Sectoral analysis of the Russian economy

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Learning outcomes of this lecture

- Transformation of Russian industrial structure in recent three decades.
- Industrial aspects of privatization and ownership in Russia.
- Concept of Dutch disease – fundamental theoretical concept of Russian economic development.
- Dutch disease in Russia.

Role of industries in Soviet Economy

- One of the world's three top manufacturers of heavy industrial products (including aviation and arms) + richness in natural resources.
- Unbalanced economic structure (agriculture, light industries and services were neglected).
- Plan allocation of industries. 5 year central plans: First plan 1928-1933; Last plan (12th) 1986-1990.
- Prices were determined by government: Soviet enterprises obtained raw materials such as oil, gas, and coal at prices below world market levels, encouraging waste.
- Transportation costs were heavily subsidised, so it encouraged inefficient allocation of some industries.

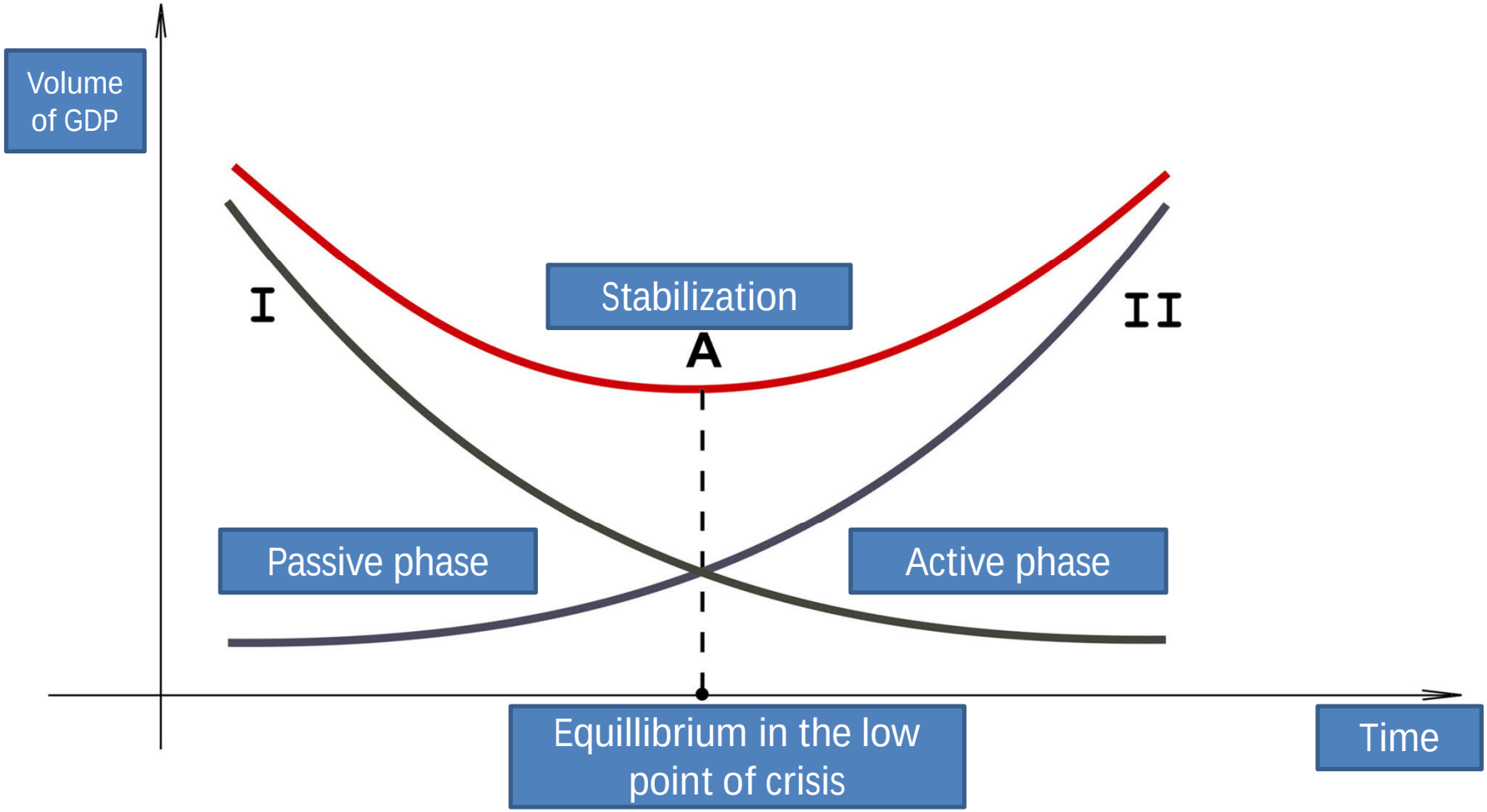
Industrial structure of Soviet Russia

Russia's deviations from "normal" structures of market economies were substantial:

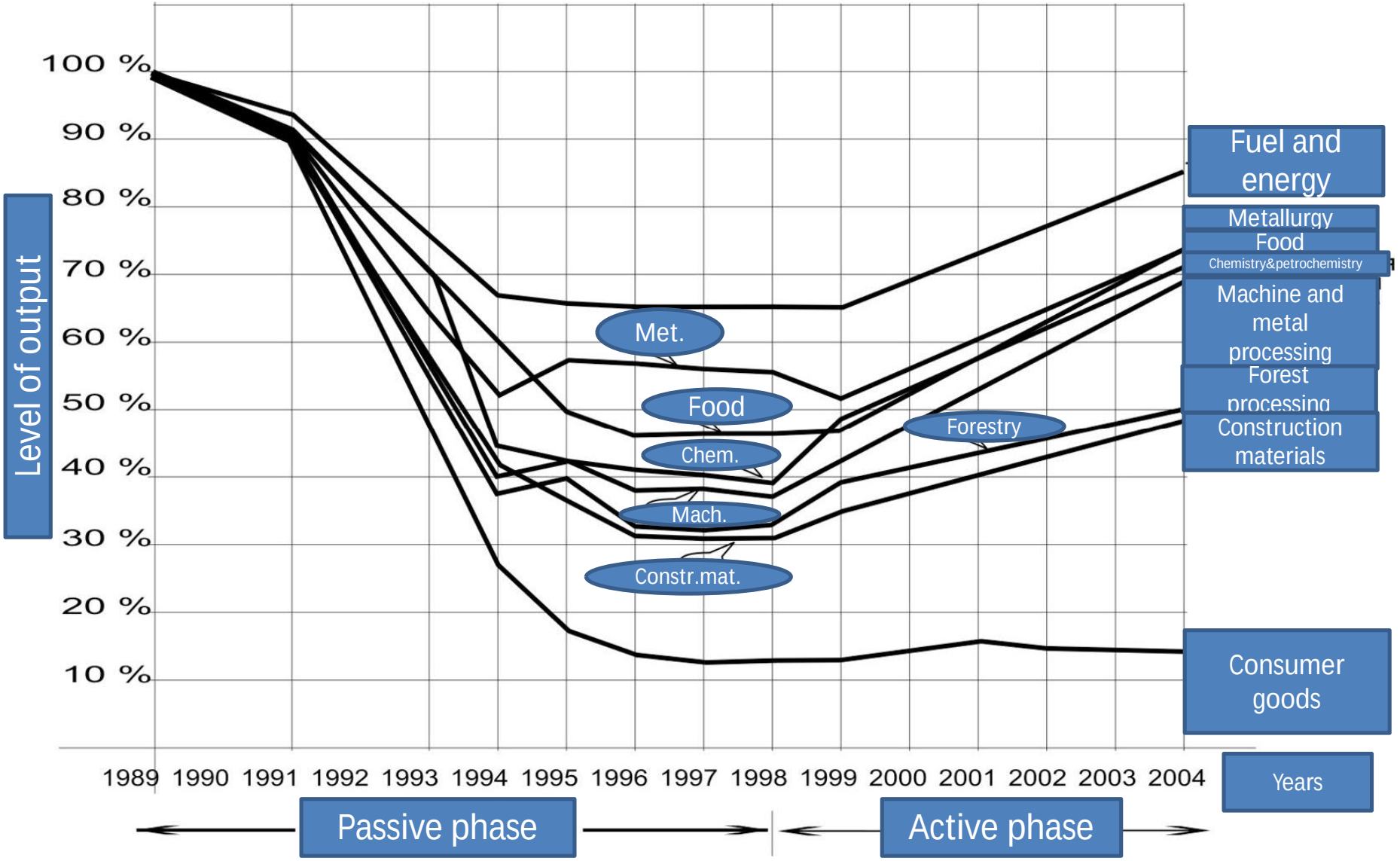
- the greater shares of heavy industry;
- the low shares of services;
- the high shares of food, consumption;
- the underutilization of foreign trade.

- These structural distortions contributed to the stagnation and decline of the planned economies.

Restructuring process of the Russian economy (Yasin 1996)



Restructuring process and dynamics of output of main industrial sectors in Russia (Yasin 2013)



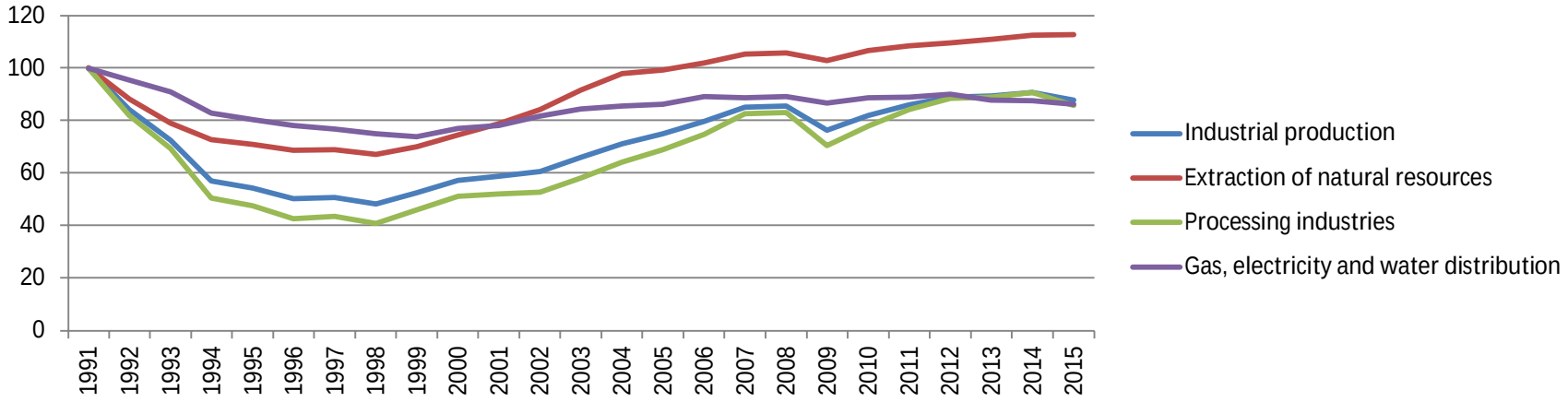
Changes in industrial structure during transition: Summary

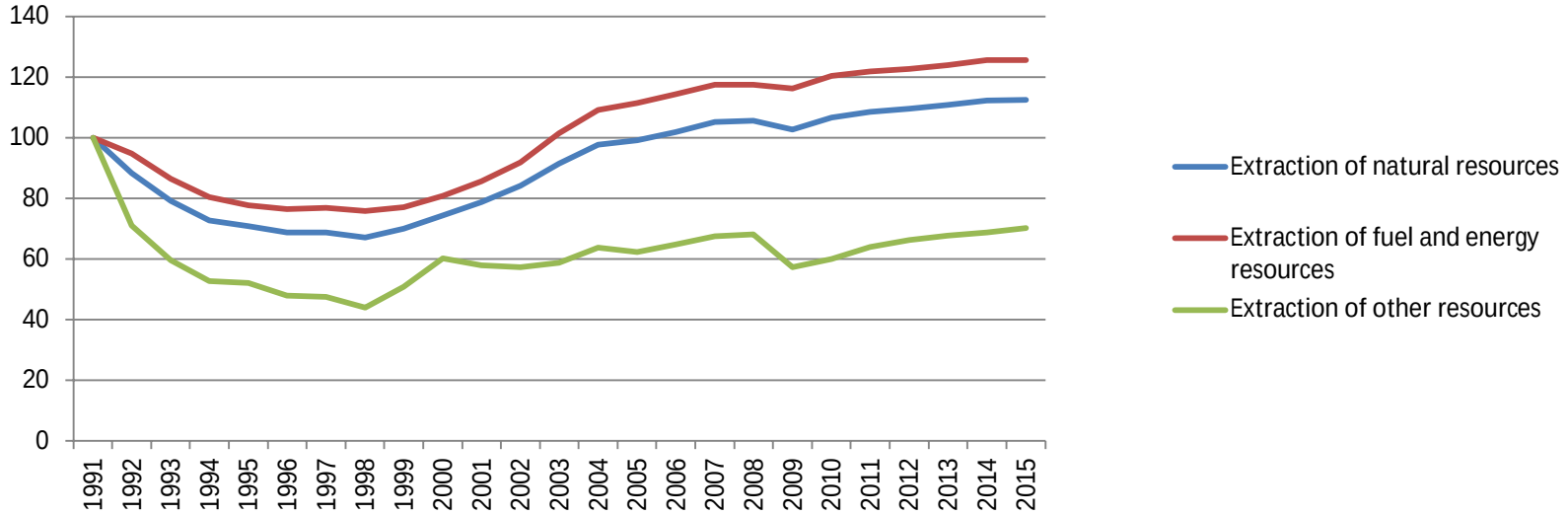
1992-1994: The output of natural resource-based sectors fell by 30-40%, other sectors – 50-60%: The weight of natural resources- based sectors in the economy increased.

