Japan's Economy: Monthly Outlook (Oct 2020)

With private sector demand marking time, economic recovery is being led by exports, but downside risk is increasing

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Summary

■ Japan's economy continues in a gradual recovery, but private sector demand is marking time. Personal consumption was seen to be marking time through the first half of October, while exports, which were leading the economic recovery, continued recording growth through September, helped along by the appearance of pent-up demand. However, downside risk is increasing for exports, with the spread of the COVID-19 infection spreading again in Europe and becoming more serious. If exports to Europe suffer a downturn, its effects will likely appear most noticeably in the transport equipment and electrical machinery industries.

■ With spread of the COVID-19 infection expected to move into the long-term, the improvement in business conditions for most industries will be gradual for the time being. There are concerns that the risk of employment adjustments and bankruptcies may increase for some industries, such as accommodations, and eating & drinking services. In consideration of the current condition of these industries, additional economic measures may be required, including the extension of various measures that will expire in FY2020. At that time, it will also be necessary to fine-tune the system, making appropriate emphases, such as prioritizing benefits and considering new support measures, while narrowing down the support targets based on the status of COVID-19 infections and economic conditions.

■ In a comparison of retail prices and unit purchase price in food and beverages, after the coronavirus crisis, households seem to have become more high-price-oriented, (the so-called "petite luxury" or enjoyment of simple things). Changes such as the increase in home-related demand caused by the coronavirus crisis, and the growing tendency toward "petite luxury" in the area of food and drink while eating out decreases, are expected to continue in the post-corona era. Responding to changes in the structure of consumption caused by the coronavirus crisis will enhance corporate sustainability since doing so looks ahead to the economic and social structure ten years from now.

1. Economic Recovery being Led by Exports, but Downside Risk Increasing

*Private sector demand marking time*

Japan's economy has been in a gradual recovery trend since June, but domestic demand (chiefly private sector demand) is currently marking time.

Chart 1 shows economic indices which provide a sense of conditions on a monthly basis, including personal consumption on a GDP basis, housing investment, capital expenditure, and exports. Personal consumption (Consumption Activity Index) and housing investment (estimated construction cost for dwelling) in August generally marked time. Looking at trends in turn-out, corporate statistics and data from individual companies, it appears that the same trend has continued through the first half of October for personal consumption.

Trips with Tokyo arrivals and departures have been included in the Go To Travel Campaign since October 1. The Go To Eat Campaign was launched on the same date, and it is hoped that this will give an extra push to recovery for related demand. However, looking at daily mobility data from Google Maps indicating turn-out at retail stores and entertainment facilities[1], we see no significant change in growth trends between the beginning of July and mid-October. In contrast to consumption of durable goods, which has maintained consumption levels higher than before the coronavirus crisis, consumption of services requiring face-to-face contact and movement between locations remains weak, reflecting low turn-out.

Capital expenditure (total supply of capital goods excluding transport equipment) has recorded month-to-month declines for two consecutive months since July. With spread of the COVID-19 infection expected to move into the long-term, the sense of uncertainty regarding the future is strengthening amongst corporations, and along with the slump in factory operating rates this is thought to have caused corporations to put off investment in capacity increase and non-urgent maintenance and renewal investment. However, machinery orders, which is an important leading indicator for capital expenditure, have recently been showing signs of bottoming out, though the level of orders is still on the low side.

Trends in Consumption & Export Related Indices (Left), and Capital Expenditure & Housing Investment Related Indices (Right) **Chart 1**
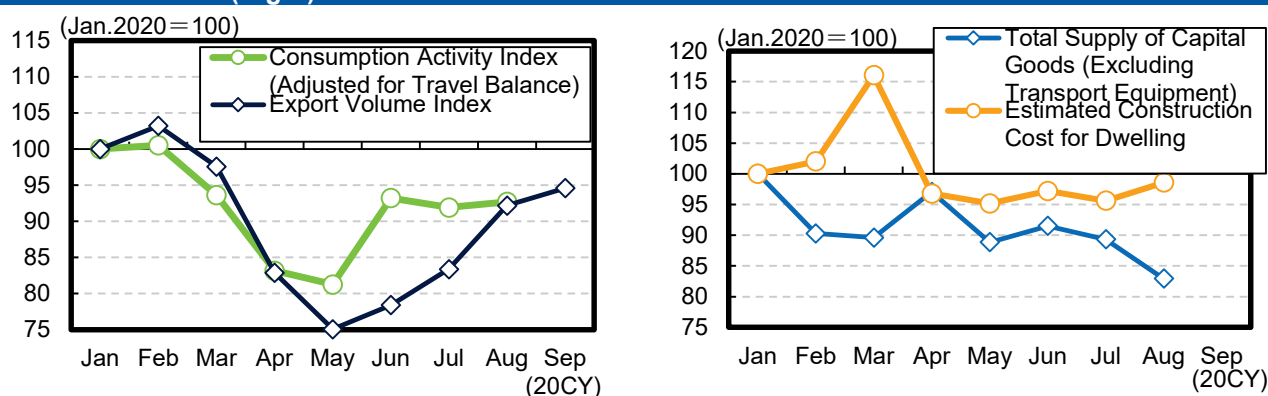
Source: Bank of Japan, Ministry of Finance, Cabinet Office, Ministry of Economy, Trade and Industry. , Ministry of Land, Infrastructure, Transport and Tourism; compiled by DIR.
Note: Figures are all seasonally adjusted. Estimated Construction Cost for Dwelling is seasonally adjusted by DIR.

Motor vehicle exports to the US may be able to maintain a high level of performance with the support of pent-up demand for the time being

In other developments, exports have been leading the economic recovery since July. The September Export Volume Index grew by +2.6% m/m, slower than August's +10.5%, but still, this represents four

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[1] Stores selling daily necessities, such as super markets, fresh produce markets, and drugstores, are not included.

consecutive months of growth (Chart 1, left). Looking at performance by product, the major contributor to the recovery in exports was transport equipment, such as motor vehicles.

