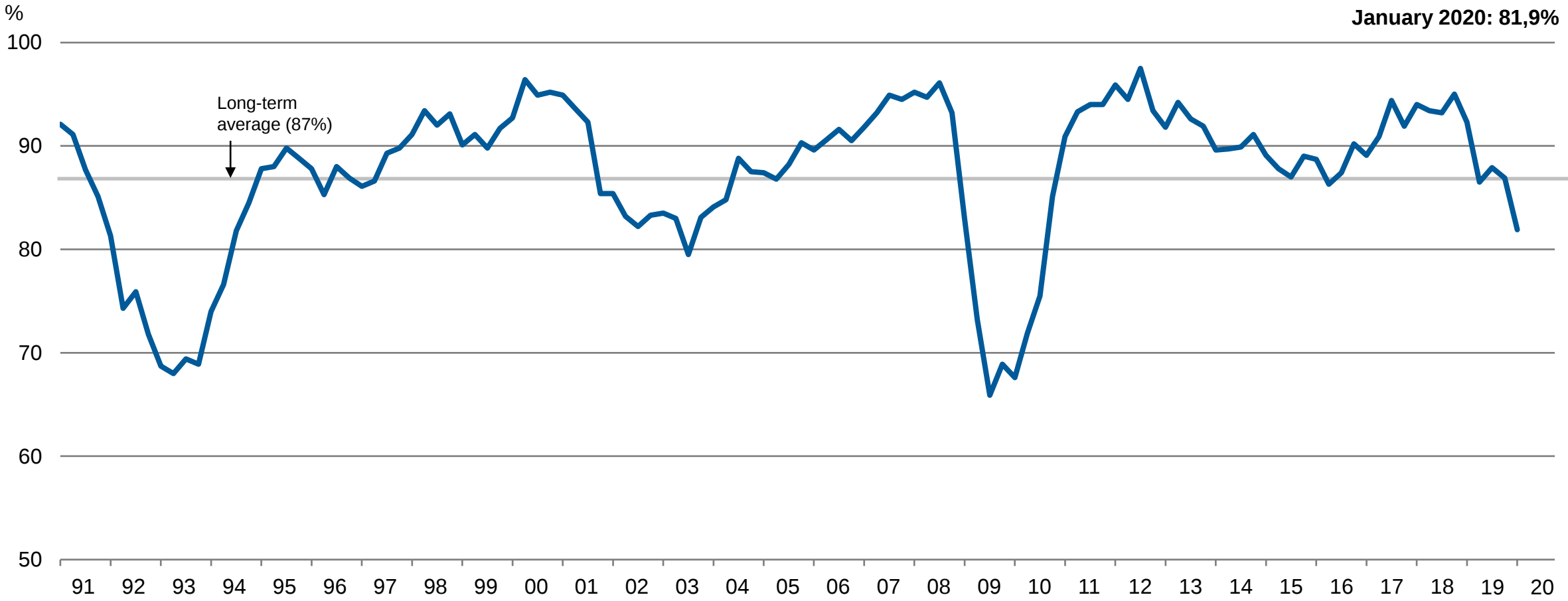


Welcome to the AMB 2020 press conference

Helsinki, 18 March 2020

German machine tool industry

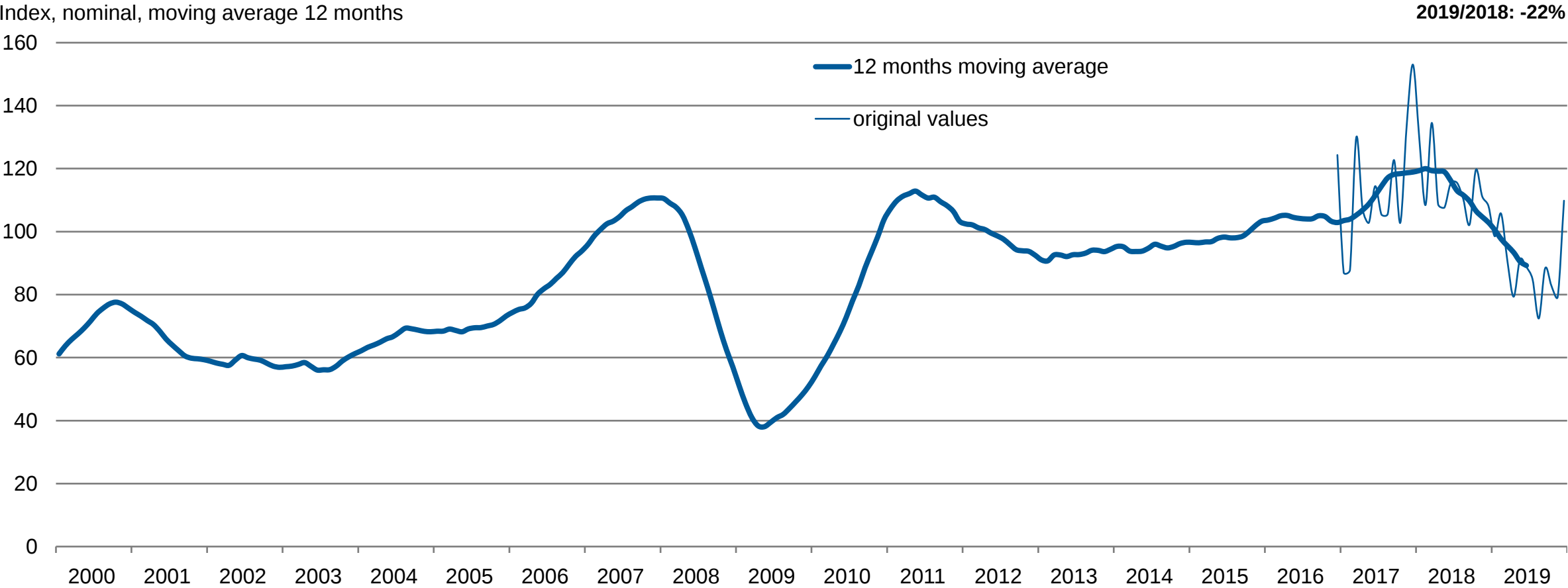
Capacity utilization drops below long-term average



Note: in percent of the company-customary full extent of utilisation, data for Jan, Apr, Jul, Oct, Source: ifo-institute Munich

