Rate of change [Formula] Value-added(2005)=Value-added (2004) $\times$ Rate of change
(3) Theatrical company, band and orchestra (Combined type)

In the "Survey on Service Industries", Sector 763, Theatrical companies (which was the classification as of fiscal 1999. In fiscal 2004, and this sector was integrated into the sector of Performance Facilities and Performance Companies) includes data for
groups entertaining through sports, etc., athletic as well as theatrical and musical companies. Data for theatrical company and band \& orchestra are estimates made by using the share of "Theaters" in "Theaters and Performance Facilities."

Statistics used in estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey on Service Industries | $\times$ | $\checkmark$ | $\times$ | $\times$ | $\times$ |
| Annual Report on National Income Statistics | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

Estimation of Value of products
Figure 3-29 Industrial Structure Surrounding "Theatrical Companies and Band \& Orchestra"

[Formula] Value of precuts $=$ Value of products of all Theatrical Companies, Bands \& Orchestras, and Performance Companies $\underline{\mathrm{A}} \times$ Performance Company rate $\underline{B} \times$ Theatrical Company, and Band \& Orchestra rate $\underline{C}$
A Value of products of Theatrical Companies, Band \& Orchestra, and Performance Companies :

「Incomes」 of Sector 763, Theatrical Companies in the [Survey on Service Industries]
B Performance Company rate :
[Formula] Performance Company rate = Income of "Performance Companies" a $\div(\underline{a}+$ Income of "Performance Theatres \& Performance Facilities (excluded those indicated separately)" $\underline{b}$ )
a Income of "Performance Companies" :
[Incomes] of "Theatrical Companies" in the "Survey on Service Industries" $\underline{b}$ Income of "Performance Theaters \& Performance Facilities (excluding those indicated separately) :
[Incomes] of "Performance Theaters \& Performance Facilities (excluding those indicated separately)" in the "Survey on Service Industries"
$\underline{C}$ Theatrical Company \& Orchestra rate :
[Formula] Theatrical Company, and Band \& Orchestra rate $=$ Value of products of Performing theaters $\underline{a} \div$ Value of products by Performing theaters \& Performance facilities $\underline{b}$
a Value of products of Performing theaters :
[Value of products] of Performing theaters in this "Survey"
$\underline{b}$ Value of products of Performing theaters \& Performance facilities :
[Incomes] of Sector 762 Theatrical Companies in the "Survey on Service Industries"
$\bigcirc$ Estimation of Value-added
As was done for the Value of products, the share of theatrical companies and orchestras in total relevant companies was used to make estimation by applying the Value added of Sector 763, Theatrical Companies in the "Survey on Service Industries."
[Formula] Value-added (Theatrical companies and orchestras) $=$ Value-added (Performing companies) $\times$ Performing Company rate $\times$ Rate of Theatrical Company \& Orchestra

- Value-added (Performing Companies)
[Formula] Value-added $=$ Value of products $\underline{A}$ - Intermediate input(Ordinary expenses $\underline{B}$-Depreciation expense $\underline{C}$ )

A Value of products :
[Incomes] in Sector 763 Theatrical Companies in the "Survey on Service Industries"
BOrdinary expenses :
[Ordinary expenses] in Sector 763 Theatrical Companies in the "Survey on Service Industries"
$\underline{\mathrm{C}}$ Depreciation expenses:
[Formula] Depreciation expenses $=$ Value of products $\underline{a} \times$ Depreciation
Rate $\underline{b}$
a Value of products :
[Incomes] in Sector 763 Theatrical Companies in the "Survey on Service Industries"
$\underline{b}$ Depreciation rate :
[Depreciation rate to sales] in Sector 802 Performance Companies in
the "Annual Report on National Income Statistics"

- Performance Company rate :
[Formula] Performance company rate = Income of "Performance Company" $\underline{A}$ $\div(\underline{A}+$ Income of "Theaters \& Performance Facilities" (excluding those indicated separately) $\underline{B}$
A Income of "Performance Companies" :
[Incomes] of "Performance Companies" in the "Survey on Service Industries"
B Incomes of "Theaters \& Performance Facilities (excluding those indicated separately) :
[Incomes] of "Theaters \& Performance Facilities (excluding those indicated separately)
- Theatrical Company \& Orchestra rate :
[Formula] Theatrical Company \& Orchestra rate $=$ Theater rate $=$ Value of Products (Theater) $\underline{\mathrm{A}} \div$ Value of products (Theaters \& Performance Facilities") $\underline{\mathrm{B}}$ A Value of products(Theaters) :

Value of products in (2) "Theater" above BValue of products (Theater \& Performance Facilities) :
[Incomes] of Performance Facilities in Sector 762, Theaters in the "Survey on Service Industries"
10) Game Software (Supplementary Type)
(1) Game Software [Basic statistics plus supplementary statistics type]

Statistics used in the estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| CESA Game White Paper(CESA* 1) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Survey on Amusement Industries <br> (JAMMA, AOU, NSA *2) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

*1: CESA (Computer Entertainment Software Association)
*2: JAMMA (Japan Amusement Machinery Manufacturers Association, AOU(All
Nippon Amusement Machine Operators' Union), NSA(Nihon Shopping Center Amusement Park Operators Association)

O Estimation of Value of products
[Formula] Value of products = Game software for home use A

+ Game software for business use $\underline{B}$
A Game software for home use
Game software for home use [Domestic]+[Exportation] in the "CESA Game White Paper"
B Game software for business use
[Sales] of amusement machine for business use in "Survey on Amusement Industries" $\times$ Software rate a


## a Software rate

Sales in the game software industry consist of the sum of hardware and software sales. Data for fiscal 1998 and succeeding years present subtotals for software sales. These data were used to calculate the share of the total occupied by software.

## Estimation of Value-added

Value-added was estimated by applying the Value-added rate in Software Industry of this survey.
[Formula] Value-added $=$ Value of products $\underline{\mathrm{A}} \times$ Value-added rate $\underline{\mathrm{B}}$
A Value of products
[Value of products] obtained by Estimation of Value of products
B Value-added rate
[Formula] Value-added rate = Value-added (Software industry) a / Value of products (Software industry) $\underline{b}$
a Value-added(Software industry)
[Value-added] obtained by Estimation of Value of products ((2) 1) Software)
b Value of products(Software industry)
[Value of products] obtained by Estimation of Value of products ((2) 1)
Software)
11) Entertainment Facilities
(1) Amusement Arcade (Basic statistics type)

Statistics used in estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey on Service Industries | $\times$ | $\checkmark$ | $\times$ | $\times$ | $\times$ |
| Survey on Amusement Industry * | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Statistics from Analysis of Corporate <br> Financial Statements | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

(*)JAMMA (Japan Amusement Machinery Manufacturers Association), AOU (All Nippon Amusement Operators' Union), NSC (Nihon Shopping Center Amusement Park Operator's Association)

O Estimation of Value of products
[Formula] Value of products $=$ [Incomes] in Sector 84K, Game Arcade in the "Survey on Service Industries"Estimation of Value-added
Value-added was estimated by using Value-added rate in Sector 84K, Game Arcade in the "Survey on Service Industries."
[Formula] Value-added (Game Arcade) $=$ Value of products $\underline{A}$ - Intermediate Input (Operating expenses $\underline{B}$-Depreciation rate $\underline{C}$ )
A Value of products :
[Incomes] of in Sector 84K, Game Arcade in the "Survey on Service Industries."

B Ordinary expenses :
[Ordinary expenses] in Sector 84K, Game Arcade in the "Survey on Service Industries."
$\underline{\mathrm{C}}$ Depreciation expenses:
[Formula] Depreciation expenses $=$ Value of products $\underline{a} \times$ Depreciation rate $\underline{b}$
a Value of products :
Value of products calculated in the above item
$\underline{b}$ Depreciation rate :
[Depreciation rate to sales] in Setgment 807 Amusement \& Recreation

> Facilities in the "Statistics from Analysis of Corporate Financial Statements"

Compensation of for statistics data
The＂Survey on Service Industries＂is published once every five years，and the latest edition is for fiscal 2004．The survey on Section 84K，Game Arcade was implemented since fiscal 2004．As such，the data for fiscal 2003 and 2005 and preceding years were estimated by using the growth rate of sales on operation in the Survey on Amusement Industry．＂

Figure 3－30 Sales on Operation and the rate of increase from the previous year

|  | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | ---: | :---: | :---: | :---: | :---: |
| Incomes（million yen） | 637,700 | 649,200 | 682,500 | 702,900 | 678,100 |
| Rate of change（\％） | $105.3 \%$ | $101.8 \%$ | $105.1 \%$ | $103.0 \%$ | $96.5 \%$ |

（Source）Survey on Amusement Industry（＊）
（＊）JAMMA（Japan Amusement Machinery Manufacturers Association），AOU（All Nippon Amusement Operators＇Union），NSC（Nihon Shopping Center Amusement Park Operator＇s Association）

These figures were used for a calculation of the value of products and value－added in fiscal 2005，for example，by means of the formulas noted below．This was also done for other fiscal years for which data were not available．

〔Formula〕 Value of products in $2005=$ Value of products in $2004 \times$ Rate of change〔Formula〕 Value added in $2005=$ Value added in $2004 \times$ Rate of change
（2）Karaoke Box（Supplementary type）Statistics used in estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Karaoke White Paper | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Statistics from Analysis of Corporate <br> Financial Statements | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Financial Statement Report of Karaoke Box <br> Company | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |Estimation of Value of products

}
[Formula]Value of products $=$ [Karaoke Box market scale] in the user-market scale in the "Karaoke White Paper"

Estimation of Value-added
The Value-added was estimated by using the Value-added rate of Karaoke Industry, which was calculated with the data in financial statement of Karaoke Industry.
[Formula] Value-added $=$ Value of products $\times$ Value-added rate

- Value of products :

Value of products in Karaoke industry obtained in the above formula

- Value-added rate
[Formula] Value-added rate $=\Sigma$ \{Value-added of each companyA $\} \div \Sigma\{$ Value of products of each company $\underline{B}$ \}

A Value-added of each company :
[Formula] Value-added $=$ Compensation of Employees $\underline{a}+$ Operating surplus $\underline{b}$

+ Depreciation expenses $\underline{\underline{c}}+$ Indirect tax $\underline{d}$
a Compensation of Employees :
[Employment expenses] + [Labor costs] in P/L statement
b Operating surplus:
[Operating profit] in P/L Statement
c Depreciation expenses :
[Depreciation expenses] in P/L statement
d Indirect tax :
[Sales] in P/L statement $\times 5 \%$
B Value of products of each company :
[Sales] in P/L statement
* "Value-added rate" by the above formula was calculated based on the data in the financial statement report of company which has made continuous disclosure.
(3) Theme Park [Basic statistics plus supplementary statistics type]

In the "Survey on Service Industries", theme parks are included in Sector 845 (public gardens and amusement parks). The value of products was based on the theme park data presented in the amusement and theme park section of the
"Preliminary Report on the Survey of Selected Service Industries". Value-added was estimated by proportional division from the Sector 845 (public gardens and amusement parks) data using the theme park value of product data.

O Statistics used in the estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey on Service industries | $\times$ | $\checkmark$ | $\times$ | $\times$ | $\times$ |
| Survey of Selected Service Industries <br> (Amusement / Theme park) | $\times$ | $\checkmark$ | $\times$ | $\times$ | $\times$ |
| Survey of Vital Statistics of Selected <br> Service Industries (Amusement / Theme <br> park) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Statistics from Analysis of Corporate <br> Financial Statements | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

O Estimation of Value of products
[Formula] Value of products = Admission income

- Admission income
[Admission income of Theme park] in the "Survey of Selected Service Industries (Amusement / Theme park)"


## Estimation of Value-added

[Formula] Value-added(Theme park)=Value-added(public gardens and amusement parks) $\times$ Theme park occupy rate

- Value-added(public gardens and amusement parks)
[Formula] Value-added(public gardens and amusement parks)=Value of products
$\underline{A}$ - Intermediate Input (Total expenses $\underline{B}$-Depreciation expenses $\underline{C}$ )
A Value of products
[Incomes] in Sector 845(public gardens and amusement parks) in the "Survey on Service industries"
B Total expenses
[Total expenses] in Sector 845 (public gardens and amusement parks) in the "Survey on Service industries"
C Depreciation expenses
[Formula] Depreciation expenses $=$ Value of products $\underline{\mathbf{a}} \times$ Ratio of depreciation expenses $\underline{b}$
a Value of products
[Value of products] obtained by the above formula for Estimation of

Value of products
b Depreciation rate
[Depreciation rate to Sales] in Class 806 (public gardens and amusement parks) in the "Statistics from Analysis of Corporate Financial Statements"

- Theme park proportion:
[Theme park proportion]=Value of products (Theme park)a / Value of products(public gardens and amusement parks) $\underline{\mathrm{b}}$
a Value of products(Theme park)
[Value of products] obtained by Estimation of Value of products
$\underline{\mathrm{b}}$ Value of products(public gardens and amusement parks)
[Incomes] in Sector 845 (public gardens and amusement parks) in the "Survey on Service industries"

Compensation for statistical data
The section on amusement and theme parks in the "Survey on Service Industries" is published once every three years, the last two being the fiscal 2001 and 2004 editions. Data for years in which the research was not undertaken were obtained by linear supplementation.

Disclosure of data on the amusement and theme park section in the "Survey of Vital Statistics of Selected Service Industries" has been published since fiscal 2000. In contrast to the "Survey of Selected Service Industries", which covers all establishments, it covers only top-ranked companies in terms of sales and data are disclosed on a monthly basis. It therefore compensates for the gaps left by the former. Data for fiscal 2005 were estimated using the rate of increase relative to the previous year from it.

Figure 3-31 Annual sales and the growth rate to the previous year
in the theme park industry

|  | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | ---: | :---: | ---: | :---: | :---: |
| Admission incomes <br> (million yen) | $(180,239)$ | 190,970 | $(200,728)$ | $(216,871)$ | $(230,409)$ |
| Growth rate(\%) | $106.0 \%$ | $106.0 \%$ | $97.8 \%$ | $108.0 \%$ | $106.2 \%$ |

Source: "Survey of Selected Service Industries (Amusement / Theme park)" (Ministry of Economy, Trade and Industry)
"Survey of Vital Statistics of Selected Service Industries (Amusement / Theme park)" (Ministry of Economy, Trade and Industry)

These figures were used for a calculation of the value of products and value-added in fiscal 2005, for example, by means of the formulas noted below. This was also done for other fiscal years for which data were not available.
[Formula] Value of products (2005) $=$ value of products $(2004) \times$ Growth rate to previous year
[Formula] Value added (2005) = Value added (2004) $\times$ Growth rate to previous year
12) Design
(1) Design [Basic statistics type]

Statistics used in the estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey on Service industries | $\times$ | $\checkmark$ | $\times$ | $\times$ | $\times$ |
| Statistics from Analysis of Corporate <br> Financial Statements | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

$\bigcirc$ Estimation of Value of products
[Formula] Value of products = Incomes

- Incomes
[Incomes] in Sector 80H (design service) in the "Survey on Service industries"Estimation of Value-added
[Formula] Value-added $=$ Value of products $\underline{\text { A- }}$ Intermediate Input ( Total expenses B-Depreciation expenses $\underline{C}$ )

A Value of products
[Incomes] in Sector 80H (design service) in the "Survey on Service industries"
B Total expenses
[Total expenses] in Sector 80H (design service) in the "Survey on Service industries"
$\underline{\text { C Depreciation expenses }}$
[Formula] Depreciation expenses $=$ Value of products $\underline{a} \times$ Depreciation rate $\underline{b}$
a Value of products
[Value of products] obtained by Estimation of Value of products
$\underline{b}$ Depreciation rate
[Depreciation rate to Sales] in Class 851-2(advertising) in the "Statistics from Analysis of Corporate Financial Statements"

Compensation for statistical data
The "Survey of Selected Service Industries (Designing) " is published once every five years. The most recent edition was fiscal 2004. Data for years in which the survey was not implemented were estimated by linear compensation.

Figure 3-32 Incomes and the rate of change relative to the previous year in the design industry

| in the design industry |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
|  | 2003 | 2004 | 2005 | 2006 | 2007 |
| Annual incomes <br> (million yen) | $(629,437)$ | 620,813 | $(612,307)$ | $(603,917)$ | $(595,642)$ |
| Rate of change(\%) | $98.6 \%$ | $98.6 \%$ | $98.6 \%$ | $98.6 \%$ | $98.6 \%$ |

Source: "Survey of Selected Service Industries (Designing)"

These figures were used to estimate the value of products and value-added in fiscal 2005, for example, by means of the formulas noted below. This was also done for other fiscal years for which data were not available.
[Formula] Value of products(2005)=Value of products $(2004) \times$ Rate of change
[Formula] Value-added (2005) $=$ Value-added $(2004) \times$ Rate of change
13) Architecture
(1) Architectural Design [Basic statistics plus supplementary statistics type]

Statistics used in the estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey on Service industries | $\times$ | $\checkmark$ | $\times$ | $\times$ | $\times$ |
| Statistics on Construction undertaken | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\times{ }^{\left({ }^{*}\right)}$ |
| Cost Analysis Information for Building Works | $\times$ | $\times$ | $\times$ | $\times$ | $\times$ |
| Statistics from Analysis of Corporate <br> Financial Statements | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

* Survey results not yet released since fiscal 2007.

Estimation of Value of products
There are no statistics for the architectural design industry as such. The scale of the market was estimated by multiplication of the scale of the entire architectural (architectural construction) market by the share of all expenses occupied by those for design.
[Formula] Value of products (construction) = Value of Products (House) a + Value of Products (Non-house) $\underline{b}$

## a Value of Products (House)

[House construction] in the "Statistics on Construction undertaken" $\underline{b}$ Value of Products (Non-house)
[Non-house construction] in the "Statistics on Construction undertaken"

The market for architectural design was regarded as consisting of economic activities based on that portion of the completed construction value occupied by design costs. Therefore, it was estimated by multiplying the value of products by these design-cost rates. The estimation employed average design cost rates over the fiscal years 1994-1997.
[Formula] Value of products (architectural design) = Value of Products (House) $\times$ architectural design rate (House) $\underline{c}^{+}$Value of Products (Non-house) $\times$ architectural design rate (Non-house) $\underline{d}$
c Architectural design rate (House)
Average of [architectural design rate] in construction cost structure (housing)
in the "Cost Analysis Information for Building Works*"
$\underline{d}$ Architectural design rate (Non-house)
Average of [architectural design rate] in construction cost structure (non-housing) in the "Cost Analysis Information for Building Works*"

* "Cost Analysis Information for Building Works" (published by the Management Research Society for Construction Industry) went out of publication in 1997. For this reason, the average values for rates over the years 1995-1997 were used in the estimates for the years 1999-2007.


## Estimation of Value-added

In the "Survey on Service Industries", architectural design is included in Sector 805 (Engineering and Architectural services). The value of products (completed constructions) was estimated from "Statistics on Construction undertaken". Value-added was estimated by proportional distribution in Sector 805 data based on the results of the estimation of the value of products.

## [Formula] Value-added $=$ Value of products $\times$ Value-added rate

- Value of products
[Value of products] obtained by Estimation of Value of products
(Value-added rate)
[Formula] Value-added rate $=$ Value-added $/$ Value of products
- Value-added
[Formula] Value-added = Value of products $\underline{\text { A }}$ - Intermediate Input ( Total expenses B-Depreciation expenses $\underline{C}$ )

A Value of products
[Incomes] in Sector 805 (architectural services) in the "Survey on Service industries"
B Total expenses
[Total expenses] in Sector 805 (architectural services) in the "Survey on Service industries"
C Depreciation expenses
[Formula] Depreciation expenses $=$ Value of products $\underline{\mathbf{a}} \times$ Ratio of depreciation expenses $\underline{b}$
a Value of products
[Incomes] in Sector 805 (architectural services) in the "Survey on

Service industries"
b Depreciation expenses rate
[Ratio of depreciation expenses] in Class 874(Engineering and Architectural services) in the "Statistics from Analysis of Corporate Financial Statements"

- Value of products
[Incomes] in Sector 805 (architectural services) in the "Survey on Service industries"

O Compensation for statistical data
Data on construction works and execution have not yet been published for 2007. Accordingly, data were supplemented on the assumption that the rate of increase in the scale of the construction industry market from fiscal 2006 to fiscal 2007 was the same as that from fiscal 2005 to fiscal 2006.
[Formula] Value of products(2007)=Value of products(2006) $\times$ \{Value of products(2006) / Value of products(2005) \}
[Formula] Value-added(2007)=Value-added(2006) $\times$ \{Value-added(2006) / Value-added (2005) \}
14) Libraries and Museums
(1) Libraries

Statistics used in the estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey on Service industries | $\times$ | $\checkmark$ | $\times$ | $\times$ | $\times$ |
| Statistics on Libraries in Japan | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Statistics from Analysis of Corporate <br> Financial Statements | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

## Estimation of Value of products

[Formula] Value of products = Value of products (Public libraries) $\underline{\mathrm{A}}+$ Value of products (Universities and Colleges) $\underline{B}$
A Value of products (Public libraries)
[Formula] Value of products (Public libraries) = Ordinary expenses a + Temporary expenses $\underline{b}+$ Material cost $\underline{c}+$ Extra Material cost $\underline{d}$
a Ordinary expenses
[Ordinary expenses] of public libraries in the "Statistics on Libraries in Japan" b Extra expenses
[Temporary expenses] of public libraries in the "Statistics on Libraries in Japan"
c Material cost
[Material cost] of public libraries in the "Statistics on Libraries in Japan"

## d Extra Material cost

[Extra Material cost] of public libraries in the "Statistics on Libraries in Japan"
B Value of products (Universities and Colleges)
[Formula] Value of products (Universities and Colleges) = Ordinary expenses $\underline{a}^{+}$ Material cost $\underline{b}+$ Temporary expenses $\underline{c}$
a Ordinary expenses
[Ordinary expenses] of public libraries in the "Statistics on Libraries in Japan" b Material cost
[Material cost] of public libraries in the "Statistics on Libraries in Japan" с Temporary expenses
[Temporary expenses] of public libraries in the "Statistics on Libraries in Japan"

## Estimation of Value-added

[Formula] Value-added $=$ [Value of products] obtained by Estimation of Value of product $\times$ Value-added rate

## (Value-added rate)

[Formula] Value-added rate = Value-added / Value of products

- Value-added
[Formula] Value-added $=$ Value of products $\underline{\text { A- }}$ Intermediate Input ( Total expenses
B-Depreciation expenses $\underline{C}$ )
A Value of products
[Incomes] in the entire service sector in the "Survey on Service Industries"
B Total expenses
[Total expenses] in the entire service sector in the "Survey on Service Industries"

C Depreciation expenses
[Formula] Depreciation expenses $=$ Value of products $\underline{a} \times$ Ratio of depreciation expenses $\underline{b}$
a Value of products
[Incomes] in the entire service sector in the "Survey on Service Industries"
b Depreciation expenses rate
[Ratio of depreciation expenses] in the entire service sector in the "Survey on Service Industries"

- Value of products
[Incomes] in the entire service sector in the "Survey on Service Industries"
(2) Art Museums [Supplementary statistics type (Special)]

Statistics used in the estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Museum General Research Report | $\times$ | $\checkmark$ | $\times$ | $\times$ | $\times$ |
| Annual Report on National Income Statistics | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Statistics from Analysis of Corporate <br> Financial Statements | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |Estimation of Value of products

The "Museum General Research Report" exhibits the results of a questionnaire
survey on incomes, targeted at art museums throughout the country. The Value of products was estimated by using the data in such report.
[Formula] Value of products $=$ Average of total incomes $\underline{A} \times$ Number of museum $\underline{B}$
A Average of total incomes :
[Average of total incomes] of all museums in the "Museum General Research Report"

B Number of art museum :
[Formula] Number of art museums $=$ Number of all museums $\underline{a} \div$ Percentage by type $\underline{b}$
a Number of all museums
[Number of all museums] in the "Museum White Paper"
b Percentage by type
[Percentage by type] of art museum in the "Museum White Paper"

## Estimation of Value-added

[Formula] Value-added $=$ Value of products as calculated in the above formula for "Estimation of Value of products" $\times$ Value-added rate
(Value-added rate)
[Formula] Value-added rate $=$ Value-added $\div$ Value of products

- Value-added :
[Formula] Value-added = Value of products $\underline{\text { A }}-$ Intermediate input(Ordinary expenses $\underline{B}$ - Depreciation expenses $\underline{\text { C }}$

A Value of products :
[Incomes] in Sector 77C Museums \& Art Museums in the "Survey on Service Industries"
BOrdinary expenses :
[Ordinary expenses] in Sector 77C, Museums \& Art Museums" in the "Survey on Service Industries"
C Depreciation expenses:
[Formula] Depreciation expenses $=$ Value of products $\underline{\mathbf{a}} \times$ Depreciation rate $\underline{b}$
a Value products :
[Incomes] in Sector 77C Museums \& Art Museums in the "Survey on Service Industries"
$\underline{b}$ Depreciation rate :
Average of [Depreciation rate to sales] in Service Industries in the "Statistics from Analysis of Corporate Financial Statements"

- Value of products :
[Incomes] in Sector 77C Museums \& Art Museums in the "Survey on Service Industries"

Compensation for statistical data
The surveys were not conducted since fiscal 2005 and the preceding years to compile the statistics on the "Museum White Paper". Data for fiscal 2005 and the subsequent years, which official statistics was not available, were estimated by using the income growth rate relative to the previous year in Sector 77C Museums \& Art Museums in the "Survey on Service Industries" for fiscal years of 1999-2004.

Figure 3-33 Incomes of Museums \& Art Museums and the rate of increase relative to
the previous year

|  | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | ---: | :---: | :---: | :---: |
| Scale of market <br> (million yen) | $(36,299)$ | 32,511 | $(29,118)$ | $(26,080)$ | $(23,358)$ |
| Change of rate (\%) | $90 \%$ | $90 \%$ | $90 \%$ | $90 \%$ | $90 \%$ |

Source: Survey on Service Industries

These figures were used for calculation of the value of products and value-added in fiscal 2005, for example, by means of the formulas noted below.
[Formula] Value of products(2005)=Value of products(2004) $\times$ Rate of change [Formula] Value-added(2005)=Value-added(2004) $\times$ Rate of change
15) Authors and Artists
(1) Authors and Artists, Musician [Basic statistics type]

Statistics used in the estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey on Service industries | $\times$ | $\checkmark$ | $\times$ | $\times$ | $\times$ |
| Annual Report on National Income Statistics | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Statistics from Analysis of Corporate <br> Financial Statements | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

Estimation of Value of products
[Formula] Value of products $=$ Incomes

- Incomes
[Incomes] in Sector 807(authors and artists) in the "Survey on Service industries"Estimation of Value-added
[Formula] Value-added $=$ Value of products $\underline{\text { A }}$ - Intermediate Input ( Ordinary expenses B-Depreciation expenses $\underline{C}$ )

A Value of products
[Incomes] in Sector 807 (authors and artists) in the "Survey on Service industries"
B Ordinary expenses
[Ordinary expenses] in Sector 875 (authors and artists) in the "Survey on Service industries"
$\underline{\text { C Depreciation expenses }}$
[Formula] Depreciation expenses $=$ Value of products $\underline{a} \times$ Ratio of depreciation expenses $\underline{b}$
a Value of products
[Value of products] obtained by Estimation of Value of products
b Depreciation expenses rate
[Depreciation rate to Sales] in Class 807 (authors and artists) in the "Statistics from Analysis of Corporate Financial Statements"

O Compensation for statistical data
Editions of the "Survey on Service Industries" are published every five years. The
latest one is the fiscal 2004 edition.
Data for fiscal 2003 and fiscal years after 2005 in the sector of Authors and Artists, for which statistics are not available, were estimated by using the income increase rate between 1999 and 2004 in sector 807(authors and artists) in the "Survey on Service Industries".

Figure 3-34 Incomes in Sector Author \& Artist and the rate of change relative to the

| previous year |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| 2003 | 2004 | 2005 | 2006 | 2007 |  |
| Scale of the market <br> (100million yen) | $(7,237)$ | 6,550 | $(5,928)$ | $(5,365)$ | $(4,855)$ |
| Rate of change(\%) | $90.5 \%$ | $90.5 \%$ | $90.5 \%$ | $90.5 \%$ | $90.5 \%$ |

Source: "Survey on Service Industries"

These figures were used for a calculation of the value of products and value-added in fiscal 2005, for example, by means of the formulas noted below. This was also done for other fiscal years for which data were not available.
[Formula] Value of products (2005) $=$ value of products (2004) $\times$ Rate of change
[Formula] Value added (2005) $=$ value added $(2004) \times$ Rate of change

## 6. Calculation procedure for value-added

Estimation of value-added requires data for items indicative of cost structure. The only sources posting cost-structure data are the basic statistics (both the "Census of Manufactures" and "Survey on Service Industries"). The estimation of value-added in this survey is based on the basic statistics. However, when the basic statistics are difficult to use for this purpose owing to the nature of the industry or other such reasons, value-added was estimated with the use of data from the financial statement reports of enterprises making continuous disclosure in the industry or by applying value-added data for the entire service sector.

This section summarizes the procedure and process of estimation of value-added based on the basic statistics and data from financial statement reports.

1) Estimation of value-added based on data from the "Census of Manufactures"

Figure 3-35 below shows the definition of value-added in the "Annual Report on National Income Statistics", which defines the GDP, and the corresponding items of data compilation in the "Census of Manufactures". Because social security contributions and operating surpluses are not included in the "Census of Manufactures", compensation was made by applying data from two additional sources, i.e., "Public Welfare and Health Cost Survey" and "Statistics from Analysis of Corporate Financial Statements".

Figure 3-35 Items related to Value Added in the "Annual Report on National Income
Statistics" and the corresponding items in the "Census of Manufactures"

| "Annual Report on National Income Statistics" |  | Statistics used and corresponding <br> items |  |
| :--- | :--- | :--- | :--- |
| Value- <br> added | Compensation <br> of employees | Salaries, <br> Employment income | "Census of Manufactures" <br> Total cash wages and Salaries Paid |
|  | Bonus |  |  |
|  | Retirement payments |  |  |
|  | Other procurement |  |  |
|  | Social Security |  |  |
| Contributions |  |  |  |$\quad$| "Public Welfare and Health Cost |
| :--- |
| Survey" |


|  | Consumption of fixed capital | [Disposal expenses of tangible fixed <br> assets and [Depreciation expenses <br> of tangible fixed assets] from <br> "Census of Manufactures" |
| :--- | :--- | :--- |
| Indirect taxes | Value upon multiplication of the <br> Value of products by the indirect tax <br> rate of $5 \%$ (3 \% for 1997 and prior <br> years) |  |

The following calculation formula therefore was used for estimation of value-added from the "Census of Manufactures".

## [Formula]

Value-added $=$ Compensation of employees $\underline{A}+$ Operating surplus $\underline{B}+$ Depreciation Expense $\underline{\text { C }}+$ Indirect Taxes D
A Compensation of employees (*1)
[Total cash wages and Salaries Paid] in the "Census of Manufactures" $\times$ Payment correction rate
B Operating surplus (*2)
[Formula]
Operating surplus $=$ Value of products $\underline{a} \times(1-$ Sales Cost rate to total sales $\underline{b}-$ SG\&A rate to Sales c)
a Value of products
[Value of Shipment] in the "Census of Manufactures"
$\underline{b}$ Sales cost rate to total sales
[Sales cost rate to total sales] in the "Statistics from Analysis of Corporate Financial Statements"
c SG\&A rate to Sales
[SG\&A rate to Sales] in the "Statistics from Analysis of Corporate Financial Statements"
C Depreciation Expense
[Formula]
Depreciation Expense $=$ Disposal expenses of tangible fixed assets $\underline{d}+$ Depreciation of tangible fixed assets e
d Disposal expenses of tangible fixed assets
[Disposal expenses of tangible fixed assets] in the "Census of Manufactures"
e Depreciation of tangible fixed assets
[Depreciation of tangible fixed assets] in the "Census of Manufactures"
D Indirect Taxes (*3)
[Formula]
Indirect Taxes $=$ Value of products $\underline{f} \times$ Indirect Taxes rate $\mathbf{g}$
$\underline{f}$ Value of products
[Value of Shipment] in the "Census of Manufactures"
g Indirect Taxes rate
Indirect tax rate of $5 \%$
(*1)
In the "Census of Manufactures", data for total cash wages and salaries paid does not include social security contributions, which are included in compensation of employees as defined in the "Annual Report on National Income Statistics". For this reason, social security contributions were estimated by using data for the breakdown of compensation of employees in each industry in the "Public Welfare and Health Cost Survey" (Japan Federation of Employers' Associations). The formula applied in this calculation is shown below.
[Formula] Payment correction rate $=$ [Total cash wages and Salaries Paid + Legal welfare expenses] in the "Public Welfare and Health Cost Survey" / [Total cash wages and Salaries Paid] in the "Census of Manufactures"

Figure 3-36 Comparison of items in the "Public Welfare and Health Cost Survey" and the "Census of Manufactures"

|  | "Census of Manufactures" | "Public Welfare and Health <br> Cost Survey" |
| :--- | :---: | :---: |
| Total cash wages and <br> Salaries Paid | $\checkmark$ | $\checkmark$ |
| Legal welfare expenses* | $\times$ | $\checkmark$ |

(*) Legal welfare expenses; Employees' pension insurance, Employment insurance, Health insurance

Generally speaking, the Value of products (which is regarded as sales for business entities) consists of sub-categories of sales cost, SG\&A, and operating profit. As such, the operating profit (rate) can be calculated by the following formula.
[Formula] Operating Profit (rate)=[1- Sales Cost to total sales (rate)- SG\&A to total sales (rate)]
(*3)
Indirect taxes were simplified along with the introduction of the national consumption tax, which currently accounts for the majority. The other main indirect taxes are the liquor tax, tobacco tax, gasoline tax, securities transaction tax, and customs duty. In this survey, it was assumed that indirect taxes other than the consumption tax do not have a great influence on the copyright industry.

Therefore, the indirect tax value can be equated with the product of multiplication of the taxable amount by the consumption tax rate ( $5 \%$ ).
[Formula] Indirect Taxes $=$ Value of products $\times 5 \%$
2) Estimation of value-added based on data from the "Survey on Service Industries"

Figure 3-37 shows the definition of value-added in the "Annual Report on National Income Statistics", which defines the GDP, and the corresponding items of data compilation in the "Survey on Service Industries".

