## We are experiencing a strong boom in the industrial sector

### hpo economic commentary, 2<sup>nd</sup> quarter 2021

The triggers are increasing consumption and the so-called bullwhip effect.

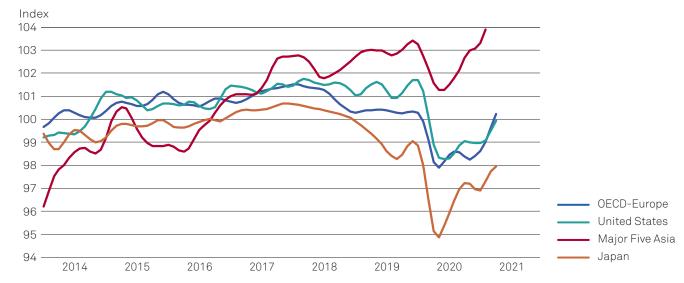
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In the past hpo economic commentaries we announced extraordinary volatility in demand for capital goods in 2021. We stand by this assessment. A look at the recent months' strong order intake in many industries confirms the picture.

We are currently experiencing a strong boom in industry and the supply chains, which continue to struggle, are unable to cope with it. Due to a combination of COVID-19

distortions (i.e., lockdowns, massive fiscal stimulus, and extremely expansive monetary policy), the downturn and upturn phases in the industrial sector have progressed rapidly for more than a year now and have become even more pronounced.

The following two factors are contributing to the current boom in the industry:



#### Consumer sentiment in selected regions

Source: OECD, Status: April 21

- The progress in vaccination programs and stimulus packages, particularly in the USA, has led to increased consumption. Various market observers write that while unemployment in the USA remains high, many companies are having trouble finding new employees. The additional \$300 per week that unemployed Americans will receive until September 2021 lead to the paradoxical situation that low-wage workers earn more when they are unemployed than when they are working. Generally speaking, the positive results in the fight against the pandemic in the industrialized countries are boosting consumer sentiment (however, the public health emergency is expected to last significantly longer in many developing and emerging countries).
- Both supplier companies and manufacturers of capital goods are affected by the **bullwhip effect**. The bullwhip effect is described in the book "The Economy as an Oscillating System" (Hanser Verlag, 2019) written by our company founder Peter Meier. It states that small changes in the end market lead to disproportionately large changes with suppliers. The lower a company is positioned in the value chain, the more it is affected. The bullwhip effect can work in both positive and negative directions. Currently, it has a strong supportive effect.

# Cyclical economic observations point to a modest development in the real economy ...



#### The bullwhip effect leads to exaggerations.

For example, the online magazine "The Markt" (NZZ Group) has found that many major buyers of semiconductors are currently ordering double to triple the quantities they actually need so that manufacturers give their orders higher priority. At the same time, semiconductor manufacturers have outdone themselves in recent weeks with announcements of investments in the double-digit billion range to expand their production capacities. These investments are politically desired to reduce dependency on Asian manufacturers on the one hand, but on the other hand, there is a threat of excess capacity in the medium-term. However, equipment suppliers can look forward to large orders for the time being.

### The cyclical economic analysis indicates a modest development after the catch-up effects fade away

The major advantage of the hpo forecasting model is its ability to estimate the impact of changing economic indicators on a wide range of industries. We use our algorithm to calculate the **deviation from the long-term trend,** with the economic cycle generally being the main factor influencing fluctuations in order intake.

According to our real economic cycle observations, we are still very early in the downturn phase of the cycle, which did not peak in the industrialized countries (OECD) until the beginning of 2020.

Although all sentiment indicators are currently pointing upwards, our model calculations still indicate a prolonged **phase of rather slow consumption** in North America, Europe, and Asia, following a short phase of catch-up effects. In our model, the consumption cycle is the long-term driver of the real economy and thus has a major impact on our forecast calculations.

#### Increased uncertainty in long-term trend growth

Order intake oscillates around long-term trend growth. This is mainly independent of the economic cycle. Our approach extrapolates trend growth from the past for the coming years.

Several factors are affecting trend growth in the upheaval phase we are currently experiencing. It is not yet clear how strong the impact of these factors will be as their causes mainly lie in the political sphere, which cannot be predicted using our forecasting approach.

Several factors indicate that **trend growth could change simultaneously in many industries.** This is very unusual. There are both supporting and restraining influences, which are summarized below.

#### Reasons for (temporary) upward trend correction

- Very strong monetary expansion especially in the
  U.S. and in Europe to strengthen the economy.
- Unprecedentedly large stimulus program in the U.S. by the Trump and Biden administrations over the past 12 months.
- Already decided or planned infrastructure programs like we haven't seen for generations in China (Belt & Road Initiative), Europe (Recovery Plan EUR 750 billion), and the U.S. (American Jobs Plan USD 2 trillion), all of which are to be implemented in the coming years.
- Efforts by the major powers to reduce mutual dependence in the technology sector with trade restrictions and in some cases substantial subsidies for domestic companies.

#### Reasons for stable trend growth (= hpo base scenario):

- The U.S. stimulus program only affects consumption and is limited until September 2021.
- Many investments that have been triggered are the result of one-time catch-up effects following the turbulent year 2020.

## ... but there is increased uncertainty regarding the course of long-term trend growth

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#### It is still too early to adjust the trend growth.

- The U.S. and to a lesser extent Europe are drawing on their economic and monetary policy resources, while China is once again stepping on the brakes.
- Substantial increase in global debt.

### hpo adjusts trend growth only when the actual data suggests it

hpo takes a conservative approach to adjusting trend growth. We adjust trend growth in our models only when actual data indicate a need for such a change. This is the case when the actual values systematically deviate from the forecasted values. This approach has proven very successful, especially in phases of upheaval, because it is tempting to intervene in the forecast model too often and strongly with trend corrections without improving the forecast quality as a result. hpo constantly monitors trend growth very closely and makes the necessary adjustments when required.

#### Conclusion

- The cyclical view of the economy points to a modest outlook from around the second half of the year. We are still at the beginning of the consumption cycle's downturn phase, and the bullwhip effect will also swing back in the negative direction.
- hpo may be currently too conservative in its assessment of trend growth. However, in most cases, it is still too early for an upward trend correction that can be justified based on data, and it is by no means certain that it will become necessary.

#### Your contact at hpo forecasting



Josua Burkart M. A. HSG Managing Director josua.burkart@hpo.ch +41 44 787 60 15



Benjamin Boksberger M. A. HSG Forecasting Manager benjamin.boksberger@hpo.ch +41 41 461 00 22