On the Function Setting of Fund Supervision for the State-Owned Assets Supervision Informatization Platform

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Abstract
Through the analysis on the issues existed in current fund supervision of state-owned enterprises of China, this paper proposed the idea of setting function of fund supervision for the state-owned assets supervision informatization platform, and set forth the specific functions and setting requirement of relevant subsystems; besides, it pointed out the issues of concern in function setting for informatization platform, expecting to maximally realize the overall fund supervision towards subordinate enterprises of State-owned Assets Management Office.

Key words: Fund supervision; Informatization of supervision; State-owned enterprises

INTRODUCTION
As the pillar of economic development in China, the capital distribution and operation as well as quality & efficiency of management of state-owned enterprises are critical to development of the state-owned enterprises or even the economic development in China. Therefore, it is imperative to carry out overall and effective supervision over the state-owned enterprises, giving full play of its role as the administrator of State-owned Assets Management Office (Gu, 2008). Thanks to the widespread application of information technology, it has provided new concepts and ways for dealing with the issues on how to improve supervision efficiency, prevent the loss of state-owned assets and realize maintenance & appreciation of assets value under the current supervision mechanism of Provincial State-owned Assets Supervision & Administration Committee (Zhong, 2005). The state-owned assets supervision informatization platform is an innovative approach for supervising state assets, which establishes a supervision system covering the whole processes of state-owned assets administration by the adoption of the modern data warehouse and network information technology. In terms of problems of the state-owned enterprises regarding chaos of assets, low funds-utilizing efficiency and difficulty in conducting overall supervision, some scholars put forward the model of centralized fund management; for example, to introduce the mechanism of bank into enterprises and meanwhile, extend the platform for funds management of the groups into banks taking advantage of relevant services of the bank (Zhu, 2013). There were also scholars raised the model of unified financial software which had integrated all financial software of subordinate enterprises of State-owned Assets Management Office and inspected the situations about finance & account of assets drawn from various groups in a timely manner. As a special entity, the State-owned Assets Management Office shall play the role of “investor” to take the responsibility of overall supervision over its subordinate groups but it shall not participate in economic operation of any enterprises; thus, it is necessary to develop a customized state-owned assets supervision informatization platform based on service attribute and financial mode of the subordinate enterprises, hoping to instantly provide with as well as make dynamic analysis upon data relating to finance and bank account of various subordinate groups comprehensively. This paper will present the setting of relevant functions of fund supervision in the state-owned assets supervision informatization platform.
1. CURRENT STATUS OF FUND SUPERVISION

For quite some time, the development of domestic enterprises focused too much on firm size instead of the significance of funds management. The rapid development of size shall bring about the separated situation of funds management of enterprises inevitably. While the current status of funds management of enterprises is typically recognized as separated operation caused by diversified branches, but it is lacking in the concentrated and effective management system for backup (Ma, 2014). More often, the problem of fund in state enterprises appears to be serious, such as over-size occupancy of funds; unreasonable distribution of resources; excessive proportion of financial expenses; low efficiency and profit of capital utilization; the failure to effectively control and supervise for the investment and use of capital of some enterprises; thereby resulting in the frequent occurrence of issues like insolvency, general chaos in finance and corruption of administrators, which eventually lead to great loss of state-owned assets. Overall speaking, there are several problems existing in current fund supervision of the State-owned Assets Management Office listed as below:

1.1 Involving Numerous Enterprises with Large and Complicated Data

There are typically numerous subordinate groups of the State-owned Assets Management Office. Take the subordinate group in District X of Nanjing for example; this Group consists of Urban Construction Group, Communications Construction Co., Ltd., State-owned Assets Management Co., Ltd., Capital Agribusiness Group, Kechuang Group and Jiangning Business & Trade Development Group; whereas each Group has its own subgroups and subsidiaries with total number of over a hundred enterprises, of which the total assets exceeding 45 billion Yuan in great flow of funds. Due to lengthy program of capital construction and the wide distribution of state-owned economy, it shall necessarily cause the greater difficulty in centralized supervision over enterprises for the State-owned Assets Management Office, making it hard to carry out timely and effective tracking and management of funds (Liu, 2003).

1.2 Failure of Sharing Financial Date in Real Time and Single Mode of Supervision

Traditionally, the supervision of state-owned enterprises is realized through single after-the-event report and analysis, most of which are implemented by financial personnel with great effect of human factors; in such case, it is very difficult to carry out effective supervision over the whole process of capital operation, or might even fail to have the problems of funds instantly stopped from happening at the very beginning. The funds management in reality is more like “Monday morning quarterback”. However, the funds management inside the state enterprises today is often undertaken by a designated sector independently with less communication or connection among various sectors, and lacking of measures of supervision and early warning of assets, which result in the failure of the State-owned Assets Management Office to realize its administration and control over funds of enterprises before, in and after the occurrence of issues.

