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Dynamic Analysis of China's Imported Raw Milk Powder Consumption

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Received: 10 December 2019; Accepted: 02 February 2020; Published: 19 February 2020

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Table S1. China's imports of total dairy products and raw milk powder.

Year	The Import Volume of Total Dairy Products (units: millions of tons)	The Import Volume of Raw Milk Powder (units: millions of tons)
2000	0.23	0.07
2001	0.20	0.06
2002	0.28	0.11
2003	0.32	0.13
2004	0.36	0.14
2005	0.34	0.11
2006	0.38	0.13
2007	0.33	0.10
2008	0.39	0.10
2009	0.66	0.25
2010	0.81	0.41
2011	0.98	0.45
2012	1.24	0.57
2013	1.71	0.85
2014	1.94	0.92
2015	1.79	0.55
2016	2.18	0.60
2017	2.47	0.72

Table S2. China's imports of various dairy products in 2017.

Dairy Products	The Import Volume (units: millions of tons)	Proportion
Raw milk powder	0.72	29.0%
Liquid milk	0.70	28.4%
Whey	0.53	21.4%
Infant formula milk powder	0.30	12.0%
Cheese	0.11	4.4%
Butter	0.09	3.7%
Refined milk	0.03	1.0%
Total dairy products	2.47	-

Table S3. China's raw milk powder imports from various countries in 2017.

Country	The Import Volume of Raw Milk Powder (units: millions of tons)	Proportion
New Zealand	54.98	76.6%
European Union	8.56	11.9%
Australia	4.60	6.4%
the United States	3.38	4.7%
Total	71.74	-

Table S4. The intersectoral flows of the imported raw milk powder consumption system based on f_{ij} in 2007. (Unit: tons).

2007	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	S17	S18	Input
S1	171	13	0	69	454	174	0	1	64	0	0	69	0	0	0	0	93	7	**1115**
S2	41	65	2	1	231	60	26	11	23	0	0	2	0	5	0	7	21	7	**501**
S3	0	0	17	0	1	1	0	1	129	105	4	1	34	7	0	1	0	2	**303**
S4	0	0	0	13,030	14,907	0	0	0	9	0	0	0	0	0	0	2	4506	521	**32,975**
S5	1844	424	31	56	3585	521	26	27	501	157	221	40	49	118	94	118	2091	508	**10,409**
S6	0	1	3	0	2	416	7	9	13	7	16	14	3	6	8	5	3	30	**542**
S7	0	1	2	0	1	1	50	5	2	7	9	3	0	17	2	1	0	16	**115**
S8	0	1	1	1	12	7	2	62	12	11	14	2	1	2	7	2	1	56	**193**
S9	1	38	20	1	12	40	10	20	295	65	87	7	14	35	4	60	2	74	**784**
S10	0	1	12	0	3	2	4	3	11	228	176	7	2	162	0	2	0	7	**621**
S11	0	3	18	0	2	4	2	4	13	30	384	1	19	32	6	19	1	54	**595**
S12	0	1	4	0	2	4	2	21	10	84	35	23	1	5	1	1	0	7	**201**
S13	0	2	14	0	3	4	2	2	21	31	13	1	68	5	3	2	3	10	**185**
S14	0	0	0	0	0	0	0	0	0	0	0	0	0	8	1	2	0	13	**26**
S15	7	7	6	1	19	13	4	6	26	35	74	3	5	29	4	8	8	35	**290**
S16	2	10	19	1	16	13	5	5	32	39	41	3	6	72	40	35	3	43	**383**
S17	8	52	149	6	97	84	26	32	166	243	315	20	43	256	315	179	56	1864	**3908**
S18	5	21	23	1	23	27	7	9	52	59	105	4	41	47	84	53	18	249	**828**
Output	**2080**	**639**	**322**	**13,167**	**19,370**	**1371**	**172**	**217**	**1379**	**1102**	**1493**	**199**	**284**	**805**	**568**	**495**	**6808**	**3501**	**53,973**

Table S5. The intersectoral flows of the imported raw milk powder consumption system based on f_{ij} in 2012. (Unit: tons).

2012	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	S17	S18	Input
S1	1130	71	0	521	3692	872	0	68	799	5	2	48	0	0	2	0	513	72	**7795**
S2	260	669	2	5	2200	526	195	107	268	3	1	4	1	101	1	74	149	99	**4665**
S3	0	0	424	0	13	10	3	19	1759	1613	25	6	650	48	0	3	0	10	**4583**
S4	0	0	0	87,851	104,381	0	0	0	403	0	0	0	0	0	0	573	30,914	4482	**228,604**
S5	12,709	3298	397	394	32,124	2276	150	254	5188	1332	1678	111	320	590	359	1329	11,849	5878	**80,237**
S6	0	6	24	1	22	4353	76	189	260	105	200	40	6	90	12	38	36	459	**5916**
S7	0	2	38	0	3	7	572	45	13	44	74	7	0	292	2	4	2	29	**1134**
S8	0	1	8	10	92	34	16	707	75	88	152	4	7	32	68	23	8	753	**2079**
S9	47	1093	435	15	223	717	202	472	8036	1783	1994	82	273	988	44	1247	36	2073	**19,761**
S10	0	6	243	2	51	13	79	176	214	5427	3737	34	10	4315	2	41	2	249	**14,600**
S11	4	60	284	1	27	43	24	40	177	515	9195	24	321	621	108	476	5	1485	**13,410**
S12	0	1	4	0	1	8	0	53	13	382	21	19	0	6	0	1	1	70	**581**
S13	3	55	205	2	50	63	25	38	391	586	206	6	1098	124	51	87	20	166	**3175**
S14	0	1	10	0	7	5	2	4	15	21	31	1	17	296	15	39	7	215	**686**
S15	28	37	36	9	199	172	23	48	194	134	472	7	30	134	100	65	69	322	**2081**
S16	38	97	161	20	328	168	75	103	512	646	810	19	93	541	308	1096	56	1012	**6083**
S17	3	146	404	24	577	285	136	203	1121	1105	2202	44	196	1254	733	1576	79	12,788	**22,876**
S18	35	221	494	20	329	212	86	184	899	1128	1911	28	484	1553	1741	1040	135	6652	**17,152**
Output	**14,257**	**5762**	**3172**	**88,874**	**144,320**	**9766**	**1665**	**2711**	**20,337**	**14,917**	**22,712**	**483**	**3505**	**10,986**	**3545**	**7713**	**43,880**	**36,812**	**435,418**

