Japan at the Crossroads— State Budget Remains the Achilles' Heel

by Georg Erber and Mechthild Schrooten

The natural and nuclear disaster on the 11th of March 2011 pulled Japan into a renewed recession. Projected on the annual basis, the gross domestic product nosedived by 3.5% in the first quarter of 2011.

Indeed the consequences of the earthquake, tsunami and subsequent nuclear disaster will be very noticeable for the remainder of the year with regard to economic development. However, initial signs of a rebound have begun to appear in the meantime. Extensive public spending programs are currently sustaining the demand. Prior to the earthquake, the public debt was already approximately 200% of the gross domestic product and was rising rapidly. The government must harmonize duties, responsibilities and financial conditions; otherwise its room to maneuver in times of more "extreme events" decreases. Thus the Japanese government faces a dilemma: Increasing the tax burden, which is low when compared internationally, will have a negative impact on economic development. Fiscal consolidation and debt-financed economic growth are contradictory.

The catastrophe from the 11th of March 2011 (earthquake, tsunami, nuclear disaster) hit the Japanese economy at a point when industrial production was appearing to recover. All of the monetary and fiscal stabilization measures taken were unsuccessful in establishing a permanent growth course following the international financial crisis. In the last quarter of 2010, economic performance was again declining.[1] This downward trend was exacerbated by the disaster. In the first quarter of 2011, the gross domestic product shrank by 3.5 percent.

Industrial production fell drastically as an immediate consequence of the natural disaster. Thus in March of 2011, the strongest monthly decline since 1953 was recorded at minus 15.5%. Significant bottlenecks occurred in the country's power supply as a result of the disaster in Fukushima. Entire regions were disconnected from the power grid at hourly intervals.

In addition there was the significant disruption in the supply chains, which, due to the just-in-time production, could have a particularly rapid and sustained impact on key economic sectors such as the automotive industry or semiconductor manufacturing.[2] Due to the focus on single Japanese manufacturers and the few locations in the earthquake zone, production had to be reduced or shut down entirely in these sectors, at least temporarily.

1 The Japanese economy has only slowly recovered from the effects of the international financial crisis of 2008/2009. Although the gross domestic product grew by 4% in 2010, the weak domestic demand contributed to a renewed decline in the total economic output already in the 4th quarter of 2010. Also see Ferdinand Fichtner and others: Sommergrundlinien 2011. Wochenbericht des DIW Berlin No. 26+27/2011.

2 A small vendor part, which measures the air supply for car engines, will apparently be a problem for the global automotive industry due to supply shortages caused by the production downtimes in Japan. The earthquake and the subsequent tsunami in mid-March have already led to cutbacks in production or plans to do so in some plants from General Motors, Toyota Motor and PSA Peugeot Citroen. Manufacturers fear supply shortages of such individual critical parts that are produced in Japan, reports the Thursday edition of "The Wall Street Journal." Klaus Brune: JAPAN / supply shortages hamper production - reduced working hours threaten. Dow Jones Newswire, Message dated 24 March 2011.

Despite the dramatic events, a positive growth rate (although slight) has already been reported in April for the industrial production. Such a rebound effect is typically following disasters.[3]

The positive trend was reinforced in May of 2011. However, industrial production remains about five percent below the respective comparison value from the previous year.[4] Meanwhile, survey indicators, such as the Tankan index, are suggesting that the economic mood is brightening.

Japan: Export-driven growth ...

Japan is using a strategy similar to Germany's: The overall economic development is strongly influenced by foreign demand and therefore by exports. Domestic demand has only grown slightly in recent years. Up until the late 1980's, Japan was still the future leading economic power ahead of the United States of America.[5] Since the collapse of its housing bubble in the early 1990's, Japan has not found its way back to its old growth dynamic.

In 2008/2009, Japan also fell into the wake of the international financial crisis. The country, such as Germany, is a major net creditor on the international capital market. Just like Germany, Japan reported had large current account surpluses for years.[6] More is produced than is invested and consumed by the domestic economy.[7] In 2010, the current account surplus amounted to just over three percent of the gross domestic product.

Similar to Germany, the country could first recover relatively quickly from the effects of the international financial crisis, not least due to massive fiscal programs, a continuous policy of cheap money and high overall economic dynamism of the Asian "emerging economies." However, dwindling exports in the fourth quarter of 2010 demonstrated the fragility of the growth - the gross domestic product caved immediately.