German machine tool industry

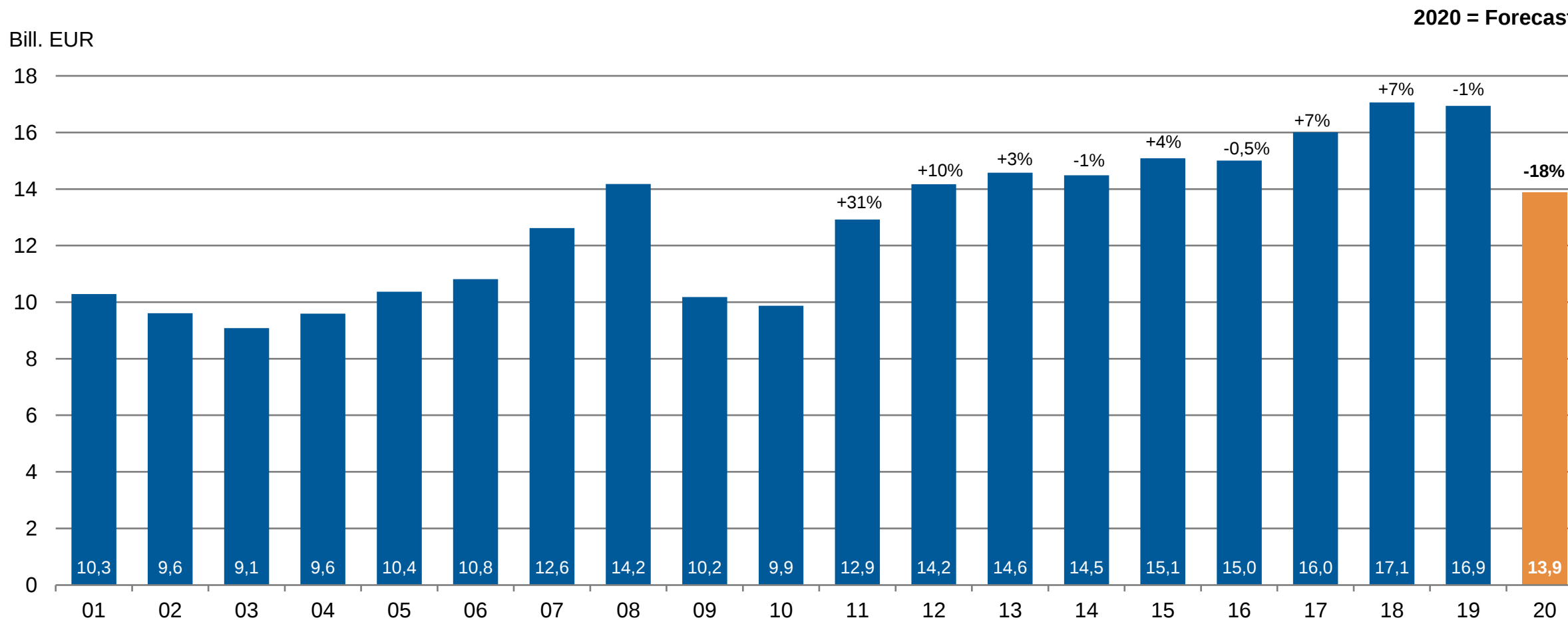
Orders decreasing since 2018



Note: index basis shipments 2015=100, data until December 2019, Sources: Associations' statistics, VDMA, VDW

German machine tool industry

Significant losses in production expected in 2020



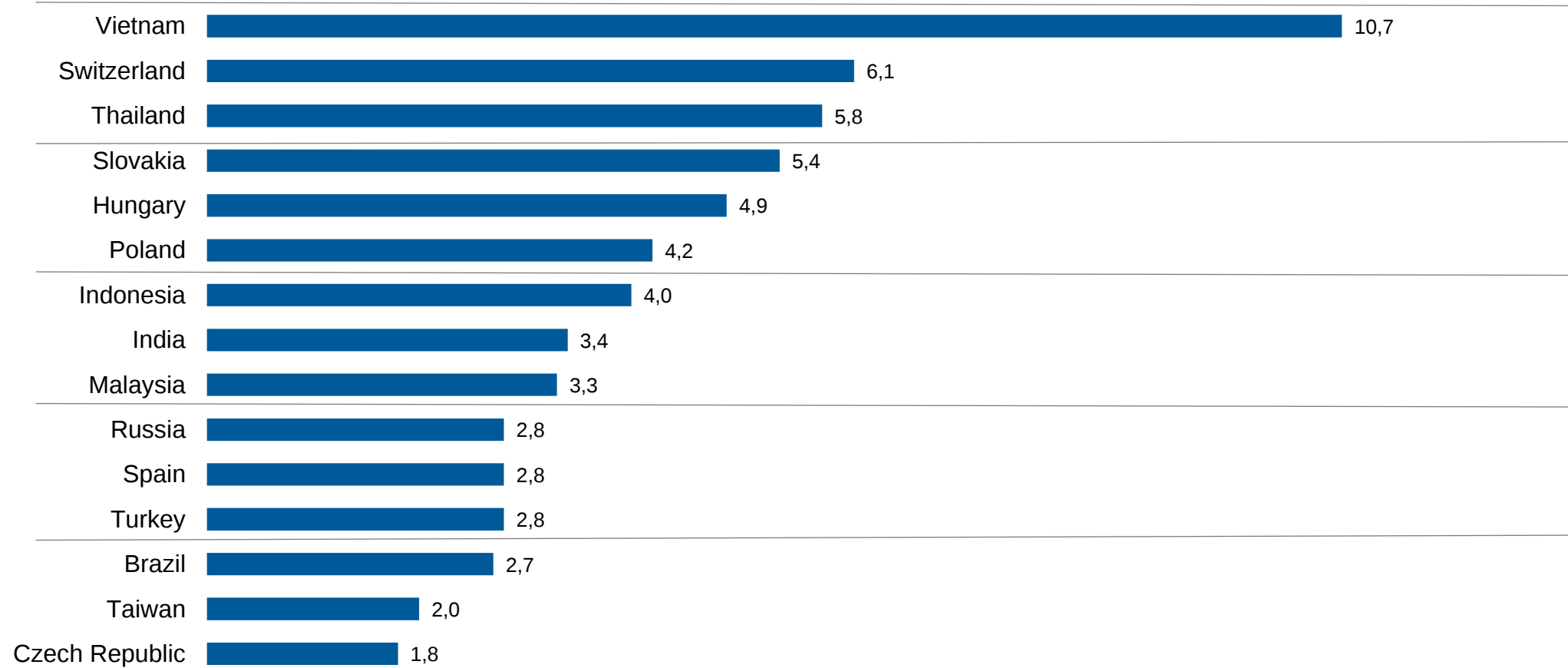
Note: since 1995 including installation, since 2002 including repair/maintenance
Sources: Federal Statistical Office, VDW, VDMA

Machine tool investments 2020

Increasing investments in smaller markets



Top-15 Investments 2020, %-change 2020/2019



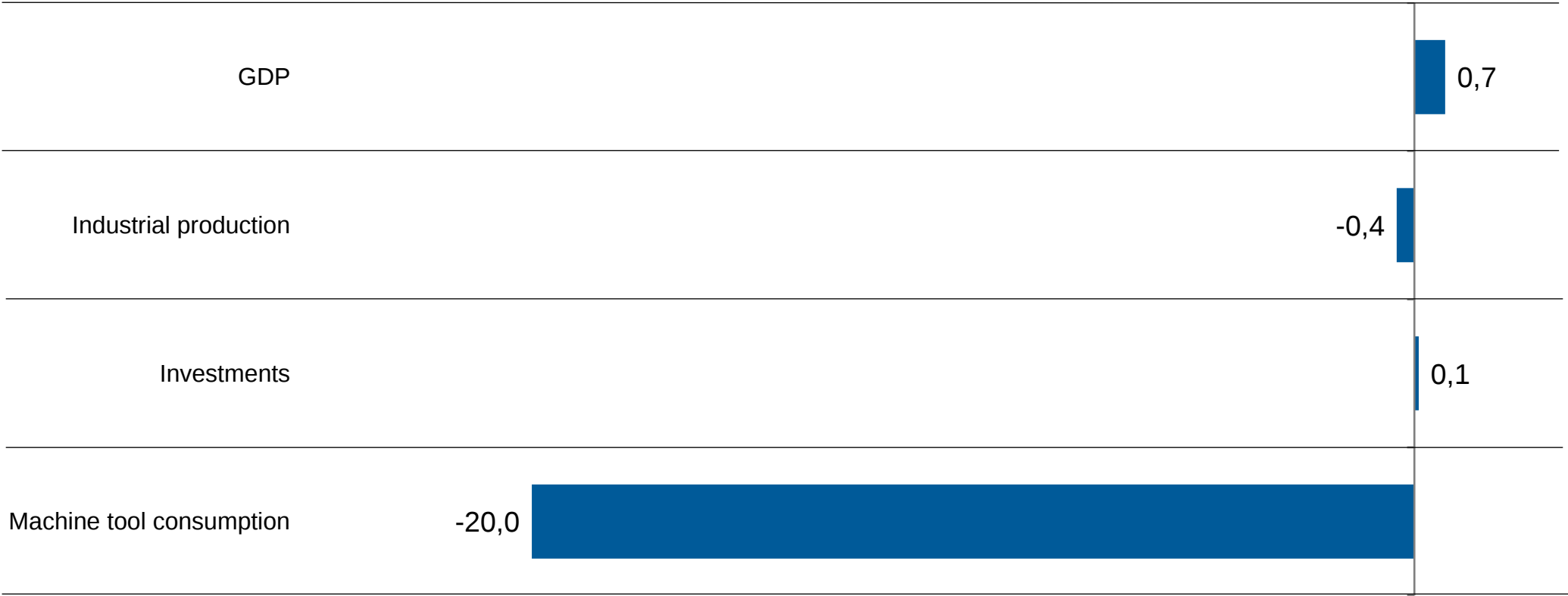
Sources: Oxford Economics, February 2020