Figure 3-37 Items related to Value-added in the "Annual Report on National Income
Statistics" and corresponding items in the "Survey on Service Industries"

| "Annual Report on National Income Statistics" |  |  | "Survey on Service Industries" [Total wages and salaries] in the "Survey on Service Industries" |
| :---: | :---: | :---: | :---: |
| Value-added | Compensation of employees | Salaries, Employment income |  |
|  |  | Bonus |  |
|  |  | Retirement pay |  |
|  |  | Other procurement |  |
|  |  | Social Security Contributions |  |
|  | Operating surplus |  |  |
|  | Consumption of fixed capital |  |  |
|  | Indirect taxes |  |  |
|  | (less) subsidies |  |  |
| Intermediate Input | Raw and processed material, Fuel expenses |  | [Total expenses] in the "Survey on Service Industries" <br> *The data for depreciation costs are included. |
|  | Services, Subcontract production costs, daily allowance |  |  |
|  | $\begin{array}{l}\text { Sales and general administrative } \\ \text { expenses }\end{array}$ |  |  |
|  | Advertising expenses |  |  |
|  | Transport expenses, Lodging expenses |  |  |
|  | Special expenses |  |  |


|  | Welfare expenses <br> (except legal welfare expenses) |  |
| :--- | :--- | :--- |

Value-added cannot be estimated by adding up the values for the items composing it in the "Survey on Service Industries". It was instead estimated by subtracting the intermediate input from the Value of products. However, the data for depreciation costs, which are included in the total expenses (i.e., the intermediate input), were excluded from the calculation.

## [Formula] <br> Value-added = Value of products - Intermediate Input[Ordinary expenses -Depreciation Expense]

- Value of products
[Incomes] in the "Survey on Service Industries"
- Ordinary expenses
[Ordinary expenses] in the "Survey on Service Industries"
- Depreciation Expense
[Formula]
Depreciation Expense $=$ Value of products $\times$ Depreciation expense rate
-Depreciation expense rate
[Depreciation expense rate to Sales] in the "Statistics from Analysis of Corporate Financial Statements"

3) Estimation of value-added based on data from financial statement reports

Financial statement reports must be submitted every accounting year by all enterprises that have issued at least 100million yen worth of securities or have their stock listed on the stock exchange. They contain various financial statements.

As one such statement, $\mathrm{P} / \mathrm{L}$ statements are sure to exhibit figures for compensation of employees, operating surplus, and depreciation cost, which are indicators employed in the calculation of value-added. The level of value-added (and value-added rate) can be calculated by adding up the values for these items in income statements.

The items are ordinarily categorized as shown in Figure 3-38. However, many enterprises combine two or more of these items into a single one.

Figure 3-38 Items required for estimation of value-added in income statements (@)

| Sales | Breakdown |  |  | Required Items |
| :---: | :---: | :---: | :---: | :---: |
| Sales costs | Cost of goods manufactured (*1) | Material cost |  | $\checkmark$ |
|  |  | Labor cost (*2) |  | - |
|  |  | Necessary expenses | Depreciation expenses | $\checkmark$ |
|  |  |  | Outsourcing cost | - |
| SG\&A expenses | Employment cost | Salaries <br> Bonus allowance Reserve <br> Director's remuneration |  | $\checkmark$ |
|  | Depreciation expenses |  |  | $\checkmark$ |
|  | Others |  |  | - |
| Operating Profit |  |  |  | $\checkmark$ |

(*1) In the case of service industries, this is the cost to provide services..
(*2) Personnel expenses for production.
[Formula] Value-added $=$ Compensation of employees $\underline{a}+$ Operating surplus $\underline{b}+$ Depreciation Expense $\underline{\mathbf{c}}+$ Indirect Taxes $\underline{d}$
a Compensation of employees
[Employment cost + Labor cost] in the "Income statement"
b Operating surplus
[Operating Profit] in the "Income statement"
c Depreciation Expense
[Depreciation Expense] in the "Income statement"
d Indirect Taxes
[Sales] in the "Income statement" $\times 5 \%$

## 7. Deflator for statistical values

## 1) Deflator

Comparison of estimates of the scale of the copyright industry over each of the fiscal years 1998-2007 requires conversion from current prices to constant prices (i.e., adjustment for the fluctuation in current prices due to inflation or deflation). The deflator announced for each year by the Economic and Social Research Institute, Cabinet Office, Government of Japan will be used to change the current prices into constant prices based on calendar year of 2000. Because separate deflators are announced for each industrial sector, the survey applied that for the sector including the constituent copyright industry. Figure $3-28$ shows the kind of deflator used in each class of the copyright industry, and Figure 3-29, the corresponding deflator values.

Figure 3-39 Copyright industry classes and deflators used

| Copyright industry classes | Deflator values used |  |
| :--- | :--- | :--- |
|  | (1)Newspaper publishing | Printing and <br> Publishing |
|  | (2)Book and Journal Publishing | Printing and <br> Publishing |
|  | (3)Printing (Newspaper and Book) | Printing and |
| 2)Computer Software | (1)Software | Publishing |
| (2)Data Processing and Information | Service |  |
| 3)Broadcasting | (1)Public Broadcasting | Service |
| (2)Private Broadcasting | Service |  |
| (3)Cable Broadcasting | Service |  |
| 4)Transmission | (1)Internet Transmission | Telecommunication |
| (2)Mobile Phone Network Transmission | Telecommunication |  |
| 5)Advertising | (1)Commercial art and Graphic design | Service |
| (2)Display | Service |  |
| 6)Music | (1)Records, CDs and Tapes | Miscellaneous |
|  | (2)Record and CD rental | Sanufacturing |
|  | (3)Music Publishing | Service |


| 7)Motion Picture | (1)Movie, Home video and TV program <br> production | Service |
| :--- | :--- | :--- |
|  | (2)Video Rental | Service |
| 8) Photography | (1) Photography | Service |
| 9)Legitimate Theater | (1)Movie Theater | Service |
|  | (2)Theater <br> (3)Theatrical company, band and <br> orchestra | Service |
| 10)Game Software | (1)Game software | Service |
| 11)Entertainment | (1)Amusement Arcade | Service |
| Facilities | (2)Karaoke Box | Service |
| (3)Theme Park | Service |  |
| 12)Design | (1)Design | Service |
| 13)Architecture | (1)Architectural Design | Service |
| 14)Libraries and | (1)Libraries | Service |
| (2)Museums and Art galleries | Service |  |
| 15)Authors and | (1)Authors and Artists, Musician | Service |
| Artists | Service |  |

Figure 3-40 Deflator values

| Industries | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Printing and <br> Publishing | 96.8 | 99.8 | 100.0 | 100.5 | 101.1 | 100.3 | 99.3 | 98.4 | 96.9 | 94.0 |
| Miscellaneous <br> Manufacturing | 108.4 | 105.9 | 100.0 | 99.5 | 97.7 | 93.8 | 91.4 | 88.5 | 84.7 | 79.8 |
| Service | 101.1 | 100.5 | 100.0 | 98.2 | 96.2 | 94.0 | 92.4 | 90.1 | 88.4 | 88.0 |
| Telecommunication | 110.3 | 105.7 | 100.0 | 91.4 | 86.5 | 84.6 | 83.1 | 82.0 | 81.2 | 78.8 |
| GDP | 102.8 | 101.6 | 100.0 | 98.7 | 97.2 | 95.4 | 94.1 | 92.5 | 91.9 | 90.2 |

Source: " Annual Report on National Income " (Economic and Social Research Institute, Cabinet Office, Government of Japan)

[^3]after the announcement of the (initial) deflator value. Ordinarily, however, the (initial) value is not changed greatly, meaning that the adjustment is minimal.
2) Calculation of constant prices

The following formula was employed for calculation of constant prices using the aforementioned deflator.
[Formula]
Actual prices $=\Sigma$ [Nominal price $/$ deflator value] in each industrial sector $]$

## Chapter 4: Overview of JCI-classified Inter-dependent Copyright Industries

## I. Definitions of JCI-classified inter-dependent copyright industries

## 1. Definitions of JCI-classified inter-dependent copyright industries

Business categories for the JCI-classified inter-dependent copyright industries correspond to the core copyright industry as per the table on the following page ${ }^{{ }^{* 1}}{ }^{1}$ in order to provide data consistency. As a result, it should be noted that business sectors excluded in the inter-dependent copyright industry as defined by the WIPO guidelines, such as advertising and entertainment facilities, are included in the JCI classifications for the industries.

The definition of the inter-dependent copyright industry for this white paper is set as follows:

The inter-dependent copyright industry is an industry engaged in media used directly by copyright end products and/or the production of components used by said media*2.

The total value added and the workforce of these sectors are estimated using the corresponding business categories in the Manufacturing Census*3. The estimate data does not include four of the media manufacturing sectors in JCI's inter-dependent copyright industry classifications, those being entertainment-related equipment, design-related equipment, construction-related equipment and library and museum-related equipment, as equivalent categories do not exist in the Manufacturing Census.
*1 Example: Publication and printing-related equipment in the media manufacturing sector of the inter-dependent copyright industry classifications corresponds to the publication and printing sector in the core copyright industry classifications.
*2 Example: Paper and printing ink manufacturing is included, while printing equipment manufacturing is not.

[^4]category corresponds to the 13 sectors listed from 152111: Newsprint rolls to 175591: Printing ink (piecework) in the Manufacturing Census.

Figure 4-1 Sectors of JCI Classified Inter-Dependent Copyright Industries

| No. | Sectors of JCI Classified Core Copyright Industries | Sectors of JCI Classified <br> Inter-Dependent Copyright Industries |
| :---: | :---: | :---: |
| 1 | Printing \& Publishing | Printing/ Publishing-related Equipment <br> \& Media Manufacturing Industries |
| 2 | Computer Software | Computer Software Equipment \& Media Manufacturing Industries |
| 3 | Broadcasting |  <br> Media Manufacturing Industries |
| 4 | Transmission |  <br> Media Manufacturing Industries |
| 5 | Advertising | Broadcasting-related Equipment \& Media Manufacturing Industries |
| 6 | Music | Music-related Equipment \& Media Manufacturing Industries |
| 7 | Motion Picture | Motion Picture-related Equipment \& Media Manufacturing Industries |
| 8 | Photography | Photography-related Equipment \& Media <br> Manufacturing Industries |
| 9 | Legitimate Theater |  |
| 10 | Game Software |  <br> Media Manufacturing Industries |
| 11 | Entertainment Facilities | Entertainment Facility-related Equipment \& Media Manufacturing Industries |
| 12 | Design |  |
| 13 | Architecture |  |
| 14 | Libraries \& Museums |  |
| 15 | Authors \& Artists | Author-related Equipment \& Media Manufacturing Industries |

## II Overview on Scale of JCI-classified Inter-Dependent Copyright Industries

## 1. Overview on Scale of JCI-classified Inter-Dependent Copyright Industries

In fiscal 2007, the inter-dependent copyright industry in Japan reached an estimated scale of 35,305 billion yen in terms of the value of products and 7,468 billion yen in terms of the value-added (based on market prices in calendar year of 2000.) By industry, the "Computer Software-related Equipment \& Media Manufacturing Industries" ranked first in terms of the value-added, followed in order by the "Broadcasting-related Equipment \& Media Manufacturing Industries" and the "Photography-related Equipment \& Media Manufacturing Industries."

Figure 4-2 Scale of JCI Classified Inter-Dependent Copyright Industries (Fiscal 2007)
( $n$ billion yen)

|  |  | Value of products | Value-added |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Value | Proportion |
| 1 |  <br> Media Manufacturing Industries |  | 2,100 | 557 | 7.5\% |
| 2 | Computer  Software-related  <br> Equipment $\&$ Media Manufacturing <br> Industries    | 7,993 | 1,546 | 20.7\% |
| 3 |  <br> Media Manufacturing Industries | 3,432 | 643 | 8.6\% |
| 4 |  <br> Media Manufacturing Industries | 6,879 | 1,526 | 20.4\% |
| 5 | Music-related Equipment \& Media <br> Manufacturing Industries | 2,903 | 734 | 9.8\% |
| 6 |  <br> Media Manufacturing Industries | 2,464 | 458 | 6.1\% |
| 7 |  <br> Media Manufacturing Industries | 4,502 | 1,165 | 15.6\% |
| 8 |  <br> Media Manufacturing Industries | 212 | 44 | 0.6\% |
| 9 | Advertising-related Equipment \& Media Manufacturing Industries | 473 | 147 | 2.0\% |
| 10 | Entertainment Facility-related | 4,322 | 637 | 8.5\% |


|  | Equipment \& Media Manufacturing <br> Industries |  |  |  |
| :--- | :--- | ---: | ---: | ---: |
| 11 | Author-related Equipment \& Media <br> Manufacturing Industries | 26 | 11 | $0.1 \%$ |
| Total of JCI Classified Inter-Dependent <br> Copyright Industries | 35,305 | 7,468 | $100.0 \%$ |  |

(At market prices in calendar year of 2000)

Of the above eleven sectors, the following three sectors are not included in the WIPO-classified inter-dependent copyright industries: "Advertising-related Equipment \& Media Manufacturing Industries"; "Entertainment Facility-related Equipment \& Media Manufacturing Industries"; and "Author-related Equipment \& Media Manufacturing Industries". After deducting the value-added of 795 billion yen in these three industries from the total value-added of JCI-classified inter-dependent copyright industries of 7,468 billion yen, WIPO-classified inter-dependent copyright industries have generated the total value-added is 6,674 billion yen.

## 2. Positioning of JCI-classified inter-dependent copyright industry in the national economy

The total of 7,468 billion yen in value-added produced by JCI-classified copyright industry in fiscal 2007 represents $1.3 \%$ of the gross domestic product (GDP).
The inter-dependent copyright industry produced the value-added of 3,715 billion yen in fiscal year of 1998. During the period from fiscal 1998 to the current year, this industry has increased by $8.1 \%$ of average annual growth. Over the same period (fiscal 1998 - 2007), the GDP increased at a corresponding rate of $1.8 \%$. As a result, the proportion of the inter-dependent copyright industry substantially rose from the level of $0.8 \%$ recorded in fiscal 1998. In addition, it has increased by 0.4 point from that of $0.9 \%$ in fiscal 2002.

Figure 4-3 Positioning of the JCI-classified inter-dependent copyright industry in the national economy


|  |  |  |  | Average Annual <br> Growth |
| :--- | ---: | ---: | ---: | ---: |
| a)JCI-classified inter-dependent <br> copyright industry | 1998 | 2002 | 2007 | $8.1 \%$ <br> b)GDP |
| Proportion in GDP(a/b) | 490,499 | 507,265 | 575,343 | $1.8 \%$ |

(At market prices in calendar year of 2000)
Source: GDP, "Annual Report on National Income" (Economic and Social Research Institute, Cabinet Office, Government of Japan)(fixed for fiscal 2007)

## 3. Growth factors for JCI-classified core copyright industry

A look at the growth in JCI-classified inter-dependent copyright industry by industrial sector reveals that nearly 30 percent (i.e., $29.3 \%$ ) of this growth derives from the "Transmission-related Equipment \& Media Manufacturing Industry." In addition, the "Photography-related Equipment \& Media Manufacturing Industry" accounts for 19.9\%, followed by the "Computer Software-related Equipment \& Media Manufacturing Industry" at $15.5 \%$ and the "Broadcasting-related Equipment \& Media Manufacturing Industry" at $13.8 \%$. For the change of proportion of each sector, the ratio of the "Transmission-related Equipment \& Media Manufacturing Industry" has remarkably increased from $11.5 \%$ to $20.4 \%$. Conversely, that of the "Printing/ Publishing" has significantly declined from $16.6 \%$ to $7.5 \%$.

Figure 4-4 Trend of value-added in the copyright industry by JCI classification (fiscal 1998-2007)
(Billion yen)

|  |  | 1998 |  | 2007 |  | Increas e in the value added | Rate of contrib ution |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{gathered} \text { Valu } \\ \mathrm{e} \\ \hline \end{gathered}$ | Proport ion | Value | $\begin{gathered} \text { Proport } \\ \text { ion } \end{gathered}$ |  |  |
| 1 | Printing/ Publishing-related <br> Equipment \& Media Manufacturing <br> Industries  | 617 | 16.6\% | 557 | 7.5\% | -60 | -1.6\% |
| 2 | Computer Software-related  <br> Equipment $\&$ Media <br> Manufacturing Industries   | 965 | 26.0\% | 1,546 | 20.7\% | 582 | 15.5\% |
| 3 | Broadcasting-related  <br> Equipment \& Media  <br> Manufacturing Industries  | 123 | 3.3\% | 643 | 8.6\% | 520 | 13.8\% |
| 4 | Transmission-related  <br> Equipment \& Media <br> Manufacturing Industries  | 427 | 11.5\% | 1,526 | 20.4\% | 1,100 | 29.3\% |
| 5 |  <br> Media Manufacturing Industries | 514 | 3.3\% | 734 | 2.0\% | 220 | 5.9\% |
| 6 | Motion Picture-related <br> Equipment\& Media Manufacturing <br> Industries | 252 | 13.8\% | 458 | 9.8\% | 206 | 5.5\% |
| 7 | Photography-related | 419 | 6.8\% | 1,165 | 6.1\% | 746 | 19.9\% |


|  | Equipment \& Media <br> Manufacturing Industries  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8 | Game Software-related  <br> Equipment $\&$ Media <br> Manufacturing Industries  | 100 | 2.7\% | 44 | 0.6\% | -55 | -1.5\% |
| 9 | Advertising-related Equipment \& Media Manufacturing Industries | 121 | 4.4\% | 147 | 8.5\% | 26 | 0.7\% |
| 10 | Entertainment Facility-related  <br> Equipment $\&$ Media <br> Manufacturing Industries   | 163 | 0.4\% | 637 | 0.1\% | 474 | 12.6\% |
| 11 | Author-related Equipment \& Media Manufacturing Industries | 15 | 11.3\% | 11 | 15.6\% | -4 | -0.1\% |
| Total in Copyright Industries |  | 3,715 | 100.0\% | 7,468 | 100.0\% | 3,753 | 100.0\% |

(At market prices in calendar year of 2000)
Note: Rate of contribution = increase in the value-added in one sector/ increase in the value-added in the overall industry

## III . Estimation method of the scale of JCI-classified inter-dependent copyright industries

## 1. Data used in estimation

The Inter-dependent copyright industry is defined as the industry engaged in media used directly by copyright end products and/or the production of components used by said media The data employed in estimation, therefore, are mainly those disclosed in "Census of Manufactures", unlike the calculation method applied in the core copyright industry. In addition, the data in the "Statistics from Analysis of Corporate Financial Statements" are used for calculating the rate of sales cost to sales and the SG\&A rate to sales.

Statistics used in estimation and data available years

| Statistics |  | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| Census of Manufacturers |  | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Statistics from Analysis <br> Financial Statements | of Corporate | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

## 2. Preconditions of statistics

All estimates are made on a fiscal year basis.

## 3. Calculation method of the Value of products

Estimation of the Value of products of the inter-dependent copyright industries is made by using the data of the Value of Shipment in "Census of Manufacturers." It is necessary to note that the figure in a single sector of JCI classification represents of the aggregation of the figures of several items in "Census of Manufacturers". For further detail, please refer page 113. <br> Estimation of the Value of products}
[Formula] Value of products $=$ Value of shipment of product $\underline{A}$
A Value of shipment of product
[Value of shipment of products] by industry in "Census of Manufacturers"

## 4. Estimation method of the Value-added

The Value-added of the inter-dependent copyright industry is estimated by multiplying the Value-added of each industry sector with the Value of products, which is obtained as the aggregation of values of several items. Figure $4-5$ shows the items in "Census of Manufacturers" and the corresponding JCI-classified industry sector.

Estimation of the Value-added
[Formula]Value-added $=$ The Value of products $\times$ the Value-added rate estimated in the above formula for estimating the Value of products.
(Value-added rate)
[Formula] Value-added rate $=$ Value-added $\div$ Value of products

- Value-added :
[Formula] Value-added $=$ Compensation of Employees $\underline{\text { A }}+$ Operating Surplus $\underline{B}+$ Depreciation expenses $\underline{\mathrm{C}}+$ Indirect $\operatorname{tax} \underline{\mathrm{D}}$

A Compensation of Employees
[Total Cash Wages \& Salaries Paid] $\times$ Payment Correction Rate by industry in "Census of Manufacturers"

B Operating Surplus
[Formula] Operating Surplus $=$ Value of products $\underline{\mathbf{a}} \times(1-$ Sales Cost Rate to Total Sales $\underline{b}$ - SG\&A Rate to Total Sales $\underline{c}$ )
a Value of shipment :
[Value of Shipment] by industry in "Census of Manufacturers" b Sales Cost Rate to Total Sales :
[Sales Cost Rate to Total Sales] by industry in the "Statistics from Analysis of Corporate Financial Statements" c SG\&A Rate to Total Sales :
[SG\&A Rate to Total Sales] by industry in the "Statistics from Analysis of Corporate Financial Statements"
$\underline{\text { C Depreciation Expense Rate }}$
[Formula] Depreciation Expenses = Disposal Expense of Tangible Fixed Asset $\underline{d}+$ Depreciation Expense of Tangible Fixed Asset e
d Disposal Expense of Tangible Fixed Asset :
[Disposal Expense of Tangible Fixed Asset] by industry in "Census of Manufacturers"
e Depreciation Expense of Tangible Fixed Asset :
[Depreciation Expense of Tangible Fixed Asset] by industry in "Census of Manufacturers"

D Indirect Tax
[Formula] Indirect Tax $=$ Value of products $\underline{f} \times$ Indirect Tax rate $\mathbf{g}$ $\underline{f}$ Value of products :
[Value of Shipment] by industry in "Census of Manufacturers" g Indirect tax :

Consumption tax rate of $5 \%$

- Value of products :
[Value of Shipment] by industry in "Census of Manufacturers"

Figure 4-5 Industry Sector of JCI-Classified Inter-Dependent Copyright Industries and
the Corresponding Sector in "Census of Manufacturers"

| JCI classification | ommodity classification name for "Census of Manufacturers |  | JSIC Name |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Commoalty <br> code | Commodity classification name | JSIC Code | JSIC Name |
| 1.Printing/ Publishing-related Equipment \& Media Manufacturing Industries | 152111 | Rolls of newsprint | 1520 | Paper |
|  | 152112 | Non-painted printing paper |  |  |
|  | 152113 | Painted printing paper |  |  |
|  | 152114 | Special printing paper |  |  |
|  | 152115 | Information paper |  |  |
|  | 152116 | Writing paper and drawing paper |  |  |
|  | 152117 | Unbleached wrapping paper |  |  |
|  | 152118 | Bleached wrapping paper |  |  |
|  | 152191 | Paper and machine-made Japanese paper ( piecework ) |  |  |
|  | 175511 | Ordinary ink | 1755 | Printing ink |
|  | 175512 | Newspaper ink |  |  |
|  | 175513 | Vanish for printing ink |  |  |
|  | 175591 | Printing ink ( piecework) |  |  |
| 2.Computer Software-related Equipment \& Media Manufacturing Industries | 279311 | Magnetic tapes (raw) | 2793 | Magnetic tapes and discs |
|  | 279312 | Magnetic discs (raw) |  |  |
|  | 279391 | Raw magnetic tapes and discs (piecework) |  |  |
|  | 282111 | General computers | 2821 | Computer, except personal computer |
|  | 282112 | Office computers |  |  |
|  | 282113 | Work stations |  |  |
|  | 282114 | Parts, attachments and accessories of data processing machines, digital and analog computers and auxiliary equipment |  |  |
|  | 282191 | Data processing machines, digital and analog computers, equipment and accessories ( piecework) |  |  |
|  | 282211 | Personal computers | 2822 | Personal computer |
|  | 282212 | Parts, attachments and accessories of personal computers |  |  |
|  | 282291 | Personal computers, parts, attachments and accessories (piecework) |  |  |
|  | 282311 | Magnetic disc equipment | 2823 | Storage |
|  | 282312 | Optical disc equipment |  |  |
|  | 282313 | Flexible disc equipment |  |  |
|  | 282319 | Miscellaneous external memories |  |  |
|  | 282321 | Parts, attachments and accessories of external memories |  |  |
|  | 282391 | External memories parts, attachments and accessories (piecework) |  |  |
| 3.Broadcasting-related Equipment \& MediaManufacturing Industries | 281211 | Radio and TV broadcasting equipment | 2812 | Radio communication equipment |
|  | 281291 | Radio communication equipment ( piecework |  |  |
|  | 281311 | Radio receivers | 2813 | Radio and television set receivers |
|  | 281312 | Television receivers, except liquid crystal receivers |  |  |
|  | 281313 | Liquid crystal television receivers |  |  |
|  | 281391 | Radio and television receivers ( piecework) |  |  |
| 4.Transmission-related Equipment \& Media Manufacturing Industries | 244116 | Telecommunication cable | 2441 | Electric wire and cable, except optical fiber cable |
|  | 244191 | Electric wire and cable ( piecework) |  |  |
|  | 244212 | Optical fiber cable, including composite cable | 2442 | Optical fiber cables, including telecommunication composite cables |
|  | 244291 | Optical fiber cable ( piecework) |  |  |
|  | 281131 | Digital transmission equipment | 2811 | Communication equipment wired |
|  | 281213 | Cellular telephone sets and PHS telephone sets | 2812 | Radio communication equipment |
|  | 281291 | Radio communication equipment ( piecework |  |  |
| 5.Music-related Equipment \& Media Manufacturing Industries | 279311 | Magnetic tapes (raw) | 2793 | Magnetic tapes and discs |
|  | 279312 | Magnetic discs (raw) |  |  |
|  | 279391 | Raw magnetic tapes and discs ( piecework) |  |  |
|  | 281411 | Stereo sets | 2814 | Electric audio equipment |
|  | 281412 | Car stereo sets |  |  |
|  | 281413 | Tape recorders |  |  |
|  | 281414 | Digital audio disc players |  |  |
|  | 281415 | High fidelity (HI-FI) amplifiers |  |  |
|  | 281416 | Speaker systems for HI-FI and cars |  |  |
|  | 281419 | Miscellaneous electric audio equipment |  |  |
|  | 281422 | Parts, attachments and accessories of electric audio equipment |  |  |
|  | 281491 | Electric audio equipment, and parts, attachments and accessories (piecework) |  |  |
|  | 291511 | Acoustic parts | 2915 | Electro acoustic transducers, magnetic heads and small motors |
|  | 291512 | Magnetic heads |  |  |
|  | 291591 | Electro acoustic transducers, magnetic heads and small motors ( piecework) |  |  |
|  | 322111 | Pianos | 3221 | Pianos |
|  | 322211 | Guitars, including electric guitars | 3229 | Guitars |
|  | 322911 | Electronic musical instruments |  | Miscellaneous musical instruments, parts and materials |
|  | 322919 | Miscellaneous Western and Japanese musical instruments |  |  |
|  | 322921 | Parts, attachments and accessories of musical instruments |  |  |
|  | 322991 | Musical instruments, parts and materials ( piecework ) |  |  |
| 6.Motion Picture-related Equipment\& Media Manufacturing Industries | 274211 | Video tape recording and duplicating equipment (VTR, EVR) | 2742 | Video recording and duplicating equipment |
|  | 274212 | Video cameras, including integrated VTREVR, except broadcast video cameras |  |  |
|  | 274214 | Parts, attachments and accessories of video recording and duplicating equipment |  |  |
|  | 279311 | Magnetic tapes (raw) | 2793 | Magnetic tapes and discs |
|  | 279312 | Magnetic discs (raw) |  |  |
|  | 279391 | Raw magnetic tapes and discs (piecework) |  |  |
|  | 291512 | Magnetic heads | 2915 | Electro acoustic transducers, magnetic heads and small motors |
|  | 291591 | Electro acoustic transducers, magnetic heads and small motors ( piecework) |  |  |
|  | 315311 | Motion picture equipment | 3153 | Motion picture equipment and their parts |
|  | 315321 | Parts, attachments and accessories of motion picture equipment |  |  |
|  | 315391 | Motion picture equipment, and parts, attachments and accessories (piecework) |  |  |


| JCI classification | Ommodity classification name for "Census of Manufacturers |  | JSIC Name |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Commodity rade | Commodity classification name | JSIC Code | JSIC Name |
| 7.Photography-related Equipment \& Media Manufacturing Industries | 179511 | Photographic films, including photographic dry plate | 1795 | Photosensitive materials |
|  | 179512 | Photographic films with lens |  |  |
|  | 179513 | Photographic paper |  |  |
|  | 179514 | Sensitized paper (for blue print and copy) |  |  |
|  | 179515 | Sensitive material for photoengraving |  |  |
|  | 179516 | Chemicals for photography, prepared and packaged |  |  |
|  | 179591 | Photosensitive materials ( piecework) |  |  |
|  | 274213 | Digital cameras | 2742 | Video recording and duplicating equipme |
|  | 315211 | 35-mm cameras | 3152 | Cameras and their parts |
|  | 315212 | Cameras except $35-\mathrm{mm}$ cameras |  |  |
|  | 315213 | Photographic machines and related |  |  |
|  | 315214 | Parts, attachments and accessories of |  |  |
|  | 315291 | Cameras and parts, attachments and accessories (piecework) |  |  |
| 8. Game Software-related Equipment \& Media Manufacturing Industries | 323112 | Household TV games | 3231 | Games and toys, except dolls and children's vehicles |
|  | 323113 | Electronic toys, using integrated circuits (IC) |  |  |
|  | 323131 | Parts and accessories of games and toys |  |  |
|  | 323191 | Games and toys (piecework) |  |  |
| 9.Advertising-related Equipment \& Media Manufacturing Industries | 329211 | Signboards, signs and display equipment, not electrical and mechanical | 3292 | Signboards and signs |
|  | 329212 | Signboards, signs and display equipment, electrical and mechanical |  |  |
|  | 329291 | Signboards, signs and display equipment ( piecework) |  |  |
| 10.Entertainment Facility-related Equipment \& Media Manufacturing Industries | 268311 | Pinball machines and slot machines | 2683 | Amusement machines manufacture |
|  | 268312 | Game machines for amusement centers |  |  |
|  | 268313 | Recreation machines for amusement parks |  |  |
|  | 268319 | Miscellaneous recreation machines |  |  |
|  | 268329 | Parts, attachments and accessories of recreation machines |  |  |
|  | 268391 | Recreation machines, and parts, attachment and accessories ( piecework) |  |  |
|  | 274211 | Video tape recording and duplicating equipment (VTR, EVR) | 2742 | Video recording and duplicating equipme |
|  | 281421 | Finished speaker systems, microphones, earphones, audio pickups, etc. | 2814 | Electric audio equipment |
|  | 281491 | Electric audio equipment, and parts, attachments and accessories (piecework) |  |  |
| 11.Author-related Equipment \& Media Manufacturing Industries | 324411 | Water paints | 3244 | Calligraphy brushes and painting materials, except pencils |
|  | 324419 | Miscellaneous painting materials |  |  |
|  | 324491 | Calligraphy brushes and painting materials ( piecework ) |  |  |

Note: Gray-shaded item sectors are those which are classified under two or more JCI-classified sectors.

# Chapter 5: A Workforce Overview of JCI-classified Core Copyright Industries 

## I. A workforce overview of JCI-classified core copyright industries

## 1. JCI-classified core copyright industry workforce

The workforce* in Japan's JCI-classified core copyright industries reached 1.909 million workers in 2007. The largest workforce was in the computer software sector, representing $52.3 \%$, followed by construction and then the publication and printing sectors.

* The term "workforce" in this white paper refers to the amount of employment. Synonymous with the "number of employees" in the Survey of Service Industries and the Manufacturing Census, it includes all workers belonging to the surveyed enterprises. Accordingly, workers on loan to other enterprises are included, while external workers assigned from other enterprises are not. As business categories vary in surveys, this white paper uses data from the survey categories with definitions closest to those of the JCI classifications.

Figure 5-1 Workforce of JCI-Classified Core Copyright Industries (fiscal 2007)
(in thousand persons)

|  | Workforce |  |  |
| ---: | :--- | ---: | ---: |
|  | No. of employees | Share |  |
| 1 | Printing and Publishing | 148 | $7.7 \%$ |
| 2 | Computer Software | 998 | $52.3 \%$ |
| 3 | Broadcasting | 45 | $2.4 \%$ |
| 4 | Transmission | 47 | $2.5 \%$ |
| 5 | Advertising | 54 | $2.8 \%$ |
| 6 | Music | 8 | $0.4 \%$ |
| 7 | Motion Picture | 48 | $2.5 \%$ |
| 8 | Photocopy | 47 | $2.4 \%$ |
| 9 | Legitimate Theater | 45 | $2.4 \%$ |
| 10 | Game Software | 17 | $0.9 \%$ |
| 11 | Entertainment <br> Facilities | 134 | $7.0 \%$ |


| 12 | Design | 46 | $2.4 \%$ |
| ---: | :--- | ---: | ---: |
| 13 | Architecture | 245 | $12.8 \%$ |
| 14 | Libraries and Museums | 25 | $1.3 \%$ |
| 15 | Authors and Artists | 2 | $0.1 \%$ |
| Total in the copyright industry |  | 1,909 | $100.0 \%$ |

## 2. Positioning of the copyright industry in the national workforce

The total workforce of 1.909 million in the core copyright industry represents $3.0 \%$ of Japan's overall workforce in fiscal 2007.
The workforce in the core copyright industry was 1.754 million in number in fiscal 1998. During the concerned period, the workers in the industry have increased at $0.9 \%$ of average annual growth. Over the same period (fiscal 1998 - 2007), Japan's overall workforce has increased at a corresponding rate of $-0.3 \%$. As a result, the proportion of the workforce in the core copyright industry rose from the level of $2.6 \%$ recorded in fiscal 1998.

Figure 5-2 Positioning of the copyright industry in the national economy


|  | (in thousand persons) |  |  |  |
| :--- | ---: | ---: | ---: | ---: |
|  | 1998 | 2002 | 2007 | Average <br> Annual <br> Growth |
| a) JCI-classified <br> Core Copyright <br> Industry | 1,754 | 1,678 | 1,909 | $0.9 \%$ |
| b) No. of workers | 66,276 | 63,592 | 64,451 | $-0.3 \%$ |
| Share in all <br> workers(a/b) | $2.6 \%$ | $2.6 \%$ | $3.0 \%$ |  |

(Source) No. of workers : the number of employees in "Annual Report on National Income" (fixed for fiscal 2007)

## 3. Positioning of JCI-classified core copyright industry as a industry

In fiscal 2007, the number of employees in Japans core copyright industry amounted to 1.909 million workers. This represents a significant number as compared to the corresponding number of workforce in other major industries such as "General Machinery" ( 1.353 million workers), "Electric Machinery" ( 1.626 million) and "Transport Equipments" including automobiles ( 1.252 million).

As for growth capability, the copyright industry grew at $0.9 \%$ of average annual growth rate over fiscal years 1998 - 2007. Although this is not as high as the corresponding rate of a key growth industry like the "Transport Equipment" industry including automobiles (at $1.5 \%$ of average annual average), it is still regarded as significant level as compared to other industries with negative growth.

