



# **Estimating Competitiveness of Industrial Complexes in Germany and Russia: Foreign Trade Aspect**

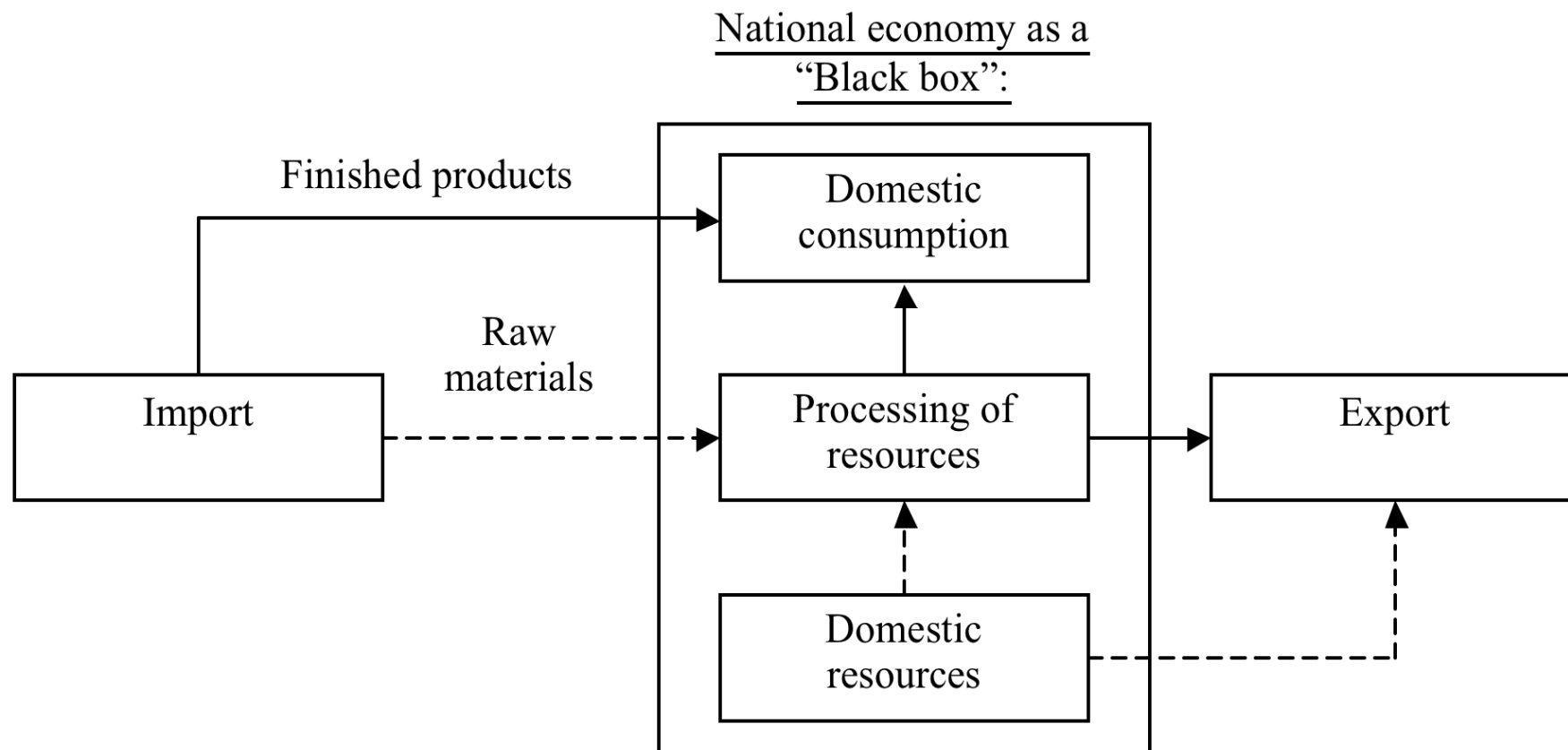
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# Assumptions for the research

- Cross-country analysis can be used to predict future condition of the national economy on the basis of a comparison of economic development trajectories in different countries
- Significant performance indicators of the industry include physical and cost volumes of exported products, and relative indicators (price of one ton of exported products, material intensity)
- Exported products prices in the leading countries may be a guide for the development of industrial complexes in other countries