Basic data for 2020 consumption forecast

Macro data indicate significant decrease in machine tool consumption



Forecast Germany 2020 (% change 2020/2019)



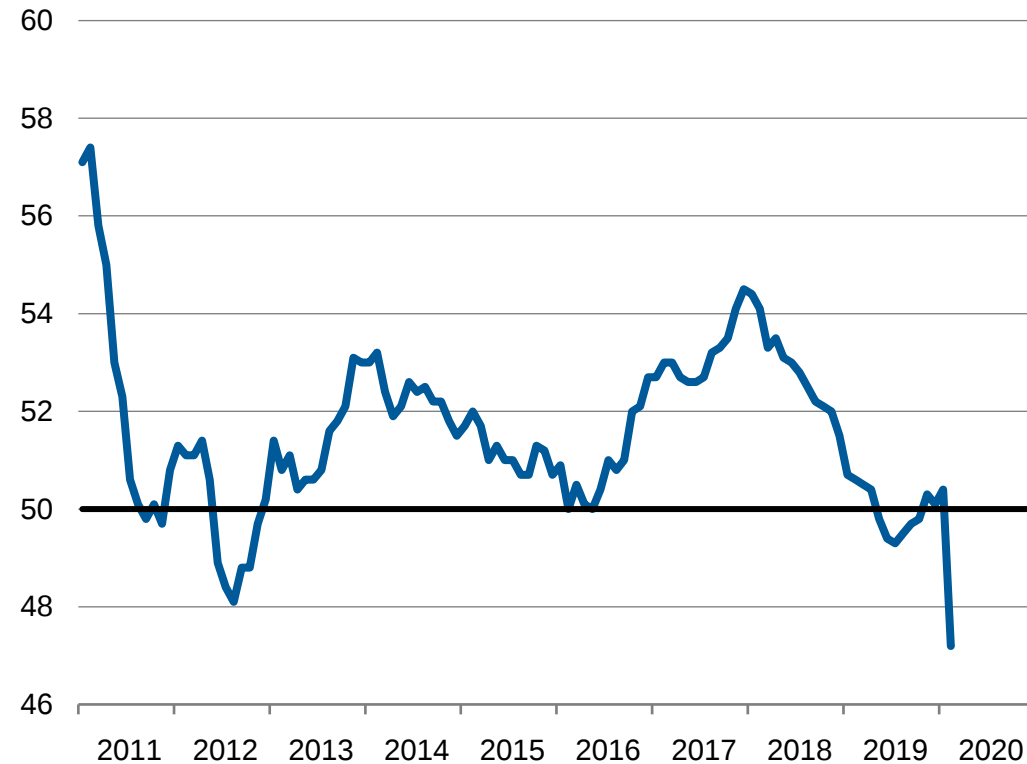
Source: Oxford Economics, February 2020

Purchase manager index

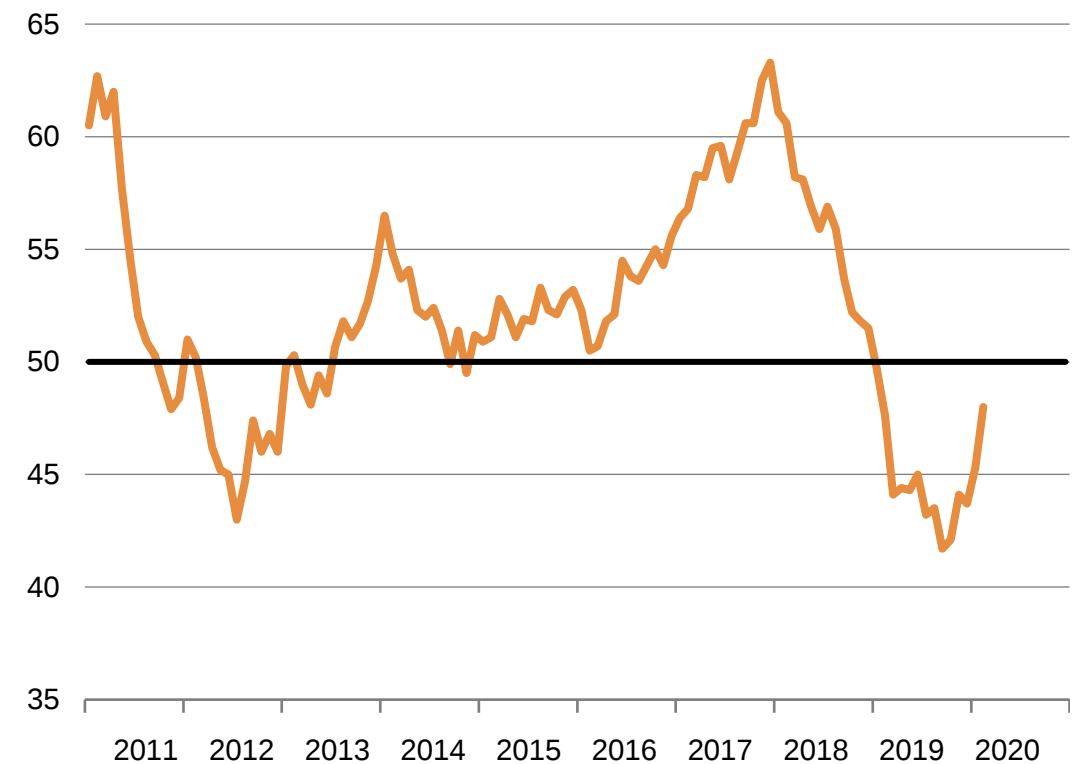
Sharp impact of corona virus, German economy still stable