After the earthquake, the current account surplus declined and in April 2011 did not even reach one third of the previous year's comparison value. This trend continued in May. However, the balance of current accounts remained positive even during these difficult months, which is primarily due to the repatriation of Japanese foreign assets. The trade balance was in the deficit in both months. Overall, Japan's export quota, at nearly 14% in 2010, is far below that of Germany's. The Japanese import quota reached approximately 11%. The limited openness of the Japanese economy, as compared to Germany's, contributed to the fact that the consequences of the natural disaster as a whole had a negligible impact on international markets. In particular, it is evident in other economies (despite the existing tight value chains) that hardly any lasting loss of production there occurred.[8] However, it remains to be seen whether or not the de-stocking of critical parts from Japan in individual areas presents delayed consequences. Currently Japan is the sixth largest trading partner of the EU. Last year, the EU exported goods and services to Japan amounting to nearly 44 billion euro. Germany was the leading participant with 13 billion euro. Imports amounted to 65 billion euro. While the export demand for Japan's economic development is of vital importance, Japan's importance in all international trade is likely to decline. Thus in 2010, China replaced Japan from its position as the second largest economy in the world. Currently, there is much evidence that Japan's global economic importance will continue to decline in the future.[9]

... weakening domestic demand

The demand from the private sector has been weak for years (table 1). Politico-economic impulses always only lead to a short-term stimulation. This applies both for private consumption as well as for investments. Therefore, after the economic stimulus package for handling the financial crisis expired, a renewed decline of the pri-

3 M. Shirakawa (2011): Great Eastern Japan Earthquake: Resilience of Society and Determination to Rebuild, Remarks of the Council of Foreign Relations. New York, April 2011. E. Cavallo und I. Noy (2010): The Economics of Natural Disasters: A Survey. IDB Working Paper Series, No. 124.

4 www.meti.go.jp/statistics/tyo/iip/result/pdf/press/h2a1005j.pdf.

5 Ezra Vogel: Japan as Number One: Lessons for America. iUniverse.com, 1979, San Jose, New York, Lincoln, Shanghai.

6 Andreas Rees, Markus Taube, Bernd Kempa and Georg Erber: USA, China, Indien: Droht ein globaler Abwertungswettlauf? In: Ifo-Schnelldienst, 2010, Vol. 63, No. 22, 3–17.

7 Since the fall of 2010, the Japanese yen has depreciated by approximately two percentage points as compared to the currencies of its major trading partners (measured by the real exchange rate).

8 "For the time being, the earthquake disaster and the nuclear accidents in Japan are not causing supply shortages for high-tech equipment in Germany." The Bitkom inter-trade organization stated this on Wednesday in Berlin. According to the manufacturers' first reports, the direct impact of the earthquake and tsunami on the production of high-tech products was limited. "Companies are striving to bring production back up to full speed or they are relocating production capacities to other plants," said Bitkom president August-Wilhelm Scheer. www.wallstreet-online.de/nachricht/3118186-erdbeben-bitkom-keine-lieferengpaesse-bei-hightech-durch-japan-katastrophe.

9 Simply considering the proportion of an economy in global production falls far too short of being able to estimate their productivity and competitive position. This is especially true if a country is confronted with massive demographic changes. Since the Japanese government hardly allows immigration from abroad, the aging of the Japanese population penetrates the Japanese job market. In addition, fertility is low by OECD standards. At the same time, life expectancy is above the OECD average. Traditionally, the unemployment rate in Japan is low by OECD standards. It is currently at five percent.

vate demand was assumed. Now, the immediate consequences of the disaster continue to dampen the demand. Thus, consumer spending in March declined nationally by nearly eleven percent.[10]

Compared internationally, Japan has shown a propensity to consume comparatively little, which is accompanied by a high overall saving rate. Deflation (which is still to be sustainably overcome) played a role on expenditures both in private households as well as in companies.[11] Falling prices increase the incentive to delay the purchase of durable and more expensive goods further into the future. With deflation, the interest on borrowings (such as for credit financing of investments) is subject to an additional risk. The nominal interest rate is fixed at the time when the contract is signed, but the real interest rate may be higher if the prices fall. From the perspective of companies, the risk of investment thus increases.[12]

10 Here, the consumption of households with two or more persons was registered. Bank of Japan (2011): Consumption.

11 Related to the complete basket of goods, an inflation of zero percent is shown for the 1st quarter 2011. Not considering the price development for fresh foods, Japan has been in a new ongoing deflation since 2009. Bank of Japan (2011): Commodity and Service Prices.

