

Directorate-General
Internal market and industrial affairs

III-A-4

EAST - WEST TRADE IN CHEMICALS

ITS STRUCTURAL PROBLEMS

In 1978, DG III had prepared a preliminary study on
"Chemical Buy-Back Agreements and their
Potential Impact on the EC Petrochemical
Markets".

Through this study, 24 products, mostly petrochemicals had been identified as having been included into buy-back agreements.

One of the most important conclusions of the study was, that compensation^{*)} was not so much a problem of volume but rather of pricing.

As pricing clauses of compensation agreements are secret microeconomic data, DG III has developed an approach to survey imports from Eastern European countries of the products identified, not making any distinction between compensation and non-compensation (normal) trade, and comparing

- market shares of imports from Eastern Europe
- market shares of corresponding extra EC imports
- unit price ratios of imports from Eastern Europe
and of intra EC imports.

The report enclosed contains the results of a 5 year survey (1976-1980) for 22 out of 24 products identified.

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*) It does make sense not to speak about buy-back, barter etc. but to distinguish between plant-product compensation and product-product compensation. This terminology is more self-explaining.

Chemical trade statistics offer the valuable advantage that for numerous chemical products the Nimex lines give data for a single individual chemical product.

Thus anhydrous ammonia (28.16) e.g. has exactly the same specifications regardless whether coming from Algeria, Mexico, Russia or from any EC member country.

For such chemicals then, unit prices (value/volume) offer a unique means with a high indicator value to compare annual averages of pricing when comparing unit values of extra EC imports to unit values of intra EC imports.

This advantage was made use of through looking into imports from Eastern Europe of 22 out of 24 products which had been identified in the DG III 78 study as having been included into compensation agreements.

The analysis done and enclosed is structured as follows :

PART 1 gives a data sheet for each of 22 products indicating

- year of survey
- EC (9) consumption in 1000 t (apparent consumption/
multiclient study basis)
- Imports from
 - . Eastern European countries/value and volume
 - . extra EC total/volume
 - . intra EC imports/value and volume

On this basis, the following indicators have been calculated and given in the 3 last columns :

- % volume market share for imports from Eastern Europe
- % volume market share for extra EC imports
- unit price ratio

$$X = \frac{\text{unit price for imports from Eastern Europe (EE)}}{\text{unit price for intra EC imports (EC)}}$$

PART 2 gives a synoptical view of the calculated indicators of part 1 for all the products over the time period surveyed :

- 1) % volume market share for imports from Eastern Europe
- 2) % volume market share for extra EC imports
- 3) unit price ratio $\frac{EE}{EC}$

PART 3 gives graphical representations for those particular products out of the 22 which hold an EC market share of more than 5 % in 1980

- Urea
- Ammonia
- Soda Ash
- Acrylonitrile
- Benzene
- PVC
- LDPE

It must be kept in mind that unit prices for imports from EE do not integrate a customs duty factor. This would have to be added to compare intra EC unit price competitiveness.

SYNTHESIS :

The cases where imports from EE hold high market shares in the EC (more than 5 %) in 1980 are the following in decreasing order :

PRODUCT Nimex number	EC IMPORT VOLUME MARKET SHARES from EE from extra-EC [%]		GROWTH RATES of market shares 1976-1980 1976 = 100	
			EE	extra-EC
UREA 3102.15	26,03	53,35	157	227
AMMONIA 2816.10	18,42	37,12	565	221
SODA ASH 2842.31	15,23	22,43	127	147
ACRYLONITRILE 2927.10	13,94	38,82	835	579
BENZENE 2901.61	10,35	26,61	201	137
PVC 3902.41/43	9,01	18,51	429	200
LDPE 3902.03	7,81	34,49	335	174

In most cases considered in the table, imports from Eastern Europe hold a high share in extra-EC imports :

- soda ash: two thirds
 - urea, ammonia and PVC: half
 - acrylonitrile and benzene: more than one third
- of apparent consumption for 1980.

The growth of market shares has been particularly marked for acrylonitrile in general (extra EC) and for Eastern Europe particularly (579/835 respectively). For acrylonitrile, ammonia, benzene, PVC, LDPE growth of market shares for imports from Eastern Europe exceeded those for imports from extra-EC.

The most outstanding case where one could speak of a dominant position of imports from Eastern Europe is soda ash where two thirds of extra-EC imports stem from Eastern Europe.

Looking into unit prices for imports from Eastern Europe it may be said that for all thermoplastics, acrylonitrile, titanium dioxide, caustic soda, ammonia, soda ash a variable degree of underpricing seems to be practiced taking duty into account.

It has to be stressed that urea on top of the list for market share has always been priced correctly in unit price terms and taking customs into account.

This was also the case for the number 2, ammonia, in 1976 and 1977 but from 1978 to 1980 a severe underpricing excursion is noticeable which may be attributable to a compensation trade effect.

Considerable underpricing was practiced also for soda ash from 1976 to 1979 but then the situation improved partially due, probably, to an antidumping complaint.

The cases with more than 5 % market share are analysed individually and the situations are given through graphic representations. Part 3.

The graph for UREA shows that other extra-EC imports than EE imports show a higher growth. Pricing seems to be rather correct on an average (European contracts : Montedison, Klöckner).

AMMONIA shows a very strange pricing history. From 1977 to 1979 Eastern European countries have increased their EC market share for ammonia from 1,1 % to 20,0 %, by a factor of nearly 20, but they have increased their revenue only by a factor of 16 with some 30 % underpricing. As nearly all of this ammonia is of Soviet origin and much of Soviet ammonia is tied into compensation agreements (Montedison and Snamprogetti), much of this spectacular unit price decrease in 1979 is probably due to plant-product compensation imports.

With SODA ASH it is interesting to note that from 76 to 78 unit price levels for imports from Eastern Europe have been very low but have been increased in 79 and 80 probably due to an antidumping procedure.

ACRYLONITRILE shows a strong evolution of extra EC imports from 1978 on, imports from Eastern Europe catching up in 1980 which may be attributable to a compensation startup of a Montedison contract.

BENZENE shows a correct unit pricing pattern. The imports plummeting in 78/79 are certainly due to the introduction of the antilead legislation in the US when the US changed from a net seller to a net buyer.

PVC shows a unit price level for moulding PVC that is lower than liquid imports. This has led to the introduction of an antidumping complaint. Up to 1980 there are 3 agreements supposed to start : Klöckner, Uhde and Petrocarbon.

LDPE presents a rather low unit price level, particularly in 1979 but extra EC import market shares are much higher than those for imports from Eastern Europe.

In summary it may be said that imports from Eastern Europe do not present dramatic pictures. Particularly ammonia and thermoplastics should be surveyed more in depth.

Pricing policy remains the particular problem which is a problem with all planned economy countries, beyond Eastern Europe also with China and Yugoslavia and also beyond the line of products surveyed here.

This reflects, according to our assumption a lack of experience in trading on our markets for these countries, selling volume rather more than value.

The survey will be continued in the years to come.

