[Press Release]

Forecast of Demand for Construction Equipment (February 2023)

Japan Construction Equipment Manufacturers Association (CEMA)

1 General

○ For FY2022, the domestic demand will remain solid with a further increases in exports, and the full-year shipment value is expected to be JPY 2,849.9 billion (up 13% year-on-year).

○ For FY2023, both the domestic demand and exports will continue growing for the third consecutive year of increases. All the 9 types of construction equipment will either increase or remain unchanged year-on-year, which will drive the full-year shipment value for FY2023 to a record JPY 3,058.0 billion (up 7% year-on-year).

2 Domestic demand and exports

(1) Domestic

OIn FY2022, the domestic demand will increase slightly supported by a stable demand from public works projects despite delays in delivery for some parts and components.

• The first half of the FY saw 7 types of EQUIPMENT either increase or remain unchanged, including a 23% year-on-year increase in construction cranes. The demand for the period reached JPY 414.9 billion (up 5% year-on-year).

• In the second half, the delays in delivery for some parts and components will linger; however, supported by a stable demand from public works projects, 5 types of EQUIPMENT will likely increase. The demand for the period is expected to be JPY 471.6 billion (unchanged year-on-year).

• As a result, the full-year demand for FY2022 is expected to be JPY 886.5 billion (up 2% yearon-year) for the second straight year of increases. (The figure has been revised upward by JPY 21.8 billion compared to the previous forecast in August 2022.) \bigcirc FY2023 will see a slight increase in demand, with stable and continuing public works investments.

• The first half will see 7 types of EQUIPMENT increase, with the demand for the period expected to be JPY 428.8 billion (up 3% year-on-year)

• The second half will also see 8 types of EQUIPMENT increase, with the demand for the period expected to be JPY 486.2 billion (up 3% year-on-year)

• As a result, the full-year demand for FY2023 is expected to be JPY 915.0 billion (up 3% yearon-year) to mark the third straight year of increases. (The figure has been revised upward by JPY 3.70 billion compared to the previous forecast in August 2022.)

- (2) Exports
- Exports are expected to further grow in FY2022 with the post-pandemic recovery of economic activities across the globe and weakening of the yen, even though, like in the domestic market, there are certain issues including delays in delivery for some parts and components and impact of the Russia-Ukraine war.
- The first half of the FY saw year-on-year increases in 8 types of EQUIPMENT, including a 20% increase in hydraulic excavators, the flagship products. The demand for the period reached JPY 936.7 billion (up 20% year-on-year).
- The second half will also likely see year-on-year increases in 8 types of EQUIPMENT including an 11% year-on-year increase in hydraulic excavators. The demand for the period is expected to be JPY 1,026.7 billion (up 16% year-on-year).
- As a result, the full-year demand for FY2022 is expected to be JPY 1,963.4 billion (up 18% year-on-year) for the second straight year of increases. (The figure has been revised upward by JPY 208.7 billion compared to the previous forecast in August 2022.)
- Exports are also expected to further increase in FY2023, mainly for civil-engineering machinery.
- The first half of the FY will see 7 types of equipment increase, and the exports during the

period are expected to be JPY 1,072.8 billion (up 15% year-on-year).

- The second half will also see 7 types of equipment increase, and the exports during the period are expected to be JPY 1,070.2 billion (up 4% year-on-year).
- As a result, the full-year exports for FY2023 are expected to be JPY 2,143.0 billion (up 9% year-on-year) to mark the third straight year of year-on-year increases. (The figure has been revised upward by JPY 304.5 billion compared to the previous forecast in August 2022.)

			FY2022		FY2023				
		1H	2H	Full-year	1H	2H	Full-year		
		Actual	Forecast	Forecast	Forecast	Forecast	Forecast		
Domestic	Value (million yen)	414,894	471,600	886,494	428,800	486,200	915,000		
	Year-on-year (%)	105	100	102	103	103	103		
	Year-on-year in the previous forecast (%)	99	101	100	102	101	102		
Exports	Value (million yen)	936,705	1,026,700	1,963,405	1,072,800	1,070,200	2,143,000		
	Year-on-year (%)	120	116	118	115	104	109		
	Year-on-year in the previous forecast (%)	107	104	105	106	103	105		
TOTAL	Value (million yen)	1,351,599	1,498,300	2,849,899	1,501,600	1,556,400	3,058,000		
	Year-on-year (%)	115	111	113	111	104	107		
	Year-on-year in the previous forecast (%)	104	103	103	105	103	104		

[Demand forecast results at a glance]

Note: Service parts are not included.

This material is compiled by Japan Construction Equipment Manufacturers Association (CEMA; Chairman: Hiroto Honda), from results of a demand forecast survey answered by 62 construction equipment manufacturers with a CEMA regular member status as of January 2023. This survey was our 63rd, and was conducted in a questionnaire style, asking the participants their values of domestic shipments and exports for three semi-annual periods (the second half of FY2022 and the first and second halves of FY2023) and in the categories of 9 types of construction equipment.

Forecast of Demand for Construction Equipment

22 February 2023 Japan Construction Equipment Manufacturers Association (CEMA)

Upper: Value in million yen

Upper: Value in million yen

Forecast for FY22

							Lower: Year-on-	year comparison	(%)		
		1H Actual			2H Projection		Full-year Forecast				
	Domestic	Exports	Total	Domestic	Exports	Total	Domestic	Exports	Total		
Tractors	47,646	125,117	172,763	64,800	139,200	204,000	112,446	264,317	376,763		
	100	122	115	109	123	118	105	122	117		
Hydraulic Excavators	137,283	423,425	560,708	162,100	430,900	593,000	299,383	854,325	1,153,708		
	100	120	115	97	111	107	98	116	111		
Mini HE	38,888	175,956	214,844	43,000	197,400	240,400	81,888	373,356	455,244		
	94	112	109	95	114	110	95	113	109		
Construction Cranes	91,179	37,601	128,780	96,100	51,800	147,900	187,279	89,401	276,680		
	123	132	125	103	119	108	112	124	115		
Road Equipment	18,166	19,926	38,092	19,300	20,100	39,400	37,466	40,026	77,492		
	100	114	107	92	110	100	95	112	103		
Concrete Equipment	14,481	642	15,123	16,100	600	16,700	30,581	1,242	31,823		
	89	127	90	99	103	99	94	115	95		
Foundation Work	18,292	1,847	20,139	19,100	2,400	21,500	37,392	4,247	41,639		
Equipment	113	91	110	104	90	102	108	91	106		
Hydraulic Breakers	11,989	5,824	17,813	12,600	6,000	18,600	24,589	11,824	36,413		
Hydraulic Crushers	114	120	116	104	111	106	109	116	111		
Other Construction Equipment	36,970	146,367	183,337	38,500	178,300	216,800	75,470	324,667	400,137		
	110	124	120	102	129	123	106	126	122		
Total	414,894	936,705	1,351,599	471,600	1,026,700	1,498,300	886,494	1,963,405	2,849,899		
	105	120	115	100	116	111	102	118	113		

