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Financial Transactions and the Value Added Tax System:
Thoughts Concerning a Consumption Tax on Financial Services

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ABSTRACT

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The essence of Japan's consumption tax consists of a value added tax with a credit method mechanism. The value added tax is an excellent tax system from the point of view of taxation on firm activities in that it is not influenced by firms' accounting procedures or choice of office locations. On the other hand, the system is also problematic in that deposits, loans, and other financial transactions are exempt. While the current system has become a favorable one for the financial industry, from the perspective of creating a balance between the financial industry and other industries, this system is also contributing to the deterioration of the financial industry's competitiveness due to the so-called "tax cascading" effect. With these issues as a point of departure, this report investigates the potential for clarifying the added value occurring within financial transactions, and proposes a mechanism for satisfying the conditions of a well-balanced tax system. The proposal includes the following three points:

1. When considering methods of taxing financial services by either a value added tax or a consumption tax, the tax base should not be calculated from the amount of loans or payments on interest. Rather, the tax base should be the remainder of the amount of interest paid minus the value of risk transfer and the transaction's time value of money (i.e. the interest rate on risk-free assets).
2. Strictly speaking, the time value of money should apply to the contract term of financial transactions. Despite this, even if the kind of overnight interest rate that is observed in money markets is applied across the board, there is no significant difference in the value of the tax base.
3. Regarding the value of risk transfer in financial transactions, for loans the equivalent risk premium of the borrower is deducted from the tax base, whereas for borrowing the equivalent risk premium of the borrower is added to the tax base.

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Financial Transactions and the Value Added Tax System⁴

—Thoughts Concerning a Consumption Tax on Financial Services—

1. Locus of the Issue

The first country to introduce a value added tax with a tax credit principle was France, in 1954⁵. In Japan as well, the 1949 Shoup Mission recommended a “Prefectural Value Added Tax” as a provisional measure for enterprise taxation in local municipalities, and it was nominally enforced as a value added tax⁶. Ultimately, this experiment in value added taxation ended in 1954, when it was repealed as a result of the postwar economic confusion that precluded the proper establishment of a tax-collection system. Interest in the tax surfaced once again in 1967 when the European Community adopted the VAT (Value Added Tax) as a common tax. Spurred by this, Japan implemented a “consumption tax” in 1988, which in essence was a credit method VAT-type indirect taxation, i.e. a value added tax. Though the EU VAT and the Japanese consumption tax had some variations such as the presence or absence of an invoice system, they are the same in that they both essentially attempted to tax corporate activities—i.e. a firm’s value added production rather than superficial activities such as the amount of output—through the use of a credit method. Given the similar goals and results of both taxes, this report treats them both together as “value added tax”⁷.

From the perspective of taxing corporate activities, the value added tax is superior to the

⁴ This report is based on “A Memo on Key Points Regarding a Value added Tax on Financial Services” (Iwamura 1997, paper in manuscript). Valuable insight for this report was provided by Hiroyasu Watanabe, professor at Waseda University Graduate School and former commissioner of the Ministry of Finance Tax Bureau, National Tax Agency.

⁵ That is to say, the system introduced in France at the time was only a partial system. The first comprehensive value added tax systems were introduced in Finland in 1964 and Germany in 1968.

⁶ Though nominally a value added tax, in essence it was a business and special income tax without a credit mechanism.

⁷ According to Japanese consumption tax law, the credit method is known as “input tax deduction”. This report uses the more general term “credit method” when discussing economic activities like financial transactions that do not always clearly follow the concept of purchasing.

corporate tax that levies taxes based on firms' methods of accounting in that, by directly taxing management activities, the value added tax is not influenced by accounting procedures and corporate location decisions. Furthermore, from the perspective of corporate borrowing as well, the value added tax does not focus solely on taxing post-interest payment corporate profits—i.e. imputed profits from share capital—as is the case with the corporate tax. Because the value added tax base is consistent with income at the operating stage, it incurs less distortion in the capital structure than the corporate tax. The value added tax is also a well-regarded tax system from the perspective of efficiency in financial systems and capital markets⁸.

However, the value added tax also includes many adverse effects. Specifically, financial transactions such as deposits and loans are out of the scope of the value added tax. This means that there is a problem regarding the fairness of tax burdens between major firms that output financial services—i.e. banks and other financial institutions—and major firms that input financial services—i.e. enterprises. This problem has been referred to as an inter-industry issue between the financial sector and the non-financial sector⁹.

The adverse effects of the exemption of financial services from the value added tax are not limited to distortions in inter-industry tax burdens, however.

There are two methods by which firms borrow funds: direct lending and indirect lending. Direct lending involves the firm itself shouldering the costs of borrowing activities, such as explaining its management strategy and financial situation to investors. Indirect lending leaves these corporate explanations and other activities relating to individual financial backers in the hands of a financial institution. Out of the cost burden shouldered by a firm as a result of the value added taxes incurred

⁸ Calculations for the corporate tax stipulate that the capital cost payment for external debts is treated as interest fees, and that capital cost payment for share capital is not handled as a dividend. As a result, fundraising through share capital is disadvantageous when compared to fundraising through external debt from a tax system point of view. The bias that this imparts on the capital structure of firms is well known as the “MM (Modigliani Mirror) adjustment proposition”.

⁹ Financial transactions such as deposits and loans are exempt from the EU's value added tax.

in direct lending, the tax payments related to the firm's personal output can be recouped via the credit method mechanism. In the case of indirect lending, however, most costs come from financial institutions and thus reside outside of the value added tax regime, making it impossible for firms to recover these costs. In other words, purchasing services from a financial institution severs that portion from the credit method mechanism, and thus these kinds of borrowing activities become overburdened by value added taxes.

By cutting the link to the credit method mechanism, the burden of the value added tax accumulates and it becomes impossible to transfer it to final sales. This problem is called "tax cascading". Tax cascading is not limited to financial transactions. For example, when a nontaxable entity purchases assets and services from a taxable entity, by definition the nontaxable entity does not bear a value added tax from the previous stage. In this way, when a taxable entity purchases assets and services from a nontaxable entity, the value added tax from the previous stage gets passed through the nontaxable entity to the taxable entity. This means that the taxable entity purchasing goods from the nontaxable entity is unable to recover the tax from the previous stage. Furthermore, besides being unable to transfer tax burdens to the next stage, company behavior that aims to internalize the provision of necessary goods and services "in-house" (in this case, "trust production" as a part of borrowing) generates a bias. This is called a "self-supply bias". Though at first glance it would seem that the exemption of financial transactions from the value added tax regime would be a favorable tax system for financial institutions, as the self-supply bias grows, there is a possibility that these institutions—in particular banks that handle indirect lending—will face an increasingly shrinking pie with blatant negative repercussions. The next section will introduce an overseas attempt at establishing a financial value added tax system in New Zealand. Behind New Zealand's attempt at the tax system lies the issue of responding to this self-supply bias.

Due in part to the low tax rate of Japan's consumption tax (the Japanese-style value added tax),

inequality between industries regarding value added tax burdens and tax cascading have not been considered major problems. If Japan chooses to raise the consumption tax rate in the future, however, there is a good possibility that these problems will become important institutional issues. Based on such a perspective, this report considers the problems that must be solved when implementing a value added tax on financial services, specifically the institutional design difficulties inherent in a consumption tax on financial services, and offers a framework for a stable and consistent system to deal with these issues.