PART 1

Data sheets for each of 22 products indicating

- year of survey
- EC (9) consumption in 1000 t (apparent consumption/
multiclient study basis)
- Imports from
 - . Eastern European countries/value and volume
 - . extra EC total/volume
 - . intra EC imports/value and volume

On this basis, the following indicators have been calculated
and given in the 3 last columns :

- % volume market share for imports from Eastern Europe
- % volume market share for extra EC imports
- unit price ratio

$$X = \frac{\text{unit price for imports from Eastern Europe (EE)}}{\text{unit price for intra EC imports (EC)}}$$

EC III A4 M/81

PRODUCT: PROPYLENE

EE Eastern Europe
EC European Communities

NIMEXE NO: 2901. 24

YEAR	EC 9 CONSUMPTION [000 t]	GMEA		IMPORTS FROM		MARKET EE/EC	[%] VOLUME SHARES extram/EC	UNIT +) PRICE RATIO
		value	volume	value	INTRA - EC volume			
1976	1912	102	651	42269	119958	0,03	2,2	0,870
1977	1949	4455	28658	44508	121248	1,47	2,3	0,892
1978	2097	5022	32036	136847	141860	1,53	6,53	0,943
1979	2230	6050	24092	188899	245097	1,08	8,47	0,966
1980	1906	17190	61468	167936	228104	3,23	8,81	0,904
1981								
1982								
1983								
1984								
1985								
1986								
1987								

values : 1000 ECU
volume : [t]

+) EE / intra EC Imports

EC III A4 M/81

PRODUCT: BENZENE

EE Eastern Europe
EC European Communities

(1976+1977: 2901.63)

NIMEXE NO: 2901.61

YEAR	EC 9 CONSUMPTION [000 t]	IMPORTS FROM		INTRA-EC		MARKET SHARES		UNIT PRICE RATIO
		CHIEA value	EXTRA EC volume	value	volume	EE/EC	EXTRA EC/EC	
1976	1156	12855	223014	167520	317505	5,16	19,39	0,928
1977	1015	11760	288127	145102	657944	5,49	28,39	0,957
1978	1095	-	7198	2086	12088	0	0,66	0
1979	1200	1583	5382	7854	24300	0,39	0,45	1,04
1980	1075	40517	286088	299518	765360	10,35	26,61	0,93
1981								
1982								
1983								
1984								
1985								
1986								
1987								

values : 1000 EUA
volume : [t]

+) EE / intra EC Imports

EC III A4 M/81

PRODUCT: ortho XYLENE

NIMEXE NO: 2901. 65

EE Eastern Europe
EC European Communities

YEAR	EC 9 CONSUMPTION [000 t]	IMPORTS FROM		INTRA - EC volume	[%] VOLUME MARKET SHARES EE/EC		UNIT +) PRICE RATIO
		— CMEA — value	EXTRA EC volume		value	extm EC/EC	
1976	498	1087	89633	12361	52467	0,89	1,05
1977	460	1403	66791	19832	83987	1,41	0,92
1978	431	1293	61988	18062	85007	1,49	0,95
1979	498	1679	68833	28181	88144	1,09	0,96
1980	380	760	131844	20594	54905	0,56	0,95
1981							
1982							
1983							
1984							
1985							
1986							
1987							

values : 1000 tMA
volume : [t]

+) EE / intra EC imports

ECT/A4 M/81

PRODUCT : para XYLENE

EE Eastern Europe
EC European Communities

NIMEXE NO: 2901.67

YEAR	EC 9 CONSUMPTION [000 t]	CMEA		IMPORTS FROM		INTRA - EC		MARKET EE/EC	[%] VOLUME SHARES EXTR/EC	UNIT +) PRICE RATIO
		value	volume	value	volume	value	volume			
1976	324	6202	17533	111437	96531	279802	5,41	34,39	1,03	
1977	260	4189	15859	122737	56846	208559	6,10	47,20	0,97	
1978	336	4482	21626	166834	72283	326892	6,44	49,65	0,94	
1979	322	7846	20204	177301	114801	305966	5,29	46,41	1,04	
1980	340	7024	15743	183466	86388	191298	4,63	53,96	0,99	
1981										
1982										
1983										
1984										
1985										
1986										
1987										

values : 1000 EUA
volume : [t]

+) EE / intra EC imports

EC III A4 M/81

EE Eastern Europe
EC European Communities

VINYLCHEM MONOMER (VCM)

PRODUCT:

NIMEXE NO: 2902.3A

YEAR	EC 9 CONSUMPTION [000 t]	IMPORTS FROM		INTRA - EC		MARKET EE/EC	[%] VOLUME SHARES extm EC/EC	UNIT +) PRICE RATIO	
		CMEA value	volume	EXTRA EC volume	value				volume
1976	1115	9684	40898	42550	94060	302144	3,67	3,82	0,76
1977	1005	8871	36185	36291	90505	270382	3,60	3,61	0,73
1978	1209	10554	44775	64169	104475	327495	3,70	5,31	0,74
1979	1290	7451	26648	55123	232017	619741	2,07	4,27	0,75
1980	1110	8098	24694	31533	172771	441608	2,23	2,84	0,84
1981									
1982									
1983									
1984									
1985									
1986									
1987									

values : 1000 ECU
volume : [t]

+) EE / intra EC imports

EC III AY M/81

PRODUCT: METHANOL

EE Eastern Europe
EC European Communities

NIMEXE NO: 2904.11

YEAR	EC 9 CONSUMPTION [000 t]	CHIEA		IMPORTS FROM		INTRA - EC		MARKET EE/EC	[%] VOLUME SHARES EXTRMEC/EC	UNIT +) PRICE RATIO
		value	volume	value	volume	value	volume			
1976	1127	3622	41789	93059	27308	285959	3,71	8,26	0,91	
1977	1121	5236	61218	149495	46656	423600	5,46	13,34	0,78	
1978	1164	4566	51886	275737	43593	454989	4,46	23,69	0,92	
1979	1401	7673	63419	484452	74377	555810	4,53	30,30	0,90	
1980	1347	7039	47268	404257	101911	592942	3,51	30,01	0,87	
1981										
1982										
1983										
1984										
1985										
1986										
1987										

values : 1000 EUA
volume : [t]

+) EE / intra EC imports

EC III A4 M/81

EE Eastern Europe
EC European Communities

PRODUCT: ETHYLENE GLYCOL

NIMEXE NO: 2904.61

YEAR	EC 9 CONSUMPTION [000 t]	— CMEA —		— IMPORTS FROM —		— INTRA - EC —		MARKET EE/EC	[%] VOLUME SHARES EXM/EC	UNIT +) PRICE RATIO
		value	volume	value	volume	value	volume			
1976	326	-	-	18415	79527	201213	0	5,65	0	
1977	264	1820	6890	28875	64856	188886	2,61	10,94	0,77	
1978	252	723	4189	11574	59087	196723	1,66	4,59	0,57	
1979	286	140	344	9820	108492	249826	0,12	3,43	0,94	
1980	270	432	1055	16594	98691	207647	0,39	6,15	0,86	
1981										
1982										
1983										
1984										
1985										
1986										
1987										

values : 1000 EUA
volume : [t]

+) EE / intra EC imports

EC III A4 M/81

PRODUCT: MALEIC ANHYDRIDE

EE Eastern Europe
EC European Communities

NIMEXE NO: 2915.17

YEAR	EC 9 CONSUMPTION [000 t]	CHIEA		IMPORTS FROM		[%] VOLUME		UNIT +) PRICE RATIO
		value	volume	value	volume	EE/EC	SHARES EXTM/EC	
1976	21	-	-	8270	18330	0	3,55	0
1977	21.6	112	254	9235	20327	1,27	3,56	0,97
1978	23.8	201	580	8726	20441	2,44	4,90	0,81
1979	33.1	-	-	15023	20594	0	4,94	0
1980	30.3	-	-	13215	18196	0	9,10	0
1981								
1982								
1983								
1984								
1985								
1986								
1987								

values : 1000 EUA
volume : [t]