A significant shift from goods production towards the service sector: Service sector of Former SU in 2003 accounted for about 46% of GDP versus 30% in 1991.

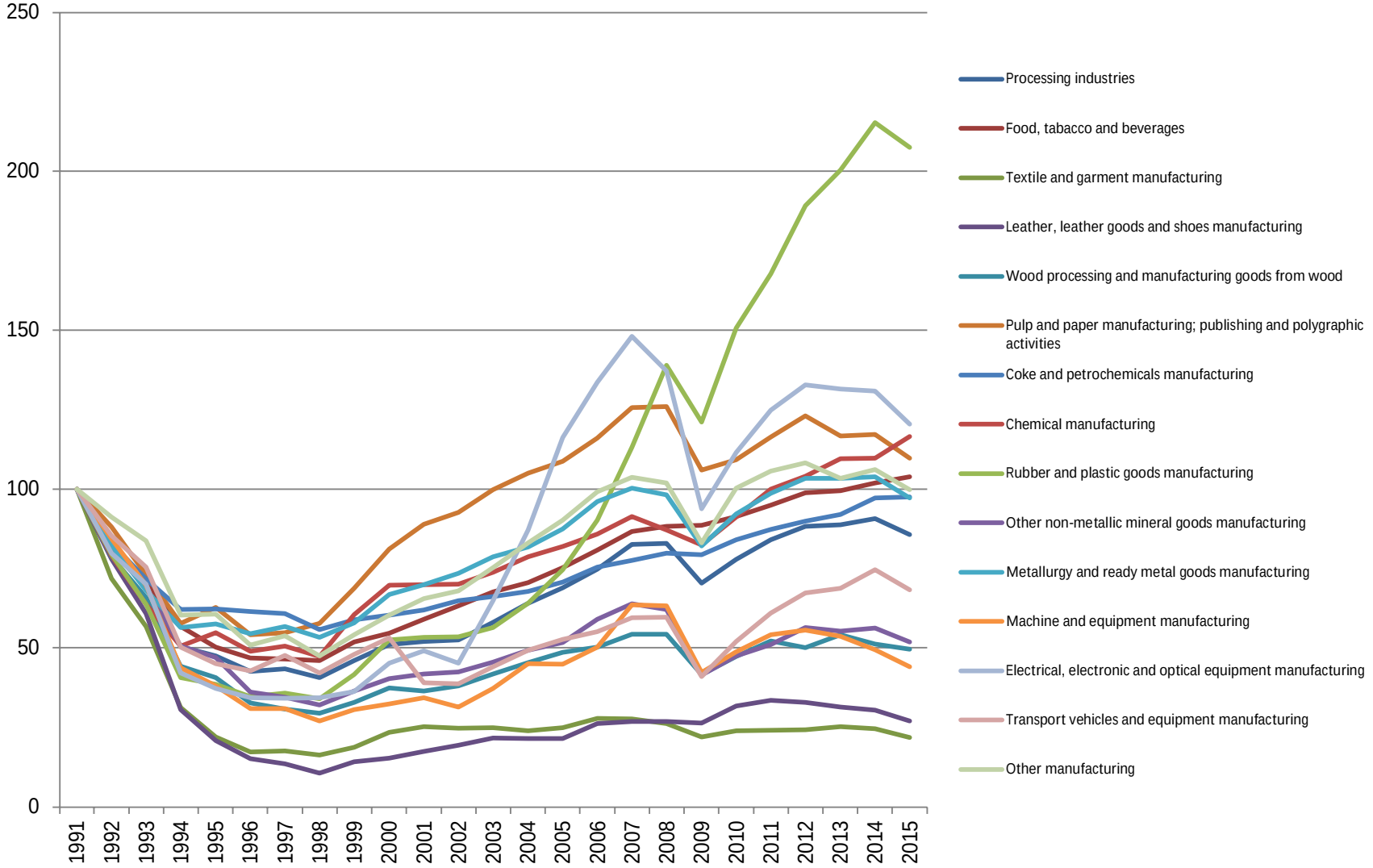
The share of raw-materials-producing sectors in industrial output and exports has risen sharply, while the share of processing industries has contracted.