Figure 5-3 Comparison with other major industries in respect of workforce

> (in thousand workers)

|  | 1998 | 2007 | Average <br> Annual <br> Growth | Workforce \% <br> in all workers |
| :--- | ---: | ---: | ---: | ---: |
| Food | 1,617 | 1,585 | $-0.2 \%$ | $2.5 \%$ |
| General | 1,399 | 1,353 | $-0.4 \%$ | $2.1 \%$ |
| Machinery | 2,031 | 1,626 | $-2.4 \%$ | $2.5 \%$ |
| Electric | 1,098 | 1,252 | $1.5 \%$ | $1.9 \%$ |
| Machinery <br> Transport <br> Equipment | 1,754 | 1,909 | $0.9 \%$ | $3.0 \%$ |
| Copyright | Industry |  |  |  |

(Note)Figures for Workforce Propo9rtion are as of fiscal 2007
(Source)"Annual Report on National Income" (fixed for fiscal 2007)

## 4. Growth factors for JCI-classified core copyright industry

A look at the growth in the core copyright industry by industrial sector reveals that most parts in the growth (210.9\%) have derived from the growth of computer software industry. In addition, the "Transmission" sector has contributed to the growth at $23.5 \%$.

Regarding the trend in share, that of the Computer Software" sector has remarkably increased from $38.3 \%$ to $52.3 \%$. On the other hand, the "Architecture" sector has declined from $18.7 \%$ to $12.8 \%$.

Figure 5-4 Trend of Workforce by JCI-Classified Industry Sector

$$
\text { (fiscal } 1998-2007 \text { ) }
$$

|  |  | (in thousand workers) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1998 |  | 2007 |  | Increase in number | Rate of contribu tion |
|  |  | Workforce | Share | Workforce | Share |  |  |
| 1 | Printing and Publishing | 176 | 10.0\% | 148 | 7.7\% | -29 | -18.4\% |
| 2 | Computer Software | 672 | 38.3\% | 998 | 52.3\% | 326 | 210.9\% |
| 3 | Broadcasting | 51 | 2.9\% | 45 | 2.4\% | -5 | -3.5\% |
| 4 | Transmission | 11 | 0.6\% | 47 | 2.5\% | 36 | 23.5\% |
| 5 | Advertising | 48 | 2.7\% | 54 | 2.8\% | 6 | 4.1\% |
| 6 | Music | 11 | 0.6\% | 8 | 0.4\% | -3 | $-2.2 \%$ |
| 7 | Motion Picture | 60 | 3.4\% | 48 | 2.5\% | -12 | -7.8\% |
| 8 | Photograph | 71 | 4.0\% | 47 | 2.4\% | -24 | -15.5\% |
| 9 | Legitimate Theater | 38 | 2.2\% | 45 | 2.4\% | 7 | 4.6\% |
| 10 | Game Software | 10 | 0.6\% | 17 | 0.9\% | 6 | 4.1\% |
| 11 | Entertainment Facilities | 193 | 11.0\% | 134 | 7.0\% | -60 | -38.7\% |
| 12 | Design | 47 | 2.7\% | 46 | 2.4\% | -1 | -1.0\% |
| 13 | Architecture | 329 | 18.7\% | 245 | 12.8\% | -84 | -54.1\% |
| 14 | Libraries and Museums | 34 | 1.9\% | 25 | 1.3\% | -9 | -5.6\% |
| 15 | Authors and Artists | 2 | 0.1\% | 2 | 0.1\% | 0 | -0.3\% |
| Total in Copyright Industry |  | 1,754 | 100.0\% | 1,909 | 100.0\% | 155 | 100.0\% |

(Note)Rate of Contribution = Increase of workers by industry sector / Increase of workers in the overall industry

## II. JCI-classified core copyright industry workforce study methodologies

## 1. Data used for estimate

As was the case with the value added, the workforce is also estimated by applying the basic statistics system. See page 20 for the list of the surveys used for the estimate.

## 2. Estimate methodologies

Differing from the value added estimate, the workforce estimate is calculated by either of the following two methods, basic statistics and supplementary statistics.

Figure 5-5 Estimation policy

| Type | Description | Estimation method |
| :---: | :---: | :---: |
| 1) Basic statistics type | There is an consistency between the copyright industry classification used in this survey and the JCI classification. | Workforce is estimated with the basic statistics. |
| 2) Supplementary statistics type | There is no consistency between the copyright industry classification used in this survey and the JCI classification. | Workforce is estimated with the basic statistics. |

## 1) Basic statistics

The basic statistical data used in this study to identify the scale of the copyright industry is from the Manufacturing Census and the Survey of Service Industries, which include the workforce estimate figures. Such figures can be used directly to calculate the workforce in this study when the JCI classifications match the JSIC classifications. The printing sector of the copyright industry in this study, for example, matches Category 1610: Printing in the Manufacturing Census and this data can be utilized as is.
2) Supplementary statistics

When the JCI classifications for this study and the JSIC classifications for the
basic statistics do not match, the workforce is estimated using supplementary statistics.

## 3. Preconditions of statistics

All estimates are calculated on a fiscal year basis.

## 4. Specific Estimation Method for Each Industrial Sector

Figure 5-6 shows the types of estimation method applied to each industrial sector.

Figure 5-6 Estimation method for each industrial sector under JCI classification

| JCI Classified Industrial Sector |  | Estimation Type |
| :---: | :---: | :---: |
| 1) Printing and Publishing | (1) Newspaper publishing | Supplementary |
|  | (2) Book and Journal Publishing | Supplementary |
|  | (3) Printing (Newspaper and Book) | Supplementary |
| 2) Computer <br> Software | (1) Software | Basic |
|  | (2) Data Processing and Information Provision | Basic |
| 3) Broadcasting | (1) Public Broadcasting (Radio and Television) | Supplementary |
|  | (2) Private Broadcasting (Radio and Television) | Supplementary |
|  | (3) Cable Broadcasting | Supplementary |
| 4) Transmission | (1) Internet Transmission | Supplementary |
|  | (2) Mobile Telephone Network Transmission | Supplementary |
| 5) Advertising | (1) Commercial art and Graphic design | Supplementary |
|  | (2) Display | Supplementary |
| 6) Music | (1) Records, CDs and Tapes | Supplementary |
|  | (2) Record and CD rental | Supplementary |
|  | (3) Music Publishing | Supplementary |
| 7) Motion Picture | (1) Movie, Home video and TV program production | Supplementary |
|  | (2) Video Rental | Basic |
| 8) Photography | (1) Photography | Basic |
| 9) Legitimate | (1) Movie Theater | Supplementary |


|  | (2) Theater | Supplementary |
| :--- | :--- | :--- |
|  | (3) Theatrical company, band and orchestra | Supplementary |
| 10) Game Software | (1) Game software | Supplementary |
| 11) Entertainment <br> Facilities | (1) Amusement Arcade | Basic |
|  | (2) Karaoke Box | (3) Theme Park |

1) Printing and Publishing Industry
(1) Newspaper publishing (Supplementary statistics type)

Statistics used in estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey of Selected Service Industries <br> (Newspaper \& Publishing industries) | $\times$ | $\times$ | $\checkmark$ | $\times$ | $\times$ |
| Total Sales of Newspaper Companies (NSK) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

Estimation of workforce
[Formula] Workforce $=$ Number of employees $\underline{A}$
A Number of employees:
[Number of employees] of Newspaper industry in the "Survey of Selected Industries"

O Compensation for statistical data
The "Survey of Selected Service Industries" is published once every five years, and the fiscal 2005 edition is the most recent. Data for fiscal 2003, 2004 and 2006 and subsequent years are estimates made by applying the change rate of the scale of newspaper industry market over the previous fiscal year, based on the data disclosed by NSK.

Figure 5-7 Market scale and the rate of change over the previous year in the newspaper industry

|  | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Market Scale <br> (100 million yen) | 23,576 | 23,797 | 24,188 | 23,323 | 22,182 |
| Rate of change(\%) | $99 \%$ | $101 \%$ | $102 \%$ | $96 \%$ | $95 \%$ |

Source: Material issued by NSK (HP of NSK)

These figures were used for a calculation of workforce in fiscal 2006, for example, by means of the formulas noted below. This was also done for other fiscal years for which data were not available.

〔Formula〕Workforce in $2006=$ Workforce in $2005 \times$ Rate of Change
(2) Book \& Journal Publishing (Supplemental statistics type)

Statistics used in estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey of Selected Service Industries | $\times$ | $\times$ | $\checkmark$ | $\times$ | $\times$ |
| Publishing index (AJPEA) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

O Estimation of Workforce
[Formula] Workforce $=$ Number of employees $\underline{A}$
A Number of employees:
[Number of employees] of Publishing industry in the "Survey of Selected Industries"

O Compensation for statistical data
The "Survey of Selected Service Industries" is published once every five years, and the fiscal 2005 edition is the most recent. Data for fiscal 2003, 2004 and 2006 and subsequent years are estimates made by applying the change rate of the scale of newspaper industry market over the previous fiscal year, based on the data in the "Publishing Index".

Figure 5-8 Market scale and the rate of change over the previous year in the newspaper industry

|  | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Market Scale <br> (100million yen) | 22,278 | 22,428 | 21,964 | 21,525 | 20,853 |
| Rate of change(\%) | $96 \%$ | $101 \%$ | $98 \%$ | $98 \%$ | $97 \%$ |

Source: Publishing Index

These figures were used for a calculation of workforce in fiscal 2006, for example, by means of the formulas noted below. This was also done for other fiscal years for which data were not available.

〔Formula〕Workforce in $2006=$ Workforce in $2005 \times$ Rate of Change
(3) Printing (Newspaper \& Book) (Supplemental statistics type)

In the "Census of Manufactures", Sector 161 (Printing Industry) includes not only the printing of newspapers, books, and magazines but also items that have no relation with copyright, such as business forms and product packages. As such, the subtotal
for newspapers, books, and magazines must be isolated. This was done by using their shares of the total sales of demanded printing products in the industry.

Statistics used in estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Census of Manufactures | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| White Paper on the Printing Industry | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

Estimation of Workforce
[Formula] Workforce $=$ Number of employees $\underline{\mathrm{A}} \times$ Ratio of newspaper and book publishing B

A Number of employees:
[ Number of employees] in Sector 161 Printing Industry in "Census of Manufacturers"

B Ratio of newspaper and book publishing:
The "White Paper on the Printing Industry" presents the value of printing products demanded by major customer of the printing industry." These data were used to estimate the share of newspaper \& publishing sector in the entire printing industry.
[Formula] Ratio of newspaper and publishing $\underline{B}=[$ Value of products (newspaper) $\underline{a}+$ Value of products (publishing) b] / Value of products(all) $\underline{c}$ a Value of products(newspaper)
[Value of printing industry products in each major customer industry] in Publishing industry in Newspaper industry in the "White Paper on the Printing Industry"
$\underline{\mathrm{b}}$ Value of products(publishing)
[Value of printing industry products in each major customer industry] in Publishing industry in the "White Paper on the Printing Industry" c Value of products(all)
[Value of printing industry products in each major customer industry] in All industry in the "White Paper on the Printing Industry"
*" Amount of printing products demanded by major customer type in the printing industry"
"Amount of printing products demanded by major customer type in the printing industry", which was taken from the "White Paper on the Printing Industry" published
each year by the Japan Association of Graphic Arts Technology, has not been disclosed since fiscal 2000. For this report, it was estimated on the assumption that the share of the total value-added in the printing and publishing industry occupied by the newspaper publishing industry has stayed the same since that year.
2) Computer Software
(1) Software (Basic statistics type)

Statistics used in estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey on Service Industries | $\times$ | $\times$ | $\times$ | $\times$ | $\times$ |
| Survey of Selected Service Industries <br> (Information Services) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\times$ | $\times$ |
| Survey of Selected Service Industries <br> (Software Services) | $\times$ | $\times$ | $\times$ | $\checkmark$ | $\checkmark$ |

Note: For Survey on Service Industries, the most recent edition available to the public is the one for fiscal 1999. Under such condition, it is appropriate to use the data in Survey of Selected Service Industries. However, review on the data raised the concerns on the reliability of such data. Therefore, we made estimation based on the data for fiscal 1999 in the former statistics and used the data of the latter for calculating year-on-year rate.

## Estimation of Workforce

[Formula] Workforce $=$ Number of employees $\underline{A}$
A Number of employees:
[Number of employees] Sector 821 Software Industry in the "Survey of Selected Industries"

O Compensation for statistical data
-Fiscal 2003-2005
The "Analysis of Corporate Financial Statement, Information Service Industry" was published once every fiscal year until fiscal 2005. Value of products in the software industry is estimated by using the change rate between 2003 and 2004 of annual sales in the software industry of the Survey of Selected Service Industries, Information Service Industry."

Figure 5-9 Annual Sales and the rate of change over the previous year in Software Industry

|  | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
| :--- | ---: | ---: | :---: | :---: | :---: | :---: | :---: |
| Annual Sales <br> (in million yen) | $6,692,500$ | $7,421,100$ | $9,471,800$ | $9,685,900$ | $8,805,141$ | $9,243,642$ | $9,273,371$ |
| Year-on-year change(\%) | $106 \%$ | $111 \%$ | $128 \%$ | $102 \%$ | $91 \%$ | $105 \%$ | $100 \%$ |

[^5]These figures were used for a calculation of workforce in fiscal 2003, for example, by means of the formulas noted below. This was also done for other fiscal years for which data were not available.
[Formula] Workforce (2003)= Workforce $(2002) \times$ Rate of change
-Fiscal 2006-2007
The "Analysis of Corporate Financial Statement, Software Industry" is published once every fiscal year since fiscal 2006. Value of products in the software industry for fiscal years 2006 and 2007 is estimated by using the rate of change of annual sales in the software industry of the Survey of Selected Service Industries, Software Industry."

Figure 5-10 Annual sales in the software industry and the rate of change over the
previous fiscal year

|  |  |  |  | 2006 | 2007 |
| :--- | ---: | ---: | :---: | :---: | :---: |
| Annual Sales (in million yen) | $10,476,004$ | $10,297,504$ |  |  |  |
| Rage of change(\%) | $113 \%{ }^{(*)}$ | $98 \%$ |  |  |  |

Source: Survey of Selected Service Industries, Software Industry
(*) As the data is unavailable for fiscal 2005 in Survey of Selected Service Industries, Software Industry, the data of fiscal 2005 in Survey of Selected Service Industries, Information Service Industry was applied to calculate the rate of change in fiscal 2006. The data for fiscal 2007 was also calculated by means of the same formulas.

These figures were used for a calculation of the workforce in fiscal 2006, for example, by means of the formulas noted below. This was also done for fiscal 2007.
[Formula] Workforce (2006)= Workforce (2005) $\times$ Rate of change
(2) Data Processing/ Providing Service (Basic statistics type)

Statistics used in estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Survey on Service Industries ${ }^{(*)}$ | $\times$ | $\times$ | $\times$ | $\times$ | $\times$ |
| Survey of Selected Service Industries (Information Service Industry) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\times$ | $\times$ |
| Survey of Selected Service Industries (Data Processing \& Providing Service Industry) | $\times$ | $\times$ | $\times$ | $\checkmark$ | $\checkmark$ |

Note: For Survey on Service Industries, the most recent edition available to the public is the one for fiscal 1999. Under such condition, it is appropriate to use the data in Survey of Selected Service Industries. However, review on the data raised the concerns on their reliability. Therefore, we made estimation based on the data for fiscal 1999 in the former statistics and used the data of the latter for calculating year-on-year rate

## - Estimation of Workforce

[Formula] Workforce $=$ Number of employees $\underline{A}$
A Number of employees:
[Number of employees] in Data Processing \& Providing Services Industry in the "Survey of Selected Industries"

- Compensation for statistical data
-Fiscal 2003-2005
The "Survey of Selected Service Industries, Information Service Industry" was conducted and published once every fiscal year until fiscal 2005. Data for fiscal 2003 and 2004 are estimated by using the rate of annual sales change over the previous year in Survey of "Selected Service Industries, Information Service Industry."

Figure 5-11 Annual Sales and the rate of change over the previous year in Data

> Processing/ Providing Service Industry

|  | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
| :--- | ---: | ---: | :---: | ---: | ---: | ---: | ---: |
| Annual Sales <br> (in million yen) | $2,112,700$ | $2,332,500$ | $3,289,000$ | $3,399,800$ | $4,108,736$ | $3,940,711$ | $4,225,541$ |
| Year-on-year <br> change(\%) | $91 \%$ | $110 \%$ | $141 \%$ | $103 \%$ | $121 \%$ | $96 \%$ | $107 \%$ |

Source: Survey of Selected Service Industries, Information Service Industry

These figures were used for a calculation of workforce in fiscal 2003, for example,
by means of the formulas noted below. This was also done for other fiscal years for which data were not available.
[Formula] Workforce (2003)= Workforce (2002) $\times$ Rate of change
-Fiscal 2006-2007
"Survey of Selected Service Industries, Data Processing \& Providing Services" is conducted and published once every fiscal year since fiscal 2006. Data for fiscal 2006 and 2007 are estimated by using the rate of annual sales change over the previous year in Survey of "Selected Service Industries, Data Processing \& Providing Services."

Figure 5-12 Annual Sales and the rate of change over the previous year in
data-processing \& providing service industry

|  | 2006 | 2007 |
| :--- | ---: | ---: |
| Annual Sales (in million yen) | $4,058,359$ | $4,199,998$ |
| Rate of change(\%) | $96 \%^{(*)}$ | $103 \%$ |

Source: Survey of Selected Service Industries, Data Processing/ Providing Service Industry
(*) As the data is unavailable for fiscal 2005 in Survey of Selected Service Industries, Data-Processing \& Providing Service Industry, the data for fiscal 2006 were calculated based on the data for fiscal 2005 in Survey of Selected Service Industries, Information Service Industry.

These figures were used for a calculation of workforce in fecal 2006, for example, by means of the formulas noted below. This was also done for fiscal 2007.
[Formula] Workforce (2006)= Workforce (2005) $\times$ Rate of change
3) Broadcasting
(1) Public Broadcasting (Supplementary statistics type)

O Statistics used in estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey on Information and Communication Industry | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | N/A* |
| Radio \& Television Year book | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

* The edition for fiscal 2007 will be published in June 2009.Estimation of Workforce
[Formula] Workforce $=$ Number of employees $\underline{A}$
A Number of employees:
[Number of employees] in Public Broadcasting Industry in the "Survey of on Information and Communication Industry"

O Compensation for statistical data
The "Survey on the Telecommunication Industry" is published every fiscal year since 1999. The edition for fiscal 2006 is the most recent. The data for fiscal years of 1998 and 2007 were estimated by applying the rate of change over the previous year in terms of operating incomes in Radio \& Television Yearbook.

Figure 5-13 Operating income of NHK and the rate of change over the previous year

|  | 1998 | 1999 |
| :--- | :---: | :---: |
| Incomes (million yen) | 633,712 | 645,042 |
| Rate of change(\%) | - | $101.8 \%$ |

Source : Radio \& Television Yearbook

These figures are used for estimation of the Value of products and the Value-added in fiscal 1998 by means of the formula noted below:

$$
\text { [Formula] Value of products }(1998)=\text { Value of products }(1999) \div \text { Rate of change }
$$

Figure 5-14 Income of NHK and the rate of change over the previous year

|  | 2006 | 2007 |
| :--- | :---: | :---: |
| Incomes (million yen) | 675,607 | 684,796 |
| Rate of change(\%) | - | $101.4 \%$ |

Source : Radio \& Television Yearbook

These figures are used for calculation of the Value of products and the Value-added in fiscal 2007 by means of the formula noted below:
[Formula] Value of products $(2007)=$ Value of products $(2006) \times$ Rate of change
(2) Private Broadcasting (Supplementary statistics type)

O Statistics used in estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Japan Commercial Broadcasting Yearbook | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

O Estimation of Workforce
[Formula] Workforce $=$ Number of employees A
A Number of employees:
[Number of employees] in the data on digital terrestrial television in the "Japan Commercial Broadcasting Yearbook"
(3) Cable Broadcasting (Supplementary statistics type)

O Statistics used in estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey on the Telecommunication Industry | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | NA $^{*}$ |
| Japan Commercial Broadcasting Yearbook | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

* The edition for fiscal 2007 will be published in June 2009.

O Estimation of Workforce
[Formula] Workforce $=$ Number of employees $\underline{\text { A }}$
A Number of employees:
[Number of employees] in Cable Broadcasting Industry in the "Survey of on Information and Communication Industry"

## O Compensation for statistical data

The "Survey on the Telecommunication Industry" is published once every fiscal year. The edition for fiscal 2006 is the most recent. The data for fiscal 2007 were estimated by applying the rate of change over the previous year, which was calculated with operating incomes in Japan Commercial Broadcasting Yearbook.

Figure 5-15 Operating income of private broadcasting companies and the rate of change over the previous year

|  | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Operating income <br> (Million yen) | $2,506,295$ | $2,598,547$ | $2,598,724$ | $2,591,069$ | $2,566,568$ |
| Rate of change(\%) | $101.4 \%$ | $103.7 \%$ | $100.0 \%$ | $99.7 \%$ | $99.1 \%$ |

Source: Japan Commercial Broadcasting Yearbook

These figures were used for a calculation of the value of products and value-added in fiscal 2007 by means of the formulas noted below.
[Formula] Value of products(2007)=Value of products $(2006) \times$ Rate of change
[Formula] Value added $(2007)=$ Value added $(2006) \times$ Rate of change
4) Transmission
(1) Internet Transmission (Supplementary statistics type)

Statistics used in estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey on the Telecommunication Industry | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | NA $^{*}$ |
| Survey of Information and Communication <br> Industry | $\times$ | $\times$ | $\times$ | $\times$ | $\times$ |

Note: The edition for fiscal 2007 will be published in June 2009.

The figures in "Survey of Information and Communication Industry" are used to make estimation for fiscal 1998-2000.

O Estimation of Workforce
[Formula] Workforce= Number of employees $\underline{A}+$ Internet transmission rate $\underline{B}$
A Number of employees
[Number of employees] in the Internet-incidental Services in the "Survey on the Telecommunications Industry"

B Internet transmission rate
[Formula] Internet transmission rate $=$ Number of employees in ASP and Portal Sites $\underline{a} \div$ Number of employees in Internet-incidental Services $\underline{b}$ a Number of employees in ASP and Portal Sites :
[Number of employees] in ASP and Portal Sites in the "Survey on the Telecommunications Industry"
b Number of employees in Internet-incidental Services:
[Number of employees] in Internet-incidental Services in the "Survey on the Telecommunications Industry"

O Compensation for statistical data
The "Survey on the Telecommunications Industry" was implemented since fiscal 2001, and no data are available for fiscal 2000 and preceding years. For fiscal 2000 and preceding years, estimates were made using the rate of change relative to the previous year in the scale of the market of the entire telecommunications industry in the "Survey of Information and Communication Industry", the predecessor of the "Survey on the Telecommunications Industry".

Figure 5-16 The Sales of Overall Telecommunication Industry and the rate of change
relative to the previous year

|  | 1998 | 1999 | 2000 |
| :--- | :---: | :---: | :---: |
| Sales (100 million yen) | 180,947 | 197,106 | 211,790 |
| Rate of change(\%) | $103.9 \%$ | $108.9 \%$ | $107.4 \%$ |

Source: Survey of Information and Communication Industry

These figures were used for calculation of workforce in fiscal 2000, for example, by means of the formulas noted below. This was also done for other fiscal years for which data were not available.
[Formula] Number of employees (2000) = Number of employees (2001) / Rate of change

The data for fiscal 2001 and subsequent years are estimated by applying the rate of change in the overall market scale relating to the previous year, which is available in Survey on the Telecommunication Industry..

Figure 5-17 The Sales of Overall Telecommunication Industry and the rate of change relative to the previous year

|  | 2001 |  | 2002 | 2003 | 2004 | 2005 |
| :--- | ---: | ---: | ---: | :---: | :---: | :---: |
| Sales <br> (100 million yen) | 226,453 | 196,417 | 196,386 | 180,888 | 180,988 | 187,018 |
| Rate of change(\%) | $106.9 \%$ | $86.7 \%$ | $100.0 \%$ | $92.1 \%$ | $100.1 \%$ | $103.3 \%$ |

Source: Survey of Information and Communication Industry

These figures were used for calculation of workforce in fiscal 2006, for example, by means of the formulas noted below. This was also done for other fiscal years for which data were not available.
[Formula] Value of products (2006) = Value of products (2005) / Rate of change
(2) Mobile Telephone Network Transmission (Supplementary statistics type)

Statistics used and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Financial Statement Report of Mobile <br> Telephone Network Transmission Industry | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

O Estimation of Workforce
[Formula] Workforce= Number of employees $\underline{A}$
A Number of employees:
$\Sigma$ \{[Number of employees] in the "Financial Statement Report" in Mobile Telephone Network Transmission Industry\}

## 5) Advertising

(1) Commercial art and Graphic design [Supplementary statistics type]

Statistics used in the estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey on Service industries | $\times$ | $\checkmark$ | $\times$ | $\times$ | $\times$ |
| Survey of Selected Service Industries <br> (Advertising agency) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Financial statement report of advertising <br> Agencies | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\times$ | $\times$ |

Estimation of workforce
There are no statistical data for the value of products in the advertising production industry. It was consequently estimated by extracting the portion of advertising production expenses from the value of products in the advertising agency industry. The rate of advertising production cost in the advertising agency industry was estimated from the cost structure of advertising agency business.

Figure 5-18 Relationship between Cost and Sales of Advertising agency

(*) This is equivalent to incomes of advertising production industry
[Formula] Number of employees $=$ Number of employees in advertising agencies industry $\underline{\mathrm{A}} \times$ advertising production cost rate $\underline{B}$
A Number of employees in advertising agencies industry
[Number of employees] in Sector 891(advertising agencies) in the "Survey on Service industries"
B advertising production cost rate
Advertising production cost rate was estimated with of a weighted average of advertising production cost rate in each financial statement report.
[Formula] Advertising production cost rate $=$ Sum of Advertising production cost a / Sum of Sales $\underline{b}$
a Sum of Advertising production cost
$\Sigma$ [Advertising production cost] in the "Financial Statement (Advertising agency companies)"
b Sum of Sales
$\Sigma$ [Sales] in the "Financial Statement (Advertising agency companies)"
*This Value-added rate was calculated on a basis of financial statement reports released by enterprises making continuous disclosure of income statements.

O Compensation for statistical data
The "Survey on Service Industries" is published once every five years, and the fiscal 2004 edition was the most recent. Data for fiscal 2003 and the fiscal years after 2005 are estimates made by application of the rate of change in the yearly sales in the section on the advertising industry in the "Survey of Selected Service Industries".

Figure 5-19 Number of regular employees in advertising industry and the rate of change over the previous year

|  | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: |
| No. of regular <br> employees | 34,607 | 35,376 | 38,098 | 40,183 | 41,192 |
| Rate of change(\%) | $96 \%$ | $102 \%$ | $108 \%$ | $105 \%$ | $103 \%$ |

Source: "Survey of Selected Service Industries (Advertising)"

These figures were used for a calculation of workforce in fiscal 2005, for example, by means of the formulas noted below. This was also done for other fiscal years for which data were not available.
[Formula] No. of Workforce (2005) = No. of Workforce (2004) $\times$ Rate of change
(2) Display [Supplementary statistics type ]

Statistics used in the estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey of Selected Service Industries | $\checkmark$ | $\times$ | $\times$ | $\times$ | $\times$ |

Estimation of number of workforce
[Formula] Number of workforce $=$ Number of employees a
A Number of employees:
[Number of employees] in the "Survey of Selected Service Industries, Display Industry"

O Compensation for statistical data
The "Survey of Selected Service Industries(Display)" is published once every three years. The reports for fiscal 1997, 2000 and 2003 are the most recent. Data for fiscal 2004 and subsequent years were estimated by means of linear compensation based on the figures for fiscal years of 2000 and 2003.

Figure 5-20 Annual Sales and the rate of change over the previous year in the display industry

|  | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| No. of employees | 10,849 | $(11,093)$ | $(11,342)$ | $(11,597)$ | $(11,858)$ |
| Rate of change(\%) | $102.2 \%$ | $102.2 \%$ | $102.2 \%$ | $102.2 \%$ | $102.2 \%$ |

Source: Survey of Selected Service Industries, Display Industry

These figures were used for a calculation of workforce in fiscal 2005, for example, by means of the formulas noted below. This was also done for other fiscal years for which data were not available.
[Formula] Workforce (2005) = Workforce $(2004) \times$ Rate of change
6) Music
(1) Records, CDs and Tapes [Supplementary statistics type]

Statistics used in the estimation and data available years

| Statistics |  | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| RIAJ Year Book | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |
| Financial statement <br> companies | report of record | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

Estimation of number of workforce
[Formula] Number of workforce $=$ Number of employees $\underline{\text { A }} \times$ Proportion of Record Production/ Manufacturing Industry B
A Number of employees:
[Number of employees] in Sector 3296 Information Recordings Manufacturing Industry (excluding printed materials including newspaper, books) in the "Census of Manufacturer".
B Proportion of Record Production/ Manufacturing Industry :
[Formula] Proportion of Record Production/ Manufacturing Industry
$=$ Value-added of Record Production/ Manufacturing Industry a $\div$ (Value-added of Record Production/ Manufacturing Industry a +
Value-added of Movie/ Home video production \& distribution services $\underline{b}+$ Value-added in Game Software Industry c)
a Value-added of Record Production/ Manufacturing Industry :
[Value-added] in Record Production/ Manufacturing Industry in this survey
$\underline{b} V$ Value-added of Movie/ Home Video Production \& Distribution :
[Value-added] of Movie/ Home Video Production \& Distribution Industry in this survey
c Value-added of Game Software Industry :
[Value-added] in Game Software Industry in this survey
(2) Record and CD rental [Supplementary statistics type]

In the "Survey on Service Industries", the record and video rental industries are in the same sector (Sector 88A, Audio and visual recordings rental). For this reason, the value of products was estimated by adding up average sales at rental record stores
instead of employing data from the "Survey on Service Industries".

Statistics used in the estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey on Service Industries | $\times$ | $\checkmark$ | $\times$ | $\times$ | $\times$ |
| Estimation of Value-added in this survey | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

Estimation of number of workforce
[Formula] Number of workforce $=$ Number of employees $\underline{\mathrm{A}} \times$ Proportion of Record and CD rental B
A Number of employees:
[Number of employees] in Sector 88A Audio and visual recordings rental in the "Survey on Service Industries".
B Proportion of Record and CD rental :
[Formula] Proportion of Record and CD rental $=$ Value-added of Record and CD rental $\underline{a} \div$ (Value-added of Record and CD rental $\underline{\mathbf{a}}+$ Value-added of Video rental $\underline{\mathbf{b}}$ ) a Value-added of Record and CD rental :
[Value-added] in Record and CD rental in this survey
bValue-added of Video rental :
[Value-added] of Video rental in this survey
(3) Music Publishing [Supplementary statistics type]

As the appropriate statistics was not available for estimating workforce in the music publishing industry, number of workforce was estimated with number of workforce in other industries having strong business ties with the music publishing industry. Accordingly, in this survey, number of workforce was estimated by employing number of workforce in the record production/ manufacturing industry and the proportion of value-added estimated in this survey.

Statistics used in the estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Number of workforce in this survey | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Value-added estimated in this survey | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

Ostimation of workforce
[Formula] Number of workforce $=$ Number of workforce in the Record and CD Rental Industry $\underline{\mathrm{A}} \times$ Proportion of Music Publishing Industry $\underline{B}$
A Number of workforce in the record \& CD rental industry :
[Number of workforce] in the record \& CD rental industry in this survey
B Proportion of Music Publishing Industry :
[Formula] Proportion of Music Publishing Industry $=$
Value-added in Music Publishing Industry a -
Value-added in Record \& CD Rental Industry b
a Value-added in Music Publishing Industry :
[Value-added] in Music Publishing Industry in this survey
b Value-added in Record \& CD Rental Industry :
[Value-added] in Record \& CD Rental Industry in this survey

## 7) Motion Picture

(1) Movie, Home video and TV program production (Supplementary statistics type)

O Statistics used in estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey on Service Industries (Movie, Home <br> video, TV program production industry) | $\times$ | $\checkmark$ | $\times$ | $\times$ | $\checkmark$ |

- Estimation of Number of workforce
[Formula] Number of workforce $=$ Number of employees $\underline{A}$
- A Number of employees
[Number of employees] in the sectors of motion picture, video production services and motion, picture, video distribution services in the "Survey on Selected Service Industries, Visual Information Production/ Distribution Services"

O Compensation for statistical data
"Survey of Selected Service Industries, Visual Information Production/ Distribution Services" is conducted and published every three years. The recent years in which the surveys were conducted were fiscal years of 1998, 2001, 2004 and 2007. For unavailable data, the figures in the surveys are used to make estimation by means of linear compensation.

Figure 5-21 Number of employees in Visual Information Production/ Distribution
Services and the rate of change over the previous year

|  | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: |
| No. of employees | 6,253 | 5,908 | 6,669 | 7,528 | 8,498 |
| Rate of Change (\%) | $94.5 \%$ | $94.5 \%$ | $112.9 \%$ | $112.9 \%$ | $112.9 \%$ |

Source: Survey of Selected Service Industries, Visual Information Production/ Distribution Service Industry

These figures were used for a calculation of the value of products and value-added in fiscal 2005, for example, by means of the formulas noted below. This was also done for other fiscal years for which data were not available.
[Formula] Number of workforce (2005) = No. of employees (2004) $\times$ Rate of change
(2) Video rental (Combined type)

In the "Survey on Service Industries", the record and video rental industries are in the same Sector 88A (audio and visual recordings rental). The value of products in the video rental industry was therefore estimated by subtracting the value of products in the record rental industry from the total in Sector 88A.

Statistics used in the estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey on Service industries | $\times$ | $\checkmark$ | $\times$ | $\times$ | $\times$ |
| Number of workforce estimated in this survey | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

Estimation of number of workforce
[Formula] Number of workforce $=$ Number of workforce (record and CD rental + Video rental) $\underline{A}$ - Number of workforce (record and CD rental) B

- A Number of workforce (record and CD rental + Video rental)
[Number of employees] in Sector 88A(audio and visual recordings rental) in the "Survey on Service industries"
- B Number of workforce (record and CD rental)
[Number of employees] of record rectal industry in this survey $\rightarrow 6$ ) (2)

8) Photography
(1) Photograph business (Basic statistics type)

Although the photography industry consisted of only one sector, that is, Sector 743 Photograph Business in the Survey on Service Industries for fiscal 1999, this industry was divided into two sub-categories, that is, Sector 808 Photograph Business and Sector 83D Photo Developing/ Projecting Business since the 2004 Survey edition in accordance with implementation of business service segregation. As the figures in the former survey demonstrate the aggregations of two current sectors of "Photograph Business" and "Photograph Developing/ Projecting Business", there is the need to isolate the data on "Photograph Business."