Demand for motor vehicles was restrained for some time due to restrictions on going out and on car dealer operations associated with lockdown policies implemented to prevent the spread of COVID-19 infections. After relaxation of some of the restrictions, pent-up demand appeared, and motor vehicle export volume to the US, the major destination for Japan's auto exports, grew sharply in July. By September, motor vehicle exports to the US had exceeded the level recorded in February, before COVID-19 began to spread in the domestic US (figures seasonally adjusted by DIR).

The question is how long will pent-up demand for motor vehicle exports to the US last. As shown in Chart 2 (left side), we estimated motor vehicle sales volume in the US based on income, interest rates, consumer sentiment, and lending attitude of financial institutions. We then compared this with the comprehensive estimated value of motor vehicle exports to the US and the actual performance value, and estimated that as of September, there was still around 180,000 units in pent-up demand which had not yet appeared (Chart 2, right side). Considering the fact that motor vehicle exports to the US totaled 148,000 units during the same month (figures seasonally adjusted by DIR), we can expect approximately 1.2 months-worth of demand to appear in October and beyond. It is quite possible that the high level of motor vehicle exports to the US can be maintained for some time into the future.

If motor vehicle export volume to the US continues at the same level as September in October and beyond, pent-up demand could continue through February of 2021. Once pent-up demand has played itself out, motor vehicle exports are expected to settle down to a level in line with the actual economic situation, and fall around 30% below the level seen September. Improvement in the US employment and income environment, as well as flexibility in the lending attitude of financial institutions, are expected to be moderate. This is the one major factor weighing down motor vehicle exports to the US.

Estimated Motor Vehicle Sales Volume in US (Left), and Estimated Japanese Motor Vehicle Export Volume to US (Right) Chart 2
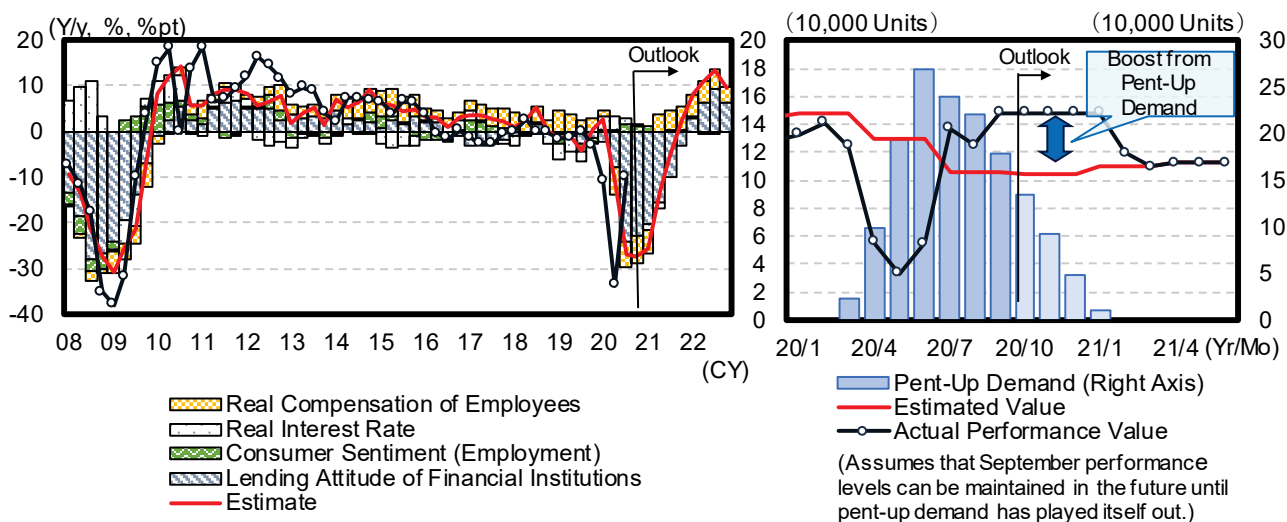
Source: Ministry of Finance, BEA, FRB, University of Michigan, Autodata Corp., Haver Analytics; compiled by DIR.
Notes: 1) Estimate period is from Jan-Mar period of 1996 to Oct-Dec period of 2019. As for indices that remain unpublished as of the Jul-Sep period of 2020, DIR estimates are used for income and inflation rate. Nominal interest rate and consumer sentiment are flat in relation to the latest values, while the lending attitude of US financial institutions is assumed to have hit bottom during the Jul-Sep period of 2020, and is expected to recover at the same pace as it did after the Jul-Sep period of 2008, when it was at its worst during the global financial crisis of 2008.
2) Actual performance values show on the right hand side of the chart are seasonally adjusted by DIR. The estimated value of motor vehicle exports to the US is based on the actual performance value of US motor vehicle sales volume in 2019, with level conversion using y/y estimated values of the Jan-Mar period of 2020 and beyond, multiplied by the 2019 ratio of US motor vehicle sales volume accounted for by Japanese export volume of motor vehicles to the US. Pent-up demand is the rate of deviation between actual performance values and cumulative estimates since March 2020.

Downside risk increasing for exports to Europe as spread of COVID-19 becomes more serious

A second wave of COVID-19 is spreading in Europe, a major destination for Japanese exports, and is becoming more serious. In France, the number of new infections per day has exceeded 30,000, while the UK, Spain and Germany are all recording record highs in comparison to past statistics. With conditions as they are, governments of various countries have strengthened measures to prevent further spread of the disease. As of October 17, France has prohibited going out at night for a period of four weeks in nine cities including Paris. In the UK, indoor meeting and mingling between households has been banned from the 17th in London. Meanwhile, on October 9, the Spanish government issued a state of emergency in Madrid for 15 days, in principle prohibiting unnecessary and non-urgent movement between cities.

Looking at daily mobility data from Google Maps indicating turn-out at retail stores and entertainment facilities as of October 16, a major downturn in recent activity such as was seen in April and May this year has not been detected in the US and Europe (Chart 3, left side). With knowledge of treatment methods and infectious disease countermeasures having improved, as well as the strengthening of the healthcare system and testing, the scale of restrictions on socio-economic activities such as lockdown has become smaller than during the first wave of the pandemic. It is safe to say that the resilience of the world's economies against the spread of disease has increased. However, the spread of COVID-19 has become more serious in Europe, and a moderate decline in turn-out can be observed since the beginning of September. Turn-out may decline further in the future in countries where measures to prevent the further spread of the infection have recently been strengthened.