Indices of industrial production, % to 1991

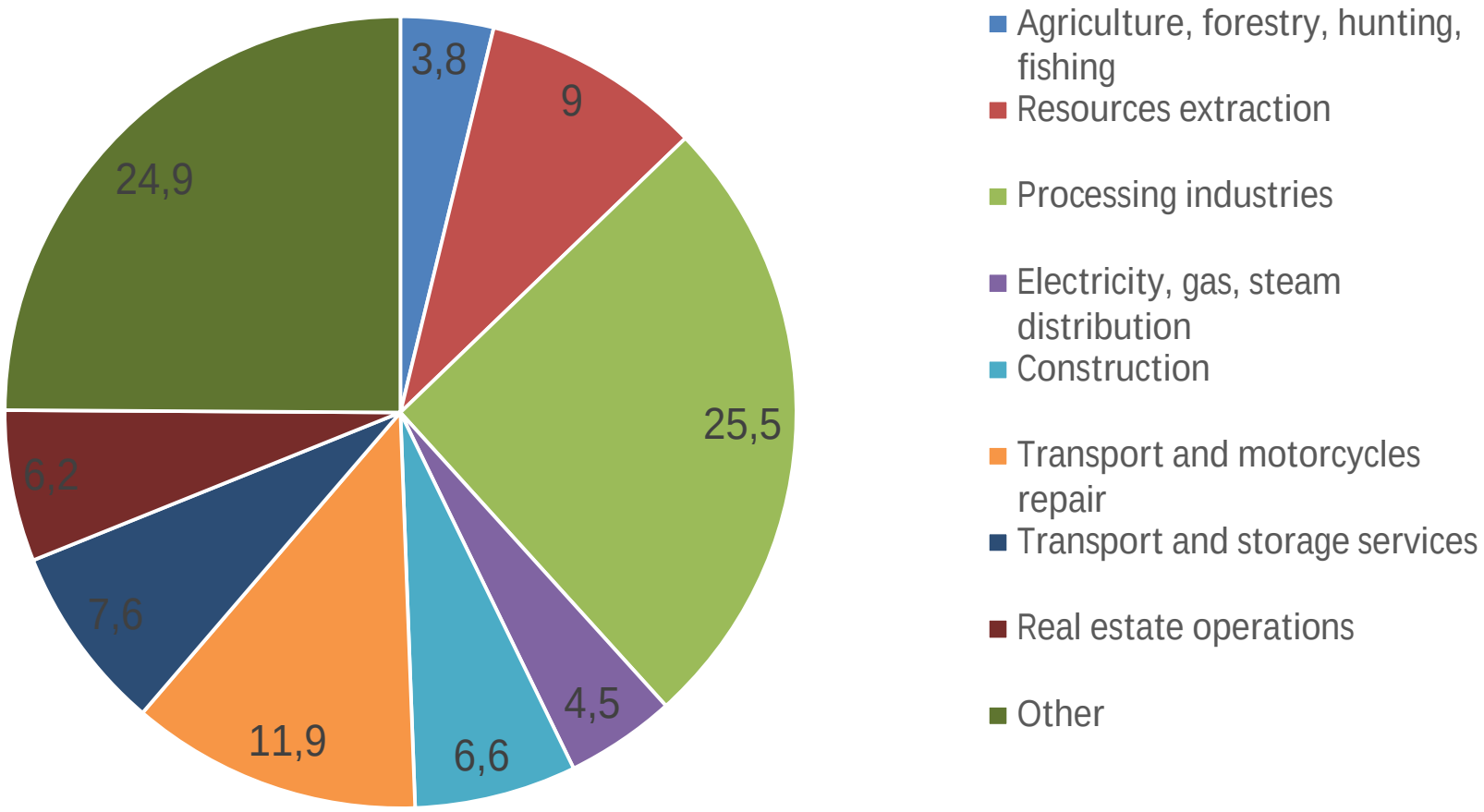




Indices of industrial production, processing industries; % to 1991



Output structure by industry, 2019, Russia



Industrial structure of GDP: Russia versus the World, % of GDP, 2018

Country	Agriculture	Industry	Manufacturing	Services, value added
Belarus	6	31	21	47.7
Brazil	4	18	10	62.6
China	7	41	29	52.2
Czech Republic	2	32	23	55.8
Estonia	2	25	13	59.9
Finland	2	25	15	59.2
France	2	17	10	70.3
Germany	1	28	21	61.5
India	14	27	15	49.0
Italy	2	22	15	66.1
Japan	1	29	21	69.1
Kazakhstan	4	34	12	54.5
Latvia	3	20	10	63.5
Lithuania	3	26	17	61.1
Poland	2	30	18	56.4
Russian Federation	**3**	**32**	**12**	**54.1**
United Kingdom	1	18	9	70.5
United States	1	18	11	77.4

What factors determine successful development of a sector in transition?

- Sector's position before transition
- Size of enterprises in the industry: transition road very different in big companies and SME –consolidation of ownership
- Favorable world prices
- Domestic demand
- Productivity (change), reorganization in companies /industry
- Type of privatization and ownership (who owns which industries)
- Ability to attract the funding
- Whether a sector is a strategic sector (determines allowed ownership and investments)

Effect of different types of privatization/ownership

- Nominal privatisation by insiders *(i.e. forestry)*, State control *(i.e. gas)* ➔ not so much changes in efficiency/productivity/ investments

- New private owners *(i.e. oil, machinery, metals)* who got their shares through vouchers/loans for shares/auctions ➔ positive changes in management, investments, markets

- Foreign/mixed ownership *(i.e. food industry)* ➔ likely successful changes (FDI, management practices, corporate governance).

Industrial aspects of privatization

Mandatory privatization (light, food industries)

Privatization with the permission of the privatization ministry (larger firms, yet not operating in any of the important strategic industries)

Requiring government approval for privatization (natural resources and defense) – in fact could not be privatized.

Prohibited privatization (space exploration, health, and education)

Industrial aspects of ownership in transition Russia (Dolgopyatova 2010)

Growth of ownership concentration irrespective sector or size of company: Share of dominant shareholder in the beginning of 21st century - 25-40%; by 2010 – higher than 60%.

Corporate governance: main player – a majority (dominant) shareholder.

High ownership concentration – not only a Russian phenomena. The same – in some developed countries; in all transition economies.

Why? Bad institutions and availability of highly profitable assets for which businessmen are ready to fight.

Shleifer and Vishny (1997) argue that ownership concentration can serve as a substitute for weak investor protection rights. Therefore ownership concentration can be positively related to corporate performance especially in environments of weak legal systems.

Ownership distribution and concentration

Concentration of ownership in the hands of a few major players:

“+” Can reduce inefficiencies due to suboptimal firm size and cost duplication.