# National economy as a "black box" when analyzing export and import flows



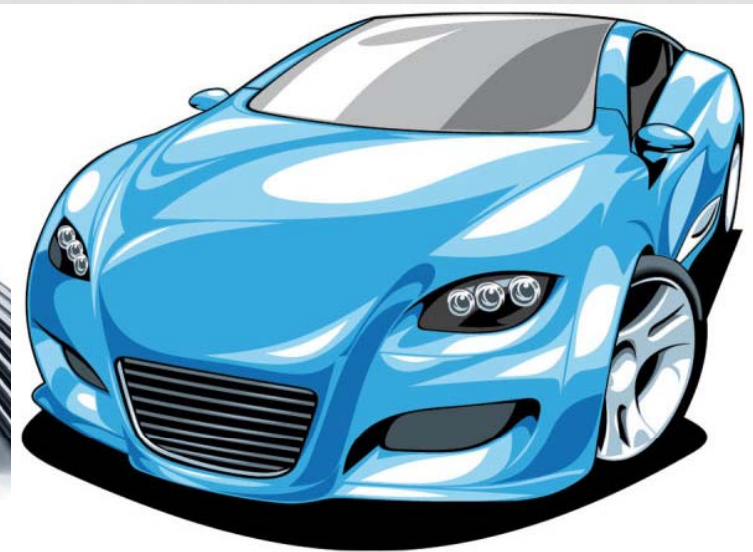
Source: Ustinov V.S. Forecasting of the Russian Metal Turnover System Based on Cross-Country Analysis of Foreign Trade Flows. Scientific Articles – Institute of Economic Forecasting Russian Academy of Sciences, Moscow, 2014

# Information base of the research

- Customs statistics include a set of physical and cost characteristics of export and import flows of various products in most countries of the world
- Analyzing the customs statistics data, reflecting the dynamics and the ratio of export and import flows in different product groups, it is possible to estimate the degree of economic development of the country
- Source of information – UN Comtrade International Trade Statistics Database

# The national system of metals turnover

The national system of metals turnover is a complex of interconnected industries that form the value chain from extraction of raw materials used in metallurgy, to production of the finished products, which contain metal



# Main blocks in the system of metals turnover

Primary and secondary raw materials (metal ores and scrap)

Basic metal products (iron, steel, semi-finished products, rolled metal)

Products of deep processing (pipes, wire products, fabricated metal products)

Metal-containing products (machinery, equipment, vehicles)

A systematic approach when conducting cross-country analysis suggests consideration of a single metallurgical-engineering complex

## Export prices in metallurgical-engineering complex in Germany and Russia

Export prices, \$ /ton	Germany		Russia	
	2000	2015	2000	2015
Raw materials for ferrous metallurgy	148	389	32	96
Iron and steel	481	851	186	393
Articles of iron and steel	1672	3504	366	1130
Machinery, equipment, vehicles	14113	19329	3276	9174
Average	5666	9998	233	574

Source: UN Comtrade International Trade Statistics Database

## Import prices in metallurgical-engineering complex in Germany and Russia

Import prices, \$ /ton	Germany		Russia	
	2000	2015	2000	2015
Raw materials for ferrous metallurgy	36	90	27	58
Iron and steel	470	899	365	755
Articles of iron and steel	1284	2518	702	2546
Machinery, equipment, vehicles	13493	17475	4188	11799
Average	2339	4454	737	4216

Source: UN Comtrade International Trade Statistics Database



## Ratio of export and import prices in Germany and Russia

Export price / Import price	Germany		Russia	
	2000	2015	2000	2015
Raw materials for ferrous metallurgy	4.12	4.34	1.18	1.66
Iron and steel	1.02	0.95	0.51	0.52
Articles of iron and steel	1.30	1.39	0.52	0.44
Machinery, equipment, vehicles	1.05	1.11	0.78	0.78
Average	2.42	2.24	0.32	0.14

As an integral indicator of metals processing efficiency in the national economy it is possible to use the ratio of price of one ton of exported and one ton of imported products related to the turnover of the metals

## The foreign trade balance in metallurgical-engineering complex

The foreign trade balance (Export – Import), billion U.S. dollars	Germany		Russia	
	2000	2015	2000	2015
Raw materials for ferrous metallurgy	-0.8	-1.1	0.6	2.2
Iron and steel	1.4	-2.8	4.9	10.3
Articles of iron and steel	2.5	8.7	-0.3	-1.8
Machinery, equipment, vehicles	98.9	287.7	-1.5	-61.6
Total	102.0	292.5	3.7	-50.9

Source: UN Comtrade International Trade Statistics Database

# Conclusions

- The average price of products exported by German metallurgical-engineering complex significantly exceeds the same indicator in Russia
- The predominance in the German export of products with high added value allows obtaining a positive foreign trade balance by production of metallurgical-engineering complex
- Russia's main export revenues of metallurgical-engineering complex are generated by iron and steel
- Investment needs of Russian economy are not provided by the products of domestic mechanical engineering
- Global competitiveness of separate industries is significantly less important than the integral competitiveness of large industrial complexes

**THANK YOU FOR ATTENTION!**