Forecast of Demand for Construction Equipment

22 February 2023 Japan Construction Equipment Manufacturers Association (CEMA)

Forecast for FY23

							Lower: Year-on-	year comparison	(%)		
		LH Forecast			2H Forecast		Full-year Forecast				
	Domestic	Exports	Total	Domestic	Exports	Total	Domestic	Exports	Total		
Tractors	51,500	156,400	207,900	68,700	150,300	219,000	120,200	306,700	426,900		
	108	125	120	106	108	107	107	116	113		
Hydraulic Excavators	141,400	453,100	594,500	165,300	439,500	604,800	306,700	892,600	1,199,300		
	103	107	106	102	102	102	102	104	104		
Mini HE	40,400	195,300	235,700	46,400	199,400	245,800	86,800	394,700	481,500		
	104	111	110	108	101	102	106	106	106		
Construction Cranes	93,900	43,200	137,100	98,000	54,900	152,900	191,900	98,100	290,000		
	103	115	106	102	106	103	102	110	105		
Road Equipment	19,400	18,900	38,300	20,300	21,300	41,600	39,700	40,200	79,900		
	107	95	101	105	106	106	106	100	103		
Concrete Equipment	14,300	700	15,000	16,600	700	17,300	30,900	1,400	32,300		
	99	109	99	103	109	104	101	113	101		
Foundation Work	18,100	1,700	19,800	19,700	2,200	21,900	37,800	3,900	41,700		
Equipment	99	93	98	103	93	102	101	92	100		
Hydraulic Breakers	12,500	5,900	18,400	13,100	5,800	18,900	25,600	11,700	37,300		
Hydraulic Crushers	104	101	103	104	97	102	104	99	102		
Other Construction Equipment	37,300	197,600	234,900	38,100	196,100	234,200	75,400	393,700	469,100		
	101	135	128	99	110	108	100	121	117		
Total	428,800	1,072,800	1,501,600	486,200	1,070,200	1,556,400	915,000	2,143,000	3,058,000		
	103	115	111	103	104	104	103	109	107		

