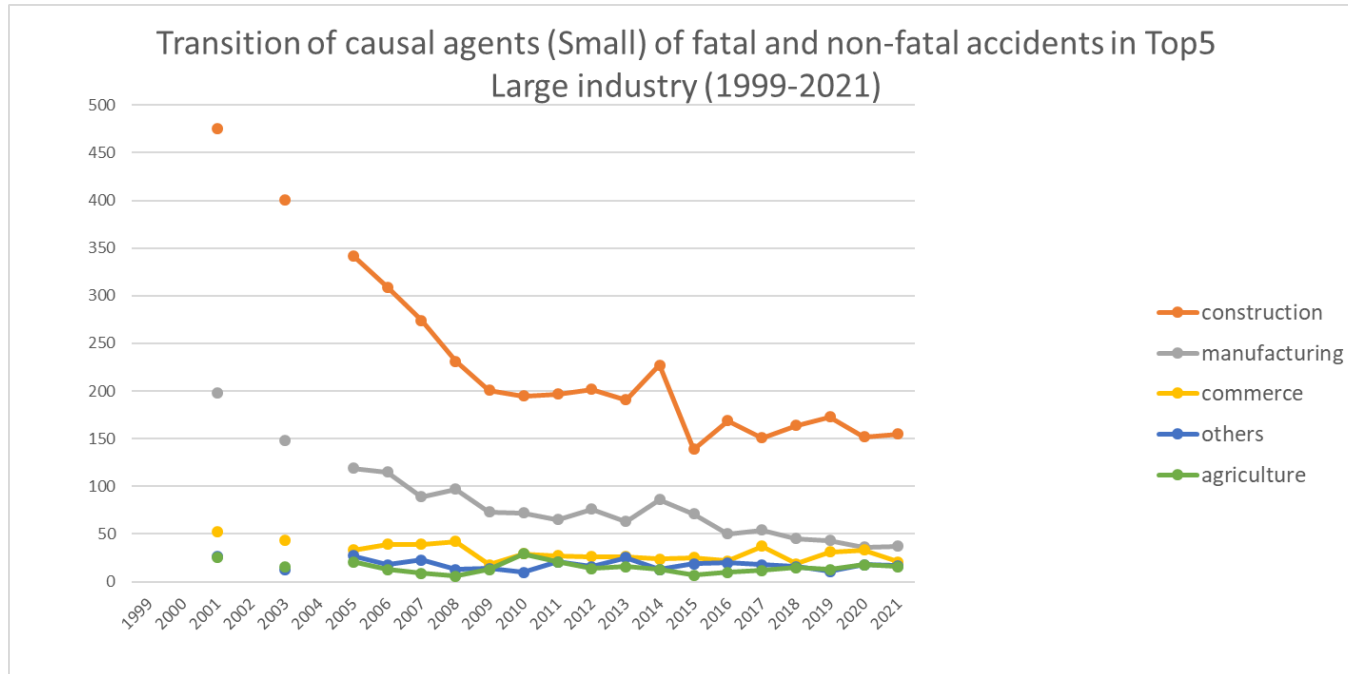
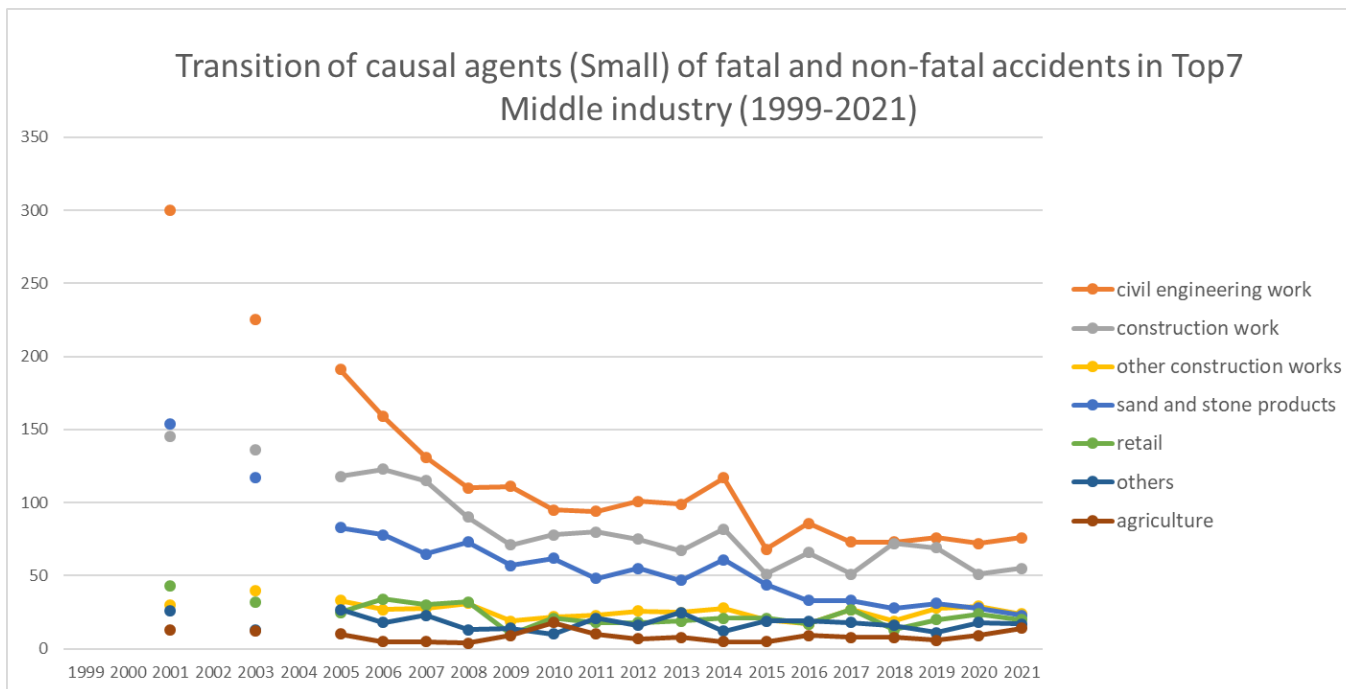


Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 523 stone, sand, substance (1999-2021)

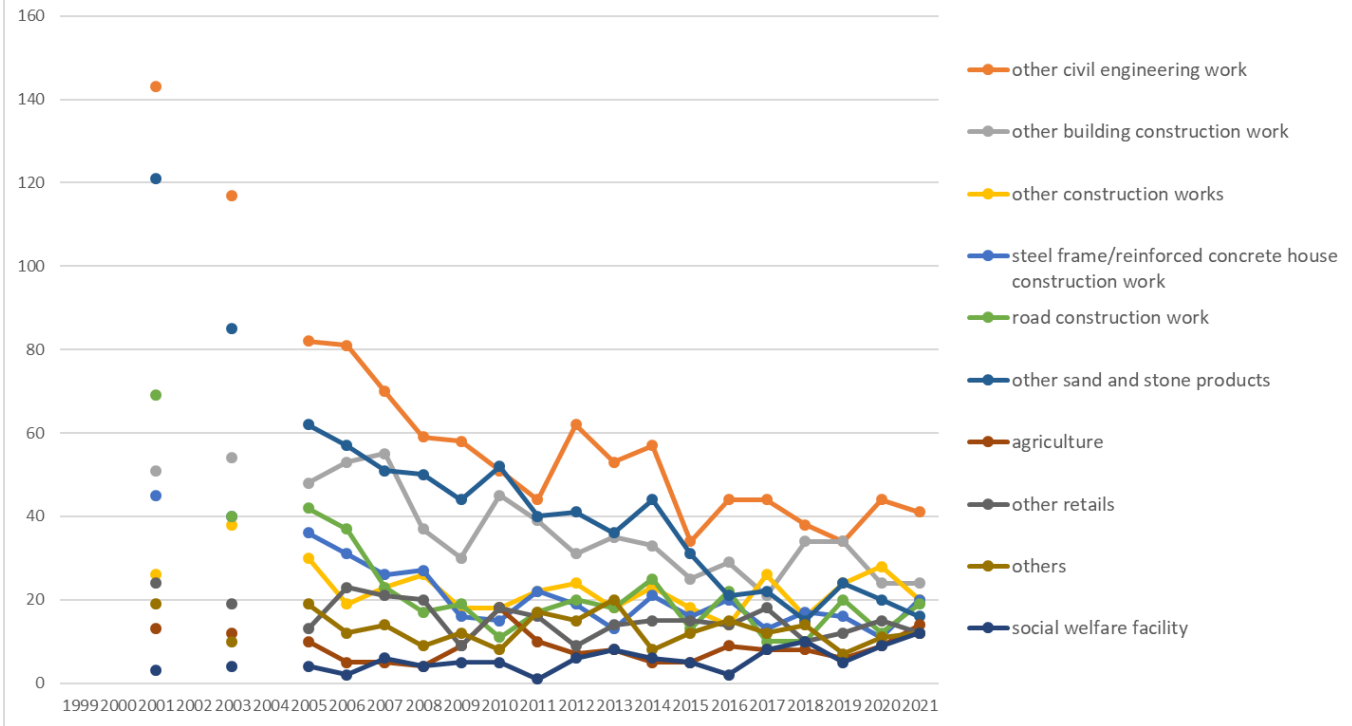


Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 523 stone, sand, substance in Large industry (1999-2021)



Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 523 stone, sand, substance in Middle Industry (1999-2021)

Transition of causal agents (Small) of fatal and non-fatal accidents in Top10 Small industry (1999-2021)



Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 523 stone, sand, substance in Small Industry (1999-2021)

Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 523 stone, sand, substance in Large industry (1999-2021)

code	Large industry	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Large industry
03	construction			475		401		342	309	274	231	201	195	197	202	191	227	139	169	151	164	173	152	155	4,348	construction
01	manufacturing			198		148		119	115	89	97	73	72	65	76	63	86	71	50	54	45	43	36	37	1,537	manufacturing
08	commerce			52		43		33	39	39	42	18	29	27	26	26	24	25	22	37	19	31	33	21	586	commerce
17	others			26		13		27	18	23	13	14	10	21	16	25	13	19	20	18	16	11	18	17	338	others
06	agriculture			25		16		21	13	9	6	13	29	21	14	16	13	7	10	12	15	13	18	16	287	agriculture
04	transportation service			49		32		28	23	31	30	20	17	17	16	20	28	17	11	19	25	24	15	14	436	transportation service
13	health and hygiene service			8		7		8	2	9	7	6	6	3	9	10	6	6	3	11	14	7	13	14	149	health and hygiene service
	commercial cleaning and																									commercial cleaning and

15	livestock process			27		23		18	29	26	26	21	14	21	25	24	23	19	16	18	15	16	26	13	400	livestock process
11	telecommunication service						8	1	5	5	2	4	7	1	3	4	1	1	2		3	1	8	56	telecommunication service	