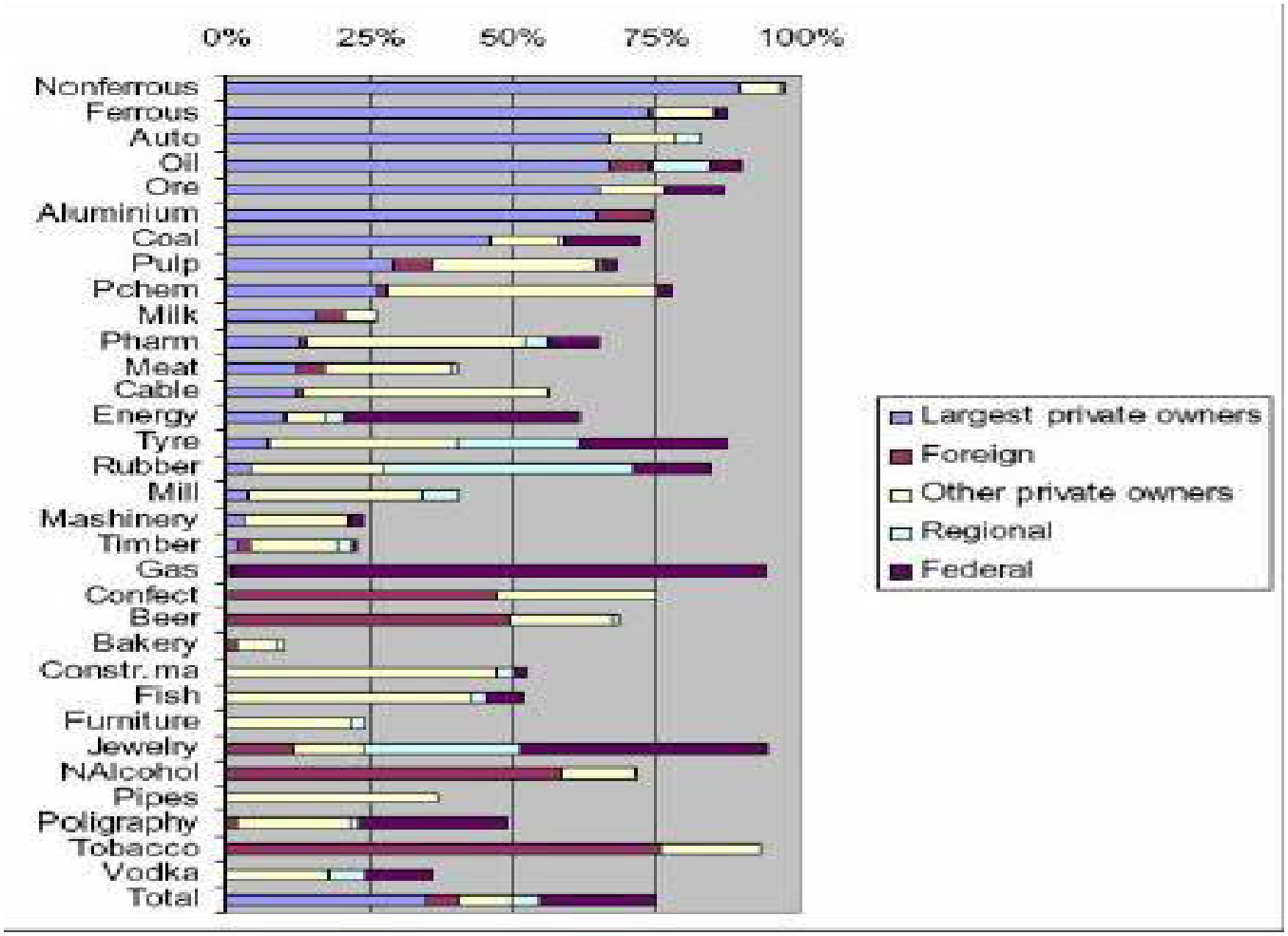
“—”Can also result in collusion, create barriers to entry and eliminate healthy competition.

Industrial patterns of ownership distribution and concentration in the 90`s

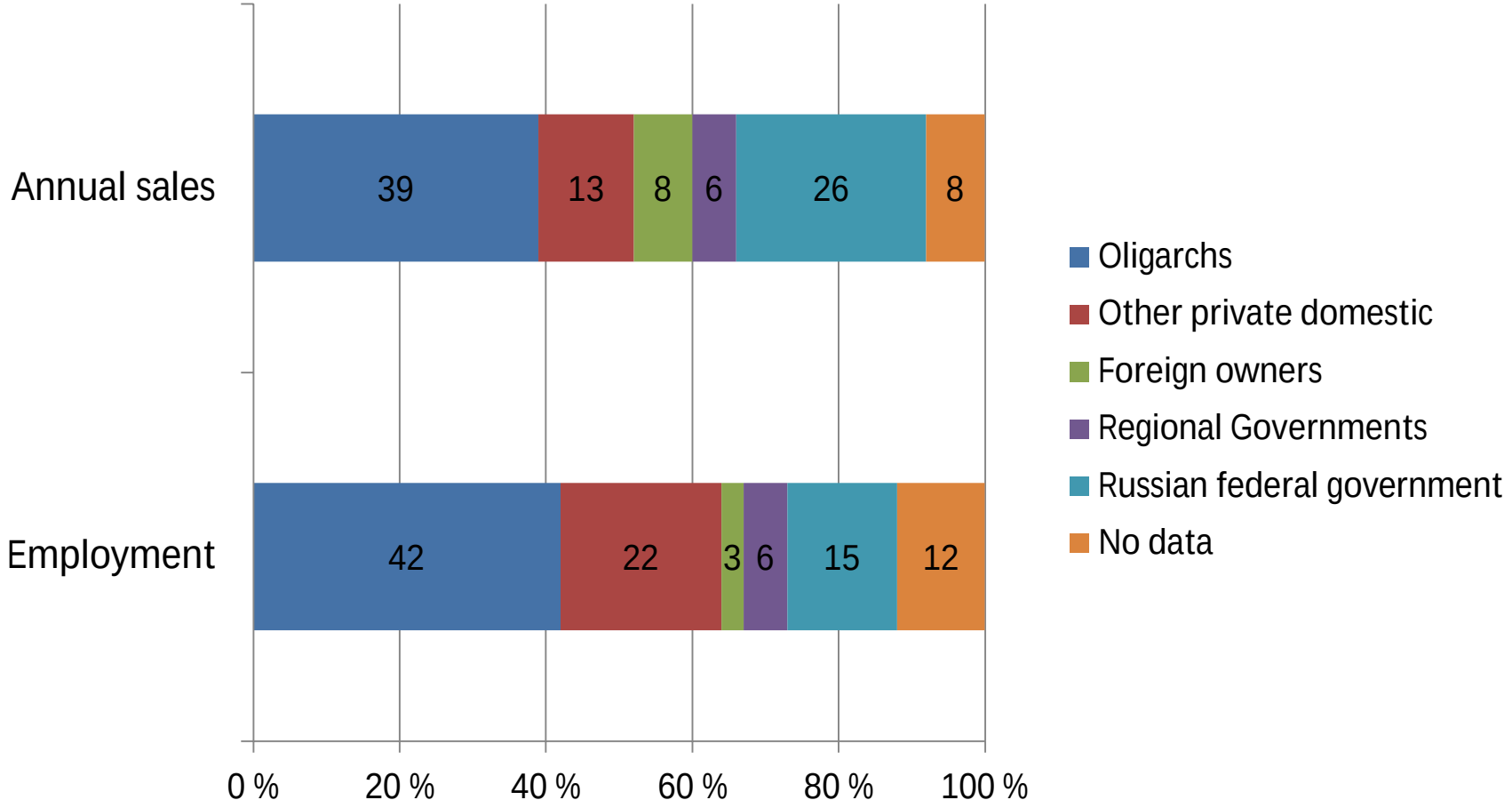
- 23 largest private owners control at least 36-38% of output and employment (Guriev and Rachinsky, 2004).
- The largest owners are much more strongly represented in energy, natural resources and the automotive industry.
- The sectors that produce consumer goods are mostly controlled by other private domestic owners and foreigners.
- Smaller domestic owners also tend to dominate manufacturing sectors.
- Mid 90s: trend for industry consolidation -expansion of financial-industrial groups. These groups built mostly around natural resource industries.

