Special
Article 1

Japan's Changing Trade Structure & the Future of Its Current Account

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Is Japan's Trade Deficit Only a Temporary Phenomenon?

For fiscal 2012, Japan's balance of trade was a negative 6.9 trillion yen *(Chart 1)*, the second straight year of deficits. Looking at monthly statistics, trade deficits have continued since September last year to the tune of roughly 10 trillion yen, showing little trace of a once mighty exporter.

The direct cause of the turn to deficits was the Great East Japan Earthquake of March 2011. The earthquake damaged productive capacity across a broad area and, together with the electricity shortages resulting from the nuclear power plant accident, constrained productive activity. Furthermore, the effect spread across the entire country through the supply chain. Not only did such supply constraints force a steep reduction in exports, the impact of the earthquake also led to a sharp increase in fuel imports as nuclear power plants suspended operations. The earthquake, therefore, influenced both exports and imports in a way that caused Japan to fall into a negative trade balance.

Supply constraints were overcome within a year or so of the earthquake, but a slowing global economy, a historical appreciation of the yen to roughly 75 yen to the dollar, stagnant exports caused by a worsening of Japan-China relations, and continued high fuel imports have all contributed to trade deficits that continue today.

As Japan's trade deficits continue, many have said that the country's current account, which incorporates its services balance and balance on income, will also turn negative in the near future. The current account for fiscal 2012, however, is a positive 4.3 trillion yen, lower than in the past but still in the black *(Chart 2)*. Looking at the details of the current account, the surplus is no longer shored up by the balance of trade as it was in the past but rather by balance on income, which has now reached 15 trillion yen.

The source of this balance on income is direct investment and securities investments conducted using capital accumulated during 30 years of current account surpluses. Japan's net external assets at the end of March 2013 totaled 296 trillion yen, the highest in the world. Although interest and dividends on these holdings are subject to fluctuations in overseas interest rates and exchange rates, they provide relatively stable returns and can be expected to continue shoring up the current account surplus.

Looking at monthly current account figures (seasonally adjusted) for the last year, however, reveals deficits in both September 2012 and February 2013. At a time of massive trade deficits, even current account surpluses are no longer guaranteed.

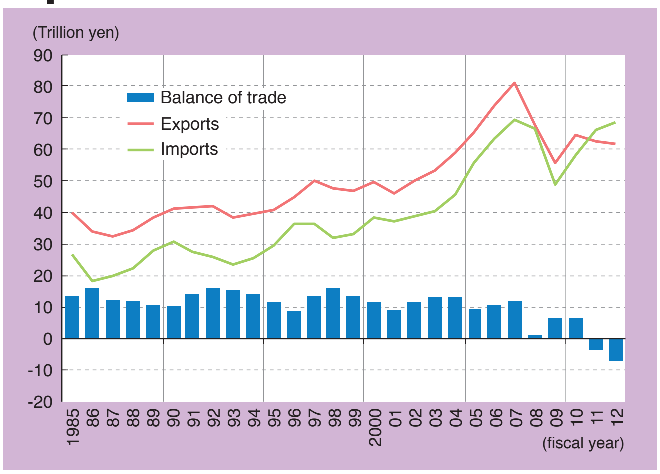
This paper, then, will consider, in light of underlying structural issues, what the future holds for Japan's trade deficit and the possibility that its current account will turn negative. In doing so, we focus in particular on changes in the following two trade structures: the manufacturing industry's ongoing shift overseas and Japan's increased imports dependency.

Manufacturing Industry's Overseas Shift

Let us turn first to structural changes in exports. What we must recognize is that while Japan played a central role in East Asian trade through the early 2000s, China has undergone a transformation and now plays this role. Looking back on the structure of East Asian trade

CHART 1

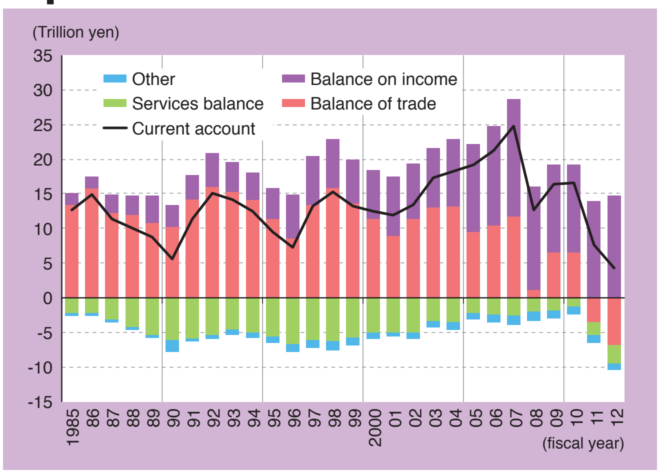
Japan's balance of trade



Source: Ministry of Finance; Bank of Japan "Balance of Payments Statistics"

