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# Japan's Economy: Monthly Review

## *Trump's Administration Takes Shape: So What next?*

**Japan's real GDP expected to decline by around -0.4% if US adopts border tax adjustment**

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### Summary

- **Economic outlook revised:** In light of the 1st preliminary Oct-Dec 2016 GDP release (Cabinet Office) we have revised our economic growth outlook. We now forecast real GDP growth of +1.3% in comparison with the previous year for FY16 (+1.3% in the previous forecast), and +1.3% in comparison with the previous year for FY17 (+0.9% in the previous forecast). We have also produced an estimate for FY18 for the first time, at +1.1% in comparison with the previous year. Japan's economy is expected to shift into a path of balanced growth in the future due to the following factors: (1) a comeback for exports, (2) progress in inventory adjustment, and (3) a recovery in domestic demand supported by a steady undertone in consumption and capex. (For details see *Japan's Economic Outlook No. 192 (Summary)*, February 24, 2017, by Mitsumaru Kumagai.)
- **Trump's Administration Takes Shape: So What next?:** The Trump administration was formed in January 2017 and immediately began testing the waters in three areas as follows (1) shifting to protectionist policies in trade, (2) immigration policy, and (3) currency strategy. Our conclusions regarding the possible effects of Trump's policy focus on the following three points. First, if the only big change the US makes in policy is to withdraw from NAFTA, there would be only minor effects on Japan's economy. But if adjustments are made to the border tax, this could cause Japan's real GDP to decline as much as -0.4%. Secondly, if two or three million illegal immigrants are forcibly returned to their countries of origin, a decline in worker population in the US would result, creating the risk of a decline in US potential GDP anywhere from -0.7% to -1.1%. Thirdly, though there is a very good possibility that the dollar will remain strong for the short-term, in the mid to long-term, President Trump could go all the way with a weak dollar policy once fears of inflation subside.
- **Risk factors facing Japan's economy:** Risk factors for the Japanese economy are: (1) The policies of President Donald Trump, (2) The downward swing of China's economy, (3) Tumult in the economies of emerging nations in response to the US exit strategy, (4) Risk-off behavior of investors due to geopolitical risk and country risk, and (5) Negotiations regarding the UK's withdrawal from the EU (Brexit), and deleveraging at EU financial institutions.

# 1. Japan's Main Economic Scenario

## *Japan's economy moves toward balanced growth*

In light of the 1st preliminary Oct-Dec 2016 GDP release (Cabinet Office) we have revised our economic growth outlook. We now forecast real GDP growth of +1.3% in comparison with the previous year for FY16 (+1.3% in the previous forecast), and +1.3% in comparison with the previous year for FY17 (+0.9% in the previous forecast). We have also produced an estimate for FY18 for the first time, at +1.1% in comparison with the previous year. Japan's economy is expected to shift into a path of balanced growth in the future due to the following factors: (1) a comeback for exports, (2) progress in inventory adjustment, and (3) a recovery in domestic demand supported by a steady undertone in consumption and capex. (For details see *Japan's Economic Outlook No. 192 (Summary)*, February 24, 2017, by Mitsumaru Kumagai.)

## *Real GDP growth rate for Oct-Dec 2016 grew by +1.0% q/q annualized (+0.2% q/q)*

The real GDP growth rate for Oct-Dec 2016 (1st preliminary est) grew by +1.0% q/q annualized (+0.2% q/q), coming in pretty much according to market consensus (+1.0% q/q annualized, +0.3% q/q). Looking at results by source of demand, we see that positive contributions came from growth in capex, housing investment, government consumption, exports, and imports (note: growth in imports is a negative contribution to growth rate). Meanwhile, declines were experienced in personal consumption, public investment, and fluctuations in private sector inventory. All in all, performance was favorable, with the deflator increasing the extent to which it has expanded. However, caution is still required since the major source of growth was in overseas demand with domestic demand contributing -0.0%pt, and rising import prices caused terms of trade to deteriorate, hence caution is required.

## *Moderate recovery expected for Japan's economy, but risk of possible downturn remains*

We expect Japan's economy to continue in a moderate expansion phase. However, caution is required even as overseas demand continues its gradual expansion. If the world economy becomes more uncertain in the future, this could cause domestic demand to stagnate, and to become a negative factor bringing downward pressure on Japan's overall economy. A further risk is the expectation that the US Fed will increase interest rates, causing a slowdown in the US economy or capital outflow from the emerging nations. Meanwhile, the future of the world economy becomes increasingly uncertain with US President Donald Trump moving the country more toward protectionism, declaring a withdrawal of the US from the TPP agreement, and calling for renegotiation of NAFTA with a possible future withdrawal. These are all risk factors which could bring negative pressure on Japan's economic growth, which is driven by overseas demand.

Personal consumption is expected to continue in a moderate expansion phase. The supply of labor remains tight, and this should provide underlying support for personal consumption through growth in employee compensation. However, the one worrisome point is that the CPI has been on the rise since last fall due to rising prices of fresh foods. Meanwhile, the government is encouraging corporations to increase base salary rates during the annual spring labor offensive this year. However, many corporations, which are becoming worried about future business performance, are taking the stance that they will raise annual salaries but not monthly wages. Keeping in mind the influence of prices, if real wages begin to stagnate, households will likely tighten the purse strings.

Meanwhile, housing investment is expected to gradually slow down. Interest on housing loans remains low, and therefore should provide continued underlying support. However, housing starts, which had rapidly expanded with the expectation that there would be a rush to purchase homes before the additional increase in consumption tax originally planned for April 2017, are expected to decrease in the future, especially for condominiums in urban areas, and housing investment is also expected to

begin declining after that point. Housing starts now appear to be close to peaking out, hence housing investment, which is recorded on the basis of construction work-in-progress, stands a good chance of following in the wake of housing starts and weakening as well.

Capex is expected to see gradual growth. The supply of labor continues to be tight, and this should provide underlying support for investment in labor-saving and rationalization due to the continuing labor shortage in the non-manufacturing industries. Meanwhile, research & development expenses, which were to be recorded after the Jul-Sep period 2nd preliminary report, should also be a factor pushing up capex spending. However, it is important to be aware that although corporate earnings remain at a high level, this is due merely to the decline in input cost and not growth in volume. A more substantial increase in capex spending would be dependent on an increase in operating rate, backed by expansion of overseas demand.

Public investment is expected to move toward a comeback as we approach the fiscal year-end. The government's second supplementary budget, which includes economic policy measures, should gradually provide more upward pressure for public investment.

As for exports, with overseas economies continuing moderate growth, we can expect exports to maintain a firm undertone, centering on consumer goods. Looking at exports of goods by region, consumer goods are expected to maintain a strong undertone in the US, EU, and Asia backed by improvements in employment environment, the effects of monetary easing, and favorable personal consumption in all regions. However, with US President Donald Trump moving the country more toward protectionism, declaring a withdrawal of the US from the TPP agreement, and calling for renegotiation of NAFTA with a possible future withdrawal, caution is required. If the US becomes extremely protectionist in its trade policy, it could cause world trade to stagnate. We expect this to remain as a mid to long-term risk factor. If trade friction with the US comes to the surface, Japan's export industries, especially the automobile industry, would likely take a serious hit.

### ***Risk factors facing Japan's economy***

Risk factors for the Japanese economy are: (1) The policies of President Donald Trump, (2) The downward swing of China's economy, (3) Tumult in the economies of emerging nations in response to the US exit strategy, (4) Risk-off behavior of investors due to geopolitical risk and country risk, and (5) Negotiations regarding the UK's withdrawal from the EU (Brexit), and deleveraging at EU financial institutions.

