How Much Should Japan Raise the Financial Sector's Share of the Economy?

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I. The financial sector as a fraction of GDP

One of the items related to economic growth in the comprehensive policy document announced by the LDP on 27 November 2012 was a proposal to build the leading financial and capital markets in Asia. This included raising the financial sector's share of GDP to over 10%, as it is in the UK, and fostering finance as an industry.

We look here at the financial sector's share of Japanese GDP over time until now, as well as at the sector's characteristics relative to those in other countries.

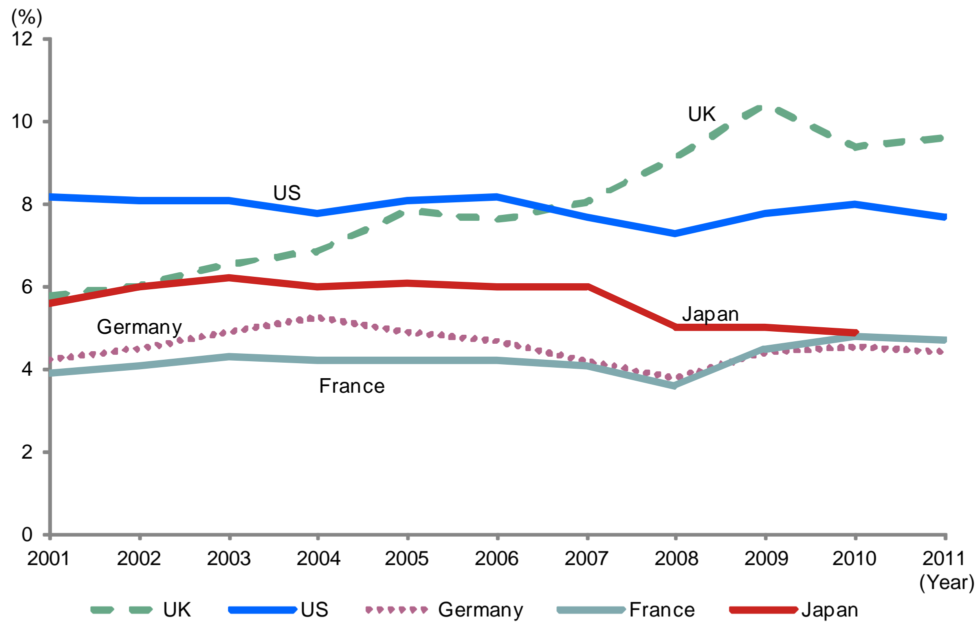
Figure 1 shows that share in the major countries over the past few years[1]. The financial sector's share of the UK economy grew rapidly throughout the 90s, reaching the 10% level in 2009. Although it dropped slightly in 2010 to below 10% it is still high, and since 2007 has remained higher than that in the US[2].

During this period, the financial sector's share of the US economy remained around 8%, with no significant change. In France, this share is in the low 4% range, after

[1] More accurately, we use GVA (gross value added) rather than GDP. GVA is productive output less intermediate inputs, and expresses the added value created by production activity. This added value is distributed across employee compensation, operating surpluses/blended income, and consumption of fixed capital, and corresponds with GDP estimates based on the spending approach. In principle, however, productive output is calculated without including consumption taxes paid for by the purchasers of the product, and thus GVA is smaller than GDP by that amount (if there are subsidies, it is larger by that amount). Thus, GVA + taxes - subsidies = GDP. The value added for each sector can also be calculated using GVA. Dividing a sector's GVA by the total GVA for all sectors gives that sector's share of the economy. Owing to core data constraints, Japan's SNA data is calculated using producer prices that include value added taxes, and thus the amount of value added for each sector is expressed as GDP, and total GDP for all sectors plus statistical discrepancies are equal to GDP based on the expenditure approach. Sector shares of Japan's economy are found by dividing each sector's GDP by total expenditure-based GDP. To keep it simple, we use the term GDP instead of GVA.

[2] In making this chart, we appreciate the advice we received from Duncan McKenzie, the Head of Research at TheCityUK. TheCityUK, Economic Contribution of UK Financial and Professional Services, January 2013, along with the appended data, was a valuable source of information for comparing the financial sector's contribution to the UK economy compared with that to other economies.

Figure 1: Financial sector's share of GDP



Source: UK: Office of National Statistics; US: Bureau of Economic Analysis; Germany: Statistisches Bundesamt; France: Institut national de la statistique et des études économiques; Japan: Cabinet Office

rising slightly over the past few years. It had historically been higher in Germany than in France, but that is no longer true recently.