+) EE / intra EC imports

EC III AY M/81

PRODUCT: PHTHALIC ANHYDRIDE

EE Eastern Europe
EC European Communities

NIMEXE NO: 29.15.40

YEAR	EC 9 CONSUMPTION [000 t]	IMPORTS FROM		[%] VOLUME MARKET SHARES		UNIT +) PRICE RATIO		
		CHIEA value	volume	EXTRA EC value	volume		EE/EC	extm EC/EC
1976	213	-	-	25673	71577	0	1,21	0
1977	206	-	-	22962	63644	0	2,65	0
1978	235	-	-	22510	66301	0	2,61	0
1979	218	-	-	41230	77118	0	3,98	0
1980	194	110	200	40023	76456	0,10	3,05	105
1981								
1982								
1983								
1984								
1985								
1986								
1987								

values : 1000 EUA
volume : [t]

+) EE / intra EC imports

ECIIA4 M/81

EE Eastern Europe
EC European Communities

PRODUCT: DIMETHYL TEREPHTHALATE

NIMEXE NO: ex 2915.59

YEAR	EC 9 CONSUMPTION [000 t]	CHEEA		IMPORTS FROM		[%] VOLUME		UNIT +) PRICE RATIO	
		value	volume	value	volume	EE/EC	SHARES extmEC/EC		
1976	1230	-	-	5230	26777	54000	0	0,43	0
1977	1281	132	302	4361	34915	80933	0,025	0,36	1,01
1978	1216	-	-	2051	38355	98939	0	0,17	0
1979	1480	-	-	72	85351	167989	0	0,005	0
1980	1328	-	-	2744	79351	141509	0	0,21	0
1981									
1982									
1983									
1984									
1985									
1986									
1987									

values : 1000 t
volume : [t]

+) EE / intra EC imports

EC III A4 M/81

EE Eastern Europe
EC European Communities

PRODUCT: ACRYLONITRILE (ACN) (volumes for UK confidential!)

NIMEXE NO: 2927. 10

YEAR	EC 9 CONSUMPTION [000 t]	IMPORTS FROM		EXTRA EC volume	INTRA - EC volume		MARKET SHARES EE/EC	[%] VOLUME SHARES extrn EC/EC	UNIT PRICE RATIO
		value	volume		value	volume			
1976	242	1666	4037	16240	62730	107794	1,67	6,71	0,71
1977	230	2267	5656	13730	56624	96749	2,46	5,97	0,68
1978	250	3166	9477	46297	58328	119038	3,79	18,52	0,68
1979	255	10500	12496	84480	77841	128694	4,90	33,13	(138,92)
1980	235	16129	(32759) ^{xx}	91235	68909	108233	(13,94)	(38,82)	0,77
1981									
1982									
1983									
1984									
1985									
1986									
1987									

values : 1000 EUA
volume : [t]

xx) adapted for UK value → volume in 76 no UK imports from class 3

+) EE / intra EC Imports

EC II AY M/81

EE Eastern Europe
EC European Communities

PRODUCT: CAPROLACTAM (UK: volume and values confidential)

NIMEXE NO: ex 2935.91

YEAR	EC 9 CONSUMPTION [000 t]	CM EA		IMPORTS FROM		[%] VOLUME		UNIT +) PRICE RATIO	
		value	volume	EXTRA EC volume	INTRA - EC value	MARKET EE/EC	SHARES extm EC/EC		
1976	180	3156	4062	8029	123572	108002	2,26	4,46	0,68
1977	195	1519	1795	10085	141992	118401	1,24	6,96	0,71
1978	180	1674	2424	6591	108674	96529	1,35	3,66	0,61
1979	190	1175	1332	5661	208538	170943	0,70	2,98	0,73
1980	165	492	437	4275	144335	92948	0,27	2,59	0,73
1981									
1982									
1983									
1984									
1985									
1986									
1987									

values : 1000 ECU
volume : [t]

+) EE / intra EC imports

EC III A4 M/81

PRODUCT: UREA

EE Eastern Europe
EC European Communities

NIMEXE NO: 3102.15

YEAR	EC 9 CONSUMPTION [000 t]	IMPORTS FROM		IMPORTS FROM		MARKET EE/EC	[%] VOLUME SHARES EXTRA EC/EC	UNIT +) PRICE RATIO
		CHIEA value	volume	EXTRA EC volume	value			
1976	310	4999	51310	72924	29784	16,55	23,52	0,88
1977	330	7690	79520	116173	31181	24,08	35,20	0,88
1978	325	5637	58633	110927	33985	17,50	33,11	0,84
1979	340	7656	75167	168199	51981	22,11	47,71	0,81
1980	330	10827	85894	176062	57829	26,03	53,35	0,86
1981								
1982								
1983								
1984								
1985								
1986								
1987								

values : 1000 t
volume : [t]

+) EE / intra EC imports

EC III A4 M/81

EE Eastern Europe
EC European Community

PRODUCT: POLYETHYLENE, LOW DENSITY

NIMEXE NO: 3902.03 (FORMMASSEN / HOUDING / MOULAGE)

YEAR	EC 9 CONSUMPTION [000 t]	GMEA		IMPORTS FROM		INTRA - EC		MARKET EE/EC [%] VOLUME SHARES extm EC/EC	UNIT +) PRICE RATIO
		value	volume	value	volume	value	volume		
1976	740	6604	17241	146599	521888	1008688	2,33	19,81	0,74
1977	801	11104	33329	142748	543289	1115274	4,16	17,82	0,68
1978	849	11521	36019	191881	571429	1240722	4,24	22,60	0,69
1979	965	18250	45175	237768	939460	1370415	4,68	24,64	0,59
1980	880	37750	68683	303503	1025784	1294562	7,81	34,49	0,69
1981									
1982									
1983									
1984									
1985									
1986									
1987									

values : 1000 EUA
volume : [t]

+) EE / intra EC imports

EC III A4 M/81

PRODUCT: POLYETHYLENE, HIGH DENSITY

EE Eastern Europe
EC European Communities

NIMEXE NO: 3902.04 (Moulding)
3902.05 (Liquid ch.)

YEAR	EC 9 CONSUMPTION [000 t]	CHEEA		IMPORTS FROM		MARKET SHARES		UNIT PRICE RATIO
		value	volume	value	volume	EE/EC	extrm EC/EC	
1976	408	972	2295	179264	304977	> 0,67	> 13,73	0,72
1977	367	233	444	61884	107185	> 0,53	> 14,37	0,91
1978	369	415	922	186227	310182	> 1,24	> 20,60	0,75
1979	415	294	1036	64099	16409	> 1,72	> 22,43	0,49
1980	395	760	2153	195838	345033	> 3,87	> 33,30	0,62
1981		779	2422	59047	107665			0,59
1982		1301	2839	292545	397960			0,62
1983		2086	4313	79340	107952			0,66
1984		3714	7271	308973	372599			0,57
1985		4554	8009	90759	101415			0,64
1986								
1987								

values : 1000 EUA
volume : [t]

+) EE / intra EC imports

EC II A4 M/81

EE Eastern Europe
EC European Community

PRODUCT: POLYPROPYLENE (PP)

NIMEXE NO: 3902.21 (MOULAGE / MOULDING / FORMMASSEN)
3902.22 (Liquid etc.)