Turn-Out at Entertainment Facilities & Retail Stores in the US & Europe (Left); Comparison of Value of Exports Destined for the EU in May and September (Right)   **Chart 3**
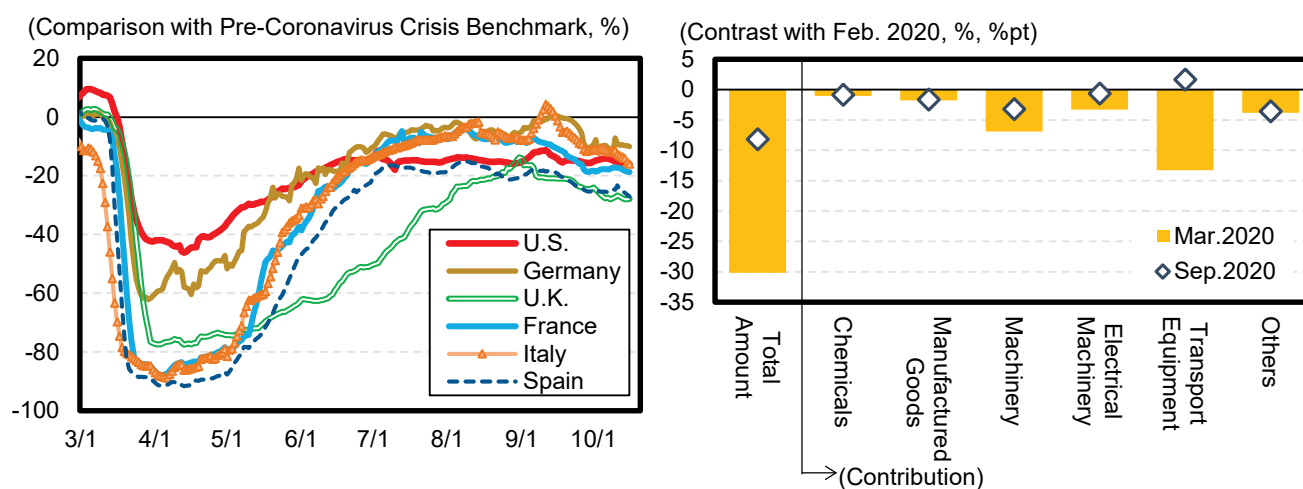
Source: Ministry of Finance, Google; compiled by DIR.
Note: The left hand side of the chart shows the 7-day moving average with the most recent value on October 16. The median value for the period January 3 – February 6, which acts as the standard, is calculated on a daily basis.

If demand declines in Europe due to the strengthening of measures to prevent the further spread of the infection, Japan's exports to Europe will likely be effected. The value of Japanese exports destined for Europe suffered its largest decline in May this year, but has continued to recover gradually since social and economic activity restarted (Chart 3, right side). Looking at performance by product, as in the case with the US, leading the recovery in exports to Europe is transport equipment, with pent-up demand for motor vehicles also appearing in September, While the extent of contribution was small, electrical machinery also recovered nearly to the level it had recorded in February, before the spread of COVID-19 became serious. On the other hand, recovery for machinery is lagging in comparison to transport equipment and electrical machinery. Other products, including chemicals and manufactured goods, which suffered only a slight downturn in May, have hardly recovered at all since that time. Considering these trends, the impact of the strengthening of measures to prevent the further spread of COVID-19 is expected to be centered on transport equipment and electrical machinery, while the recovery in

machinery will also likely peak out. The value of exports destined for Europe is expected to move around 10% below the level seen in February this year for the time being.

2. Condition of Economy According to Semimacro Analysis, and Need for Additional Economic Measures

Corporations continue to face a tough environment, but there are major differences between industries

On October 1, 2020, the Bank of Japan published its September Tankan Survey of Enterprises in Japan. According to that report, business conditions DI for large enterprises in all industries (actual result) fell by -21%pt, while small enterprises were down by -31%pt. Both of these figures show a narrowing of the range of decline in comparison with the June Tankan survey, which was carried out just after the state of emergency was lifted. Corporate business sentiment improved with the resumption of social and economic activity and the effects of various government measures. However, the level of business conditions DI remains low (in contrast, large enterprises were at +9%pt in the December 2020 survey before the spread of COVID-19, with small enterprises at +1%pt). Corporations continue to find themselves in a tough environment.

However, the magnitude of adverse effects of the coronavirus crisis varies greatly depending on the industry. Chart 4 illustrates the economic conditions of various industries, with the break-even point ratio before the coronavirus crisis (October-December 2019) shown on the horizontal axis, and business conditions DI (enterprises of all sizes, actual result) from the September 2020 survey shown on the vertical axis. The industries located on the right side of the chart are more likely to be in the red when the economy deteriorates, and the industries located on the lower side are currently in a difficult business environment. At the bottom right are the accommodations, eating & drinking services, services for individuals industry, and iron & steel industry. According to the Ministry of Finance's Financial Statements Statistics of Corporations by Industry, these three industries posted ordinary profit deficits in the April-June quarter.