																ower: Year-on-	year compariso	
Туре	Region	07	08	09	10	11	12	13	14	15	16	17	18	19	20	2 1	2 2 Forecast	
Tractors	Domestic Total	86, 751 95		49, 643 73	55, 364 112	67, 182 121	92, 194 137		112, 494 98		113, 657 94	109, 773 97	121, 769 111	121, 000 99	109, 716 91	106, 968 98	107, 200 100	110, 500 103
	Exports	309, 147	257, 243	88, 865	185, 865	238, 442	202, 400	189, 219	212, 143	146, 491	126, 496	178, 822	190, 022	138, 179	128, 891	215, 959	247, 500	254, 300
	Total	126		35	209	128	85		112		86	141	116	73	93	168	115	103
	Subtotal	395, 898 118	325, 337 82	138, 508 43	241, 229 174	305, 624 127	294, 594 96	303, 774 103	324, 637 107	267, 231 82	240, 153 90	288, 595 120		259, 179 83	238, 607 92	322, 927 135	354, 700 110	364, 800 103
Excavators	Domestic	295, 296	197, 598	99, 556	138, 014	197, 032	255, 476	358, 163	287, 439	253, 663	252, 938	269, 656	270, 587	282, 642	296, 096	304, 164	302, 800	308, 600
Underselle Franziskere	Total	108		50	139	143	130		80 EE0 120		100	107	100	104	105	103	100	102
Hydraulic Excavators	Exports Total	719, 983 122		326, 209 55	655, 519 201	760, 735 116	559, 611 74		558, 138 107	468, 539 84	498, 370 106	659, 084 132	773, 484 117	599, 682 78	491, 096 82	739, 662 151	753, 400 102	786, 900 104
	Subtotal	1, 015, 279	793, 184	425, 765	793, 533	957, 767	815, 087	878, 169	845, 577		751, 308	928, 740	1, 044, 071	882, 324	787, 192	1, 043, 826	1, 056, 200	1, 095, 500
Mini Hudrowlia Fucawatara	Domostia	117 79, 793		54 30, 883	186	121	85	108 85, 380	96		104	124		85 85, 859	89	133 86, 552	101	104 95, 300
Mini Hydraulic Excavators	Domestic Total	100		30, 883	42, 404 137	57, 551 136	71, 141 124		102, 048 120	106, 846 105	77, 282 72	84, 358 109		85, 859 96	86, 320 101	80, 552 100	88, 700 102	95, 300 107
	Exports	186, 806	96, 291	52, 449	99, 424	124, 263	119, 367	137, 599	164, 475	167, 115	178, 323	212, 081	230, 492	231, 056	228, 150	329, 555	351,000	382, 600
	Total	115 266, 599		54 83, 332	190 141, 828	125 181, 814	96 190, 508		120 266, 523	102 273, 961		119 296, 439	109 319, 991	100 316, 915	99 314, 470	144 416, 107	107 439, 700	109 477, 900
	Subtotal	200, 599		os, ssz 57	141, 020	101, 014	190, 508		200, 523		255, 605	290, 439		310, 915	314, 470	410, 107	439,700	477,900
Construction Cranes	Domestic	170, 066		83, 700	83, 071	106, 582	123, 277		188, 161			198, 054	191, 353	198, 575	170, 018	167, 614	165, 200	158, 600
	Total	116 117, 935		55 64, 616	99	128 75, 053	116 79, 265		114 129, 724	109	105	93 68, 681	97 83, 835	104 85, 182	86	99 71, 997	99 78, 900	96 82, 100
	Exports Total	135		04, 010 47	63, 442 98	118	106		129, 724	117, 057 90	70, 016 60	98		102	50, 719 60	142		82, 100 104
	Subtotal	288, 001	289, 221	148, 316	146, 513	181, 635	202, 542	274, 707	317, 885	321, 754	283, 953	266, 735	275, 188	283, 757	220, 737	239, 611	244, 100	240, 700
Dood Equipment	Domosti	123 29, 515		51 18, 270	99 23, 649	124 26, 464	112 32, 883		116 39, 546		88 36, 442	94 38, 692	103	103 40, 185	78	109 39, 236	102	99 38, 400
Road Equipment	Domestic Total	29, 515		18, 270	23, 649	20, 404 112	32, 883		39, 546 102		30, 442	38, 692 106		40, 185	40, 327 100	39, 230 97	37, 100 95	38, 400 104
	Exports	43, 926	39, 836	20, 260	27, 745	31, 258	27, 523	30, 656	33, 545	31, 506	25, 870	36, 598	31, 894	21, 075	21, 585	35, 824	42, 400	43, 200
	Total	136		51	137	113	88		109		82 60 010	141	87	66	102	166 75, 060	118	102
	Subtotal	73, 441 120		38, 530 61	51, 394 133	57, 722 112	60, 406 105		73, 091 105	71, 590 98	62, 312 87	75, 290 121	67, 637 90	61, 260 91	61, 912 101	75,060 121	79, 500 106	81, 600 103
Concrete Equipment	Domestic	22, 988	15, 931	13, 927	10, 877	14, 912	17, 579	26, 454	28, 870	30, 307		29, 244		30, 853	31, 412	32, 554	33, 200	33, 700
	Total	107		87	78	137	118		109		97	100		109	102	104	102	102
	Exports Total	3, 229 145		798 47	896 112	1, 107 124	1, 342 121		1, 739 105	2, 244 129	1, 664 74	1, 558 94		1, 279 138	830 65	1, 078 130	900 83	700 78
	Subtotal	26, 217	17, 635	14, 725	11, 773	16, 019	18, 921	28, 114	30, 609	32, 551	31, 024	30, 802	29, 188	32, 132	32, 242	33, 632	34, 100	34, 400
Foundation Work	Domostio	110 24, 787		83 18, 851	80 17, 821	136 18, 822	118 22, 108		109 32, 305		95 38, 978	99 39, 120		110 40, 896	100 36, 074	104 34, 601	101 33, 500	101 31, 900
Equipment	Domestic Total	137		10, 001	95	10, 022	118	137	32, 303		111	39, 120		40, 890	30, 074	34, 001 96	33, 500 97	31, 900 95
	Exports	2, 118	2, 689	2, 497	3, 010	3, 684	4, 169	3, 383	3, 043	3, 399	6, 141	5, 211	4, 250	4, 801	4, 974	4, 651		3, 800
	Total Subtotal	172 26, 905		93 21, 348	121 20, 831	122 22, 506	113 26, 277		90 35, 348	112 38, 461	181 45, 119	85 44, 331	82 47, 699	113 45, 697	104 41, 048	94 39, 252	90 37, 700	90 35, 700
	Subtotal	139	95	21, 340	20, 031	108	117		105	109	117	98	92	45, 057	110	55, 252 96	96 96	33, 700 95
Hydraulic Breakers	Domestic	16, 537		6, 322	8, 205	12, 885	13, 499		18, 468	18, 052	18, 895	19, 867	20, 524	20, 628	19, 202	22, 583	24, 600	26, 100
Hydraulic Crushers	Total Exports	104 15, 209		54 6, 884	130 10, 196	157 8, 061	105 7, 115		114 8, 481	98 8, 962	105 7, 561	105 9,079		101 8, 633	93 6, 200	118 10, 205		106 12, 200
	Total	113		61	148	79	88		121	106	84	120		86	72	165	114	105
	Subtotal	31, 746		13, 206	18, 401	20, 946	20, 614		26, 949		26, 456	28, 946		29, 261	25, 402	32, 788	36, 200	38, 300
Other Construction Equipments	Domestic	108 63, 333		58 46, 731	139 41, 489	114 62, 864	98 50, 344		116 65, 660		98 85, 000	109 75, 831	106 72, 809	96 74, 894	87 71, 397	129 71, 510	110 72, 400	106 74, 900
Carlo Concarotion Equipmento	Total	94	95	78	89	152	80	121	108	107	120	89	96	102	95	100	101	103
	Exports	255, 218		138, 429	246, 303	263, 219	208, 447		162, 671			232, 278		189, 585	144, 232	256, 705	264, 800	272, 700
	Total Subtotal	125 318, 551	91 293, 127	59 185, 160	178 287, 792	107 326, 083	79 258, 791	85 237, 196	92 228, 331	95 225, 137	105 247, 160	143 308, 109	108 323, 600	76 264, 479	76 215, 629	178 328, 215	103 337, 200	103 347, 600
		117	92	63	155	113	79	92	96	99	110	125	105	82	82	152	103	103
Equipment Total	Domestic	789, 066		367, 883	420, 894	564, 294 124	678, 501 120	895, 199	874, 991		866, 489	864, 595		895, 532	860, 562	865, 782	864, 700 100	878, 000 102
	Total Exports	106 1, 653, 571		61 701, 007	114 1, 292, 400	134 1, 505, 822	120 1, 209, 239		98 1, 273, 959	101 1, 099, 892	98 1, 076, 601	100 1, 403, 392		102 1, 279, 472	96 1, 076, 677	101 1, 665, 636	1, 754, 700	1, 838, 500
	Total	123	83	51	184	117	80	97	108	86	98	130	112	81	84	155	105	105
	Subtotal	2, 442, 637	1, 975, 704 81	1, 068, 890 54	1, 713, 294 160	2,070,116	1, 887, 740		2, 148, 950	1, 979, 901 92	1, 943, 090	2, 267, 987	2, 449, 757	2, 175, 004 89	1, 937, 239 89	2, 531, 418	2, 619, 400	2, 716, 500
Service Parts	Domestic	117 101, 204	•.	54 89, 691	90, 098	121 98, 807	91 101, 709	110 114, 173	104 118, 920		120, 038	117 118, 860	108 118, 506	124, 499	125, 169	131 132, 080	103	104
	Total	97	89	100	100	110	103	112	104	100	101	99	100	105	101	106		
	Exports	131, 888		103, 599	159, 587	181, 432	160, 061	149, 927	171, 732		143, 439	208, 316	238, 990	201, 540	151, 957	247, 595		
	Total Subtotal	117 233, 092		79 193, 290	154 249, 685	114 280, 239	88 261, 770		115 290, 652	92 276, 890	91 263, 477	145 327, 176	115 357, 496	84 326, 039	75 277, 126	<u>163</u> 379, 675		
		108	95	87	129	112	93	101	110	95	95	124	109	91	85	137		
Grand Total	Domestic	890, 270 105		457, 574 66	510, 992 112	663, 101 130	780, 210 118		993, 911 98	999, 259 101	986, 527 99	983, 455 100		1, 020, 031	985, 731	997, 862		
	Total Exports	1, 785, 459		804, 606	1, 451, 987	1, 687, 254	1, 369, 300		98 1, 445, 691		99 1, 220, 040	1, 611, 708		<u>103</u> 1, 481, 012	97 1, 228, 634	101 1, 913, 231		
	Total	123	84	53	180	116	81	97	109	87	97	132	113	82	83	156		
	Subtotal	2, 675, 729 116		1, 262, 180 57	1, 962, 979 156	2, 350, 355 120	2, 149, 510 02	2, 335, 244 109	³ 2, 439, 602 104		2, 206, 567	2, 595, 163		2, 501, 043	2, 214, 365	2, 911, 093		
		110	82	5/	001	120	92	109	104	93	98	118	108	89	89	132		

Upper: Value in million yen Lower: Year-on-vear comparison

Japan Construction Equipment Manufacturers Association (CEMA) Press Conference by Chairman

 Forecast of Demand for Construction Equipment (CE) – (Published in February 2023) February 22, 2023
 Hiroto Honda, CEMA Chairman

Program

- 1. Opening declaration by PR Committee Chairman Ishida at 11:00
- 2. Reporting by CEMA Chairman Honda at 11:05 11:30
 - Forecast of Demand for Construction Equipment (on a shipment basis)
- 3. Q&A at 11:30 11:55
- 4. Closing declaration by PR Committee Chairman Ishida at 11:55



•CEMA demand forecast is published in February and August every financial year. This is the 63rd.