Table S6. The intersectoral flows of the imported raw milk powder consumption system based on f_{ij} in 2015. (Unit: tons).

2015	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	S17	S18	Input
S1	1173	179	0	630	4490	1155	0	93	1208	8	2	91	0	0	3	0	644	102	**9778**
S2	377	929	4	8	3745	976	320	207	567	7	3	9	1	218	2	86	262	198	**7920**
S3	0	0	771	0	15	7	3	22	2103	2643	30	10	948	122	0	5	0	12	**6693**
S4	0	0	0	92,407	109,795	0	0	0	607	0	0	0	0	0	0	682	32,159	5803	**241,453**
S5	13,794	5232	586	481	39,242	2552	239	420	8712	2097	2150	270	523	1130	581	1763	13,737	8481	**101,990**
S6	0	7	44	1	28	5380	127	291	417	205	301	71	15	197	21	59	42	675	**7881**
S7	0	2	67	0	4	10	962	74	22	83	117	11	0	550	5	8	2	48	**1966**
S8	0	2	16	15	135	51	30	1241	130	176	240	11	14	81	131	51	11	1334	**3669**
S9	69	1741	708	20	295	1020	358	835	13,338	2934	3036	207	384	1954	67	1429	45	3779	**32,220**
S10	0	7	372	3	81	20	145	312	396	8890	5702	91	22	8239	4	54	3	462	**24,803**
S11	5	86	508	1	38	64	44	77	336	935	13,916	77	494	1197	214	838	7	2528	**21,364**
S12	0	2	14	0	2	25	1	110	29	714	53	92	1	27	0	2	1	255	**1328**
S13	4	62	298	2	53	78	36	60	727	1068	278	25	2255	231	82	183	26	221	**5687**
S14	0	1	20	0	12	8	5	8	32	44	53	4	34	684	28	69	9	323	**1333**
S15	28	43	71	12	280	264	45	94	380	280	791	20	61	303	208	116	86	540	**3623**
S16	40	115	252	20	334	193	114	160	765	1005	1071	55	154	1136	504	1731	67	1686	**9401**
S17	3	159	654	28	675	349	212	323	1715	1931	3004	127	348	2285	1090	2294	78	16,297	**31,572**
S18	32	228	821	26	421	287	147	321	1500	1848	2707	84	820	2976	3157	1463	157	9790	**26,786**
Output	**15,525**	**8796**	**5206**	**93,654**	**159,646**	**12,439**	**2789**	**4648**	**32,983**	**24,869**	**33,455**	**1255**	**6074**	**21,331**	**6095**	**10,834**	**47,335**	**52,534**	**539,467**

Table S7. The forward linkage and backward linkage of different sectors in the imported raw milk powder consumption system during 2007–2015.

Sector		Forward Linkage			Backward Linkage		
		2007	2012	2015	2007	2012	2015
A	S1	0.6316	0.7024	0.7839	0.0338	0.0431	0.0512
	S2	0.1372	0.1267	0.1493	0.0061	0.0076	0.0127
M	S3	0.0818	0.0658	0.0486	0.0047	0.0049	0.0104
PM	S5	0.1466	0.1508	0.1744	0.1250	0.1399	0.1550
	S6	0.0132	0.0142	0.0155	0.0119	0.0121	0.0160
	S7	0.0275	0.0128	0.0114	0.0061	0.0073	0.0116
AM	S8	0.1568	0.1065	0.0955	0.0060	0.0076	0.0127
	S9	0.0799	0.0637	0.0582	0.0073	0.0104	0.0182
	S10	0.0248	0.0163	0.0153	0.0055	0.0065	0.0122
	S11	0.0194	0.0129	0.0138	0.0058	0.0072	0.0111
ET	S12	0.0439	0.0355	0.0292	0.0064	0.0059	0.0166
	S13	0.0629	0.0474	0.0412	0.0046	0.0054	0.0097
C	S14	0.0010	0.0017	0.0014	0.0061	0.0065	0.0113
S	S15	0.0554	0.0723	0.0618	0.0065	0.0040	0.0062
	S16	0.0652	0.0829	0.0690	0.0061	0.0102	0.0143
	S17	0.0383	0.0279	0.0322	0.1191	0.1547	0.1699
	S18	0.0310	0.0277	0.0265	0.0094	0.0104	0.0132