Business Environment & Recession (Deficit) Resistance, Employment Inducement Effect   Chart 4
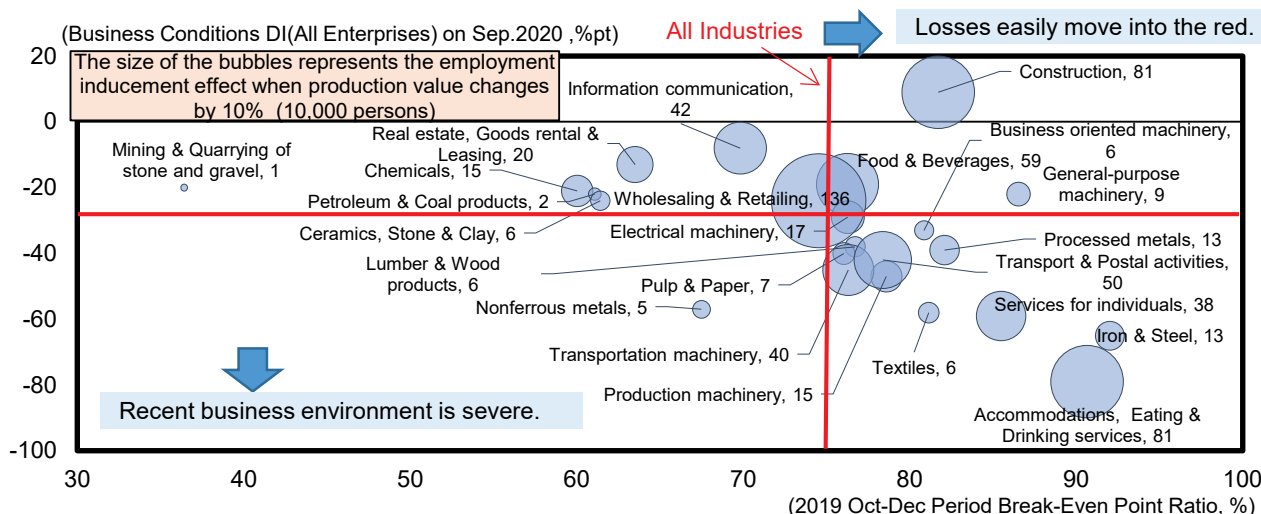
Source: Bank of Japan, Ministry of Finance, Ministry of Internal Affairs and Communications; compiled by DIR.
Notes: 1) Break-Even Point Ratio = break-even point sales/sales.
    Break-even point sales = fixed costs/marginal rate of return = fixed costs x sales/(sales – variable costs).
    Fixed costs = personnel expenses + interest payments etc. + depreciation expenses.
    Variable costs = sales – fixed costs – current profit.
  2) Personal services as used in the BOJ Tankan corresponds with living related services and entertainment as used in the Financial Statements Statistics of Corporations by Industry.
  3) The employment inducement effect is taken from the 2015 Input-Output Table.

The situation makes it extremely difficult to attract the level of demand that was experienced before the coronavirus crisis for the accommodations, eating & drinking services and personal services industries due to measures to prevent the further spread of COVID-19. But the fact that these industries already had high break-even point ratios was the final blow in leading to the deterioration of business conditions. Business conditions DI (enterprises of all sizes) in the iron & steel industry fell significantly below that of its major sources of demand – the transport equipment and construction industries. In this case as well, the high break-even point ratio is considered to have been influential. As for other industries, in the textile industry, the demand for high-priced clothing has decreased due to the increase in telecommuting and the decrease in frequency of going out, while the capital goods-related industry is in a difficult situation due to the decline in corporate motivation to carry out capital investment.

On the other hand, the break-even point ratio is relatively low in the Information communication industry and real estate, goods rental & leasing industry, hence the deterioration of business conditions was modest. As for members of the information communications industry, if we look only at communications and the information services, business conditions DI remains positive. Increasing demand for non-contact services such as those used by workers who are telecommuting, and online consumption provided a boost to these industries. Similarly, the construction industry maintained positive business conditions DI. Although orders for private sector projects decreased due to the spread of COVID-19, with postponement and reconsideration of hotel construction plans, orders for large-scale public works projects, such as budget execution by local governments that received the national resilience plan, highway construction, and Shinkansen extension work, are thought to have provided underlying support.

Need for additional economic measures is great, such as extension of measures to expire in FY2020

The size of the bubbles in Chart 4 represents the employment inducement effect. The figure appearing next to the industry name is the extent of change in number of employees when production value changes by 10%. In a calculation based on the 2015 Input-Output Table, the wholesale and retailing industries had the greatest employment-inducing effect, with the number of employees changing by 1.36 million when production value changes by 10%. The next largest are the accommodations, eating & drinking services and construction industries at 810,000. The personal service industry has a relatively large employment-inducing effect at 380,000, which is close to the transportation machinery industry at 400,000. The coronavirus crisis had a notably large impact on services requiring face-to-face contact and movement between locations. Since the employment inducement effect of related industries is large, the rapid deterioration of the business environment easily led to a major decline in demand for labor as seen from the macro point of view.

The employment inducement effect is the long-term result of continuous change in production value, and expresses the degree of influence on the number of employees when the decline in demand for labor is dealt with entirely by employment adjustment. In this regard, under coronavirus crisis conditions, corporations maintained employment centered on regular employees, partly due to the expansion of employment adjustment subsidies, and curtailed average working hours, resulting in only a minor increase in the unemployment rate at 3.0% in August. However, looking at employment conditions DI ("excessive employment"-"insufficient employment") in the September BOJ Tankan, in the accommodations, eating & drinking services industry, and processing industries such as transportation machinery, iron & steel, nonferrous metals, and the textiles industry, the DI was more than "excessive" following on the June survey. It should be noted that if the business environment deteriorates further, employment adjustments may advance further in a wide range of industries.

Risk is also increasing in the area of corporate cash flow. It is a fact that the number of bankruptcies in the first half of 2020 was the lowest in the last 30 years (according to Tokyo Shoko Research), and chain bankruptcies due to the coronavirus crisis have been avoided so far. The balance sheets of financial institutions are sounder than they were during the global financial crisis of 2008, and the government

and the Bank of Japan's unusual scale of cash flow support measures have had some effect (Chart 5, left). Before the coronavirus crisis, many companies were reluctant to invest their cash on hand. This so-called "retained earnings problem" is often pointed out, and the liquidity of companies was plentiful. This may be one of the reasons why bankruptcies were kept under control.

However, looking at the BOJ Tankan's financial position DI ("easy"-"tight"), there are some industries where cash flow is more difficult than after the financial crisis of 2008. Chart 5 (right side) looks at the seven industries shown in Chart 4 as having recently been in severe circumstances, as well as all industries, and compares recent financial position DI (on the September 2020 Tankan survey) with financial position DI after the global financial crisis of 2008 by scale of enterprise.