## 2. Trump's Administration Takes Shape. So what Next?

The Trump administration was formed in January 2017 and immediately began moving on aggressively taking action on major campaign promises. This included withdrawing permanently from the TPP, renegotiating NAFTA and possibly pulling out in the future, and announcing measures to limit immigration from Islamic countries. The basis of Trump's actions is his declaration that he will prioritize the interests of the US over other countries as inferred by his well-known *America First* motto. Our question here is how the Trump administration's *America First* policy will affect the world economy. In this chapter we examine three areas where we believe economic effects will be the greatest. These are: (1) shifting to protectionist policies in trade, (2) immigration policy, and (3) currency strategy.

Our conclusions regarding the possible effects of Trump's policy focus on the following three points.

First, if the only big change the US makes in policy is to withdraw from NAFTA, there would be only minor effects on Japan's economy. But if adjustments are made to the border tax, this could cause Japan's real GDP to decline as much as -0.4%.

Secondly, if two or three million illegal immigrants are forcibly returned to their countries of origin, a decline in worker population in the US would result, creating the risk of a decline in US potential GDP anywhere from -0.7% to -1.1%.

Thirdly, though there is a very good possibility that the dollar will remain strong for the short-term, in the mid to long-term, President Trump could go all the way with a weak dollar policy once fears of inflation subside.

### 2.1 Point (1) How will US shift to protectionist policies effect the world economy?

#### *Why Trump attacks the US/Japan auto industry*

President Trump has called trade with Japan unfair to the US. As an example of this unfairness he has used the Japanese auto industry to make his point. In actual fact, after having gone through years of US/Japan trade friction during the 1980s, Japanese auto manufacturers gradually shifted to local production in the US, hiring Americans at their factories there. But Trump is now pressing Japanese auto makers to increase employment and production in the US even more. He has also verbally attacked major American auto makers, convincing Ford to abort its plans to build a factory in Mexico and to increase production in the US.

If demand for American-made automobiles were actually to expand, how much of a multiplier effect could the US economy expect? According to the input-output table of US industry, if 1-unit of demand were to be generated for the US automobile and related industries, we could expect new demand of 3.1-units to then be generated for automobiles and other related industries (Chart 1, left side). Of this, just under half of said demand would be generated within the auto industry itself, while the remainder would be demand generated in other industries, including base metals, wholesale & retail, and research & development (Chart 1, right side).

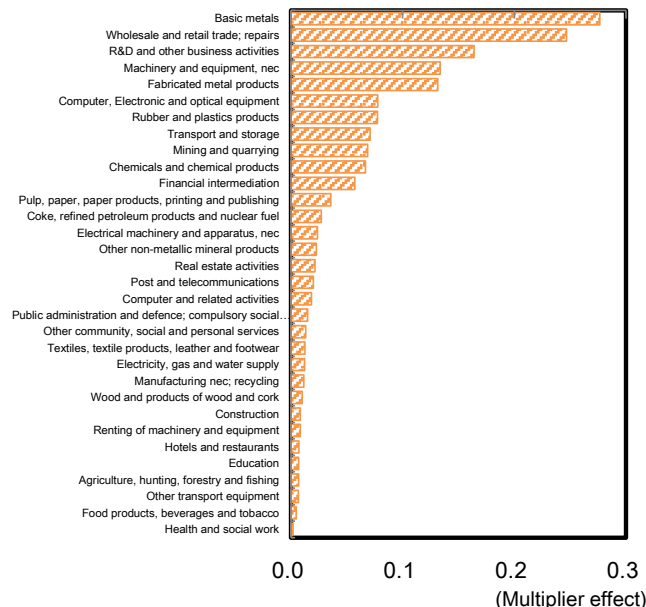
Chart 1 (left) shows that in comparison to other industries, the auto industry has a major multiplier effect on the US economy. In other words, the automobile and related industries have an especially large footprint with wide-ranging influence, hence growth in demand in this industry has a positive effect on the entire US economy.

In conclusion, it can be inferred that, while US consumers may ultimately be left holding the bag in the form of critical issues such as an increase in living expenses due to price hikes in the mid to long-term, in the short-term, increasing US production would create jobs for Americans, handing Trump a big win, since he can show the public that he is producing quick results – and herein lies the true reason for Trump’s continued verbal attacks.

**Multiplier Effect by Industry in US (Left), and Multiplier Effect of Auto and Related Industries (Right)**  
**Chart 1**



Source: OECD; compiled by DIR.  
 Note: As of 2011 (CY).



Source: OECD; compiled by DIR.  
 Note: As of 2011 (CY).

***Of all the trade agreements the US has signed, NAFTA is the only one which has produced results***

After WWII most of the world’s nations accepted the concept of free trade, signing bilateral and multilateral trade agreements. The result has been that the world economy has become increasingly globalized. However, Trump has shown an overall negative viewpoint toward trade liberalization ever since his presidential campaign. One stance that has been symbolic of this approach has been his statement that he would permanently withdraw the US from the TPP agreement. At the same time, he also stated that he would renegotiate the NAFTA agreement and possibly withdraw in the future.

NAFTA is a free trade agreement signed between the US, Canada and Mexico in 1994. The US Congressional Budget Office issued an analysis of the effects of the trade agreement in September 2016. According to this analysis it is estimated that between 1994 and 2005, NAFTA accounted for 6.5% of growth in trade between the US and Canada, and 48.6% of growth in trade between the US and Mexico. It also accounted for 24.4% of growth in trade involving all three members (US, Canada and Mexico). Based on the results of this analysis, the report concludes that of all the trade agreements the US has signed, NAFTA is the only one which has produced results. It has especially contributed to the increase in trade between the US and Mexico.<sup>1</sup>

***It is estimated that withdrawal from NAFTA will cause declines of around -0.34% and -0.58% in the Canadian and Mexican economies respectively***

Chart 2 shows the results of DIR estimates based on the results of the CBO analysis of the effects on the Canadian and Mexican economies in the case that the US withdraws from NAFTA.

<sup>1</sup> “How Preferential Trade Agreements Affect the U.S. Economy,” CBO, September 2016

If the US were to withdraw from NAFTA, the first thing that would happen is that tariff rates on Canadian and Mexican exports to the US (currently at 0%) would be raised, and exports from those countries to the US could decline. Secondly, tariff rates on US goods exported to those two countries would naturally increase, and it is quite possible that therefore imports of US goods into those countries would also decline. Finally, import prices would rise in Canada and Mexico due to higher tariffs, and this would bring a decline in real income, which would in turn bring downward pressure on consumption. Considering these effects, it is estimated that Canada and Mexico would experience declines in real GDP of around -0.34% and -0.58% respectively.

According to the results of our estimates, Mexico's economy will incur the greatest effect in terms of net exports if the US withdraws from NAFTA. These findings are consistent with those of the above mentioned CBO analysis, which also finds Mexico to have attained the greatest economic benefit of the three members from the time NAFTA was first implemented.