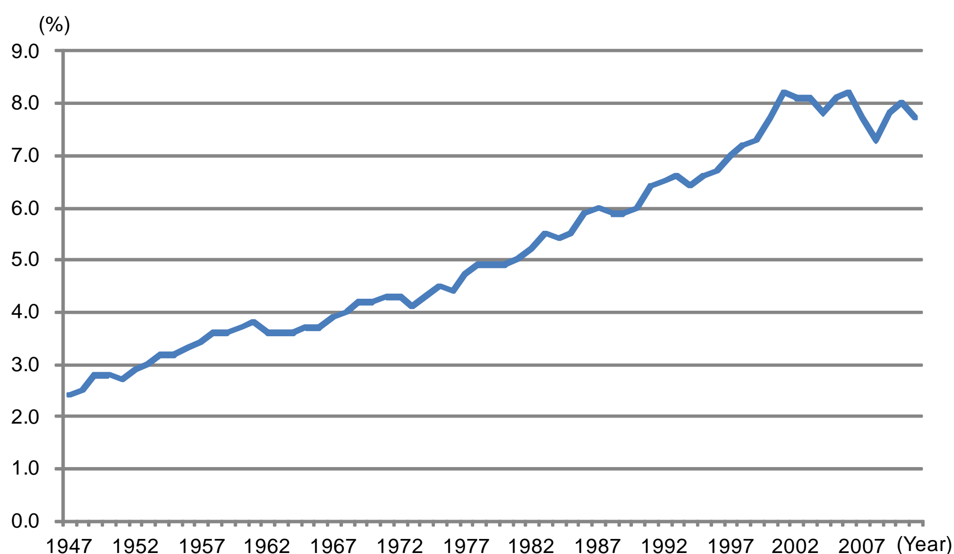
The financial share of the Japanese economy was at 4.9% in 2010, higher than that of both France and Germany. A look at the time series, however, shows a substantial drop-off in the late 2000s. Catching up with the UK means reversing this trend toward shrinkage and eventually doubling the added value created by the sector relative to its current level. The financial share in the UK rose from 5.4% in 2000 to 10.4% in 2009, a 5 percentage point increase over nine years, whereas in the US it took 47 years to achieve the same 5 percentage point increase, not doing so until 2001 from a base of 3.2% in 1954 (Figure 2).

The financial sector's share of the US economy peaked at 8.2% in 2001, and showed no growth from 2003 until 2006, despite the sharp growth in subprime loans and their securitization, CDS, and other derivative-related businesses during that period.

Figures 3 and 4 show the trend, including for other industries, in the US, the UK, and Japan. In the US, the service industry (including government) accounted for over 40% of the economy in 2010, and also had the largest economic share increase since 2003. By sub sector, education & health care increased its share by 1.2 percentage points, while professional & business services increased its by 0.9 percentage points. Outside of the services industry, the mining sector also made a notable contribution.

In other words, although the US economy is largely seen as being stimulated by a housing boom and financial boom, there are other sectors of the economy that actually generated higher growth. As a result of continued financial deregulation and increasing competition among providers, it has become more difficult to earn surplus profit, while a tightening of numerous regulations after the collapse of the IT bubble and the Enron scandal exposed the market to more competition from the UK and other overseas markets. These factors combined to stop the growth trend in the US financial sector. The financial boom in the late 2000s occurred at a time when the US financial industry had become fairly mature, and it is possible that the "growth industry" mantle had already shifted to other sectors.

Figure 2: Financial sector's share of GDP in the US (long-term trend)



Source: Bureau of Economic Analysis

Figure 3: Each sector's share of GDP (2010, %)

	US	UK	Japan
Agriculture	1.1	0.6	1.2
Mining	1.7	2.7	0.1
Manufacturing	11.2	10.6	19.4
Construction	3.6	6.4	5.5
Electricity, gas, and water	2.0	2.7	2.3
Wholesale/retail trade	11.5	11.2	13.4
Transportation	2.9	4.7	4.9
Finance/insurance	8.0	9.4	4.9
Real estate	12.9	8.0	11.8
IT	4.2	5.7	5.4
Services (including government)	40.8	37.9	30.4

Note: Services include professional services, lodging, food and beverage, art, other, and government.
Source: Same as Figure 1.