YEAR	EC 9 CONSUMPTION [000 t]	CMEA		IMPORTS FROM		INTRA - EC		MARKET EE/EC	[%] VOLUME SHARES extm EC/EC	UNIT +) PRICE RATIO
		value	volume	value	volume	value	volume			
1976	163	124	333	34796	75272	128288	> 0,39	> 37,77	0,63	
1977	182	115	306	26774	19232	33504	0,56	> 28,96	0,66	
1978	227	452	1016	31312	81630	157148	0	> 15,97	0,86	
1979	280	—	—	21394	24242	50249	> 0,64	> 27,57	0	
1980	265	287	862	12036	106613	238322	> 0,63	> 31,93	0,74	
1981		208	556	24205	34615	74087	> 0,73		0,75	
1982		372	914	39965	207511	344132	0		0,67	
1983		390	840	37237	46777	77455	0		0,77	
1984		819	1924	56129	216134	343370	0		0,68	
1985		—	—	28483	47732	74726			0	
1986										
1987										

values : 1000 ECU
volume : [t]

+) EE / intra EC Imports

EC III A4 M/81

EE Eastern Europe
EC European Communities

PRODUCT: POLYSTYRENE (PS)

NIMEXE NO: 3902.32

YEAR	EC 9 CONSUMPTION [000 t]	GMEA		IMPORTS FROM		MARKET SHARES		UNIT +) PRICE RATIO	
		value	volume	EXTRA EC volume	INTRA - EC value	EE/EC	extm EC/EC		
1976	440	1300	2832	14911	356141	582175	0,64	3,39	0,75
1977	430	1338	3555	15167	409465	653811	0,83	3,53	0,60
1978	470	1248	3916	16426	392556	681274	0,83	3,50	0,55
1979	510	2397	4488	33794	557843	685418	0,88	6,63	0,66
1980	480	2070	3684	34454	593174	676671	0,77	7,18	0,64
1981									
1982									
1983									
1984									
1985									
1986									
1987									

values : 1000 EUA
volume : [t]

+) EE / intra EC imports

EC III A4 M/81

EE Eastern Europe
EC European Communities

PRODUCT: POLY VINYL CHLORID (PVC)

NIMEXE NO: 3902.41 (FORMMASSEN/MOULDING/MOULAGE)
+ 3902.43 (Liquid, granulakd etc.)

YEAR	EC 9 CONSUMPTION [000 t]	CMEA		IMPORTS FROM		INTRA - EC		MARKET EE/EC	[%] VOLUME SHARES extm EC/EC	UNIT PRICE RATIO
		value	volume	value	volume	value	volume			
1976	956	3647	9501	28860	110112	192773	> 2,10	> 9,25	0,67	
1977	968	4143	10581	59560	319199	612018	> 4,56	> 11,95	0,75	
1978	1005	8312	22355	35950	95147	163858	> 5,85	> 11,31	0,64	
1979	1050	8609	21535	79159	367298	699423	> 6,39	> 16,71	0,76	
1980	1030	8678	25748	50675	106261	188168	> 9,01	> 18,51	0,60	
1981		12182	33018	103773	346509	689354			0,73	
1982		11686	28104	62957	144620	212715			0,61	
1983		17398	39007	112504	495994	793535			0,72	
1984		19500	42272	84887	155114	215987			0,64	
1985		23540	50558	105726	456900	723732			0,74	
1986										
1987										

values : 1000 EUA
volume : [t]

+) EE / intra EC imports

EC III A4 M/81

PRODUCT: CAUSTIC SODA (NaOH)

EE Eastern Europe
EC European Communities

NIMEXE NO: 2817.15 (uss. lsg. / aqueous sol. / sol. aqueux) Δ

YEAR	EC 9 CONSUMPTION [000 t]	IMPORTS FROM		[%] VOLUME MARKET SHARES		UNIT +) PRICE RATIO
		CHIEA value	EXTRA EC volume	INTRA- EC value	EE/EC extm EC/EC	
1976	2603	-	25667	25972	0	0
1977	2574	1290	67088	34512	1,28	0,78
1978	2730	2192	102821	33113	2,05	0,78
1979	2746	2862	147513	44993	2,09	0,79
1980	2417	4331	167206	63271	3,47	0,80
1981						
1982						
1983						
1984						
1985						
1986						
1987						

values : 1000 t
volume : [t]

concentration ?

+) EE / intra EC imports

EC III A4 M/81

PRODUCT: AMMONIA, ANHYDROUS

EE Eastern Europe
EC European Communities

NIMEXE NO: 2816.10

YEAR	EC 9 CONSUMPTION [000 t]	IMPORTS FROM		IMPORTS FROM		MARKET SHARES EE/EC	[%] VOLUME SHARES extra EC/EC	UNIT +) PRICE RATIO	
		CHIEA value	volume	EXTRA EC volume	value				INTRA - EC volume
1976	1819	6116	59360	305211	66708	557322	3,26	16,78	0,86
1977	1835	2217	20411	257369	79112	683851	1,11	14,03	0,94
1978	1880	14626	165641	513078	63120	557608	9,02	28,89	0,76
1979	2122	36165	425233	789566	80923	549213	20,04	37,21	0,58
1980	2057	48504	378971	763457	109839	586279	18,42	37,12	0,68
1981									
1982									
1983									
1984									
1985									
1986									
1987									

values : 1000 t
volume : [t]

+) EE / intra EC Imports

EC III A4 11/81

PRODUCT: TITANIUM DIOXIDE

EE Eastern Europe
EC European Communities

NIMEXE NO: 2825.00

YEAR	EC 9 CONSUMPTION [000 t]	GMEA		IMPORTS FROM		INTRA-EC		MARKET EE/EC	[%] VOLUME SHARES extra EC/EC	UNIT +) PRICE RATIO
		value	volume	value	volume	value	volume			
1976	190	1613	3229	81595	109931	12062	109931	1,70	6,35	0,67
1977	203	1121	2127	75426	101647	11979	101647	1,05	5,90	0,71
1978	230	1024	2143	76792	103606	22392	103606	0,93	9,74	0,64
1979	234	1034	1773	84541	97807	24373	97807	0,76	10,42	0,67
1980	224	1172	1720	84148	83295	16449	83295	0,77	7,34	0,67
1981										
1982										
1983										
1984										
1985										
1986										
1987										

values : 1000 EUA
volume : [t]

+) EE / intra EC imports

ECIIAY M/81

EE Eastern Europe
EC European Communities

PRODUCT: SODA ASH (Na₂CO₃)

NIMEXE NO: 2842.31

YEAR	EC 9 CONSUMPTION [000 t]	IMPORTS FROM		[%] VOLUME MARKET SHARES		UNIT +) PRICE RATIO
		CMEA value	EXTRA EC volume	INTRA - EC value	EXTRA EC/EC	
1976	1388	9413	166600	16347	171181	0,57
1977	1383	11256	196908	14337	144945	0,58
1978	1321	11790	202018	15751	160499	0,59
1979	1379	14048	204687	21447	208023	0,67
1980	1383	19405	210675	38043	338293	0,82
1981						
1982						
1983						
1984						
1985						
1986						
1987						

values : 1000 t
volume : [t]

+) EE / intra EC Imports

PART 2

Synoptical view of the calculated indicators of part 1 for all the products over the time period surveyed 1976-1980.

1 : % volume market share for imports
from Eastern European countries.