- Scope of survey: 62 CE manufacturers with CEMA regular member status
- Date of survey: As of January 2023
- Period for survey: 3 semi-annual periods (1H of FY22 and 1H/2H of FY23)

• Types of CE surveyed: 9 types (Tractors, HE*, Mini HE*, Construction cranes, Road equipment, Concrete equipment, Foundation work equipment, Hydraulic breakers & crushers, and Other CE)

(Next forecast will be published on Thursday, August 3, 2023)

[Contents of Chairman's Press Conference]



1. Demand Forecast for FY22/23

(1) Shipment Value Basis

 $\textcircled{1}\mathsf{F}\mathsf{Y}$ over $\mathsf{F}\mathsf{Y}$ comparison

②Half year vs previous half year comparison

③Changes by model (incl. service parts)

(4) Changes by market (domestic/exports)

(2) Unit Number Basis

HE (hydraulic excavators)
 Mini HE

[FYI] Shipment value by destination

①Changes in composition ratios: During 2007 - 2021

②Changes in composition ratios: Apr-Dec 2022

(3) Changes in index (2007=100)

2. Survey Results - Members

- (1) Behind domestic demand forecast
 - ①Public works projects
 - 2 Private capital investments
 - ③Housing investments
- (2) Behind overseas demand forecast
 - ①Trend in the North American markets
 - (2) Trend in the European markets
 - ③Trend in Asian markets ex. China

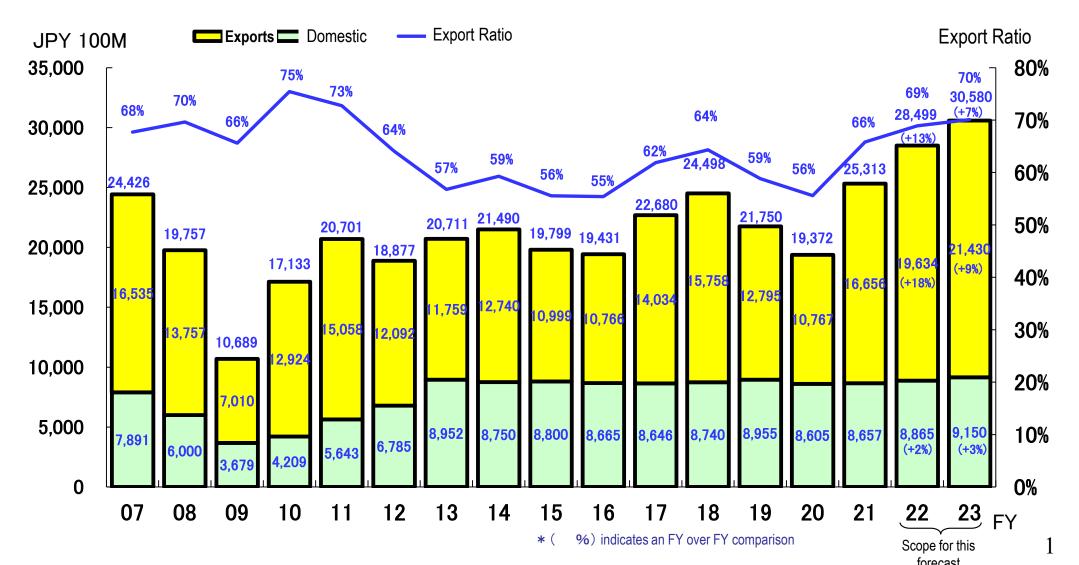
(including Oceania)

4Trend in the Chinese market

1. Demand Forecast for FY22/23 (1) Shipment Value Basis (1) FY over FY comparison



OIn FY22, Domestic demand will remain solid and Exports will soar by 13% to JPY 2,849.9B. OIn FY23, both Domestic demand and Exports will further grow. Full-year shipment value for FY23 is expected to reach a record 3,058.0B, exceeding that for FY22.

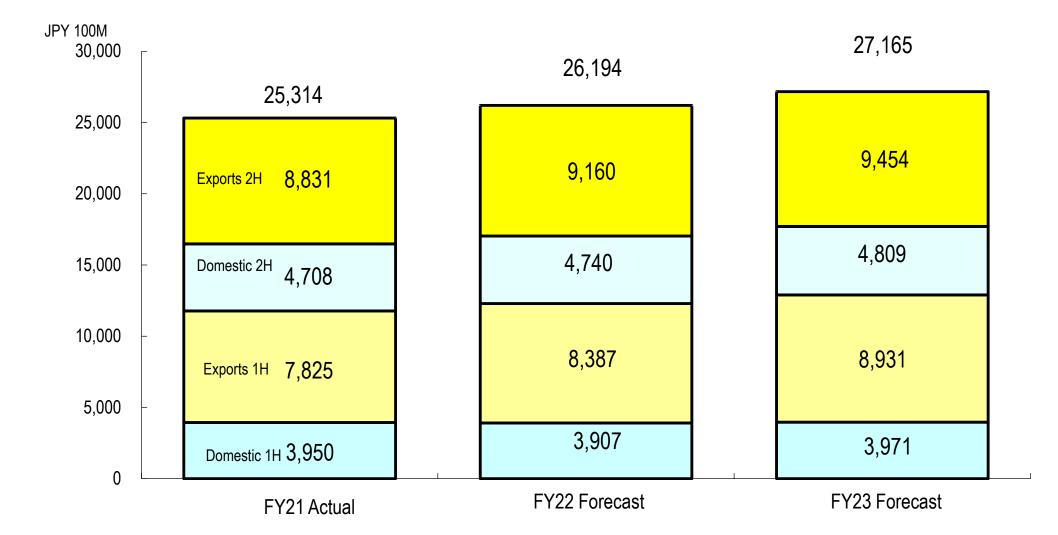


1. Demand Forecast for FY22/23 (1) Shipment Value Basis

2 Half year vs previous half year comparison



OIn FY22, Domestic will increase in 1H and remain solid in 2H. Exports will soar in both 1H/2H. OIn FY23, Domestic will increase in both 1H/2H and Exports will soar in 1H and remain solid in 2H.

