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Topics China's government debt will soon be second only to Japan's

China's government debt is expected to reach 149% of GDP in 2027, second only to Japan's, due to an increase in debt hidden in local-government financing vehicles (LGFV).

■ LGFVs are the culprit for the hidden debt problem

LGFVs, which raise funding for urban infrastructure development on behalf of local governments, are viewed, even within China, as the culprit for spiraling levels of "hidden debt" not reflected in local government debt statistics. LGFVs are rapidly getting deeper into debt by taking advantage of implicit government guarantees. The International Monetary Fund (IMF) produces its own estimates of China's overall debt, including that issued by LGFVs. Summarizing the data, the key points are as follows:

<IMF Estimates of Chinese Non-financial Sector Debt>

Borrowing Entity	Classification	RMB trillion							Ratio to GDP (%, percentage points)						
		2018	19	20	21	22	23	23-18	2018	19	20	21	22	23	23-18
Non-financial sector debt	a=b+i	227	252	285	315	348	380	153	248	254	278	277	291	306	58
Broad Measure of Government Debt	b=c+f	74	85	101	115	132	151	77	80	86	98	101	112	121	41
Government Debt	c=d+e	33	38	47	53	61	69	36	36	39	45	47	52	55	19
Central Government	d	15	17	21	23	26	29	14	16	17	20	20	22	23	7
Local Government	e	18	21	26	30	35	40	22	20	22	25	27	30	32	12
Hidden Debt	f=g+h	41	47	54	62	71	82	41	44	47	53	54	60	66	22
LGFVs	g	35	40	45	50	57	66	31	38	40	44	44	48	53	15
Industrial Guidance Funds	h	6	7	9	12	14	16	10	6	7	9	10	12	13	7
Private-sector Debt	i=j+k	153	166	184	199	215	228	75	167	168	180	175	180	184	17
Households	j	48	55	63	71	73	75	27	52	56	62	62	61	61	9
Firms	k	105	111	121	128	142	153	48	115	112	118	113	119	123	8

Source: Prepared by JRI based on data from the IMF
Note 1: Figures for 2021 and beyond are estimates. Firms do not include LGFVs. Decimals are rounded, so totals may not match their constituent figures.
Note 2: LGFV debt is equivalent to interest-bearing liabilities.

First, LGFVs are the main cause of the increase in overall local-government debt levels. LGFVs outstanding debt, which stood at RMB35 trillion, or 38% of GDP, in 2018, is expected to reach RMB66 trillion, or 53% of GDP, in 2023, an increase of 15 percentage points. Meanwhile, local-government debt will have climbed from RMB18 trillion, or 20% of GDP, to RMB40 trillion, or 32% of GDP, a rise of just 12 percentage points. The increase in LGFV debt is thus larger than that of local government debt, meaning that total local-government debt, which includes both LGFV and local government debt, has been pushed up by LGFV debt.

Second, hidden debt has now reached such a scale that it no longer makes sense to describe it as "hidden." In 2018, hidden debt was RMB41 trillion (44% of GDP), a difference of RMB8 trillion (8 percentage points) from the combined central and local-government debt of RMB33 trillion (36% of GDP), but because hidden debt has swelled faster than government debt, in 2023 hidden debt will be RMB82 trillion (66% of GDP), substantially widening the difference from the government debt of RMB69 trillion (55% of GDP) to RMB13 trillion (11 percentage points).

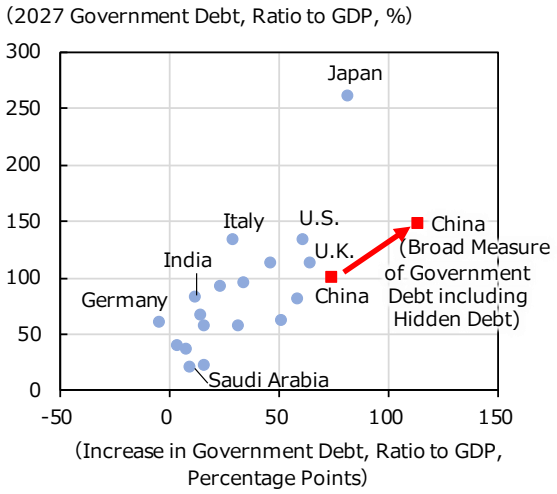
Third, LGFVs are pushing up the broad measure of corporate debt. Here, "broad measure" means corporate debt plus LGFV debt. By economic entity, companies account for the largest amount of outstanding debt. However, during 2018-23, corporate debt relative to GDP increased by only eight percentage points, less than the 15-point rise in LGFV debt. Since LGFVs are state-owned enterprises, this