This report is organized in the following format. Section 2 presents two cases from Israel and New Zealand that are considered very important for understanding the relation of financial transactions to value added taxes, and discusses the difficulties faced in both cases. Section 3 tackles a key question that forms the basis of discussing a value added tax on financial services: What constitutes “output” and “input” within financial transactions? Based on this issue, this section will also present a concrete proposal for a value added tax system targeting financial services. Lastly, Section 4 summarizes the report’s findings.

2. Overseas Case Studies of a Value Added Tax on Financial Services

There are many reasons why financial services are exempted from value added taxes. Changes to firms’ profits are unavoidable when revising the tax system, but such changes are not easily accomplished. From the standpoint of financial institutions, there is no problem if the taxation formula for profits is shifted from a corporate tax to a value added tax, but financial institutions will likely resist if the corporate tax is left unchanged while the burden of the value added tax is simply added on top.

However, the reasons behind the absence of a value added tax on financial services do not rest solely in this kind of institutional inertia, but also in the fact that there are many theoretical points that remain unclear. Though lending is an important and commonplace economic activity, no general consensus has yet been reached regarding the concepts of output and input within such financial transactions. This obstacle to tax system design has become a major roadblock to establishing a value added tax on financial services. When considering what constitutes “output” in the case of loan activities by banks, for example, some consider it to be the amount loaned while others consider it to be interest income on those loans. In other words, opinions on the fundamental question of “What is output in financial services?” itself are disorganized¹⁰.

The incomplete nature of theories on financial transactions as a barrier to the organized institutional design of a value added tax system is no different from other countries, and there are various cases of attempts at such institutional design overseas that can be enlightening. One of the foremost cases is the attempt to correct the inequality of taxation between the financial industry and other industries by creating a separate tax system framework to handle financial services¹¹. A second case relates attempts at industrial trade promotion through incorporating financial services into a value added tax regime. This report examines Israel as an example of the former case and New Zealand as an example of the latter.

¹⁰ The problem that opinions on what constitutes output within financial transactions are disorganized is not limited to the issue of value added taxation. In the national balance of payments (BOP), for example, the balance of payments for insurance, lending, and other services are all included in the balance of trade, whereas derivatives are handled in the balance of investment, which falls outside of the balance of trade. There are still questions as to whether or not this standardized classification is convincing, however. Further, debates regarding financial transactions between Japan and the U.S. are also fraught with a mixture of two different perceptions of Japan—Japan the over-exporter that emphasizes large-scale investment in the U.S., and Japan the over-importer that emphasizes U.S. financial institutions’ penetration into Japan.

¹¹ Japan’s consumption tax rate is low compared to the EU and other countries, and thus it is unlikely that a problem will arise from inequalities in the current gap between industries regarding the tax burden of the value added tax that other tax systems or preferential treatment might produce. However, if Japan moves to raise the consumption tax rate in the future, depending on the degree of the raise there is a definite possibility that problems will arise.

2.1 Israel: WPT

By definition, a value added tax targets value-adding business operations by firms. As previously explained, the insufficiently organized concept of output and input within financial services has made taxation on financial transactions difficult. One line of thought that responds to this issue is to abandon attempts at making separate definitions for output and input, and to impose a value added tax rate based on the net profits from these activities. Doing so means that the value added production activities carried out by firms become subject to taxation, and as a result it should be possible to correct inequalities in the value added tax burdens between the financial industry and other industries. Specifically, though a disparity in the rate of the corporate tax may arise between industries that are targeted by the value added tax and those that aren't—or else the corporate tax rate may not be affected at all—the corporate tax can be combined with the value added tax in order to supplement any such disparities in said tax burdens. This should have the effect of correcting a certain degree of distortion between industries as a result of disparities in value added tax burdens.

In reality, however, this kind of supplemental tax is not sufficient in correcting inequalities. Corporate income is generally calculated by subtracting three elements: A) material costs, i.e. input, B) personnel costs, i.e. wages, C) financial costs, i.e. burden of interest. This means that the tax base of the supplemental tax applied to corporate income is calculated based on the remainder of output minus the terms A through C. In contrast to this, the standard tax base for the value added tax is calculated from output minus A only¹².

¹² This can be illustrated in the following equation, where the tax burden is calculated for a firm that is nontaxable by the value added tax but is instead subject to a supplemental tax of the same rate:

$$\text{Supplemental Tax} = (\text{Output} - \text{Input} - \text{Wages} - \text{Burden of Interest}) \times \text{Tax Rate}$$

In contrast to this, a firm subject to the value added tax incurs the following tax burden

$$\text{VAT} = (\text{Output} \times \text{Tax Rate} - \text{Input} \times \text{Tax Rate}) = (\text{Output} - \text{Input}) \times \text{Tax Rate}$$

Thus, applying a supplemental tax on corporate income that has the same rate as the value added tax is not enough to adjust for the difference inherent in the amount of tax from wages and burden of interest that is imposed in the former.

Leaving aside the issue of adjusting for the burden of interest for now, this section will explain how Israel handled the problem of unequal tax burdens by constructing a tax system that sought to somehow equalize tax burdens resulting from wages. Israel's system was to create a tax formula that combined a profits tax and a wage tax.

Israel's case is, of course, not the only example of a tax system that incorporates a balancing mechanism in response to a value added tax that does not target wage payments (i.e. where the tax burden from wages is not subject to the credit method). A representative example is that of France. France instituted a tax system for the financial industry that levies a value added tax on secondary financial services on the one hand¹³, while also establishing a payroll tax (taxe sur les salaires) that targets firms where over 90% of output is exempt from the value added tax. In this way, financial institutions located in France are able to recoup a considerable portion of the benefits accrued from being nontaxable by the value added tax in the form of the payroll tax. Israel's characteristic is that while employing a payroll tax similar to France on the one hand, it also introduced a supplemental corporate profit tax on profits for firms nontaxable by the value added tax.

Israel implemented its value added tax in 1976. While the structure of Israel's tax resembled the EU version, it differed in that it drew a distinction between authorized dealers and financial institutions, levying a VAT (Value Added Tax) on the former and a WPT (Wage and Profit Tax) on the latter. The VAT is calculated as a single rate of 18% on the difference between a firm's output and input. The WPT is divided into a wage tax and a profit tax, and the tax rate for both is equivalent to the same tax rate as the VAT. The wage tax portion of the WPT is also levied on financial institutions and NPOs, but the profit tax portion only targets financial institutions. For those institutions subject to the WPT, value added taxes are calculated by the addition method¹⁴.

¹³ On a related note, the OECD (1988) describes secondary services as financial advice, safety-deposit boxes, debt collection, etc. There are many other countries in addition to France that tax secondary services.

¹⁴ The Addition Method is a manner of calculating the tax base of value added production in the form of the total sum of compensation for each element of production, i.e. by adding net profits (compensation for capital stock),

From the perspective of taxing corporate activities, this section will focus on the corporate tax and value added tax, and will summarize the tax structure regarding Israel's typical firms (i.e. authorized dealers) and financial institutions. For typical firms (this assumes firms that are completely reliant on their own funds for necessary costs, and that do not seek outside funds through borrowing, corporate bonds, or from other external borrowing methods that are subject to the corporate tax), let c be the corporate tax rate, v be the VAT rate, w be the wage tax rate, q be the profit tax rate, S be output, P be input, W be wage payments, X be interest income for financial institutions, and Y be interest payments. This gives the following equations for the various types of tax in Israel.