Statistics used in the estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey on Service industries | $\times$ | $\checkmark$ | $\times$ | $\times$ | $\checkmark$ |

Estimation of number of workforce
Figure 5-22 Industrial structure of Photography Industry


- Fiscal 1999
[Formula] Number of workforce $=$ Number of employees $\underline{\text { A }} \times$ Proportion of Photograph Business Industry B
A Number of employees:
[No. of employees] of Sector 743 Photograph Business in the "Survey on

> Service Industries"
> B Proportion of Photograph Business Industry:
> [Formula] Proportion of Photograph Business Industry= Value of products in "Photograph Business" $\underline{\mathrm{a}}$ / ( $\underline{\mathrm{a}}+$ Value of products in Photo Developing/ Projecting Business $\underline{b}$ )
> $\underline{\mathrm{a}}$ Incomes of Sector 808 Photograph Business in the Survey on Service Industries (fiscal 2004)
> $\underline{\mathrm{b}}$ Income of Sector 83D Photograph Developing/Projecting Business in the Survey on Service Industries (fiscal 2004)

- Fiscal 2004
[Formula] Number of workforce $=$ Number of employees $\underline{A}$
A: Number of employees
[Number of employees] of Sector 808 Photograph Business Service in the "Survey on Service Industries"

O Compensation for statistical data
The "Survey on Service Industries" is conducted once every five years. The most recent edition was fiscal 2004. For the year in which the survey is not conducted, the figures are calculated by means of linear compensation.

Figure 5-23 Number of employees and the rate of change over the previous year
in the photography industry

|  | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: |
| No. of employees | $(56,027)$ | 53,505 | $(51,097)$ | $(48,797)$ | $(46,601)$ |
| Rate of change(\%) | $95.5 \%$ | $95.5 \%$ | $95.5 \%$ | $95.5 \%$ | $95.5 \%$ |

Source: "Survey on Service Industries"

These figures were used for a calculation of number of workforce in fiscal 2005, for example, by means of the formulas noted below. This was also done for other fiscal years for which data were not available.
[Formula] Number of workforce (2005) = Number of workforce (2004) $\times$ Rate of change
9) Legitimate Theater (Combined type)
(1) Movie Theater [Supplementary statistics type]

In the "Survey on Service Industries", Sector 841 (motion picture theater) includes not only income from admission but also income from sales of goods, etc. The subtotal for admission income therefore must be extracted (by proportional distribution).

Statistics used in the estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey on Service industries | $\times$ | $\checkmark$ | $\times$ | $\times$ | $\times$ |
| Survey of Selected Service Industries <br> (Movie theater) | $\times$ | $\checkmark$ | $\times$ | $\times$ | $\times$ |

O Estimation of Number of Workforce
[Formula]
Number of workforce $=$ Total number of employees in movie theater $\underline{\mathrm{A}} \times$ admission income rate $\underline{B}$

A Total number of employees in movie theater
[Number of employees] in Sector 841(motion picture theaters) in the "Survey on Service industries"
B Admission income rate
The section on cinema theaters in the "Survey of Selected Service Industries (movie theater)" presents data for theatre income organized by item. These data were used to estimate the share of the total occupied by admission income and to calculate the amount of this income.
[Formula] admission income rate $=$ admission income $\underline{\mathrm{a}} /$ Total revenues $\underline{\mathrm{b}}$
a Admission income
[Admission income] in the "Survey of Selected Service Industries (movie theater)"
b Total income
[Total income] in the "Survey of Selected Service Industries (movie theater)"

O Compensation for statistical data
The "Survey on Service Industries" is published once every five years, and the
fiscal 2004 edition was the most recent. Data for fiscal 2003 and the fiscal years after 2005 are estimates made by application of the rate of change between 1999 and 2004 in the movie theater admission revenue in the section on movie theaters in the "Survey on Service Industries".

Figure 5-24 Number of employees in movie theaters and the rate of increase relative
to the previous year

|  | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | ---: | :---: | :---: |
| No. of employees | $(14,832)$ | 15,184 | $(15,544)$ | $(15,913)$ | $(16,290)$ |
| Rate of change(\%) | $102.4 \%$ | $102.4 \%$ | $102.4 \%$ | $102.4 \%$ | $102.4 \%$ |

Source: "Survey on Service Industries (Movie theater)"
(Ministry of Economy, Trade and Industry)
These figures were used for a calculation of number of workforce in fiscal 2005, for example, by means of the formulas noted below. This was also done for other fiscal years for which data were not available.
[Formula] Number of workforce (2005) = Number of workforce $(2004) \times$ Rate of change
(2) Theater [Supplementary statistics type]

Statistics used in the estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey of Selected Service Industries <br> (Legitimate theater) | $\times$ | $\checkmark$ | $\times$ | $\times$ | $\times$ |

$\bigcirc$ Estimation of number of workforce
[Formula] Number of workforce $=$ Number of employees $\underline{A}$
A Number of employees:
\{Number of employees\} in the "Survey of Selected Service Industries, Theater"Compensation for statistical data
"Survey of Selected Service Industries, Legitimate theater" is conducted and published every three years. Fiscal 2004 was he most recent year in which the survey was conducted. The data for fiscal 2003 and the fiscal years after 2005 are estimates made by using the change rate between 2001 and 2004 in terms of the movie theater admission revenue, which are available in the "Survey of Selected Service Industries, Legitimate Theater."

Figure 5-25 Number of employees in Theater Industry and the rate of change over the previous year

|  | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | ---: | :---: | :---: | :---: |
| No. of employees | $(10,103)$ | 10,524 | $(10,962)$ | $(11,418)$ | $(11,894)$ |
| Rate of change(\%) | $104.2 \%$ | $104.2 \%$ | $104.2 \%$ | $104.2 \%$ | $104.2 \%$ |

Source: "Survey of Selected Service Industries, Legitimate Theater"

These figures were used for a calculation of number of employees in fiscal 2005, for example, by means of the formulas noted below. This was also done for other fiscal years for which data were not available.
[Formula] Number of workforce (2005)= Number of workforce (2004) $\times$ Rate of change
(3) Theatrical company, band and orchestra (Supplementary statistics type)

In the "Survey on Service Industries", Sector 763, Theatrical companies (which was the classification as of fiscal 1999. In fiscal 2004, and this sector was integrated into the sector of Performance Facilities and Performance Companies) includes data for groups entertaining through sports, etc., athletic as well as theatrical and musical companies. Data for theatrical company and band \& orchestra are estimates made by using the share of "Theaters" in "Theaters and Performance Facilities."

Statistics used in estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey on Service Industries | $\times$ | $\checkmark$ | $\times$ | $\times$ | $\times$ |
| Number of workforce estimated in this survey | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

## Estimation of Number of Workforce

Figure 5-26 Industrial Structure Surrounding "Theatrical Companies and Band \& Orchestra"

[Formula] Number of workforce $=$ Number of employees in all Theatrical Companies, Bands \& Orchestras, and Performance Companies $\underline{A} \times$ Performance Company rate $\underline{\mathrm{B}} \times$ Theatrical Company, and Band \& Orchestra rate $\underline{\mathrm{C}}$
A Number of employees in Theatrical Companies, Band \& Orchestra, and Performance Companies:

「No. of employees」 of Sector 763, Theatrical Companies in the [Survey on Service Industries]

B Performance Company rate :
[Formula] Performance Company rate $=$ Number of employees in "Performance Companies" $\underline{a} \div(\underline{a}+$ No. of employees in "Performance Theatres \& Performance Facilities (excluded those indicated separately)" ${ }^{\text {b }}$ )
a No. of employees in "Performance Companies" :
[No. of employees] in "Theatrical Companies" in the "Survey on Service Industries"
$\underline{\mathrm{b}}$ No. of employees in "Performance Theaters \& Performance Facilities (excluding those indicated separately):
[No. of employees] in "Performance Theaters \& Performance Facilities (excluding those indicated separately)" in the "Survey on Service Industries"
C Theatrical Company \& Orchestra rate :
[Formula] Theatrical Company, and Band \& Orchestra rate $=$ Number of workforce in Performing theaters $\underline{a} \div$ Number of employees in Performing theaters \& Performance facilities $\underline{b}$
a Number of workforce in Performing theaters :
[Number of workforce] in this "Survey"
$\underline{b}$ Number of employees in Performing theaters \& Performance facilities :
[No. of employees] in Sector 762 Theatrical Companies in the "Survey on Service Industries"
10) Game Software (Commercial \& Home use)
(1) Game Software [Supplementary statistics type]

Statistics used in the estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Financial Statement Report in Game <br> Software Industry | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Value of products estimated in this survey | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Value-added estimated in this survey | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

Estimation of Number of Workforce
[Formula] Number of workforce $=$ Sum of employees in top seven game software companies $\div$ Share of top seven game software companies $\underline{B}$
$\underline{\text { A }}$ Sum of employees in top seven game software companies :
$\Sigma$ \{[Number of employees] of top seven game software companies\}
B Share of top seven game software companies :
[Formula] Sales share of top seven game software companies
$=$ Sum of sales of top seven game software companies $\underline{\mathbf{a}}$
$\div$ Market scale of game software industry $\underline{b}$
a Sum of sales of top seven game software companies :
$\Sigma$ \{[Sales] of top seven game software companies \}
$\underline{b} M a r k e t ~ s c a l e ~ o f ~ g a m e ~ s o f t w a r e ~ i n d u s t r y ~: ~$
[Value of products] of Game Software Industry in this Survey
11) Entertainment Facilities
(1) Amusement Arcade (Basic statistics type)

Statistics used in estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey on Service Industries | $\times$ | $\checkmark$ | $\times$ | $\times$ | $\times$ |
| Value-added estimated in this survey | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |Estimation of number of workforce

[Formula] Number of workforce $=$ Number of employees $\underline{A}$
A: Number of employees
[Number of employees] of Sector 84K Amusement Arcade Industry in the "Survey on Service Industries"

Compensation of for statistics data
The "Survey on Service Industries" is published once every five years, and the latest edition is for fiscal 2004. The survey on Section 84K, Amusement Arcade Industry was implemented since fiscal 2004. As such, the data for fiscal 2003 and after 2005 were estimated by using the growth rate of sales on operation in the Survey on Amusement Arcade Industry."

Figure 5-27 Value-added in the amusement arcade industry and the rate of increase
from the previous year

|  | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | ---: | ---: | ---: | :--- | :--- |
| Value-added <br> (in million yen) | 117,179 | 116,078 | 118,652 | 118,718 | 111,172 |
| Rate of change(\%) | $102.6 \%$ | $99.1 \%$ | $102.2 \%$ | $100.1 \%$ | $93.6 \%$ |

Source: this survey

These figures were used for a calculation of number of workforce in fiscal 2005, for example, by means of the formulas noted below. This was also done for other fiscal years for which data were not available.

〔Formula〕Number of workforce (2005) = Number of workforce (2004) $\times$ Rate of change
(2) Karaoke Box (Basic type)

Statistics used in estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey on Service Industries | $\times$ | $\checkmark$ | $\times$ | $\times$ | $\times$ |
| Value-added estimated in this survey | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

Estimation of number of workforce
[Formula] Number of workforce $=$ Number of employees $\underline{A}$
A: Number of employees
[Number of employees] of Sector 84M Karaoke Box Industry in the "Survey on Service Industries"
$\bigcirc$ Compensation of for statistics data
The "Survey on Service Industries" is published once every five years, and the latest edition is for fiscal 2004. The survey on Section 84M Karaoke Box Industry was implemented since fiscal 2004. As such, the data for fiscal 2003 and after 2005 were estimated by using the growth rate of sales on operation in the Survey on Karaoke Box Industry."

Figure 5-28 Value-added in the amusement arcade industry and the rate of increase
from the previous year

|  | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | ---: | :---: | :---: | :---: | :---: |
| Value-added <br> (in million yen) | 79,032 | 73,398 | 73,191 | 73,690 | 70,005 |
| Rate of change(\%) | $88.2 \%$ | $92.9 \%$ | $99.7 \%$ | $100.7 \%$ | $95.0 \%$ |

Source: this survey

These figures were used for a calculation of number of workforce in fiscal 2005, for example, by means of the formulas noted below. This was also done for other fiscal years for which data were not available.

〔Formula〕Number of workforce (2005) = Number of workforce (2004) $\times$ Rate of change
(3) Theme Park [Supplementary statistics type]

Statistics used in the estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey of Selected Service Industries <br> (Amusement / Theme park) | $\times$ | $\checkmark$ | $\times$ | $\times$ | $\times$ |

$\bigcirc$ Estimation of number of workforce
[Formula] Number of workforce $=$ Number of employees $\underline{A}$
A: Number of employees
[Number of employees] in Theme Park Sector in the "Survey on Service Industries"

## Compensation for statistical data

The section on amusement and theme parks in the "Survey on Service Industries" is published once every three years, the last two being the fiscal 2001 and 2004 editions. Data for years in which the research was not undertaken were obtained by linear supplementation.

Disclosure of data on the amusement and theme park section in the "Survey of Vital Statistics of Selected Service Industries" began to be published since fiscal 2000. In contrast to the "Survey of Selected Service Industries", which covers all establishments, it covers only the companies ranking at the top ranking in terms of sales and data are disclosed on a monthly basis. It therefore compensates for the gaps left by the former. Data for fiscal 2005 were estimated using the rate of increase relative to the previous year from it.

Figure 5-29 No. of employees in Theme Park Industry and the rate of change over the

|  | previous year |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| No. of employees | $(34,058)$ | 2004 | 2005 | 2006 | 2007 |
| Rate of change(\%) | $96.8 \%$ | $96.8 \%$ | $(30,560)$ | $(29,777)$ | $(29,285)$ |

Source: "Survey of Selected Service Industries (Amusement / Theme park)" (Ministry of Economy, Trade and Industry)
"Survey of Vital Statistics of Selected Service Industries (Amusement / Theme park)" (Ministry of Economy, Trade and Industry)

These figures were used for a calculation of number of workforce in fiscal 2005, for example, by means of the formulas noted below. This was also done for other fiscal
years for which data were not available.
[Formula] Number of workforce (2005) = Number of workforce (2004) $\times$ Growth rate to previous year
12) Design
(1) Design [Basic statistics type]

Statistics used in the estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey on Service industries | $\times$ | $\checkmark$ | $\times$ | $\times$ | $\times$ |
| Statistics from Analysis of Corporate <br> Financial Statements | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

$\bigcirc$ Estimation of number of workforce
[Formula] Number of workforce $=$ Number of employees $\underline{A}$
A: Number of employees
[Number of employees] in Sector 80H Design in the "Survey on Service Industries"

Compensation for statistical data
The "Survey of Selected Service Industries (Designing)" is published once every five years. The most recent edition was fiscal 2004. Data for years in which the survey was not implemented were estimated by linear compensation.

Figure 5-30 Number of employees in Design Industry and the rate of change relative to
the previous year

|  | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: |
| No. of employees | $(46,508)$ | 46,342 | $(46,177)$ | $(46,012)$ | $(45,848)$ |
| Rate of change $(\%)$ | $99.6 \%$ | $99.6 \%$ | $99.6 \%$ | $99.6 \%$ | $99.6 \%$ |

Source: "Survey of Selected Service Industries (Designing)"

These figures were used to estimate number of workforce in fiscal 2005, for example, by means of the formulas noted below. This was also done for other fiscal years for which data were not available.
[Formula] Number of workforce (2005)= Number of workforce (2004) $\times$ Rate of change
13) Architecture
(1) Architectural Design [Basic statistics type]

Statistics used in the estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey on Service industries | $\times$ | $\checkmark$ | $\times$ | $\times$ | $\times$ |
| Estimated Value-added in this survey | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |Estimation of number of workforce

[Formula] Number of workforce $=$ Number of employees $\underline{A}$
A: Number of employees
[Number of employees] in Sector 80E Architecture Design Industry in the "Survey on Service Industries"

O Compensation for statistical data
The "Survey of Selected Service Industries" is published once every five years. The most recent edition was fiscal 2004. Data for years in which a survey was not implemented were compensated with the increase rate of Value-added in Architecture Design Industry, obtained in this survey.

Figure 5-31 Value-added in Architecture Design Industry and the rate of change
relative to the previous year

|  | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | ---: | ---: | :---: | :---: | :---: |
| Value-added <br> (million yen) | 415,269 | 418,033 | 420,439 | 412,956 | 405,614 |
| Rate of change(\%) | $90.6 \%$ | $100.7 \%$ | $100.6 \%$ | $98.2 \%$ | $98.2 \%$ |

Source : this survey

These figures were used to estimate number of workforce in fiscal 2005, for example, by means of the formulas noted below. This was also done for other fiscal years for which data were not available.
[Formula] Number of workforce (2005)= Number of workforce (2004) $\times$ Rate of change
14) Libraries and Museums
(1) Libraries

Statistics used in the estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Statistics on Libraries in Japan | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

Estimation of Number of Workforce
[Formula] Number of workforce $=$ Number of workforce in public libraries $\underline{\text { A }}+$ Number of workforce in universities and colleges B
A Number of workforce in public libraries
[Formula] Number of workforce (Public libraries) = No. of full-time staff a + No. of concurrently-serving staff $\underline{b}$
a Number of full-time staff
[No. of full-time staff] of public libraries in the "Statistics on Libraries in Japan"
b Number of concurrently-serving staff
[No. of concurrently-serving staff] of public libraries in the "Statistics on Libraries in Japan"
B Number of workforce in university/ college libraries
[Formula] Number of workforce in university/ college libraries
$=$ Number of full-time staff $\underline{a}+$ Number of concurrently-serving staff $\underline{b}$ a Number of full-time staff
[No. of full-time staff] in university/ college libraries in the "Statistics on Libraries in Japan"
$\underline{b}$ Number of concurrently-serving staff
[No. of concurrently-serving staff] university/ college libraries in the "Statistics on Libraries in Japan"
(2) Art Museums [Supplementary statistics type]

O Statistics used in the estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Museum General Research Report | $\times$ | $\checkmark$ | $\times$ | $\times$ | $\times$ |
| Value-added obtained in this survey | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

## Ostimation of Number of Workforce

The "Museum General Research Report" exhibits the results of a questionnaire survey on incomes, targeted at art museums throughout the country. The Value of products was estimated by using the data in such report.
[Formula] Number of workforce $=$ Average of staff number $\underline{A} \times$ Number of museums $\underline{B}$
A Average of staff number :
[Average of staff number] of all museums in the "Museum General Research Report"
B Number of art museum :
[Formula] Number of art museums $=$ Number of all museums $\underline{\mathbf{a}} \div$ Percentage by type $\underline{b}$
a Number of all museums
[Number of all museums] in the "Museum White Paper"
b Percentage by type
[Percentage by type] of art museum in the "Museum White Paper"

O Compensation for statistical data
The surveys are not conducted on a regular basis to issue the "Museum White Paper". The most recent edition was for fiscal 2004. Data for those years, in which the survey was not conducted, were calculated with the increase rate of Value-added in the Art Museum Industry in this Survey.

Figure 5-32 Value-added in the Art Museum Industry and the rate of change relative to the previous year

|  | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Value-added <br> (million yen) | 21,520 | 19,275 | 17,263 | 15,462 | 13,848 |
| Rate of change(\%) | $89.6 \%$ | $89.6 \%$ | $89.6 \%$ | $89.6 \%$ | $89.6 \%$ |

Source : this survey

These figures were used to estimate number of workforce in fiscal 2005, for example, by means of the formulas noted below. This was also done for other fiscal years for which data were not available.
[Formula] Number of workforce (2005)= Number of workforce (2004) $\times$ Rate of change
15) Authors and Artists
(1) Authors and Artists, Musician [Basic statistics type]

Statistics used in the estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Survey on Service industries | $\times$ | $\checkmark$ | $\times$ | $\times$ | $\times$ |

Estimation of Number of Workforce
[Formula] Number of Workforce $=$ Number of employees $\underline{\text { A }}$

- A Number of employees
[No. of employees] in Sector 807(authors and artists) in the "Survey on Service industries"


## Compensation for statistical data

Editions of the "Survey on Service Industries" are published every five years. The latest one is the fiscal 2004 edition. As appropriate statistics on the "Author \& Artist Industry" is not available for fiscal 2003 and fiscal years after 2005, data on these years were estimated by using the increase rate in Sector 807 Author \& Artist Industry in the editions for fiscal years of 1999 - 2004 of the Survey on Service Industries."

Figure 5-33 Number of employees in Sector Author \& Artist and the rate of change relative
to the previous year

|  | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: |
| No. of employees | $(1,819)$ | 1,766 | $(1,714)$ | $(1,664)$ | $(1,616)$ |
| Rate of change(\%) | $97.1 \%$ | $97.1 \%$ | $97.1 \%$ | $97.1 \%$ | $97.1 \%$ |

Source: "Survey on Service Industries"

These figures were used for a calculation of number of workforce in fiscal 2005, for example, by means of the formulas noted below. This was also done for other fiscal years for which data were not available.
[Formula] Number of workforce (2005) $=$ Number of workforce (2004) $\times$ Rate of change

## Chapter 6: Overview on Workforce in JCI-classified Inter-dependent Copyright Industries

## I . Overview on workforce in JCI-classified inter-dependent copyright industries

## 1. Workforce scale of JCI-classified inter-dependent copyright industries

In fiscal 2007, the workforce in Japan's JCI-classified inter-dependent copyright industries reached 267,000 workers. By JCI-classified industry sector, the largest workforce was in the "Transmission-related Equipment \& Media-Manufacturing Industry" with $17.9 \%$ of share, followed in order by the "Computer Software-related Equipment \& Media Manufacturing Industry" and the "Music-related Equipment \& Media Manufacturing Industry."

Figure 6-1 Workforce Scale in JCI-classified Inter-dependent Copyright Industry
(Fiscal 2007) (in thousand workers)

|  |  | Workforce Scale |  |
| :---: | :---: | :---: | :---: |
|  |  | No. of workforce | Proportion |
| 1 |  <br> Media Manufacturing Industries | 26 | 9.8\% |
| 2 | Computer  Software-related  <br> Equipment $\&$ Media Manufacturing <br> Industries    | 44 | 16.6\% |
| 3 |  <br> Media Manufacturing Industries | 14 | 5.2\% |
| 4 |  <br> Media Manufacturing Industries | 48 | 17.9\% |
| 5 | Music-related Equipment \& Media Manufacturing Industries | 39 | 14.5\% |
| 6 |  <br> Media Manufacturing Industries | 17 | 6.3\% |
| 7 |  <br> Media Manufacturing Industries | 37 | 13.7\% |
| 8 | Game Software-related Equipment \& Media Manufacturing Industries | 3 | 1.3\% |


| 9 | Advertising-related \& Media <br> Manufacturing Industries | 18 | $6.9 \%$ |
| :---: | :--- | ---: | ---: |
| 10 |  <br> Media Manufacturing Industries | 19 | $7.2 \%$ |
| 11 | Author-related Equipment \& Media <br> Manufacturing Industry | 2 | $0.7 \%$ |
| Total in JCI-classified inter-dependent <br> copyright industries | 267 | $100.0 \%$ |  |

## 2. Positioning of JCI-classified inter-dependent copyright industry in Japan's workforce

The total workforce of 267,000 in JCI-classified copyright industry in fiscal 2007 represents $0.4 \%$ of Japan's overall workforce.

The number of workforce in the inter-dependent copyright industry was 399,000 in fiscal 1998. During the period from fiscal 1998 to the current year, this industry has decreased by $4.3 \%$ in average annual growth. Over the same period (fiscal 1998-2007), the growth rate of Japan's total workforce was $-0.3 \%$, which indicated a decline in number. As a result, because of the larger declining rate of workers in Japan, the proportion of workforce in the concerned industry declined from the level of $0.6 \%$ recorded in fiscal 1998 to the current level.

Figure 6-2 Positioning of the JCI-classified inter-dependent copyright industry in Japan's total workforce


| (in thousand workers) |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | :---: |
|  | 1998 | 2002 | 2007 | Average <br> AnualGrowth <br> rate |  |
| a) JCI-classified <br> inter-dependent <br> copyright industries | 399 | 323 | 267 | $-4.3 \%$ |  |
| b) Japan's total workers | 66,276 | 63,592 | 64,451 | $-0.3 \%$ |  |
| Ratio in Japan's <br> workforce (a/b) | $0.6 \%$ | $0.5 \%$ | $0.4 \%$ |  |  |

(Source) No. of workers : the number of employees in "Annual Report on National Income" (fixed for fiscal 2007)

## 3. Factors causing a downsize of workforce scale in JCI-classified inter-dependent copyright industry

A look at the downsize of workforce scale in JCI-classified inter-dependent copyright industry by industrial sector reveals that a large part (i.e., $33.5 \%$ ) of this downsize derives from the "Computer Software-related Equipment \& Media Manufacturing Industry". In addition, the "Music-related Equipment \& Media Manufacturing Industry" accounts for $29.9 \%$ for downsize of workforce scale in overall inter-dependent copyright industries.
For the change of proportion of each sector, the ratio of the "Transmission-related Equipment \& Media Manufacturing Industry" has remarkably increased from $10.7 \%$ to 17.9\%. Conversely, that of the "Computer Software-related Equipment \& Media Manufacturing Industry" has significantly declined to $16.6 \%$ from $22.2 \%$.

Figure 6-3 Trend of workforce by JCI-classified copyright industry sector (fiscal 1998-2007)

|  |  | (in thousand workers) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1998 |  | 2007 |  | Increase <br> in <br> number | Rate of contrib ution |
|  |  | Work force | $\begin{gathered} \text { Proport } \\ \text { ion } \\ \hline \end{gathered}$ | Workf orce | $\begin{array}{\|c\|} \hline \text { Proport } \\ \text { ion } \end{array}$ |  |  |
| 1 | Printing/ $\quad$ Publishing-related Equipment \& Media Manufacturing Industries | 41 | 10.2\% | 26 | 9.8\% | -15 | 11.1\% |
| 2 | Computer Software-related <br> Equipment \& Media Manufacturing  <br> Industries  | 88 | 22.2\% | 44 | 16.6\% | -44 | 33.5\% |
| 3 |  <br> Media Manufacturing Industries | 13 | 3.2\% | 14 | 5.2\% | 1 | -0.7\% |
| 4 | Transmission-related Equipment \& Media Manufacturing Industries | 43 | 10.7\% | 48 | 17.9\% | 5 | -4.0\% |
| 5 | Music-related Equipment \& Media <br> Manufacturing Industries | 78 | 19.6\% | 39 | 14.5\% | -39 | 29.9\% |
| 6 | Motion Picture-related Equipment\& Media Manufacturing Industries | 45 | 11.3\% | 17 | 6.3\% | -28 | 21.5\% |
| 7 |  <br> Media Manufacturing Industries | 40 | 10.1\% | 37 | 13.7\% | -3 | 2.7\% |
| 8 | Game Software-related Equipment <br> \& Media Manufacturing Industries | 11 | 2.7\% | 3 | 1.3\% | -7 | 5.6\% |


| 9 |  <br> Media Manufacturing Industries | 26 | $6.4 \%$ | 18 | $6.9 \%$ | -7 | $5.4 \%$ |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| 10 | Entertainment Facility-related <br> Equipment \& Media Manufacturing <br> Industries | 12 | $2.9 \%$ | 19 | $7.2 \%$ | 8 | $-5.9 \%$ |
| 11 | Author-related Equipment \& Media <br> Manufacturing Industries | 3 | $0.8 \%$ | 2 | $0.7 \%$ | -1 | $1.0 \%$ |
| Total in Copyright Industries | 399 | $100.0 \%$ | 267 | $100.0 \%$ | -131 | $100.0 \%$ |  |

Note: Rate of contribution = increase of workforce by industry sector/ increase in the overall industry

## II. Methodologies to measure the scale of JCI-classified inter-dependent copyright industry

## 1. Data used for estimate

The data in the "Census of Manufacturers" are used for estimation of workforce in the inter-dependent copyright industries.

## Statistics used for estimation and data available years

| Statistics | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Census of Manufactures | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

## 2. Precondition of estimation

All estimates are calculated on a fiscal year basis.

## 3. Methodologies to calculate number of workforce

The data on [Number of employees] and [Value of shipment] in the "Census of Manufacturers" are used for estimating number of workforce in the inter-dependent copyright industry. The data on [Number of employees] are available by industry sector, but not by item. Therefore, [Number of employees] by industry sector is converted by allying [Value of shipment] by item. Please refer to the aforementioned section in this document for the system of conversion.

Estimation of number of workforce
[Formula] Number of workforce $=$ Number of employees $\underline{A} \times$ Conversion Rate $\underline{B}$ A Number of employees
[Number of employees] by industry sector in the "Census of Manufacturers" B Conversion rate
[Formula] Conversion rate $=$ Value of products by item $\underline{a} \div$ Value of products by industry sector $\underline{b}$
a [Value of shipment] by item in the "Census of Manufactures"
$\underline{b}$ [Value of shipment] by industry sector in the "Census of Manufacturers"

## Chapter 7: A Foreign Trade Overview of the Copyright Industry

## I. Definitions of foreign trade in the copyright industry

Foreign trade in the copyright industry can be divided into two categories based on transaction types.

The first category includes copyright trade, such as payments for the use of copyrighted materials (literature, academic, art and music materials) and for the use of cultural and entertainment services that involve copyright use. Among economic activities, this is regarded as "foreign trade in services."

The second category includes transactions of copyright products, in which copyrighted materials (literature, academic, art and music materials) are traded as commercial products. Among economic activities, this is regarded as "foreign trade of goods."

Accordingly, foreign trade in the copyright industry consists of two trading types: services and products.

Figure 7-1 Types of Foreign Trade in Copyright Industry


## 1. Definitions of copyright trade

Copyright trade is considered to be the trade of services and quantitatively analyzed as the balance on services in economic statistics and consists of the following items:

Figure 7-2 Statistical Cassifications in Trade Value in Services

|  | Items | Description of items and principal examples |
| :---: | :---: | :---: |
| Balance of payments in services |  |  |
| Transportation |  |  |
| Truism \& travel |  |  |
| Other services |  |  |
| Communication services |  |  |
| Construction services |  |  |
| Insurance services |  |  |
| Financial services |  |  |
|  | Information services | Payments/ receipts of fees on on-line data services provided from residents to non-residents or vice versa, and news-providing services by news media. <br> (1) Payments/ receipts of the following fees on services related to computers: <br> - Usage fees, data-processing fees, data-providing fees (data creation, outsourcing of computation works, time-sharing, database, on-line services, etc.) <br> - Fees on outsourcing the software development works. <br> - Repair/ maintenance charges. <br> - Coaching.. <br> (2)Payments/ receipts of fees on news-providing services by mass media (including news videos, films) |
|  | Royaltiesand <br> license fees | Payments/ receipts of usage fees related to industrial rights such as patent rights, and trademarks, mining rights, and copyrights from residents to non-residents, or vice versa. |
|  | Usage fees on industrial rights and mining rights (Note 1) | (1) Payments/ receipts of usage fees on industrial rights (patent rights, utility model rights, design rights, and trademarks). <br> (2) Payments/ rights of usage fees on mining rights (exploitation rights and pre-exploitation rights). <br> (3) Payments/ receipts of usage fees on know-how (technical information). <br> (4) Payments/ receipts of various expenses on obtaining franchise membership. <br> (5) Payments/ receipts of usage fees on intellectual property rights almost equivalent to the above-mentioned rights. <br> (6) Payments/ receipts of instruction fees on techniques and business management related to the rights mentioned in the above items from (1) to (4). |
|  | Usage fees on copyright products (Note $1 \& 2)$ | Payments/ receipts of usage fees on copyright products such as literatures, academic works, art works, music, etc. Copyright products include software and character goods. |
| Other profit-making business services |  | Payments/ receipts of expenses on trades on other various services than those mentioned in the above items, accounted in both residents and non-residents. Regarding goods and services as well as nonmonetary gold which are purchased or sold in a significantly short period without custom clearance in Japan such as gold dealing, the balance accounted in such trade activities shall be recorded as service fees. In addition, the balance in intermediary trade, other trade-related activities, and operational-service trade shall be recorded. |
| Intermediary trade \& other trade-related activities (Note 1) |  |  |
|  | Operational lease (Note 1) |  |
|  | Other operations/spe cialized technology services (Note 1) | Promotion fees <br> (1) Payments/ receipts of fees on business promotions such as TV commercials, and fees on developing advertisement (commercials, posters, giveaways). <br> (2) Payments/receipts of expenses on organizing exhibitions and trade shows. <br> (3) Payments/ receipts of expenses on commodity-sales promotion activities. <br> Consulting/ coaching fees related to legal/ accounting matters, agent fees, auditing fees, etc. |


|  | (1) Payments/ receipts of legal advisory fees, accounting audit fees, tax-service fees, etc. <br> (2) Payments/ receipts of consulting fees on business management. <br> (3) Payments/ receipts of agent-business fees such as preparing documents related to legal/ accounting matters. <br> - Payments/ receipts of expenses on research-development: baseline research, application research, new-product development, etc. <br> - Other expenses related to professional services: payments/ receipts of expenses on professional services. The principal examples are as follows: <br> - Architecture, engineering, and other technical services (architecture design in the urban-development project, planning/ drawing/ supervising of construction, experiments/ examination of product, etc.) <br> - Agricultural/ mining services (extermination of disease and insect damage, agricultural improvement, mining analysis, etc.) <br> - Other professional services (market research, transaction/ interpretation, patent application, agent services for registration, medical services, etc.) |
| :---: | :---: |
| Cultural and recreational services | Payments/ receipts of production costs, rental fees, related to audio/ visual services, from residents to non-residents, or vice versa. <br> - Expenses related to culture or recreation <br> (1) Payments/ receipts of revenues in organizing entertainment events such as show-performance, recreational/ music/ sporting/ cultural events (selling performance rights, admission fees, performing fees paid to entertainers, athletes, etc.), or other related expenses in organizing events (venue, promotion activities, performing fees paid to entertainer, athletes, etc.) <br> (2) Payments/ receipts of performing fees paid to entertainers/ athletes who are performing at TV programs, etc.) <br> (3) Payments/ receipts of entrance fees or membership fees which are accounted at obtaining the membership of association, club, academic organization, or other group. <br> - Production costs, rental fees, and screening/ broadcasting fees, of image/ audio media such as films, tapes, etc. <br> (1) Payments/ receipts of production costs of motion-picture films (including TV films, video tapes), sound-related tapes, records, etc. Production costs also include performing fees paid to actors and compensations paid to producers. <br> (2) Payments/ receipts of rectal fees, screening/ broadcasting fees, and distribution-right usage fees. |
| Government services, n.i.e. | "Government services, n.i.e." is a residual category associated with the public sector and covers services not included in the above categories. |

Note 1: These items are those appeared in the data obtained in the BOJ's "Time-series Statistical Data Research Site"

Note 2: These items are not independently used in the BOJ's "Time-series Statistical Data Research Site". In practice, the values are obtained with deducting the value of "usage fees of industrial/ mining right" from the "usage fees of patent rights."
Source: Generated by NRI based on the "Codes for International Balance of Payments \& Description thereof" and the "Descriptions on International Balance of Payments" issued by the BOJ

Based on the aforementioned statistical classifications, the following four categories emerged as candidates applicable for copyright trade analysis:

- Information services;
- Copyright-related usage fees;
- Cultural/entertainment services; and
- Other operations/specialized technology services

The other operations/specialized technology services listed above, however, also include business activities not related to copyright trade. Furthermore, the trade value in this category, at around a few trillion yen, far exceeds the other three, which each total roughly a few hundred billion yen.