PMI World



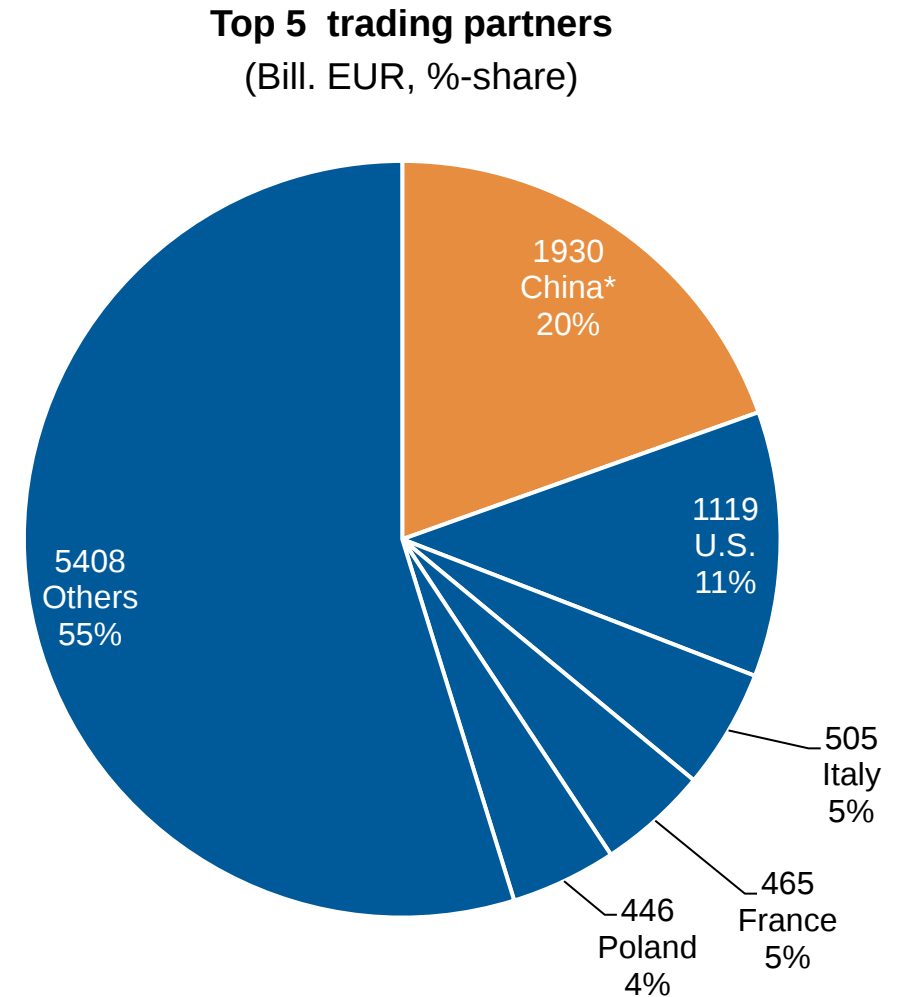
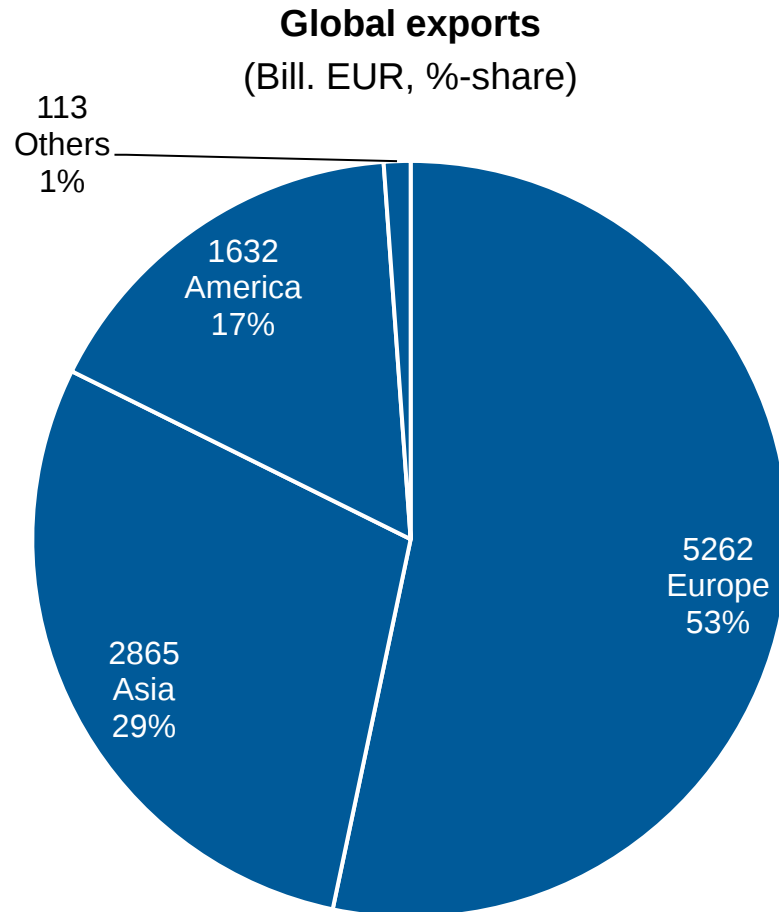
PMI Germany



Note: Values above 50 mean growth, data until February 2020
Source: Markit, London

Machine tool exports 2019

Corona virus affecting important markets



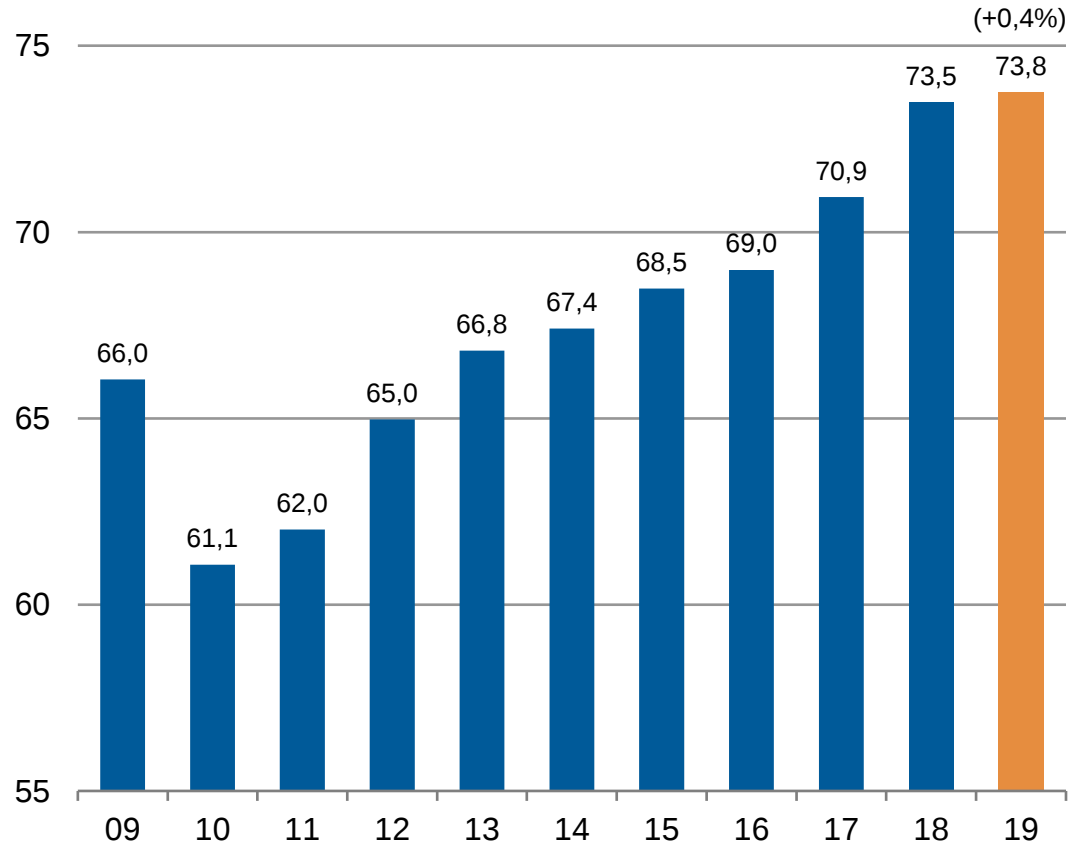
* VDW correction for „cheap and simple“ machines
Sources: Federal Statistical Office, VDW, VDMA