2 : % volume market share for extra EC imports.

3 : unit price ratio $\frac{\text{EE}}{\text{intra EC}}$

PRODUCT] duty %		1976	1977	1978	1979	1980	1981	1982
PROPYLENE								
2901.24	1	0,03	1,47	1,53	1,08	3,23		
	2	2,2	2,3	6,53	8,47	8,81		
[0]	3	0,870	0,892	0,943	0,966	0,904		
BENZENE								
2901.61	1	5,16	5,49	0	0,39	10,35		
	2	19,39	28,39	0,66	0,45	26,61		
[0]	3	0,928	0,957	0	1,04	0,93		
ortho-XYLENE								
2901.65	1	0,89	1,41	1,49	1,09	0,56		
	2	17,94	14,52	14,38	13,82	34,70		
[0]	3	1,05	0,92	0,95	0,96	0,95		
para-XYLENE								
2901.67	1	5,41	6,10	6,44	5,29	4,63		
	2	34,39	47,20	49,65	46,41	53,96		
[0]	3	1,03	0,97	0,94	1,04	0,99		
VCM								
2902.31	1	3,67	3,60	3,70	2,07	2,23		
	2	3,82	3,61	5,31	4,27	2,84		
[14]	3	0,76	0,73	0,74	0,75	0,84		
Vinylchloride Monomer								
METHANOL								
2904.11	1	3,71	5,46	4,46	4,53	3,51		
	2	8,26	13,34	23,69	30,30	30,01		
[13,9]	3	0,91	0,78	0,92	0,90	0,87		
ETHYLENE GLYCOL								
2904.61	1	0	2,61	1,66	0,12	0,39		
	2	5,65	10,94	4,59	3,43	6,15		
[15,1]	3	0	0,77	0,57	0,94	0,86		
MALEIC ANHYDRIDE								
2915.17	1	0	1,17	2,44	0	0		
	2	3,55	3,56	4,90	4,94	9,10		
[10,1]	3	0	0,97	0,81	0	0		
PHTHALIC ANHYDR.								
2915.40	1	0	0	0	0	0,10		
	2	1,21	2,65	2,61	3,98	3,05		
[13,9]	3	0	0	0	0	1,05		
DMT								
ex 2915.59	1	0	0,025	0	0	0		
	2	0,43	0,36	0,17	0,005	0,21		
[10,8]	3	0	1,01	0	0	0		

PRODUCT		1976	1977	1978	1979	1980	1981	1982
ACRYLONITRILE								
2927.10	1	1,67	2,46	3,79	4,90	1394		
[14,4]	2	6,81	5,97	18,52	33,13	(38,82)		
	3	0,71	0,68	0,68	(138,92)	0,77		
CAPROLACTAM								
ex 2935.91	1	2,26	1,24	1,35	0,70	0,27		
[7,3]	2	4,46	6,96	3,66	2,98	2,59		
	3	0,68	0,71	0,61	0,73	0,73		
UREA								
3102.15	1	16,55	24,08	17,50	22,11	26,03		
[12,1]	2	23,52	35,20	33,11	47,71	53,35		
	3	0,88	0,88	0,84	0,81	0,86		
LDPE								
3902.03	1	2,33	4,16	4,24	4,68	7,81		
[14,7; 16,2]	2	19,81	17,82	22,60	24,64	34,49		
Low Dens. Polyethylene	3	0,74	0,68	0,69	0,59	0,69		
HDPE								
[14,7; 16,2]	1	0,67	0,53	1,24	1,72	3,87		
3902.04 *	2	13,73	14,37	20,60	22,43	33,30		
3902.05 **	3	* 0,72	0,75	0,62	0,62	0,57		
High Density PE		** 0,91	0,49	0,59	0,66	0,64		
PP								
[16,2]	1	0,39	0,56	0,64	0,63	0,73		
3902.21 *	2	37,77	28,96	15,97	27,57	31,93		
3902.22 **	3	* 0,63	0,86	0,74	0,67	0,68		
Polypropylene		** 0,66	0	0,75	0,77	0		
PS								
3902.32	1	0,64	0,83	0,83	0,88	0,77		
[14,7/16,2]	2	3,39	3,53	3,50	6,63	7,18		
Polystyrene	3	0,75	0,60	0,55	0,66	0,64		
PVC								
[14,7; 16,2]	1	2,10	4,56	5,85	6,39	9,01		
3902.41 *	2	9,25	11,95	11,31	16,71	18,51		
3902.43 **	3	* 0,67	0,64	0,60	0,61	0,64		
Polyvinylchloride		** 0,75	0,76	0,61	0,72	0,74		
TITANIUM DIOXIDE								
2825.00	1	1,70	1,05	0,93	0,76	0,77		
[8,3]	2	6,35	5,90	9,74	10,42	7,34		
	3	0,67	0,71	0,64	0,67	0,67		
CAUSTIC SODA								
2817.15	1	0	1,28	2,05	2,09	3,47		
[12,5]	2	0,99	2,61	3,77	5,37	6,92		
	3	0	0,78	0,78	0,79	0,80		

PRODUCT	1976	1977	1978	1979	1980	1981	1982
AMMONIA, Anhydrous							
2816.10 1	3,26	1,11	9,02	20,04	18,42		
[11,1] 2	16,78	14,03	28,89	37,21	37,12		
3	0,86	0,94	0,76	0,58	0,68	x	
SODA ASH							
2842.31 1	12,00	14,24	15,29	14,84	15,23		
[10,3] 2	15,31	17,15	18,32	19,39	22,43		
3	0,57	0,58	0,59	0,67	0,82	x	
1							
2							
3							
1							
2							
3							
1							
2							
3							
1							
2							
3							
1							
2							
3							