1.3 Not Unified of Financial Software and Capital Management Patterns

Because of the inconsistency of financial software adopted by various groups affiliated to the State-owned Assets Management Office as well as the disunity of data scale, its data collection might be restricted technically. In order to deal with such problem, it is imperative to set up the informatization platform of the State-owned Assets Management Office, which could integrate the financial data scale of all enterprises and filling in & auditing the budget statement, as well as collect and process relevant financial data timely.

1.4 Low Efficiency of Financial Analysis Which Leads to Difficult to Support Financial Decision-Making

Due to the great number of financial data, complicated methods of financial analysis and a wide variety of analytical forms in different groups, usually it requires plenty of human resources and time for financial personnel to deal with the analytical forms of finance, and finds it impossible to manipulate the market as well as the operating conditions of firms instantly and difficult to formulate effective decisions of operation and select reasonable mode for funds management.

1.5 Excessive Transactions of Bank Account Difficult to be Timely Supervised

Due to each company has quite a lot of transactions via different bank accounts, and these accounts can’t be monitored and supervised timely and sufficiently which may lead to accounts operational problems. According to the government research of the incorruptness, because of not having the efficient monitoring measure of the bank accounts, the funds loss of the stated-owned enterprises is very serious these days.

2. THE SETTING OF SUPERVISION FUNCTION FOR ACCOUNTS RELATED TO FUNDS

2.1 Financial Network System

The purpose of setting financial network system is to ensure the automatic extraction of financial data of enterprises from heterogeneous database as well as realize the automatic extraction for various types of heterogeneous data. For example, the extracted financial data could
include account voucher and the relevant common analytical forms of finance such as subsidiary ledger, balance sheet, general ledger and detailed account ledger. In addition, it is necessary to rearrange and integrate the collected financial data, so as to provide financial data regarding accounts related to funds for relevant supervisors in State-owned Assets Supervision & Administration Committee to make inquiries, and meanwhile, to carry out the multidimensional exhibition for these relevant information in the digital and graphic way.

Generally, on the basis of nature of accounts related to funds, the sub functions of financial network system shall include: financial data query and statement query, available for inquiring about incurred details and balance of accounts related to funds. Even though with the unified accounting standards, the specific ways of account query might differ due to various methods of setting up accounts of enterprises. For instance, when setting up the specific deposit account in the original financial system, some firms would prefer to put up the bank name in the system of detailed ledger, and identify the specific name of account as the secondary subject under the bank deposit as the first subject; but others might divide the bank account into categories in the (system of) accounting item, such as the setting up of specific name of account in the accounting item. As a result, the function setting of capital supervision for the state-owned assets supervision information platform is required to focus on dealing with situations by different methods, improving the function for inquiring specific accounts.

In case of need to make inquiry about the bank account of a state-owned enterprise, it is available to operate the relevant functions as listed in Table 1. For example, by means of the function of subject balance, it could inquire about the balance of specific account under the secondary subject system of bank deposit; besides, the situation of bank account of the enterprise could also be reviewed in terms of the accounting category of “bank account” under subject of bank deposit by the function of balance of accounting.

<table>
<thead>
<tr>
<th>Name of function</th>
<th>Specific name of function</th>
<th>Introduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voucher entry</td>
<td>Subject balance</td>
<td>Be used to inquire about the voucher entry under the account set of business accounting system in certain period of the subordinate state-owned groups or enterprises</td>
</tr>
<tr>
<td>Accounting entries</td>
<td>Balance of accounting</td>
<td>Be used to inquire about the subject balance sheet based on the account set of business accounting system at certain time point of the subordinate state-owned groups or enterprises</td>
</tr>
<tr>
<td>Subject balance</td>
<td>Subsidiary ledger of accounting</td>
<td>Be used to inquire about the balance sheet of accounting based on the account set of business accounting system of collected state-owned groups or enterprises; typically it could be divided as the query of all accounting items under a subject and that about all subjects under an accounting category</td>
</tr>
<tr>
<td>Financial statement</td>
<td>Financial statement</td>
<td>Including the monthly, quarterly and annually financial statement of collected state-owned groups or enterprises. The financial index contained in the statement collected shall be applied in the functions of early warning and financial analysis on the information platform</td>
</tr>
</tbody>
</table>