This would require extraction of the applicable data from the total trade value for this particular category. This could not be accommodated, however, as subcategory breakdowns for these four categories were not available from any published statistics.

As using the total trade value of the other operations/specialized technology services without extraction would lead to overvaluing the trading activities of the copyright industry, the following three categories, excluding the other operations/specialized technology services, were analyzed in this study:

- Information services;
- Copyright-related usage fees; and
- Cultural/entertainment services

As mentioned previously, since subcategory breakdowns for these service categories were not available, subcategory estimations of copyright transactions could not be conducted, unlike for value added estimates, in which 15 subcategories were analyzed.

Accordingly, in this study, the combined trade value of the aforementioned three categories was considered to be the trade value of foreign trade activities in the copyright industry.

## 2. Definitions of copyright trade in commercial products

1) Foreign Trade in Core-copyright Industry

Copyright product trading is considered to be the trade of goods and quantitatively analyzed as the balance on trade in economic statistics, specifically in the trade statistics that contain trade values by product. Products are categorized with 9 -digit item numbers.

The items in the shaded columns in the table below emerged as applicable candidates for copyright product analysis.

Figure 7-3 Statistical Items of Foreign Trade of Goods in Core-copyright Industry(2009)

| Section VI |  | PRODUCTS OF THE CHEMICAL OR ALLIED INDUSTRIES |
| :---: | :---: | :---: |
| Chapter 37 |  | Photographic or cinematographic goods. |
| 37.04 |  |  |
| 3704.00 | 000 | Photographic plates, film, paper, paperboard and textiles, exposed but not developed. |
| 37.05 |  | Photographic plates and film, exposed and developed, other than cinematographic film. |
| 3705.10 | 000 | - For offset reproduction |
| 3705.90 | 000 | - Other |
| 37.06 |  | Cinematographic film, exposed and developed, whether or not incorporating sound track or consisting only of sound track. |
| 3706.10 | 000 | - Of a width of 35 mm or more |
| 3706.90 | 000 | - Other |
| Chapter 48 |  | Paper and paperboard; articles of paper pulp, of paper or of paperboard. |
| Chapter 49 |  | Printed books, newspapers, pictures and other products of the printing industry; manuscripts, typescripts and plans. |
| Section XVI |  | MACHINERY AND MECHANICAL APPLIANCES; ELECTRICAL EQUIPMENT; PARTS THEREOF; SOUND RECORDERS AND REPRODUCERS, TELEVISION IMAGE AND SOUND RECORDERS AND REPRODUCERS, AND PARTS AND ACCESSORIES OF SUCH ARTICLES |
| Chapter 85 |  | Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of such articles. |
| 85.23 |  | Discs, tapes, solid-state non-volatile storage devices, "smart cards" and other media for the recording of sound or of other phenomena, whether or not recorded, including matrices and masters for the production of discs, but excluding products of Chapter 37 |
|  |  | - Magnetic media |
| 8523.21 | 000 | -- Cards incorporating a magnetic stripe |
| 8523.29 | 000 | -- Other |
| 8523.40 | 000 | - Optical media |
|  |  | - Semiconductor media |
| 8523.51 | 000 | --Solid-state non-volatile storage devices |
| 8523.52 |  | -- "Smart cards" |
|  | 100 | --- Proximity cards and tags |


|  | 900 | --- Other |
| :---: | :---: | :---: |
| 8523.59 | 000 | -- Other |
| 8523.80 | 000 | - Other |
| Section XX |  | MISCELLANEOUS MANUFACTURED ARTICLES |
| Chapter 95 |  | Toys, games and sports requisites; parts and accessories thereof. |
| 95.04 |  | Articles for funfair, table or parlour games, including pintables, billiards, special tables for casino games and automatic bowling alley equipment |
| 9504.10 | 000 | - Video games of a kind used with a television receiver |
| Section XXI |  | WORKS OF ART, COLLECTORS' PIECES AND ANTIQUES |
| Chapter 97 |  | Works of art, collectors' pieces and antiques. |
| 97.01 |  | Paintings, drawings and pastels, executed entirely by hand, other than drawings of heading 49.06 and other than hand-painted or hand-decorated manufactured articles; collages and similar decorative plaques |
| 9701.10 | 000 | - Paintings drawings and pastels |
| 9701.90 | 000 | - Other |
| 97.02 |  |  |
| 9702.00 | 000 | Original engravings, prints and lithographs |
| 97.03 |  |  |
| 9703.00 | 000 | Original sculptures and statuary, in any material |

Note:In 9-digit code, the first 6-digit code is internationally harmonized under the HS Convention (International Convention on the Harmonized Commodity Description and Condint System) and that of export and import are same. The last 3-digit code is domestically defined and that is not always applied for export and import.

Source: Produced by NRI based on the "Export Statistical Export Schedule" of the "Ministry of Finance Japan"

Further reviews of these candidates resulted in the following list (Figure 7-4) of copyright product categories.

Since 2007, Item 85 (discs, tapes, nonvolatile semiconductor memory devices, smart cards and other media) has included both unrecorded media (unused) and recorded media (considered to be copyrighted materials), making data extraction unavailable for copyrighted materials alone. It should be noted, therefore, that the 2007 estimate of the trade value of copyright products does not include data from the category for discs, tapes, nonvolatile semiconductor memory devices, smart cards and other media.

Figure 7-4 Classifications of Core-Copyright Industries
under the White Paper Definition (2009)

| Classifications in the White Paper | Descriptions, Corresponding Statistical Code, etc. |
| :---: | :---: |
| Photographic films | ■ Photographic plates, film, paper, paperboard and textiles, exposed but not developed <br> - Corresponding statistical item numbers: $37.04 \& 37.05$ |
| Cinematograp;hic films | - Cinematographic film, exposed and developed, whether or not incorporating sound track or consisting only of sound track. <br> - Corresponding statistical code: 37.06 |
| Printed books, newspapers, pictur4es | - Printed books, newspapers, pictures and other products of the printing industry; manuscripts, typescripts and plans.. <br> ■ Excluded the items classified in the following classifications such as "Music", "Plans and drawings" and "Unused postage, revenue or similar stamps of current or new issue in the country in which they have, or will have, a recognised face value; stamp-impressed paper; banknotes; cheque forms; stock, share or bond certificates and similar documents of title (Code 49.07)" in the statistical code Chapter 49. |
| Music | Music, printed or in manuscript whether or not bound or illustrated <br> Corresponding statistical code: 49.04 |
| Plans and drawings | Plans and drawings for architectural, engineering, industrial, commercial, topographical or similar purposes, being originals drawn by hand; hand-written texts; photographic reproductions on sensitised paper and carbon copies of the foregoing <br> - Corresponding statistical code: 49.06. |
| Records, tapes and other media (recorded) | - Records, tapes and other media for the recording of sound or other phenomea, whether or not recorded including matrices and masters for the production of discs, but excluding products of "materials for photographic and cinematographic products in Chapter 37. <br> - Statistical code 85.24. <br> - It should be noted that trade value for these items had been included in estimation until 2006, and were not countde for aggregation as they were excluded for statistics in 2007. |
| Video games for commercial purposes | Video games of a kind used with a television receiver among articles for funfair, table or parlour games, including pintables, billiards, special tables for casino games and automatic bowling alley equipment. <br> - Corresponding statistical code: 9504.10. |
| Works of arts | Tems in this category are as follows: <br> > Paintings, drawings and pastels, executed entirely by hand, other than drawings of heading 49.06 and other than hand-painted or hand-decorated manufactured articles; collages and similar decorative plaques. <br> > Original engravings, prints and lithographs <br> > Original sculptures and statuary, in any material. <br> Corresponding statistical codes: 97.01, 97.02 and 97.03. |

Source: Generated by NRI based on the "Foreign Trade Statistics", the "Export Statistical Schedule", and the "Schedule of Applied Tariff Rate" issued by the Ministry

## of Finance Japan.

2) Foreign Trade of Inter-dependent Copyright Industry

The classification of the inter-dependent copyright industrial goods is shown in the below table:

Figure 7-5 Classifications of Inter-dependnent Copyright Industries

> under the White Paper Definition

| Section VI |  | PRODUCTS OF THE CHEMICAL OR ALLIED INDUSTRIES |
| :---: | :---: | :---: |
| Chapter 32 |  | Tanning or dyeing extracts; tannins and their derivatives; dyes, pigments and other colouring matter; paints and varnishes; putty and other mastics; inks. |
| 32.07 | 000 | Prepared pigments, prepared opacifiers and prepared colours, vitrifiable enamels and glazes, engobes (slips), liquid lustres and similar preparations, of a kind used in the ceramic, enamelling or glass industry; glass frit and other glass, in the form of powder, granules or flakes. |
| 32.12 | 000 | Pigments (including metallic powders and flakes) dispersed in non-aqueous media, in liquid or paste form, of a kind used in the manufacture of paints (including enamels); stamping foils; dyes and other colouring matter put up in forms or packings for retail sale. |
| 32.13 | 000 | Artists', students' or signboard painters' colours, modifying tints, amusement colours and the like, in tablets, tubes, jars, bottles, pans or in similar forms or packings. |
| 32.15 | 000 | Printing ink, writing or drawing ink and other inks, whether or not concentrated or solid. |
| Chapter 37 |  | Photographic or cinematographic goods. |
| 37.01 | 000 | Photographic plates and film in the flat, sensitised, unexposed, of any material other than paper, paperboard or textiles; instant print film in the flat, sensitised, unexposed, whether or not in packs. |
| 37.02 | 000 | Photographic film in rolls, sensitised, unexposed, of any material other than paper, paperboard or textiles; instant print film in rolls, sensitised, unexposed. |
| 37.03 | 000 | Photographic paper, paperboard and textiles, sensitised, unexposed. |
| 37.07 | 000 | Chemical preparations for photographic uses (other than varnishes, glues, adhesives and similar preparations); unmixed products for photographic uses, put up in measured portions or put up for retail sale in a form ready for use. |
| Section X |  | PULP OF WOOD OR OF OTHER FIBROUS CELLULOSIC MATERIAL; RECOVERED (WASTE AND SCRAP) PAPER OR PAPERBOARD; PAPER AND PAPERBOARD AND ARTICLES THEREOF |
| Chapter 48 |  | Paper and paperboard; articles of paper pulp, of paper or of paperboard. |
| 48.01 | 000 | Newsprint, in rolls or sheets. |


|  | 48.02 | 000 | Uncoated paper and paperboard, of a kind used for writing, printing or other graphic purposes, and non perforated punch-cards and punch tape paper, in rolls or rectangular (including square) sheets, of any size, other than paper of heading 48.01 or 48.03; hand-made paper and paperboard. |
| :---: | :---: | :---: | :---: |
|  | 48.10 | 000 | Paper and paperboard, coated on one or both sides with kaolin (China clay) or other inorganic substances, with or without a binder, and with no other coating, whether or not surface-coloured, surface-decorated or printed, in rolls or rectangular (including square) sheets, of any size. |
| Section XVI |  |  | MACHINERY AND MECHANICAL APPLIANCES; ELECTRICAL EQUIPMENT; PARTS THEREOF; SOUND RECORDERS AND REPRODUCERS, TELEVISION IMAGE AND SOUND RECORDERS AND REPRODUCERS, AND PARTS AND ACCESSORIES OF SUCH ARTICLES |
| Chapter 84 |  |  | Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof. |
|  | 84.69 | 000 | Typewriters other than printers of heading 84.43; word-processing machines |
|  | 84.71 | 000 | Automatic data processing machines and units thereof; magnetic or optical readers, machines for transcribing data onto data media in coded form and machines for processing such data, not elsewhere specified or included |
| Chapter 85 |  |  | Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of such articles. |
|  | 85.17 | 000 | Telephone sets, including telephones for celular networks or for other wireless networks; other apparatus for the transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a loca or wide area network), other than transmission or reception apparatus of heading 84.43, 85.25, 85.27 or 85.28 |
|  | 85.18 | 000 | Microphones and stands therefor; loudspeakers, whetehr or not mounted in their enclosures; headphones and earphones, whether or not combined with a microphone, and sets consisting of a microphone and one or more loudspeakers; audio-frequency electric amplifiers; electric sound amplifier sets |
|  | 85.19 | 000 | Sound recording or reproducing apparatus |
|  | 85.21 | 000 | Video recording or reproducing apparatus, whether or not incorporating a video tuner |
|  | 85.23 | 000 | Discs, tapes, solid-state non-volatile storage devices, "smart cards" and other media for the recording of sound or of other phenomena, whether or not recorded, including matrices and masters for the production of discs, but excluding products of Chapter 37 |
|  | 85.25 | 000 | Transmission apparatus for radio-broadcasting or television, whether or not incorporating reception apparatus or sound recording or reproducing apparatus; television cameras, digital cameras and video camera recorders |
|  | 85.27 | 000 | Reception apparatus for radio-broadcasting, whether or not combined, in the same housing, with sound recording or reproducing apparatus or a clock |
|  | 85.28 | 000 | Monitors and projectors, not incorporating television reception apparatus; reception apparatus for television, whether or not incorporating radio-broadcast receivers or sound or video recording or reproducing apparatus |


|  | 85.29 | 000 | Parts suitable for use solely or principally with the apparatus of heading 85.25 to 85.28 |
| :---: | :---: | :---: | :---: |
|  | 8529.90 | 100 | -- Display modules |
|  | 8529.90 | 200 | -- Incorporating liquid crystal devices (LCD) |
|  | 85.44 | 000 | Insulated (including enamelled or anodised) wire, cable (including co-axial cable) and other insulated electric conductors, whether or not fitted with connectors; optical fibre cables, made up of individually sheathed fibres, whether or not assembled with electric conductors or fitted with connectors |
| Section XVIII |  |  | OPTICAL, PHOTOGRAPHIC, CINEMATOGRAPHIC, MEASURING, CHECKING, PRECISION, MEDICAL OR SURGICAL INSTRUMENTS AND APPARATUS; CLOCKS AND WATCHES; MUSICAL INSTRUMENTS; PARTS AND ACCESSORIES THEREOF |
| Chapter 90 |  |  | Optical, photographic, cinematographic, measuring, checking, precision, medical or surgical instruments and apparatus; parts and accessories thereof. |
|  | 90.01 | 000 | Optical fibres and optical fibre bundles; opticla fibre cables other than those of heading 85.44; sheets and plates of polarising material; lenses (including contact lenses), prisms, mirrors and other optical elements, of any material, unmounted, other than such elements of glass not optically worked |
|  | 90.06 | 000 | Photographic (other than cinematographic) cameras; photographic flashlight apparatus and flashbulbs other than discharge lamps of heading 85.39 |
|  | 90.07 | 000 | Cinematographic cameras and projectors, whether or not incorporating sound recording or reproducing apparatus |
|  | 90.08 | 000 | Image projectors, other than cinematographic; photographic (other than cinematographic) enlargers and reducers |
|  | 90.10 | 000 | Apparatus and equipment for photographic (including cinematographic) laboratories, not specified or included elsewhere in this Chapter; negatoscopes; projection screens |
| Chapter 92 |  |  | Musical instruments; parts and accessories of such articles. |
|  | 92.00 | 000 | Musical instruments; parts and accessories of such articles. |
| Section XX |  |  | MISCELLANEOUS MANUFACTURED ARTICLES |
| Chapter 95 |  |  | Toys, games and sports requisites; parts and accessories thereof. |
|  | 9504.20 | 000 | - Articles and accessories for billiards of all kinds |
|  | 9504.30 | 000 | - Other games, operated by coins, banknotes, bank cards, tokens or by other means of payment, other than bowling alley equipment |
|  | 9504.90 | 100 | -- Electronic game equipments (operated by battery) |
| Chapter 96 |  |  | Miscellaneous manufactured articles. |
|  | 9603.30 | 000 | - Artists' brushes, writing brushes and similar burushes for the application of cosmetics |
|  | 96.08 | 000 | Ball point pens; felt tipped and other porous-tipped pens and markers; fountain pens, stylograph pens and other pens; duplicating stylos; propelling or sliding pencils; pen-holders, pencil-holders and similar holders; parts (including caps and clips) of the foregoing articles, other than those of heading 96.09 |
|  | 96.09 | 000 | Pencils (other than pencils of heading 96.08), crayons, pencil leads, pastels, drawing charcoals, writing or drawing chalks and tailors' chalks |

Note: In 9 -digit code, the first 6 -digit code is internationally harmonized under the HS Convention
(International Convention on the Harmonized Commodity Description and Condint System) and that of export and import are same. The last 3 -digit code is domestically defined and that is not always applied for export and import.

Source: Produced by NRI based on the "Export Statistical Export Schedule" of the "Ministry of Finance Japan"

Further reviews of these candidates resulted in the following list of copyright product categories:

Figure 7-6 Classifications of Inter-dependent Copryright Industrial Products
under the White Paper Definition

| Classification under the White Paper Definition | Description, correspondoing statistical code, etc. |
| :---: | :---: |
| Paper | Newsprint, in rolls or sheets, uncoated paper and paperboard, of a kind used for writing, printing or other graphic purposes, and paperboard (excluding paper and paperboard of a kind used as a base for photosensitive, heat-sensitive or electro-sensitive paper or paperboard classified statistical code 4802.20) <br> Corredponding statistical codes: 48.01, 48.02, and 48.10 |
| Printing ink | - Printing ink; writing or drawing ink. <br> ■ Corresponding statistical code: 32.15 |
| Computer | Typewriters; word-processing machines; automatic data processing machines and units thereof; magnetic or optical readers. <br> Corresponding statistical codes: 84.69 and 84.71. |
| Recording media | Discs, tapes, solid-state non-volatile storage devices, "smart cards" and other media for the recording of sound or of other phenomena, whether or not recorded, including matrices and masters for the production of discs, but excluding products of Chapter 37 <br> Corresponding statistical code: 85.23 |
| Transmission \& reception apparatus for broadcasting | Transmission apparatus for radio-broadcasting or television,television cameras, digital cameras and video camera recorders <br> Corresponding statistical codes: $85.25,85.27$, and 85.28 |
| Transmission/ reception cables and telephones | Telephone sets, including telephones for cellular networks or for other wireless networks; other apparatus for the transmission or reception of voice, images or other data; wires/cables; optical figre cables. Corresponding statistical codes: 85.17, 85.44, and 90.01. |
| Musical instruments | Musical instruments; parts and accessories of such articles. <br> Corresponding statistical code: 92 |
| Sound recording or reproducing apparatus and microphones | Microphones; loudspeakers; headphones; earphones; sound-recording or reproducing apparatus. <br> Corresponding statistical codes: 85.18, 85.19 |
| Cinematographic apparatus and equipments | Video recording or reproducing apparatus; cinematographic cameras: image projectors. <br> Corresponding statistical codes: 85.21, 90.07 and 90.10 |
| Photographic apparatus and | ■ Photographic plates and films in sensitized (but not |


| equipment \& films | exposed), chemical preparations for photographic use, paper and paperboard of a kind used as a base for photosensitive, photographic (other than cinematographic) cameras; photographic flashlight apparatus; image projectors, other than cinematographic, photographic (other than cinematographic) enlargers and reducers <br> Corresponding statistical codes: 37.01, 37.02, 37.03, 37.07, 4802.20, 90.06 , and 90.08 |
| :---: | :---: |
| Game apparatus | - Articles and accessories for billiards of all kinds; apparatus and accessories for electronic game <br> Corresponding statistical codes: 9504.20, 9504.30, 9504.90 |
| Pigments \& blushes for artistic uses | Artists' brushes, writing brushes; paint, distemper, varnish or similar brushes; ball point pens; felt tipped and other porous-tipped pens and markers; fountain pens; penciles; propelling or sliding pencils; crayons, pastels, drawing charcoals, writing or drawingt chals. <br> Corresponding statistical codes: 32.07, 32.12, 32.13, 9603.30, 9603.40, 96.08, and 96.09 |

Source: Generated by NRI based on the "Foreign Trade Statistics", the "Export Statistical Schedule", and the "Schedule of Applied Tariff Rate" issued by the Ministry of Finance Japan.

## II. Details for copyright industry trade value estimates

The following tables show the statistics used for estimating trade values in the copyright ndustry and the years in which data were available:

Statistics used for estimating trade valudes

| Corresponding copyright-industry classification |  |  | Used Statistics |
| :---: | :---: | :---: | :---: |
| Foreign trade in services |  | Information service | Balance of Payments Statistics (BOJ) |
|  |  | Copyright-related usage fees |  |
|  |  | Cultural/entertainment services |  |
| Foreign trade of goods | Core-copyright industries | Photographic films | Foreign TradeStatistics(the Ministry ofFinance Japan) |
|  |  | Cinematographic films |  |
|  |  | Printed books, newspapers, pictures |  |
|  |  | Musics |  |
|  |  | Plans and drawings |  |
|  |  | Records, tapes and other media (recorded) |  |
|  |  | Video games for commercial purposes |  |
|  |  | Works of arts |  |
|  | Inter-dependent copyright industries | Paper |  |
|  |  | Printing inks |  |
|  |  | Computer |  |
|  |  | Recording media |  |
|  |  | Transmission \& reception apparatus for broadcasting |  |
|  |  | Transmission/ reception cables and telephones |  |
|  |  | Musical instruments |  |
|  |  | Sound recording or reproducing apparatus \& equipments and microphones |  |
|  |  | Cinematographic apparatus and equipments |  |
|  |  | Photographic apparatus \& equipments and films |  |
|  |  | Game apparatus |  |
|  |  | Pigments and blushes for artistic uses |  |

Years in which data were available for each statistics

| Statistics | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Balance of <br> Payments (BOJ) | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| Statistics Trade <br> Foreign Trade | Statistics(the of <br> Ministry Japan) <br> Finance Japan | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |

OTrade value estimates
[Copyright trade value]
[Formula] Export value = credits a
a credits = total credits in each category of balance on services
[Formula] Import value $=$ debits $b$
b debits = total debits in each category of balance on services
[Formula] balance of trade $=$ net balance value $\mathrm{c}=$ credits $\mathrm{a}-$ debits b c net balance value $=$ total net value in each category of balance on services
[Copyright product trading value]
[Formula] Export value $=$ total export value in each category of trade statistics
[Formula] Import value $=$ total import value in each category of trade statistics
[Formula] Balance of trade $=$ export value - import value

Deflators used for applications

| Corresponding copyright-industry classification |  |  | Deflator values used |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | Exports(Credits) | Imports(debits) |
| Foreign trade in services |  | Information service | $\begin{aligned} & \text { Exports of service } \\ & \text { (" Annual Report } \\ & \text { on National } \\ & \text { Income "(2007)) } \end{aligned}$ | Imports of <br> services(" Annual <br> Report on <br> National Income <br> " (2007))  |
|  |  | Copyright-related usage fees |  |  |
|  |  | Cultural/entertainment services |  |  |
| $\begin{aligned} & \text { Foreign } \\ & \text { trade of } \end{aligned}$goods | Core-copyright industries | Photographic films | Exports of goods(" Annual Report on National Income " (2007)) | Imports of <br> goods(" Annal <br> Report on <br> National Income <br> " (2007))  |
|  |  | Cinematographic films |  |  |
|  |  | Printed books, newspapers, pictures |  |  |
|  |  | Musics |  |  |
|  |  | Plans and drawings |  |  |
|  |  | Records, tapes and other media (recorded) |  |  |
|  |  | Video games for commercial purposes |  |  |
|  |  | Works of arts |  |  |
|  | Inter-dependent copyright industries | Paper |  |  |
|  |  | Printing inks |  |  |
|  |  | Computer |  |  |
|  |  | Recording media |  |  |
|  |  | Transmission \& reception apparatus for broadcasting |  |  |
|  |  | Transmission/ reception cables and telephones |  |  |
|  |  | Musical instruments |  |  |
|  |  | Sound recording or  <br> reproducing apparatus $\&$ <br> equipments  and <br> microphones   |  |  |


|  | Cinematographic apparatus <br> and equipments |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  |  <br> equipments and films |  |  |
|  | Game apparatus |  |  |
|  | Pigments and blushes for <br> artistic uses |  |  |

ODeflator values (Fiscal Year)

|  | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Exports <br> of <br> services | 102.6 | 105.0 | 103.8 | 101.5 | 100.5 | 102.6 | 99.2 | 98.5 | 98.3 | 100.7 | 102.2 | 105.1 |
| Imports <br> of <br> services | 100.2 | 105.6 | 106.4 | 99.3 | 101.5 | 106.3 | 106.5 | 109.6 | 114.1 | 118.6 | 123.5 | 132.9 |
| Exports <br> of goods | 112.4 | 103.0 | 100.5 | 102.5 | 99.5 | 95.8 | 95.0 | 97.2 | 100.2 | 100.4 | 112.4 | 103.0 |
| Imports <br> of goods | 102.8 | 98.6 | 100.8 | 100.8 | 99.8 | 96.1 | 100.0 | 110.1 | 118.2 | 128.3 | 102.8 | 98.6 |

OReal value calculations
Real values are calculated as follows using the aforementioned deflator values:
[Formula] Real value $=$ nominal value $\div$ deflator $\times 100$

Real values for balance of trade are calculated as follows:
[Formula] balance of trade (real value) $=$ export (real value) - import (real value)

$$
=\text { credits (real value) }- \text { debits (real value) }
$$

## III. Scale of copyright industry foreign trade(Estimates)

## 1. Scale of copyright trade

1) Scale of copyright trade: an overview

Japan's copyright trade values (real values) for 2007 are 319 billion yen in credits (exports) and 1,036 trillion yen in debits (imports), making the excess of debits over credits 717 billion in the balance of trade.

Figure 7-7 Trade values of copyright foreign trade (Fiscal 2007)
(Billion yen)

|  | Credits (Exports) | Debits (Imports) | Net balance value <br> (balance of trade) |
| :--- | ---: | ---: | ---: |
| Information service | 105 | 326 | -222 |
| Copyright-related usage fees | 200 | 597 | -397 |
| Cultural/entertainment services | 15 | 113 | -98 |
| Total | 319 | 1,036 | -717 |

(At market prices in calendar year of 2000)
2) Scale of copyright trade: trends

An analysis of Japan's copyright foreign trade values (real values) indicates that the excess of debits over credits has been growing since 2003. This was mainly due to an increase in copyright usage fees.

Figure $7-8$ Change of copyright foreign trades in the Core-copyright industries (real values)


Figure 7-9 Change of export values by Core-copyright industry segment
(Billion yen)

|  | 1998 | 2007 | Average annual <br> growthe |
| :--- | ---: | ---: | ---: |
| Information service | 143 | 105 | $-4.4 \%$ |
| Copyright-related <br> usage fees | 78 | 200 | $14.4 \%$ |
| Cultural/entertainme <br> nt services | 28 | 15 | $-8.8 \%$ |
| Total | 248 | 319 | $3.6 \%$ |

(At market prices in calendar year of 2000)

Figure 7-10 Change of import values by Core-copyright industry segment
(Billion yen)

|  | 1998 |  | 2007 |
| :--- | ---: | ---: | ---: |
| Average annual <br> growth |  |  |  |
| Information service | 399 | 326 | $-2.8 \%$ |
| Copyright-related <br> usage fees | 317 | 597 | $9.5 \%$ |
| Cultural/entertainmen <br> t services | 144 | 113 | $-3.5 \%$ |
| Total | 860 | 1,036 | $2.7 \%$ |

(At market prices in calendar year of 2000)
3) Scale of copyright trade: share services on overall balance

Japan's copyright foreign trade values (real values) represent approximately 2 to $3 \%$ of credits (exports) and approximately 6 to $7 \%$ of debits (imports) in the overall balance on services.

Figure 7-11 Share of services in Copyright Foreing Trade

|  | 1998 | Average annual <br> growth <br> /total increase |  |
| :--- | ---: | ---: | ---: |
| Credits (exports) | 248 | 319 | $3.6 \%$ |
| Services (Total credits) | 7,466 | 14,561 | $10.0 \%$ |
| Services ratio (\%) | $3.3 \%$ | $2.2 \%$ | -1.1 point |
| Debits (imports) | 860 | 1,036 | $2.7 \%$ |
| Services(Total debits) | 13,124 | 13,468 | $0.4 \%$ |
| Services ratio (\%) | $6.6 \%$ | $7.7 \%$ | +1.1 point |

(At market prices in calendar year of 2000)

## 2. Scale of copyright trade in commercial products

1) Scale of core-copyright trade in commercial products
(1) Scale of core-copyright trade in commercial products: an overview

Japan's copyright product foreign trade values (real values) for 2007 are 214.2 billion yen in exports and 249.4 billion yen in imports, making the excess of debits over credits 35.2 billion yen in the balance of trade.

Figure7-12 Trade values of core-copyright product foreign trade (Fiscal 2007)

|  |  | (Billion yen) |  |
| :--- | ---: | ---: | ---: |
| Photographic films | Exports | Imports | Balance |
| Cinematographic films | 57.0 | 6.3 | 50.7 |
| Printed books, newspapers, pictures | 0.2 | 1.2 | -0.9 |
| Musics | 84.3 | 68.4 | 16.0 |
| Plans and drawings | 0.1 | 0.7 | -0.5 |
| Records, tapes and other media <br> (recorded) | 1.3 | 0.1 | 1.2 |
| Video games for commercial purposes | 0.0 | 0.0 | 0.0 |
| Works of arts | 56.1 | 147.0 | -90.9 |
| Total (Core-copyright product) | 15.0 | 25.8 | -10.8 |

(At market prices in calendar year of 2000)
(2) Scale of core-copyright trade in commercial products: trends

An analysis of Japan's copyright product foreign trade values (real values) indicates that export volumes have stayed unchanged since 2000. It should be noted that the decrease in the 2007 trading value was offset by increases in the "books, newspapers and paintings," the "commercial video games" and the "art objects" sectors, as the 2007 trading value does not include "records, tapes and other media".

Import volumes have also remained unchanged with the exception of 2006. An increase in 2006 was generated by the "commercial video games" sector. The 2007 figure has returned to the level prior to 2005, due to the "records, tapes and other media" sector being excluded in 2007.

Figure 7-13 Change of core-copyright product foreign trade (real values)

*For 2007, the "Records, tapes and other media" are not included.

Figure 7-14 Change of export values by core-copyright product segment

|  | (Billion yen) |  |  |
| :--- | ---: | ---: | ---: |
| Photographic films | 1998 |  | Average <br> annual growth |
| Cinematographic films | 9.0 | 57.0 | $30.2 \%$ |
| Printed books, newspapers, pictures | 0.3 | 0.2 | $-1.2 \%$ |
| Musics | 37.2 | 84.3 | $12.4 \%$ |
| Plans and drawings | 0.1 | 0.1 | $6.4 \%$ |
| Records, tapes and other media <br> (recorded) | 1.6 | 1.3 | $-3.5 \%$ |
| Video games for commercial purposes | 43.9 |  | $-17.0 \%$ |
| Works of arts | 206.2 | 56.1 | $25.5 \%$ |
| Total (Core-copyright product) | 3.1 | 15.0 | $-4.8 \%$ |

Note: For 2007, the "Record, tapes, and other media" is not included.
(At market prices in calendar year of 2000)

Figure7-15 Change of import values by core-copyright product segment

|  | (Billion yen) |  |  |
| :--- | ---: | ---: | ---: |
| Photographic films | 1998 | 2007 | Average annual <br> growth |
| Cinematographic films | 4.8 | 6.3 | $4.0 \%$ |
| Printed books, newspapers, pictures | 1.3 | 1.2 | $-1.3 \%$ |
| Musics | 95.0 | 68.4 | $-4.6 \%$ |
| Plans and drawings | 0.8 | 0.7 | $-2.5 \%$ |
| Records, tapes and other media <br> (recorded) | 0.2 | 0.1 | $-17.3 \%$ |
| Video games for commercial purposes | 89.8 |  | $21.4 \%$ |
| Works of arts | 37.9 | 147.0 | $-5.5 \%$ |
| Total (Core-copyright product) | 38.4 | 25.8 | $-1.0 \%$ |

Note: For 2007, the "Record, tapes, and other media" is not included.
(At market prices in calendar year of 2000)
(3) Scale of core-copyright trade in commercial products: share of services in overall balance

Japan's copyright product foreign trade values (real values) represent approximately 0.3 to $0.7 \%$ of exports and approximately 0.5 to $0.9 \%$ of imports in the overall balance on trade.

Figure 7-16 Share of services in overall core-copyright foreign trade balance
(Billion yen)

|  | 1998 | 2007 | Average annual <br> growth <br> /total increase |
| :--- | ---: | ---: | ---: |
| Exports | 301 | 214 | $-4.8 \%$ |
| Trade balance (Total exports) | 42,388 | 80,622 | $9.6 \%$ |
| Trade balance ratio (\%) | $0.7 \%$ | $0.3 \%$ | -0.4 point |
| Imports | 268 | 249 | $-1.0 \%$ |
| Trade balance (Total imports) | 30,999 | 53,982 | $8.2 \%$ |
| Trade balance ratio (\%) | $0.9 \%$ | $0.5 \%$ | -0.4 point |

(At market prices in calendar year of 2000)
2) Scale of inter-dependent copyright trade in commercial products
(1) Scale of inter-dependent copyright trade in commercial products: an overview

Japan's inter-dependent copyright foreign trade values (real value) for 2007 are 5,393 billion yen in credits (exports) and 3,817 billion yen in debits (imports), making the excess of credits over debits 1,576 billion yen.