12 The most recently declining investments (1st quarter 2011: -5.2 percent) in Japan can thus also be seen as connected with the fragile export development.

Table 1

Economic situation in Japan

Change from the previous year in percent

	2008	2009	2010	2011[1]
Gross domestic product	-1.2	-6.3	4.0	-0.9
Private consumption	-0.7	-1.9	1.8	-1.1
Asset investments	-1.4	16.7	2.1	-1.3
Public investments	-8.6	10.4	-3.4	-1.4
Export	1.6	-23.9	23.9	0.7
Import	0.4	-15.3	9.8	1.9
Consumer prices	1.4	-1.4	-0.7	0.3[2]
Unemployment rate in percent	3.9	5.0	5.0	4.5[3]

1 1. Quarter 2011 compared with the previous quarter.
2 June 2011 compared with the previous month.
3 May 2011.

Sources: Cabinet Office, Statistics Bureau, Bank of Japan.

DIW Berlin 2011

After recovering from the financial crisis, the economy is decreasing again due to the natural disaster.

Despite all monetary and fiscal policy endeavors in recent years, this deflation-consumption downward spiral has yet to be broken in Japan.[13] So far, the expansionary monetary policy measures seem to mainly fall flat. A significant portion of the liquidity has been transferred abroad through "carry trades."[14]

The purchase of securities by the Japanese Central Reserve Bank was facilitated as a part of the crisis management following the earthquake.[15] It is positive that the banking system was apparently hardly shaken by the consequences of the earthquake. Adhering to the policy of easy money should support the financing of reconstruction in the affected coastal region. However, the expansionary impulses that may be caused by interest rate policies are largely exhausted. The prime rate has long been close to zero percent. Monetary policies can therefore only assume impulses through an ever more generous provision of liquidity. If monetary policy measures have only limited effect, then the traditional economic policy for economic stimulation must primarily rely on fiscal policy.[16]

Crisis management through fiscal policy

An additional fiscal program of the magnitude of 0.8% of the gross domestic product was approved immediately following the disaster from the 11th of March 2011. According to preliminary estimates by the Japanese government, the costs to overcome the disaster will amount to 208 billion euro.

It remains to be seen whether the long-lasting costs for redressing the nuclear disaster in Fukushima are already considered in a sufficient amount. The fiscal costs of reconstruction in the next several years are estimated by the International Monetary Fund (IWF) to be approximately two to four percent of the gross domestic product.[17]

13 Mechthild Schrooten (2001): Japan: Zinsschritt reicht nicht aus. Wochenbericht des DIW Berlin No. 8/2001.

14 Currency carry trade is a speculative strategy where a speculator borrows money in a currency with a relatively low interest rate in order to buy debt securities, which are quoted with a higher interest rate in another currency (e.g. U.S. government bonds). Profits arise from the difference in interest rates.

15 Immediately following the earthquake, the Japanese Central Reserve Bank considerably increased the framework in which securities of all types can be bought out and at the same time made available an additional line of credit in the order of one billion yen.

16 The national demand was in a supporting role, even in the current downturn (as is so often the case with a fading economy). (1st quarter 2011: + 9.2 percent). Cabinet Office (2011): Quarterly Estimates of GDP: Jan.–Mar. 2011 (The 2nd Preliminary Estimates). www.esri.cao.go.jp/jp/sna/ sokuhou/kekka/gaiyou/main_1.pdf.

17 IMF (2011): Article 4 Consultations.

The Japanese government budgets have been chronically in deficit for years. Negative consequences must be expected for economic growth with a national debt of more than 90% of the gross domestic product.[18] Japan has long been on the other side of this limit and continues to move further away from it. Japan's chronic growth weakness could be part of its cause. The private capital investments have turned out very low for years and public infrastructure investments cannot compensate for this in terms of economic growth. Japanese multinational companies would rather invest abroad.