Figure 4: Change in each sector's share of GDP (From 2003 until 2010, %)

	US	UK	Japan
Agriculture	0.1	-0.2	-0.2
Mining	0.5	0.7	0.0
Manufacturing	-1.1	-2.4	-0.4
Construction	-1.0	-0.8	-0.8
Electricity, gas, and water	0.3	0.3	-0.2
Wholesale/retail trade	-1.1	-0.9	-0.4
Transportation	0.0	-0.5	0.1
Finance/insurance	-0.1	2.9	-1.3
Real estate	0.2	-0.5	1.1
IT	-0.3	-0.5	3.3
Services (including government)	2.5	1.9	-0.8

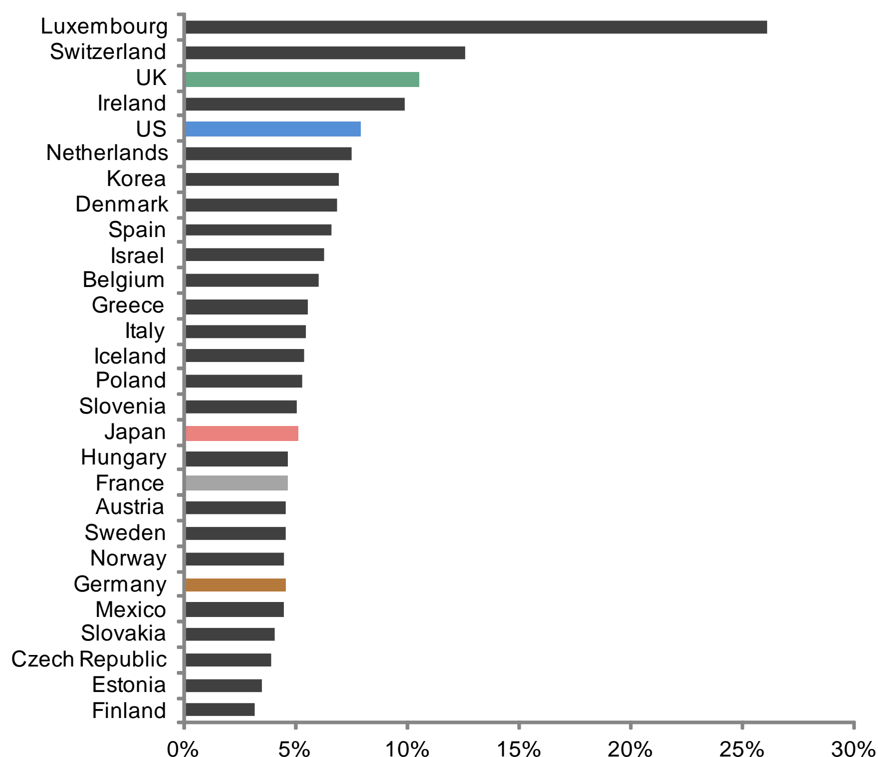
Note: Same as Figure 3
Source: Same as Figure 1.

In the UK, as well, there is a fairly large contribution from the service industry, reflecting growth in education, healthcare, and long-term care, but the contribution from the financial/insurance sector is substantially higher.

In Japan, the information and communication sector has grown substantially while the service industry has seen negative growth, although changes in industry classifications have had an effect in this regard[3]. In any case, the financial sector has seen a more pronounced drop than other sectors[4].

Chart 5 looks at the financial sector as a share of GDP for a broader universe, the OECD countries. That share is even higher than it is in the UK for some countries, including Luxembourg and Switzerland. Japan has a lower such share than the Netherlands, Korea, Spain, and Italy.

Figure 5: Financial sector's share of GDP in the OECD countries (2009)



Note: Figures for Israel, Poland, and Switzerland are for 2008.
Source: Same as Figure 1 for the US, UK, Germany, France, and Japan. OECD for the other countries.

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3 Since 2005, communications industry was expanded into a new category, information and communications, to which was added publishing, previously classified as a manufacturing industry, information services, previously classified as services for businesses, and broadcasting, previously classified as services for individuals. See Kobayashi, Yuko and Minoru Nogimori, *Fukakachihou ni yoru Seisansoku GDP suikei ni tsuite* (GDP estimates (production approach) using the value-added method), *Kikan Kokumin Keizai Keisan* (National Accounts Quarterly) No. 148, p91, Economic and Social Research Institute, June 2012 (in Japanese).

4 Changes up until 2006, before the financial crisis, were similar to the trends for each country noted in this paper.

II. What is the proper size of the financial sector?

The financial sector's share of GDP is the added value produced by the financial sector divided by the added value produced by the economy as a whole, and thus expresses quantitatively the sector's direct contribution to GDP. In addition to this direct contribution, the financial sector also contributes indirectly to GDP, including by supplying the funds that other industries need for growth.

The debate over the relationship between finance and the economy has evolved from the traditional view that finance only grows as a result of economic development to the view that has prevailed since the mid-1980s, which is that the development of finance also contributes to economic development.

The financial sector's contribution to economic development includes facilitating the funding of long-term projects by improving the liquidity of capital markets, and financial intermediary institutions' ability to select and nurture the right businesses and innovations by producing and processing information.