**Estimated Effects on Canadian and Mexican Economies if US Withdraws from NAFTA** **Chart 2**

|                         | Effect on Canadian Economy |                      |         |         | Effect on Mexican Economy |                      |         |         |
|-------------------------|----------------------------|----------------------|---------|---------|---------------------------|----------------------|---------|---------|
|                         | Real GDP                   | Personal Consumption | Exports | Imports | Real GDP                  | Personal Consumption | Exports | Imports |
| No US Govt. Expenditure | ▲ 0.34                     | ▲ 0.40               | ▲ 0.21  | ▲ 0.11  | ▲ 0.58                    | ▲ 0.67               | ▲ 0.33  | ▲ 0.17  |
| US Govt. Expenditure    | ▲ 0.34                     | ▲ 0.40               | ▲ 0.19  | ▲ 0.11  | ▲ 0.57                    | ▲ 0.67               | ▲ 0.30  | ▲ 0.17  |

Source: Compiled by DIR.

Note: Unit: %. Rate of deviation from actual value. Indicates whether or not government expenditure was carried out in association with increased tariff rates. Estimates according to the DIR short-term macro model. Results of estimates should be taken with a certain grain of salt.

### ***Will withdrawing from NAFTA have a positive effect on the US economy?***

Next we look at the results of estimates indicating the effect that withdrawing from NAFTA will have on the US economy (Chart 3, left side). Our conclusion is that withdrawing from NAFTA will not have as much of a positive effect as President Trump claims.

First we examine this question from the viewpoint of external demand. Since tariffs will be raised, import prices will increase as well, so imports stand a good chance of declining. Secondly, tariffs levied on US goods exported to Canada and Mexico will also be raised, so US exports to those countries will likely decline. Thirdly, domestic demand will decline since personal consumption will be weighed down by rising consumer prices as a result of higher import prices. And finally, domestic capital expenditure will be negatively affected by fluctuations in personal consumption and net exports. To sum up all of these affects we next look at GDP and find that withdrawing from NAFTA will cost the US the risk of around -0.10% in downward pressure on real GDP.

At the same time, however, there will also be an increase in tax revenue as a result of raising tariffs on imported goods, and if government expenditure goes toward investment in infrastructure as a means of creating more demand, this will change the equation. In this case, there is a possibility that US real GDP could grow by around +0.02%. And if we consider the effect of growth in demand resulting from government expenditure, the negative effects on the Canadian and Mexican economies could also soften somewhat (see bottom row of Chart 2).

### ***US withdrawal from NAFTA expected to have only minor effect on Japan's overall economy***

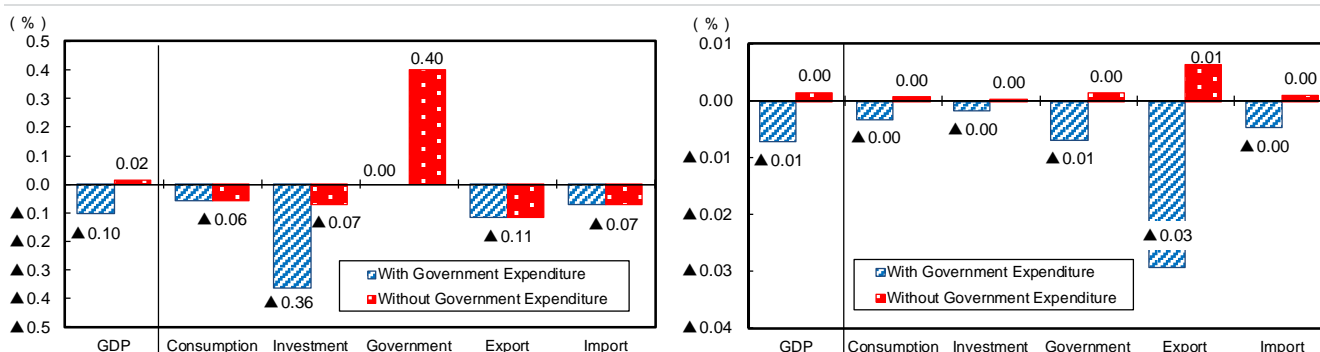
Next we look at the results of estimates indicating the effect that US withdrawal from NAFTA will have on the Japanese economy (Chart 3, right side). For Japanese industries such as the auto industry, which have numerous production sites in Mexico, US withdrawal from NAFTA carries the risk of higher tariffs being levied on their products. In addition, Japanese manufacturers will feel forced to

move their production facilities to the US, creating yet more costs. However, the negative effects on Japan's economy overall are expected to be limited.

According to our estimates, Japan's real GDP could experience downward pressure of around -0.01% as a result of the decline in exports which would result from the expected US economic slowdown. On the other hand, we estimate that if the US government increases expenditure, Japan's economy would mark time at +0.00%. In conclusion, even if the US withdraws from NAFTA, Japan's economy stands a good chance of suffering only minor effects.

**Estimated Effects on US Economy if it Withdraws from NAFTA (Left), Estimated Effects on Japan's Economy (Right)** Chart 3

| Dir Bil                | Real GDP | Personal Consumption | Capex   | Govt Expenditure | Exports | Imports | Yen Bil                | Real GDP | Personal Consumption | Housing Investment | Capex  | Exports | Imports |
|------------------------|----------|----------------------|---------|------------------|---------|---------|------------------------|----------|----------------------|--------------------|--------|---------|---------|
| No US Govt Expenditure | ▲ 17.15  | ▲ 6.46               | ▲ 10.17 | 0.00             | ▲ 2.44  | ▲ 1.91  | No US Govt Expenditure | ▲ 35.31  | ▲ 9.38               | ▲ 0.26             | ▲ 5.46 | ▲ 24.39 | ▲ 4.17  |
| US Govt Expenditure    | 2.79     | ▲ 6.46               | ▲ 1.97  | 11.75            | ▲ 2.44  | ▲ 1.91  | US Govt Expenditure    | 7.71     | 2.05                 | 0.06               | 1.19   | 5.32    | 0.91    |



Source: Compiled by DIR.

Note: Rate of deviation from actual value. Figures in the table are monetary values. Indicates whether or not government expenditure was carried out in association with increased tariff rates. Estimates according to the DIR short-term macro model. Results of estimates should be taken with a certain grain of salt.

**Adoption of border tax adjustment expected to have negative effect on Japan's economy due to decline in exports**

The main factor leading to the conclusion that Japan's economy will take a major hit due to the adoption of protectionist policies on trade by the US is the case in which the US decides to adopt a border tax adjustment. To explain the border tax adjustment in simple terms, while corporations would get a tax exemption on export goods, they would be taxed on imported goods. The Republican Party is considering a tax rate of as much as 20% on imports. If this system is actually adopted, a high tax rate is expected to be levied on goods imported from Japan.

In examining the effects of introducing a border tax adjustment, one of the important factors is the question of where the imported item was processed or fabricated. In other words this is the question of whether the item has added value. According to the border tax adjustment method, if all fabrication and processing of an item has taken place outside the US, a tax rate of 20% is levied. For example, let's say an item is 50% processed before being exported to country A where final processing takes place, after which it is reimported to the US. In this case a tax rate of 10% is levied (= 20% x 50%).

Based on the above, we now perform a calculation using TiVa index of value added trade, issued by both the OECD and the WTO. According to the index, the added value ratio of goods imported into the US which has taken place outside the US is 76%. Now we perform a calculation assuming 15% tax on said imported goods (a border tax adjustment rate of 20% levied on the added value ratio of 76%). Meanwhile, we use the same method to calculate the tax rate levied on imported Japanese goods, which leaves us with tax of 17%.