Shares of different categories of owners in sales of respective sectors, beginning of 21st century

(data from Guriev and Rachinsky , 2004; for the sample that covers 60% of Russian industry)



Breakdown of Russian industry by ownership categories in the beginning of 21st century (Guriev and Rachinsky, 2004/2005)



Current tendencies of ownership concentration in industries

- Intensifying state ownership and control over the key industrial sectors and strategic industries.

- Leading vehicle for the consolidation of state ownership in Russia's industry is a giant industrial holding Russian Technologies (Rostechnologies) that was set in 2007 and comprises 700 enterprises ➔ 14 holdings, 11 of which in defense industry.

- Oil and gas are dominant and big: containing no more than 12 of the 100 largest companies, the oil and gas sector is responsible for almost 40% of the aggregate turnover of the top-100 Russian enterprises (many already state owned, Gasprom and Rosneft).

Ability to get funding/strategic industries

- Development of financial institutions.
- Large number of banks, but credibility was questionable, pocket banks.
- Foreign investments –most reliable, but available only for certain sectors (not strategic).

State is trying to get back control over strategic industries using different strategies (i.e. oil –Yukos), limiting foreign investors etc.

Limitations for foreign investors in strategic sectors – Russian Federal Law 7 May 2008

- National defence sector: working with nuclear materials, activities related to weapons and other military equipment, aviation and space, coding and encryption equipment;
- Natural resources sector: including exploitation of subsoil areas of federal importance, fishing;
- Activity of natural monopolies (including energy sector);
- Mass media sector, including television, radio broadcast and printed media covering a significant share of Russia's audience;
- Telecommunications, including activities of the major telecom providers.

Part 2: Dutch disease and Russia

Dutch disease

Is the apparent relationship between the increase in exploitation of natural resources and a decline in the manufacturing sector (or agriculture).

The term was coined in 1977 by *The Economist* :

> *the decline of the manufacturing sector in the Netherlands after the discovery of a large natural gas field in 1959.*

Bad institutions: prerequisite for *Dutch disease*.

Dutch disease vs. resource curse

are often used interchangeable;

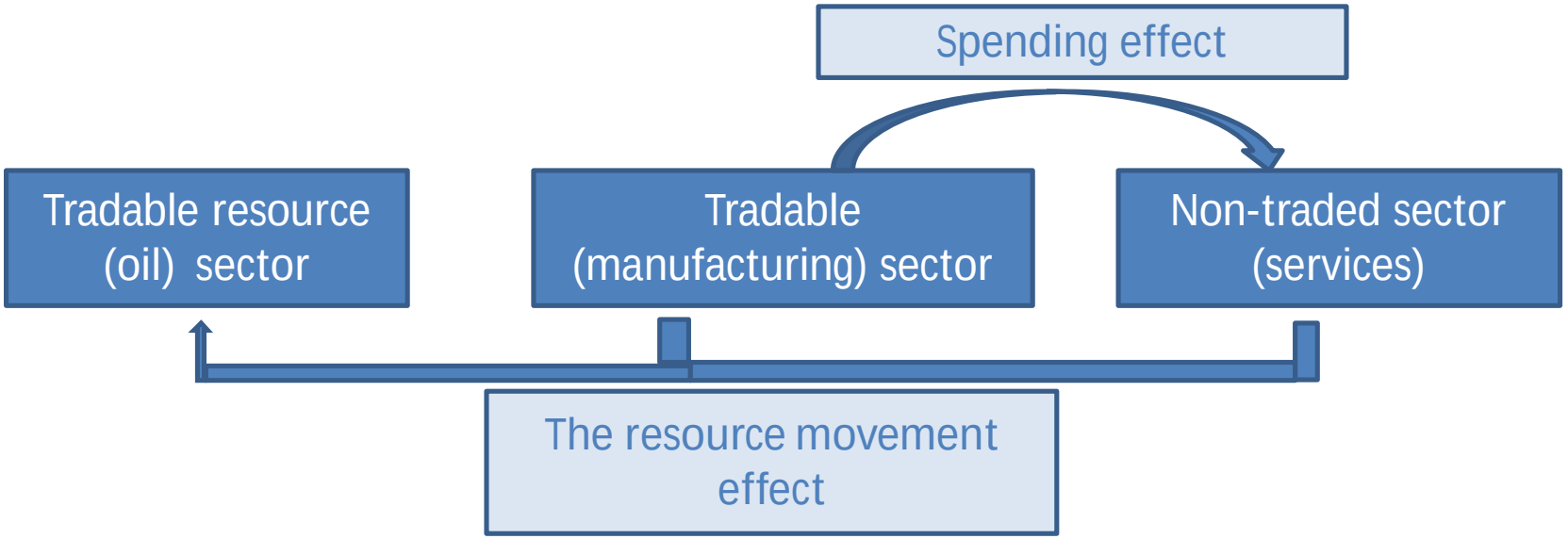
But:

Resource curse refers to the political and social consequences of country`s high dependence on resources` export.

Dutch disease refers only to the effects of the resulting currency appreciation and changes in the cost of factors of production.

Dutch disease

(Bruno and Sachs (1982); Corden and Neary (1982))



What happens when world oil price goes up?