Tax burden on typical firms in Israel:

$$(S - P - W)c + (S - P)v = (S - P)(c + v) - Wc \quad (2.1)$$

Tax burden on financial institutions in Israel:

$$(X - Y - W)c + (X - Y - W)q + Ww = (X - Y)(c + q) - W(c + q - w) \quad (2.2)$$

Let $v = w = q$ and Formula 2.2 can be written as

Tax burden on financial institutions in Israel:

$$(X - Y - W)c + (X - Y - W)q + Ww = (X - Y)(c + v) - Wc \quad (2.3)$$

Furthermore, if the added value produced by typical firms is simplified as "output minus input", and

wages (compensation for labor), and interest (compensation for external capital). The value added tax base for the EU and Japan is calculated as "output minus input", but if the effects of the enterprise tax and inventory valuation can be neutralized, the value added tax is about the same rate as the addition method, even if calculated by the credit method. This means that, within a tax system where all goods and services are subject to a simple tariff tax without exception (the addition method becomes difficult when various goods are subject to differing tax rates and when tax-exempt transactions are permitted), both the value added tax base and the addition method tax base generate the same tax burden. In addition to being used to calculate the taxation of financial services in Israel, the addition method is also used for calculating the tax base of all simple tariff rates for businesses under the enterprise tax in the U.S. state of Michigan.

the added value of financial institutions is simplified as “interest profits minus interest payments”, then $S - P$ for typical firms is equivalent to $X - Y$ for financial institutions, and thus inequalities between typical firms and financial institutions are essentially eliminated¹⁵. By levying the WPT in a complimentary manner on firms that escape the value added tax, such as financial institutions, Israel is attempting to eliminate the inequalities between industries within the tax system.

It is important to note that eliminating inequalities in this tax system is only possible when the scale of financial transactions for appropriating tangible net worth is so small as to be negligible. For example, the interest burden paid by typical firms on interest income earned from lending is included within the tax base of the corporate tax, but is not included in the tax base of the value added tax. In contrast to this, for financial institutions that are subject to the addition method’s calculation of the value added tax, the balance of payments in lending ends up including both the corporate tax base and the WPT base (profit tax). Thus, the Israeli value added tax system can only succeed in reducing inter-industry inequality for particular cases with “idyllic” corporate financial structure, i.e. for typical firms that have a capital adequacy ratio of 100% and thus participate in neither lending nor borrowing¹⁶.

Of course, the reason that such a problem occurs lies in the mixed tax system that distinguishes between typical firms and financial institutions. In this system, the former is taxed by a EU-style value added tax based on a credit method, while the latter is taxed by a WPT based on the addition

¹⁵ Incidentally, comparing the combined WPT formula (Israeli method) with the payroll tax-only formula (French method) reveals that a greater degree of preferential treatment toward financial institutions remains in the French method. Specifically, if w is the payroll tax, and where $w = v$ (it is thought that there are many incidences in France where the effective tax rate $w < v$, however), then the following equations are yielded:

$$\text{Typical firms: } (S - P - W)c + (S - P)v = (S - P)(c + v) - Wc$$

$$\text{Financial institutions: } (X - Y - W)c + Ww = (X - Y)(c + v) - (X - Y - W)v - Wc$$

Thus, only where the amount of business profits (the second term on the right side of the equation for the tax burden on financial institutions) is practically equivalent to the value added tax rate is the tax burden for financial institutions lighter than that of typical firms. Israel’s combined WPT adjusts for this gap.

¹⁶ For example, consider a firm where capital deposited for the purpose of starting up a business is invested as government bonds in the stage preceding substantive corporate activities. In the case of a typical firm, it would be subject to the corporate tax but not the value added tax. In reality, however, if the firm is classified as a financial institution, in addition to the corporate tax, the firm must also shoulder the burden of the value added tax (profit tax). This is another example of inter-industry inequality.

method. If typical firms and financial institutions are both subject to equal WPT derived from the addition method, no disparity between the two would be generated. However, this would draw close to a typical corporate tax that goes beyond a value added tax. As previously noted, the advantage of the EU-style value added tax is that it levies a fair tax burden while avoiding the influence of accounting procedures, choice of firm location, and other institutional factors. Regardless, applying a WPT on typical firms that focuses solely on equality between typical firms and financial institutions risks the self-destruction of the very benefits of the value added system. Looking at Israel's attempt at a WPT aimed at equal tax burdens for typical firms and financial institutions is insightful, but when seeking an appropriate method of applying a credit method VAT on financial services, following Israel's system would take us down the opposite path¹⁷.

2.2 New Zealand: Zero-Rate

New Zealand's value added tax is known as the Goods and Services Tax (hereinafter GST). The reason why it is called GST rather than VAT lies in the goal of the tax to reduce tax-exemptions as much as possible, while expanding taxable items broadly to include the provision of most goods and services. In keeping with this goal, New Zealand taxes services provided by public authorities as well¹⁸.

The GST was instituted in 1986, and partly emulated the United Kingdom's value added tax as a model. In January 2005, the GST Act was revised, granting a zero-rate on financial services provided in inter-firm transactions by financial intermediaries, under certain conditions. This expanded the

¹⁷ Realistically, if countries that are open to foreign financial transactions like Japan and the EU were to employ a WPT, there is a strong possibility that this would trigger a formal, large-scale movement of financial transactions overseas. One important reason why Israel is able to levy a WPT on financial institutions lies in its unique political environment.

¹⁸ As a point of comparison, in the EU public sector economic activities are defined as 1) telecommunications, 2) water, gas, and electric utilities, 3) public sector advertisements, etc. This system holds that even if the providers of these business activities are in the public sector they are still subject to the value added tax, but the provision of all other activities (in particular, narrowly defined administrative services) is exempt from the tax.

zero-rate that had previously been limited to financial services provided overseas (financial service exports) to include formerly nontaxable domestic-oriented financial services. Incidentally, levying a zero-rate on financial services meant that both providers and receivers of these services registered for the GST with the New Zealand Inland Revenue. Further, the GST only applies to firms with total yearly taxable output of 75% of total output or more¹⁹.

In concrete terms, New Zealand's zero-rate means a tax with a tax base rate of 0%. Though the effects of a zero-rate in typical tax systems are analogous to tax exemption, a zero-rate within a credit method VAT system has a much different effect than simple tax exemption. Specifically, the service provider subject to the zero-rate is able to pass the value added tax—paid by firms providing goods or services with the intention of providing financial services—on to the buyer of their own services, thereby making it possible to avoid tax cascading.

For example, let's suppose that when a financial institution (i.e. a provider of financial services) provides loans to an enterprise, services such as credit agencies, accounting offices, and others are employed. If the credit agency or other such firm confirms the value added tax burden in an invoice, as borrower the enterprise will be charged interest from the loan separately from the tax amount. The enterprise being charged in this way can treat the tax amount as value added tax charged in the previous stage, when it received loans (financial services) from the financial institution. In this way, the enterprise can charge its own customers the total amount of the value added tax on the financial services it received, together with value added taxes on other inputs and taxes levied on its own business activities. Such a method means that the link with the credit method that is characteristic of the value added tax is uninterrupted, and thus the tax burden is transferred to the final consumers.

If financial services are given tax exemption rather than a zero-rate, firms will face charges for value added taxes on financial services, such as those received from credit agencies, during the

¹⁹ Non-taxable entities where over 25% of total output consists of nontaxable transactions are not subject to taxation. The provision of financial services to organizations not registered for the GST remains nontaxable as before.

previous stage as a part of interest. Such charges cannot be passed through to the next stage as value added taxes, however, because they are nontaxable—i.e. they were purchased from financial institutions not subject to the credit method. This results in the excessive accumulation of value added taxes, or tax cascading. Because the zero-rate sets the tax rate at zero, the debate on what constitutes output and input within financial services can be avoided²⁰, and thus it is a clever method for avoiding tax cascading.