Chart 4 (left) shows the effects of adopting a border tax adjustment on the US economy. Since adopting a border tax causes import prices to rise, personal consumption is inhibited. In addition, capital expenditure is negatively affected due to the decline in domestic demand. The results of our estimates also indicate that US real GDP would incur downward pressure of around -2.2%. However, as in the case of our NAFTA estimates, there would also be growth in tax revenues, and if this is translated into government expenditure, growth in demand would be generated, thereby absorbing the negative effects of the border tax adjustment. This could possibly bring upward pressure of up to around +1.7% on US real GDP.

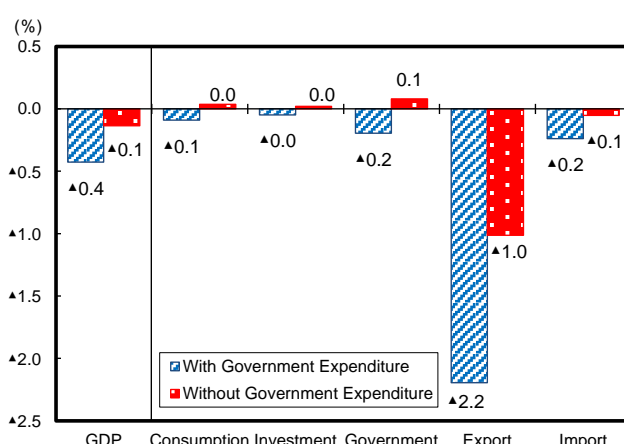
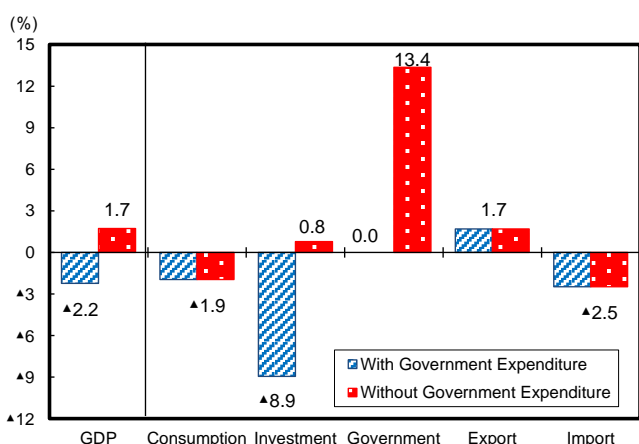
The effects of adopting a border tax adjustment on Japan's economy are shown on the right side of Chart 4. The greatest impact would of course be on exports. Exports would decline by around -2.2% due to the rising export price and the shrinking world economy, and Japan's real GDP is expected to fall by around -0.4%. Meanwhile, even if US government expenditure increases, it will not be able to avoid the decline in exports stemming from the increase in export price, therefore Japan's real GDP is estimated to decline by around -0.1%.

**Estimated Effects on US Economy if it Adopts a Border Tax Adjustment (Left), Estimated Effects on Japan's Economy (Right)** Chart 4

| Dir Bil                | Real GDP | Personal Consumption | Capex  | Govt Expenditure | Exports | Imports |
|------------------------|----------|----------------------|--------|------------------|---------|---------|
| No US Govt Expenditure | ▲371.1   | ▲224.5               | ▲249.2 | 0.0              | 36.2    | ▲66.4   |
| US Govt Expenditure    | 288.7    | ▲224.5               | 21.9   | 388.7            | 36.2    | ▲66.4   |

| Yen Bil                | Real GDP | Personal Consumption | Housing Investment | Capex | Exports | Imports |
|------------------------|----------|----------------------|--------------------|-------|---------|---------|
| No US Govt Expenditure | ▲2,041   | ▲268                 | ▲7                 | ▲156  | ▲1,824  | ▲214    |
| US Govt Expenditure    | ▲619     | 110                  | 3                  | 64    | ▲842    | ▲46     |



Source: Compiled by DIR.

Note: Rate of deviation from actual value. Figures in the table are monetary values. Indicates whether or not government expenditure was carried out in association with increased tariff rates. Estimates according to the DIR short-term macro model. Results of estimates should be taken with a certain grain of salt.

**Can the high tax rate on imported products be offset by a weak yen/strong dollar situation?**

As was indicated in the previous section, if the US were hypothetically to levy a high tax rate on goods imported from Japan, such as would be the case in the border tax adjustment method, the Japanese economy would incur major negative effects. However, if a weak yen/strong dollar situation on the foreign exchange market ensues due to the economic slowdown which Japan could expect, then the negative effects of raising the tax rate on imported goods could be offset somewhat.

Chart 5 imagines such a case, and provides estimates of the effect of fluctuations in the yen/dollar exchange rate and tax rates on goods imported to the US on Japan's net exports. These estimates only look at the effect of fluctuations in tax rates and foreign exchange rates on the export price, which in turn brings fluctuations in net exports. This chart does not take into consideration factors such as world economic slowdown which would also cause Japan's exports to decline.

The higher taxes levied on goods imported to the US get (moving from left to right in the chart) the more US import prices increase, thereby causing Japan's exports to decline. On the other hand, the



weaker the yen gets (moving upwards in the chart) the more Japan's export prices fall, thereby providing a boost to exports.

If, hypothetically, a border tax adjustment rate of the level mentioned in the previous section were to be levied on Japan's exports to the US (a tax rate of 17% on goods imported to the US from Japan), assuming there are no fluctuations in the yen/dollar exchange rate, Japan's net exports would decline by around the middle of the -0.2% level according to our estimates. Then, in order to offset the effects of the increase in tax rate using a weak yen/strong dollar situation, the yen/dollar exchange rate has to remain at around 15% on the low side for the yen and on the high side for the dollar.

To obtain data for this section, we estimated the impact on the economies of various countries of the world assuming the US adopts protectionist trade policies. In order to perform our calculations we had to make many assumptions. Therefore, results should be taken with more than a grain of salt due to their hypothetical nature.

**Estimated Effects of Yen/Dir Rate and Fluctuations in Tax Rate on Goods Imported to US on Japan's Net Exports** Chart 5