PART 3

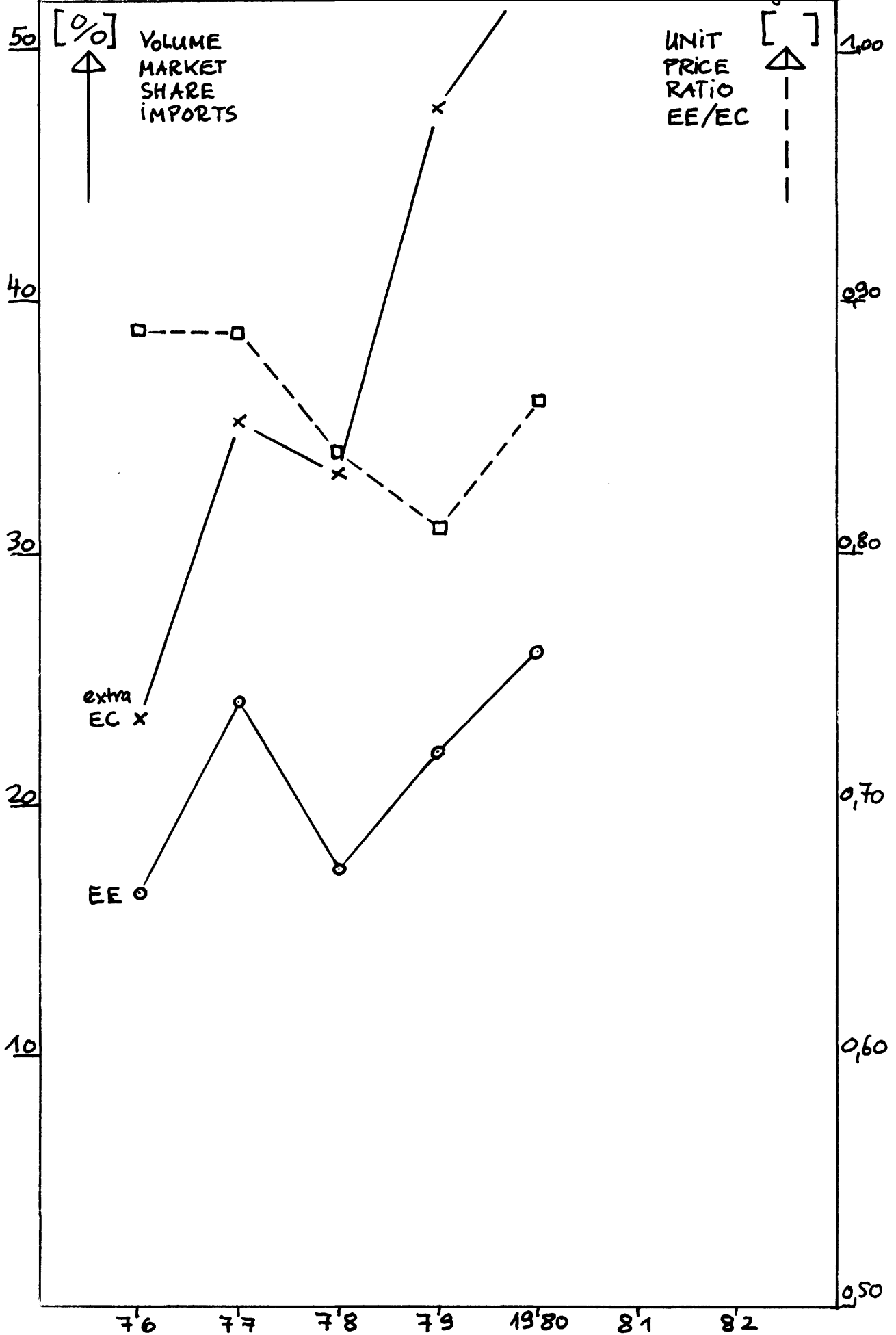
Graphical representation of market shares and unit pricing ratios for chemical imports from Eastern European countries.

Products tied into compensation agreements and holding an EC market share of over 5 % of intra EC apparent consumption.

Survey 1976 - 1980.