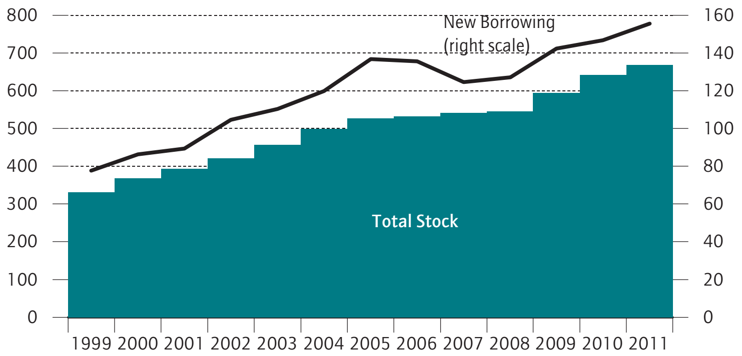
In the 2011 fiscal year, nearly 48 percent of the expenditures were not financed by taxes and levies. This corresponds to a deficit ratio of approximately 10 percent. The debt increased by 17 trillion yen just in the time period immediately following the earthquake (from March to April 2011, illustration 1). At first glance, financing by way of public debt is attractive in Japan, because the central bank's interest rate policy, combined with the policy of easy money, appears to secure cost-effective financing. Actually the burdening of the state budget by the debt service has so far only slowly increased. This is due to the extremely low nominal interest rate on Japanese government bonds of approximately 1% for ten-year government bonds and 2% for maturities between 20 and 40 years.[19] Therefore, a significant increase in interest rates due to a confidence crisis could dramatically change the situation in Japan. In order to prevent this, the government is attempting to convert short-term financing to longer-term financing (illustration 2). However, it could be difficult to find buyers on the market with the current low interest rate. As a result of the many years of underfunding of the state, the public debt increased to over 200% of the gross domestic product[20]—by this is on top of all other OECD countries.

If there were an average annual interest rate of 1.5 percent for the national debt, then approximately 3 percent of the gross domestic product would have to be collected annually from the Japanese government only for interest payments.

In doing so, government expenditure is not particularly high compared to international standards. Rather, in the 2011 fiscal year, it was nearly 20 percent of the gross domestic product. The revenue from taxes and levies does

Figure 1

Japanese Government Bonds
In Trillion Yen



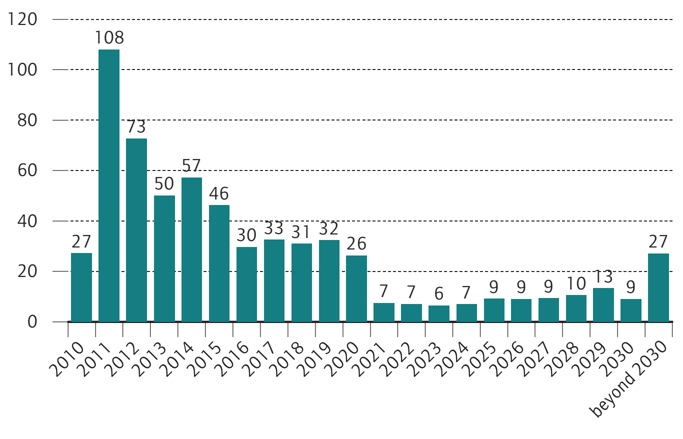
Source: MoF Japan, April 2011.

© DIW Berlin 2011

Public debt is ever increasing while new borrowing reached alarming proportions.

Figure 2

Maturities of Japanese Government Bonds
December 2010 in Trillion Yen



Source: MoF Japan, April 2011.

© DIW Berlin 2011

The extension of maturities would secure long-term low interest payments.

not even reach the threshold of 10 percent of the gross domestic product. Therefore if (as a part of a crisis confidence regarding the credit rating of Japanese public finances) the average interest rate were increased from 1.5 percent to 2.5 percent for the long term, it would result in doubling the revenue needed for handling the interest payments from the previously accumulated public debt. Japan would then need to consolidate public fi-

18 Carmen M. Reinhardt und Kenneth E. Rogoff (2008): This Time is Different: A Panoramic View of Eight Centuries of Financial Crises. NBER-Working Paper, April 2008.