14	hotel/restaurant/amusement service			12		9		8	7	8	8	9	8	11	7	7	7	6	9	5	9	6	1	5	142	hotel/restaurant/amusement service
12	education/research service			2		4		1	1	4	2	1	1	3		3	3	5	2	2		5	2	4	45	education/research service
02	mining			32		18		20	15	22	18	9	10	8	10	7	9	3	9	4	5	5	5	3	212	mining
07	livestock/fishery			6		2		4	2	2	3	4	5	3	3	2		1	3	1	2	1	1	1	46	livestock/fishery
05	cargo handling service			2		3		2	3	1	3	2		1		1	4			1	3	4		1	31	cargo handling service
09	financial business/advertisement			1		1		3	2	1		3		2	2	2	1	2			1	4	2	1	28	financial business/advertisement
16	public office			2		1			1		1		1		1				1	1	1	1		1	12	public office
10	movie/play service												1											1	2	movie/play service
	total			917		721		642	580	543	492	396	401	408	408	400	448	321	326	336	334	347	323	312	8,655	total

Transition of causal agents (Small) of fatal and non-fatal accidents as code no. 523 stone, sand, substance in Middle industry (1999-2021)

code	Middle industry	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	total	Middle industry	
0301	civil engineering work			300		225		191	159	131	110	111	95	94	101	99	117	68	86	73	73	76	72	76	2,257	civil engineering work	
0302	construction work			145		136		118	123	115	90	71	78	80	75	67	82	51	66	51	72	69	51	55	1,595	construction work	
0303	other construction works			30		40		33	27	28	31	19	22	23	26	25	28	20	17	27	19	28	29	24	496	other construction works	
0109	sand and stone products			154		117		83	78	65	73	57	62	48	55	47	61	44	33	33	28	31	28	23	1,120	sand and stone products	
0802	retail			43		32		25	34	30	32	10	21	18	18	19	21	21	17	27	13	20	24	20	445	retail	
1702	others			26		13		27	18	23	13	14	10	21	16	25	12	19	19	18	16	11	18	17	336	others	
0601	agriculture			13		12		10	5	5	4	9	18	10	7	8	5	5	9	8	8	6	9	14	165	agriculture	
	commercial cleaning and livestock																										commercial cleaning