When considering conditions in Japan, it is necessary to pay attention to the role that invoices play in business affairs subject to the zero-rate. The invoice-based credit method employed in the EU-style value added tax clearly recognizes the value added tax of individual transactions, whereas in the Japanese value added tax—i.e. the consumption tax—procedures above and beyond the current system are necessary for recognizing the value added tax imposed on individual transactions in the previous stage. In the case of partially differing tax rates set according to production activities that are carried out over multiple stages, it is often said that it is important to make the transition to the invoice method rather than the account method. However, if Japan attempted to introduce a zero-rate financial tax like the one in New Zealand, an institutional allowance like the invoice method would probably become mandatory for Japan’s consumption tax as well.

Furthermore, it must be noted that since most countries do not levy a value added tax on financial services, there is strong criticism if only one country were to incorporate a zero-rate framework. When considering competition between financial institutions established in countries with tax exemption for financial services versus countries with a zero-rate on financial services, financial institutions from the latter face a lighter tax burden on business activities than those from the former. As a result, countries that establish a zero-rate end up drawing financial services away

²⁰ If the tax rate applied to financial services is set at zero, then the value added tax burden that should be shouldered by financial service providers is zero when considering financial service “output” as either the amount of lending or as the amount of interest (this also holds true when considering the interest portion both as either including the time value of money or as consisting solely of the premium minus the time value). As a result, it becomes possible for business corporations to simply pass the invoice originating from the previous stage onto the next stage.

from countries with only value added tax exemption. This is not a major problem if the country using a zero-rate is considered a “minor country”²¹, but for so-called “major countries”, employing a zero-rate runs the risk of triggering international friction as a result of massive inequalities in the tax system. At any rate, even though it has been confirmed that a zero-rate avoids the problems of tax cascading, internationally it is not generally considered an appropriate method for taxing the added value produced by financial institutions²².

From these observations it is clear that, in a different sense from the previous case of Israel’s WPT, New Zealand’s zero-rate is also not in line with an ideal policy for Japan. As a result, the next section will break away from these international case studies and will consider head-on what constitutes added value within financial transactions, and how it should be measured. From this we will draft an outline for a value added tax regime for Japan.

3. A Proposal for a Value Added Tax on Financial Services

3.1 Basic Concept

As mentioned in the beginning of this report, one of the greatest reasons for complications in the institutional design of a value added tax in the financial industry is the lack of consent on what exactly constitutes value added activities within financial transactions, and how to measure them. This is a problem that stems from uncertainty in the very concepts of “output” and “input” within financial transactions. Thus, it is imperative that these questions be answered at the outset of any

²¹ Since the zero-rate is a system that gives financial service providers all the perks of the credit method without the drawbacks, for domestic non-financial industries, this system also has the characteristic of giving preferential treatment to the financial industry above and beyond a pure value added tax exemption. This is thought to be the reason why many countries are unable to implement a zero-rate.

²² There have been many other proposals for tax methods that avoid tax cascading. For example, Zee (IMF Working Paper, 2004) proposes a “Modified Reverse-Charging Approach”, in which calculations are conducted in a franking account between the deposit side and the lending side.

inquiry. It is important to note that payments in financial transactions are often conducted in the form of interest and dividends, but these payments cannot be categorically classified as being financial service “output”. This is because payments for interest and dividends within financial transactions include:

- 1) The corresponding portion of the time value of money during the term of the transaction, i.e. the interest rate on risk-free assets,
- 2) The corresponding portion of the current value of potential future profits and loss, i.e. the risk premium,
- 3) The amount of compensation for the human or institutional services that make up a financial transaction.

Examining these three categories, it is clear that the portion equivalent to the interest rate on risk-free assets in 1) cannot be said to contribute to the production of new value. Specifically, the interest rate on risk-free assets is adjusted for the time value of money. In other words, the interest rate on risk-free assets is nothing more than money issued for the purpose of adjusting for price variance in monetary claims at the time of exercise, and thus it does not contribute to the creation of new value. As a result, the interest rate on risk-free assets is not subject to taxation under a value added tax.

The portion equivalent to the risk premium in 2) also cannot be said to contribute to the production of new value. The so-called risk premium is essentially the current value of potential future loss. In the long-term sense of financial asset transactions in an efficient market, the loss equivalent to the risk premium received during these transactions must necessarily be considered an expense. Specifically, like the interest rate on risk-free assets, risk premiums are also nothing more than an adjustment for differing values between monetary claims, and as such are not an economic transaction that can be subject to a value added tax.

In the case of activities covered in 3), however, the amount of compensation for services should be considered a viable target for a value added tax, as it represents taxable economic activities that create value within the financial industry²³. The reason for the inability to locate an appropriate value added tax on financial transactions stems from the fact that, until now, the debate has been conducted without a clear consensus of what constitutes added value in financial transactions, and how such value can be measured.

The purpose of this report is to clarify the ideas concerning these questions and to present a method for measuring the amount of compensation for services in 3). In proposing a method we are not attempting to conduct direct observations of the amount of this monetary compensation. Rather, we deduct the interest rate on risk-free assets and risk premiums that are observable in the market from actual interest payments, and use the remainder—i.e. the difference of the amount of compensation in 3)—as the tax base on which to form a value added tax.

For example, in the case of interest on loans stemming from oil exploration projects, the interest should be calculated from the interest rate on risk-free assets during the term of the loan (the portion paid for the transfer of the time value of money) combined with the aforementioned risk premium of the project (the portion paid for the transfer of future contingent profits and loss), together with the compensation for management services employed in arranging the project. Therefore, if risk premium is assessable by insurance rates from overseas investment insurance, then the “output” of the services newly created by the lender (the financial institution) should be calculable by subtracting the observed interest on risk-free assets and investment insurance from the interest collected by the financial institution.

Furthermore, the “output” of services by financial institutions are also included as part of the interest-payment transaction by financial institutions acting as borrowers. For example, it is useful to

²³ The argument that the contribution of financial services including interest is a part of added value in the financial industry dates back to a 1978 report by the U.K.'s Meade Committee (Meade, ed (1978)). Merrill and Edwards (1996) and Poddar and English (1997) argue this issue within the value added tax system.

consider the interest paid by financial institutions on checking deposits that are earmarked for the settlement of payments as compensation for payment services deducted from the time value of money (in this instance, overnight interest). It should therefore be possible to recognize the “output” of services by financial institutions as the remainder of interest on risk-free assets minus the actual amount of interest paid²⁴. This becomes an additive equation in cases where the financial institution functions as the lender, reflecting the fact that the direction of the financial transaction shifts from lending to borrowing.

Regardless of what is included, this concept of “output” from the point of view of financial institutions must be reconciled and in agreement with the concept of “input” from the point of view of borrowers, i.e. firms. To investigate this point, let’s look at the case of deposits. For firms that choose to deposit funds in a financial institution, rather than in a business or securities investment with higher profitability than a bank, it becomes necessary to pay the opportunity cost in the form of the difference in interest between payment services and other financial services and that of other lending methods. If we consider the difference in interest between the two as “input”, then this concept is compatible with the concept of output for financial institutions. Further, in the case of borrowing, the cost of risk assessment and management included in interest becomes “input” for firms²⁵. In this way, the concept of output for financial institutions and the concept of input for firms can be brought into alignment.

This concept does not rely on a legal system defining what exactly constitutes a financial institution, which means that there is no need to distinguish between financial institutions and non-financial, typical firms within the workings of the system. This is an important point to remember when considering that, in reality, financial transactions by firms that are not categorized as

²⁴ Gains to firms from deposits conducted at low interest rates are not limited to payment services. For example, if carrying out transactions with a bank results in an important business opportunity being presented, the compensation for services aimed at expanding business opportunities would also be included.