indicates that the so-called “advance of the state, retreat of the private sector,” phenomenon is making headway, with state-owned enterprises on the rise and private-sector enterprises in decline.

■ Government debt will be second only to Japan’s in 2027

The increase in the outstanding debt of LGFVs is also having a significant impact on the positioning of China's government debt internationally. The prevailing view has long been that although the rapid growth of local-government debt is a worry, China's government debt as a whole is not at a seriously concerning level because the increase in central government debt has been restrained. According to the IMF's World Economic Outlook (April 2023), China's government debt in 2022 stood at 77% of GDP, ranking it 57th out of 188 countries for which data are available, well below Japan (261%, 1st), Italy (145%, 5th), the U.S. (122%, 12th), Spain (112%, 18th), and France (111%, 19th).

<Increases in and 2027 Levels of G20 Government Debt>



Source: Prepared by JRI based on data from the IMF
Note: Increases in government debt are calculated based on 2027 government debt (ratio to GDP) - 2008 government debt (ratio to GDP).

However, looking at the increase in China’s government debt relative to GDP over the approximately 20-year period from 2008, before the implementation of the RMB4 trillion stimulus package, to 2027, as projected by the IMF (c in the chart on the previous page), and its resultant international government debt ranking in 2027, the above assessment is no longer valid. Using the G-20 countries, which have the largest impact on the world economy, as the object of comparison, we find that China's government debt will rise by 74 percentage points, second only to Japan's 81 percentage-point rise and higher than the increases for the U.K. (64 percentage points) and the U.S. (61 percentage points). In 2027, China’s government debt will reach 101% of GDP, ranking it 6th among the G-20 nations.

The figures for China shown here do not include the LGFV debt discussed earlier. Plotting the broad measure of government debt (b in the chart on the previous page), which includes hidden debt, in the diagram on the right, we see that China's increase, at 113 percentage points, exceeds Japan’s, and is the largest among the G-20 countries, and also that China’s government debt in 2027 will stand at 149% of GDP, putting it second only to Japan. As China’s potential economic growth rate declines, hopes that its economy will be boosted with infrastructure investment will rise further, and hidden debt will undoubtedly weigh on economic growth, threatening the health of the public purse and the stability of the financial system.

Elevated social security-related expenditures due to the demographic shift wrought by falling birthrates and an aging population are also expected to put pressure on public finances, pushing China toward the upper right of the graph. Clearly, the aging of the population will increase spending on pensions, medical care, and other services, which will magnify the degree of fiscal strain. Subsidies transferred by China’s Ministry of Finance to the country’s social Insurance funds amounted to RMB2.3 trillion in 2022. Although this is a smaller amount than LGFV debt, it is increasing at a clip, having swelled 4.3 times in 10 years, and looks set to soon account for the largest portion of the central government’s budget deficit.

In China, some are of the opinion that the government should not bail out LGFVs, i.e., that it should forge fiscal discipline among LGFVs by allowing them to default, so as to prevent further increases in hidden debt. However, with personal consumption and exports static, turning the screw on the LGFVs, which are responsible for infrastructure investment, one of the few policies capable of boosting the economy, could further reduce the economic growth rate. There is also a risk that defaults will spread to regions with shaky fiscal foundations one after another, which will undermine financial system stability. So how to address the conflicting policy challenges of restoring fiscal soundness and maintaining economic growth? This is a key point for discerning the economic policies of the Xi Jinping administration and the direction for the Chinese economy.