CHART 2

Japan's current account



Source: Ministry of Finance; Bank of Japan "Balance of Payments Statistics" since 2000, one cannot help but notice the rise of China. Chinese trade expanded rapidly when the country joined the WTO in 2001. Ever since the value of Chinese exports surpassed those of Germany in 2009, China has remained solidly the world leader, with exports reaching US$2 trillion in 2102.

Economic growth and the expansion of trade in East Asia also offered an enormous growth opportunity for Japanese export industries. However, the value of exports from 2000 to 2012 grew by a factor of 8.2 for China, 3.8 for ASEAN, 3.2 for South Korea, and 2.0 for Taiwan, but only 1.7 for Japan. Although Japan's exports did increase, because they increased so much less than other countries it would be difficult to say the country took full advantage of this growth opportunity.

TABLE

Global share of exports by type of goods (%)

	Japan		China		South Korea		Taiwan		ASEAN	
	2000	2010	2000	2010	2000	2010	2000	2010	2000	2010
Chemical products	6.7	**5.4**	3.2	**6.2**	2.3	**2.8**	1.9	**2.3**	3.5	**4.5**
General machinery	13.1	**9.5**	4.7	**18.9**	3.2	**3.1**	4.8	**1.9**	9.5	**6.6**
Electrical machinery	13.7	**9.3**	6.2	**21.6**	5.1	**8.4**	4.8	**6.1**	12.5	**14.0**
Transport equipment	14.7	**12.2**	0.9	**4.0**	2.6	**4.5**	0.9	**0.8**	0.8	**2.5**
Total exports	8.1	**5.5**	6.4	**11.9**	2.8	**3.2**	2.6	**2.1**	6.8	**6.9**

Source: Created using the RIETI database

This can be attributed to two background causes. The first is the manufacturing industry's overseas shift. In order to reach burgeoning Asian markets, Japanese corporations have been increasing local production rather than exports. According to the Development Bank of Japan's Capital Spending Survey, the ratio of overseas/domestic capital spending by large manufacturers rose from 39.5% for fiscal 2010 to 58.3% planned for 2012. Furthermore, with respect to medium-term productive capacity over the next three years, more companies planned to increase overseas supply capability than planned to increase domestic supply capability, indicating a clear priority on overseas production.

Relative Decline of Non-Price Competitiveness

The other background cause is the improved non-price competitiveness of export goods from other East Asian countries. Economic growth has raised the technological level of East Asian countries, which now compete with a broader range of Japanese products. Indeed, the manufacturing industry's overseas shift mentioned above is largely concentrated on advances into East Asia. This contributes to East Asian development and production technology improvements, which ironically now place downward pressure on Japanese exports.

Looking at global share of exports by type of goods *(Table)*, in 2000 Japan's high share in many industries stands out but by 2012 it had fallen across the board. China, meanwhile, has switched places with Japan, maintaining its high share in traditional industries like apparel and sundry goods while increasing exports of general and electric machinery. South Korea, Taiwan and ASEAN also expanded their share of electric and precision machinery.

On the other hand, Japan has the highest share of automobiles and other transport equipment, still above 10%. Furthermore, Japan also maintains a high share of the high-performance chemical products used in making electronic equipment. There is a growing division of labor by production process in East Asia with, for example, the formation of international production networks in which high-performance Japanese components are assembled to make finished products in China. Therefore, growth in exports of finished products from China also means expanded exports of components and materials from Japan to China.

In recent years, however, Japan has faced an increasing competitive threat from countries such as South Korea and Taiwan even in the area of high-performance components and materials. The rising technological level in East Asia, therefore, has brought more intense competition even in the high value-added goods that Japan has excelled at.

Structural changes such as the overseas shift accompanying the globalization of corporate production systems and the relative decline in the non-price competitiveness of Japanese products apply downward pressure on Japanese exports. Accordingly, even though a depreciating yen has recently improved the export environment, it is probably wise to assume that exports will not increase with the vigor they once did.