1501	process			27		23			18	29	26	26	21	14	21	25	24	23	19	16	18	15	16	26	13	400	and livestock process	
0403	road cargo transportation service			44		30			26	21	25	21	15	13	14	14	17	25	16	9	16	19	17	14	12	368	road cargo transportation service	
1302	social welfare facility			3		4			4	2	6	4	5	5	1	6	8	6	5	2	8	10	5	9	12	105	social welfare facility	
1101	telecommunication service								8	1	5	5	2	4	7	1	3	4	1	1	2		3	1	8	56	telecommunication service	
0101	food products			11		6			8	9	1	6	7	3	1	3	3	6	5	3	4	5	4	2	4	91	food products	
1201	education/research service			2		4			1	1	4	2	1	1	3		3	3	5	2	2		5	2	4	45	education/research service	
0202	quarrying			26		18			19	14	22	16	9	10	8	10	7	9	3	7	2	4	3	4	3	194	quarrying	
0110	steel making			8		6			9	6	5	5	3	2	2	4	2	3	6	2	5	2			3	73	steel making	
0602	forestry			12		4			11	8	4	2	4	11	11	7	8	8	2	1	4	7	7	9	2	122	forestry	
1401	hotel			2		3			3	2	3	4	2	2		4	1	2	1	4		2			2	37	hotel	
1301	medical treatment service			4		2			2		3	2	1	1	2	3	2		1	1	2	4	1	3	2	36	medical treatment service	
1402	restaurant			1					2	2		1	2	4	2	1	1	3	2	4	2	2	4	1	2	36	restaurant	
0108	chemical products			3		1			1		1	2		1	1	2	2	1	1		1	1	2		2	22	chemical products	
0801	wholesale			6		8			6	4	8	7	6	5	7	7	3	1	1	4	7	4	5	4	1	94	wholesale	
1403	other amusement service			9		6			3	3	5	3	5	2	9	2	5	2	3	1	3	5	2		1	69	other amusement service	
0117	other manufacturing					4			4	4	3	3		1	2	4	4	4	2	5	4	2	3	2	1	52	other manufacturing	
0112	metal products			5		3			3	5	3	3		1	2	1	3	3	6	2	1	3	2		1	47	metal products	
0401	railroad/water transportation/airline service			1					2	2	4	3	4	4	2	1	1	1	1	1	1	2	3	4	1	1	38	railroad/water transportation/airline service
0402	road passenger transport service			4		2				2	6	1		1	1	1	2	1		1	1	3	3		1	29	road passenger transport service	

0104	wood products			5	1	2	1		2	1	3	2		1	1			1	20	wood products		
0111	nonferrous metal making			1	3		2			1	1	2	2	1	1		1	1	17	nonferrous metal making		
0901	financial business					1	2	1	2	2	2	1	1			1	2	1	17	financial business		
0502	harbor transportation service			2		3	1	2				2			1	1	2		15	harbor transportation service		
0701	livestock			1	2		1	1		1	1	1	1	2		1			13	livestock		
1601	public office			2	1		1	1	1		1			1	1	1	1		12	public office		
0114	electrical equipment products			1	1	1					1	1		2				1	9	electrical equipment products		
1001	movie/play service									1								1	2	movie/play service		
0804	other commerce			3	3	2	1	2	2	3	1	1	4	2	3		2	2	6	5	42	other commerce
0702	fishery			5		4	1	1	3	4	4	3	2	1		1	1	1	1	1	33	fishery
0113	machine products			3	2	2	5	2	2	2	4	1		1	1	1	3	1		1	31	machine products
0115	transport equipment products			3	2		1	2	2	2	1	1		1	3				1		19	transport equipment products
0501	land cargo handling service				3	2		1	2		1		1	2			2	2			16	land cargo handling service
0116	electric/gas/water service					4	2	2	1	1		1		1							12	electric/gas/water service
0902	advertisement and mediator			1	1	2			1				1	2				2	1		11	advertisement and mediator
0105	furniture			4	1		2						1	1			1				10	furniture
0203	other mining			1		1	1		1							2	1		2	1	10	other mining
0201	coal mining			5					1								1	1			8	coal mining
1303	other health and hygiene service			1	1	2			1								1		1	1	8	other health and hygiene service