²⁵ For borrowing in the form of public stock, this cost is acknowledged as IR expenditures on stock purchasing fees, materials fees for explanations to stockholders, etc.—i.e. input.

financial institutions—such as lending by trading firms—are by no means uncommon. Incidentally, in the case of lending by trading firms, the interest rate charged includes the time value of money, the amount of risk transfer and payment for financial services rendered. Therefore, calculating the amount for financial services rendered can be achieved by calculating the remainder of the interest income received by the trading firm minus the amount of interest on risk-free assets and the risk premium of the party demanding funds. If the remainder is positive, it implies that the trading firm would have to bear the entire cost of negotiations with financial institutions, becoming listed on the stock exchange, and other borrowing expenses that the client would otherwise bear. In other words, this should be seen as the trading firm’s “output”. On the other hand, if the remainder is negative, the trading firm is purchasing so-called “commercial rights”—rights to maintain business opportunities—by conducting lending at a low interest rate²⁶. For the trading firm, maintaining the relationship with the aforementioned client means securing a sales and purchasing partner under profitable conditions through continuous transactions. In this situation, the trading firm most likely offers loans at low-interest rates because of its goal of making some sort of future profit. It is possible to classify this kind of lending as one portion of the trading firm’s “input”.

3.2 A Brief Outline of the System

Using the above concepts, an overview of each type of value added tax base can be described by classifying transactions based on the magnitude correlations of the actual interest rate stipulated in contracts (hereinafter “contract interest rate”), and the benchmark rate of return consisting of the interest rate on risk-free assets plus risk premium (hereinafter basic interest rate). The terms used are:

²⁶ There are many instances where trading firm lending, and particularly trading firm transactions linked with resources development, is offered as a set together with extremely low interest rates. This symbolizes the trading firm “purchasing” trading rights by offering low-interest loans.

i_k : The applicable interest rate for financial transaction k (actual paid interest)

r_k : The interest rate on risk-free assets corresponding to the contract term of financial transaction k

p_k : The risk premium of financial transaction k

$f_k = r_k + p_k$: The basic interest rate in financial transaction k

F_k : The total amount of financial transaction k (if the term of the financial transaction does not encompass the entire term of the computation of taxes, then this value is calculated in accordance with the term of the computation of taxes²⁷)

1) Lending where the applicable interest rate is greater than the basic interest rate

(Expressed by the formula $i_k \geq f_k = r_k + p_k$)

This is equivalent to the typical lending to firms conducted by banks. In the case of lending, banks conduct credit inquiries and monitoring, and the charges for these activities are expressed in the difference between the contract interest rate and the basic interest rate proposed above. This kind of financial transaction can be categorized as the provision of financial services, i.e. “output”, and thus should be added to the calculations of the tax base of a value added tax. The additive value can be written as $(i_k - f_k)F_k$.

2) Borrowing where the applicable interest rate is greater than the basic interest rate

(Expressed by the formula $i_k \geq f_k = r_k + p_k$)

This is the opposite of transaction 1) in that it expresses the transaction from the perspective of the borrowing firm, and thus it represents an instance of buying financial services, i.e. “input”. As a result, this value should be deducted from the tax base of a value added tax. The deductive value can

²⁷ For example, if a one trillion yen loan is carried out during half of a taxable year, the amount is equal to 0.5 of one trillion yen, or 500 billion yen.

be written as $(i_k - f_k)F_k$.

3) Lending where the applicable interest rate is less than the basic interest rate

(Expressed by the formula $i_k \leq f_k = r_k + p_k$)

Typically, this represents the situation of a firm that holds net demand deposits in a bank. In this case, the firm is buying payment services from the bank. This financial transaction represents the “input” of financial services, and thus should be deducted from the tax base of a value added tax. The deductive value can be expressed as $(f_k - i_k)F_k$, but this is effectively the same as adding $(i_k - f_k)F_k$ to the tax base. There are most likely many reasons besides the input of payment services for why lenders would accept the conditions of $i_k \leq f_k$, i.e. when the contract interest rate is less than the basic interest rate. It is not rare for lending to be conducted under such preferential conditions for the purpose of maintaining friendly inter-firm relations, increasing future transactions, and other expected payoffs.

4) Borrowing where the applicable interest rate is less than the basic interest rate

(Expressed by the formula $i_k \leq f_k = r_k + p_k$)

This illustrates the opposite conditions of the transaction in 3), where a firm sells the financial services in the form of a deposit transaction with a bank. In other words, this represents “output”, and as such should be added to the calculation for the tax base of a value added tax. The additive value can be expressed as $(f_k - i_k)F_k$, but this is effectively the same as deducting $(i_k - f_k)F_k$ from the tax base.

To summarize the above results, the following simple formula illustrates the total tax base for a value added tax in financial services, i.e. the amount B of “output minus input” within financial

services:

$$B = \sum_{k \in A} (i_k - f_k)F_k - \sum_{k \in D} (i_k - f_k)F_k$$

In this formula, A is the set of indices corresponding to each lending transaction, and D is the set of indices corresponding to each borrowing transaction. Thus, in lending transactions, the tax base is calculated by adding the total output of financial services—i.e. the “contract interest rate minus the basic interest rate” multiplied by the original principle in the transaction—without regard to whether or not these transactions were conducted by financial institutions or typical firms. In borrowing transactions, the value added tax base is calculated by subtracting the input of financial service—i.e. the “contract interest rate minus the basic interest rate” multiplied by the original principle. The next issue concerns practical calculations within the tax base, including ways to assess contract length, measure risk premiums, etc.

3.3 The Concept of the Interest Rate on Risk-Free Assets

First, this section will explore how to establish the interest rate on risk-free assets r_k that is the foundation of calculations for the basic interest rate proposed above. The fundamental concept holds that r_k is established separately in response to the term of the contract. If the contract term of financial transaction k is one year, then r_k will be set as if based on a one-year government bond-type risk-free asset. Likewise, if the contract term of the financial transaction is six months, then r_k will be set as if based on a six-month government bond.

Another line of thought holds that, rather than determine a value for the interest rate on risk-free assets that incorporates basic interest rates for each individual financial transaction, it would be more prudent to apply the overnight interest rate observed in the short-term money market unequivocally to all financial transactions. In other words, all financial transactions k would be expressed as:

$r_k = r$ where r is the overnight interest rate in the short-term money market.

At any rate, both methods of calculation do not result in significant differences when determining the actual tax base.

Let's consider a firm where long-term borrowing is necessary for equipment investment. To simplify the discussion, let's assume that future demand for funds and changes in the interest rate are perfectly predictable. In this case, the interest rate needed to cover the long-term borrowing over the entire term should be on par with expected cumulative interest in the case of repeated rollover of the borrowed short-term funds, plus the added cost of the number of times negotiations had to be repeated during the process. Correspondingly, in the case of a firm borrowing long-term funds from a bank, deducting the value of short-term interest accrued during the term of borrowing from the contract interest rate makes it possible to calculate the compensation for the financial services rendered during the term of the long-term borrowing. Thus, in such cases, even if the interest rate on risk-free assets is calculated across the board as the value of the financial services in the form of the short-term money market interest rate, seeking out risk-free assets with high marketability—such as term-matched government bonds—and calculating the value of financial services along these lines does not change the results.