Trends in Corporate Loans by Use (Left); Financial Position DI after Financial Crisis of 2008 and Recently (Right)	Chart 5
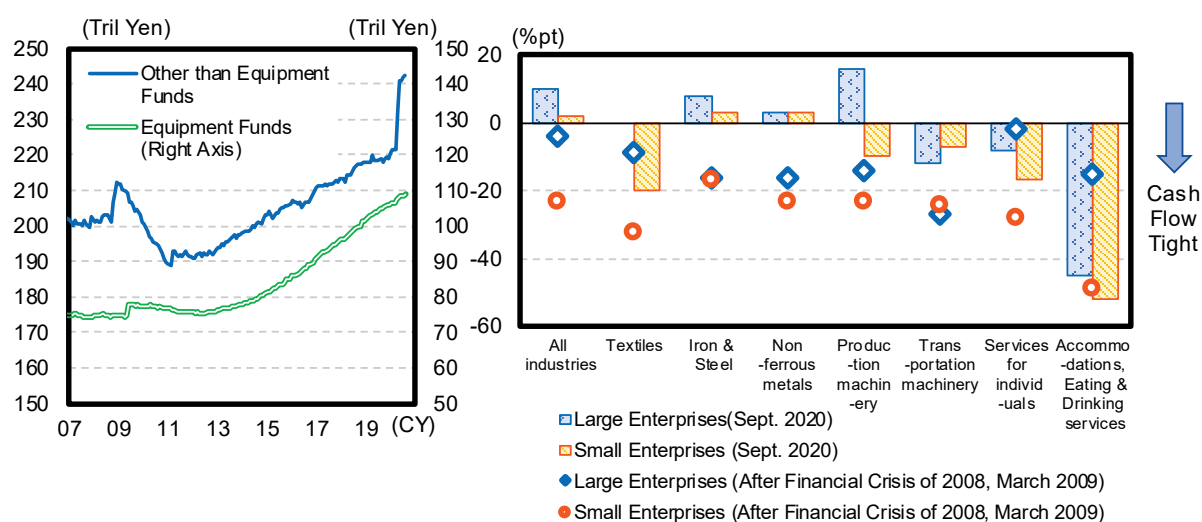
Source: Bank of Japan; compiled by DIR.
Note: Industrial categories have changed, hence production machinery in September 2009 has been assigned the value for general machinery in the right hand side of the chart.

According to the chart, financial position DI for all industries was recently positive regardless of the size of the enterprise. It appears that enterprises were able to handle cash flow smoothly even after the financial crisis of 2008. This trend is seen even in the iron & steel and nonferrous metals industries. On the other hand, the financial position DI for small enterprises in the textiles and production machinery industries is most recently shown to be in the negative. There are many small enterprises for whom cash flow is tight, though not as much as it was after the global financial crisis of 2008. In the transport equipment and services for individuals industries, most recent DI for both large enterprises and small enterprises was in the negative area, with large enterprises in the personal services industry experiencing even worse conditions for cash flow than after the global financial crisis of 2008.

Cash flow is tightest in the accommodations, eating & drinking industry. Recent financial position DI for large enterprises was at -45%pt, falling considerably below the figure recorded after the global financial crisis of 2008 when it was at -15%pt. Meanwhile, small enterprises fell just slightly below where they were after the global financial crisis of 2008 at -52%pt. The inbound tourism market (foreign tourists visiting Japan), which totaled just under 5 tril yen in 2019, completely vanished during the coronavirus crisis, and a full-fledged recovery in the number of domestic hotel guests and customers at eating & drinking establishments is a long way off. Even with economic measures currently being implemented, such as the Go To Travel Campaign, the financial position DI (all industries) of this industry has improved only slightly in comparison to the June Tankan survey, and if we look only at large enterprises, it has slightly worsened.

The DIR outlook for the 2020 Oct-Dec period GDP growth rate is just under +5% q/q annualized, but in year-to-year terms it is expected to be just under -5%. With the spread of the COVID-19 infection expected to move into the long-term, improvement in business conditions is expected to be moderate for most industries, while in the case of accommodations, eating & drinking services, there is concern that the risk of employment adjustment and bankruptcies will increase for some members of these industries. Considering the current situation for corporate activity, additional economic measures will be needed, as well as the extension of special measures for employment adjustment subsidies that will expire at the end of 2020, and application deadlines will be up for subsidy program for sustaining businesses and rent support benefits in mid-January 2021.

At that time, it will have to be taken into consideration that the economic situation will no longer be such that the government will be able to provide generous support to a wide range of industries as was the case in April and May of 2020. While the possibility cannot be ignored that a state of emergency could be reissued in the future due to a sudden outbreak of infection, it will also be necessary to fine-tune the system, making appropriate emphases, such as prioritizing benefits and considering new support measures, while narrowing down the support targets based on the status of COVID-19 infections and economic conditions.

3. Structure of Household Consumption Transformed by Coronavirus Crisis

Japan suffered the worst economic deterioration of the entire postwar period between April, when the state of emergency was declared, and May. Since that time it is considered to have been gradually recovering, but the coronavirus crisis has brought major structural changes not only to the economy, but to the way people work, how corporations choose locations for offices, and household consumer behavior. In this section we examine changes in consumer behavior since April, while at the same time considering, from the viewpoint of demographics, the question of whether these developments are transitory, or whether they will continue after COVID-19 is brought under control in the post-corona era.

So-called "petite luxury" taste increases as consumption shifts from eating out to eating at home and ready-made meals

Looking at personal consumption by goods and services, we see that while durable goods are maintaining favorable performance, the recovery for consumption of services is sluggish[2]. In a comparison of retail prices and unit purchase price of various goods according to statistics such as the Consumer Price Index (CPI) and the Family Income and Expenditure Survey conducted by the Ministry of Internal Affairs and Communications, personal consumption is experiencing not only quantitative change but qualitative change as well.

As for retail prices, the regular price of goods of equal quality is continually surveyed over time. In contrast, the unit purchase price is the purchase price by households excluding purchase volume (purchase frequency is taken into consideration to a degree on a portion of this), and is an expression of the average price of goods and services actually purchased by households. Here we find that the extent to which growth in unit purchase price exceeds or falls below growth in retail price determines whether households will be high-price-oriented or low-price-oriented as far at that particular product is concerned.

Chart 6 is a scatter diagram showing a year-to-year comparison of unit purchase prices and retail prices of foods & beverages (excluding eating out). The location of products above or below the dotted line running at a 45 degree angle across the chart indicates whether households are high-price-oriented or low-price-oriented in regard to that particular product. In order to adjust the influence of prices before

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[2] See the DIR report dated 2020 October 2, "*Japan's Economy: Monthly Outlook (Sep 2020)*", by Keiji Kanda, Akane Yamaguchi, and Kazuma Kishikawa .

the coronavirus crisis, the average growth rates for the months of January and February 2020 have been subtracted.

