SGC SINO-GERMAN CENTER
at Frankfurt School

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SGC Webinar: How dependent is German business on China?
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Two recent events have very much pushed forward the question of economic dependency of Germany from China: (1) Covid-19 pandemic; (2) the Russian invasion on the Ukraine. Both events add very much to the ongoing crisis of globalisation and deepen the already existing fragmentation of the world.

Politically, the just leaked internal China strategy guidelines of the Federal Ministries of Foreign Affairs and for Economic Affairs and Climate Action are very much focusing of perceived dependencies of German business on China and advice more independency and diversification.

First research results of the Sino-German Center indicates the following main points:

(1) The overall economic relationship between Germany and China, cannot be compared with the Germany's completely one-side dependency on Russian gas in the past. The businesses with China are much more diversified in general. It not only covers imports of raw materials from China, but also mutual exports and imports in production inputs and consumer goods as well as mutual foreign direct investments in the benefit of both countries in terms of income and employment.

China is a relevant but not a dominant trading partner for Germany and so-called critical and strategic dependencies are rare cases and not to be confused with cluster risks of German companies in their business in China. The rare cases of critical and strategic dependency concentrate on some imports of electronics and raw material for the manufacturing industry in Germany. But even these cases are not biunique but depend on the specific way of measurement of dependency.

Bottom line: economic dependency of Germany on China is highly exaggerated in the public debate.

(2) The quantified degree of dependency depends indeed very much on the methodology to measure it. ‘Dependency’ as such is a useless concept given that any business implies dependencies. A proper concept that emerged in the relevant literature especially for imported goods and commodities is the so-called ‘strategic dependency’ that includes two criteria: (i) The share of an imported good/commodity from a single country must be higher than 50 % and (ii) the country that export this good/commodity must have a global share of more than 30 %.

Take, for example, the case of the much-discussed rare earth-metals. The import share of this critical commodity for the German industry from China is for many years now around 50 percent or more. Does this mean that Germany is strategically dependent on China’s exports of rare earth metals as concluded by a lot of observers? The answer depends. If we add the fact that China’s global share on all exports of rare earth is less than 30 percent for most of the last 10 years, it is obvious that the substitution elasticity for the Germany industry is rather high. In other words: There are simply of lot of other countries where German companies can get this commodity. The German industry is, therefore, not strategically dependent on rare earth metals imports from China, but only voluntarily, which gives the change – not the need! - to change this by a higher degree of diversification.

Therefore, the possibility of substitution matters very much for the question of economic dependencies although not considered in the already mentioned guidelines of the ministries.

Moreover, the time horizon of the measurement matters. For instance, it is well known that around 30 percent of electronics used in the German industry in the year 2020 have been from China. This is in most cases interpretated as dependency of Germany on China. However, in a horizon of 10 years from 2011 to 2020 less than 1 percent of all imported intermediate inputs – not only electronics - from China fulfil the criterion of strategic dependency. In a 5-year framework – 2016 to 2020 -, this measure increased to 2,3 %. The 30 % figure is, therefore, only a snapshot, and cannot be a proper justification for economic dependency. However, what we know is that in the last 5 years the share of imported production inputs from China grew over proportional compared with consumer goods. That means, that the produced value added in Germany relies to a higher degree on Chinese imports.

Bottom line: The degree of substitution possibilities as well as the time horizon has to be considered by classifying dependency.

(3) Reduction of dependencies by diversification cannot be an end in itself - for instance by concentrating or even restrict Garmany's trade to so-called 'value partners' and 'friend shoring' - but have to be judged in terms of benefits and costs for the German economy. Germany is very much a trading nation like China. One cornerstones of your prosperity model are exports with a high value added and simultaneously comparatively cheap imports. Any diversification must pay attention to this and not jeopardize prosperity.

Bottom line: The German business with China – depending or not - is economically rational because it increases our welfare.