Any effort to foster the development of Japan's financial industry must take note, however, of the emergence in Europe and the US of a tendency to indiscriminately disparage the financial sector in the aftermath of the financial crisis. Particularly in the UK, an important policy issue for the coalition government that took office in May 2010 has been to rebalance the industrial structure so as to correct the economy's excessive reliance on the financial sector.

One reason that growth of the financial sector's share of the economy is seen as a problem is that if financial activity gets too large relative to the economic fundamentals it leads to the development of bubbles, the collapse of which can trigger a financial and economic crisis[5]. Assuming that asset prices continue to climb as the bubble gets larger, there is a tendency for excessive credit to be extended as leverage rises, and once the bubble bursts the consequent increase in nonperforming loans and decline in asset prices create serious balance sheet problems. The introduction of a countercyclical buffer under Basel III is aimed at dealing with the problems brought by the excessive extension of credit.

In addition, the financial sector can have a negative impact on the overall economy if gets too large and starts drawing in resources from other sectors.

According to an analysis by Stephen Cecchetti, head of the Monetary and Economic Department of the Bank for International Settlements[6], the ratio of private credit to GDP in each country is normally an indicator of the degree of financial sector development, but when this ratio rises above 100% it can have a negative impact on economic growth. When using the ratio of bank credit to GDP, the threshold is 90%, above which a positive economic impact becomes negative.

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5 The problem of booms created by financial activity and their subsequent collapse was first chronicled by Kindleberger and Minsky, and has been supported by numerous research papers in recent years.

6 Stephen G. Cecchetti and Enisse Kharroubi, “Reassessing the impact of finance on growth,” BIS Working Papers No. 381, July 2012.

Looking at these numbers for the OECD countries, the higher the growth of employment in the financial sector, the more negative the economic impact.

The argument is not that the 100% threshold for private credit to GDP means that growth in the financial sector up until that point is good, but rather that in normal times a lower ratio should be targeted. This is because when this ratio is high and stress is created by some shock, the excessive debt becomes a drag on the economy.

III. The problem of overestimating the financial sector's contribution

1. Overestimating the banking industry in GDP calculations

Another argument worth noting in regards to the relationship between the economy and finance is the tendency to overestimate the financial sector's contribution to the economy[7]. Andy Haldane, Executive Director Financial Stability for the Bank of England, and others have focused on this problem of overestimation, noting that it did not make sense that the financial sector's share of UK GDP increased from 2008, at the height of the financial crisis.

One cause of this overestimation is the method currently used in the SNA data to calculate the financial sector's added value. Normally, an industry sector's value added is calculated by subtracting intermediate inputs from the industrial output, but in a service industry firm such as a financial institution, it is income from service fees that equates to output. In the case of a financial institution's services, various types of fee income can be measured, including bank transfer fees, underwriting fees, and trading commissions.

When the banking industry provides loan services and deposit services, however, it does not normally charge a fee, per se, but instead sets the loan rate higher than the rate paid on deposits, thereby earning its compensation for the service from the spread.

The SNA data used to treat the income from these deposit and loan services as imputed interest and record it as output from the financial sector, but when overall GDP is calculated, this entire amount is deducted as an intermediate input, and thus not counted as additional value comprising overall GDP. Put simply, although the deposit-loan interest margin is profit to the bank, it is likewise a cost to other economic agents, and thus does not increase the value added to the overall economy.

In the 1993 revision to the international standards for SNA data (93SNA), deposit and loan services were recognized as economic activity that explicitly creates

[7] For more on the arguments set out below, see Andrew Haldane, Simon Brennan, and Vasileios Madouros, “What is the contribution of the financial sector: Miracle or mirage?” in Turner et al. The Future of Finance: The LSE Report, London School of Economics and Political Science, available at http://harr123et.files.wordpress.com/2010/07/futureoffinance-chapter21.pdf, and also Wouter den Haan, “Why do we need a financial sector,” 24 October 2011, http://www.voxeu.org/article/why-do-we-need-financial-sector.

additional value, and a proposal to measure and record added value using the Financial Intermediation Services Indirectly Measured (FISIM) formula was adopted in a large number of countries. Japan also adopted FISIM when it changed its base year for calculations to 2005.

Under FISIM, the output of loan services is given by the formula (loan rate - reference rate) x loans outstanding, while the output from deposit services is given by (reference rate - deposit rate) x deposits outstanding. This is because the benefit that the bank provides to a borrower able to get funding at the reference rate but choosing to borrow by paying a higher loan rate is measured by that difference. Likewise, the benefit that the bank provides to a depositor able to invest on its own at the reference rate but choosing to make a deposit and earn a lower rate is measured by the difference between the two rates. This is the thinking behind the FISIM approach[8].