19 Ministry of Finance of Japan: Quarterly Newsletter. April 2011.

20 In April 2011, debts amounted to 942.3 trillion yen (approx. eight trillion euro) and thus approx. five percent up on the comparable figure of the prior year. Compare Bank of Japan (2011): National Government Debt.

nances under adverse framework conditions similar to those currently in the European crisis countries. Drastic spending cuts would be inevitable.

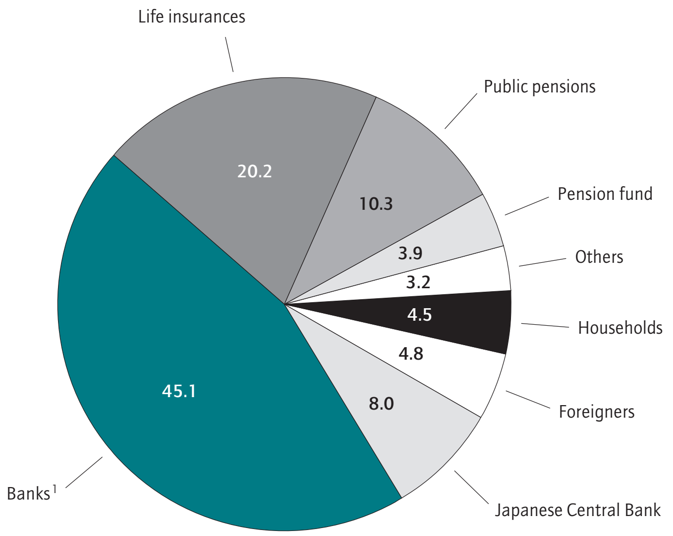
The history of prior development is primarily that of low tax rates and tax revenues compared to international standards. For example, the sales tax rate is 5%. The income tax burden is also low compared to international standards. Tax relief programs were implemented here as a part of the past fiscal programs. Previously, the stabilization of the economy, social security and recurring fiscal programs have been offered to the private sector in Japan are far below the actual costs and virtually at no cost. Consequently, redistribution from the state to the private sector has taken place here for years. The legal framework conditions (e.g. for the public pension fund, but also for insurance funds) in turn oblige the private sector to hold significant amounts of government bonds. Thus, in recent years the private sector has established significant claims against the state, for which it even receives interest payments (albeit low).[21]

21 The companies are currently in much more debt than at the time of the economic crisis of the 1990's.

Figure 3

Owner Groups of Japanese Government Bonds

Shares in percent



1 In particular also Japan Post Bank.

Source: MoF Japan, April 2011.

95 percent of government bonds are owned by nationals.

At the same time, the tax burden on the private sector is low by international standards. Foreign creditors have so far played no significant role in the credit financing of public budgets in Japan. Domestic creditors hold approximately 95 percent of the government securities (illustration 3). From the perspective of foreign investors, Japanese securities are hardly attractive, not least with a view to the low interest rates (by international standards) and the risks associated with a high public debt. In particular, the high proportion of government bonds held by domestic pension funds could become a problem due to the demographic change of a quickly aging Japanese society. Finally, always increasing payouts from the assets of pension and life insurance must be made in growing amounts. The low yields on Japanese government bonds hardly suffice in being able to service merely the corresponding claims from the current interest income. Japan is increasingly viewed more critically by international rating agencies. An example is the development of the credit rating by Fitch, one of the three major rating agencies (table 2).[22] This means that Japan's country rating is only two levels (A and BBB) above the critical threshold of the junk bond rating (BB and below). However, the Japanese rating agency Japan Credit Rating Agency (JCR) continues to rate Japan with AAA.[23] It is therefore reasonable to suspect that JCR is allowing a home bias in their assessment. So far, the credit rating downgrades by international rating agencies have had no effect on the interest rate of Japanese government bonds.[24] In particular, the worsened rating has thus far not led to a deterioration of financial conditions for the Japanese state, but that could change for Japan as a part of the financial markets becoming very sensitive to higher public debt (such as in Italy's case recently). The ever-changing weak governments also have little hope for a rapid shift to comprehensive structural reforms.

Threatening debt trap

The Japanese government has recognized[25] that financing significant portions of public responsibilities via loans cannot go on forever without curtailing too much the government's future ability to act in extreme situa-

22 Message of Bloomberg News dated 28th of May 2011: Japan Risks Rating as Kan Fumbles Fiscal Plan.

23 JCR: JCR affirmed AAA (FC/LC) rating on Japan. Press release dated 22th September of 2010.

24 Moody's, Fitch and Standard & Poor's reasons for their decisions were that the country's economic and financial policies did not prove to be stringent enough to achieve the goals set by the government to reduce the deficit. The mountain of debt threatens to continue to grow, even though it is already significantly higher than in comparable countries.