130201	social welfare facility			3	4	4	2	6	4	5	5	1	6	8	6	5	2	8	10	5	9	12	105	social welfare facility
040301	general truck transportation service			39	26	22	19	22	19	12	11	10	13	14	25	14	7	14	18	14	14	10	323	general truck transportation service
110101	telecommunication service					8	1	5	5	2	4	7	1	3	4	1	1	2		3	1	8	56	telecommunication service
030202	wooden house construction work			38	32	25	34	23	21	20	14	15	20	17	25	6	12	14	19	16	11	7	369	wooden house construction work
010901	cement products			31	28	18	19	13	17	10	10	6	14	11	13	12	12	7	12	7	7	7	254	cement products
030107	river civil engineering work			25	14	17	8	7	6	4	3	7	3	2	12	9	2	7	5	3	6	6	146	river civil engineering work
170201	security service			7	3	8	6	9	4	2	2	4	1	5	4	7	3	6	2	4	7	5	89	security service
080205	newspaper retail			8	2	3	3	2	3		2		6	1	2	2	2	7	1	5	7	5	61	newspaper retail
030203	building facility construction work			11	10	9	5	11	5	5	4	4	5	2	3	4	5	3	2	3	5	4	100	building facility construction work
150101	building maintenance service			7	3	2	5	7	4	3	2	5	7	6	2	3	1	4	5	4	8	4	82	building maintenance service
150103	other waste disposal service			7	6	3	6	6	4	4	1	3	4	7	1	1	3	1	3	2	2	4	68	other waste disposal service
030301	electricity/telecommunication work			2	2	3	3	5	3		2	1	1	5	4	1	2		2	3	1	4	44	electricity/telecommunication work
120109	other education/research service			2	4	1	1	4	2	1	1	3		3	3	5	2	2		4	2	4	44	other education/research service
150102	industrial waste management service			4	11	10	15	8	17	11	9	9	12	10	13	11	8	12	6	7	13	3	189	industrial waste management service
020201	quarrying			14	17	13	10	17	8	7	6	6	3	7	7	2	6	1	3	2	3	3	135	quarrying
011002	casting products			7	6	9	3	3	5	3	2	2	4	2	2	6	2	5	1			3	65	casting products
030109	land consolidation civil engineering work			21	21	14	13	13	11	9	8	8	7	11	8	4	6	5	9	5	4	2	179	land consolidation civil engineering work
030110	water supply/sewage construction work			22	21	18	10	11	12	10	12	9	6	9	7	4	6	5	6	4	4	2	178	water supply/sewage construction work
150109	other cleaning and livestock			9	3	3	3	5	1	3	2	4	2	1	7	4	4	1	1	3	3	2	61	other cleaning and livestock

090103	insurance business						1	2	1		1		1	2		1				1	2		1	13	insurance business	
160101	public office			2		1		1		1		1		1			1	1	1	1		1	12	public office		
010401	lumbering			4		1			1		1		2		1							1	11	lumbering		
050202	port cargo handling service			2					3		1	1				1				1	1		1	11	port cargo handling service	
010899	other chemical products						1			1			1	1	1				1		1		1	8	other chemical products	
140209	other restaurants							1			1					1	1			1		1	6	other restaurants		
080102	furniture/fittings wholesale			1		1						1		1								1	5	furniture/fittings wholesale		
010804	petroleum/coal products			1						1												1	3	petroleum/coal products		
011409	other electrical equipment					1											1					1	3	other electrical equipment		
011203	metal press products																	1				1	2	metal press products		
100109	other movie/play service																					1	1	other movie/play service		
080109	other wholesale			5		7		6	4	8	7	6	5	6	7	2	1	1	3	5	4	5	4		86	other wholesale
080201	all kinds of retail			8		6		7	6	5	9	1	1	2	1	2	1	3	1	1		1		55	all kinds of retail	
030108	sand collapse prevention civil engineering work			9		3		6	3	1	2	4	4	2		2	3	2		1	1	2		45	sand collapse prevention civil engineering work	
011209	other metal products			4		3		3	4	3	3		1	2	1	3	3	5	2		2	2		41	other metal products	
020202	gravel digging			10		1		5	3	1	5	1	2	1	5		2	1	1			1	1	40	gravel digging	
080409	other commerce			3		3		1			1	2	3	1	1	3	2	2		2	2	5	3		34	other commerce
070201	fishery			5				3	1		3	4	4	3	2	1			1		1	1	1		30	fishery
011301	machine products			3		1		2	4	2	2	2		2	1		1	1	1	2	1		1	26	machine products	
130101	hospital			4		2		2		1	2	1		1	1	1		1		1	4	1	3		25	hospital
030302	machinery/apparatus setting work			2					5		2	1	2		1	2	1	1	1	1	1	1		21	machinery/apparatus setting work	
020209	other quarrying			2				1	1	4	3	1	2	1	2					1	1			19	other quarrying	
050101	land cargo handling service					3		2		1	2			1		1	2				2	2		16	land cargo handling service	
140309	other amusement service			2		2		1	1		2		1	1		1	1			1	1	1		15	other amusement service	