What happens when future demand for funds and interest rate changes cannot be perfectly predicted? Such cases will result in a risk premium that supports a long-term interest rate at a level higher than the cumulative value of short-term interest rates, reflecting the loss resulting from a lack of immediate purchasing power and the inability to execute optimal actions. If this so-called liquidity premium is ignored and the added value for financial services is calculated by applying short-term interest rates across the board, then undervaluing can result. For example, if the value added for the long-term lending services offered by a bank is overestimated, on the opposite end, the value added for mid-term deposit services will be underestimated. Thus, in order to precisely

calculate the value of all financial transaction services, it is imperative to assume a basic interest rate that considers the liquidity premium.

However, considering this issue from a realistic perspective, no major bias should develop within the system as a whole, even without calculating the basic interest rate this precisely. Most financial institutions, which make up the majority of financial service providers, employ so-called Asset Liability Management (ALM) in order to make sure that the terms of borrowing and lending are in alignment as a whole. If the use of this kind of management is considered a given for financial institutions, then the tax base as a whole will not be over-valued or under-valued, even if the interest rate on risk-free assets used in the value added tax calculations does not consider individual financial contract terms (i.e. if short-term market interest rates are applied categorically). For a “broad and shallow” tax system like that of the value added tax, it is important to consider that a complicated tax system will raise operations costs, while a simple system will reduce the amount of clerical work required. From this perspective, it is thought that using formula 3.2—i.e. categorically applying the overnight short-term market interest rate as the interest rate on risk-free assets in value added tax calculations—or else giving firms the option of using overnight interest rates is sufficiently realistic²⁸.

3.4 Realistic Risk Assessment

Another important point alongside the question of how to handle interest rates on risk-free assets is the issue of how to assess risk premiums. The number of financial transaction risks, in particular the number of credit risks stemming from debtor bankruptcy, is correspondent to the number of

²⁸ It is considered possible to observe the liquidity premium itself if a money market as developed as the current one is used. However, if the value added tax calculations for each financial transaction do not employ Formula 3.2, it becomes necessary to record the market interest rate at the time of each financial transaction contract (or for variable-rate contracts, at the time of each change in the interest rate) and to re-calculate the interest rate and term-length provisions. Thus, using Formula 3.2 largely rectifies these calculation burdens.

debtors, and thus—except for a small portion of major companies and banks—it is difficult to assess the risk of bankruptcy for each firm in the market.

Incidentally, whether a risk premium is traded implicitly as part of interest or dividends, or else is traded explicitly in the manner of a premium for a contract of insurance against loss or an option contract, depends on the trade environment²⁹. In the case of financial transactions for which value added calculations are desired, it is possible to assess the risk premium p_k based on the market price observed in the market, given a market in which bankruptcy risk is traded explicitly like a credit derivative. However, because the bankruptcy risk of the vast majority of firms conducting financial transactions is underwritten by negotiated bank transactions, it becomes difficult to observe market prices. Next, let's look at a method of calculating a tax base that can be applied to these kinds of transactions.

First, breaking down Formula 3.1 into terms related to risk premium yields the following:

$$B = \sum_{k \in A} (i_k - r)F_k - \sum_{k \in D} (i_k - r)F_k - \sum_{k \in A} p_k F_k + \sum_{k \in D} p_k F_k \quad (3.3)$$

In the case of lending and borrowing conducted by firms subject to the value added tax (including financial institutions), the first and second terms on the right are the product of the difference between the actual applied interest rate and the interest rate on risk-free assets in the aforementioned transaction, multiplied by the value of the transaction. This is a simple calculation to make.

The third term on the right is the risk premium of lending. Risk premium p_k is necessary to calculate this value, but it is difficult to observe p_k individually for all loans. For assets in the market with risk premiums that are difficult to observe, it is thus necessary to check the actual amount of bad-debt loss L and consider this as a substitute for the cumulative value of risk premium income from lending transactions. In other words, for lending transaction set A , let A_1 be the set of

²⁹ Insurance that compensates for credit risk is known as credit insurance. Credit insurance is one type of contract of insurance against loss.

transactions for which the investment value of the risk premium is possible to assess, and let A_2 be the set of transactions for which it is difficult to assess investment value. This gives the following formula:

$$\sum_{k \in A_2} p_k F_k = L \quad (3.4)$$

Substituting this in Formula 3.3 yields the following equation:

$$B = \sum_{k \in A} (i_k - r) F_k - \sum_{k \in D} (i_k - r) F_k - \sum_{k \in A_1} p_k F_k - L + \sum_{k \in D} p_k F_k \quad (3.5)$$

Incidentally, if the risk premium in the market can be assessed for all operating funds, Formula 3.3 can be applied. If market assessment is difficult for all operating funds, then the formula can be written as:

$$B = \sum_{k \in A} (i_k - r) F_k - \sum_{k \in D} (i_k - r) F_k - L + \sum_{k \in D} p_k F_k \quad (3.5')$$

Furthermore, inputting the amount of bad-debt loss itself as L results in an excess burden on financial institutions that have only underwritten the portion accounting for the difference in the value of the loan at the time of the initial transaction and the time that the bad debt occurred. Thus, it is probably more appropriate to use the transfer of bad debt allowance instead. This is an issue for future pragmatic investigation.

Lastly, the fourth term on the right is the risk premium of borrowing, and is added to the tax base. It is difficult to decide how to determine the actual size of the risk premium, but if the firm subject to the tax is aware of how it is being assessed by the market or its business partners, then it is possible to determine the proper method based on this awareness. Specifically, two possible risk premiums that can be used are: 1) In the case of firms with a bond credit rating, a risk premium that corresponds to their bond credit rating within the money market for a certain transaction term; 2) In the case of firms with internal credit ratings from banks, a risk premium that corresponds to the gap between the basic interest rate and the interest rate of the firm's internal credit rating. For small and

medium firms, for which market-based assessments are difficult to conduct practically, it may be useful to establish either a uniform “deemed premium” or a zero premium (this term is additive, and thus setting the premium at zero implies a reduction in the tax burden). As long as credit risk is not underwritten by a third party, the size of the risk premium in this term should be constant for each borrower. Thus, if the size of the risk premium is expressed by p^* , then Formula 3.5 can be expressed as:

$$B = \sum_{k \in A} (i_k - r)F_k - \sum_{k \in D} (i_k - r)F_k - \sum_{k \in A_1} p_k F_k - L + \sum_{k \in D} p^* F_k \quad (3.6)$$

In addition, for debts with debt guarantees from a third party, including public deposit insurance, it is important to separate borrowing conducted on firms’ own credit when calculating the value of this term. Specifically, in the case of borrowing through a third party’s credit, the contract interest rate in the second term of the formula reflects the credit rating of the debt guarantor, and thus it falls below the value of the firms’ original risk premium (this means that the size of the deduction from the tax base decreases). In place of this, however, the risk premium in the fourth term of the formula, as described above, is not p^* —which reflects the credit rating of the firm—but rather the risk premium of the third party offering the debt guarantee becomes applicable (if the deposit includes public deposit insurance, it is useful to treat this as $p_k = 0$)³⁰.