The upper portion of Chart 6 shows the situation in April and May when the state of emergency was in effect, while the lower part of the chart shows the situation from June through August after the state of emergency was lifted. In comparing the upper and lower areas of the chart we see that during the state of emergency households became increasingly high-price-oriented in regard to a broad range of products, including cooked foods, alcoholic beverages, seasonings, tea, coffee and cocoa, and the trend has continued even after the state of emergency was lifted. Furthermore, after the state of emergency was lifted, there was a growing tendency toward higher prices for meat, vegetables, and fruits.
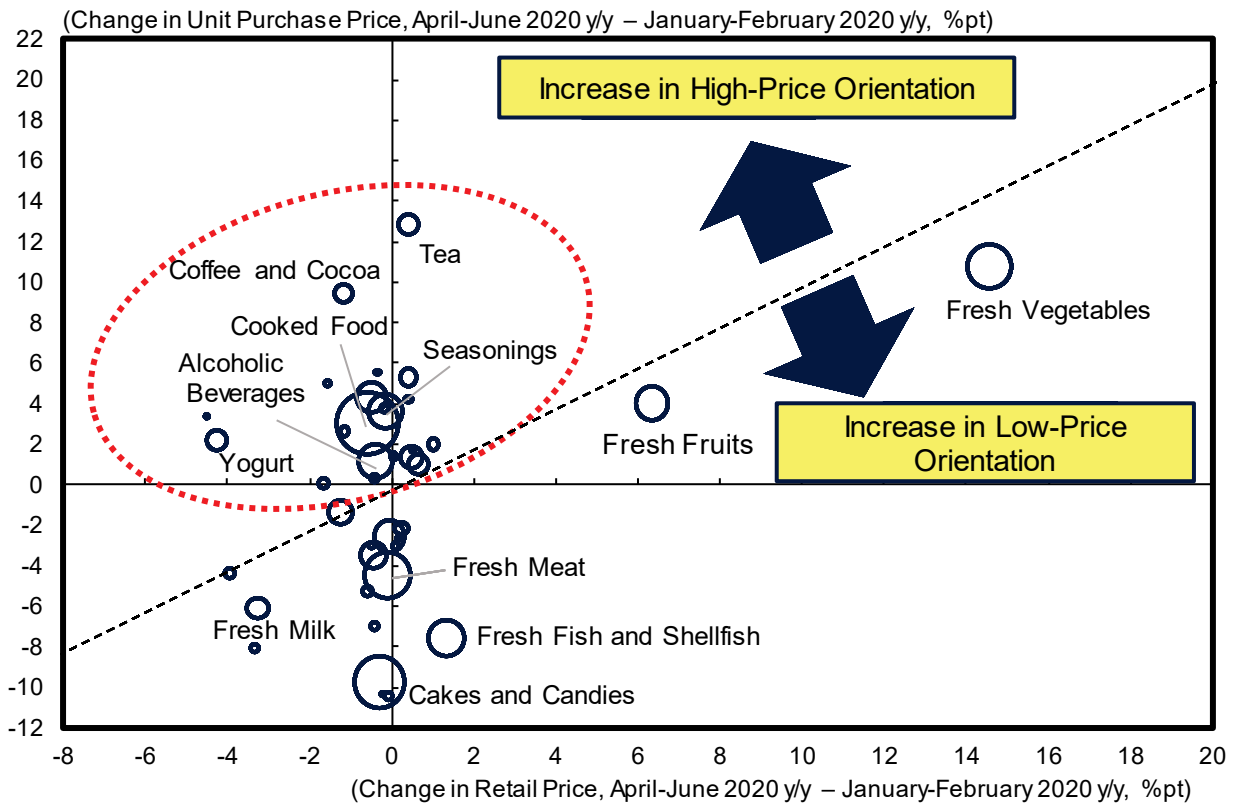
The high-price-orientation of households, the tendency toward so-called "petite luxury", is expected to continue for the time being. Although this may partly be a means of avoiding becoming infected with COVID-19, it is also economical – by reducing the frequency of eating out, in which average expenditure is large, and eating at home instead, average expenditure per meal has decreased in comparison to the period before the coronavirus crisis, even considering the practice of "petite luxury" when eating at home or having cooked foods[3]. In other words, the practice of "petite luxury" associated with the shift from eating out to eating at home and eating ready-made meals is not a factor bringing pressure on living expenses. In addition, the fact that household savings increased significantly in the Apr-Jun period due to the practice of self-restraint in the consumption of services such as travel and leisure, as well as various benefits such as the special fixed benefit, will also be a factor in continuing the "petite luxury" orientation.
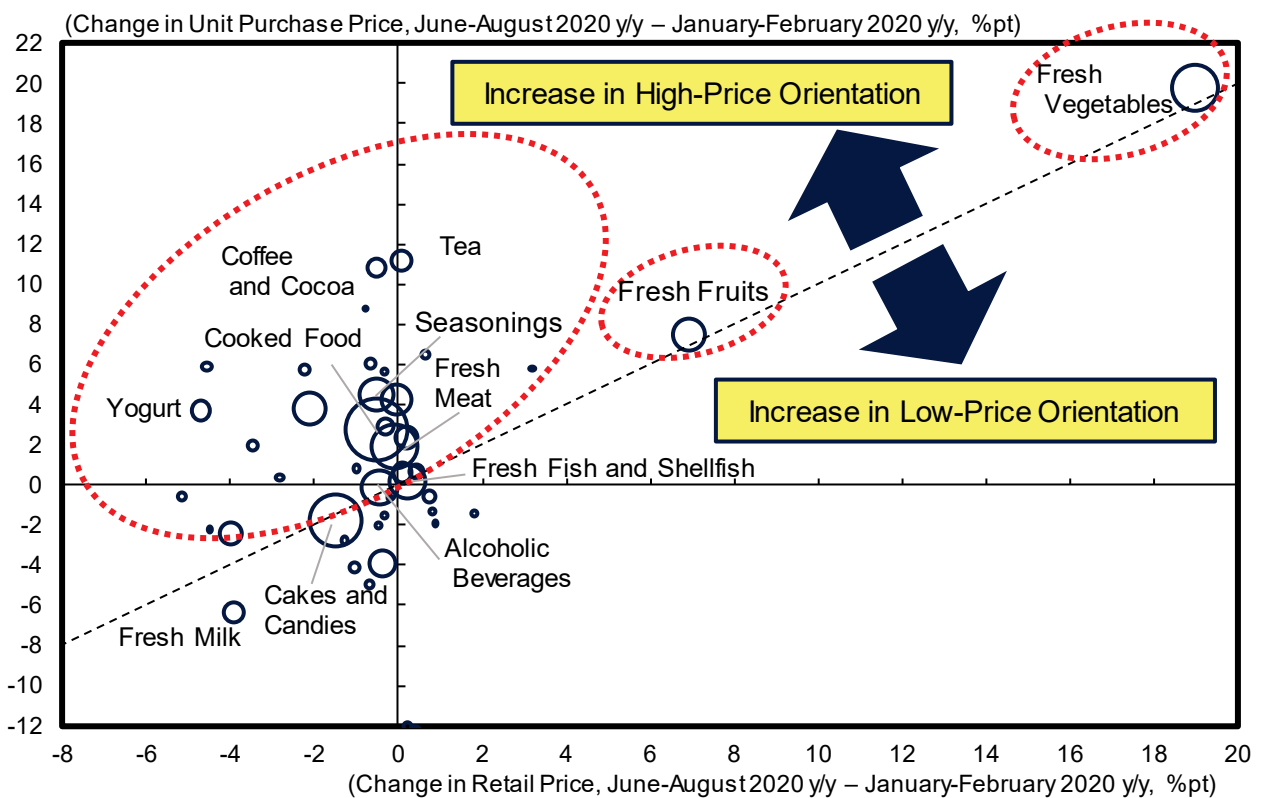
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[3] Eating at home ("eating in") refers to purchasing ingredients and preparing a meal on one's own, while cooked foods or ready-make foods are pre-made meals purchased at a supermarket and then eaten at home.