The problem is that it is the interbank rate that is used as the FISIM reference rate. When a company issues a corporate bond that is bought directly by an investor, no financial intermediation service is provided, and thus there is no direct impact on GDP, but if the same company takes out a loan for the same amount at the same interest rate, the amount of the loan x (loan rate - interbank rate) is recorded as bank output towards GDP, thereby raising overall GDP by that amount. In reality, if a company chooses to borrow money from a bank by paying a higher interest rate than they would pay for direct financing, only this additional interest over the bond coupon should be considered compensation for the additional value created by the bank's lending service, but that is not how it is currently calculated.

Consequently, the more that a bank writes loans at a longer term and/or at a higher credit risk, the greater is the level of service produced by the banking sector, and the higher is the additional value created[9]. According to one estimate, a recalculation that takes into account the term and the credit risk would reduce the value added by the financial sector in the euro zone by about 40% from the published figures[10]. In addition, as evident from the above explanation, the higher the percentage of indirect financing done through the banks, the higher the measure of the financial sector's contribution to GDP.

2. The possibility of imperfect competition

If sufficient competition in the market for financial services causes interest rates and fees to be set at the same level as the marginal costs incurred by the financial

8 See *Kansetsuteki ni keisoku sareru Kin'yuu Chuukai Saabisu (FISM) no Dounyuu ni yoru Kokumin Keizai Keisan Taikei e no Eikyou* (Impact on the SNA data from introducing Financial Intermediation Services Indirectly Measured (FISIM)), see *Kikan Kokumin Keizai Keisan* (Quarterly SNA Data) No. 146, pages 1-27, Economic and Social Research Institute, September 2011 (in Japanese).

9 When the yield curve is inverted and the interbank rate is higher than the loan rate, new loans do not create any added value.

10 Antonio Colangelo and Robert Inklaar, "Banking sector output measurement in the euro area – A modified approach," Working Paper Series, No. 1204, European Central Bank, June 2010.

institutions providing the service, the value added by financial institutions would be at a justifiable level. In many countries, however, the market is concentrated because of the presence of large financial institutions, creating the possibility that interest rates and fees are set too high, leading to windfall profits.

3. The problem with public support

Those financial institutions that are too big to fail benefit from low funding costs that reflect implicit public support, even during normal times, and this is a source of additional profit. In addition, during a crisis many financial institutions receive direct and indirect public support, and this substantially increases profit in the financial sector over what it would be without such support.

4. The gap between benefits to the economy overall and financial institution profits

The rate of commissions on services should reflect their marginal benefit, but in the financial sector there are times when neither interest rates nor commission rates reflect their benefit. For example, the interest income from originating the subprime loans that triggered the financial crisis, as well as the fee & commission income related to the structuring and sale of securitized products, were counted as the financial sector's contribution to GDP, but in reality these services wound up causing great damage to the economy overall. Because of this, there has been criticism of financial services that are of no use to society.

Although there are many examples in other industry sectors of services for which fees are charged that are not commensurate with their benefits, these either have benefits that are relatively easier to grasp than those in the financial sector or have externalities that are small, and thus providers who misprice their services are driven out of the market fairly soon. In the financial sector, because products and transactions are complex and have large information asymmetries, and/or because risks are easily transmitted, it is often harder to understand the relationship between fees and benefits, both to users and to the economy overall.

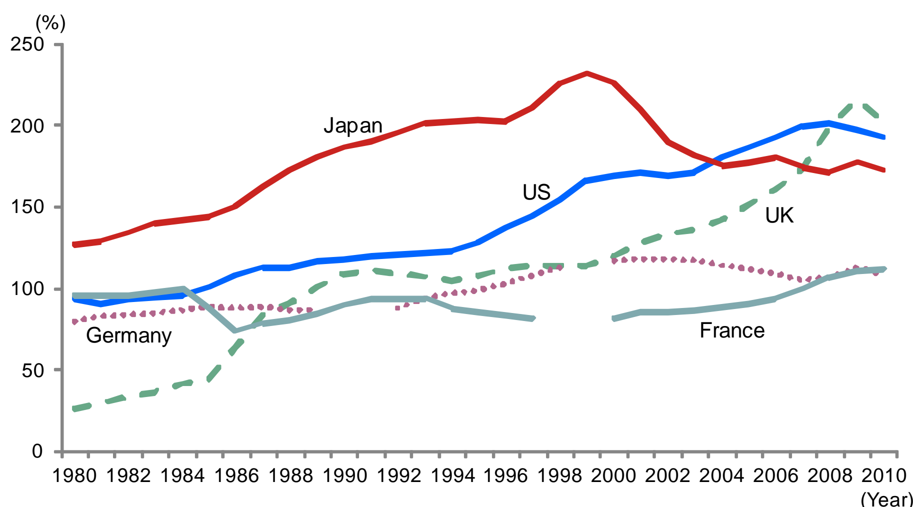
IV. Suggestions for Japan

The two problems noted above, that of determining the appropriate size of the financial sector and that of overestimating the financial sector's contribution, probably need to be taken into account in any efforts to increase the financial sector's share of Japan's GDP.