(Yuji Miura)

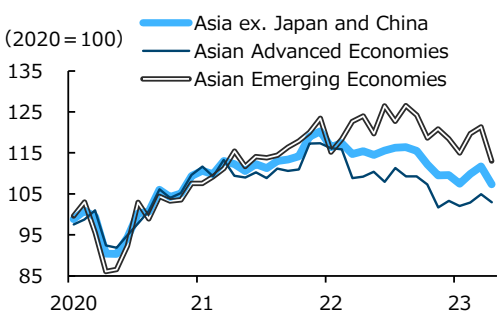
Topics *Expectations recovery in the chip market but the reality is grim*

Prices of chip-related stocks are soaring on expectations of higher AI development spending. However, AI-related demand alone will be insufficient for a full rebound of the semiconductor market, which is expected to remain sluggish in the near term and only recover moderately from next year onward.

■ Semiconductor market stagnation is weighing on Asian exports

The chip market has been in a prolonged slump. Global semiconductor sales fell sharply in May 2023, sliding 23.2% year on year (YoY) and marking the seventh consecutive month of double-digit decline. Since chips account for a large share of Asia's total exports and are used in a wide variety of products, semiconductor demand trends have significant implications for the region's economy. The ramifications of the semiconductor slump have been felt in production and exports across Asia, with goods exports trending downward since 2022. In particular, exports from East Asia, including Taiwan (share of semiconductors in total exports: 38.4%) and South Korea (16.5%), for which semiconductors are the mainstay industry, have declined significantly.

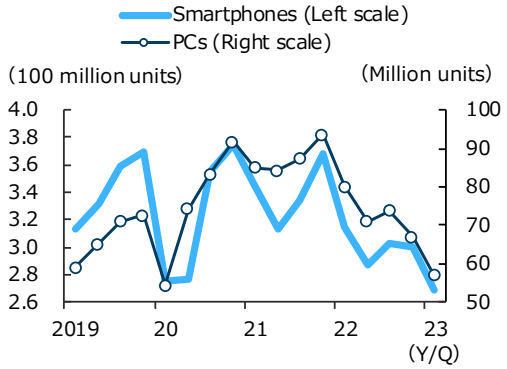
<Asia Export Volume>



Source: Prepared by JRI based on data from CPB Netherlands Bureau for Economic Policy Analysis
Note: Emerging economies are ASEAN-5, India, and Pakistan.Advanced economies are Hong Kong, South Korea, Singapore, and Taiwan.

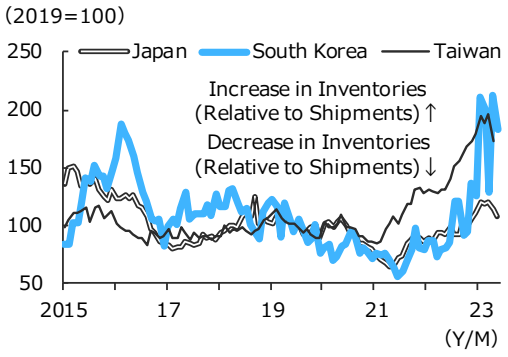
The protracted deterioration in the supply-demand balance for semiconductors is down to the following two factors: First, pandemic-induced "stay home" demand has petered out worldwide. The spread of COVID in 2020 led to activity restrictions and an acceleration in digitalization across the globe. With people spending more time at home, demand for connected devices such as smartphones, PCs, and game consoles increased, which had the knock-on effect of boosting demand for semiconductors. In addition, the rapid proliferation of teleworking and online shopping, which spurred a rush of large investments in data centers and other facilities, also pushed up chip demand. However, as the pandemic subsided, activity restrictions were gradually eased, and services consumption such as spending on eating out, travel, and entertainment resumed. On the flip side, demand for digitalization-related products cooled rapidly. After increasing by more than 20% YoY in the January-March quarter of 2021, shipments of smartphones and personal computers have been in a slump since the

<Global Shipments of Smartphones and PCs>



Source: Prepared by JRI based on data from IDC
Note: Figures for PCs are totals for desktops, notebooks, and workstations

<Ratio of Semiconductor Inventories to Shipments (Seasonally-adjusted)>



Source: Prepared by JRI based on data from CEIC
Note: Ratio of inventories to shipments = inventory index ÷ shipment index