April – May 2020

(Change in Unit Purchase Price, April-June 2020 y/y – January-February 2020 y/y, %pt)

Increase in High-Price Orientation

Tea

Coffee and Cocoa

Cooked Food

Seasonings

Alcoholic
Beverages

Yogurt

Fresh Vegetables

Fresh Fruits

Increase in Low-Price
Orientation

Fresh Meat

Fresh Milk

Fresh Fish and Shellfish

Cakes and Candies

(Change in Retail Price, April-June 2020 y/y – January-February 2020 y/y, %pt)

June – August 2020

(Change in Unit Purchase Price, June-August 2020 y/y – January-February 2020 y/y, %pt)

Increase in High-Price Orientation

Fresh
Vegetables

Tea

Coffee
and Cocoa

Seasonings

Cooked Food

Fresh
Meat

Yogurt

Fresh Fruits

Increase in Low-Price Orientation

Fresh Fish and Shellfish

Alcoholic
Beverages

Cakes and
Candies

Fresh Milk

(Change in Retail Price, June-August 2020 y/y – January-February 2020 y/y, %pt)

Source: Ministry of Internal Affairs and Communications; compiled by DIR.
Note: The size of the bubbles represents the amount of expenditure (2019).

Recent changes in the structure of consumption may continue into the post-corona era

The question now is will the structure of consumption, which has been transformed by the coronavirus crisis, return to normal once we have entered the post-corona era? In bringing this question into consideration, we need to take into consideration the influence of demography on consumption expected in the future. Here we need to bring the year 2030 into our sights when the post-corona era is expected to arrive.

DIR economist Mikio Mizobata[4] has pointed out that the influence of demographics on consumption can be organized according to three major factors: the age effect, the generation (or age-group) effect, and the effect of the era (or the times). The age effect refers to changes in levels of consumption associated with the life cycle. For instance, one of the factors that will change during one's lifetime is educational expenses. Meanwhile, the generation or age-group effect is also the cause of differences in levels of consumption. For example, the amount of seafood consumed (based on substantial equivalent consumption[5] of a household of two or more people) is about 3,000 yen a month regardless of age in the case of those born in the 1960s, but it is halved to about 1,500 yen a month for persons born in the 1980s. The era effect, or the effect of the times, refers to changes in levels of consumption resulting from current trends. For instance, expenditure on household durable goods such as household electronics has been in a growth trend since around the year 2000, regardless of age or generation.

Based on these characteristics of consumption by item, we estimated the amount of consumption per item per household by age group in 2030. This estimate is based on the assumption that past age-specific consumption patterns (the age effect), generation-specific consumption levels (the generation effect), and general trends (the era effect) will be maintained even ten years from now. The results of this estimate are shown in Chart 7. The rate of increase or decrease in consumption per household in 2030 compared to 2019 varies greatly depending on the expense item. Although the consumption outlook reflects only the effects of demographics, declines are seen in food, clothing and footwear, culture & recreation. On the other hand, consumption of furniture & household utensils, medical care, transportation and communications is expected to grow.

In addition, along with the expected changes in consumption in 2030, Chart 7 illustrates the changes in consumption which occurred during the first half of 2020 during the coronavirus crisis. Foods, furniture & household utensils, surrounded by solid lines, are expenses that have approached the levels of consumption expected in 2030 due to the coronavirus crisis. On the other hand, clothing & footwear and culture & recreation, surrounded by dotted lines, experienced an even large change than the structural change expected in 2030 due to the coronavirus crisis, but are still consistent in that these are expenses which will decline. Looking at foods and furniture & household utensils more closely by item, we find some things in common between the structural change expected in 2030 and the post-corona situation. That is the rise in home-related demand. Expenditure on eating out is expected to decline between now and 2030, while expenditure on cooked foods and beverages is expected to grow. In addition, demand for household electronic products is expected to increase.