| Current Tax Rate                 |        | Tax Rate Hike on Imported Goods |        |        |        |        |        |        |        |
|----------------------------------|--------|---------------------------------|--------|--------|--------|--------|--------|--------|--------|
|                                  |        | 0%                              | 5%     | 10%    | 15%    | 20%    | 25%    | 30%    | 35%    |
| Weak Yen<br>↑<br>↓<br>Strong Yen | 30%    | 0.41                            | 0.36   | 0.31   | 0.27   | 0.22   | 0.17   | 0.12   | 0.07   |
|                                  | 25%    | 0.34                            | 0.29   | 0.24   | 0.19   | 0.14   | 0.09   | 0.03   | ▲ 0.02 |
|                                  | 20%    | 0.27                            | 0.22   | 0.16   | 0.11   | 0.05   | 0.00   | ▲ 0.05 | ▲ 0.11 |
|                                  | 15%    | 0.20                            | 0.15   | 0.09   | 0.03   | ▲ 0.03 | ▲ 0.09 | ▲ 0.14 | ▲ 0.20 |
|                                  | 10%    | 0.14                            | 0.07   | 0.01   | ▲ 0.05 | ▲ 0.11 | ▲ 0.17 | ▲ 0.23 | ▲ 0.29 |
|                                  | 5%     | 0.07                            | 0.00   | ▲ 0.06 | ▲ 0.13 | ▲ 0.19 | ▲ 0.26 | ▲ 0.32 | ▲ 0.38 |
|                                  | 0%     | 0.00                            | ▲ 0.07 | ▲ 0.14 | ▲ 0.20 | ▲ 0.27 | ▲ 0.34 | ▲ 0.41 | ▲ 0.48 |
|                                  | 5%     | ▲ 0.07                          | ▲ 0.14 | ▲ 0.21 | ▲ 0.28 | ▲ 0.35 | ▲ 0.43 | ▲ 0.50 | ▲ 0.57 |
|                                  | 10%    | ▲ 0.14                          | ▲ 0.21 | ▲ 0.29 | ▲ 0.36 | ▲ 0.44 | ▲ 0.51 | ▲ 0.59 | ▲ 0.66 |
|                                  | 15%    | ▲ 0.20                          | ▲ 0.28 | ▲ 0.36 | ▲ 0.44 | ▲ 0.52 | ▲ 0.60 | ▲ 0.67 | ▲ 0.75 |
| 20%                              | ▲ 0.27 | ▲ 0.35                          | ▲ 0.44 | ▲ 0.52 | ▲ 0.60 | ▲ 0.68 | ▲ 0.76 | ▲ 0.84 |        |
| 25%                              | ▲ 0.34 | ▲ 0.43                          | ▲ 0.51 | ▲ 0.60 | ▲ 0.68 | ▲ 0.77 | ▲ 0.85 | ▲ 0.94 |        |
| 30%                              | ▲ 0.41 | ▲ 0.50                          | ▲ 0.59 | ▲ 0.67 | ▲ 0.76 | ▲ 0.85 | ▲ 0.94 | ▲ 1.03 |        |

Source: Compiled by DIR.

Note: Unit: %. Rate of deviation from actual value. Estimates according to the DIR short-term macro model. Results of estimates should be taken with a certain grain of salt.

## 2.2 Point (2) Effects of Forced Repatriation of Illegal Immigrants

### *Inflation pressure arising from forced repatriation of illegal immigrants limited for the time being*

In a television interview in November 2016 then presidential candidate Donald Trump claimed that of the 11 million illegal immigrants said to be residing in the US, 2-3 million have a criminal record, and that he would have them all forcibly repatriated. In concrete terms, many points remain unclear in Trump's immigration policy. However, we feel that it is important to make note of certain effects which are likely to arise as a result of forced repatriation: (1) Inflation pressure could occur due to the tight labor market which would ensue, and (2) The US potential growth rate could incur downward pressure as a result of the decline in labor input.

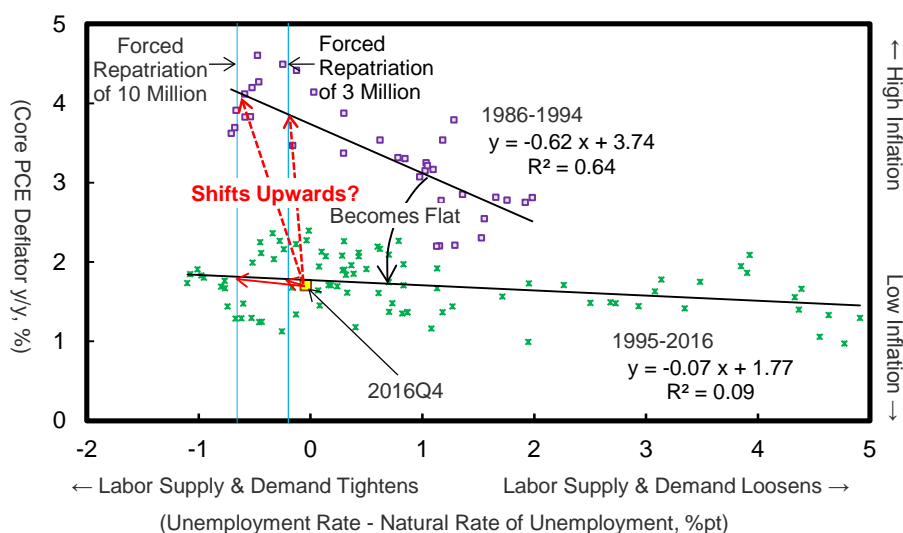
First we look at number (1). Chart 6 shows the relationship between unemployment rate – natural rate of unemployment, which indicates the supply & demand situation in the labor market, and the core PCE deflator, which tells us something about prices, which is an important factor facing households.

The natural rate of unemployment denotes long-run equilibrium, or in other words the steady-state condition of unemployment. When unemployment rate – natural rate of unemployment becomes smaller, this denotes that supply & demand for labor is getting tighter. When this happens there is also a tendency for wages to increase, and inflation pressure can also easily occur. The downward sloping curve of these two factors is therefore notable. During the latter 1980s and the mid-1990s these factors showed a clearly downward slope. However, they have been flat since the latter 1990s. It is difficult for the inflation rate to grow in this situation.

The forced repatriation of illegal immigrants would lead to a decline in the number of workers living in the US, and this would make the labor market even tighter than it is now. Here we consider two hypothetical situations for the purpose of our calculation of unemployment rate – natural rate of unemployment. One is that 3 million illegal immigrants are deported and the second assumes that 10 million are deported. Figures resulting are -0.2%pt and -0.7%pt respectively. Both show a tightening of the labor market (a shift to the left). However, considering the currently flat Phillips curve, this suggests that inflation pressure would be limited for some time. On the other hand, in the mid to long-term, the Phillips curve could possibly shift upwards as a result of President Trump's policies. In this case, there would be risk of a rising inflation rate due to the tightening supply & demand situation for labor.

**Forced Repatriation of Illegal Immigrants and Inflation Rate (Phillips Curve for Labor Supply & Demand)**

Chart 6



Source: BEA, BLS, CBO, and Haver Analytics; compiled by DIR.

Notes: 1) Unemployment rate – natural rate of unemployment leads by 3-quarters.

- 2) Our two hypothetical cases of forced repatriation of illegal immigrants (3 million and 10 million) were estimated based on the following assumptions: (1) the labor force declines as a result, (2) the number of unemployed decreases due to forced repatriation of illegal immigrants (we use the unemployment rate for foreign born workers as the figure by which unemployment decreases), (3) Unemployed persons who are not immigrants move into employment and replace immigrants who have left, and (4) we assume that the natural rate of unemployment remains fixed at its most recent level. Results of estimates should be taken with more than a grain of salt.

### ***Forced repatriation of 2-3 million illegal immigrants would cause potential GDP to decline by around -0.7% to -1.1%***

The second issue mentioned at the beginning of this chapter is that US potential growth rate could incur downward pressure as a result of the decline in labor input. Forced repatriation of illegal immigrants will of course cause the population of workers to decline, and this brings the risk of decline in potential GDP which indicates the US economy's fundamental strength. Chart 7 shows the effects of a decline in the worker population on potential GDP based on the Cobb-Douglas production function. This function is made up of three important factors: (1) Labor input, consisting of number of employees and hours worked, (2) Capital inputs, such as production facilities, and (3) Total factor

productivity (TFP), which includes factors such as technical advances. The Trump administration's immigration policy and its plans for infrastructure investment both require an increase in capital inputs while labor inputs decrease. This is a formula for producing negative effects on potential growth rate.