1. The loan business

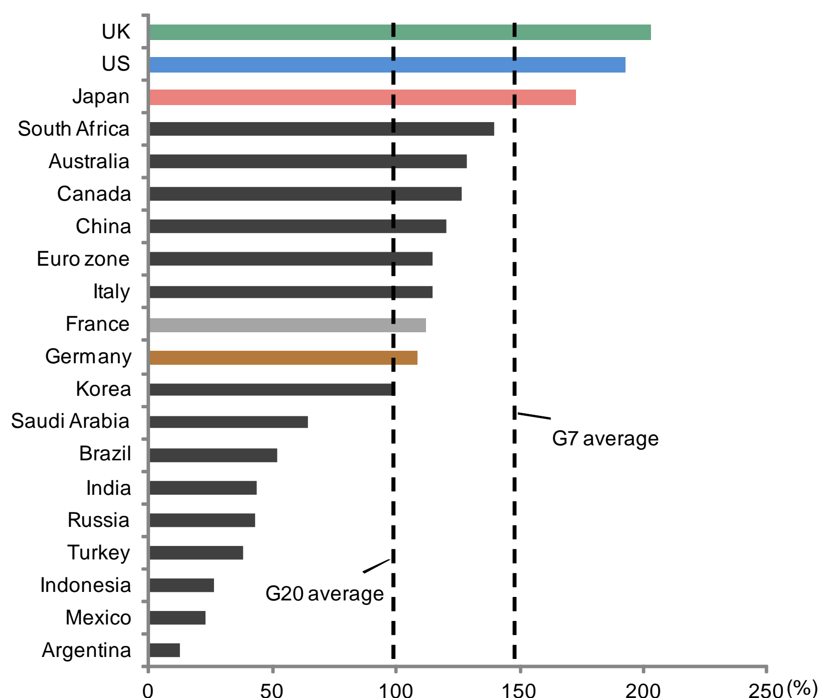
Looking first at the ratio of private credit to GDP in Japan, as shown in Figure 6 this ratio started rising sharply in the mid-1980s, caused a bubble to inflate and then collapse, and led to excessive corporate debt and nonperforming loans at the banks. Starting in the late 1990s, efforts were made to normalize the situation. An automatic mechanism that lowers this ratio down to the suitable ratio of 100% or lower, irrespective of the economic trend, may not necessarily be the best approach moving forward. As shown in Figure 7, however, private credit as a share of GDP is high in

Figure 6: Ratio of private credit from the banking sector to GDP



Source: The World Bank, Global Financial Development Database

Figure 7: Ratio of private credit from the banking sector to GDP



Notes: Figures for Canada are for 2008.
Source: The World Bank, Global Financial Development Database