Rising Import Penetration

As noted above, the balance of trade for fiscal 2012 was a negative 6.9 trillion yen. Looking at the details, however, shows a 2.8 trillion yen decline in the value of exports, and a 10.5 trillion yen increase in the value of imports, between pre-earthquake fiscal 2010 and early fiscal 2012, making it clear that the increase in the value of imports had an enormous impact on the trade deficit. Of particular influence were imports of crude oil, liquid natural gas and other mineral fuels, which increased by 6.5 trillion yen over the same period — roughly equal in scale to the fiscal 2012 trade deficit.

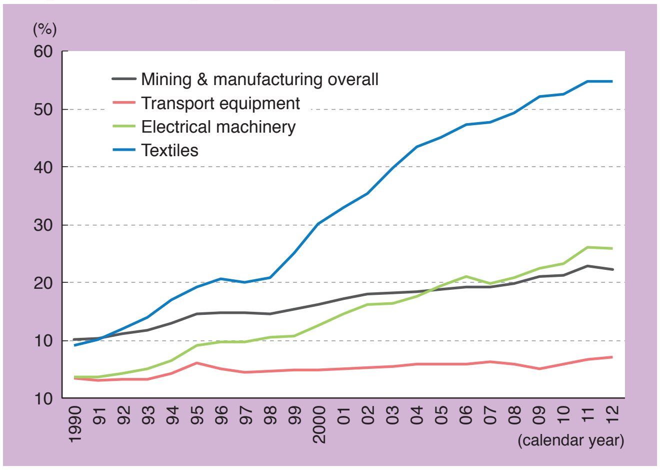
The suspension of nuclear power plant operations has had a huge influence on the increase in imports of mineral fuels. The electric power companies have been forced to rely on thermal power plants as an alternative means of generating power, leading to increased imports of mineral fuels. Because mineral resources are scarce in Japan, the country must rely on imports for nearly all such fuels. Unlike other imported goods there are no easy substitutes, so a certain level of imports is essential in order to secure a stable energy supply.

But the increase in imports is not limited to mineral fuels. With the increase in low-cost imports from emerging Asian nations and the increase in reverse-imported goods due to the manufacturing industry's overseas shift, imports already penetrate deeply into every corner of Japan. Import penetration has been rising every year, reaching 22.4% for mining and manufacturing overall in 2012 *(Chart 3)*. The trend is especially pronounced for textiles and electrical machinery. With improved technological capabilities in East Asian countries, imports are increasing not only for general-purpose products but also for high value-added items such as smartphones.

Ordinarily, when the price of imports rises due to depreciation of the yen it generates downward pressure on the volume of imports. In the case of mineral fuels, however, because a certain level of imports is essential in order to secure a stable energy supply, even when the cost of imports rises due to an increase in the price of crude oil or a lower exchange rate there is little dampening of import volume. Furthermore, for products such as textiles whose import penetration has increased

CHART 3

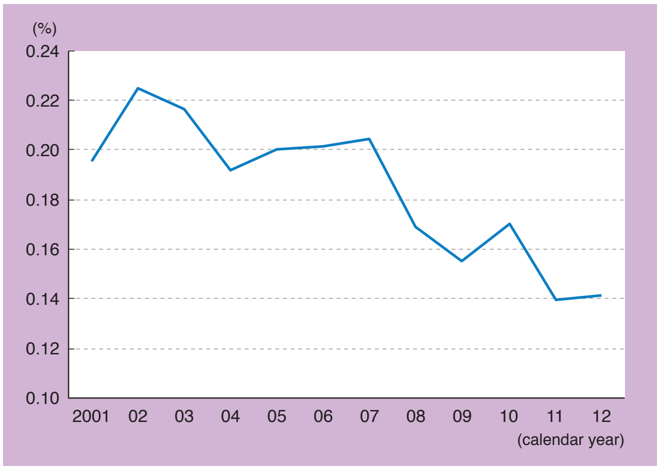
Japan's import penetration



Note: Imports as a percentage of total domestic supply
Source: Ministry of Economy, Trade, and Industry "Industrial Domestic Shipments and Imports"

CHART 4

Sensitivity of Japan's imports to foreign exchange rates



Note: Sensitivity to foreign exchange rates is the amount of increase (decrease) in imports with each 1% appreciation (depreciation) of the yen. Rolling regression over the last 40 quarters (10 years) as estimated using the following formula:
Real Imports = Constant Term + α x Income Factor (Total Supply) + β × Price Factor (Real Effective Exchange Rate)
Source: Bank of Japan "Real Exports and Real Imports"; Cabinet Office "Quarterly Estimates of GDP"

sharply, domestic supply may be insufficient to meet demand such that depreciation of the yen does not lead simply to a reduction in imports.