In this section we consider the effects of forced repatriation of illegal immigrants on labor inputs. According to our estimates, forced repatriation of 2-3 million illegal immigrants would cause potential GDP to decline by around -0.7% to -1.1%. If labor force participation by American citizens progresses as a means of replacing illegal immigrants who have left, the negative effects might be eased somewhat. Plus the kinds of job categories that illegal immigrants fill tend to be low in labor productivity. Considering these two factors it may be necessary to take the figures in the chart below with a certain grain of salt. However, if we take into account that the Pew Research Center's 2014 findings estimate the ratio of US labor force population accounted for by illegal immigrants at around 5%, we must acknowledge the fact that certain aspects of the US labor force population are supported by illegal immigrants. We therefore urge caution regarding the possibility that a certain amount of downward pressure on US potential GDP could occur due to the decline in worker population which would result if the Trump administration decides to carry out forced repatriation of several million illegal immigrants all at once.

At the same time, however, infrastructure investment which is supported by the Trump administration would be a plus for potential GDP due to the increase in capital stock that would result. Based on the structure of current potential GDP, if capital stock is increased by around 1.5%, it would just about offset the negative effects of forced repatriation of 2 million illegal immigrants. Considering price fluctuations as a constant, this would be the equivalent of approximately 800 billion dollars in nominal net capital. President Trump just recently announced his plan for infrastructure investment of one trillion dollars. In addition to an increase in labor force participation by American citizens, infrastructure investment will also bring about growth, and this would offset the negative effects of forced repatriation of illegal immigrants, while at the same time promising to have the effect of pushing up US potential GDP.

Effects of Forced Repatriation of Illegal Immigrants on US Potential GDP

Chart 7

|                         |       | ← Decline in Immigrants    Change in No. of Illegal Immigrants (unit: 10,000)    Growth in Immigrants → |      |      |      |      |      |     |     |     |
|-------------------------|-------|---|------|------|------|------|------|-----|-----|-----|
|                         |       | -800  | -600 | -400 | -200 | 0    | 200  | 400 | 600 | 800 |
| ↓ Decline in Investment | -2.0% | -3.8  | -3.1 | -2.4 | -1.6 | -0.9 | -0.2 | 0.6 | 1.3 | 2.1 |
|                         | -1.5% | -3.6  | -2.9 | -2.1 | -1.4 | -0.7 | 0.1  | 0.8 | 1.6 | 2.3 |
|                         | -1.0% | -3.4  | -2.7 | -1.9 | -1.2 | -0.4 | 0.3  | 1.0 | 1.8 | 2.5 |
|                         | -0.5% | -3.2  | -2.4 | -1.7 | -1.0 | -0.2 | 0.5  | 1.3 | 2.0 | 2.7 |
| Real Net Capital        | 0%    | -3.0  | -2.2 | -1.5 | -0.7 | 0.0  | 0.7  | 1.5 | 2.2 | 3.0 |
|                         | 0.5%  | -2.7  | -2.0 | -1.3 | -0.5 | 0.2  | 1.0  | 1.7 | 2.4 | 3.2 |
| ↑ Growth in Investment  | 1.0%  | -2.5  | -1.8 | -1.0 | -0.3 | 0.4  | 1.2  | 1.9 | 2.7 | 3.4 |
|                         | 1.5%  | -2.3  | -1.6 | -0.8 | -0.1 | 0.7  | 1.4  | 2.1 | 2.9 | 3.6 |
|                         | 2.0%  | -2.1  | -1.3 | -0.6 | 0.2  | 0.9  | 1.6  | 2.4 | 3.1 | 3.8 |

Source: BEA, BLS, FRB, and Haver Analytics; compiled by DIR.

Notes: 1) The Pew Research Center's 2014 findings estimate the ratio of US labor force population accounted for by illegal immigrants at around 5%. If we assume that the ratio of number of employees in the US in 2016 accounted for by illegal immigrants was about the same, then the total would be 7.5 million.

2) Effects referred to in this table are on US potential GDP based on the Cobb-Douglas production function (compiled by DIR).

## 2.3 Point (3) Will the US play the weak dollar card?

### *Three factors defining US currency strategy*

*You look at what China's doing, you look at what Japan has done over the years. They play the money market, they play the devaluation market and we sit there like a bunch of dummies.*

At the end of January President Trump expressed the above criticism in regard to the foreign exchange policies of China and Japan at a meeting with managers of pharmaceuticals companies. Trump went on to claim that the reason the US has such a large trade deficit is because other countries have undervalued their currencies. Major countries, including Japan, have denied that they have induced currency depreciation. The foreign exchange market began to fluctuate violently after this series of statements. The question now is what will happen with the dollar exchange rate in the future?

The key to a dollar exchange rate forecast is the stance taken by the US currency authority. Chart 8 provides an illustration of the dollar cycle in which the US currency strategy goes through the following phases: (1) Strong dollar policy → (2) Weak dollar policy → (3) Stable dollar policy. The chart also shows the three factors defining the dollar cycle. Meanwhile, the history of the cycle, as well as the real effective dollar exchange rate and changes in the dollar rate over time can be found in Chart 9.

The US currency strategy cycle is defined by the following three factors: (1) US current account balance, (2) US inflation, and (3) US financial markets. First, when anxieties grow regarding (1) US current account balance, policy tends to shift from (1) Strong dollar policy to (2) Weak dollar policy. Later, once current account deficit has peaked out, policy shifts to (3) Stable dollar policy. Secondly, when (2) US inflation pressure is limited, policy shifts from (1) Strong dollar policy to (2) Weak dollar policy. When fears of inflation grow, strategy shifts to (3) Stable dollar policy. Finally, when (3) US financial markets are stable, strategy moves to (2) Weak dollar policy, and when there are fears that the financial markets are too volatile, threatening to bring on the three lows (stock price lows, weak dollar, and bond market lows), then policy shifts to (3) Stable dollar policy.

The above cycle can be confirmed in Chart 10, which shows US/Japan current account balance, Chart 11, which shows US core CPI and changes in the CRB index, which reflects resource prices, and Chart 12, which shows US long-term interest rates and changes in the Dow Jones Average.

The Plaza Accord, which was signed in September 1985, is a perfect example of an event which triggered a shift from (1) Strong dollar policy to (2) Weak dollar policy. It is also the event which triggered a policy shift in response to the twin deficits (budget deficit and current account deficit), which came along with Reaganomics, which involved major tax cuts, relaxation of regulations, an expansion of defense spending while other expenses were cut, and a suppression of money supply. Another example is in 1993 during the Clinton administration when the US economy became stagnant with low inflation. A strong yen – weak dollar policy was adopted as a means of resolving the imbalance in US/Japan trade. Later, the US shifted policy from (2) Weak dollar policy to (3) Stable dollar policy due to rising fears of inflation reflecting the rise in commodity prices, and turmoil in the financial markets.