Figure 7-17 Trade values of inter-dependent copyright products (2007)

|  |  |  |  |
| :--- | ---: | ---: | ---: |
|  | Exports | Imports | Balance |
| Paper | 110 | 87 | 23 |
| Printing inks | 82 | 8 | 74 |
| Computer | 464 | 1,161 | -697 |
| Recording media | 615 | 183 | 431 |
| Transmission \& reception apparatus for <br> broadcasting | 1,814 | 445 | 1,369 |
| Transmission/ reception cables and <br> telephones | 1,138 | 1,333 | -195 |
| Musical instruments | 80 | 44 | 36 |
| Sound recording or reproducing <br> apparatus \& equipments and <br> microphones | 50 | 179 | -129 |
| Cinematographic apparatus and <br> equipments | 124 | 142 | -18 |
| Photographic apparatus \& equipments <br> and films | 525 | 49 | 476 |
| Game apparatus | 280 | 112 | 27 |
| Pigments and blushes for artistic uses | 5,393 | 3,817 | 119 |
| Total (inter-dependent copyright product) |  | 85 |  |

(At market prices in calendar year of 2000)
(2) Scale of inter-dependent copyright trade in commercial products: trends

An analysis of Japan's inter-dependent copyright foreign trade values (real values) indicates that export volumes have stayed unchanged since 2001. Trade activities in the "Broadcast Transmitter \& Receiver" segment contributed to an increase of trade volume in 2000.

Imports have also remained unchanged since 2003. Regarding the "Computer"
segment, after reached a peak in 2003 demonstrating an upward trend, in 2007 the trade values have declined to the level of 1998.

Figure 7-18 Change of foreign trades in the inter-dependent copyright industries

> (real values)

*For 2007, the "Record, tapes, and other media" is not included.

Figure 7-19 Change of export values by inter-dependent copyright industry segment

| (Billion yen) |  |  |  |
| :--- | ---: | ---: | ---: |
| Paper | 1998 |  | 2007 |
| Printing inks | Average <br> annual growth |  |  |
| Computer | 71 | 110 | $5.0 \%$ |
| Recording media | 60 | 82 | $3.6 \%$ |
| Transmission \& reception apparatus <br> for broadcasting | 1,778 | 464 | $-13.9 \%$ |
| Transmission/ reception cables and <br> telephones | 289 | 615 | $8.8 \%$ |
| Musical instruments | 1,110 | 1,814 | $5.6 \%$ |
| Sound recording or reproducing <br> apparatus \& equipments and <br> microphones | 104 | 1,138 | $5.0 \%$ |
| Cinematographic apparatus and <br> equipments | 194 | 80 | $-2.8 \%$ |
| Photographic apparatus \& equipments <br> and films | 477 | 50 | $-14.0 \%$ |
| Game apparatus | 559 | 124 | $-13.9 \%$ |


| Pigments and blushes for artistic uses | 117 | 112 | $-0.5 \%$ |
| :--- | ---: | ---: | ---: |
| Total (inter-dependent copyright <br> product) | 5,589 | 5,393 | $-0.4 \%$ |

(At market prices in calendar year of 2000)

Figure 7-20 Change of import values by inter-dependent copyright industry segment

|  | (Billion yen) |  |  |
| :--- | ---: | ---: | ---: |
| Paper | 1998 | 2007 | Average <br> annual growth |
| Printing inks | 90 | 87 | $-0.5 \%$ |
| Computer | 8 | 8 | $0.3 \%$ |
| Recording media | 1,264 | 1,161 | $-0.9 \%$ |
| Transmission \& reception apparatus for <br> broadcasting | 60 | 183 | $13.1 \%$ |
| Transmission/ reception cables and <br> telephones | 316 | 445 | $3.9 \%$ |
| Musical instruments | 573 | 1,333 | $9.8 \%$ |
| Sound recording or reproducing <br> apparatus \& equipments and <br> microphones | 42 | 44 | $0.4 \%$ |
| Cinematographic apparatus and <br> equipments | 104 | 179 | $6.3 \%$ |
| Photographic apparatus \& equipments <br> and films | 89 | 142 | $5.3 \%$ |
| Game apparatus | 145 | 49 | $-11.4 \%$ |
| Pigments and blushes for artistic uses | 38 | 161 | $17.5 \%$ |
| Total (inter-dependent copyright <br> product) | 14 | 27 | $7.4 \%$ |
| (rtaret | 2,743 | 3,817 | $3.7 \%$ |

(At market prices in calendar year of 2000)
(3) Scale of inter-dependent copyright trade in commercial products: share of services in overall balance

Japan's inter-dependent copyright foreign trade values (real values) represent equal level of $6.7 \%$ of exports and $7.1 \%$ of imports in 2007.

Figure 7-21 Share of services in overall inter-dependent copyright foreign trade balance
(Billion yen)

|  | 1998 | 2007 | Average annual <br> growth <br> /total increase |
| :--- | ---: | ---: | ---: |
| Exports | 5,589 | 5,393 | $-0.4 \%$ |
| Trade balance (Total exports) | 42,388 | 80,622 | $9.6 \%$ |
| Trade balance ratio (\%) | $13.2 \%$ | $6.7 \%$ | -6.5 point |
| Imports | 2,743 | 3,817 | $3.7 \%$ |
| Trade balance (Total imports) | 30,999 | 53,982 | $8.2 \%$ |
| Trade balance ratio (\%) | $8.8 \%$ | $7.1 \%$ | -1.8 point |

(At market prices in calendar year of 2000)
[Reference] Foreign trade definitions

1) Definitions of foreign trade

Foreign trade is defined as follows:

- The act of buying/selling goods with a trading partner in a foreign country
- Exports refer to the act of selling and sending goods to a foreign country and imports refer to the act of buying and bringing in goods from a foreign country
(Source: Japan External Trade Organization (JETRO); documents from its website)

In addition to goods, foreign trade also includes trade in services, which is defined as follows:

The act of internationally trading financial, transportation, communications, construction and logistical services
(Source: The Ministry of Economy, Trade and Industry; documents from its website)

The World Trade Organization (WTO) categorizes trade in services into the following four modes:
(1) A service is supplied by a service provider to a customer overseas without leaving the country (Mode 1: cross-border service supply)
(2) A service is supplied by a local service provider to a service consumer from a foreign country (Mode 2: consumption abroad)
(3) A service is supplied by a service provider through a commercial presence such as branches or foreign-owned companies in a foreign country (Mode 3: commercial presence abroad)
(4) A service is supplied by a service provider to a customer overseas through the presence of temporary workers or specialists (Mode 4: movement of natural persons)

Figure7-22 Four Types of Foreign Trade in Services

| Type | Description | Typical Case | Image of Typical Case |
| :---: | :---: | :---: | :---: |
| 1. Cross-border trade (Mode 1) | Providing services from the territory of any of the member countries to that of other member country | - A case asking an opinion of a consultant abroad on the telephone. <br> - A case using mail-order with a catalog issued in abroad. |  |
| 2.Consumption abroad (Mode 2) | Providing services within the territory of any of the member countries and such services are used by consumers of other member country. | $\bullet$ A case having a meeting with using the meeting facilities abroad. <br> - A case repairing ship/aircraft abroad. |  |
| 3. Providing services through business operation base (Mode 3) | Services are provided by a service provider in the any of the member countries and the business operation is conducted through a business base located in the territory of other member country. | -Financial services through overseas branches. <br> -Distribution/ transportation services provided by a locallyincorporated entity abroad. |  |
| 4. Providing services with moving of natural person (Mode 4) | Services are provided by a service provider in any of the member countries and business operation is conducted through the activities of natural person in the territory of other member country. | - Entertainment services provided by an invited foreign artist. <br> - Repairing/ maintenance services provided by a short-term stay foreign engineer. |  |

*Marks in the image: Service provider, $\triangle$ Service consumer,
■ Business operation base,

- Natural person, $\bigcirc \triangle \square \diamond$ Before moving,
«---- Providing servicews, $\longleftarrow$ - Moving, «---Establishing a business base
(Source)Material of the Ministry of Foreign Affairs of Japan (its HP)

2) Economic statistics on trade

Statistics on trade are identified within the concepts of the balance of payments. The balance of payments, a systematical summary of the economic transactions of a country with the rest of the world, is defined as follows:

The balance of payments is a statistical statement that systematically summarizes, for a specific time period, the economic transactions of an economy with the rest of the world. Transactions between residents and nonresidents consist of (1) those involving goods, services and income; (2) those involving financial claims on and liabilities to the rest of the world; and (3) those classified as transfers. A transaction is defined as an economic flow that reflects the creation, transformation, exchange, transfer or extinction of
economic value and involves changes in ownership of goods and/or financial assets, the provision of services or the provision of labor and capital.
(Source: The Bank of Japan; documents from its website)

Japan's balance of payments is classified under the following categories. Trade in goods is included in the balance on trade and trade in services is included in the balance on services.

Figure 7-23 Component Items of International Balance of Payment

| Grand <br> Category | Sector | Subsector | Subtype |
| :--- | :--- | :--- | :--- |
| Balance <br> of <br> Payments | Current <br> Account | Goods \& Services | Trade balance |
|  |  | Income | Services |
|  |  | Current transfers |  |
|  | Capital <br> Financial <br> Account | Financial Account |  |
|  | Capital Account | Changes in Reserve Assets |  |

(Source)Created by NRI based on the BOJ's material (its HP)

# Part III: Study Results and Estimate Methodologies Based on WIPO Guidelines 

# Part III: Study Results and Estimate Methodologies Based on WIPO Guidelines 

## Chapter 8: WIPO Guidelines and Studies Based on WIPO Guidelines

## I. An overview of the WIPO guidelines

## 1. An overview of the WIPO guidelines

The key points of the WIPO guidelines in research and data collection concerning the size of the copyright industry are as follows:

- To clarify research methods in assessing the economic contribution of copyright-based industries
- To recommend value added as the calculation indicator of economic value
- To categorize copyright-based industries into the following four groups according to the extent to which their activities are dependent on copyright:

1) Core copyright industries; 2) Inter-dependent copyright industries; 3) partial copyright industries; and 4) non-dedicated support industries.

- In addition to value added, to also recommend a quantitative assessment on workforce and foreign trade

This white paper focuses on the core copyright industry and the inter-dependent copyright industry, as they are well-defined and are comparable with reports from other countries.

Figure 8-1 Definition of four groups in WIPO

| Name of group | Definition |
| :--- | :--- |
| Core copyright industries | The core copyright industries are industries that are wholly engaged in <br> creation, production and manufacturing, performance, broadcast, <br> communication and exhibition and distribution/ sales of works and <br> other protected subject matter. |
| Inter-dependent <br> copyright industries | The inter-dependent copyright industries are industries that are <br> engaged in production, manufacturing and sales of equipment whose <br> function is wholly or primarily to facilitate the creation, production or <br> use of works and other protected subject matter. |
| Partial <br> industries copyright | The partial copyright industries are industries in which a portion of the <br> activities is related to work and other protected subject matter and may <br> involve creation, performance, broadcast, communication and exhibition <br> or distribution and sales. |
| Non-dedicated copyright <br> industries | The non-dedicated copyright industries are industries in which a <br> portion of activities is related to facilitating broadcast, communication, <br> distribution or sales of work and other protected subject matter, and <br> whose activities have not been included in the core copyright <br> industries., |

(Source) "Guide on Surveying the Economic Contribution of Copyright-based Industries"

* The quotation from WIPO's guideline shall be subject to the description in Japanese translation of the "Copyright White Paper (Vol.2)" Separate Volume.

Figure 8-2 Examples of WIPO Copyright-based Industries

| Type of Copyright Industry | Main Groups of Industries | Subgroups |
| :---: | :---: | :---: |
| Core Copyright | Press and Literature | Authors, writers, translators; <br> Newspapers; <br> News and feature agencies; <br> Magazines/periodicals; <br> Book publishing; <br> Cards and maps, directories and other <br> published material; <br> Pre-press, printing, and post-press of <br> Books, magazines, newspapers, <br> Advertising materials; <br> Wholesale and retail of press and literature <br> (book stores, newsstands, etc.); <br> Libraries |
|  | Music, Theatrical Productions, Operas | Composers, lyricists, arrangers, choreographers, directors, performers and other personnel; <br> Printing and publishing of music; <br> Production/manufacturing of recorded music; <br> Wholesale and retail of recorded music (sale and rental); <br> Artistic and literary creation and interpretation; <br> Performances and allied agencies (bookings, ticket agencies, etc.) |
|  | Motion Picture and Video | Writers, directors, actors etc.; <br> Motion picture and video production and distribution; <br> Motion picture exhibition; <br> Video rentals and sales, video on demand; <br> Allied services |
|  | Radio and Television | National radio and television broadcasting companies; <br> Other radio and television broadcasters; <br> Independent producers; <br> Cable television (systems and channels); <br> Satellite television; <br> Allied services |
|  | Photography | Studios and commercial photography <br> Photo agencies and libraries |
|  | Software and Databases | Programming, development and design, manufacturing; <br> Wholesale and retail prepackaged software |


|  |  | (business programs, video games, educational programs etc.); Database processing and publishing |
| :---: | :---: | :---: |
|  | Visual and Graphic Arts | Artists; <br> Art galleries, other wholesale and retail; Picture framing and other allied services; Graphic design |
|  | Advertising services | Agencies, buying services |
|  | Copyright Collecting Societies | - |
| Interdependent industries | TV sets, Radios, VCRs, CD Players, <br> DVD Players, Cassette <br> Players, <br> Electronic Game Equipment, and other similar equipment | Manufacture <br> Wholesale and retail |
|  | Computers and Equipment | Manufacture <br> Wholesale and retail (sales and rental) |
|  | Musical Instruments | Manufacture <br> Wholesale and retail (sales and rental) |
|  | Photographic <br> Cinematographic <br> Instruments | Manufacture <br> Wholesale and retail (sales and rental) |
|  | Photocopiers | Manufacture <br> Wholesale and retail (sales and rental) |
|  | Blank Recording Material | Manufacture Wholesale and retail |
|  | Paper | Manufacture <br> Wholesale and retail |
| Partial Copyright Industries | Apparel, textiles and footwear Jewelry and coins <br> Other crafts <br> Furniture <br> Household goods, china and glass <br> Wallcoverings and carpets <br> Toys and games <br> Architecture, engineering, surveying <br> Interior design <br> Museums |  |
| Non-dedicated Support <br> Industries | General wholesale and  <br> retailing  <br> General transportation  <br> Telephony and Internet  |  |

(Source) "Guide on Surveying the Economic Contribution of Copyright-based Industries"

## 2. WIPO guidelines: working group and completion time

In 2002, the World Intellectual Property Organization (WIPO) convened a Working Group of specialists experienced in studies and research on the copyright industry.

The members of the group are noted in the table below.

The Working Group met in session in Helsinki, Finland, in July 2002, to discuss the substance of the WIPO guidelines. The meeting was chaired by Mr. Jukka Liedes, Special Adviser to the Government of Finland and Chairman of the WIPO Standing Committee on Copyright and Related Rights, who has many years been involved with national studies on the matter and is a leading figure in international copyright.

Their work has continued since then and the WIPO guidelines were published in 2003.

Figure 8-3 Key persons involved in generating WIPO guideline

|  | Name of person | National origin |
| :--- | :--- | :--- |
| Chairperson | Mr. Jukka Liedes | Finland |
| Member of working <br> Group | Mr.Jeremy Thorpe | Australia |
|  | Mr. Antonio Marcio Buainain | Brazil |
|  | Mr. Ahmed Ghoneim | Egypt |
|  | Mr. Robert Picard | Finland |
|  | Mr. Jules Theeuwes | Netherland |
|  | Professor Richard Watt | Spain |
|  | Dr. Ruth Towse | Netherland |
|  | Mr. Stephen Siwek | USA |

## II. Policies on WIPO-classified core copyright industries

## 1. Definitions of WIPO-classified core copyright industries

Core copyright industries are industries that are wholly engaged in creation, production and manufacturing, performance, broadcast, communication and exhibition and distribution/ sales of works and other protected subject matter.

The WIPO-classified core copyright industries are categorized in the following nine groups:

- Press and literature;
- Music, theatrical productions, operas;
- Motion picture and video;
- Radio and television;
- Photography;
- Software and databases;
- Visual and graphic arts;
- Advertising services; and
- Copyright collective management societies*
* Copyright collective management societies

In Japan, copyright collective management societies, which are considered part of the core copyright industry in the WIPO guidelines, are defined as enterprises and/or organizations that are engaged in copyright-related management operations based on management consignment contracts. Such enterprises and organizations must be registered with the Commissioner of the Agency for Cultural Affairs in order to operate copyright-related management businesses. Currently, 35 organizations are registered as copyright collective management societies.

## Copyright-related management business

Copyright-related management business refers to an act of business to authorize the use of works, etc. or otherwise manage the copyright, etc., under a management consignment contract (other than that in which a consignor is a person specified in the ordinance of the Ministry of Education, Culture, Sports, Science and Technology Ordinance as a person who has close personal or capital relations with a consignee) as outlined in Article 2.2 of the Law on Management Business of Copyright and

Neighboring Rights enacted in 2001.

- Management consignment contract

A management consignment contract is any of the following contracts other than those in which, when a consignee authorizes the use of copyrighted works, performance, sound recordings, over the air broadcasts and cable broadcasts, a consignor (or a consignor of the contract if that consignor is a consignee of any of the following contracts relating to the works) is to decide the royalty rates as outlined in Article 2.1 of the Law on Management Business of Copyright and Neighboring Rights enacted in 2001.
(i) A trust contract by which a consignor transfers his or her copyright or neighboring rights to a consignee who is entrusted to authorize the use of his or her works, etc. or otherwise manage the copyright, etc., concerned; and
(ii) A mandate contract by which a consignor entrusts a consignee to act as an agent or a proxy to authorize the exploitation of his or her works, etc. and manage the copyright, etc., correspondingly.

## 2. Policies on WIPO-classified core copyright industries

Industrial sectors for the WIPO-classified core copyright industries are categorized as per the table below. Visual and graphic arts data was excluded from the estimate process, however, as it was difficult to extract data for this sector as an individual industry. Furthermore, surveys of copyright collective management societies were conducted independently, as no official statistics for this category were available.

Figure 8-4 Industrial sectors of core copyright industries under WIPO classification

| Industrial sectors of core copyright industries under WIPO classification |  | Industrial sectors of core copyright industries under JCl classification |  |
| :---: | :---: | :---: | :---: |
| Main Groups of Industries | Subgroups | Main Groups of Industries | Subgroups |
| Press and literature | newspapers | 1)Printing and Publishing | All |
|  | news and feature agencies |  |  |
|  | magazines/periodicals |  |  |
|  | book publishing |  |  |
|  | cards, maps, directories and other published materials |  |  |
|  | pre-press, printing, and post-press of books, magazines, newspapers, advertising materials |  |  |
|  | wholesale and retail of press and literature (book stores, news stands) |  |  |
|  | libraries | 14)Libraries and Museums | (1)Libraries |
|  | authors, writers, translators | 15)Authors and Artists | Part of (1)Authors and Artists, Musician |
| Music, theatrical productions, operas | printing and publishing of music | 6)Music | All |
|  | production/manufacturing of recorded music |  |  |
|  | wholesale and retail of recorded music (sale and rental) |  |  |
|  | artistic and literary creation and interpretation |  |  |
|  | performances and allied agencies (booking agencies, ticket agencies) | 9)Legitimate Theater | (2)Theater and (3)Theatrical company, band and orchestra |
|  | composers, lyricists, arrangers, choreographers, directors, performers and other personnel | 15)Authors and Artists | Part of (1)Authors and Artists, Musician |
| Motion picture and video | writers, directors, actors etc. | 7)Motion Picture | All |
|  | motion picture and video production and distribution |  |  |
|  | video rentals and sales including video on demand |  |  |
|  | allied services |  |  |
|  | motion picture exhibition | 9)Legitimate Theater | (1)Movie Theater |
| Radio and television | national radio and television broadcasting companies | 3)Broadcasting | All |
|  | other radio and television broadcasters |  |  |
|  | independent producers |  |  |
|  | cable television (systems and channels) |  |  |
|  | satellite television |  |  |
|  | allied services |  |  |
| Photography | studios and commercial photography | 8) Photography | All |
|  | photo agencies and libraries (photo-finishing labs should not be included) |  |  |
| Software and databases | programming, development and design | 2)Computer Software and 10)Game Software | All |
|  | manufacturing, wholesale and retail prepackaged software (business programs, video games, educational programs etc.) |  |  |
|  | database processing and publishing |  |  |
| Visual and graphic arts | artists | Visual and graphic arts data was excluded from the estimate process, however, as it was difficult to extract data for this sector as an individual industry. |  |
|  | art galleries and other wholesale and retail |  |  |  |
|  | picture framing and other allied services |  |  |  |
|  | graphic design |  |  |  |
| Advertising services | agencies, buying services (the price of advertising should not be included) | 5)Advertising | All |
| Copyright Collective Management Societies | Copyright Collective Management Societies | Surveys of copyright collective management societies were conducted independently. |  |
|  |  | 4)Transmission | All |
|  |  | 11)Entertainment Facilities | All |
|  |  | 12)Design | All |
|  |  | 13)Architecture | All |
|  |  | 14)Libraries and Museums | (2)Museums and Art galleries |

## 3. Outline of the survey on copyright collective management societies

With cooperation of concerned groups and companies, we have conducted the following survey on copyright collective management societies for the purpose of collecting data required for estimation of industrial scale.

- Survey period: April 7 to April 15, 2009
- Number of targeted groups: 35 (all business entities and groups which have been registered in the Patent Office as copyright collective management societies as of the day of April 7, 2009.)
- Number of effective replies: 13 cases
- Matters of survey: (1) Total copyright management \& administrative expenses
(2) Number of staff


## III. Policies on WIPO-classified inter-dependent copyright industries

## 1. Definitions of WIPO-classified inter-dependent copyright industries

The inter-dependent copyright industries are industries that are engaged in the production, manufacturing and sale of equipment whose function is wholly or primarily to facilitate the creation, production or use of works and other protected subject matter.

The inter-dependent copyright industries can be further divided into the core inter-dependent copyright industry and the partial inter-dependent copyright industry.

The first group, the core inter-dependent copyright industry, includes the manufacture, wholesale and retail (sales and rental) of the following products. The products of this group of industries are jointly consumed with the contents of the core copyright industry. For example, there would be no music CDs without CD players. Therefore, the inter-dependent copyright industry supports the use of copyright content directly.

- TV sets, radios, VCRs, CD players, DVD players, cassette players, electronic game equipment and other similar equipment;
- Computers and equipment; and
- Musical instruments

The second group of inter-dependent copyright industries, partial inter-dependent copyright industries, covers the manufacture, wholesale and retail (sales and rental) of the following products. The products of this group of industries facilitate the use of the copyright content.

- Photographic and cinematographic instruments;
- Photocopiers;
- Blank recording material; and
- Paper


## 2. Policies on WIPO-classified inter-dependent copyright industries

The business sectors for the WIPO-classified inter-dependent copyright industries correspond to the JCI classifications as shown in the table below. It should be noted that some of the WIPO-classified categories combine multiple JCI-classified categories (e.g., TV sets, radios, VCRs, CD players, DVD players, cassette players, electronic game equipment and other similar equipment).

Also note that some of the categories in the JCI classifications do not have corresponding categories in the WIPO classifications (e.g., advertisement-related equipment in the media manufacturing sector).

Figure 8-5 Business sectors of the inter-dependent copyright industries under WIPO classification

| JCl classification | ommodity classification name for "Census of Manufacturers |  | WIPO classification |
| :---: | :---: | :---: | :---: |
|  | Commodity code | Commodity classification name |  |
| 1.Printing/ Publishing-related Equipment \& Media Manufacturing Industries | 152111 | Rolls of newsprint | paper |
|  | 152112 | Non-painted printing paper |  |
|  | 152113 | Painted printing paper |  |
|  | 152114 | Special printing paper |  |
|  | 152115 | Information paper |  |
|  | 152116 | Writing paper and drawing paper |  |
|  | 152117 | Unbleached wrapping paper |  |
|  | 152118 | Bleached wrapping paper |  |
|  | 152191 | Paper and machine-made Japanese paper ( piecework ) |  |
|  | 175511 | Ordinary ink | photocopiers |
|  | 175512 | Newspaper ink |  |
|  | 175513 | Vanish for printing ink |  |
|  | 175591 | Printing ink ( piecework) |  |
| 2.Computer Software-related Equipment \& Media Manufacturing Industries | 279311 | Magnetic tapes (raw) | computers and equipment |
|  | 279312 | Magnetic discs (raw) |  |
|  | 279391 | Raw magnetic tapes and discs ( piecework) |  |
|  | 282111 | General computers |  |
|  | 282112 | Office computers |  |
|  | 282113 | Work stations |  |
|  | 282114 | Parts, attachments and accessories of data processing machines, digital and analog computers and auxiliary equipment |  |
|  | 282191 | Data processing machines, digital and analog computers, equipment and accessories ( piecework ) |  |
|  | 282211 | Personal computers |  |
|  | 282212 | Parts, attachments and accessories of personal computers |  |
|  | 282291 | Personal computers, parts, attachments and accessories (piecework) |  |
|  | 282311 | Magnetic disc equipment | blank recording material |
|  | 282312 | Optical disc equipment |  |
|  | 282313 | Flexible disc equipment |  |
|  | 282319 | Miscellaneous external memories |  |
|  | 282321 | Parts, attachments and accessories of external memories |  |
|  | 282391 | External memories parts, attachments and accessories ( piecework) |  |
| 3.Broadcasting-related Equipment \& Media Manufacturing Industries | 281211 | Radio and TV broadcasting equipment | TV sets, Radios, VCRs, CD Players, DVD Players, Cassette Players, Electronic Game equipment, and other similar equipment |
|  | 281291 | Radio communication equipment ( piecework |  |
|  | 281311 | Radio receivers |  |
|  | 281312 | Television receivers, except liquid crystal receivers |  |
|  | 281313 | Liquid crystal television receivers |  |
|  | 281391 | Radio and television receivers ( piecework) |  |
| 4.Transmission-related Equipment \& Media Manufacturing Industries | 244116 | Telecommunication cable |  |
|  | 244191 | Electric wire and cable ( piecework) |  |
|  | 244212 | Optical fiber cable, including composite cable |  |
|  | 244291 | Optical fiber cable ( piecework) |  |
|  | 281131 | Digital transmission equipment |  |
|  | 281191 | Wired communication equipment ( piecework |  |
|  | 281213 | Cellular telephone sets and PHS telephone sets |  |
|  | 281291 | Radio communication equipment ( piecework |  |


| JCI classification | Ommodity classification name for "Census of Manufacturers |  | WIPO classification |
| :---: | :---: | :---: | :---: |
|  | Commodity conde | Commodity classification name |  |
| 5.Music-related Equipment \& Media Manufacturing Industries | 279311 | Magnetic tapes (raw) | TV sets, Radios, VCRs, CD Players, DVD Players, Cassette Players, Electronic Game equipment, and other similar equipment |
|  | 279312 | Magnetic discs (raw) |  |
|  | 279391 | Raw magnetic tapes and discs ( piecework) |  |
|  | 281411 | Stereo sets |  |
|  | 281412 | Car stereo sets |  |
|  | 281413 | Tape recorders |  |
|  | 281414 | Digital audio disc players |  |
|  | 281415 | High fidelity (HI-FI) amplifiers |  |
|  | 281416 | Speaker systems for $\mathrm{HI}-\mathrm{Fl}$ and cars |  |
|  | 281419 | Miscellaneous electric audio equipment |  |
|  | 281422 | Parts, attachments and accessories of electric audio equipment |  |
|  | 281491 | Electric audio equipment, and parts, attachments and accessories (piecework) |  |
|  | 291511 | Acoustic parts |  |
|  | 291512 | Magnetic heads |  |
|  | 291591 | Electro acoustic transducers, magnetic heads and small motors ( piecework) |  |
|  | 322111 | Pianos | musical instruments |
|  | 322211 | Guitars, including electric guitars |  |
|  | 322911 | Electronic musical instruments |  |
|  | 322919 | Miscellaneous Western and Japanese musical instruments |  |
|  | 322921 | Parts, attachments and accessories of musical instruments |  |
|  | 322991 | Musical instruments, parts and materials ( piecework) |  |
| 6.Motion Picture-related Equipment\& Media Manufacturing Industries | 274211 | Video tape recording and duplicating equipment (VTR, EVR) | photographic and cinematographic instruments |
|  | 274212 | Video cameras, including integrated VTR- <br> EVR, except broadcast video cameras |  |
|  | 274214 | Parts, attachments and accessories of video recording and duplicating equipment |  |
|  | 279311 | Magnetic tapes (raw) |  |
|  | 279312 | Magnetic discs (raw) |  |
|  | 279391 | Raw magnetic tapes and discs ( piecework) |  |
|  | 291512 | Magnetic heads |  |
|  | 291591 | Electro acoustic transducers, magnetic heads and small motors ( piecework) |  |
|  | 315311 | Motion picture equipment |  |
|  | 315321 | Parts, attachments and accessories of motion picture equipment |  |
|  | 315391 | Motion picture equipment, and parts, attachments and accessories (piecework) |  |
| 7.Photography-related Equipment \& Media Manufacturing Industries | 179511 | Photographic films, including photographic dry plate | photographic and cinematographic instruments |
|  | 179512 | Photographic films with lens |  |
|  | 179513 | Photographic paper |  |
|  | 179514 | Sensitized paper (for blue print and copy) |  |
|  | 179515 | Sensitive material for photoengraving |  |
|  | 179516 | Chemicals for photography, prepared and packaged |  |
|  | 179591 | Photosensitive materials ( piecework) |  |
|  | 274213 | Digital cameras |  |
|  | 315211 | 35-mm cameras |  |
|  | 315212 | Cameras except 35-mm cameras |  |
|  | 315213 | Photographic machines and related |  |
|  | 315214 | Parts, attachments and accessories of |  |
|  | 315291 | Cameras and parts, attachments and accessories (piecework) |  |
| 8.Game Software-related Equipment \& Media Manufacturing Industries | 323112 | Household TV games | TV sets, Radios, VCRs, CD Players, DVD Players, Cassette Players, Electronic Game equipment, and other similar equipment |
|  | 323113 | Electronic toys, using integrated circuits (IC) |  |
|  | 323131 | Parts and accessories of games and toys |  |
|  | 323191 | Games and toys (piecework) |  |
| 9.Advertising-related Equipment \& Media Manufacturing Industries | 329211 | Signboards, signs and display equipment, not electrical and mechanical | N/A |
|  | 329212 | Signboards, signs and display equipment, electrical and mechanical |  |
|  | 329291 | Signboards, signs and display equipment ( piecework) |  |
| 10.Entertainment Facility-related Equipment \& Media Manufacturing Industries | 268311 | Pinball machines and slot machines | N/A |
|  | 268312 | Game machines for amusement centers |  |
|  | 268313 | Recreation machines for amusement parks |  |
|  | 268319 | Miscellaneous recreation machines |  |
|  | 268329 | Parts, attachments and accessories of recreation machines |  |
|  | 268391 | Recreation machines, and parts, attachment and accessories (piecework) |  |
|  | 274211 | Video tape recording and duplicating equipment (VTR, EVR) |  |
|  | 281421 | Finished speaker systems, microphones, earphones, audio pickups, etc. |  |
|  | 281491 | Electric audio equipment, and parts, attachments and accessories (piecework) |  |
| 11.Author-related Equipment \& Media Manufacturing Industries | 324411 | Water paints | N/A |
|  | 324419 | Miscellaneous painting materials |  |
|  | 324491 | Calligraphy brushes and painting materials ( piecework ) |  |

(Note) Gray-shaded item sectors are those, which are classified under two or more JCI-classified sectors.

## Chapter 9: Outline of WIPO-Classified Copyright Industries

## I. Outline of WIPO-classified Core Copyright Industries

## 1. Scale of WIPO-classified copyright industry

In fiscal 2007, WIPO-classified core copyright industry reached an estimated scale of 44,593 billion yen in terms of the value of products and 17,123 billion yen in terms of the value added (based on market prices in calendar year 2000). By industry sector, the "Software Database" industry ranked first in terms of value added, followed in order by the "Press and Literature" and "Radio and Television."

Figure 9-1 Scale of WIPO-classified core copyright industry (Fiscal 2007)

| Industry Sector |  | Value of <br> products |  | Value-added |  |
| :--- | :--- | ---: | ---: | ---: | :---: |
|  | Value | Proportion |  |  |  |
| 1 | Press and Literature | 6,116 | 1,721 | $10.1 \%$ |  |
| 2 | Music, Theatrical Productions and <br> Operas | 1,057 | 231 | $1.4 \%$ |  |
| 3 | Motion Picture \& Video | 1,257 | 424 | $2.5 \%$ |  |
| 4 | Radio \& Television | 4,104 | 1,418 | $8.3 \%$ |  |
| 5 | Photography | 439 | 268 | $1.6 \%$ |  |
| 6 | Software \& Database | 27,966 | 12,290 | $71.8 \%$ |  |
| 7 | Advertising Services | 3,628 | 759 | $4.4 \%$ |  |
| 8 | Copyright Collective Management <br> Societies | 26 | 12 | $0.1 \%$ |  |
| Total of WIPO-classified core copyright <br> industries | 44,593 | 17,123 | $100.0 \%$ |  |  |

(At market prices in calendar year of 2000)

The above eight industry segments do not include the following JCI-classified sectors, "Transmission", "Entertainment Facilities", "Design", "Architecture" and "(2) Art Museums in Libraries and Museums".

The total value-added generated by these industries amounts to 2,215 billion yen. After added such amount to, and deducted 12 billion yen in the value-added generated by "Copyright Collective Management Societies" from the total Value-added of 17,126
billion yen in WIPO-classified industries. The total Value-added in WIPO-classified core copyright industries is equal to that in overall JCI-classified core copyright industries, 19 trillion 3,260 billion yen.

Figure 9-2 Scale of JCI-classified industries that are not included in WIPO-classified core copyright industries (fiscal 2007)

| Industry Sector |  | Value of products | (in billion yen) |
| :---: | :--- | ---: | ---: |
| 4 | Transmission | 2,390 | 769 |
| 10 | Entertainment Facilities | 1,583 | 557 |
| 11 | Design | 677 | 413 |
| 12 | Architecture | 848 | 461 |
|  | (2)Art Museums in | 46 | 16 |
| 13 | Libraries and Museums | 5,544 | 2,215 |
| Total of above sectors |  |  |  |

(At market prices in calendar year of 2000)

## 2. Positioning of WIPO-classified copyright industry in the national economy

The total of 17,123 billion yen in value-added generated by the WIPO-classified core copyright industries in fiscal 2007 represents $3.0 \%$ of the gross domestic product (GDP). That is, it has increased at a higher rate than that of GDP as it is so to JCI-classified industries. The proportion to GDP substantially rose from the level of the previous study.