German machine tool industry

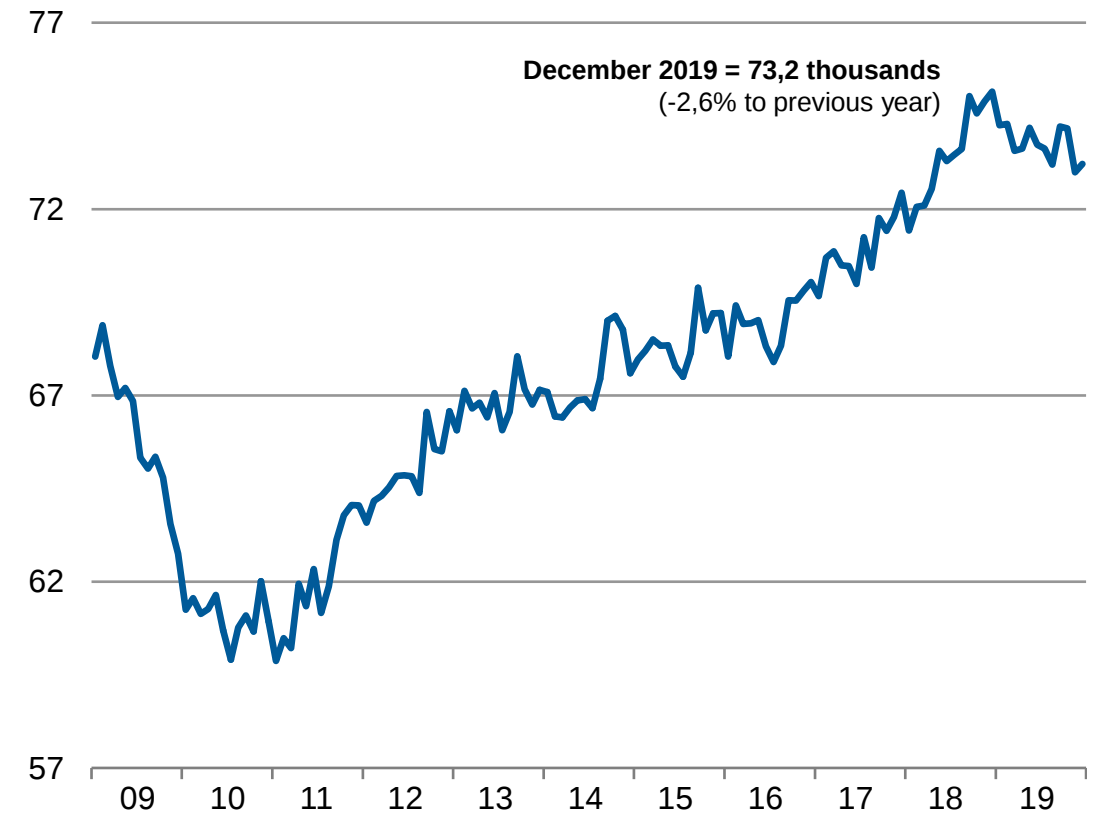
Order situation impacting employment



Average of year (in thousands)



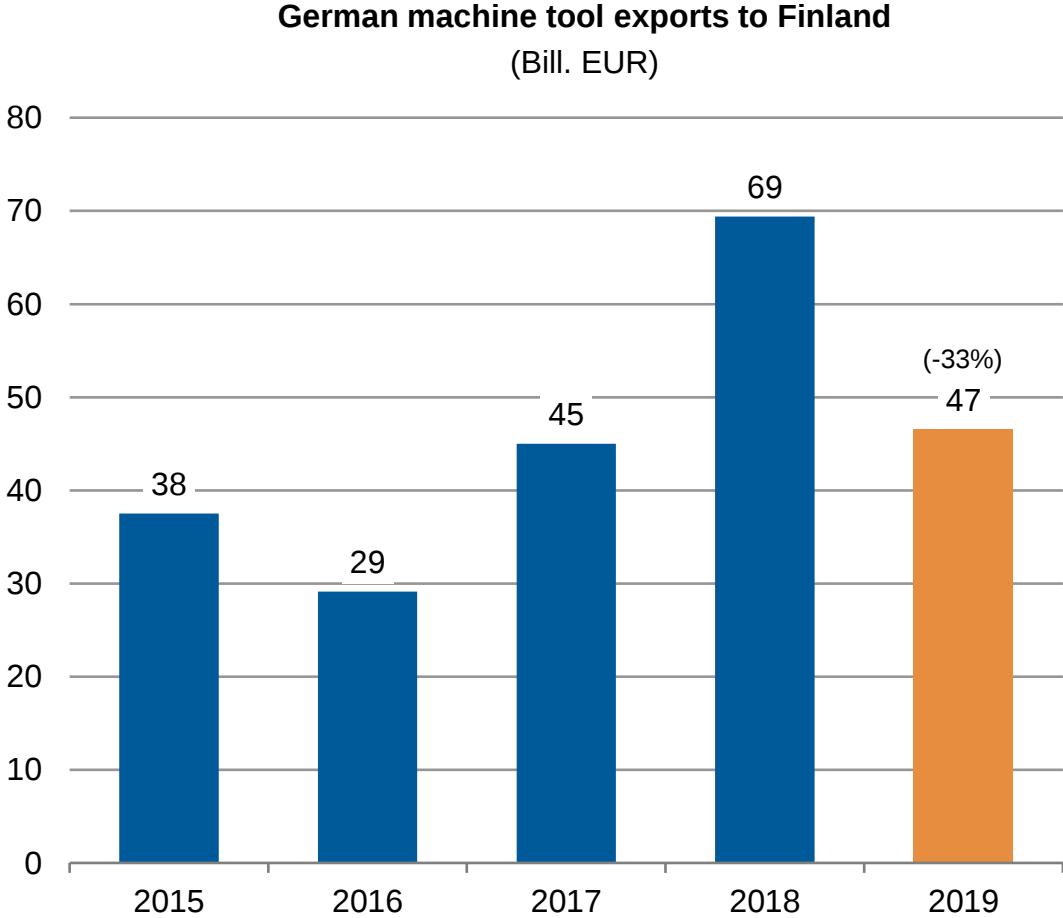
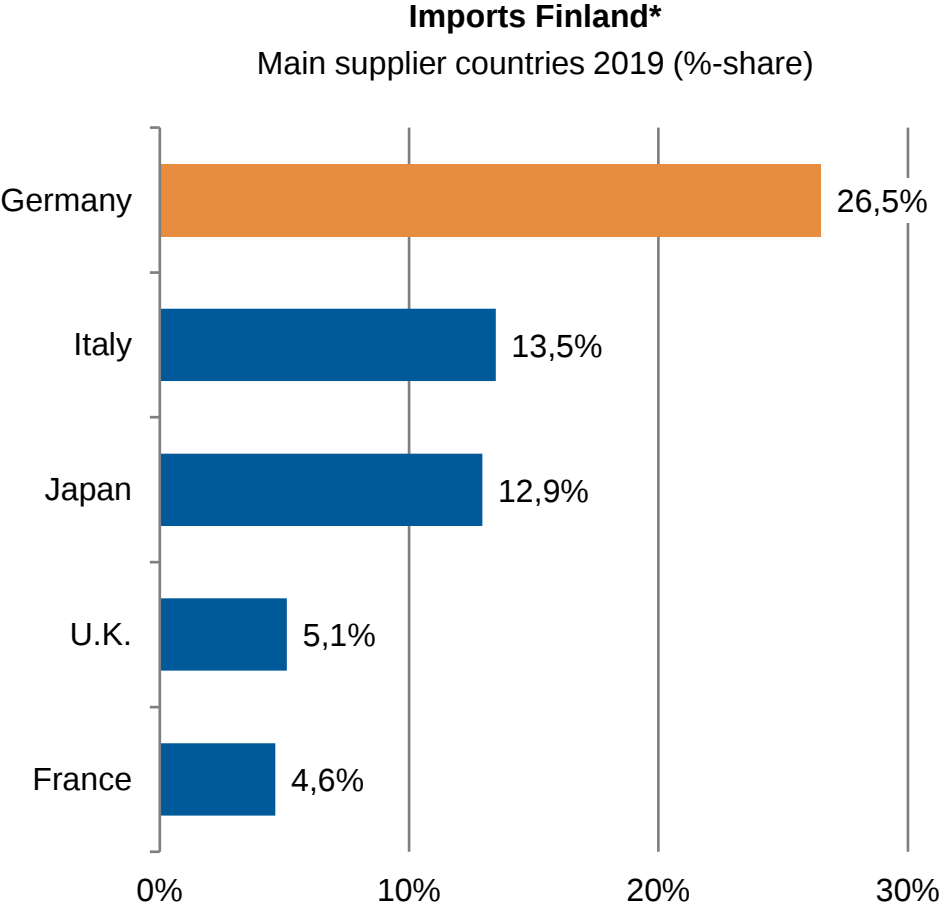
Monthly development (in thousands)



Note: companies with 50 employees and more
Nomenclature changes for 2019 may affect year-on-year comparison
Sources: Federal Statistical Office, VDMA, VDW