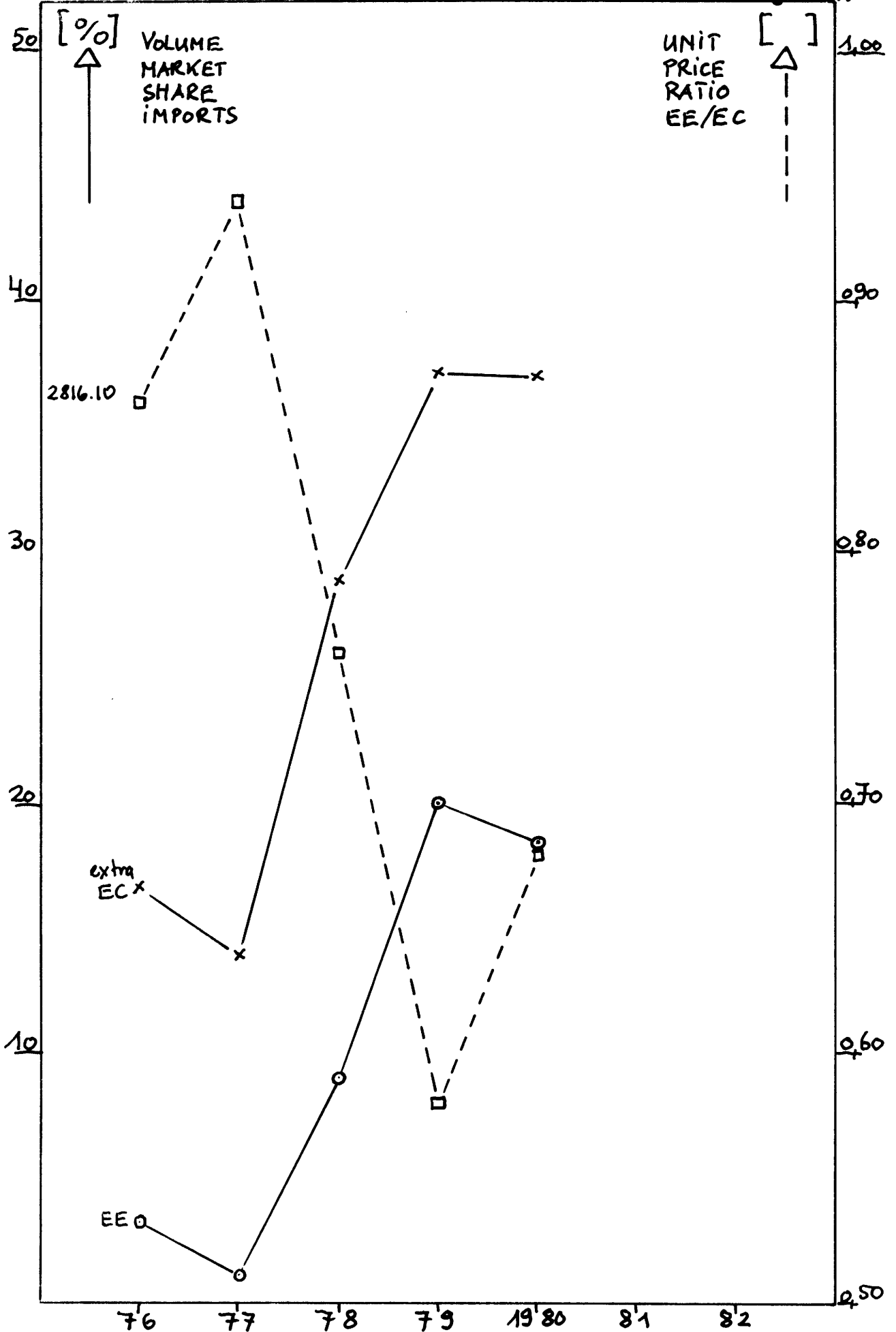
PRODUCT: UREA

Nimex Number: 3102.15
EC III A 4 12/81
Duty: 12.1%



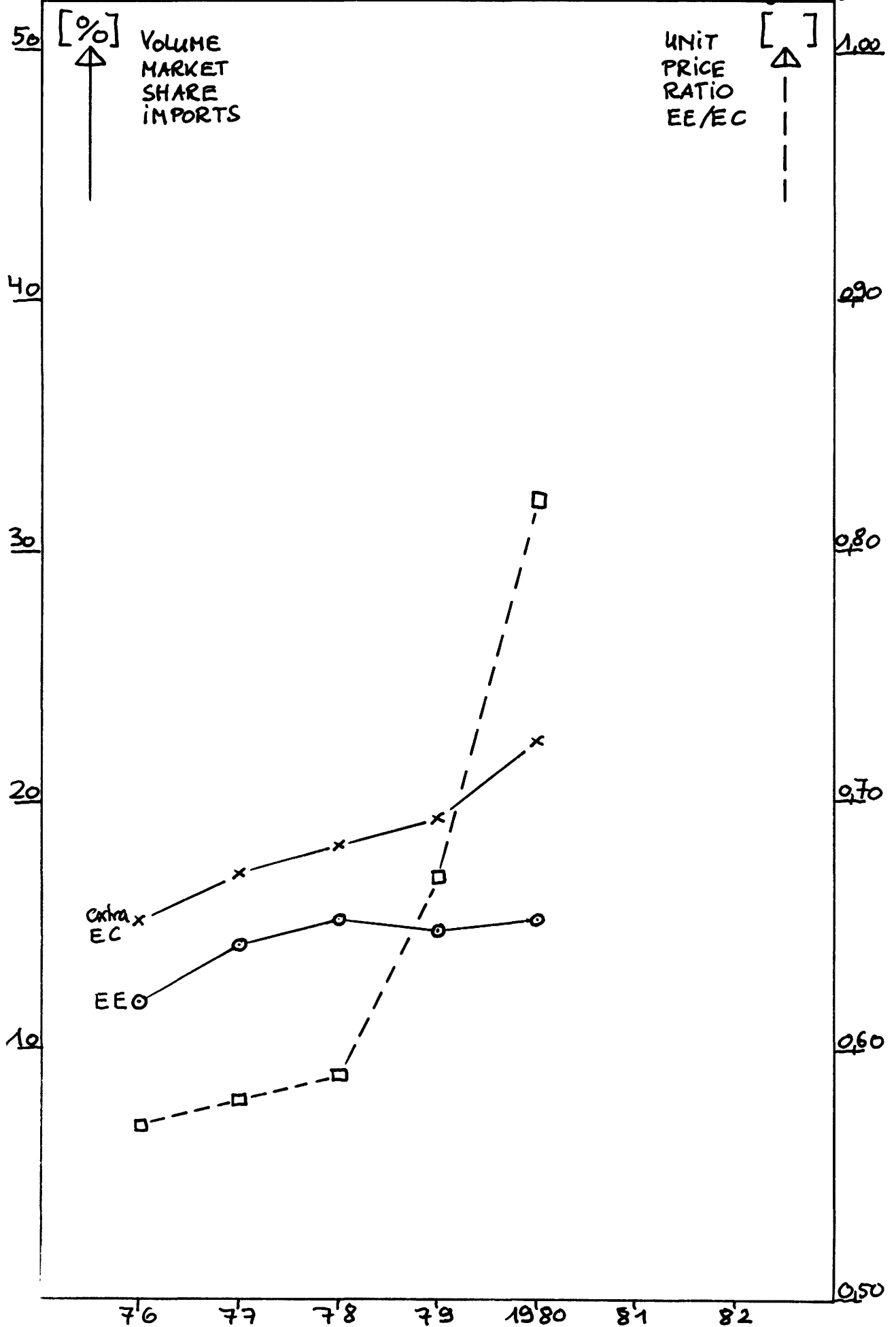
PRODUCT: AMMONIA

EC III A4 12/81
Nimex Number: 2816.10 Duty: 11.1%



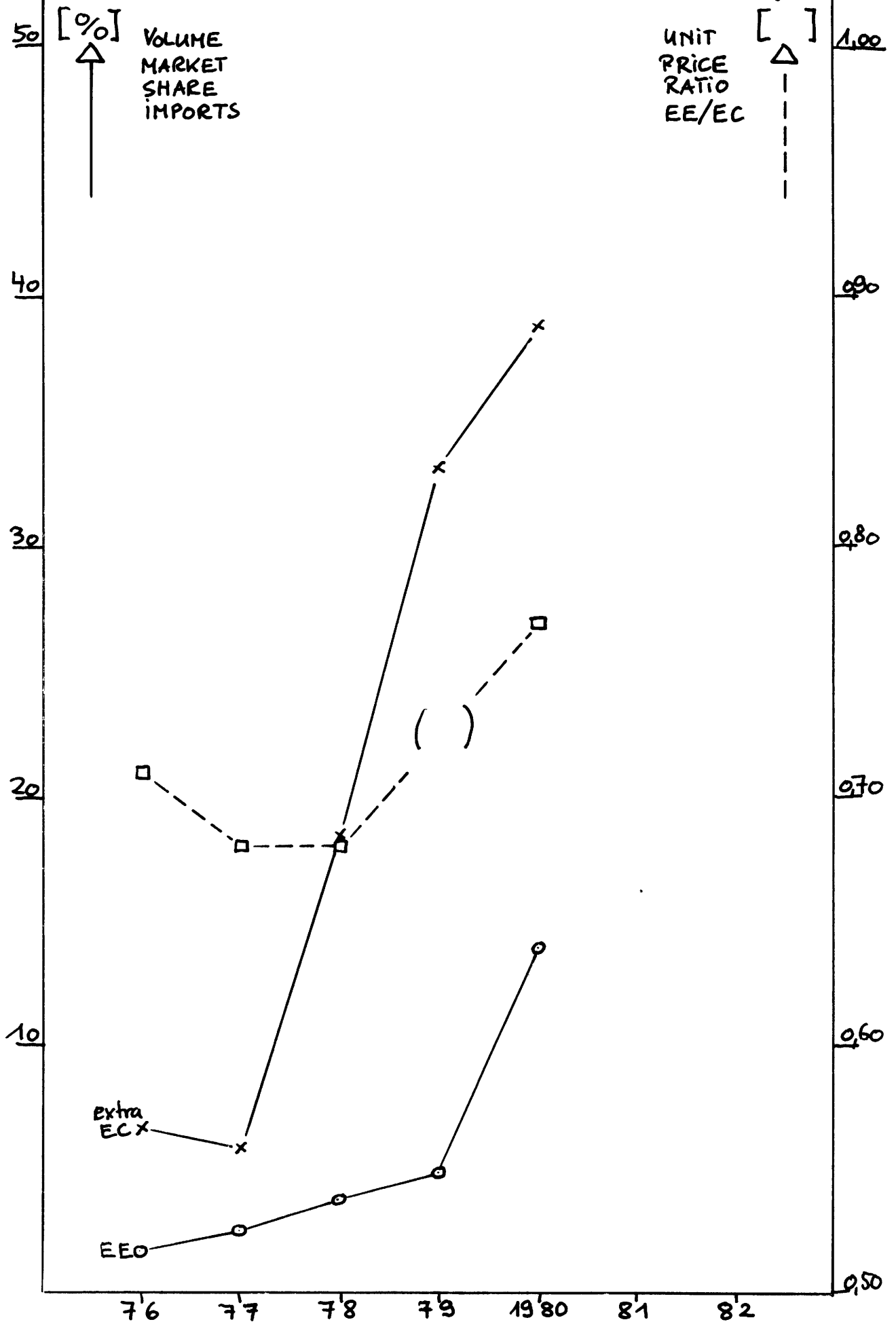
PRODUCT: SODA ASH

EC III A 4 12/81
Nimex Number: 2842.31 Duty: 193%