011702	machine repair					2		3	1		2			1	2	1	1		1					14	machine repair		
040202	bus service			3		1				1	3					2	1			1	1	1			14	bus service	
010905	other ceramic products					2		2		1	1	1		1			2			1					11	other ceramic products	
011502	auto mobile products			2		1			1	1		1		1	1		1	2							11	auto mobile products	
010409	other lumber and wood products			1				2					1	1	1		1			1	1				9	other lumber and wood products	
010903	pottery products			1		2		1	1		1	1				1				1					9	pottery products	
010902	glass products										2			1			1	1		2			1		8	glass products	
011603	city water service							3	1	1		1		1			1								8	city water service	
011701	auto mobile servicing									1	1					1	1			1	1	1	1		8	auto mobile servicing	
020101	general coal mining			5							1									1	1				8	general coal mining	
080401	warehousing							1		1	1					1		1				1	2		8	warehousing	
020309	other mining								1		1							1	1			2	1		7	other mining	
090209	other advertisement and mediator			1		1		1									1					1	1		7	other advertisement and mediator	
010805	plastics products			2												1	1					1	1		6	plastics products	
010904	fire resisting products			1					1		2	1										1			6	fire resisting products	
011501	ship building			1		1					1	1						1					1		6	ship building	
130109	other medical treatment service									2				1		2	1								6	other medical treatment service	
010101	meat/dairy products			1					1					1		1							1		5	meat/dairy products	
010503	fittings			2					1								1								5	fittings	
030101	hydroelectric plant construction work			1		1			1							1									5	hydroelectric plant construction work	
130309	other health and hygiene service			1					2													1		1		5	other health and hygiene service
140302	park and amusement park					1						1													5	park and amusement park	

010104	bread/cake products			1						1					1	1						4	bread/cake products	
011001	steel/iron/rolling products							2	1											1			4	steel/iron/rolling products
011009	other steel products			1				1	1						1								4	other steel products
011403	electronics equipment and telecommunications apparatus			1											1		1					1	4	electronics equipment and telecommunications apparatus
080202	auto mobile retail					1				1					1							1	4	auto mobile retail
090201	traveling service							1							1		1					1	4	traveling service
010209	other textile products					1			1													1	3	other textile products
010609	other pulp/paper processing products							1		1							1						3	other pulp/paper processing products
010701	printing service							2	1														3	printing service
010801	non organic or organic chemical products					1						1		1									3	non organic or organic chemical products
011204	metal plating products			1					1													1	3	metal plating products
011305	other precision machine products					1							2										3	other precision machine products
020301	metal mining			1				1									1						3	metal mining
030103	subway construction work								1		2												3	subway construction work
070209	other fishery							1		1												1	3	other fishery
080101	all kinds of wholesale																1		2				3	all kinds of wholesale
080302	beauty salon							1		1												1	3	beauty salon
130301	bathroom					1				1												1	3	bathroom
010105	alcoholic drinks			1											1								2	alcoholic drinks
010106	soft drinks			1												1							2	soft drinks
010501	wood furniture			1		1																	2	wood furniture
010509	other furniture			1						1													2	other furniture