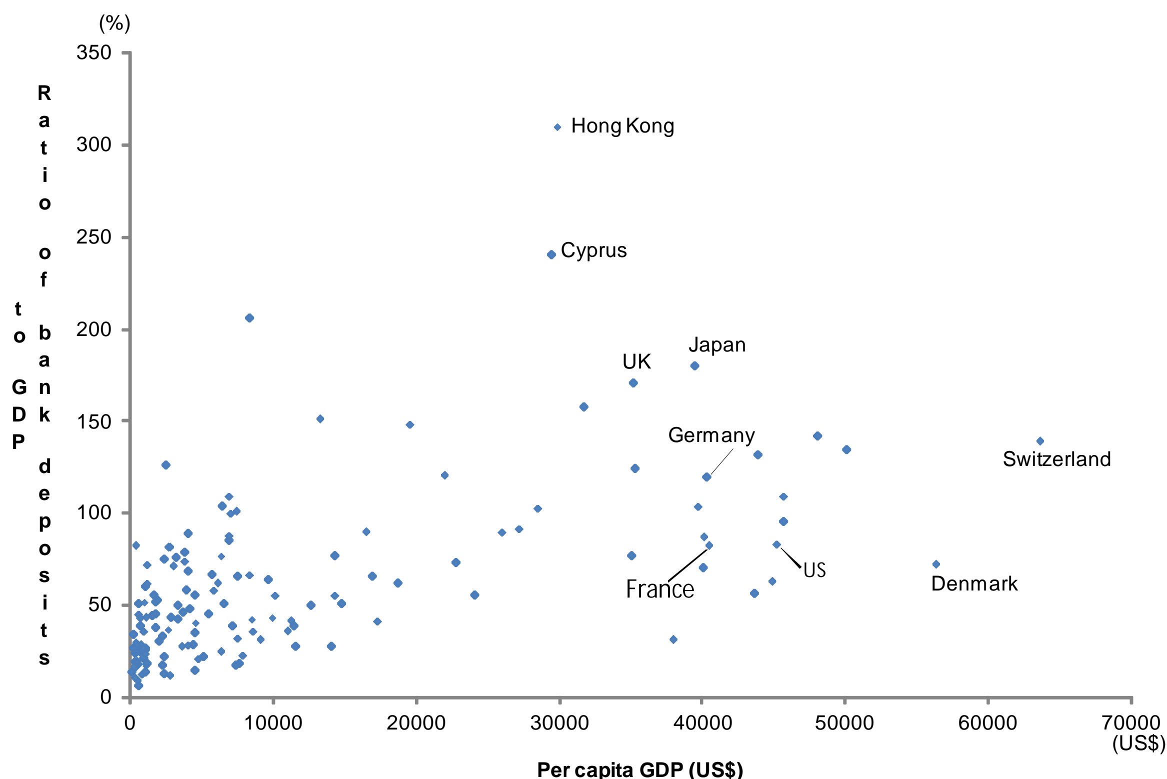
Japan compared with other G7 and G20 countries. Bank credit as a share of GDP was at 103% in 2010, above the 90% deemed suitable. Accordingly, pursuing measures that expand the size of the loan business may not be the best strategy to increase the financial sector's contribution to GDP.

Of course, under the current method for calculating GDP, it is possible to raise the financial sector's contribution to GDP on a superficial level by promoting a shift from direct to indirect financing and substantially increasing bank lending, but this would be dangerous. As already noted, the longer the term and higher the risk of bank loans, the higher is the financial sector's added value on paper, but if this process goes too far it risks endangering the financial soundness of banks and raising risks for the economy overall.

Another problem frequently pointed out is that in Japan, bank lending rates are not set at a level that sufficiently takes account of risks. Accordingly, to raise the banking sector's contribution to GDP it is probably best to put a priority on increasing the value added of loan services by setting lending rates at a level that properly reflects risk, rather than one that increases loan volume.

Based on lessons it learned from the NPL crisis, Japan has strived to move away from a financial system where risks are excessively concentrated in the banks and toward a more market-based financial system. As shown in Figure 8, however, Japan has the highest ratio of bank deposits to GDP of the major developed countries, and

Figure8: Per capita GDP and ratio of bank deposits to GDP (2009)



Note: Although not shown in the figure, Luxembourg has a per capita GDP of $104,000 and a ratio of bank deposits to GDP of 551%.
Source: The World Bank, Global Financial Development Database

has made no progress in shifting out of deposits and into investments. Rather than put a priority on indirect finance, it is important to promote services that support direct finance and to strengthen efforts aimed at realizing a market-oriented financial system.

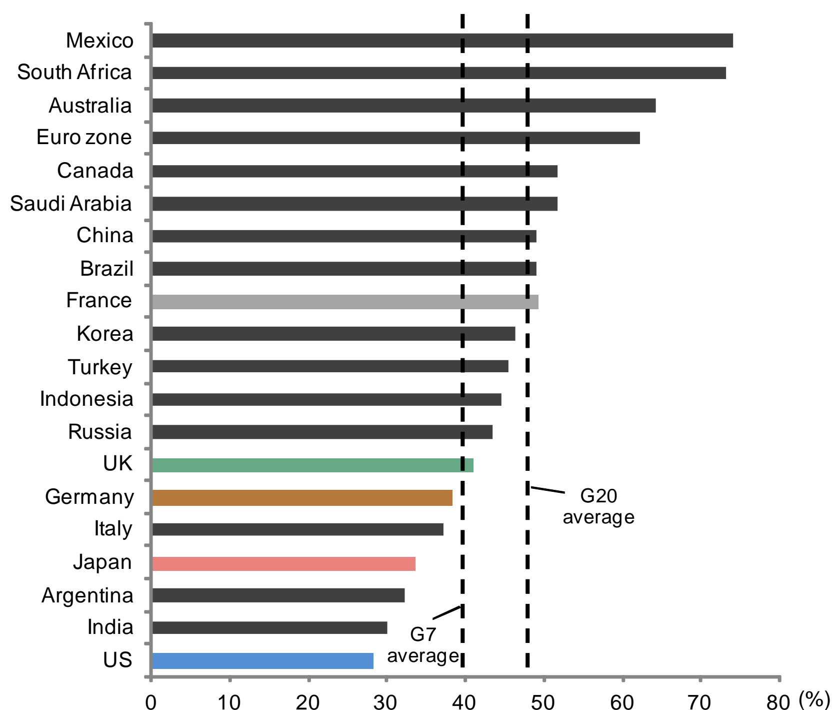
2. From the perspective of imperfect competition and benefits to the economy overall