As the Japanese economy has grown more and more dependent on imports, there has been a decline in the sensitivity of imports to foreign exchange rates *(Chart 4)*. In other words, structural changes have made it difficult to easily reduce imports even if the coming decade takes us in the direction of a weaker yen. The historic appreciation of the yen that took place around the end of last year has been corrected but this change in the structure of imports is likely to limit any improvement to the balance of trade.

Persistent Trade Deficits

With the removal of the burdens of an excessively high yen, it can be assumed that Japanese exports will make a gradual recovery. In the short term, a recovery in exports can be expected to drive an improvement in the balance of trade. But how likely, really, is the scenario that the trade deficit — having ballooned to 6.9 trillion yen for fiscal 2012 — will now decline as expected and return to steady trade surpluses?

As for the balance of trade outlook, it is possible that Japan could temporarily return to a trade surplus sometime in the mid-2010s. Given the structural changes discussed above, however, for Japan to maintain trade surpluses will not be easy. It seems highly likely that Japanese corporations will continue their shift to overseas production, meaning sustained downward pressure on exports. Looking in turn at imports, meanwhile, we see that imported products have already deeply penetrated into every corner of the Japanese economy. A lower exchange rate would normally be expected to depress imports by making them more expensive, but the degree of import penetration means this effect will be weaker than in the past.

Accordingly, even if the balance of trade were to temporarily shift to positive in the mid-2010s, it seems likely it will shift back to negative in due course as trade deficits become firmly established. If so, will the current account really be able to remain positive over the medium to long term?

As described above, it is the surplus in balance on income that shores up the current account surplus. Because net foreign assets — the source of the balance on income — have accumulated in Japan to the tune of more than 50% of GDP, the balance on income is expected to remain strongly positive for some time. It is highly likely that the balance on income will prop up gradually declining current account surpluses for the next decade.

In terms of the savings-investment balance — the flip side of the current account — this means that Japan will remain in a state of excess domestic savings for some time. Since the aging population means it would be no surprise were household savings to turn negative by the late 2010s, it will be the corporate sector that contributes to excess domestic savings. In a globalizing world, many corporations are expected to continue accelerating their move overseas. In other words, corporate savings will grow as they capture overseas demand — which is expected to grow more than domestic demand — but it is highly likely that domestic investment will not be as attractive as overseas investment, making the growth in corporate excess savings even more pronounced.

Risk of Higher Crude Oil Prices

In this way, there is a strong likelihood that Japan will maintain a current account surplus over the next decade. However, given Japan's dependence on importing most of its mineral fuels from overseas, any spike in prices remains a major threat to the current account surplus. Let us turn, then, to the influence of crude oil prices on the terms of trade *(Chart 5)*.

Terms of trade is a relative value derived by dividing the price of exports by the price of imports. A rise in the numerical value of the terms of trade means that a given unit of exports can be exchanged for a greater amount of imports, representing an improvement in the terms of trade. Among the factors that affect the terms of trade, we must not forget trends in the price of crude oil. Japan's terms of trade have been greatly influenced by the price of crude oil. Terms of trade deteriorated noticeably for fiscal 2005–2008 and for fiscal 2010–2012; in both cases the cause was a spike in the price of crude oil.

Because it does not produce crude oil, Japan is almost entirely dependent upon imports. But unlike other imported products crude oil has no easy substitute, so any rise in its price leads directly to increased import payments. In fiscal 2008, when the price of crude oil reached a historical high, the burden grew by roughly 6 trillion yen over the previous year, reducing the current account surplus accordingly. Because Japan's dependence on thermal power generation is greater now than it was then, we must remember that the scale of the impact from any rise in crude oil prices would be much greater than in fiscal 2008.