### 2.2 Early Warning System of Supervision

On the basis of regulatory data platform, the function module of early warning system of supervision shall comprehensively scan the data through transferring the early warning mission of supervision; any data record in line with the rules shall be immediately generated the report of early warning mission of supervision which must be delivered to relevant handler to deal with. In so doing, it requires to reveal the problems instantly, send notices quickly and properly as well as resolve the problems as per standard. The early warning mission of supervision shall fully support the scheduling of the intervals as per minute, hour, day, month, quarter and year; it also shall support the mission of supervision to transfer several rules simultaneously, realizing the arranged scheduling of data; it shall support the schedule of multitask concurrency as well. The result of supervision should support the generation of standardized report and ensure the general situation of summary relating to result of supervision could realize penetrate query about relevant data record in details; meanwhile, the result of supervision shall support processing of procedures, and in case of issuing the supervision report, it shall support the way of SMS, E-mail and systematic short messages.

The three sub functions which shall be set up for the function module of early warning system of supervision will consist of “supervision conditions setting”, “supervision tasks management” and “supervision and monitoring result processing”. As for the function of “supervision conditions setting”, it shall focus on setting
up specific rules of supervision as well as processing procedures for account related to expenses. The function of “supervision tasks management” is to establish, manage and arrange supervision tasks, enabling whether to initiate the arrangement through the revision of supervision tasks. Under the function of “supervision and monitoring result processing”, it is available to process the result of supervision obtained from implementation of supervision tasks in terms of division of personnel authority, and carry out analytical display of situation of each processed result of supervision.

In case setting up rules of supervision, it shall not only put up its specific supervision conditions but also shall arrange the early warning levels respectively, expecting to enable distinctive management for regulatory object. Take the rules of supervision shown in Table 2 as an example:

### Table 2
The Settings of Supervision Rules

<table>
<thead>
<tr>
<th>Name of supervision rules</th>
<th>Categories of supervision rules</th>
<th>Early warning level</th>
<th>Descriptions of rules</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervision &amp; control of account related to financing of state-owned groups</td>
<td>Supervision &amp; control of account related to financing</td>
<td>In red color</td>
<td>Supervision &amp; control subjects: short-term loans, payable notes, long-term loans, long term payables, bond payable; specification for Supervision &amp; control: the incurred amount of credit shall not be zero; output: all subsidiary ledger in line with the above conditions.</td>
</tr>
<tr>
<td>Early warning of occurrence of donation of state-owned groups</td>
<td>Supervision &amp; control of account related to donation</td>
<td>In red color</td>
<td>Selecting the items with words regarding “donation” and the items containing phrases like “donation”, “sponsor”, “assistance” and “co-establishment of civilization” from these subjects; output: all subsidiary ledger in line with the above conditions.</td>
</tr>
<tr>
<td>Supervision &amp; control of taxes &amp; dues paid by state-owned groups</td>
<td>Supervision &amp; control of taxation and dues-to pay off taxes directly from monetary capital</td>
<td>In red color</td>
<td>To pay off taxes directly from monetary capital (not paid through the subject of taxes &amp; dues payable); the debit party shall either be subject related to expenses or that regarding the six transaction accounts; there are vouchers about taxes or dues or funds to make statistics in the description; to sum up the actual situation of paying taxes &amp; dues.</td>
</tr>
<tr>
<td>Supervision &amp; control of entertainment expenses of state-owned groups</td>
<td>Supervision &amp; control of entertainment expenses</td>
<td>In red color</td>
<td>Rule of supervision: carrying out supervision &amp; control of entertainment expenses and prices of dinner under the subject of cost of expenses.</td>
</tr>
</tbody>
</table>

### 2.3 Capital monitor system

Through capital monitor system, it will ensure the monitoring of inventory, flow and floating amount of capital of the subordinate enterprises of the State-owned Assets Management Office and fully display the distribution status of capital in enterprises, as well as realize the documentation relating to capital balance, detailed transactions, account No. and date of transactions of each day. It shall support the integration of inquiry and analysis, the combination of the data list and picture, as well as ensure the automatic analysis on capital information. Besides, it shall also enable the comparison between the bank data extracted from financial data of enterprises and actual bank data acquired from fund supervision system as well as provide the early warning, so as to find out the unmatched financial data and capital data in a timely manner and achieve the effect of supervision & analysis.

The sub functions mainly included in the analytic system of fund supervision are: cash flow analysis, capital structure analysis, comprehensive analysis, early warning analysis and analysis on finance situation over years; furthermore, on such basis, to provide more predictable information concerning capital inventory and floating amount as well as early warning tips for questionable points and analytic models.