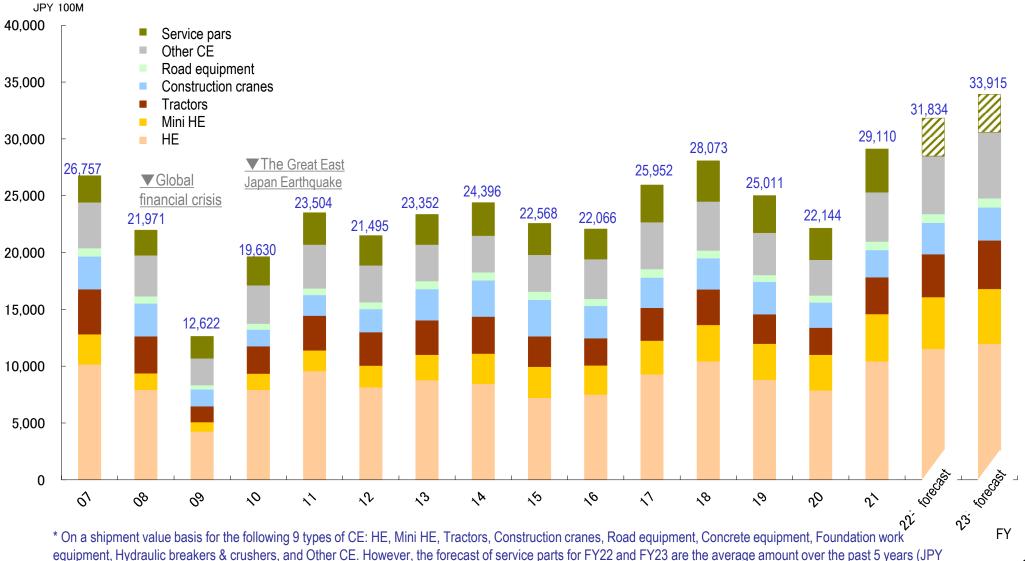


1. Demand Forecast for FY22/23 (1) Shipment Value Basis

③Changes by model (incl. service parts)



OIn FY22, a 9% increase is expected with 8 types of CE (except for concrete equipment) growing. OIn FY23, a 7% increase is expected with all 9 types growing.



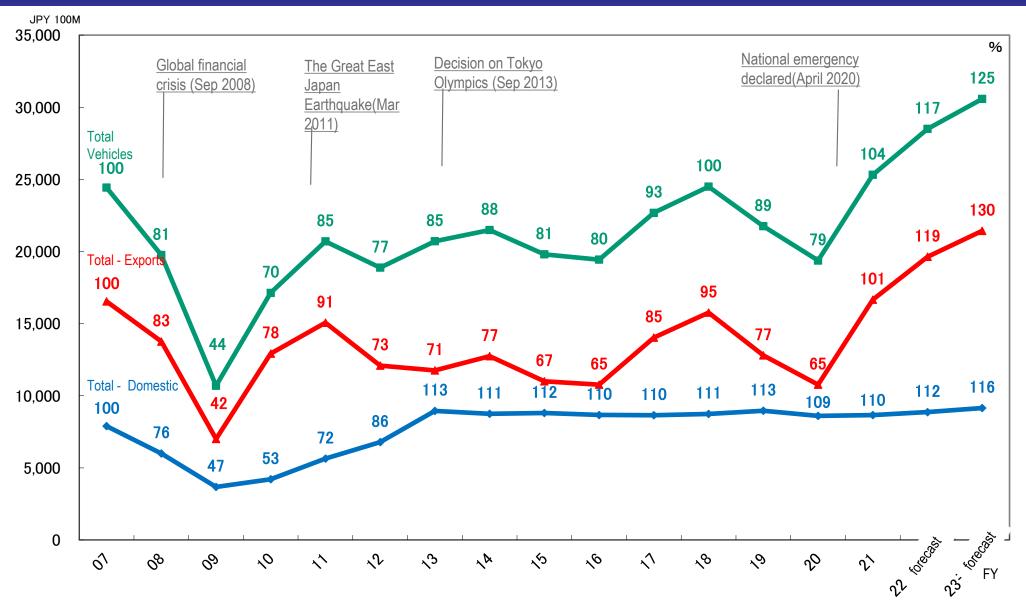
333.5 billion) Source: Statistics privately compiled by CEMA



1. Demand Forecast for FY22/23 (1) Shipment Value Basis

(4) Changes by market (Domestic/Exports)

OIn FY22 and FY23, Domestic will remain solid and Exports will continue improving

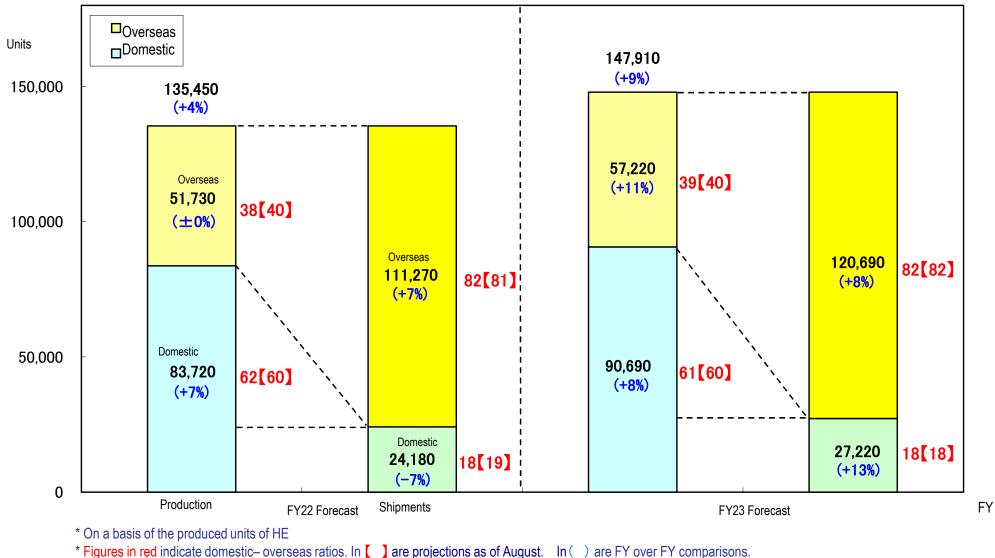


* Index for the following 9 types of CE (2007=100): HE, Mini HE, Tractors, Construction cranes, Road equipment, Concrete equipment, Foundation work equipment, Hydraulic breakers & crushers, and Other CE Source: Statistics privately compiled by CEMA

Demand Forecast for FY22/23 (2) Unit Number Basis Hydraulic excavators



OIn FY22, domestic production will increase. Shipments will be good overseas. OIn FY23, production and shipments will increase in both domestic and overseas.

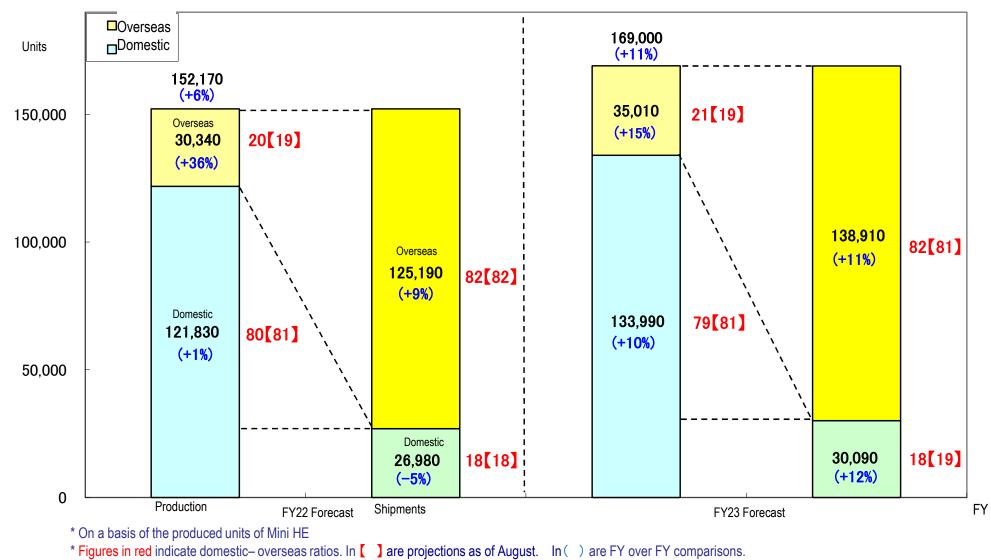


Source: Research by CEMA

Demand Forecast for FY22/23 (2) Unit Number Basis 2 Mini HE



OIn FY22, overseas production will soar. Shipments will be good overseas. OIn FY23, production and shipments will soar in both domestic and overseas.