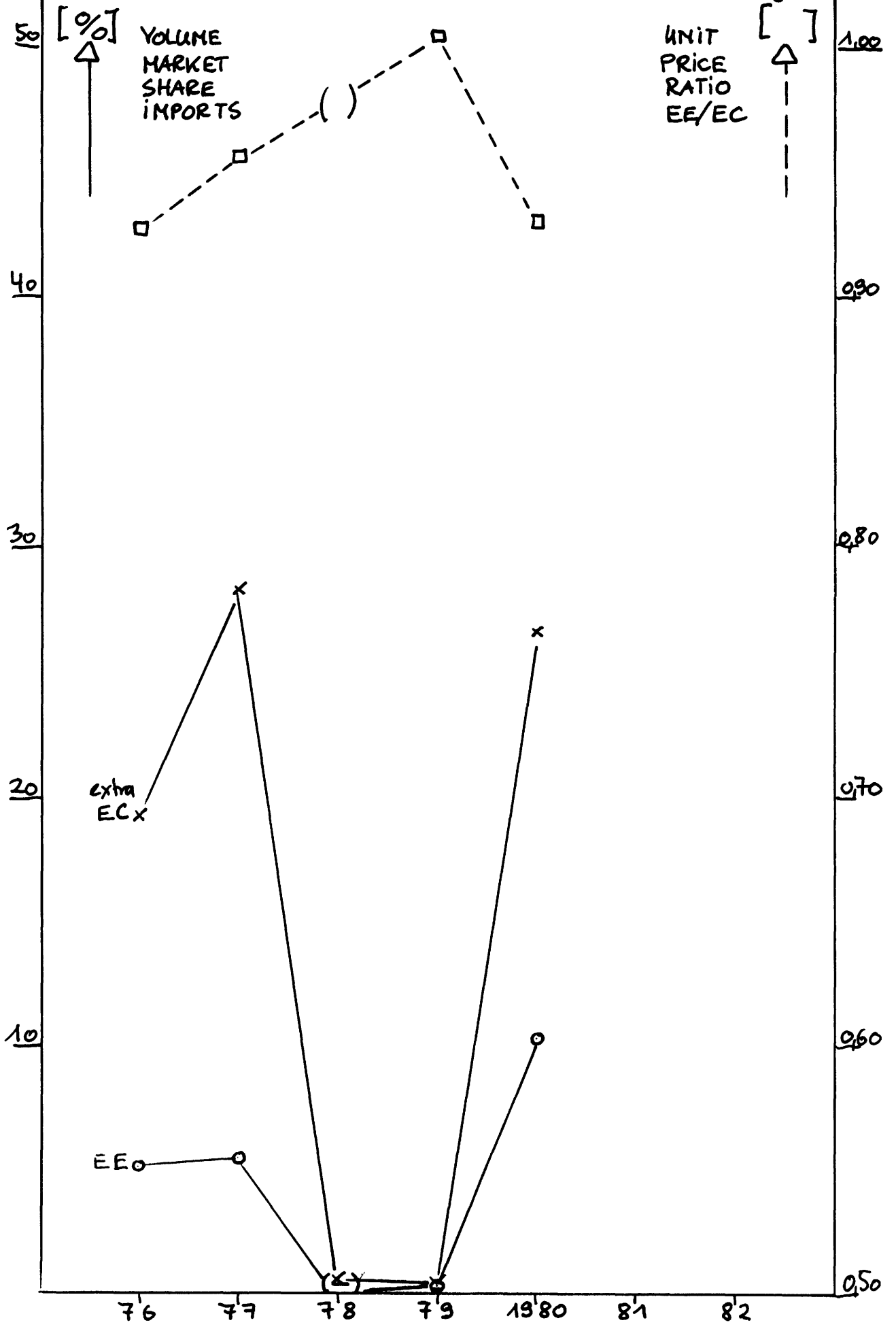
PRODUCT: ACRYLONITRILE

EC III A4 12/81
Nimex Number: 2927.10 Duty: 14.4%



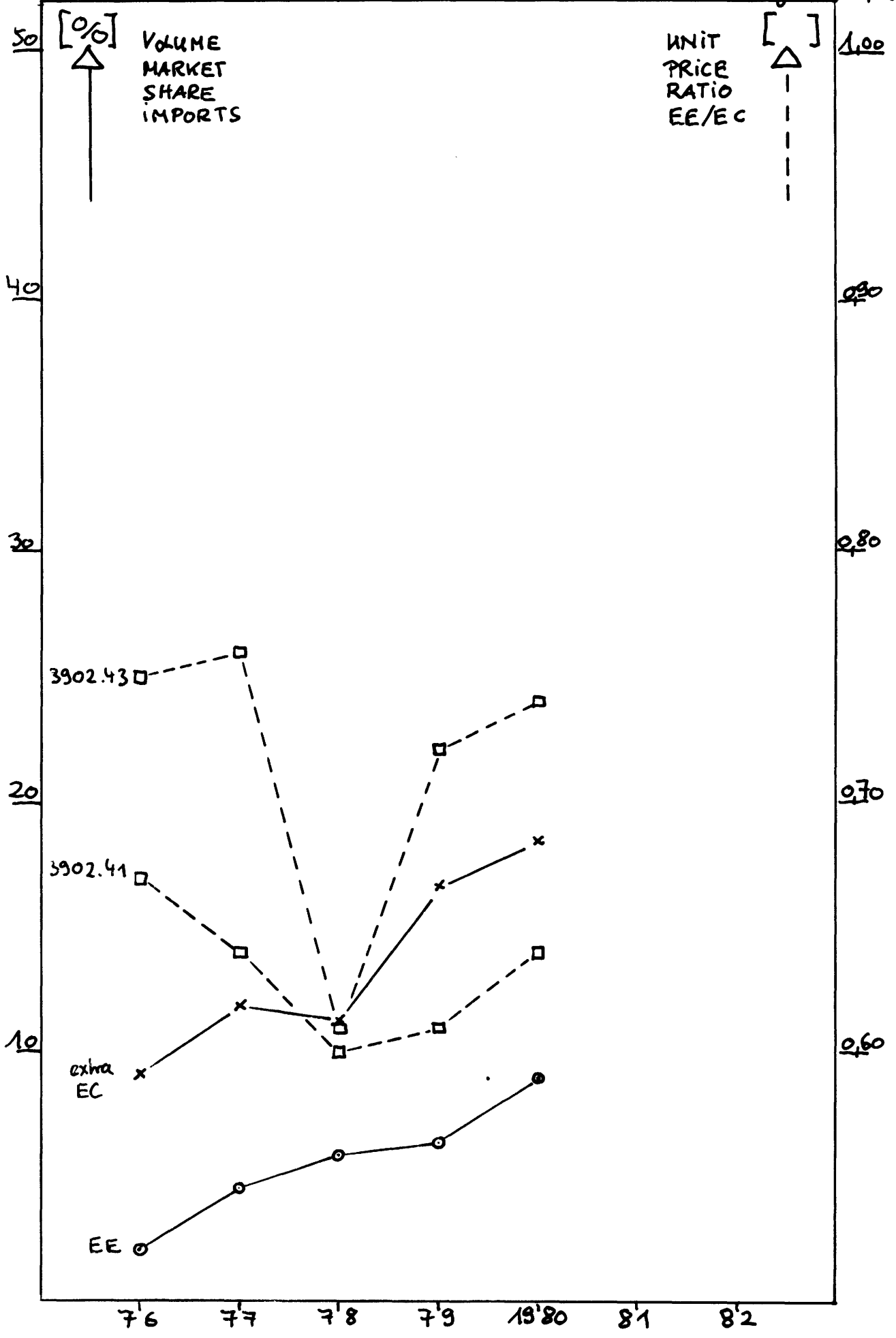
PRODUCT: BENZENE

EC III A4 12/81
Nimex Number: 2901.61 Duty: 0%



PRODUCT: PVC

EC III A4 12/81
Nimex Number: 3902.41/43 Duty: 14.7+16.2%



PRODUCT: LDPE

Nimex Number:

EC (A4 12/81

Duty 14.7%