### 2.4 Financial Analytic System

The purpose of setting the financial analytic system is to offer real time and dynamic analysis of operation ability, display the capital running efficiency of enterprises and automatically generate the corresponding forms and financial analysis report with multi-models, so as to carry out fixed analysis and evaluation on the economic operation status of enterprises affiliated to the State-owned Assets Management Office and its major subsidiaries objectively and precisely, offering support for leaders in various levels to make decisions. The financial analytic system compares the financial data with business data, and realizes the supplementary and connection to and with early warning function of supervision; it reflects the specific data and causes about overall operation condition, profitability, quality of assets, risks of debt, potential risks and fluctuation of profits of enterprises through ways such as figures, and conducts dynamic trend analysis as well. In spite of that, it is available to make comparison between the bank data in financial data of relevant enterprises collected by means of financial network system and actual bank data acquired from fund supervision system as well as to realize the function of early warning, so as to find out the unmatched financial data and capital data in a timely manner and achieve the effect of supervision & analysis.
The financial analytic system includes several functions, such as the DuPont Analysis; ageing analysis of accounts; analysis on financial index, financial statement and capital operation; etc. Such functions must ensure the multi-levels analysis for groups and enterprises affiliated to the State-owned Assets Management Office; for example, to carry out analysis on the first group, secondary subgroup and the subsidiary in third level respectively.

2.5 Data Management System

The data management system has comprehensively defined the collection scheduling of various types of data sources and rules of collection of the ETL components, which could provide the support for management and maintenance of various kinds of collected configuration files as well as for administration and monitoring upon data exchange of the system administrators. Extracting the transaction data of bank through the customized interface, it ensures the management of bank interface. Meanwhile, (such system) also supports manual delivery system for data sources other than customized collection, enabling the more abundant ways of data acquisition. Users can, through data management system, establish various types of standard coding system and make contingency comparison on data sources with incoherent codes, so as to realize the unity of data as well as data contingency analysis.

2.6 Systematic Management System

The systematic management system consists of regular management for users, organizations, sectors, menu and roles, as well as initialization setting of all information. It shall provide support for maintenance and management of password, permission and function authority of users; offer all kinds of customized inquiry models, analytic models, supervision models and statement samples; ensure the definition management with flexible configuration, rich dimensions and supporting statement in multi-levels as well as the management of the short-cut function module.

The major sub functions under the systematic management system include organization management, sector management, personnel management, role management, menu management, query of log, inquiry of model configuration, analysis of model configuration, management of statement samples, supervision of model setting, etc.

3. ISSUES OF CONCERN IN FUNCTION SETTING

3.1 Pay Attention to Relevant Policies and Regulations Changes

The design of the whole system shall meet requirement of safety precautions in terms of environmental safety, network safety, systematic safety and safety in utilization, in order to ensure the safe operation of whole system. Safety in utilization is set up on basis of management model with multi organizational structure, roles and permission, so as to realize flexible organization and management. Only the operators with relevant permission are allowed to operate the authorized functions. For example, the distribution of permission in the function of early warning of supervision could be authorized as per different levels, which means the State-owned Assets Supervision & Administration Committee can set up the distribution of permission for enterprise groups only, and then it authorizes their administrators to carry out the distribution of permission for the level below respectively.

3.2 Reserve Scale Interface of Financial Data

Since the financial software adopted by enterprises varies widely, there are great differences among them regarding operation, data structure and utilized database of various types of financial software; consequently, it requires integrating the financial data scale at the very beginning of the system design. At the same time, it is also necessary to reserve new scale interface of financial data to guarantee system expandability, so as to fully meet the needs of future business and requirement of reform.

3.3 Integrate Financial Standard of Group Enterprises

The state-owned assets supervision informatization platform shall realize integrated code classification, naming rules, data structure and data format in line with national data standard as well as finish integrity inspection, standardized processing, data supplement and format conversion in a way that establishing the resource data model for supervision measured up to the standard and improving the effective utilization level of data as well as high efficiency of supervision.

CONCLUSION

Indeed, information platform has offered a brand new supervision model for capital supervision of state-owned enterprises. The establishment of state-owned assets supervision informatization platform as well as the improvement of function setting of funds supervision shall bring about great social benefits and economic interest to improve the capacity and level of supervision and management of state-owned assets, to enhance the effectiveness of funds supervision, to promote information construction and management innovation of enterprises, to raise firms’ abilities of risk prevention & control and anti-corruption resistance fundamentally as well as in sharing and comprehensive utilizing data resources.

REFERENCES