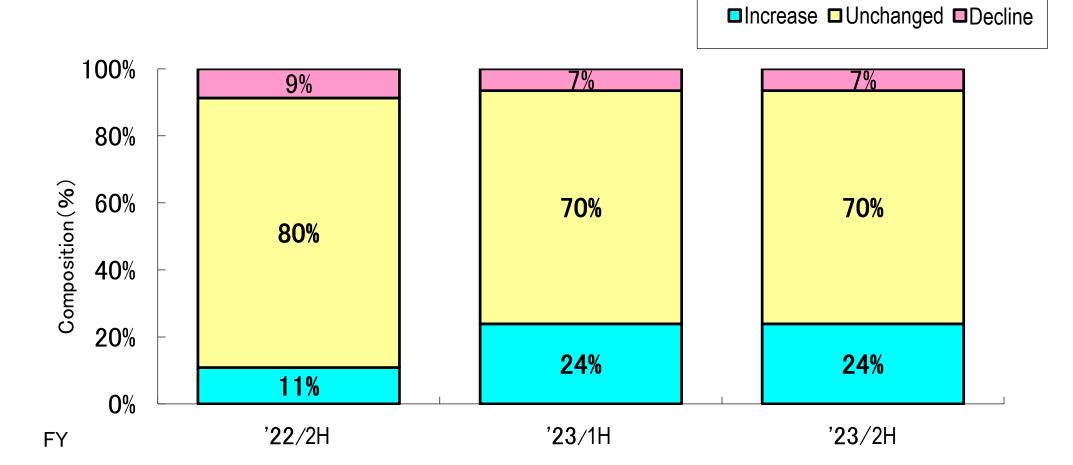


Source: Research by CEMA

- 2. Survey Results Members
- (1) Behind domestic demand forecast

1 Public works projects

OCompared to FY22, more members expect increases in FY23.



CEMA

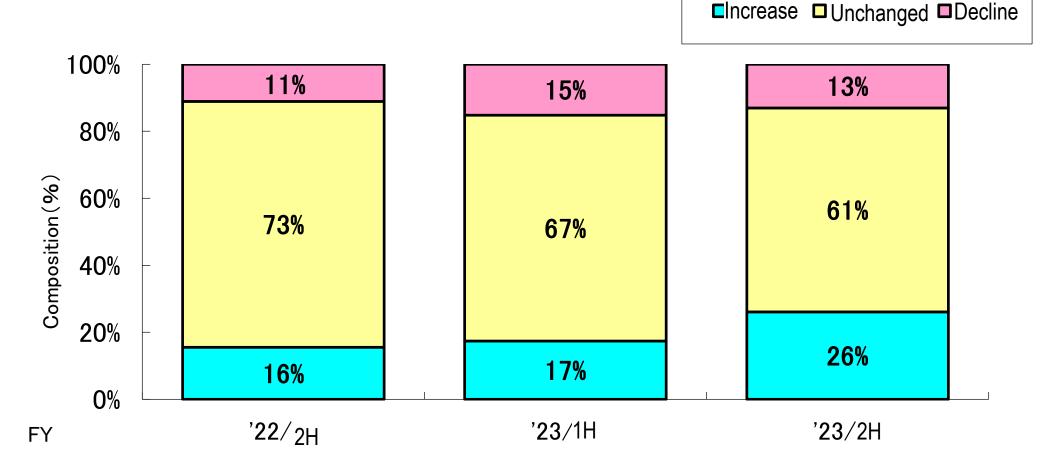
2. Survey Results - Members

(1) Behind domestic demand forecast



2 Private capital investments

OMost say "Unchanged" through FY22 and FY23 but more start expecting increases in 2H FY23.



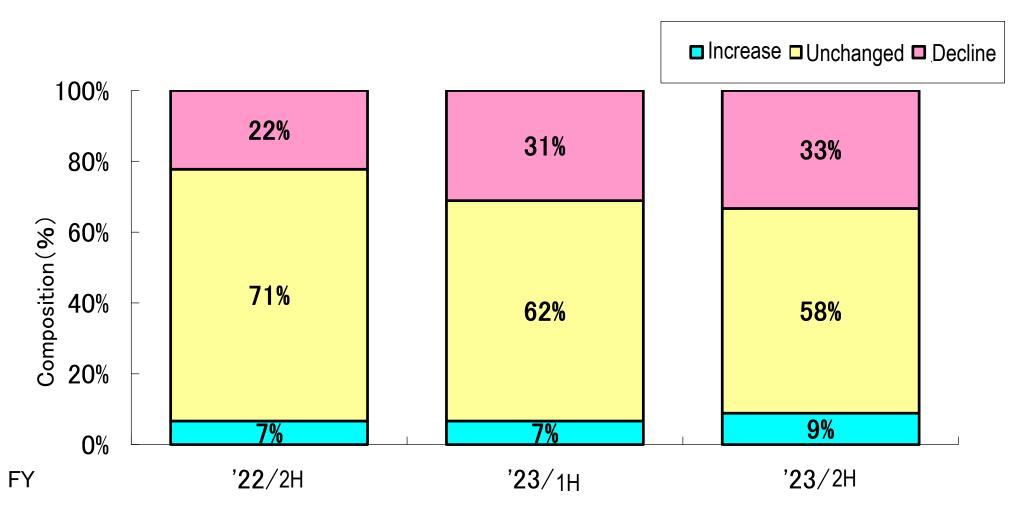
2. Survey Results - Members

(1) Behind domestic demand forecast



3 Housing investments

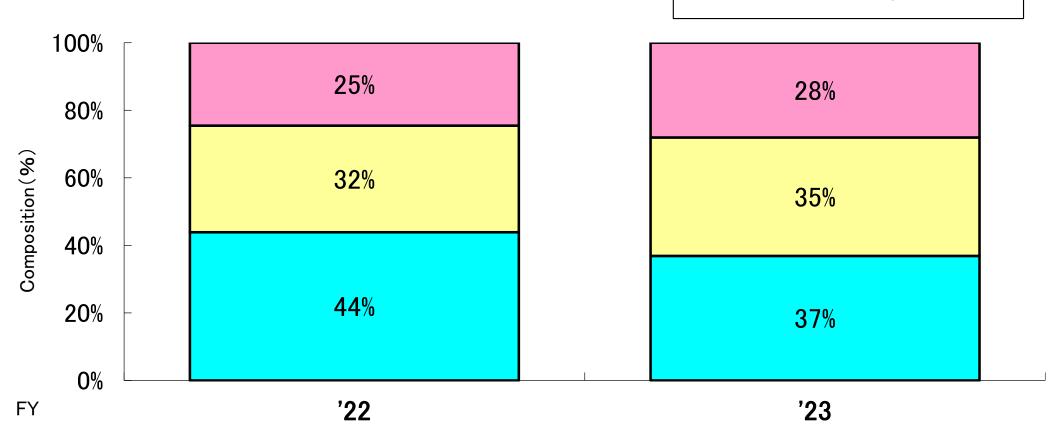
OCompared to FY22, more expect declines in FY23.