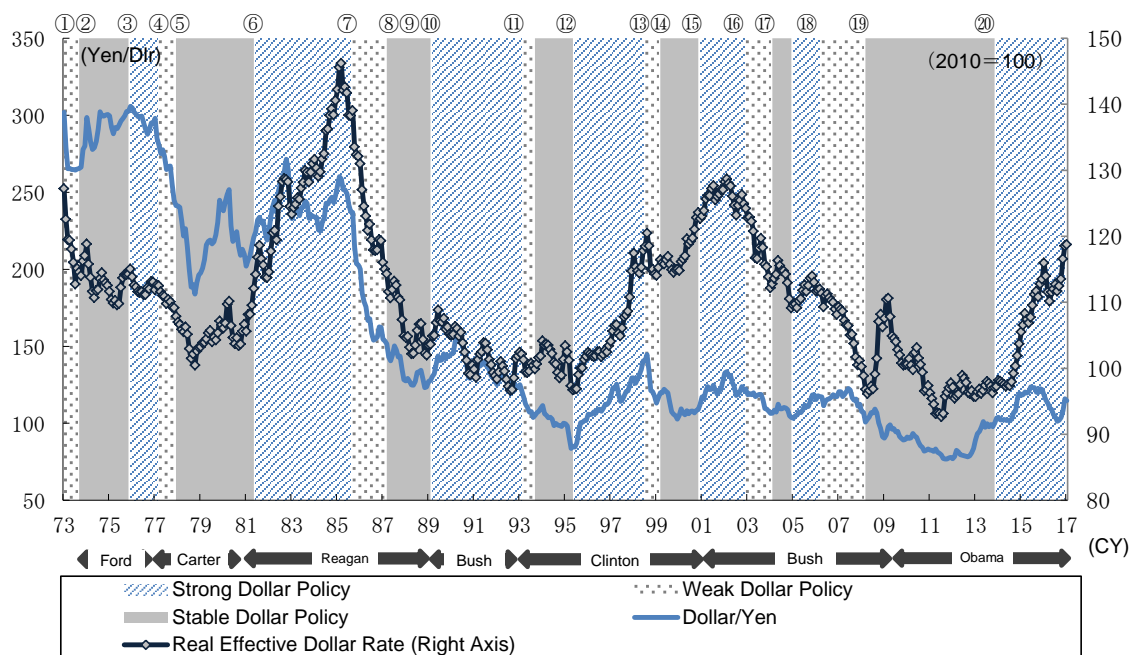
**US Currency Strategy Cycle and its Three Defining Factors**

**Chart 8**

|                              | (1) Strong Dollar Policy | →                | (2) Weak Dollar Policy | →                       | (3) Stable Dollar Policy |
|------------------------------|--------------------------|------------------|------------------------|-------------------------|--------------------------|
| ① US Current Account Balance |                          | Deficit expands  |                        | Deficit shrinks         |                          |
| ② US Inflation               |                          | Prices stabilize |                        | Fears of inflation grow |                          |
| ③ US Financial Markets       |                          | Stable           |                        | Volatile                |                          |

Source: Compiled by DIR.

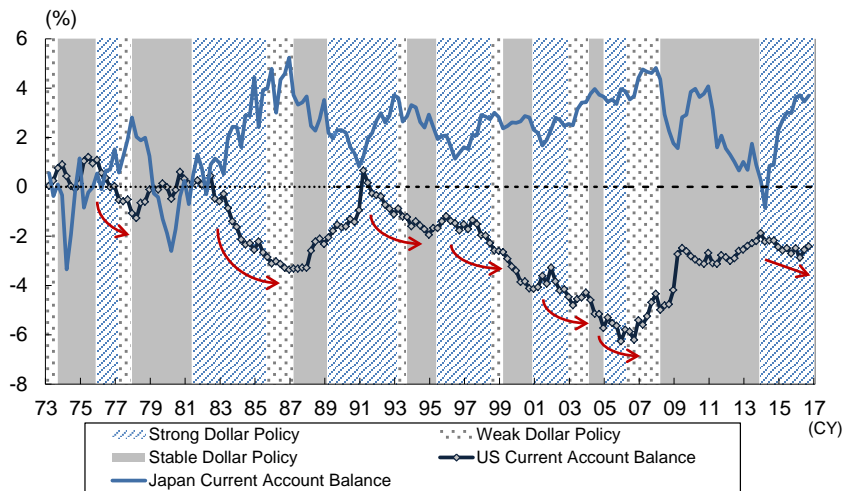
US Currency Strategy and Trends in Dollar's Real Effective Exchange Rate & Yen/Dir Rate **Chart 9**



|   | Date     | Event  |
|---|----------|--|
| ① | Mar-73   | Floating exchange rate system introduced   |
| ② | Jul-73   | FRB Chairman Burns and Treasury Secretary Shultz announce dollar-buying intervention in order to prevent inflation caused by dollar depreciation.  |
| ③ | Nov-75   | Rambouillet summit: A framework for international cooperation is established in order to stabilize the dollar.   |
| ④ | Feb-77   | Treasury Secretary Blumenthal statement regarding weak dollar: theory that yen is undervalued, and Japan-Germany Locomotive Theory   |
| ⑤ | Dec-77   | President Carter declares intent to protect the dollar.<br>Nov-78: Dollar protection policy  |
| ⑥ | Apr-81   | Treasury Secretary Regan and Assistant Secretary Sprinkel make policy statement regarding non-intervention in foreign exchange market.   |
| ⑦ | Sep-85   | Plaza Accord: weak dollar policy   |
| ⑧ | Feb-87   | Ruble agreement: Stable dollar policy announced  |
|   | Apr-87   | Washington Accord: Reaffirms stable dollar   |
| ⑨ | Dec-87   | Christmas Agreement to prevent further weakening of the dollar   |
| ⑩ | Apr-89   | G7 Washington suppression of dollar appreciation   |
| ⑪ | Feb-93   | House Speaker Foley says President Clinton wants a strong yen.   |
|   | Apr-93   | Treasury Secretary Bentsen supports rising yen since it promotes US exports.<br>President Clinton: In order to make concrete gains in dealing with US-Japan trade imbalance, first needed is yen appreciation, and secondly economic stimulus. |
| ⑫ | Jul-95   | US-Japan coordinated intervention. Japanese market introduces lower interest rate.   |
|   | Nov-95   | US monetary authority carries out dollar-buying intervention.  |
| ⑬ | Jun-98   | US-Japan coordinated intervention: Buy yen / sell dollars  |
| ⑭ | Feb-99   | After G7 meeting of ministers of finance and central bank governors, Vice-Minister of Finance Sakakibara makes statement accepting weaker yen.   |
| ⑮ | Dec-00   | Bush wins presidential election.   |
| ⑯ | Dec. 02  | US Treasury Secretary O'Neill replaced by Snow   |
| ⑰ | Oct. 04  | US passes Homeland Investment Act - temporary legislation limited to year 2005.  |
| ⑱ | Apr. 06  | G7 meeting of ministers of finance and central bank governors says flexibility in Renminbi rate would be desirable.  |
| ⑲ | Sept. 08 | Global Financial Crisis<br>→ US QE (Nov/08 to Jun/10) , QE2 (Nov/10 to Jun/11) ,<br>QE3 (Sept/12 to Oct/14)  |
|   |          |  |
| ⑳ | May, '13 | Bernanke Shock → Tapering begins in December.  |

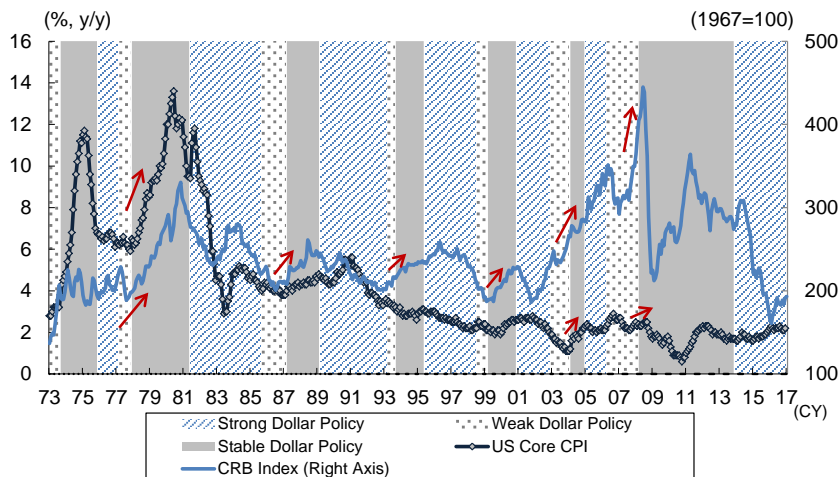
Source: BOJ, Haver Analytics; compiled by DIR.