Import of machine tools Finland

Germany is Finland's main supplier

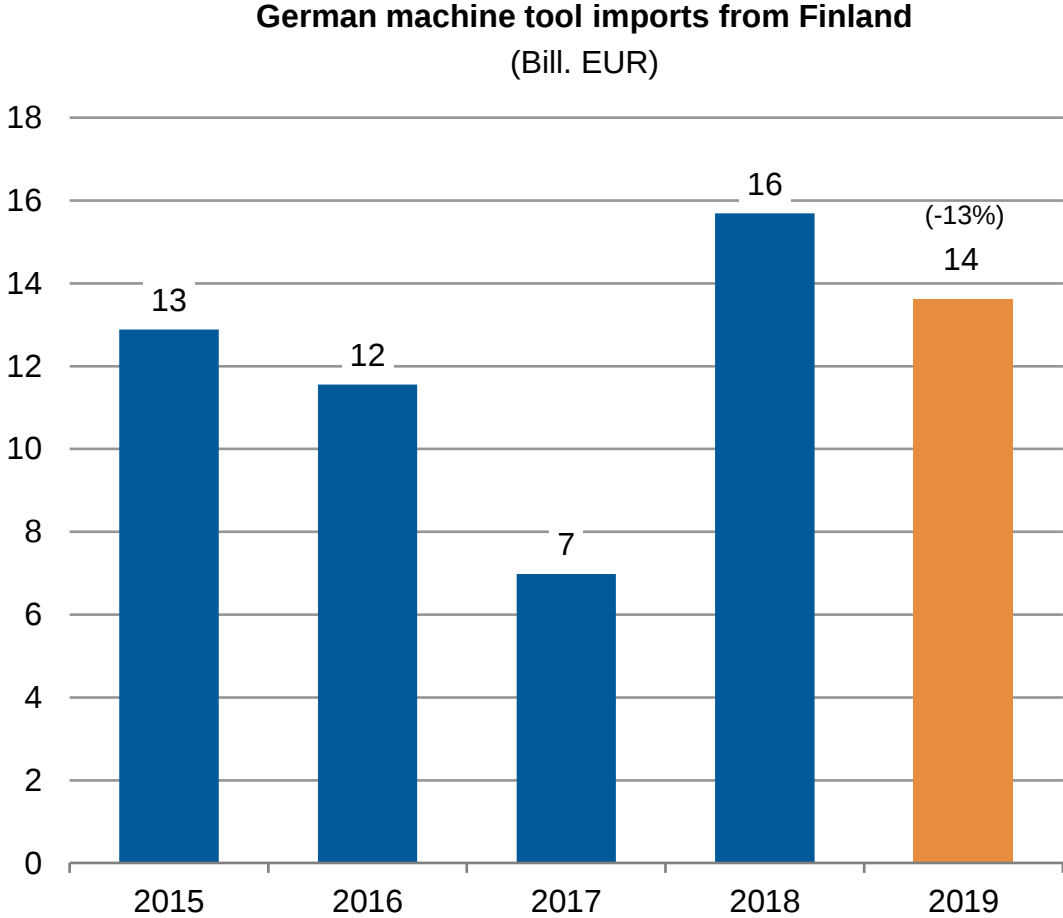
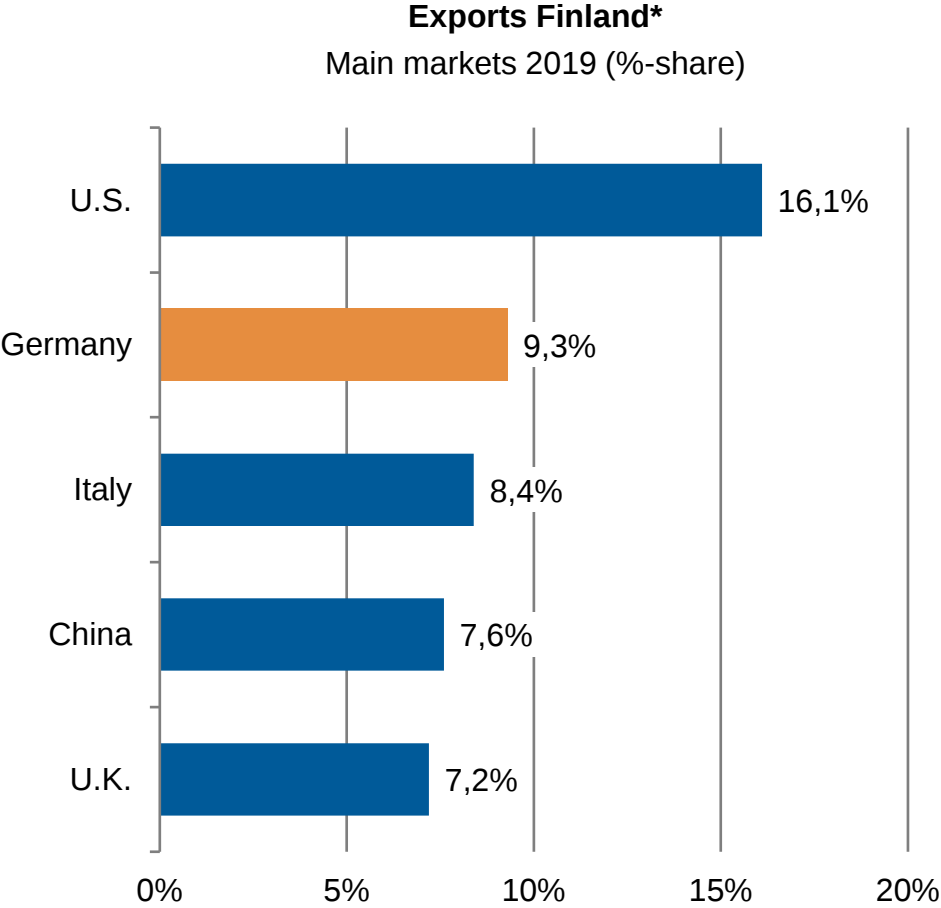


* Data basis: January to November 2019

* Machine tools including parts/accessories
Sources: Official trade statistics Germany, VDW

Export of machinery tools Finland

Germany is second sales market



* Data basis: January to November 2019

* Machine tools including parts/accessories
Sources: Official trade statistics Germany, VDW

Digitalisation and sustainability are paramount issues

Networking and digitization make production more efficient



- Only 5 percent of SMEs in the manufacturing sector are networked across the board (Cecimo).
- One in three companies is taking or planning steps towards digitization.
- Digitisation ensures efficiency and paves the way for sustainable production and recycling management.
- Optimization of products and complete production processes using digital twins.
- Software enables energetic fingerprints of production systems before commissioning.
- Foresighted maintenance already brings clear economic and ecological benefits.

Quelle: Deutsche Messe AG

Focus on sustainable production

Machine tools are pioneers



- Extremely long life cycles
- Availability of spare parts and software updates
- Reuse of components through refurbishing and remanufacturing
- Recycling and upcycling of almost all materials
- Resales enable second and third life
- Highest productivity guarantees energy- and resource-efficient production
- Continuous improvement of machine components, raw materials used, power and media consumption
- Machine tools are an example for a sustainable economy