3.5 Securities, Insurance, and Options

The previous sections presented several real-world investigations of how to calculate a tax base, and argued that in financial transactions involving the transfer of money—i.e. in lending and depositing transactions—the tax base for a value added tax on financial services should be calculated from the “output of financial services” rather than the “output of financial assets”. There are also

³⁰ How to calculate the value of financial services that include insurance payments (the amount of “input” of financial services) will be discussed in the next section.

financial transactions with tax bases that can be more directly observed, however, and thus do not rely on the concept argued above. These transactions effectively include the entirety of the time value of money and risk within securities, and thus the relationship between the interest rate and risk premiums can be expressed as³¹:

$$i_k - r_k - p_k = 0$$

Specifically, for borrowing in the form of securities, only the fees resulting from the issuing and management of securities (i.e. underwriting fees, fees for payments on principal and interest, credit rating fees, etc.) should be included in the tax base as compensation paid for financial services. For securities, the time value of money and risk is transferred to the lender as one sum and interest and dividends are not included within financial services, and thus only those fees that are externalized (i.e. related to issuing and managing securities) should be included in the tax base for the value added tax³². In the traditional banking world, the phenomenon of moving away from providing financial services (i.e. risk underwriting) together with the transfer of money—and thus separating the transfer of money from underwriting and leaving financial services (such as credit rating) open to competition in the market—is known as “unbundling”. This concept of including only externalized fees in the tax base in the traditional banking world is the same as in the value-added tax base related to securitized paper created through unbundling.

This raises an important question: How should transactions be handled that are not like securities, i.e. transactions that do not involve the simultaneous transfer of the time value of money and risk? These transactions, such as insurance and option underwriting, involve the transfer of risk only, without the transfer of the time value of money³³, and without the transfer of money. This

³¹ This equation is also useful for calculating the risk premium in lending and depositing transactions where the securities-issuing firm or bank acts as a debtor.

³² These fees are currently subject to value added taxation regardless of the form of the securities (i.e. even as bonds or stocks).

³³ Incidentally, insurance revenue and option revenue are nontaxable under the existing value added tax system, but this policy is criticized for placing these transactions outside the framework of the value added tax (OECD (1998), IFA (2003)).

means that interest rates have no role in the transaction, making it possible to observe the production of services through risk underwriting without any obfuscations. Let's consider how this can be accomplished.

First, let's consider the case of insurance. Insurance transactions do not involve the transfer of money, and so Formula 3.3 cannot be readily applied. Instead, in the case of insurance companies (i.e. sellers of insurance contracts), the first term in Formula 3.3 equates to the "premium paid-in", and the third term is equivalent to the "current value of risk underwritten in the insurance contract". In reality, there are many insurance contracts for which it is difficult to assess the current value of risk at market price. For these contracts, the actual paid insurance money, claims reserve, and catastrophe loss reserves can be substituted, just as when substituting actual loan-loss charges or loan loss provision for the current value of lending risk. Additionally, for insurance companies (i.e. sellers of insurance contracts), the second term in Formula 3.3 should correspond to the "premium paid" and the fourth term should reflect the amount of risk underwritten by the insurance company according to the insurance contract³⁴. Specifically, this means that it is not the total amount of insurance premiums reflected as an insurance company's "output" (or "input" from the standpoint of policyholders) that should be used for the fourth term, but rather the difference of the insurance premium minus the risk underwritten by the insurance company³⁵. By the same token, defining added value in insurance contracts in this way should allow us to apply this same concept when designing a credit method mechanism for value added tax in debt guarantee operations by banks, as well as credit guarantee operations and deposit insurance by guarantee companies.

Risk underwriting in option contracts also uses the same concept. The subject of a value added

³⁴ The value of the "amount of risk underwritten by the insurance company according to the insurance contract" is difficult to calculate, and so the "insurance claims paid" and "insurance reserves" can be used to calculate the "total amount of risk of the same category underwritten by the insurance company". Out of this amount it is possible to calculate the amount that should be attributed to personal insurance contracts via the pro-rata method.

³⁵ For direct writing insurance companies, it must be noted that in many cases "input" is carried out in the form of re-insurance, and this portion requires adjusting for insurance premiums and insurance paid via the credit method. Further, insurance revenue that extends across fiscal years becomes the deposit and withdrawal of liability reserve, and thus this portion must also be adjusted for.

tax in option contracts should not be the “output of financial assets”, but rather the “output of financial services”. Thus, what should be added to the tax base is not the option underwriting revenue, but rather the balance remaining after subtracting the Value at Risk (VaR) at the time the option is executed from the underwriting revenue. In other words, the tax base should include the amount of compensation left over from underwriting revenue for the seller of the option³⁶.

In instances like the above where option premiums are incorporated within the tax system, it is necessary to keep in mind some sort of specified division when considering what level of exactitude should be demanded. Even within financial contracts that are not generally recognized as options, it is not uncommon for option-like characteristics to be concealed within the transaction.

In many bank transactions, for example, lending by a bank is interpreted as loan agreement, and thus the benefit of term is often estimated as being for the debtor. As a result, even if there is no early canceling clause, it is possible for debtors to submit requests for early cancellation. On the other hand, for deposit contracts generally stipulated as deposit agreements, the benefit of term is estimated for the creditor, and thus it is possible for the creditor/depositor to request early cancellation. If we interpret this as an option transaction, the repayment of bank loans ahead of schedule by debtors means that the debtors deliver cash to the bank and they recover securities (loan agreement), regardless of the willingness of the bank. In this way, repaying bank loans ahead of schedule is equivalent to exercising a call option. Further, early cancellation of a bank deposit by a depositor means that the depositor delivers securities (deposit contracts) to the bank and recovers cash, regardless of the willingness of the bank. In this way, early cancellation of bank deposits is equivalent to exercising a put option. For the purpose of balancing operational costs for the system

³⁶ It is common sense in the world of financial theory that contracts of insurance against loss and option contracts (put option contracts) are equivalent. In the case of losses on an asset under contract exceeding the boundaries set in the contract, it is said that an “insured cause” has occurred in the insurance contract. When this occurs, the insurance company (i.e. the seller of the contract) pays the insurance reimbursement and subrogates the asset. In contrast to this, in the case of a contracted asset (called an “underlying asset”) in an option contract with a value that falls below the exercise price, the option becomes exercised and the seller of the option is left paying the exercise price. Thus, when considering a value added tax system, insurance contracts and option contracts must be treated as being fundamentally equal.

as a whole, it is vital to consider to what extent these “hidden option contracts” incorporated within money transfers should be assessed, or else whether or not such contracts should be divided according to approximate assessments³⁷.

3.6 International Consistency

The previous section described our proposition for the framework of a value added tax on financial transactions (i.e. a consumption tax on financial services). In the above sections we clarified the concepts of “output” and “input” that should form the foundation of a value added tax system and offered the outline of a tax system that could be built upon these concepts. Regardless of the pros and cons of levying a value added tax on financial transactions, this report proves that, at least in theory, consistent institutional design of a value added tax on financial transactions is possible. Here a new question is raised: What should be done when these kinds of financial transactions cross international borders?

In principle, this question can also be solved using the framework of the current value added tax system. This is because typical value added tax systems, including Japan’s, treat the export of goods and services outside of a region as export exemption, or else the tax paid on the stage preceding export is deductible or creditable, while at the same time a value added tax is charged when importing goods and services from bonded areas. This concept can also be employed when granting credit overseas that either exceeds or does not meet the basic interest rate. In such cases, the difference between the credit lending rate and the basic interest rate can be exempted as “financial

³⁷ There is no need to pursue this problem too far if the aforementioned financial transaction is conducted in the manner of a securities transaction through the market. For example, convertible bonds can be viewed as a financial instrument combining straight bonds featuring an optional redemption clause with optional redemption options and stock purchase options. The option price of such convertible bonds becomes factored into the interest rate of securities, however, and thus just as for stocks or straight bonds, calculations of financial services connected with convertible bonds should be sufficient if they pay attention to the compensation for externally observable financial services such as underwriting commissions.

service exports”, and the credit granted overseas that either does not meet or exceeds the basic interest rate can be taxed as “financial service imports”. In this way a value added tax system can be designed to target financial services as well³⁸.