Figure 9-3 Positioning of the WIPO-classified core copyright industry in the national economy

|  |  |  | (in billion yen)) |  |  |
| :--- | ---: | ---: | ---: | :---: | :---: |
|  | 1998 | 2002 | 2007 | Average <br> Annual <br> Growth <br> Rate |  |
| a) WIPO-classified core <br> copyright industry | 10,609 | 13,677 | 17,123 | $5.5 \%$ |  |
| b) GDP | 490,499 | 507,265 | 575,343 | $1.8 \%$ |  |
| Proportion to GDP (a/b) | $2.2 \%$ | $2.7 \%$ | $3.0 \%$ |  |  |

(At market prices of calendar year of 2000)
Source: GDP, "Annual Report on National Income" (Economic and Social Research Institute, Cabinet Office, Government of Japan) (fixed for fiscal 2007)

A look at the growth in the core copyright industries by industrial sector reveals that nearly entire growth (i.e., 99.9\%) derives from "Software and Database". In addition, "Radio \& Television" accounts for 3.9\%, followed by "Advertising Services" at $3.3 \%$ as other sectors contributed to overall growth.

Figure 9-4 Trend of Value-added by WIPO-classified core copyright industry sector (fiscal 1998-2007)
(in billion yen)

| Industrial sector |  | 1998 | 2007 | Increase <br> in the <br> value <br> added | Rate of <br> Contribution |
| :---: | :--- | ---: | ---: | ---: | ---: |
| 1 | Press and Literature | 1,949 | 1,721 | -228 | $-3.5 \%$ |
|  | Music, Theatrical Productions <br> and Operas | 283 | 231 | -51 | $-0.8 \%$ |
| 3 | Motion Picture \& Video | 476 | 424 | -52 | $-0.8 \%$ |


| 4 | Radio \& Television | 1,160 | 1,418 | 257 | $3.9 \%$ |
| ---: | :--- | ---: | ---: | ---: | ---: |
| 5 | Photography | 347 | 268 | -80 | $-1.2 \%$ |
| 6 | Software \& Database | 5,839 | 12,290 | 6,450 | $99.0 \%$ |
| 7 | Advertising Services | 545 | 759 | 215 | $3.3 \%$ |
|  | Copyright <br> Management Societies | 10 | 12 | 3 | $0.0 \%$ |
| Total of WIPO-classified core <br> copyright industries | 10,611 | 17,126 | 6,514 | $100.0 \%$ |  |

(At market prices in calendar year of 2000)
Note: Rate of contribution = increase in the value-added in one segment/ increase in the value-added in the overall industry

Source: GDP, "Annual Report on National Income" (Economic and Social Research Institute, Cabinet Office, Government of Japan) (fixed for fiscal 2007)

## 3. Methodologies to estimate the industrial scale of copyright collective management societies

For estimating the scale of WIPO-classified core copyright industries, the data are collected following the classification noted in Figure 8-4. Regarding copyright collective management societies, however, its industrial scale is calculated by means of the estimation methodologies noted below based on the results of the independent survey (refer to the above section on the "outline on the survey on copyright collective management societies")

O Estimation of Value of products
[Formula] Value of products $=$ Sum of copyright management \& administrative expenses $\underline{A} \div$ Rate of $\mathrm{SG} \& A$ to sales $\underline{B}$

A Sum of copyright management \& administrative expenses :
[Formula] Sum of copyright management \& administrative expenses =
$\Sigma$ \{Sum of copyright management \& administrative expenses of each entity $\underline{a}\}$
a Sum of copyright management \& administrative expenses of each entity :
[Sum of copyright management \& administrative expenses] in the "Survey on Copyright Collective Management Societies"

* Of 35 entities, 13 entities replied the questionnaires. As business size of each replied entity is different, however, we have employed an extended measurement by setting a standard value in accordance with the business size of entity.

B Rate of SG\&A to sales :
[Formula] Rate of SG\&A to sales $=\Sigma\{$ SG\&A of each entity a $\}$
$\div \Sigma\{$ Sales of each entity $\underline{b}\}$
a SG\&A of each entity :
「SG\&A] in the "Business Report"
b Sales of each entity :
[Sales] in the "Business Report"

* The above "rate of SG\&A to sales" was calculated with the business reports released by entities making continuous disclosure of income statements.

Estimation of Value-added
[Formula] Value-added $=$ Value of products estimated in the "Estimation of Value of products" noted above $\times$ Value-added rate

- Value-added rate :
[Formula] Value-added rate $=\Sigma$ \{Value-added of each entity $\underline{\text { A }}\}$
$\div \Sigma\{$ Sales of each entity $\underline{B}\}$
A Value-added of each entity :
[Formula]Value-added $=$ Compensation of employees $\underline{a}+$ Operational surplus
$\underline{\mathrm{b}}+$ Depreciation expenses $\underline{\mathrm{c}}+$ Indirect tax $\underline{\mathrm{d}}$
a Compensation of employees :
[Employment costs] + [Labor costs] in the Business Report
$\underline{b}$ Operational surplus :
[Operational profit] in the Business Report
c Depreciation expenses:
[Depreciation expenses] in the Business Report
$\underline{d}$ Indirect tax :
[Sales] in the Business Report $\times 5 \%$
B Value of products of each entity :
[Sales] in the Business Report


## II. Outline on WIPO-Classified Inter-dependent Copyright Industries

## 1. Outline on WIPO-classified inter-dependent copyright industries

In fiscal 2007, WIPO-classified inter-dependent copyright industries accounted to 30,484 billion yen in terms of the Value of products, and 6,674 billion yen in terms of the Value-added (at market prices in calendar year of 2000.) For the value-added by industrial sector, the "TV sets, Radios, VCRs, CD Players, DVD Players, Cassette Players, Electronic Game Equipments and other similar equipments" ranked first, followed in order by the "Photographic and Cinematographic Instruments" sector and the "Computer \& Equipment" sector.

In terms of the Value-added by industrial sector, the largest

Figure 9-5 Scale of WIPO-classified inter-dependent copyright industries (fiscal 2007)

| Industrial sector |  | Value of products | Value-added |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Value | Proportion |
| 1 | TV sets, Radios, VCRs, CD Players, DVD Players, Cassette Players, Electronic Game Equipments and other similar equipments |  | 13,065 | 2,793 | 41.8\% |
| 2 | Computer Equipment | 6,344 | 1,147 | 17.2\% |
| 3 | Musical Instruments | 360 | 155 | 2.3\% |
| 4 | Photographic and Cinematographic Instruments | 6,966 | 1,623 | 24.3\% |
| 5 | Photocopiers | 329 | 92 | 1.4\% |
| 6 | Blank Recording Materials | 1,649 | 399 | 6.0\% |
| 7 | Paper | 1,771 | 465 | 7.0\% |
| Total of WIPO-classified inter-dependent copyright industries |  | 30,484 | 6,674 | 100.0\% |

(At market prices in calendar year of 2000)

## 2. Positioning of WIPO-classified inter-dependent copyright industries in the national economy

The total of 6,674 billion yen in the value-added generated by WIPO-classified inter-dependent industries in fiscal 2007 represents $1.2 \%$ of the gross domestic product (GDP). This value indicates an increase at a higher growth rate than that of GDP as it is so to the value-added generated by 15 sectors of copyright industries. The proportion to GDP also rose from the level of the previous study.

Figure 9-6 Positioning of the WIPO-classified inter-dependent copyright industry in the national economy

|  |  | (in billion yen) |  |  |
| :--- | ---: | ---: | ---: | ---: |
|  | 1998 | 2002 | 2007 | Average <br> Annual <br> Growth <br> Rate |
| a) WIPO-classified <br> inter-dependent <br> copyright industry | 3,417 | 4,064 | 6,674 | $7.7 \%$ |
| b) GDP | 490,499 | 507,265 | 575,343 | $1.8 \%$ |
| Proportion to GDP (a/b) | $0.7 \%$ | $0.8 \%$ | $1.2 \%$ |  |

(At market prices of calendar year of 2000)
Source: GDP, "Annual Report on National Income" (Economic and Social Research Institute, Cabinet Office, Government of Japan) (fixed for fiscal 2007)

A look at the growth in the core copyright industries by industrial sector reveals that major proportion of the growth (i.e., 53.7\%) derives from "TV sets, Radios, VCRs, CD Players, DVD Players, Cassette Players, Electronic Game Equipments, and other similar equipments" sector. In addition, the "Photographic and Cinematographic Instruments" sector contributed at $29.2 \%$, and the "Computer and Equipment" did at $12.6 \%$.

Figure 9-7 Trend of the value-added by WIPO-classified inter-dependent copyright industry sector (fiscal 1998-2007)

| Industrial sector |  | 1998 | 2007 | Increas <br> e in the <br> value | Rate of <br> contribut <br> ion |
| :---: | :--- | ---: | ---: | ---: | ---: |
| 1 | TV sets, Radios, VCRs, CD Players, <br> DVD Players, Cassette Players, <br> Electronic Game Equipments and <br> other similar equipments | 1,045 | 2,793 | 1,747 | $53.7 \%$ |
| 2 | Computer \& Equipment | 737 | 1,147 | 410 | $12.6 \%$ |
| 3 | Musical Instruments | 118 | 155 | 36 | $1.1 \%$ |
| 4 | Photographic and Cinematographic <br> Instruments | 671 | 1,623 | 952 | $29.2 \%$ |
| 5 | Photocopiers | 77 | 92 | 15 | $0.5 \%$ |
| 6 | Blank Recording Materials | 228 | 399 | 172 | $5.3 \%$ |
| 7 | Paper | 540 | 465 | -75 | $-2.3 \%$ |
| Total of WIPO-classified inter-dependent <br> copyright industries | 3,417 | 6,674 | 3,257 | $100.0 \%$ |  |

(At market prices in calendar year of 2000)
Note: Rate of contribution = increase in the value-added in one segment/ increase in the value-added in the overall industry

Source: GDP, "Annual Report on National Income" (Economic and Social Research Institute, Cabinet Office, Government of Japan) (fixed for fiscal 2007)

## Chapter 10: Overview on Workforce in WIPO-Classified Copyright Industries

## I. Overview on Workforce in WIPO-Classified Core Copyright Industries

## 1. Workforce scale of WIPO-classified core copyright industries

The workforce* in WIPO-classified core copyright industries reached 1,435,000 workers in 2007. Thee "Software \& Database" sector ranked first, followed in order by "Press and Literature" and "Motion Picture and Video."

Figure 10-1 Workforce by WIPO-classified core copyright industry (fiscal 2007)

| (in thousand persons) |  |  |  |
| :---: | :---: | :---: | :---: |
| Industrial sector |  | Workforce |  |
|  |  | No. of workforce | Proportion |
| 1 | Press and Literature | 172 | 12.0\% |
| 2 | Music, Theatrical Productions and Operas | 40 | 2.8\% |
| 3 | Motion Picture \& Video | 61 | 4.2\% |
| 4 | Radio \& Television | 45 | 3.2\% |
| 5 | Photography | 47 | 3.2\% |
| 6 | Software \& Database | 1,015 | 70.7\% |
| 7 | Advertising Services | 54 | 3.8\% |
| 8 | Copyright Collective Management <br> Societies | 1 | 0.1\% |
| Total of WIPO-classified core copyright industries |  | 1,435 | 100.0\% |

The above eight industrial sectors do not include the following JCI-classified sectors, "Transmission", "Entertainment Facilities", "Design", "Architecture" and "(2) Art Museum of Libraries \& Museums".

Number of workforce in these industries accounts to 474,000 workers. After added these workers to $1,435,000$, and deducted the workforce of 1,000 working in copyright collective management societies from the total workforce in WIPO-classified core copyright industries, the total workforce is $1,909,000$ equal to that of JCI-classified industries.

Figure 10-2 Workforce in JCI-classified sectors that are not included in WIPO-classified core copyright industries (fiscal 2007)
(in thousand persons)

| Industrial sector |  | No. of workforce |
| :---: | :--- | ---: |
| 4 | Transmission | 47 |
| 10 | Entertainment Facilities | 134 |
| 11 | Design | 46 |
| 12 | Architecture | 245 |
| 13 | (2)Art Museums of <br> Libraries and Museums | 3 |
| Total of above sectors |  | 474 |

## 2. Positioning of Fiscal 2007 Workforce in WIPO-classified Core Copyright Industries in the National Workforce

In fiscal 2007, the workforce in WIPO-classified core copyright industries accounts to $1,388,000$ workers, representing $2.2 \%$ of the national workforce. This number of workforce indicates an increase at a higher growth rate than that of the national workforce as it is so to the growth in JCI-classified copyright industries. The proportion to the national workforce also rose from the level of the previous study.

Figure 10-3 Positioning of WIPO-classified core copyright industries (workforce) in the national workforce

|  |  |  |  |  |  | (in thousand persons) |  |  |
| :--- | ---: | ---: | ---: | ---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Average <br> Annual <br> Growth <br> Rate |  |  |  |  |
| a)WIPO-classified core <br> copyright industries | 1998 | 2002 | 2007 | $2.3 \%$ |  |  |  |  |
| b)National workforce | 66,276, | 63,592, | 64,451, | $-0.3 \%$ |  |  |  |  |
| Proportion to national <br> workforce(a/b) | $1.8 \%$ | $1.8 \%$ | $2.2 \%$ |  |  |  |  |  |

(Source)National workforce: number of employees in the "Annual Report on National Income Statistics" (fixed for fiscal 2007)

A look at the growth in the copyright industries by industrial sector reveals that nearly entire growth (124.3\%) derives from "Software \& Database" sector.

Figure 10-4 Trend of workforce by WIPO-classified core copyright industry sector (fiscal 1998-2007)

|  |  | (in thousand persons) |  |  |  |
| :---: | :--- | ---: | ---: | ---: | ---: |
| Industrial sector |  | 1998 | 2007 | Increase <br> in <br> number | Rate of <br> contributi <br> on $^{(*)}$ |
| 1 | Press and Literature | 205 | 172 | -33 | $-12.5 \%$ |
| 2 | Music, Theatrical Productions <br> and Operas | 38 | 40 | 2 | $0.8 \%$ |
| 3 | Motion Picture \& Video | 71 | 61 | -11 | $-3.9 \%$ |
| 4 | Radio \& Television | 51 | 45 | -5 | $-2.0 \%$ |


| 5 | Photography | 71 | 47 | -24 | $-8.9 \%$ |
| :--- | :--- | ---: | ---: | ---: | ---: |
| 6 | Software \& Database | 683 | 1,015 | 332 | $124.3 \%$ |
| 7 | Advertising Services | 48 | 54 | 6 | $2.3 \%$ |
| 8 | Copyright Collective <br> Management Societies | 1 | 1 | 0 | $0.0 \%$ |
| Total of WIPO-classified core <br> copyright industries | 1,168 | 1,435 | 267 | $100.0 \%$ |  |

Note: Rate of contribution = increase in the value-added in one segment/ increase in the value-added in the overall industry
3. Methodology to estimate workforce scale of copyright collective management societies

For estimating the workforce scale of WIPO-classified core copyright industries, the data are collected following the classification noted in Figure 8-4. Regarding copyright collective management societies, however, its industrial scale is calculated by means of the estimation methodologies noted below based on the results of the independent survey (refer to the above section on the "outline on the survey on copyright collective management societies")Estimation of number of workforce
[Formula] Number of workforce $=$ Number of employees $\underline{A}$
A Number of employees:
[Formula] Number of employees $=$
$\Sigma$ \{Number of employees in each entity a\}
a Number of employees of each entity :
[Number of staff] in the "Survey on Copyright Collective Management Societies"

* Of 35 entities, 13 entities replied the questionnaires. As business size of each replied entity is different, however, we have employed an extended measurement by setting a standard value in accordance with the business size of entity.


## II. Overview on Workforce Scale of WIPO-classified Inter-dependent Copyright Industries

## 1. Workforce Scale of WIPO-classified Inter-dependent Copyright Industries

The workforce in WIPO-classified inter-dependent copyright industries reached 228,000 workers in fiscal 2007. The "TV sets, Radios, VCRs, CD Players, DVD Players, Cassette Players, Electronic Game Equipments, and other similar equipments" sector ranked first in terms of the workforce. The second largest sector was "Photographic and Cinematographic Instruments", followed by "Computer and Equipment."

Figure 10-5 Workforce by WIPO-classified inter-dependent copyright industrial sector (fiscal 2007) (in thousand persons)

| Industrial sector |  | Workforce |  |
| :---: | :---: | :---: | :---: |
|  |  | No. of workforce | Proportion |
| 1 | TV sets, Radios, VCRs, CD Players, DVD Players, Cassette Players, Electronic Game Equipments and other similar equipments | 94 | 41.4\% |
| 2 | Computer \& Equipment | 32 | 13.8\% |
| 3 | Musical Instruments | 10 | 4.2\% |
| 4 | Photographic and Cinematographic Instruments | 53 | 23.4\% |
| 5 | Photocopiers | 6 | 2.7\% |
| 6 | Blank Recording Materials | 13 | 5.7\% |
| 7 | Paper | 20 | 8.8\% |
| Total of WIPO-classified inter- copyright dependent industries |  | 228 | 100.0\% |

## 2. Positioning of workforce in WIPO-classified inter-dependent copyright industries in the national workforce

In fiscal 2007, the workforce in WIPO-classified inter-dependent copyright industries accounted to 228,000 , representing $0.4 \%$ of the national workforce. The trend of this workforce is different from that in JCI-classified classification. That is, it has significantly declined from the trend of the national workforce, and it also decreased from the level of the previous study.

Figure 10-6 Positioning of WIPO-classified inter-dependent copyright industries
(workforce) in the national workforce
(in thousand persons)

|  |  |  |  | Average <br> Annual <br> Growth <br> Rate |
| :--- | ---: | ---: | ---: | :---: |
| a)WIPO-classified <br> inter-dependent copyright <br> industries | 358 | 282 | 228 | $-4.9 \%$ |
| b) National workforce | 66,276 | 63,592 | 64,451 | $-0.3 \%$ |
| Proportion to national <br> workforce(a/b) | $0.5 \%$ | $0.4 \%$ | $0.4 \%$ |  |

(At market prices in calendar year of 2000)
(Source)National workforce: Number of workers in the "Annual Report on National Income Statistics" (fixed for fiscal 2007)

Part IV: Data

## Part IV Data

## Chapter 11: Data

## 1. Statistics and data used in the estimation

| No. | Statistical survey | Releasing/publishing institutions | Frequency of Implementation |
| :---: | :---: | :---: | :---: |
| (1) | Census of Manufactures | Ministry of Economy, Trade and Industry | Yearly |
| (2) | Survey on Service industries | Ministry of Internal Affairs and Communications | Every 3 years |
| (3) | Annual Report on National Income Statistics | Economic and Social Research Institute, <br> Cabinet Office, Government of Japan | Yearly |
| (4) | Survey of Selected Service Industries [Newspaper \& Publishing industries] | Ministry of Economy, Trade and Industry | - |
| (5) | Survey of Selected Service Industries [Information Services] | Ministry of Economy, Trade and Industry | Yearly |
| (6) | Survey of Selected Service Industries [Software Services] | Ministry of Economy, Trade and Industry | Yearly |
| (7) | Survey of Selected Service Industries [Data Processing \& Providing Service Industry] | Ministry of Economy, Trade and Industry | Yearly |
| (8) | Survey of Selected Service Industries [Display] | Ministry of Economy, Trade and Industry | Every 3 years |
| (9) | Survey of Selected Service Industries [Movie, <br> Home video, TV program production industry] | Ministry of Economy, Trade and Industry | Every 3 years |
| (10) | Survey of Selected Service Industries [Movie theater] | Ministry of Economy, Trade and Industry | Every 3 years |
| (11) | Survey of Selected Service Industries [Legitimate theater] | Ministry of Economy, Trade and Industry | Every 3 years |
| (12) | Survey of Selected Service Industries <br> [Amusement / Theme park] | Ministry of Economy, Trade and Industry | Every 3 years |
| (13) | Survey of Vital Statistics of Selected Service Industries [Movie Theater] | Ministry of Economy, Trade and Industry | Yearly |
| (14) | Survey of Vital Statistics of Selected Service <br> Industries [Amusement / Theme park] | Ministry of Economy, Trade and Industry | Yearly |


| (15) | Statistics from Analysis of Corporate Financial Statements | Teikoku Databank, Ltd. | Yearly |
| :---: | :---: | :---: | :---: |
| (16) | White Paper on the Printing Industry | Japan Association of Graphic Arts <br> Technology | Yearly |
| (17) | Total Sales of Newspaper companies | Nihon Shinbun Kyokai | Yearly |
| (18) | Annual Report of Publication | The All Japan Magazine and Book Publisher's and Editor's Association | Yearly |
| (19) | Survey on the Telecommunications Industry | Ministry of Internal Affairs and Communications | Yearly |
| (20) | Radio \& Television Yearbook | Japan Broadcasting Corporation: NHK | Yearly |
| (21) | Japan Commercial Broadcasting Yearbook | The National Association of Commercial <br> Broadcasters in Japan | Yearly |
| (22) | Advertising Expenditures in Japan Total | Dentsu Inc. | Yearly |
| (23) | RIAJ Year Book <br> -a brief description of the Japanese Recording Industries- | Recording Industry Association of Japan | Yearly |
| (24) | Survey on CD rental stores | Recording Industry Association of Japan | Yearly |
| (25) | Production Data of the past 10 years | Recording Industry Association of Japan | Yearly |
| (26) | Data provided by JASRAC | JASRAC | Yearly |
| (27) | CESA Game White Paper | Computer Entertainment <br> Association  | Yearly |
| (28) | Survey on Amusement Industries | JAMMA, AOU, NSA* | Yearly |
| (29) | Karaoke White Paper | All-Japan Karaoke Industrialist <br> Association   | Yearly |
| (30) | Statistics on Construction undertaken | Ministry of Land Infrastructure and Transport | Yearly |
| (31) | Cost Analysis Information for Building Works | Management Research Society for Construction Industry | Yearly |
| (32) | Statistics on Libraries in Japan | Japan Library Association | Yearly |


| (33) | Museum White Paper (fiscal 2004) | Japan Association of Museums |  |
| :---: | :---: | :---: | :---: |
| (34) | Public Welfare and Health Cost Survey | Japan Business Federation | Yearly |
| (a) | Financial Statement Report [Advertising Agency] | Ministry of Finance | Yearly |
| (b) | Financial Statement Report [Advertising Production] | Ministry of Finance | Yearly |
| (c) | Financial Statement Report [Record company] | Ministry of Finance | Yearly |
| (d) | Financial Statement Report [Music Publishing Company] | Ministry of Finance | Yearly |
| (e) | Financial Statement Report [Karaoke Company] | Ministry of Finance | Yearly |
| (f) | Financial Statement Report [Mobile phone Company] | Ministry of Finance | Yearly |
| (g) | Statement of net assets | Representative company | Yearly |
| (h) | Results of the original survey | Management Business Organization of Copyright and Neighboring Rights | Yearly |

* : JAMMA (Japan Amusement Machinery Manufacturers Association), AOU (All Nippon Amusement Machine Operator's Union), NSA (Nihon Shopping Center Amusement Park Operators Association)
(1)Census of Manufactures (Ministry of Economy, Trade and Industry)
1.Statistical Tables by Respective Industry (4-digit industrial subclassification) (1) Establishment with 4 or more employees
1.Statistical Tables by Respective Industry (4-digit industrial subclassification) (1) Establishment with 30 or more employees

|  |  |  |  |  |  |  |  | (Mill | yen) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Fiscal |  | JSIC[Groups] |  | Value of |  | gible fixed as |  | Number |
|  | Year | No. | Classification | and Salaries Paid | Shipment | Write- offs | Depreciation | Subtotal | employees |
|  |  | 1610 | Printing | 1,503,103 | 7,587,539 | 41,011 | 265,988 | 306,999 | 331,454 |
|  | 1998 | 3296 | Information recording materials, except newspapers, books, other printed products, etc. | 38,880 | 241,575 | - | - | - | 7,765 |
|  |  | 1610 | Printing | 1,423,251 | 6,852,605 | 40,944 | 251,615 | 292,559 | 314,337 |
|  | 1999 | 3296 | Information recording materials, except newspapers, books, other printed products, etc. | 33,885 | 255,541 | - | - | - | 7,009 |
|  |  | 1610 | Printing | 1,386,430 | 6,878,514 | 37,690 | 248,382 | 286,072 | 309,585 |
|  | 2000 | 3296 | Information recording materials, except newspapers, books, other printed products, etc. | 36,370 | 603,008 | - | - | - | 7,351 |
|  |  | 1610 | Printing | 1,317,597 | 6,774,396 | 30,033 | 204,665 | 234,698 | 302,809 |
| $\begin{aligned} & \text { No } \\ & \end{aligned}$ | 2001 | 3296 | Information recording materials, except newspapers, books, other printed products, etc. | 32,462 | 198,521 | - | - | - | 7,304 |
|  |  | 1610 | Printing | 1,267,264 | 6,492,009 | 29,725 | 174,351 | 204,076 | 293,701 |
|  | 2002 | 3296 | Information recording materials, except newspapers, books, other printed products, etc. | 30,037 | 176,972 | 2,562 | 9,725 | 12,287 | 6,512 |
|  |  | 1610 | Printing | 1,208,877 | 6,347,589 | 30,718 | 162,694 | 193,412 | 289,208 |
|  | 2003 | 3296 | Information recording materials, except newspapers, books, other printed products, etc. | 31,106 | 358,203 | 1,491 | 8,360 | 9,851 | 6,124 |
|  |  | 1610 | Printing | 1,158,190 | 6,171,149 | 30,961 | 161,071 | 192,032 | 278,212 |
|  | 2004 | 3296 | Information recording materials, except newspapers, books, other printed products, etc. | 29,891 | 378,826 | 3,429 | 7,178 | 10,607 | 6,162 |
|  |  | 1610 | Printing | 1,159,808 | 6,104,794 | 42,565 | 147,586 | 190,151 | 275,835 |
|  | 2005 | 3296 | Information recording materials, except newspapers, books, other printed products, etc. | 29,370 | 398,970 | 2,356 | 7,289 | 9,645 | 6,113 |
|  |  | 1610 | Printing | 1,105,570 | 6,000,175 | 24,861 | 149,206 | 174,067 | 268,151 |
|  | 2006 | 3296 | Information recording materials, except newspapers, books, other printed products, etc. | 25,785 | 554,771 | 1,044 | 8,142 | 9,186 | 5,741 |

(2)Survey on Service industries (Ministry of Internal Affairs and Communications)
$\bigcirc$ 1. Number of Establishments, Persons Engaged and Regular Employees, Income, Expenses, Wages and Salaries and Equipment Investment (Total and per Establishment) by Industry (Minor Groups)

Fiscal 1999

|  |  |  |  |  |  | Million yen) | persons) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | dustries Classification [Groups] | Number of |  | Total | Total Wages | Number of |
|  | No. | Class | Establishment |  | expenses | and Salaries | employees |
|  | 762 | Legitimate theatres and Performances | 390 | 183,683 | 167,378 | 34,192 | 9,249 |
|  | 763 | Theatrical companies | 1,761 | 732,799 | 677,091 | 100,288 | 20,135 |
|  | 77C | Museums and art museums | 757 | 56,409 | 104,679 | 24,492 | 6,351 |
|  | 79A | Audio and visual recordings rental, except otherwise classified | 7,312 | 445,131 | 344,343 | 99,312 | 60,468 |
| N | 80H | Design services | 10,111 | 665,150 | 579,027 | 201,637 | 47,164 |
| $\stackrel{+}{*}$ | 805 | Engineering and Architectural Services | 54,483 | 6,691,461 | 5,685,942 | 2,405,266 | 445,202 |
|  | 807 | Authors and Artists | 1,250 | 10,788 | 7,227 | 2,116 | 2,048 |
|  | 82A | Data processing services | 4,449 | 3,122,636 | 2,840,562 | 857,201 | 156,321 |
|  | 82B | Information Provision | 1,264 | 556,195 | 482,530 | 113,607 | 20,508 |
|  | 821 | Computer programming and software services | 14,136 | 10,334,381 | 9,092,099 | 3,006,576 | 480,310 |
|  | 831 | Advertising Agencies | 8,109 | 8,803,623 | 6,629,027 | 821,608 | 118,386 |
|  | 841 | Movie theater | 955 | 264,645 | 228,936 | 41,169 | 13,505 |
|  | 845 | Public gardens and Amusement parks | 429 | 608,036 | 545,525 | 136,448 | 50,356 |
|  | - | Service Industry | 1,217,232 | 154,747,987 | 131,941,319 | 33,860,392 | 9,425,208 |

Fiscal 2004

|  |  |  |  |  |  | illion yen) | ersons) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | astries Classification [Groups] | Number of | Incomes | Total | Total Wages | Number of |
|  | No. | Class | Establishment | Incomes | expenses | and Salaries | employees |
|  | 77C | Museums and art museums | 696 | 32,511 | 32,128 | 9,310 | 4,622 |
|  | 79A | Audio and visual recordings rental, except otherwise classified | 5,202 | 406,381 | 298,268 | 84,136 | 51,179 |
|  | 80H | Design services | 9,400 | 620,813 | 483,371 | 190,461 | 46,261 |
|  | 805 | Engineering and Architectural Services | 53,122 | 4,599,814 | 3,859,184 | 1,657,068 | 346,900 |
|  | 807 | Authors and Artists | 1,058 | 6,550 | 3,925 | 819 | 1,766 |
|  | 831 | Advertising Agencies | 8,575 | 8,300,644 | 7,171,288 | 736,937 | 116,646 |
|  | 84K | Game centers | 4,784 | 719,284 | 555,248 | 107,366 | 50,987 |
|  | 841 | Movie theater | 744 | 275,533 | 220,275 | 34,234 | 15,184 |
| $\begin{aligned} & \text { No } \\ & \text { NOK } \end{aligned}$ | 842 | Legitimate theatres and Performances | 2,260 | 763,670 | 742,783 | 126,679 | 30,976 |
|  | 845 | Public gardens and Amusement parks | 468 | 614,420 | 588,086 | 112,104 | 49,792 |
|  | - | Service Industry | 1,892,710 | 151,815,917 | 127,096,595 | 32,745,501 | 12,345,424 |

(3)Annual Report on National Income Statistics (Economic and Social Research Institute, Cabinet Office, Government of Japan)

O Deflators on outputs (fixed-based method) (1998~2007) (Base year = Calendar year of 2000)

| Fiscal Year |  |  | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1.Industry | (3) Manufacturing | d. Chemicals | 105.5 | 101.8 | 100.0 | 97.6 | 95.6 | 93.7 | 92.0 | 89.9 | 82.7 | 82.2 |
|  |  | k. Electrical machinery ,equipment and supplies | 120.7 | 110.5 | 100.0 | 90.0 | 79.3 | 66.3 | 57.9 | 50.7 | 48.2 | 42.0 |
|  |  | m. Precision instruments | 104.8 | 102.0 | 100.0 | 103.9 | 103.5 | 99.6 | 96.7 | 95.0 | 89.7 | 86.3 |
|  |  | q. Publishing and printing | 96.8 | 99.8 | 100.0 | 100.5 | 101.1 | 100.3 | 99.3 | 98.4 | 96.9 | 94.0 |
|  |  | t. Others | 108.4 | 105.9 | 100.0 | 99.5 | 97.7 | 93.8 | 91.4 | 88.5 | 84.7 | 79.8 |
|  | (9) Transport and communications | b. Communications | 110.3 | 105.7 | 100.0 | 91.4 | 86.5 | 84.6 | 83.1 | 82.0 | 81.2 | 78.8 |
|  | (10) Service activities |  | 101.1 | 100.5 | 100.0 | 98.2 | 96.2 | 94.0 | 92.4 | 90.1 | 88.4 | 88.0 |
| Gross domestic product |  |  | 102.8 | 101.6 | 100.0 | 98.7 | 97.2 | 95.4 | 94.1 | 92.5 | 91.9 | 90.2 |

$N$
0
Gross domestic product (At constant prices) (1998~2007)
(Billion yen)

| Fiscal Year | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Gross domestic product | 490,499 | 493,481 | 505,572 | 501,673 | 507,265 | 519,630 | 531,926 | 545,363 | 558,151 | 575,343 |

(4) Survey of Selected Service Industries [Newspaper \& Publishing industries] (Ministry of Economy, Trade and Industry)I Annual sales

| (Million yen) |  |
| :--- | :---: |
| Fiscal Year | 2005 |
| Newspaper | $2,385,961$ |
| Publishing | $2,604,050$ |

O II Annual operating costs

| (Million yen) |  |
| :--- | :---: |
| Fiscal Year | 2005 |
| Newspaper | $2,415,299$ |
| Publishing | $2,585,734$ |

$N$
$N$
O II Total wages and salaries
(Million yen)

| Fiscal Year | 2005 |
| :--- | :---: |
| Newspaper | 562,485 |
| Publishing | 444,003 |II Number of employees


| (persons) |  |
| :--- | :---: |
| Fiscal Year | 2005 |
| Newspaper | 60,831 |
| Publishing | 62,608 |

(5)Survey of Selected Service Industries [Information Services] (Ministry of Economy, Trade and Industry)
$\bigcirc$ I Annual sales

| Fiscal Year | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Computer programming <br> and software services | $6,318,916$ | $6,692,482$ | $7,421,121$ | $9,471,820$ | $9,685,925$ | $8,805,141$ | $9,243,642$ | $9,273,371$ |
| Data processing <br> services | $2,049,412$ | $1,882,524$ | $2,121,428$ | $3,079,979$ | $3,189,288$ | $3,899,210$ | $3,713,479$ | $3,981,741$ |
| Information Provision | 260,112 | 230,229 | 211,102 | 208,966 | 210,538 | 209,526 | 227,232 | 243,800 |

O I Annual operating costs

| Fiscal Year | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Computer programming <br> and software services | N/A | N/A | $6,691,052$ | $8,335,294$ | $8,632,133$ | $7,819,425$ | $8,279,107$ | $8,308,373$ |
| Data processing <br> services | N/A | N/A | $1,991,213$ | $2,803,345$ | $2,819,345$ | $3,521,970$ | $3,361,806$ | $3,207,229$ |
| Information Provision | N/A | N/A | 196,354 | 188,205 | 187,029 | 184,627 | 204,974 | 160,888 |

○ I Total wages and salaries
(Million yen)

| Fiscal Year | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
| :--- | :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Computer programming <br> and software services | N/A | N/A | $2,023,243$ | $2,034,842$ | $2,198,939$ | $2,179,836$ | $2,262,409$ | $2,225,667$ |
| Data processing <br> services | N/A | N/A | 620,822 | 853,828 | 808,298 | 891,420 | 852,751 | 874,696 |
| Information Provision | N/A | N/A | 33,650 | 36,102 | 33,610 | 32,924 | 37,895 | 36,330 |I Number of employees


| Fiscal Year | 1998 |  | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
| :--- | ---: | :---: | :---: | :---: | :---: | ---: | ---: | ---: |
| Computer programming <br> and software services | 342,410 | 340,642 | 339,810 | 329,504 | 348,248 | 342,918 | 339,776 | 343,103 |
| Data processing <br> services | 119,591 | 109,714 | 117,603 | 144,371 | 138,808 | 143,822 | 139,891 | 146,359 |
| Information Provision | 10,045 | 10,822 | 5,952 | 6,228 | 5,326 | 4,999 | 6,159 | 6,096 |