Quelle: AdobeStock_168287228

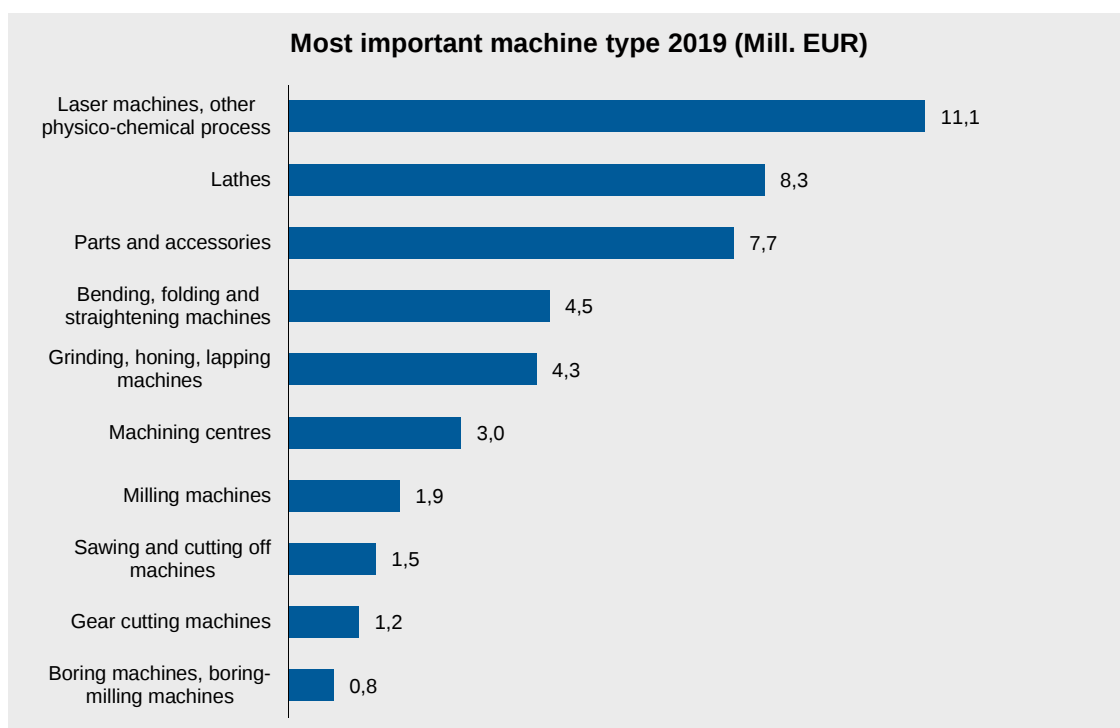
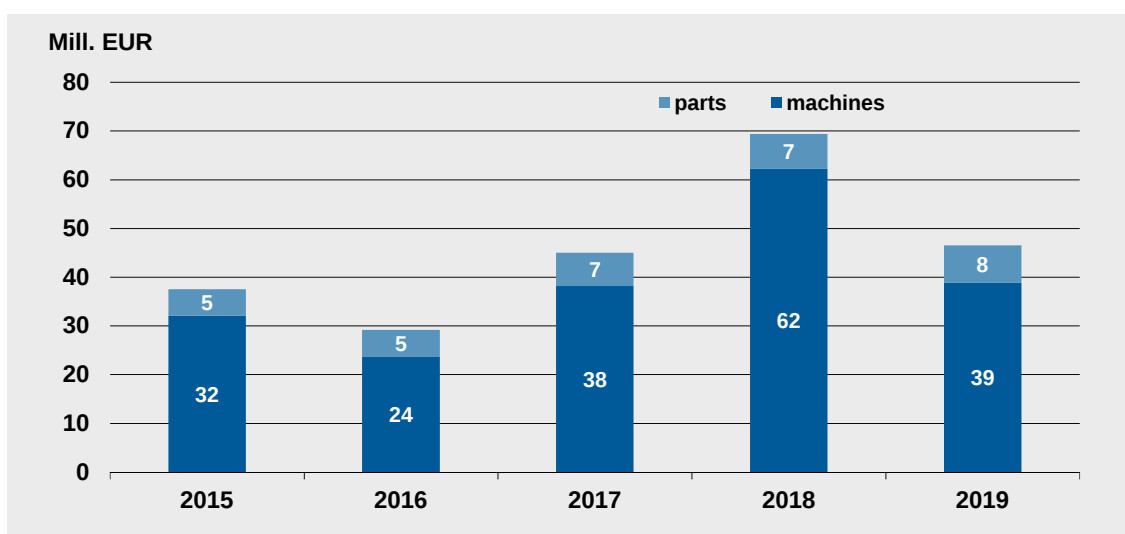
Thank you
for your attention!

Helsinki, 18 March 2020

German Machine Tool Exports to Finland - Overview*



	2015	2016	2017	2018	2019
EUR millions	37,5	29,1	45,0	69,4	46,5
%-Change to previous year	+12	-22	+54	+54	-33
%-Share in total exports	0,4	0,3	0,4	0,6	0,5
Export rank	29.	32.	29.	28.	30.



* Machine tools including parts/accessories:

HS-Harmonized System Codes 8456-8463, 84663 93/94, 8479 40

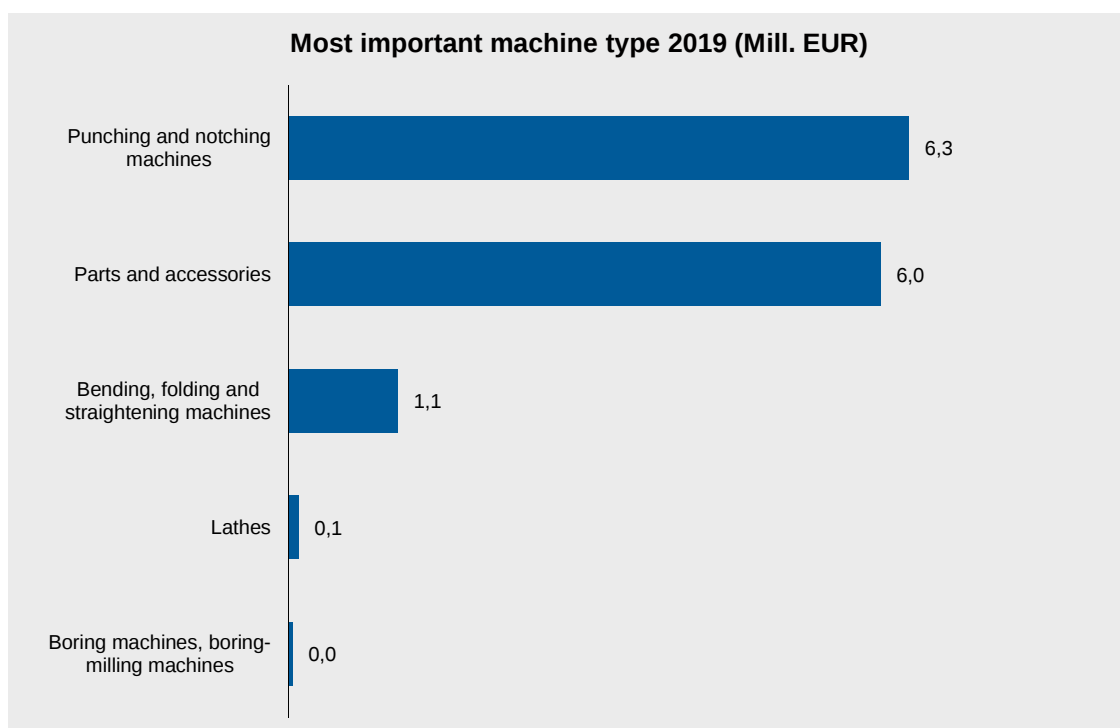
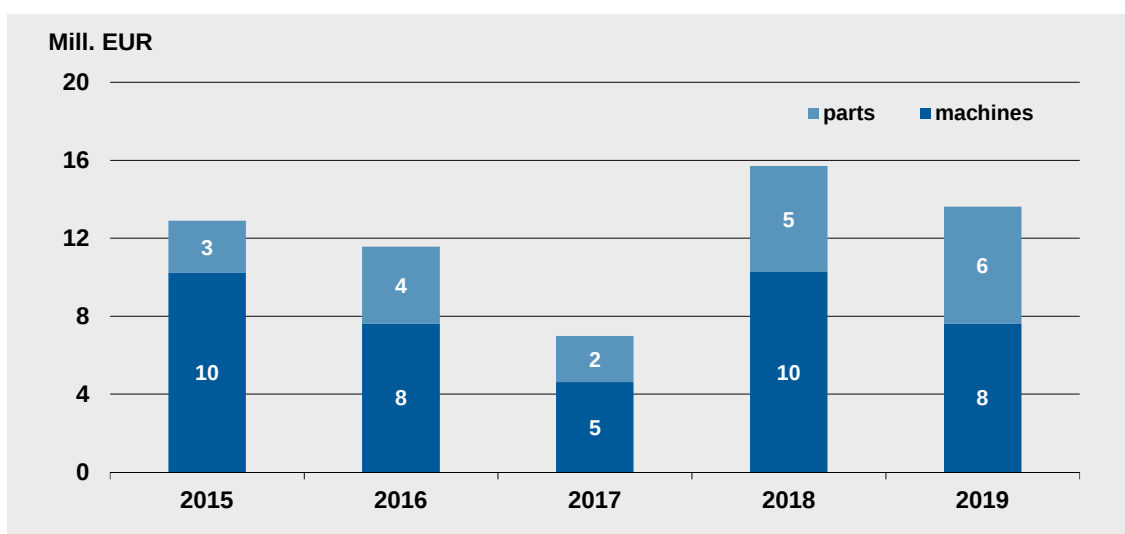
Sources: Official trade statistics Germany, VDW