1Trend in the North American markets

OIn FY23 more expect declines compared to FY22, while many still anticipate increases.

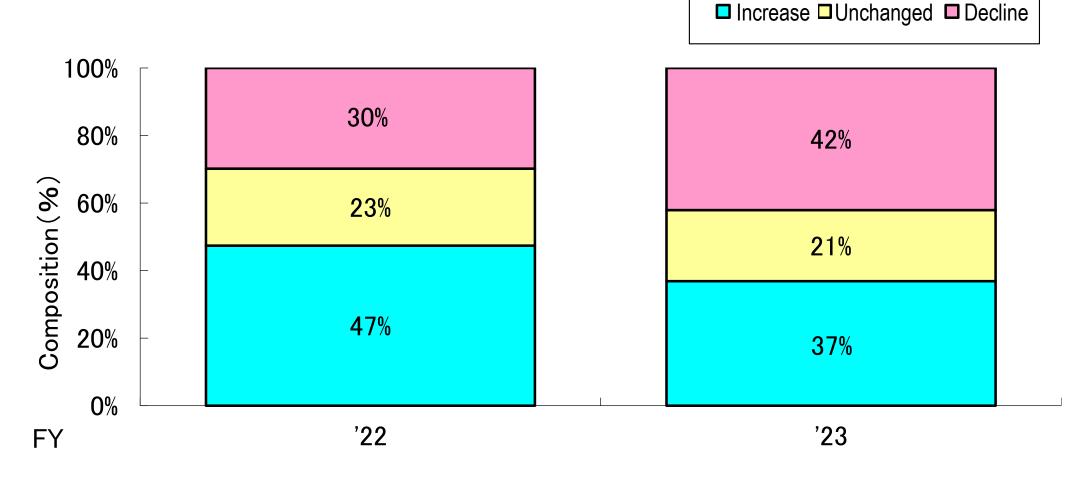


□ Increase □ Unchanged □ Decline



(2) Trend in the European markets

OMany expect increases in FY22, but more start expecting declines in FY23.

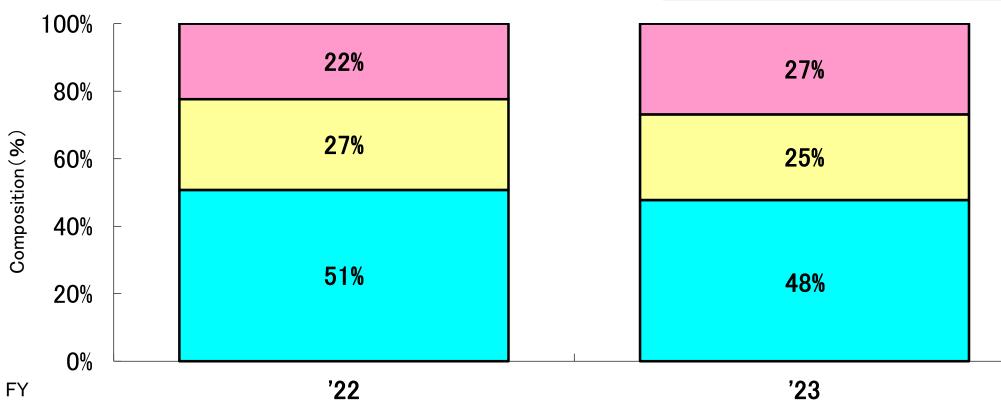




□Increase □ Unchanged □Decline

③Trend in Asian markets ex. China (including Oceania)

OThrough FY22 / FY23 about half expect increases but more start expecting declines in FY23.





(4) Trend in the Chinese market

OThrough FY22 / FY23 about half expect declines but more increases are expected in FY23.



□ Increase □ Unchanged □ Decline

[Survey Results on Topics] Factors that may affect demand forecast

OMany cited public works projects and private capital investments as positive factors for both domestic and overseas.

OAs negative factors, many cited delayed parts/components delivery and higher steel and resource prices for domestic. In addition to these, Russia-Ukraine issues were cited by many regarding overseas.

	Positive Factors							0						Calculated based on 3 pts for ①, 2 pts for ② and 1 pt for ③ (top 3 <u>fac</u> tors are in red)				
	D	omestic	;	C	Overseas	6	Domestic			Overseas			Positive Factors		Negative	e Factors		
	1	2	3	1	2	3	1	2	3	1	2	3	Domestic	Overseas	Domestic	Overseas		
1) Public works projects	29	13	1	20	4	3	1	1		1	1		114	71	5	5		
2) Private capital investments	12	26	5	6	17	7		2	1	1		1	93	59	5	4		
3) Currency exchange trends	2	3	12	14	5	8	5		5	3	4	9	24	60	20	26		
4) Higher resource prices		1	4	2	3	4	7	16	5	5	10	3	6	16	58	38		
5) Higher steel prices	1		1	1	1		11	11	15	3	6	5	4	5	70	26		
6) Delayed parts/components delivery			2		1	1	23	10	4	14	6	6	2	3	93	60		
7) Interest-rate hikes in North America			1		4	1			1	6	3	6	1	9	1	30		
8) Russia-Ukraine issues			1	1	3	5		1	3	9	7	7	1	14	5	48		
9) Further spread of Covid-19			1					1	2	1	2	1	1	0	4	8		
10)Container shortages						2				1		2	0	2	0	5		
1 1) Higher transport costs					2	1	2	4	9		7	8	0	5	23	22		
12)Others	2	1	3			2				2	1		11	2	0	8		

* Based on three choices (in order of priority) for domestic and overseas made by a respondent as potentially affecting factors on the future market conditions.

** The choices are numbered (① ② ③) in order of influence, allocating 3 points for ①, 2 points for ② and 1 point for ③.

* The factors are sorted in order of the positive factors – domestic.