1. The spending effect;
2. The resource movement effect.

Dutch disease

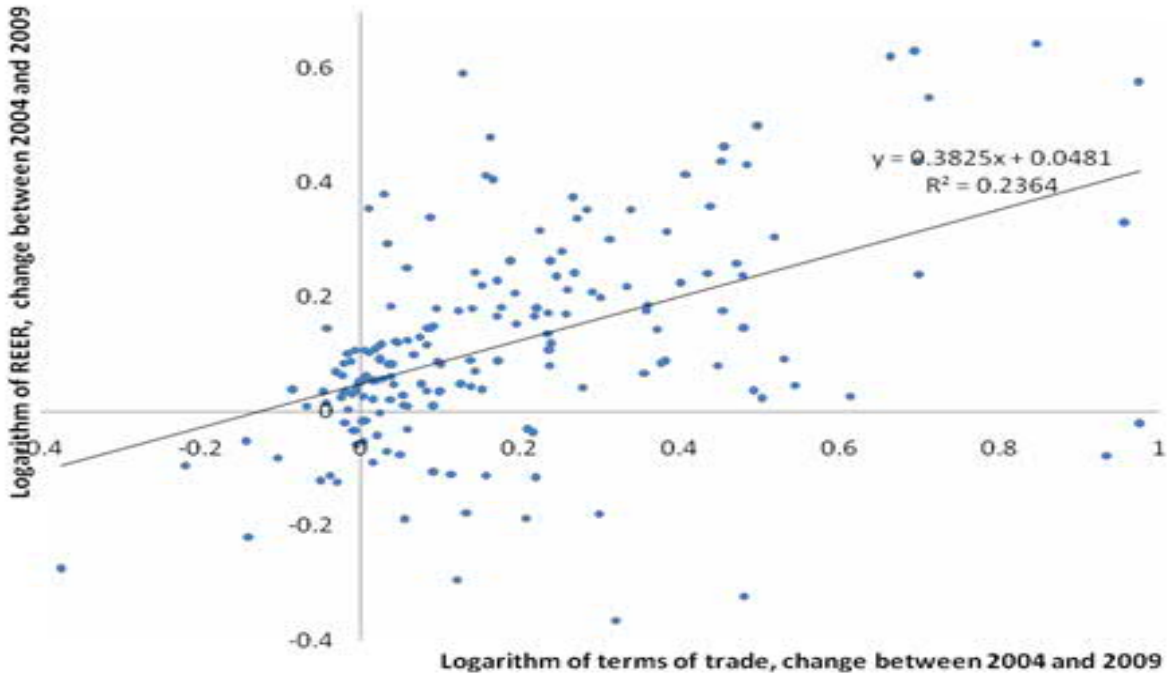
A result:

A fall in the output share of non-natural resource tradables (manufacturing sector)

relative to non-tradables (mostly service sector) and resource tradables (e.g. oil industry).

Is there any empirical evidence of Dutch Disease?

Relatively robust evidence: Terms of trade increases cause real exchange rate appreciation in natural-resource-rich countries:



Vostroknutova, Brahmbhatt, Canuto, VoxEU 2010.

Is there any empirical evidence of Dutch Disease?

The shrinking of the manufacturing sector in response to terms of trade: mixed evidence (*Sala-i-Martin and Subramanian 2003*).

Ismail (2010) finds strong evidence for Dutch Disease effects, with a 10% increase in an oil windfall/income associated with a 3.4% fall in value added across manufacturing sectors.

On average in resource rich countries the tradables sector (manufacturing plus agriculture) is around 15% of GDP lower than the norm (*Vostroknutova, Brahmbhatt, Canuto, VoxEU 2010*).

Dutch Disease is good or bad for growth?

Positive:

-higher incomes and consumption of both non-tradables and tradables;

-increased resources for investment in public goods.

Negative: For Manufacturing

-M possess specific long-term, growth-enhancing qualities: positive technological spillovers, learning by doing effects, or increasing returns to scale in production.

-M is more labour intensive than natural resource industries: implications for employment.

The effect for economic growth is inconlslusive. Negative: bad institutions.

Dutch disease in Russia

Victoria Dobrynskaya & Edouard Turkisch (2009)

1999-2007

For Dutch disease:

1) The appreciation of the rouble in real terms in 1997-2007;
2) The decrease in employment in manufacturing;
3) The rise in services sector.

Against Dutch disease:

1) Manufacturing production also increased.

Dutch disease in Russia

Mironov and Petronevich, 2015, BOFIT discussing paper

Russian economy reflects a combination of “Soviet” and “Dutch” diseases

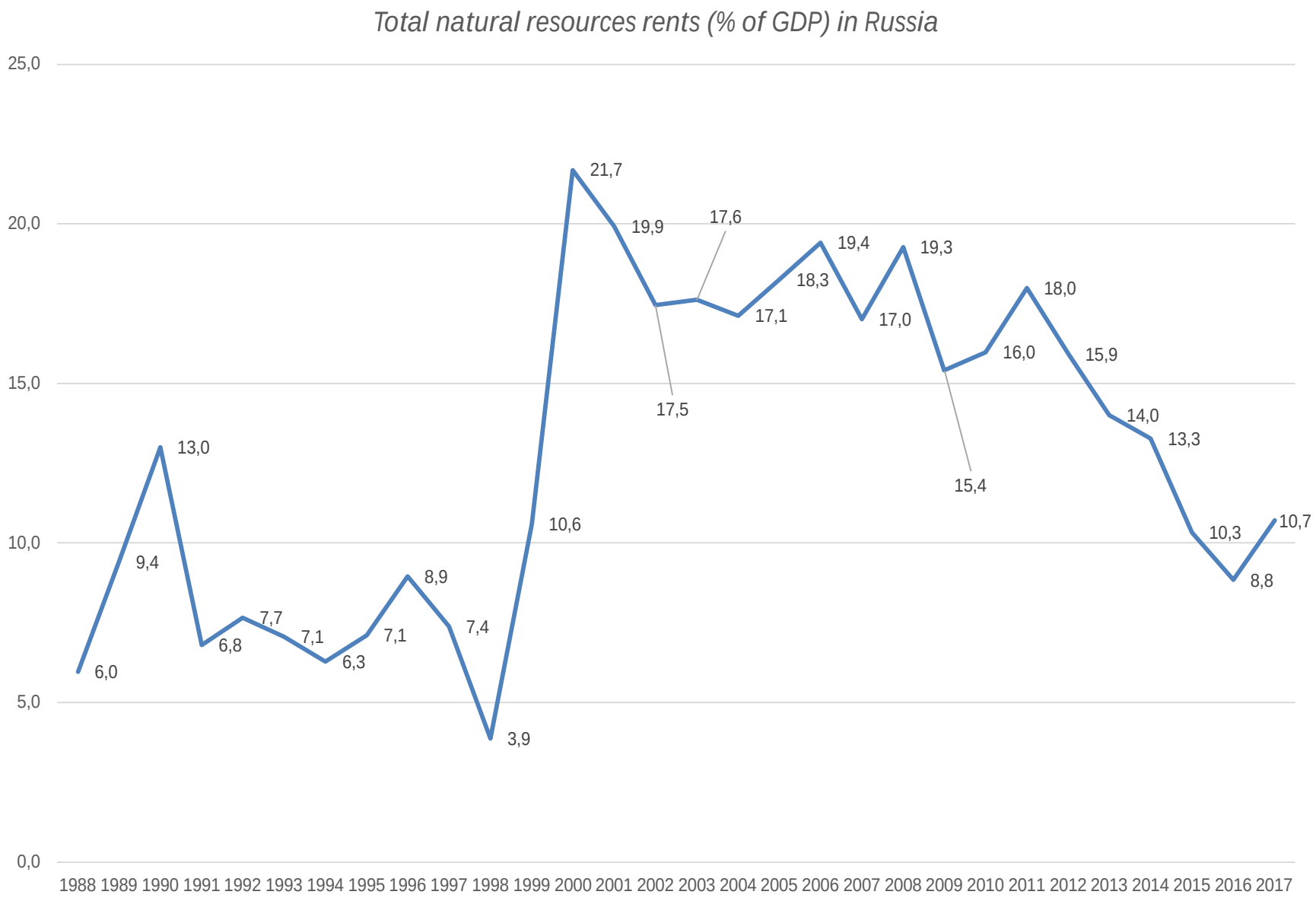
Main arguments:

1) Eruptive flows of export revenues have resulted in significant appreciation of the real effective exchange rate.
2) The manufacturing sector tends to shrink and is relatively small.
3) The mining and service sectors have expanded.
4) Positive significant impact of the real effective exchange rate on employment rates in the services sector.

Total natural resources rents (% of GDP)

Total natural resources rents are the sum of oil rents, natural gas rents, coal rents (hard and soft), mineral rents, and forest rents.

Country	1990	2000	2010	2016
Arab World	21,27	23,23	27,64	18,77
Australia	3,43	3,08	9,62	5,50
Belarus	1,14	2,50	1,36	1,46
Central African Republic	6,36	11,20	8,57	13,52
Canada	3,14	4,54	2,80	1,01
Euro area	0,21	0,12	0,15	0,10
Finland	0,48	0,42	0,63	0,57
France	0,11	0,07	0,06	0,04
United Kingdom	1,06	1,04	0,88	0,39
India	3,47	2,53	4,67	1,91
Latvia		2,60	1,23	0,99
Mexico	6,98	3,29	4,86	2,64
Norway	8,03	11,85	8,00	5,81
Poland	3,44	0,65	1,59	0,82
Russian Federation	14,19	21,75	13,94	11,46
Sweden	0,46	0,26	1,01	0,41
Ukraine	3,63	4,01	8,54	3,80
United States	1,41	1,10	0,98	0,28
Vietnam	11,98	9,09	8,14	2,30
South Africa	5,78	2,90	7,67	4,70
Zambia	20,98	5,53	21,39	15,13
Zimbabwe	4,21	3,62	9,17	8,75
World	2,50	2,04	3,67	1,89


Total natural resources rents (% of GDP) in Russia
25,0
20,0
15,0
10,0
5,0
0,0
1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017
6,0
9,4
13,0
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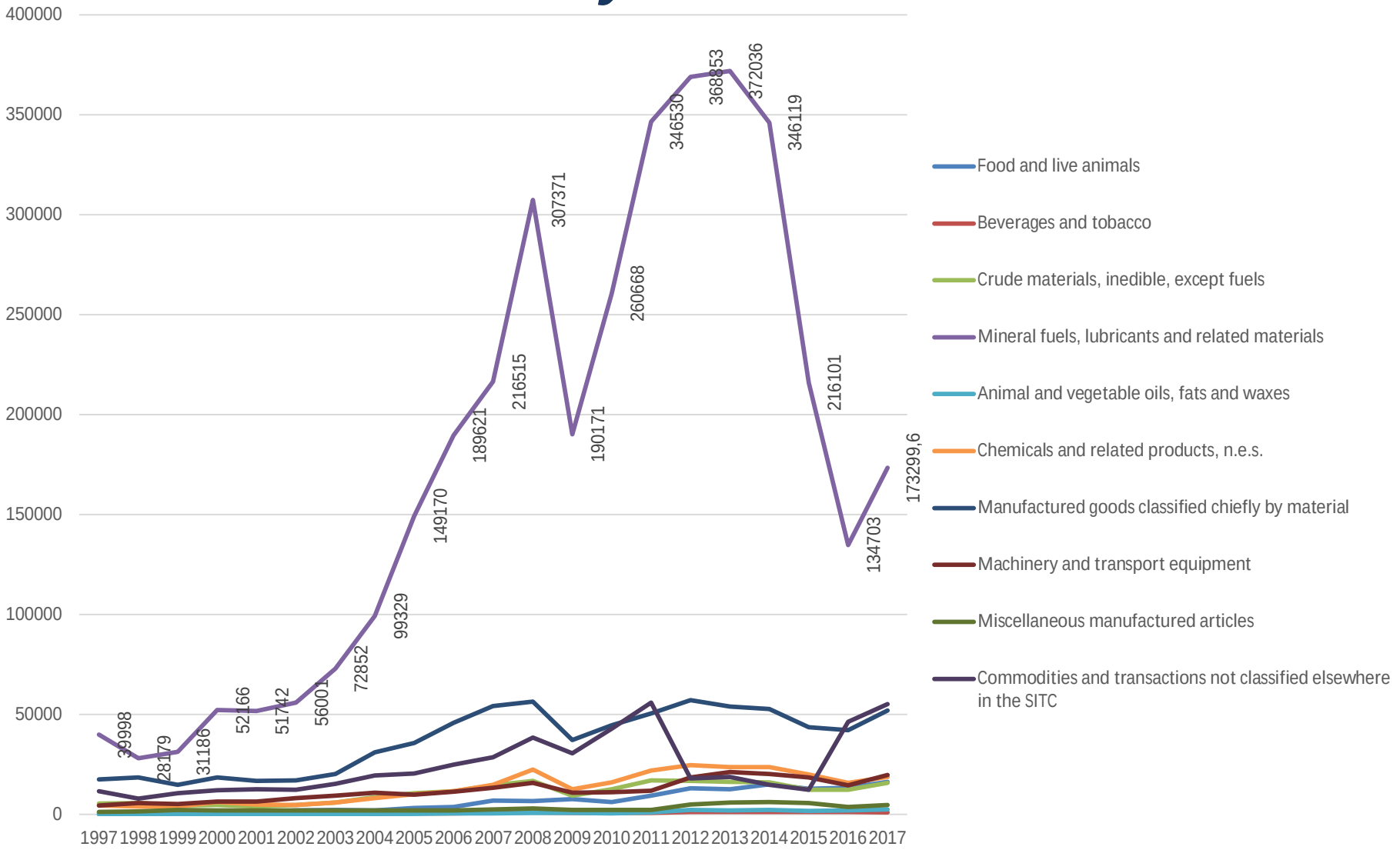
Time dynamics of Russian export by industry, million USD



Change in industrial structure of Russian export