25 Cabinet Office (2010): Fiscal Management Strategy. www.npu.go.jp/policy/policy01/pdf/20100706/20100706_fiscalmanagement.pdf.

tions. Precisely because natural disasters must always be expected in the country, the government's ability to act also serves to restore confidence and thus stabilize the expectations of the population. In fact, the government has decided to cut the primary deficit of the public budgets in half by 2015.

Tax increases are currently being discussed. Formally, increasing the sales tax rate (which is at 5%) offers a starting point.[26] The IMF suggests a gradual increase to 15%. With regard to the widespread reluctance in consumer spending, such a tax hike, however, could be fatal for the overall economic development in Japan. In the past, the domestic demand completely collapsed following a relatively minor sales tax increase from 3 percent to 5percent. This led simultaneously to a political crisis. A Japanese government would only very reluctantly desire to take such a risk again.

Conclusion

The first signs of recovery after the disaster are appearing in Japan. Currently, a more pronounced economic recovery is beginning to show up due to the renewed deficit-financed government demand. However, different long-term and short-term development trends are overlaying another. The earthquake from March of 2011 and its consequences have further intensified the already prevailing structural problems. The Japanese government has faced the challenge of introducing steps for budget consolidation without jeopardizing the country's economic development nine years. So far they have been unsuccessful in finding a way out of this dilemma. Up until now, the government still benefits froms favorable financing conditions to deal with the rising public debt. This could turn out to be a fatal debt trap if the situation in the financial markets change unfavorably. It is therefore now also important to strengthen the revenue aspect of the public budgets. The problem is known. If its solution of problems is postponed future costs might increase significantly accordingly.

Georg Erber is researcher in the Competition and Consumers department at the DIW Berlin | gerber@diw.de

Mechthild Schrooten is Professor for macroeconomics at University of Applied Sciences Bremen and Research Professor at the DIW Berlin | mschrooten@diw.de

JEL: E62, E63, E66

Keywords: Japan growth, fiscal stability, tsunami-quake impacts, nuclear accident

26 Given the background of the relatively low sales tax rate, the International Monetary Fund, for example, suggests a gradual increase to 15%. The IMF is also assuming a dampening effect on private consumption. Currently, the sales tax revenue is approximately 2.5% of the gross domestic product. In Germany, the sales tax revenue is 7.5% of the gross domestic product with the tax rate of 19 or 7%. In Japan's case, the tax revenue is expected to double by increasing the tax rate to 15%.

Table 2

Fitch-Ratings for Japan

	In foreign currency			In national currency	
	long-term	short-term	outlook/watch	short-term	outlook/watch
27 May 2011	AA	F1+	**Rating Watch negative**	AA–	**Rating Watch negativ**
9 May 2005	AA	F1+	stable	AA–	stable
21 November 2002	AA	F1+	**negative**	**AA–**	**negative**
26 November 2001	**AA**	F1+	**negative**	**AA**	**negative**
2 March 2001	AA+	F1+	**negative**	AA+	**negative**
21 September 2000	AA+	F1+	stable	AA+	stable
29 June 2000	AA+	F1+	–	**AA+**	–
21 September 1998	**AA+**	F1+	–	AAA	–
1 September 1998	AAA	F1+	**Rating Watch negative**	AAA	**Rating Watch negative**
26 October 1995	AAA	F1+	–	AAA	–
10 August 1994	AAA	–	–	–	–

Comments: Negative rating actions are in bold.

Source: Fitch, version: May 2011.

DIW Berlin 2011

According to the Fitch rating agency, Japan's credit rating is declining steadily.

Article first published as "Japan am Scheideweg - Staatshaushalt bleibt die Achillesferse", in: DIW Wochenbericht Nr. 31/2011.

DIW Berlin — Deutsches Institut
für Wirtschaftsforschung e. V.
Mohrenstraße 58, 10117 Berlin
T +49 30 897 89 -0
F +49 30 897 89 -200

Volume 1, No 2
5 August, 2011
ISSN 2192-7219