[FYI] Shipment value by destination

1 Changes in composition: Between FY2007 and FY2021

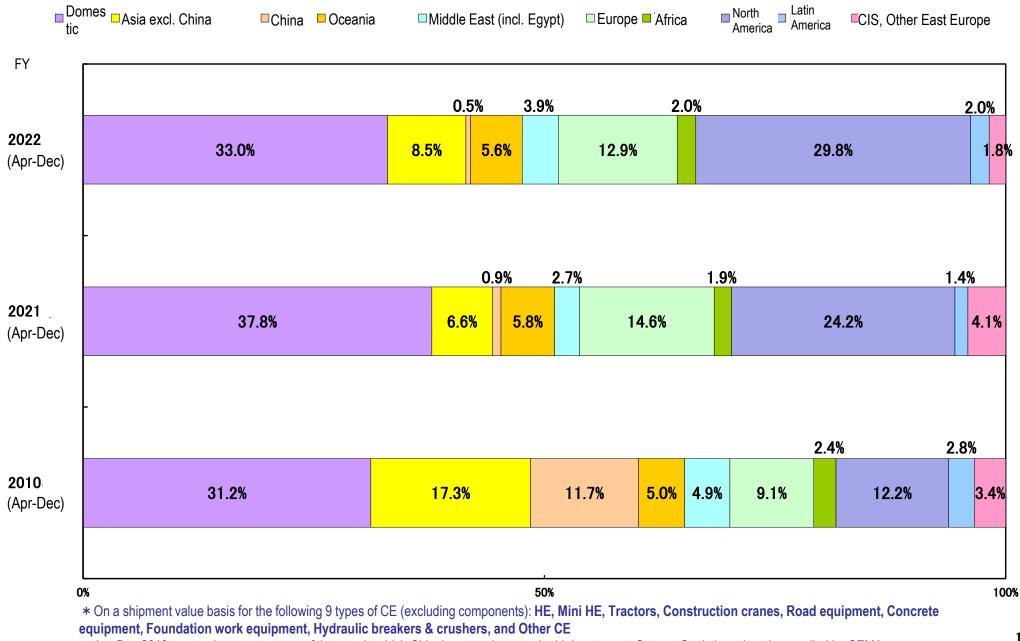
	OThe proportion of N. America soa	ared in FY21 to account for (combined with Europe) nea	arly 40%.
FY	□ Domes □ Asia excl. China □ China □ Oceania	■Middle East (incl. Egypt) ■Europe ■ Africa ■ North America ■ Latin America ■CIS, Other	East Europe
2021	37.3%	0.7% 1.9% 7.2% 5.8% 3.1% 14.2% 24.3%	1.4%
2020	- 48.4%	1.3% 1.3% 1.3% 1.3% 5.1% 5.4% 2.6% 12.8% 19.2%	1.2%
2019	- 45.0%	1.4% 2.0% 1.1% 6.6% 4.1% 12.8% 22.8%	1.5%
2018	- 40.3%	1.9% 1.9% 8.6% 5.3% 13.3% ^{1.9%} 22.0%	1.6%
2017	- 42.9%	1.7% 8.4% 4.8% 4.0% 12.6% 2.5% 19.2%	1.4%
2016	- 48.6%	1.4% 7.3% 3.9% 4.0% 10.9% 2.0% 18.5%	1.3%
2015	- 47.4%	0.9% 7.5% 3.4% 6.2% 10.9% 1.9% 19.0%	1.3%
2014	- 44.2%	0.9% 8.5% 3.6% 5.3% 10.3% 2.3% 20.7%	1.7%
2013	- 47.7%	1.4% 7.9% 3.8% 4.9% 8.2% 2.6% 18.0%	2.2%
2012	- 39.6%	10.2% 2.6% 5.4% 4.1% 7.5% 3.0% 19.3%	3.4% 4.8%
2011	- 31.9%	15.3% 6.2% 5.6% 4.5% 9.3% 3.0% 15.6%	4.0% 4.7%
2010	- 30.4%	16.3% 12.3% 4.7% 5.4% 9.1% 2.3% 12.4%	3.2% 3.8%
2009	- 40.6%	16.8% 11.9% 5.0% 5.5% 7.1% 2.8%	1.4% 6.6% 2.3%
2008	- 33.7%	12.4% 5.8% 4.5% 10.3% 10.2% 3.4% 11.2%	3.1% 5.3%
2007	- 35.8%	8.8% 3.4% 4.2% 8.1% 15.6% 3.8% 12.4%	2.6% 5.3%
	0.0%	50.0%	100.09

* On a shipment value basis for the following 9 types of CE: HE, Mini HE, Tractors, Construction cranes, Road equipment, Concrete equipment, Foundation work equipment, Hydraulic breakers & crushers, and Other CE (excluding components) Source: Statistics privately compiled by CEMA

[FYI] Shipment value by destination

(2) Changes in composition ratios: April-December 2022

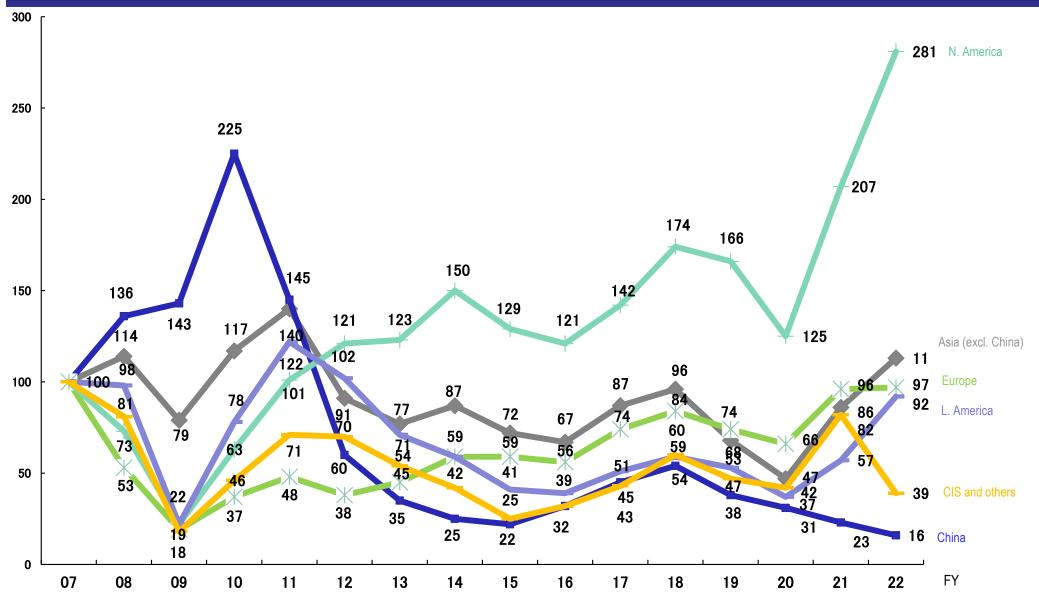
OThe proportion of Domestic rose in FY21. In FY22 the proportions of N. America and Asia soared.



[FYI] Shipment value by destination

(3) Changes in index (2007=100)

OShipments to N. America soared, while shipments to China and Russia & CIS declined.



* Index for the following 9 types of CE (2007 =100) : HE, Mini HE, Tractors, Construction cranes, Road equipment, Concrete equipment, Foundation work equipment, Hydraulic breakers & crushers, and Other CE Source: Statistics privately compiled by CEMA