This raises an important point, however: financial transactions are trust-based transactions with no physical volume or weight. This implies that transactions targeted by a value added tax on financial transactions can be shifted between countries at extremely low cost.

Business practices featuring cross-border transactions occur constantly, such as lending abroad by domestic financial institutions and issuing bonds in foreign capital markets. Moreover, cross-border financial transactions consist of both “actual” international transactions—such as when a Japanese financial institution participates in resources development projects abroad—and transactions whose locations are chosen based on the convenience of their tax or financial systems, i.e. as offshore markets or tax havens, regardless of whether or not the transactions involve Japanese firms borrowing from domestic Japanese institutional investors. In the world of physical goods, it is hard to conceive of a case where a wholesaler ships products to a retailer, which then exports those products overseas to a local corporation, which then ships the products to a local retail corporation, and where finally the original wholesaler imports the products from the local (overseas) retail corporation. In the financial world of credit transactions, however, such transactions are very common. Failure to fully consider the consistency of the international system when planning a tax on financial services could result in minor distortions in the tax system becoming the impetus for massive shifts in trading hubs and the cause of major international friction³⁹.

³⁸ Needless to say, credit granting is not the only activity that should be thought of as a financial service exporting and importing activity. For example, a large portion of management activities conducted by so-called foreign financial institutions is dependent on domestic branch offices, and thus when commission is paid to such offices for their activities, this payment becomes subject to the value added tax (from the standpoint of the branch office, this is output; from the standpoint of the financial institution, this is input). In such cases where the commission from the branch office is paid by the main office of the overseas institution via a domestic branch office or a local subsidiary, this payment is nontaxable as a financial service export.

³⁹ Obviously, value added tax rates differ from region to region, and there are major countries like the U.S. that do not use a value added tax system. Thus, in the case of a Japanese bank lending overseas—and even for maintenance transactions that are conducted entirely by local branches—the Japanese bank should conduct services whose costs

Even such basic questions as “In what country does the transaction occur?” become vague for financial transactions in comparison with transactions of physical goods with volume and weight. For example, in offshore money markets such as the euro market where yen, U.S. dollars and other currencies are traded, should such transactions (e.g. yen-euro trading in London) be taxable by the location where the contract was executed (i.e. by the U.K. government), or else should it be taxable by the country that the currency represents (i.e. by the Japanese government)? Though naturally there is a strong inclination to let offshore banking transactions be the responsibility of local agencies, this is not a definite rule, and thus issues such as these must be clarified. For example, as one aspect of the 1979 U.S. sanctions against Iran, the U.S. opposed the U.K. and France by arguing for the freezing of dollar deposits located in London and Paris branches of U.S. banks. The basis of the U.S. argument was that dollar deposit credits in foreign branches were supported by U.S. domestic dollar transactions⁴⁰. Without clarifying these kinds of issues it will be impossible to create a tax system with international consistency.

It is clear that there needs to be greater discussion regarding the conditions of domestic transactions, and many issues must be resolved in order to implement a value added tax on financial transactions on an international level.

4. Conclusion

Japan’s consumption tax structure is indirect in nature, and individual sales taxes are recognized on a wide variety of commodities such as alcohol and gasoline. As mentioned in the introduction,

can be covered by Japanese domestic offices as much as possible. Setting an interest rate between the home office and its branches that tacks on the margin of the cost burden not covered by domestic branches and thereby calculating an approximate tax burden is desirable. This is one form of the so-called “transfer pricing taxation problem”, however, and compared to exports and imports of physical goods, it is even more difficult and cumbersome to tackle this problem in the financial world where large volumes of transactions can be shifted internationally at very low cost.

⁴⁰ The problem here is that the U.S. withdrew its demand for economic sanctions, and thus the trial ended in a de facto conclusion without reaching a judicial decision. This kind of settlement is probably not acceptable for taxation issues.

however, a consumption tax with a credit method mechanism is a system that taxes profit from corporate activities—i.e. corporate profit—in a proportional manner. In the past, this method of taxation was effectively accomplished through the business tax. Additionally, since most corporate activities in Japan are conducted by corporations rather than by sole proprietors, the effects of Japan's consumption tax (i.e. value added tax) can be thought of as being close to a corporate tax (i.e. corporate income tax).

However, this is not to say that the essence of the consumption tax is always correctly understood. In many cases, strong opposition to raising consumption tax rates comes from consumer groups rather than employer's associations. Employer's associations are sensitive to raising corporate tax rates, but from the standpoint of so-called fiscal deficit measures, it is not uncommon for them to lean toward agreement when it comes to raising consumption tax rates (which in theory have a similar effect to the corporate tax in regards to taxation on profits).

This report does not discuss this issue from the standpoint of the pros and cons of raising value added tax rates, but rather from the standpoint that employing a value added tax effectively requires a tax system without any gaps or loopholes. To this end, this report investigated the possible ways of looking at added value in financial transactions, and proposed a concept for a framework that meets these conditions. To summarize, the three major points of our proposal are as follows:

- 1) When designing a value added tax or consumption tax on financial services, it is a mistake to calculate the tax base from the size of financial transactions or the amount of interest paid. Rather, the tax base should be calculated as the remainder of the amount of interest paid on financial transactions minus the time value of money and the cost of risk transfer.
- 2) Strictly speaking, the time value of money—i.e. the interest rate on risk-free assets—should be applied along the lines of the contract term of financial transactions, but generally

speaking there is no great difference if instead the overnight rate observed in the short-term money market is applied across the board.

- 3) Risk transfer costs are determined by subtracting the equivalent risk premium from the tax base in the case of lending transactions, and by adding the equivalent risk premium to the tax base in the case of borrowing transactions.

Using the above value added tax (consumption tax) system makes it possible to realize a balanced tax burden for transactions in both the financial industry and other industries, and to present one solution to the problem of so-called tax cascading.

It bears repeating, however, that the authors are not unequivocally condoning an increase in Japan's value added tax (consumption tax). A value added tax contains a host of problems alongside those of taxing financial transactions, as well as issues even more serious than these, and the debate concerning these issues is still far from developed. One major issue is the effect of a value added tax on the labor market.

Input tax credit, one of the major characteristics of a value added tax, is dependent on whether or not resources pumped into corporate activities are purchased as transactions taxable by a value added tax. In instances of corporate activities where there is a difference in the effect of taxable and non-taxable resource inputs—such as with capital and labor—a value added tax will end up influencing input decisions. For example, if we consider a case where one unit of labor and one unit of machinery have the same effect on production, having no value added tax means that inputting either would lead to the same amount of after-tax corporate profit. If we introduce a value added tax in this scenario, however, labor input—i.e. wages—is a non-creditable input, whereas machine input is a creditable input. This means that a shift in resource inputs away from labor and towards machinery will occur, because after-tax profits will be higher if creditable machinery inputs are used.

This indicates that a value added tax is not a neutral tax system in which labor and capital are given equal value. The introduction to this report lauded the value added tax system as one that causes relatively little distortion in capital markets when compared to a corporate tax, but on the other hand it can also be said that the value added tax system causes major distortions in the labor market⁴¹. Amidst the present rumors of an increased consumption tax in Japan, the effects that a value added tax would have on the labor market demands even more serious attention.

⁴¹ Technically speaking, it is possible to eliminate the influence on the labor market of a value added tax by treating individual income tax charged on labor output (i.e. employment compensation) by a taxable entity as a value added tax, and treating this amount as an input tax credit. From a tax-scheme theory standpoint where income tax and value added tax are two separate taxes, however, this kind of institutional reform would be met with resistance.

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