VDW, German Machine Tool Builders' Association, 27.02.2020

German Machine Tool Imports from Finland - Overview*



	2015	2016	2017	2018	2019
EUR millions	12,9	11,6	7,0	15,7	13,6
%-Change to previous year	+0	-10	-40	+125	-13
%-Share in total imports	0,4	0,3	0,2	0,4	0,4
Import rank	26.	27.	30.	22.	25.



* Machine tools including parts/accessories:

HS-Harmonized System Codes 8456-8463, 84663 93/94, 8479 40

Sources: Official trade statistics Germany, VDW

VDW, German Machine Tool Builders' Association, 27.02.2020

German Machine Tool Exports to Finland - by Machine Types



		2015	2016	2017	2018	2019
Laser machines, other physico-chemical process machines	1000 EUR	4.416	7.891	10.300	11.657	11.050
	Units	36	34	31	37	37
Electrical discharge machines	1000 EUR	33	966	96	137	
	Units	1	4	2	1	
Machining centres	1000 EUR	7.297	1.769	2.254	8.387	3.000
	Units	19	7	15	19	13
Transfer lines, unit construction machines	1000 EUR	1.328		1.935		
	Units	1		1		
Lathes	1000 EUR	4.940	2.498	6.648	9.418	8.260
	Units	43	34	51	68	59
Drilling machines	1000 EUR	176	926	166	205	188
	Units	594	595	284	260	304
Boring machines, boring-milling machines	1000 EUR	240	1.512	2.138	1.429	786
	Units	19	37	49	23	41
Milling machines	1000 EUR	2.345	921	420	17.861	1.936
	Units	63	47	35	41	62
Grinding, honing, lapping machines	1000 EUR	2.003	875	5.551	5.404	4.306
	Units	1.755	1.324	2.029	2.050	2.440
Gear cutting machines	1000 EUR	2.425	100	1.970	513	1.228
	Units	3	1	4	1	3
Sawing and cutting off machines	1000 EUR	1.904	1.468	2.058	2.367	1.523
	Units	260	251	359	367	387
Other metal cutting machine tools	1000 EUR	147	1.087	293	18	150
	Units	22	20	6	8	15
Total Metal Cutting Machine Tools	1000 EUR	27.254	20.013	33.829	57.396	32.427
	Units	2.816	2.354	2.866	2.875	3.361
Forging machines and hammers	1000 EUR	4				124
	Units	1				2
Bending, folding and straightening machines	1000 EUR	829	2.147	2.247	3.875	4.532
	Units	74	118	116	188	190
Shearing	1000 EUR	751	543	755	365	618
	Units	11	35	23	16	20
Punching and notching machines	1000 EUR	71	242	506	86	335
	Units	49	73	53	57	45
Presses	1000 EUR	2.884	166	292	189	467
	Units	153	94	82	80	68
Other metal forming machine tools	1000 EUR	282	609	501	275	296
	Units	20	20	42	34	24
Total Metal Forming Machine Tools	1000 EUR	4.821	3.707	4.301	4.790	6.372
	Units	308	340	316	375	349
Parts and accessories	1000 EUR	5.446	5.419	6.877	7.192	7.727
TOTAL MACHINE TOOLS	1000 EUR	37.521	29.139	45.007	69.378	46.526
	Units	3.124	2.694	3.182	3.250	3.710

Remark: Unit numbers in trade statistics often not plausible!

HS-Harmonized System Codes 8456-8463, 84663 93/94, 8479 40

Sources: Official trade statistics Germany, VDW

VDW, German Machine Tool Builders' Association, 27.02.2020

German Machine Tool Imports from Finland - by Machine Types



		2015	2016	2017	2018	2019
Laser machines, other physico-chemical process machines	1000 EUR	1.176	1.824		40	
	Units	14	13		2	
Electrical discharge machines	1000 EUR		10			
	Units		1			
Machining centres	1000 EUR	15	12	36	178	
	Units	2		3	12	
Transfer lines, unit construction machines	1000 EUR				1.253	
	Units				1	
Lathes	1000 EUR	141	711	224	455	106
	Units	19	20	18	31	5
Drilling machines	1000 EUR		15	4		
	Units		2	16		
Boring machines, boring-milling machines	1000 EUR	1.328	130	796	554	45
	Units	32	16	25	14	3
Milling machines	1000 EUR	272	115	134	250	15
	Units	12	17	13	7	1
Grinding, honing, lapping machines	1000 EUR	43	78	32	59	1
	Units	20	8	7	14	1
Gear cutting machines	1000 EUR		40		110	32
	Units		3		2	3
Sawing and cutting off machines	1000 EUR	9	10	29		3
	Units	4	6	1		3
Other metal cutting machine tools	1000 EUR	14	3			
	Units	1	1			
Total Metal Cutting Machine Tools	1000 EUR	2.998	2.948	1.255	2.899	202
	Units	104	87	83	83	16
Forging machines and hammers	1000 EUR					
	Units					
Bending, folding and straightening machines	1000 EUR	421	2.200	85	1.182	1.111
	Units	11	6	6	11	20
Shearing	1000 EUR	10	14			16
	Units	1	1			1
Punching and notching machines	1000 EUR	6.775	2.458	3.124	6.071	6.282
	Units	21	10	5	13	8
Presses	1000 EUR	13	4	6	50	13
	Units	4	2	1	19	5
Other metal forming machine tools	1000 EUR			140	63	
	Units			1	2	
Total Metal Forming Machine Tools	1000 EUR	7.219	4.676	3.355	7.366	7.422
	Units	37	19	13	45	34
Parts and accessories	1000 EUR	2.666	3.935	2.374	5.426	5.996
TOTAL MACHINE TOOLS	1000 EUR	12.883	11.559	6.984	15.691	13.620
	Units	141	106	96	128	50

Remark: Unit numbers in trade statistics often not plausible!
HS-Harmonized System Codes 8456-8463, 84663 93/94, 8479 40

Sources: Official trade statistics Germany, VDW
VDW, German Machine Tool Builders' Association, 27.02.2020

Machine Tool Imports of Finland: Main Supplier Countries
(excluding parts/accessories)

	2015	2016	2017	2018	Jan-Nov 2019
Total imports (Mill. EUR)	92	73	94	113	102
%-share in total imports					
1. Germany	21%	23%	30%	23%	27%
2. Italy	14%	16%	16%	14%	13%
3. Japan	9%	13%	12%	13%	13%
4. United Kingdom	4%	7%	4%	4%	5%
5. France	2%	2%	3%	3%	5%

Machine Tool Exports of Finland: Main Customer Countries
(excluding parts/accessories)

	2015	2016	2017	2018	Jan-Nov 2019
Total exports (Mill. EUR)	105	121	125	128	102
%-share in total exports					
1. USA	13%	12%	17%	13%	16%
2. Germany	10%	7%	6%	7%	7%
3. Italy	8%	8%	6%	11%	9%
4. China	1%	3%	1%	3%	8%
5. United Kingdom	2%	3%	1%	2%	7%

Sources: Official trade statistics of Finland, VDW
HS-Harmonized System Codes 8456-8463

VDW, German Machine Tool Builders' Association, 27.02.2020