Based on the results of these estimates, it is highly likely that changes such as the increase in home-related demand arising from the coronavirus crisis, and the growing tendency toward "petit luxury" in food and drink, while eating out decreases, are not transient phenomena. For some expenses, these developments can be understood as changes in the structure of consumption due to the declining birthrate and aging population which have progressed ahead of schedule due to the coronavirus crisis. In other words, responding to changes in the structure of consumption caused by the coronavirus crisis, including

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[4] See DIR report dated August 10, 2012 entitled "The Transformation of Consumption in a Super-Aging Society" (Japanese only), by Mikio Mizobata. The method of estimating these effects is explained in DIR report dated November 20, 2015 entitled "Outlook for the Consumer Market over the Next Ten Years"(Japanese only) by Mikio Mizobata

[5] Household consumption divided by the square root of household members.

a reconsideration of products & services as well as business models, will enhance corporate sustainability since doing so looks ahead to the economic and social structure ten years from now.

Comparison of 2030 Consumption Reflecting Demographics Only, and Recent Consumption — Chart 7
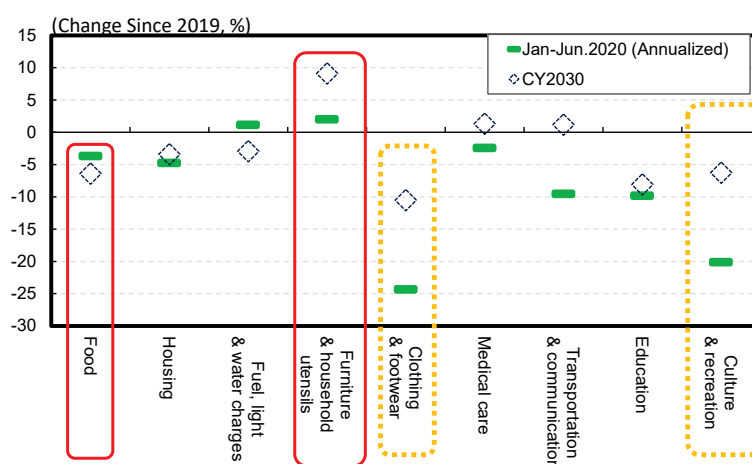
Source: Ministry of Internal Affairs and Communications, National Institute of Population and Social Security Research; compiled by DIR.
Note: Real consumption per household based on total households.

Japan's Economic Outlook No. 206 Update (September 8, 2020) — Chart 8

		2019				2020				2021				2022	FY2019	FY2020	FY2021
		Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	Jan-Mar			
Real GDP	Q/q %; annualized	2.8	1.6	0.2	-7.0	-2.3	-28.1	13.2	4.6	4.6	2.6	1.5	1.3	1.4			
	Y/y	0.8	0.9	1.7	-0.7	-1.8	-9.9	-7.3	-4.5	-3.0	6.1	3.3	2.5	1.7	0.0	-6.1	3.4
Private spending	Q/q %; annualized	0.3	2.1	1.8	-11.0	-2.8	-28.2	19.7	4.1	3.6	2.8	1.2	1.0	1.0	-0.5	-5.8	3.4
Private housing investment	Q/q %; annualized	5.8	-0.6	4.9	-8.7	-15.0	-2.0	-14.4	-5.9	-0.8	0.0	0.4	0.8	1.2	0.6	-7.9	-1.6
Capex	Q/q %; annualized	-1.9	3.3	0.9	-17.6	7.0	-17.5	-1.6	3.4	3.0	1.6	1.2	0.8	1.2	-0.3	-5.4	1.7
Government final consumption	Q/q %; annualized	0.4	4.2	3.4	1.3	0.1	-2.3	1.8	1.0	0.8	0.8	0.7	0.6	0.5	2.3	0.4	0.8
Public investment	Q/q %; annualized	10.2	5.6	4.4	2.5	-1.8	4.6	1.4	1.4	1.9	1.1	2.5	0.5	1.0	3.3	2.1	1.4
Exports	Q/q %; annualized	-6.8	0.6	-2.5	1.6	-19.9	-56.0	24.8	21.6	17.0	7.8	5.3	4.9	4.5	-2.6	-15.5	10.9
Imports	Q/q %; annualized	-16.8	7.3	3.0	-9.4	-15.6	-1.9	1.2	4.9	4.2	3.6	2.6	2.2	1.7	-1.5	-3.5	3.2
Nominal GDP	Q/q %; annualized	5.0	1.9	1.7	-5.7	-1.8	-27.2	10.4	3.6	4.0	2.9	1.9	1.4	1.5	0.8	-6.1	3.1
GDP deflator	Y/y	0.2	0.4	0.6	1.2	0.9	1.3	0.1	-0.4	-0.7	-1.0	-0.2	0.0	0.2	0.8	0.1	-0.2
Industrial production	Q/q	-2.1	0.0	-1.1	-3.7	0.4	-16.9	6.2	2.1	2.3	1.4	1.0	0.6	0.6	-3.7	-13.2	7.0
Core CPI	Y/y	0.8	0.8	0.5	0.6	0.6	-0.1	-0.2	-1.4	-1.7	-0.9	-0.5	-0.2	-0.1	0.6	-0.9	-0.5
Unemployment rate	%	2.5	2.4	2.3	2.3	2.4	2.8	3.3	3.5	3.5	3.4	3.3	3.2	3.1	2.4	3.3	3.3
Trade balance (goods, services)	Y tril; annualized	0.3	-1.2	0.3	1.6	2.5	-7.2	-5.4	-3.2	-1.0	-0.8	-0.3	0.2	0.6	0.7	-4.2	-0.1
Current account balance	Y tril; annualized	19.8	19.4	18.8	21.2	19.4	8.5	10.7	13.4	15.6	16.3	16.9	17.4	18.0	19.7	12.0	17.1
Major assumptions																	
Crude oil price (WTI futures)	$/bbl	54.9	59.9	56.4	56.9	45.8	28.0	40.7	40.0	40.0	40.0	40.0	40.0	40.0	54.7	37.2	40.0
Exchange rate	Yen/$	110.2	109.8	107.3	108.7	108.9	107.6	106.4	106.3	106.3	106.3	106.3	106.3	106.3	108.7	106.6	106.3

Source: Compiled by DIR.
Note: GDP through Apr-Jun 2020: actual; thereafter: DIR estimates.