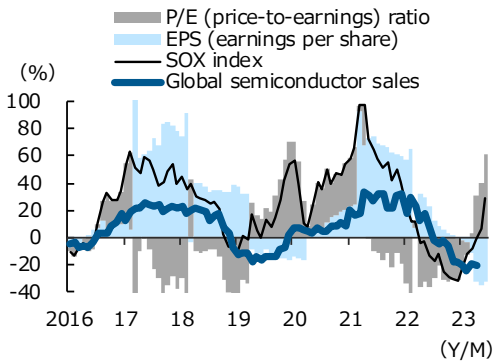
beginning of 2022. Chipmakers had been expanding investment and increasing production capacity in response to "stay home" demand, but the subsequent plunge in that demand saw warehouses quickly fill up with semiconductor inventory. In Taiwan and South Korea, which mainly manufacture advanced chips, the balance between shipments and inventories has worsened substantially of late.

Second, more stringent restrictions from the U.S. government on dealings with China have also contributed to the sagging demand for semiconductors. In the fall of 2022, the U.S. government tightened controls on the export of chips to China, requiring U.S. companies to obtain U.S. government permission before exporting to China equipment used to manufacture advanced semiconductors. Products manufactured in countries other than the U.S. that use technology originating in the U.S. are also covered by the rules, meaning that exports from third countries to China are subject to restrictions as well. Although the controls are limited to certain products such as advanced semiconductors, many products made in Taiwan and South Korea are believed to be affected, which is leading to a decrease in shipments to China.

■ Expectations of a recovery in semiconductor demand are building but the process will take time

The semiconductor market runs in boom-bust cycles, each of which seems to last for three to four years. Global semiconductor demand peaked at the end of 2021 and has been falling for more than a year, so many view the bottom as near. Furthermore, the emergence of generative AI (artificial intelligence capable of generating a variety of content such as images and text), as typified by AI chatbots, has spurred a sudden increase in expectations for AI chip-related demand. Numerous companies have embarked on AI development, and firms in a wide range of industries are beginning to consider employing AI in their day-to-day operations. Expectations are therefore high that demand for semiconductors will pick up as investment in the servers and data centers used in AI development and operation expands. Reflecting this situation, the Philadelphia Semiconductor Index (SOX), which is composed of 30 U.S.-listed chip-related companies, had surged 30% in June from the same month last year. The SOX index often moves before semiconductor sales do, and is considered a leading indicator of chip demand. The recent rise in the SOX index suggest that semiconductor demand will see a rapid turnaround in the near future.

<Semiconductor Stock Prices and Sales (YoY)>



Sources: Prepared by JRI based on data from WSTS and Bloomberg L.P.

However, it is unclear whether such a scenario will actually materialize. The recent rise in SOX is mainly due to an increase in the forward P/R (price-to-earnings) ratio, which reflects market participants' growth expectations. In contrast, forward EPS (earnings per share), which reflects companies' earnings forecasts, has been sluggish. The increase in stock prices is indicative of an optimistic outlook among market participants rather than expectations of better earnings at chip-related companies. Furthermore, semiconductors for AI are projected to make up only a few percent of the total market, so the AI boom will not be enough to significantly boost the chip market overall. Shipments of smartphones and PCs, which account for more than 60% of semiconductor demand, are expected to see YoY declines of 3.2% and 14.1%, respectively, for the full year of 2023 (according to a survey by U.S. research firm IDC). The U.S. and China together represent more than 40% of global sales of smartphones and PCs, and amid growing economic uncertainty in both countries, it is difficult to say with confidence that demand for semiconductors will rebound quickly.

Therefore, a full recovery of the global semiconductor market will be difficult to achieve just with investment expansion for AI. Demand for smartphones and PCs, the mainstay of the market, looks likely to recover only moderately, and it will take more time for the chip market to pick up steam. Looking at the market as a whole, the offloading of semiconductor inventory will continue for the rest of the year, with production not expected to increase until next year or later. Reflecting this situation, Asian exports as a whole are also expected to tread water for the remainder of this year before seeing a gradual recovery beginning next year.

(Soichiro Tateishi)