**US Currency Strategy and Trends in US/Japan Current Account Balance** Chart 10



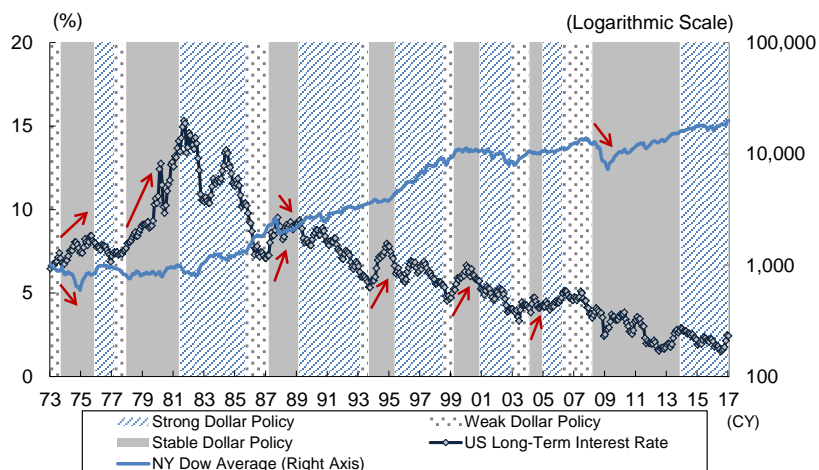
Source: Cabinet Office, Ministry of Finance, BOJ, and Haver Analytics; compiled by DIR.  
 Note: Current account balance expressed as a proportion of GDP.

**US Currency Strategy and Trends in US Inflation Rate** Chart 11



Source: Haver Analytics; compiled by DIR.

**US Currency Strategy and Financial Markets** Chart 12



Source: Haver Analytics; compiled by DIR.

### *Conditions under which waning inflation fears trigger shift to (2) Weak dollar policy*

Looking at the most recent example of the US currency strategy cycle, we see that currently the US is taking a (1) Strong dollar policy.

In the year 2001, George Bush, who preferred the strong dollar approach, was inaugurated as President. However, the current account deficit continued to expand due to the strong dollar, and in April of 2006 the G7 meeting of finance ministers and central bank governors attempted to curb China, which was carrying out currency interventions in which they would sell the Chinese renminbi and buy dollars, by including in the wording of their official statement that “Greater exchange rate flexibility is desirable in emerging economies with large current account surpluses, especially China, for necessary adjustments to occur.” As a result, dollar selling progressed on the foreign exchange market. However, the US then found it necessary to shift its weak dollar policy to a stable dollar policy due to the global financial crisis which hit in September of 2008. Then in January 2014 the FRB began tapering, raising interest rates numerous times within each year and continuing into the current year, 2017, with its tight money policy, contrasting with both Europe and Japan. Under these conditions the dollar exchange rate has recently tended towards a stronger dollar.

The strong dollar current is expected to remain the same for the short-term, the reasoning being that despite the public statements of President Trump, his actual policies contain many elements which are of the sort that lead to a strong dollar. These include the following factors: (1) economic stimulus as a result of public spending on infrastructure and a review of the Dodd-Frank Act, (2) tax cuts encouraging the repatriation of corporate profits kept overseas until now to the domestic US, and (3) the introduction of a border tax adjustment.

Meanwhile, US Treasury Secretary Mnuchin said during the confirmation hearing for his nomination, that a strong dollar is important in the long-term. This is because of US reliance on foreign countries for its fiscal financing. In order to ensure stable procurement of capital, the US must keep the dollar strong as a means of providing incentive to overseas investors to continue investing in the US.

However, as was mentioned previously, President Trump’s public statements suggest that he has a preference for a weak dollar, and perhaps he has revealed his real intentions here. Hence the focus in the future will likely be the question of exactly when and under what conditions will the US currency authority officially shift into a weak dollar policy.

Given the US currency strategy cycle, the key to forecasting the point at which policy will shift to a weak dollar is trends in inflation and the capital markets. Most recently, there has been inflation caused by the rising price of crude oil and economic expansion from tax cuts and infrastructure investment. Meanwhile, as was pointed out earlier in this chapter in “Point (2) Effects of Forced Repatriation of Illegal Immigrants,” forcibly repatriating illegal immigrants will also become a factor leading to increase in inflation. Additionally, since rising fears of inflation could also invite further interest rate hikes by the FRB, inflation can also be said to bring upward pressure on the long-term interest rate.

Based on the above considerations, we believe that possibilities are very good that the dollar will remain strong on the foreign exchange market for the short-term, but that in the mid to long-term, there is a good possibility that President Trump may shift all the way into a weak dollar policy once inflation fears have receded. For the time being, it is our opinion that there is little possibility that the US will shift from a strong dollar policy to a weak dollar policy as long as inflation fears remain, but at whatever point inflation pressure is suppressed and turmoil in the financial markets is no longer foreseen, there is an excellent possibility that President Trump may at that time decide to go all the way and play the weak dollar card.

## Economic Indicators and Interest Rates

## Chart 13

| Indicator  | 2016    | 2017          |         |         |         | 2018    | FY15   | FY16          | FY17 | FY18 |
|--|---------|---------------|---------|---------|---------|---------|--------|---------------|------|------|
|  | Oct-Dec | Jan-Mar       | Apr-Jun | Jul-Sep | Oct-Dec | Jan-Mar |        |               |      |      |
|  | Actual  | DIR estimates |         |         |         |         | Actual | DIR estimates |      |      |
| <b>Real GDP</b>                                    |         |               |         |         |         |         |        |               |      |      |
| Q/q %, annualized                                  | 1.0     | 1.8           | 1.2     | 1.4     | 1.2     | 1.2     |        |               |      |      |
| Y/y %  | 1.7     | 1.5           | 1.3     | 1.3     | 1.4     | 1.3     | 1.3    | 1.3           | 1.3  | 1.1  |
| <b>Current account balance<br/>SAAR (Y tril)</b>   | 21.6    | 19.7          | 19.9    | 20.6    | 21.2    | 21.5    | 18.0   | 20.2          | 21.1 | 22.6 |
| <b>Unemployment rate (%)</b>                       | 3.1     | 3.0           | 3.0     | 3.0     | 3.0     | 3.0     | 3.3    | 3.1           | 3.0  | 3.0  |
| <b>CPI (excl. fresh foods; 2015 prices; y/y %)</b> | -0.3    | 0.3           | 0.6     | 1.0     | 1.0     | 0.8     | -0.0   | -0.2          | 0.9  | 0.7  |
| <b>10-year JGB yield<br/>(period average; %)</b>   | 0.00    | 0.08          | 0.09    | 0.09    | 0.09    | 0.09    | 0.26   | -0.04         | 0.09 | 0.10 |

Source: Compiled by DIR.

Note: Estimates taken from DIR's *Japan's Economic Outlook No.192 (Summary)*.