(6) Survey of Selected Service Industries [Software Services] (Ministry of Economy, Trade and Industry)

O I Annual sales

|  | (Million yen) |  |  |
| :---: | :--- | :---: | :---: |
|  | Fiscal Year | 2006 | 2007 |
|  | Software | $10,476,004$ | $10,297,504$ |
|  |  |  |  |

O I Annual operating costs

| (Million yen) |  |  |
| :--- | :---: | :---: |
| Fiscal Year | 2006 | 2007 |
| Software | $8,974,824$ | $8,703,113$ |I Total wages and salaries


|  |  | (Million yen) |  |
| :--- | :---: | :---: | :---: |
| Fiscal Year | 2006 | 2007 |  |
| Software | $2,749,747$ | $2,715,222$ |  |

O I Depreciation costs

|  | （Million yen） |  |
| :--- | :--- | :---: |
| Fiscal Year | 2006 | 2007 |
| Software | 235,372 | 239,378 |

O I Number of employees

|  |  | （persons） |  |
| :--- | :---: | :---: | :---: |
| Fiscal Year | 2006 | 2007 |  |
| 経営組織別計 | 521,063 | 501,807 |  |

（7）Survey of Selected Service Industries［Data Processing \＆Providing Service Industry］（Ministry of Economy，Trade and Industry）

# O I Annual sales 

|  |  | （Million yen） |  |
| :--- | :---: | :---: | :---: |
| Fiscal Year | 2006 | 2007 |  |
| Data Processing \＆Providing <br> Service | $4,058,359$ | $4,199,998$ |  |

○ I Annual operating costs

| （Million yen） |  |  |
| :--- | :---: | :---: |
| Fiscal Year | 2006 | 2007 |
| Data Processing \＆Providing <br> Service | $3,401,905$ | $3,514,924$ |I Total wages and salaries


|  | (Million yen) |  |
| :--- | :---: | :---: |
| Fiscal Year | 2006 | 2007 |
| Data Processing \& Providing <br> Service | 983,253 | $1,008,074$ |I Depreciation costs


|  | (Million yen) |  |
| :--- | :--- | :---: |
| Fiscal Year | 2006 | 2007 |
| Data Processing \& Providing <br> Service | 129,150 | 129,742 |

O I Number of employees


|  |  | (persons) |  |
| :--- | :---: | :---: | :---: |
| Fiscal Year | 2006 | 2007 |  |
| Data Processing \& Providing <br> Service | 217,490 | 201,407 |  |

(8) Survey of Selected Service Industries [Display] (Ministry of Economy, Trade and Industry)

O I Annual sales

| (Million yen) |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal Year | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
| Display | 432,000 | N/A | N/A | 363,700 | N/A | N/A | 416,928 |

O I Number of employees

| (persons) |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal Year | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
| Display | 14,155 | N/A | N/A | 10,149 | N/A | N/A | 10,849 |

(9) Survey of Selected Service Industries [Movie, Home video, TV program production industry] (Ministry of Economy, Trade and Industry)

○ I Annual sales
(Million yen)

| Fiscal Year | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :--- | :--- | :--- | ---: | ---: | :--- | :--- | :--- | :--- | :--- |
| By business | 504,657 | N/A | N/A | 533,221 | N/A | N/A | 563,011 | N/A | N/A | 413,126 |
| Total | N/A | N/A | N/A | $1,770,775$ | N/A | N/A | $1,677,776$ | N/A | N/A | N/A |

$\bigcirc$ I Annual operating costs
(Million yen)

| Fiscal Year | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| By business | 386,989 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 403,907 |
| Total | N/A | N/A | N/A | $1,580,546$ | N/A | N/A | $1,524,836$ | N/A | N/A | N/A |

O I Total wages and salaries

| Fiscal Year | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| By business | 30,011 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | 40,052 |
| Total | N/A | N/A | N/A | 143,103 | N/A | N/A | 127,456 | N/A | N/A | N/A |

O I Number of employees

| (persons) |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal Year | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
| Movie, Home video, TV program production industry | 6,552 | N/A | N/A | 7,003 | N/A | N/A | 5,908 | N/A | N/A | 8,498 |

(10) Survey of Selected Service Industries [Movie theater] (Ministry of Economy, Trade and Industry)
$\bigcirc$ I Annual sales

|  | (Million yen) |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal Year | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
| Admission Income | 131,474 | N/A | N/A | N/A | 169,889 | N/A | N/A | 183,860 |
| Total Income | 151,069 | N/A | N/A | N/A | 204,264 | N/A | N/A | 228,643 |

(11) Survey of Selected Service Industries [Legitimate theater] (Ministry of Economy, Trade and Industry)
$\bigcirc$ I Annual sales

| (Million yen) |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | :---: | :---: | :---: | :---: |
| Fiscal Year | 2001 |  |  |  |  | 2002 | 2003 | 2004 |
| Admission Income | 84,876 | N/A | N/A | 99,169 |  |  |  |  |
| Renting Income | 8,763 | N/A | N/A | 10,116 |  |  |  |  |
| Total Income | 267,200 | N/A | N/A | 289,362 |  |  |  |  |

$\bigcirc$ I Annual operating costs

| (Million yen) |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Fiscal Year | 2001 | 2002 | 2003 | 2004 |
| Legitimate theater | 256,743 | N/A | N/A | 272,668 |

O I Total wages and salaries

| (Million yen) |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Fiscal Year | 2001 | 2002 | 2003 | 2004 |
| Legitimate theater | 53,850 | N/A | N/A | 53,657 |I Number of employees


| (persons) |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Fiscal Year | 2001 | 2002 | 2003 | 2004 |  |
| Legitimate theater | 9,312 | N/A | N/A | 10,524 |  |

(12) Survey of Selected Service Industries [Amusement / Theme park] (Ministry of Economy, Trade and Industry)

O I Annual sales

| (Million yen) |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Fiscal Year | 2001 | 2002 | 2003 | 2004 |
| Income from Admission/renting | 160,552 | N/A | N/A | 190,970 |

O I Number of employees

| (persons) |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Fiscal Year | 2001 | 2002 | 2003 | 2004 |
| Amusement / Theme park | 36,370 | N/A | N/A | 32,957 |

(13) Survey of Vital Statistics of Selected Service Industries [Movie Theater] (Ministry of Economy, Trade and Industry)Table 6 Annual percent change in Income

| Fiscal Year |  | (\%) |  |
| :--- | :---: | :---: | :---: |
| Annual percent change in <br> Admission Income (\%) | -7.2 | -5.1 | -11.8 |
| Annual percent change in <br> Annual Income (\%) | -6.5 | -6.0 | -10.5 |

(14) Survey of Vital Statistics of Selected Service Industries [Amusement / Theme park] (Ministry of Economy, Trade and Industry)O Table 11 Annual percent change in Income

| (\%) |  |  |  |
| :--- | ---: | ---: | ---: |
| Fiscal Year | 2005 | 2006 | 2007 |
| Annual percent change in <br> Admission/renting Income(\%) | -2.2 | 8.0 | 6.2 |
| Annual percent change in Annual <br> Income (\%) | -1.7 | 6.5 | 2.2 |

O Table 11 Annual percent change in Number of employees

|  |  |  |  |
| :--- | :---: | :---: | :---: |
| Fiscal Year | 2005 | 2006 | 2007 |
| Annual percent change in <br> Number of employees (\%) | -7.3 | -2.6 | -1.7 |

(15) Statistics from Analysis of Corporate Financial Statement (Teikoku Databank, Ltd.)

Ratio of depreciation expense to sales (\%)
(\%)

|  | Teikoku Industrial Classification |  | Fiscal Year |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | Classification name | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|  | - | Service industry | 5.98 | 6.15 | 5.60 | 5.25 | 4.92 | 4.52 | 4.38 | 4.28 | 1.89 | 2.06 |
|  | 271 | Newspaper publishing | - | - | - | - | - | 2.54 | 2.60 | 2.38 | 1.60 | 2.01 |
|  | - | Publishing | - | - | - | - | - | 1.76 | 1.19 | 1.09 | 0.68 | 0.94 |
|  | - | Printing | - | - | - | - | - | 3.56 | 3.54 | 3.44 | 2.55 | 3.03 |
|  | 749 | Miscellaneous Goods rental and Leasing | 7.72 | 7.75 | 7.78 | 7.26 | 6.67 | 6.58 | 7.05 | 6.80 | 2.24 | 3.36 |
|  | 791-1 | Motion picture production | 4.63 | 3.89 | 6.44 | 3.83 | 4.38 | 2.64 | 2.78 | 2.19 | 1.29 | 1.69 |
|  | 791-2 | Motion picture distribution | - | 8.00 | 14.51 | 1.70 | 2.14 | 3.08 | 2.91 | 1.97 | 2.25 | 3.15 |
|  | 792 | Motion picture theater | 6.85 | 7.24 | 7.78 | 7.03 | 6.76 | 5.45 | 5.68 | 6.51 | 3.46 | 5.23 |
| Nou | 801 | Legitimate theatres and Performances | 7.51 | 15.23 | 15.89 | 13.60 | 12.81 | 10.58 | 10.81 | 8.64 | 7.12 | 6.66 |
|  | 802 | Theatrical companies | 7.21 | 3.29 | 3.66 | 1.74 | 2.04 | 1.59 | 1.46 | 1.59 | 1.63 | 1.33 |
|  | 806 | Parks, Amusement parks | 13.61 | 16.88 | 12.01 | 13.65 | 11.61 | 9.97 | 11.61 | 12.58 | 7.73 | 6.54 |
|  | 807 | Amusement and Recreation facilities | 10.06 | 8.08 | 6.08 | 6.63 | 6.65 | 5.66 | 7.62 | 9.42 | 2.33 | 2.81 |
|  | 812 | Private broadcasting | 4.82 | 4.63 | 4.59 | 4.83 | 4.87 | 4.14 | 4.46 | 4.18 | 6.53 | 6.08 |
|  | 813 | Cable broadcasting | 24.28 | 27.24 | 8.64 | 16.64 | 9.81 | 8.53 | 8.29 | 8.16 | 13.07 | 7.18 |
|  | 851-1 | Advertising Agencies | 0.59 | 0.64 | 0.48 | 0.56 | 0.71 | 0.75 | 0.72 | 0.61 | 0.38 | 0.68 |
|  | 851-2 | Advertising Production | 0.76 | 1.62 | 0.89 | 0.85 | 1.81 | 1.38 | 2.09 | 1.98 | 0.67 | 0.99 |
|  | 874 | Engineering and Architectural Services | 1.24 | 1.25 | 1.16 | 1.56 | 1.47 | 1.50 | 1.44 | 1.58 | 0.92 | 1.33 |
|  | 875 | Authors and Artists | - | N/A | - | - | N/A | - | - | N/A | - | - |

(16) White Paper on the Printing Industry (Japan Association of Graphic Arts Technology)Document $4-2-x$ Value of printing industry products in each major customer industry

(17) Total Sales of Newspaper companies (Nihon Shinbun Kyokai)

|  |  |  |  |  |  |  |  |  |  | (Million yen) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Fiscal Year | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
| $\begin{aligned} & \text { No } \\ & \substack{0} \end{aligned}$ | Total Sales of Newspaper companies | 24,848 | 24,688 | 25,223 | 24,890 | 23,721 | 23,576 | 23,797 | 24,188 | 23,323 | 22,182 |

(18) Annual Report of Publication (The All Japan Magazine and Book Publisher's and Editor's Association)Estimation of Sales

(19) Survey on the Information and Communication Industry (Ministry of Internal Affairs and Communications)Sales of each Service

|  |  |  |  | (Million yen) |
| :--- | ---: | ---: | ---: | ---: |
| Fiscal Year | 2003 | 2004 | 2005 | 2006 |
| Private broadcasting | $2,574,377$ | $2,537,048$ | $2,641,975$ | $2,622,056$ |
| Cable broadcasting | 254,498 | 308,292 | 268,760 | 332,837 |

3.Profit structure/ Operating cost and profit of Telecommunications Industries
$<$ Private broadcasting>
(\%)


| Fiscal Year | 2003 | 2004 | 2005 | 2006 |
| :--- | ---: | ---: | ---: | ---: |
| Ratio of Employee expenses (\%) | 15.6 | 14.5 | 13.5 | 13.5 |
| Ratio of Operating profit (\%) | 7.6 | 7.5 | 6.9 | 6.1 |
| Depreciation expenses (\%) | 4.1 | 4.1 | 5.0 | 5.3 |

$<$ Cable broadcasting $>$

 (\%)(2) Sales of each Service


|  |  |  |  | (Million yen) |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | :---: |
| Fiscal Year | 2001 | 2002 | 2003 | 2004 | 2005 |  |
| ASP | 3,135 | 7,753 | 2,335 | 2,195 | 6,429 |  |
| Portal Sites | 10,166 | 24,754 | 152,072 | 154,560 | 170,829 |  |

(20) Sales of Telecommunications Industries

| (Million yen) |  |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal Year | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| Mobile telephone network | N/A | N/A | N/A | 214,005 | 743,681 | 999,849 | $1,051,631$ | $1,292,159$ | $1,479,687$ |
| Electrical communication | 148,169 | 163,117 | 175,938 | 190,554 | 162,195 | 161,403 | 145,767 | 145,537 | 151,036 |
| Telecommunications <br> Industries | 180,947 | 197,106 | 211,790 | 226,453 | 196,417 | 196,386 | 180,888 | 180,988 | 187,018 |

3.Profit structure/ Operating cost and profit of Telecommunications Industries
$<$ Internet based services >

| (Million yen) |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Fiscal Year | 2001 |  | 2002 | 2003 | 2004 | 2005 |
| Sales | 694,000 | $5,232,000$ | $3,775,000$ | $1,154,000$ | $1,974,000$ | $1,873,000$ |
| Employee expenses | 512,000 | $1,703,000$ | 460,000 | 193,000 | 355,000 | 342,000 |
| Depreciation expenses | 13,000 | 80,000 | 240,000 | 39,000 | 104,000 | 109,000 |
| Operating profit | 31,000 | 141,000 | 81,000 | 65,000 | 214,000 | 248,000 |
| Number of Enterprises | 22 | 42 | 38 | 35 | 52 | 69 |

<Type I Telecommunications Careers>

| (Million yen) |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Fiscal Year | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| Sales | $2,827,000$ | $14,971,000$ | $19,619,000$ | $10,377,000$ | $17,664,000$ | $13,074,000$ |
| Employee expenses | 170,000 | $2,016,000$ | $1,915,000$ | 960,000 | $1,423,000$ | $1,137,000$ |
| Depreciation expenses | 294,000 | $2,465,000$ | $2,369,000$ | $1,480,000$ | $2,015,000$ | $1,595,000$ |
| Operating profit | 829,000 | $1,292,000$ | $1,350,000$ | 576,000 | 757,000 | 672,000 |
| Number of Enterprises | 183 | 230 | 339 | 288 | 328 | 346 |

(20) Radio \& Television Yearbook (Japan Broadcasting Corporation: NHK)
$\bigcirc$ Financial Statements [Income statement]
(Million yen)

| Fiscal Year | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Income | 633,712 | 645,042 | 655,857 | 667,626 | 675,000 | 680,257 | 685,494 | 674,947 | 675,607 | 684,796 |
| Operating Profit | - | - | - | - | - | 20,976 | 17,870 | 8,857 | 22,987 | 43,119 |
| Salaries | - | - | - | - | - | 141,277 | 141,100 | 136,699 | 132,511 | 128,322 |
| Retirement payment \& Welfare expense | - | - | - | - | - | 64,519 | 63,854 | 56,938 | 52,031 | 50,164 |
| Depreciation | - | - | - | - | - | 61,261 | 70,076 | 72,123 | 70,481 | 67,991 |

(21) Japan Commercial Broadcasting Yearbook (The National Association of Commercial Broadcasters in Japan)Management status of Commercial Broadcasting companies (Financial Statements)

| (Million yen) |  |  |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fiscal Year | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
| Incomes | $2,429,488$ | $2,471,022$ | $2,632,079$ | $2,580,960$ | $2,472,400$ | $2,506,295$ | $2,598,547$ | $2,598,724$ | $2,591,069$ | $2,566,568$ |

(22) Advertising Expenditures in Japan Total (Dentsu Inc.)

|  |  | (Million yen) |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Fiscal Year | 2004 | 2005 |  | 2006 |
|  | 1,7807 |  |  |  |
| POP | 1,745 | 1,782 | 1,845 | 1,886 |
| Exhibitions/Screen | 3,315 | 3,522 | 3,456 | 3,584 |
| Displays |  |  |  |  |

(23) RIAJ Year Book (Recording Industry Association of Japan)
$\bigcirc$ Production Trend
(Million yen)

| Fiscal Year | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Audio Records | 587,879 | 551,294 | 515,376 | 489,578 | 431,806 | 387,987 | 368,610 | 359,800 | 344,518 | 327,175 |
| AV-compound Records | 26,387 | 23,300 | 19,791 | 16,100 | 14,250 | N/A | N/A | N/A | N/A | N/A |

(24) Survey on CD rental stores (Recording Industry Association of Japan)
(Million yen)

| Fiscal Year | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Incomes from CD rental | 69,000 | 65,000 | 63,000 | 65,000 | 65,000 | 59,000 | 60,000 | 60,000 | 62,000 |
| 61,000 |  |  |  |  |  |  |  |  |  |

(25) Production Data of the past 10 years (Recording Industry Association of Japan)
$\bigcirc$ Production Data of CD Singles and CD Albums (value basis)

| Fiscal Year | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CD Singles | 95,478 | 100,926 | 93,633 | 80,317 | 60,538 | 54,437 | 51,983 | 48,855 | 50,847 | 46,945 |
| CD Albums | 492,400 | 450,369 | 426,440 | 409,261 | 371,268 | 333,550 | 316,627 | 310,945 | 293,671 | 280,230 |

(26) Data provided by JASRAC

| Fiscal Year | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Annual Collection | 97,800 | 98,150 | 105,282 | 104,190 | 105,152 | 106,667 | 111,722 | 112,395 | 110,660 | 112,004 |

(27) CESA Game White Paper (Computer Entertainment Software Association)II Value of shipments of TV games for home use
(Million yen)

| Fiscal Year | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Domestic | 352,859 | 328,451 | 293,122 | 264,158 | 249,208 | N/A | N/A | N/A | N/A | N/A |
| Exportation | 214,146 | 234,337 | 284,769 | 253,229 | 225,513 | N/A | N/A | N/A | N/A | N/A |
| Total | 567,005 | 562,788 | 577,891 | 517,387 | 474,721 | 429,850 | 468,412 | 487,110 | 674,174 | 848,650 |

(28) Survey on Amusement Industries (JAMMA, AOU, NSA*)

Sales of TV games / amusement machines for business use
(Million yen)
$\stackrel{N}{\perp}$

| Fiscal Year | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| TV games | 40,100 | 43,100 | 28,300 | 24,500 | 22,700 | 35,000 | 39,600 | 48,500 | 50,200 | 49,700 |
| Music games | 12,000 | 16,200 | 6,600 | 4,900 | 3,400 | 3,400 | 3,300 | 3,400 | 3,400 | 4,700 |

Sales of TV games for family use
(Million yen)

| Fiscal Year | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hardware | 379,095 | 454,625 | 539,860 | 940,071 | 787,685 | 631,481 | 425,143 | 862,163 | $1,125,267$ | $2,299,241$ |
| Software | 472,904 | 562,788 | 577,891 | 517,387 | 474,721 | 437,975 | 494,840 | 502,579 | 701,151 | 719,616 |

O Sales of Operation
(Million yen)

| Fiscal Year | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sales of Operation | 628,900 | 619,500 | 596,400 | 590,300 | 605,500 | 637,700 | 649,200 | 682,500 | 702,900 | 678,100 |

(29) Karaoke White Paper (All-Japan Karaoke Industrialist Association)Chapter 1 An outline of Karaoke Industry : Market size

| Fiscal Year | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Karaoke Boxes | 579,200 | 565,700 | 500,800 | 450,700 | 474,600 | 430,100 | 410,500 | 421,000 | 436,300 | 427,000 |

(30) Statistics on Construction undertaken (Ministry of Land Infrastructure and Transport)

Part 2 Table 2 Number of establishments, Value of Completed constructions, Orders, Number of VA, depreciation, fixed assets by business category

| $\begin{aligned} & \text { N } \\ & \text { 南 } \end{aligned}$ |  |  |  |  |  |  |  |  |  |  | (M | yen) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|  | House construction | Completed construction | 20,358,169 | 18,817,464 | 18,155,211 | 17,549,157 | 16,963,334 | 16,410,794 | 16,860,415 | 15,050,585 | 15,212,777 | N/A |
|  |  | Completed construction (Subcontract) | 10,374,494 | 9,489,876 | 8,982,285 | 9,277,868 | 9,583,178 | 7,818,748 | 7,398,754 | 7,896,844 | 7,389,213 | N/A |
|  | Non-house construction | Completed construction | 23,559,009 | 21,202,178 | 20,902,008 | 19,844,679 | 18,840,835 | 17,368,258 | 17,231,916 | 17,123,049 | 17,456,372 | N/A |
|  |  | Completed construction (Subcontract) | 17,917,579 | 15,837,552 | 14,947,737 | 14,582,224 | 14,225,649 | 12,166,670 | 12,359,504 | 13,793,504 | 12,587,587 | N/A |

(31) Cost Analysis Information for Building Works (Management Research Society for Construction Industry)Table A Cost structure (Architectural design cost rate)

|  | (\%) |  |  |  |
| :--- | :---: | ---: | ---: | :---: |
| House constructions (Average) (\%) | 1995 | 1996 | 1997 |  |
| Buildings (Average) (\%) | 1.42 | 1.40 | 1.48 |  |

(32) Statistics on Libraries in Japan (Japan Library Association)
$\bigcirc$ Public Libraries subtotalUniversity/College Libraries subtotal
Number of Staff in Public LibrariesNumber of Staff in University/College Libraries

(33) Museum White Paper (Fiscal 2004) (Japan Association of Museums)

OTotal Income
$\stackrel{N}{\stackrel{\sim}{\sim}}$

| (Million yen) |  |
| :--- | ---: |
|  | 2004 |
| Average of Total Income | 138 |
| Number of museum | 408 |

O Number of Staff

| (persons) |  |
| :--- | ---: |
|  | 2004 |
| Number of museum | 404 |
| Average Number of Staff | 8.7 |

(34) Public Welfare and Health Cost Survey (Japan Business Federation)Table 3 Average of Total Cash wages and Salaries Paid, Welfare expenses by industry (Manufacture industry)

|  | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total cash wages <br> and Salaries Paid | 546,116 | 548,191 | 550,802 | 562,098 | 563,416 | 565,935 | 578,054 | 583,386 | 587,658 | N/A |
| Legal welfare <br> expenses | 63,162 | 63,763 | 65,423 | 68,482 | 68,574 | 72,853 | 74,106 | 75,436 | 76,437 | N/A |

(a) Financial Statement Report [Advertising Agency] (Ministry of Finance)

O Financial Statements Report [Income Statement]


- Based on data from Asatsu DK, Inc.
(b) Financial Statement Report [Advertising Production] (Ministry of Finance)Financial Statements Report [Income Statement]

| Fiscal Year | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
| :--- | ---: | ---: | ---: | ---: | ---: | :---: |
| Sales | 126,243 | 139,462 | 145,196 | 144,095 | 132,951 | N/A |
| Employee expenses | 11,122 | 12,107 | 12,923 | 13,179 | 12,866 | N/A |
| Depreciation expenses | 263 | 268 | 260 | 493 | 524 | N/A |
| Operating profit | 2,430 | 3,434 | 4,634 | 3,585 | 3,003 | N/A |

- Based on data from Dentsu Tec, Inc.
(c) Financial Statement Report [Record company] (Ministry of Finance)

O Financial Statements Report [Income Statement]

|  | (Million yen) |  |  |  |  |  |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
| C |  | Sales | 2003 | 2004 | 2005 | 2006 |
| 2007 |  |  |  |  |  |  |
|  | Employee expenses | 31,207 | 32,643 | 28,892 | 29,336 | 19,214 |
|  | Depreciation expenses | 2,192 | 3,590 | 3,062 | 2,856 | 2,756 |
|  | Operating profit | 0 | 0 | 21 | 30 | 102 |
| A | Sales | -337 | 777 | 544 | 778 | -737 |
|  | Employee expenses | 4,896 | 75,418 | 89,783 | 101,626 | 104,639 |
|  | Depreciation expenses | 1,153 | 4,826 | 6,261 | 7,149 | 7,573 |
|  | Operating profit | 7,015 | 4,269 | 8,650 | 8,691 | 8,510 |

- Based on data from C(Columbia Music Entertainment, Inc.), A(Avex Group Holdings Inc.).
(d) Financial Statement Report [Music Publishing Company] (Ministry of Finance)Financial Statements Report [Income Statement]

|  |  |  |  | (Million yen) |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | :---: | :---: |
|  |  | 2003 | 2004 | 2005 | 2006 |  |  |

- Based on data from Hori production, Inc.
(e) Financial Statement Report [Karaoke Company] (Ministry of Finance)Financial Statements Report [Income Statement]

|  |  | 2003 | 2004 | 2005 | 2006 | 2007 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| D | Sales | 119,335 | 122,085 | 129,341 | 124,654 | 126,844 |
|  | Karaoke cabin and Restaurant business | 25,156 | 26,532 | 33,307 | 35,681 | 38,235 |
|  | Employee expenses | 16,678 | 17,457 | 17,821 | 17,319 | 17,661 |
|  | Depreciation expenses | 1,703 | 1,522 | 1,529 | 1,390 | 1,004 |
|  | Operating profit | 13,126 | 10,383 | 11,286 | 13,189 | 16,374 |
| S | Sales | 140,909 | 155,264 | 157,950 | 175,150 | 226,072 |
|  | Restaurant and Karaoke business | 59,203 | 62,074 | 61,184 | 61,791 | 62,934 |
|  | Employee expenses | 4,434 | 5,043 | 5,473 | 6,143 | 7,881 |
|  | Depreciation expenses | 419 | 414 | 496 | 444 | 0 |
|  | Operating profit | 4,934 | 3,364 | 6,359 | 7,908 | 11,209 |

- Based on data fromD(Daiichikosho Co., Ltd.), S (Shidax Corp.).

OFinancial Statements Report [Number of Employees]

(f) Financial Statement Report [Mobile phone Company] (Ministry of Finance)

OFinancial Statements Report [Number of Employees]

| (persons) |  |  |  |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Fiscal Year | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 20007 |
| NTT Docomo | 4,450 | 15,100 | 18,015 | 19,700 | 20,792 | 21,241 | 21,527 | 21,646 | 21,591 | 22,100 |
| KDDI | 2,990 | 7,361 | 14,303 | 13,575 | 13,341 | 13,128 | 12,373 | 14,021 | 14,358 | 15,865 |
| Softbank | 3,078 | 4,132 | 7,076 | 7,593 | 6,973 | 3,285 | 2,582 | 2,728 | 3,842 | 5,112 |
| Eaccess | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| WILLCOM | N/A | N/A | N/A | N/A | N/A | N/A | N | 875 | 945 | 997 |

(g) Statement of net assets (Representative company)

No
○「Statement of net assets.

|  |  |
| :--- | ---: |
| Sales | 2007 |
| Current expense | $14,853,603,876$ |
| Employee expenses | $14,849,153,876$ |
|  | Salaries, bonus |
|  | Temporary salaries |
|  | Provision for retirement payment <br> for directors |
|  | $861,133,065,169$ |
| Donus payment reserve | $44,635,935$ |
| Depreciation expenses | $36,718,334$ |

- Based on data from JASRAC.
(h) Results of the original survey (Management Business Organization of Copyright and Neighboring Rights)Expense of Management Business of Copyright and Neighboring Rights

| Fiscal Year | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Management Business <br> Organization of Copyright <br> and Neighboring Rights | 13,998 | 14,086 | 15,194 | 15,520 | 15,172 | 15,415 | 15,722 | 15,695 | 15,801 |Number of Staff of Management Business of Copyright and Neighboring Rights


2. Correspondence between the JCI classification and theJSIC

| JCI classification |  | 2002 Edition |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | JSIC(Groups) |  | JSIC(Industries) |  |
|  |  | No | Name | No | Name |
| 1) Printing and Publishing | (1) Newspaper publishing | 413 | Newspaper Industries | 4131 | Newspaper Industries |
|  | (2) Book and Journal Publishing | 414 | Publishing Industries | 4141 | Publishing industry |
|  | (3) Printing (Newspaper and Book) | 161 | Printing, Except Mimeograph Printing Industries | 1611 | Printing industries except mimeograph printing |
| 2) Computer Software | (1) Software | 391 | Computer Programming and Other Software Services | 3911 | Custom software services |
|  |  |  |  | 3912 | Package software services |
|  | (2) Data Processing/ Providing Service | 392 | Data Processing and Information Services | 3921 | Data processing services |
| 3) Broadcasting | (1) Public Broadcasting | 381 | Public Broadcasting, Except Cablecasting | 3811 | Public broadcasting |
|  | (2) Private Broadcasting | 382 | Private Broadcasting, Except Cablecasting | 3821 | Television broadcasting, except satellite broadcasting |
|  |  |  |  | 3822 | Radio broadcasting, except satellite broadcasting |
|  |  |  |  | 3823 | Satellite broadcasting |
|  |  |  |  | 3829 | Miscellaneous private broadcasting |
|  | (3) Cable Broadcasting | 383 | Cablecasting | 3831 | Cable television broadcasting |
|  |  |  |  | 3832 | Cable sound broadcasting |
| 4)Transmission | (1)Internet Transmission | 401 | Internet Based Services | 4011 | Internet Based Services |
|  | (2)Mobile Telephone Networks Transmission | 373 | Mobile Telecommunications | 3731 | Mobile Telecommunications |
| 5) Advertising | (1) Commercial art and Graphic | 809 | Miscellaneous Professional Services | 8096 | Commercial art and graphic design |
|  | (2) Display | 909 | Business Services, N.E.C | 9091 | Display services |
| 6) Music | (1) Records, CDs and Tapes | 329 | Manufacturing Industries, N.E.C | 3296 | Information recording materials, except newspapers, books, other printed products, etc. |
|  |  | 412 | Sound Information Production | 4121 | Recording and disk production |
|  | (2) Record and CD rental | 889 | Miscellaneous Goods Rental and Leasing | 8892 | Audio and visual recordings rental, except otherwise classified |
|  | (3) Music Publishing | 412 | Sound Information Production | 4122 | Radio program production |
|  |  | 415 | Services Identical to Video Picture, Sound Information, Character Information Production and Distribution | 4159 | Miscellaneous services identical to video picture, sound information, character information production and distribution |
| 7) Motion Picture | (1) Movie, Home video and TV program production | 411 | Video Picture Information Production and Distribution | 4111 | Motion picture and video production, except television program production |
|  |  |  |  | $\begin{array}{\|l} \hline 4112 \\ \hline 4113 \\ \hline \end{array}$ | Television program production (Teleproduction) |
|  |  |  |  |  |  |
|  | (2) Video rental | 889 | Miscellaneous Goods Rental and Leasing | 8892 | Audio and visual recordings rental, except otherwise classified |
| 8) Photography | (1) Photos | 808 | Photographic Studios | 8081 | Photographic studios, except commercial photography |
|  |  |  |  |  | Commercial photography |
| 9) Legitimate Theater | (1) Movie Theater | 841 | Motion Picture Theatres | 8411 | Motion picture theatres |
|  | (2) Theater | 842 | Performances(except otherwise classified), Theatrical Companies | 8421 | Legitimate theatres |
|  | (3) Theatrical company, band and orchestra |  |  | 8423 | Dramatic companies |
|  |  |  |  | 8424 | Orchestra and dancing companies |
| 10) Game Software | (1) Game software | 349 | Manufacturing Industries, N.E.C | 3496 | Information recording materials, except newspapers, books, other printed products, etc. |
|  |  | $391$ | Computer Programming and Other Software Services | 3912 | Package software services |
| 11) Entertainment Facilities | (1) Amusement Arcade | 846 | Amusement and Recreation |  |  |
|  | (2) Karaoke Box | 849 | Miscellaneous Amusement and Recreation Services | 8495 | "Karaoke" boxes |
|  | (3) Theme Park | 845 | Public Gardens and Amusement | 8453 | Theme parks |
| 12) Design | (1) Design | 806 | Design, Mechanical Services | 8061 | Design services |
| 13) Architecture | (1) Architectural Design | 805 | Engineering and Architectural Services | 8051 | Architectural design services |
| 14) Libraries and Museums | (1) Libraries | 771 | Social Educational Services | 7712 | Libraries |
|  | (2) Museums and Art galleries |  | Social Educational Services | 7713 | Museums and art galleries |
| 15)Authors and Artists | (1) Authors and Artists, Musician | $\begin{array}{\|l\|} \hline 807 \\ \hline 809 \\ \hline \end{array}$ | Authors and Artists | 8071 | Authors |
|  |  |  |  | 8072 | Artists |
|  |  |  | Miscellaneous Professional | 8094 | Translation, except authors |

## - JCI Series No.19

## Copyright White Paper

- A view from the perspective of copyright industries (Vol.3)-

```
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```

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The survey regarding the white paper was conducted by SARVH financial support on the purpose of diffusion of copyright system.


[^0]:    *" Amount of printing products demanded by major customer type in the printing industry"
    "Amount of printing products demanded by major customer type in the printing industry", which was taken from the "White Paper on the Printing Industry" published each year by the Japan Association of Graphic Arts Technology, has not been disclosed since fiscal 2000. For this report, it was estimated on the assumption that the share of the total value-added in the printing and publishing industry occupied by the newspaper publishing industry has stayed the same since that year.

[^1]:    Source: Survey of Selected Service Industries, Data Processing/ Providing Service Industry

[^2]:    Source: "Survey on Service Industries (Movie theater)"
    (Ministry of Economy, Trade and Industry)

[^3]:    * The deflator values announced by the Economic and Social Research Institute, Cabinet Office, Government of Japan are not fixed; they are subject to revision. This is because various basic data for (more precise) deflator calculation are announced

[^4]:    *3 Example: Publication and printing-related equipment in the media manufacturing

[^5]:    Source: Survey of Selected Service Industries, Information Service Industry