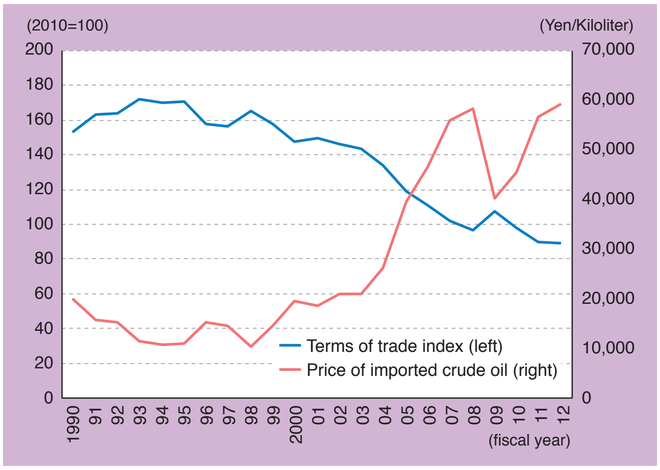
Is Current Account Deficit a Bad Thing?

Up to now we have discussed the context of Japan's shift to trade deficits and the potential for the current account to shift to negative. The key fact that has been revealed is that Japan's trade deficits will not be a temporary phenomenon. There is little likelihood that the current account will swing to negative immediately; it is highly likely surpluses will be maintained, though gradually decline, for roughly the next decade.

Looking beyond 10 years to the long term, however, the aging of the population is expected to lead to current account deficits. Even if the current account becomes negative, however, this is not a problem *per se*. In an aging society, more and more people will follow the behavioral pattern of drawing on the funds they have set aside for their old age, a rational means of maintaining their standard of living. The result may be that savings for the nation as a whole fall below investment and that the current account becomes negative, but no one is suggesting we should restrict withdrawals to prevent this from happening.

Why, then, does the market focus on Japan's current account? The reason is that Japan has severe financial problems. Because a current account deficit means insufficient domestic funds, it suggests the need to rely on funding from overseas to finance massive government debt. At the end of fiscal 2012, only 4% of Japan's medium- and long-term government bonds were held overseas, with most such bonds held by domestic institutional investors. If, however, Japan comes to have no choice but to depend on overseas investors to absorb government bonds, it will probably be difficult to continue issuing them at the low interest rates currently maintained. If overseas investors were to grow more uneasy about Japan's financial sustainability, it would not only make the absorption of government bonds more difficult but also increase the risk of a spike in interest rates for government bonds.

CHART 5
Japan's terms of trade



Source: Bank of Japan "Export/Import Price Index"; Ministry of Finance "Trade Statistics of Japan"

Importance of Reviving Growth Prospects

In light of the above, we can see that Japan has no need to fear current account deficits *per se*, and also better understand the sort of initiatives Japan must take from now on. There are three:

First, Japan needs to rebuild its economy. The outstanding balance of government bonds is enormous, but identifying a clear path to rebuilding the economy and beginning to move steadily along that path will ensure that even a negative current account will not lead to a loss of faith in Japanese bonds.

Second, Japan needs to revive domestic growth prospects. If the current account swings to negative Japan will need to depend on overseas funding, but if there is a prospect of domestic growth, overseas funds will arrive seeking to benefit. There is a now a sense of hopelessness about the Japanese economy because of the declining population, the low birthrate, and the population's aging, yet it is important to revive the prospects for growth by focusing on latent domestic demand. Overseas investors cast an enthusiastic eye on many emerging Asian nations — and enormous amounts of investment money — despite their current account deficits because they see high prospects for growth. And this is not only true for emerging nations. The United States runs current account deficits yet has no difficulty securing funding from overseas. Certainly the status of the US dollar as a key currency plays a part, but the US has an appeal that draws people, materials, and money from around the world.

Finally, there remains room for Japan to expand its balance on income surpluses. According to the Institute for International Trade and Investment, the rate of return on foreign direct investment (FDI) was 10.8% for the US, 8.9% for the United Kingdom, and 6.1% for Japan. Japan still maintains a positive balance on income, but most of the surplus comes from securities investments, such as interest on US Treasury bonds. One of the key points from now will be how much Japan, like the US and UK, can increase its income from FDI.

As overseas markets centered on Asia continue to expand, there is no stopping the overseas advance of Japanese corporations. Indeed, in order to meet overseas demand, Japanese corporations should be moving abroad aggressively. Their expanded presence overseas will put downward pressure on Japanese exports, but it is possible to increase the balance on income surpluses by pursuing business aggressively overseas.

It will be important at the same time to make efforts to uncover latent demand at home. The hollowing-out of domestic industry can be avoided if domestic business frontiers can be expanded in this way. Taking such measures to foster prospects for growth will make it possible to attract the world's investors to Japan even if the current account worsens. JS

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