Next we consider the perspectives of imperfect competition, public support, and benefits to the economy overall. In the area of public support, there has been progress worldwide, including in Japan, toward strengthening prudential regulations and putting in place rules for bankruptcy resolution, and we appear to be moving in the direction of correcting the overestimation of the financial sector's value added caused by its access to public support.

As for imperfect competition, as shown in Figure 9, the concentration at the top of Japan's banking sector is not very high compared with other countries, and does not seem to be a major problem. To the contrary, in certain areas competition appears to be excessive, and this could be related to the above-noted problem of lending rates not being commensurate with risks.

At the same time, however, Japan still has its traditions of relying on a main bank and maintaining cross shareholdings, and the fact that the transactional relationship with banks is not an equal one but rather puts banks in a superior position, particularly with SMEs, is a known problem. For example, Japan's Fair Trade Commission

Figure9: Bank concentration (2010)



Note: The top three banks' assets as a share of all bank assets.
Source: The World Bank, Global Financial Development Database

surveyed the transactional practices between financial institutions and companies in 2001, 2006, and 2011. In the 2011 survey, it reported that 27.2% of corporate borrowers answered that they felt it was difficult to refuse various requests from financial institutions, and that, of those borrowers answering that they complied with requests against their will, 52.1% cited as a reason for doing so that they thought it would become difficult to get their next loan if they did not. Neither of these numbers declined significantly from the 2006 survey[11].

Not only does this mean that excess profits enabled by imperfect competition in the financial sector is a problem that cannot be ignored in Japan, as well, it also suggests the possibility that the products and services being offered are not to the benefit of users or of the economy overall.

The sale of derivative products by banks, now a serious social problem, probably presents a good example of why these concerns are not groundless. There were a number of SMEs who had to enter into unnecessary derivative transactions in order to secure continued bank funding, resulting in substantial losses and eventual bankruptcy despite a strong core business. The banks were thus able to expand their fee and commission income and therefore increase the financial sector's share of GDP, even though this did not contribute to the Japanese economy.

Not only the banks but also other financial service providers need to engage in pricing that reflects risks and costs, while truly increasing their value added by offering benefit to users as well as the economy overall.

3. Conclusion

In December 2006, after the Abe administration had been in power three months, the Council on Economic and Fiscal Policy set up a working group on capital markets to consider ways for Japan to increase the competitiveness of its financial and capital markets. In January 2007, the Financial System Council formed a study group on the globalization of Japan's financial and capital markets.

At the time, the financial services industry was positioned as a core industry underpinning economic development, but the author of this paper made the argument that first it was desirable that a financial system be established that does not hold the economy back, after which it could be made useful to the economy, and only then could it finally lead the economy[12].

Following the global financial crisis that erupted after that, debate over the role of the financial sector's role within the economy heated up in Europe and the US, and it

[11] Japan Fair Trade Commission, Report on Survey of Business Practices between Financial Institutions and Corporations (Summary), 15 June 2011 (in Japanese).

[12] See materials released by the Financial System Council's study group on the globalization of Japan's financial and capital markets at its second meeting on 16 February 2007, and also Yasuyuki Fuchita, *Shijougata Kin'yuu Shinkou nakushite Kokusaika nashi* (No globalization without promoting market-based finance), Kinzai Institute for Financial Affairs, 12 March 2007 edition, pages 25-28 (in Japanese).

became a priority to take into account the impact on economic stability and societal usefulness.

With the recent change in Japan's government, Shinzo Abe has returned as prime minister, and he is expected to focus on crafting specific policies aimed at achieving the goals in the LDP's comprehensive policy document. We like his approach to the financial sector, including his statements on nurturing finance as an industry and his goal of increasing the financial sector's share of GDP, and see this as a healthy and constructive political agenda compared with the populist trend and anti-finance rhetoric in Europe and the US.

As evident from the arguments presented in this paper, however, we think it is necessary to avoid focusing exclusively on the size of the financial sector as a share of GDP and making the absolute priority simply raising that share to 10%. Ultimately, we think the focus needs to be placed on promoting market-based finance instead of growth in indirect finance, as well as on policies that promote products and services of benefit to the economy overall.