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Tables.

Table 1. The average external sales for the ten largest markets in 1993-1995.

	ASTRA	SCA	STORA
Country	**% of total**	**% of total**	**% of total**
Germany	12	23	24
Sweden	9	9	17
Great Britain	10	14	10
France	9	12	9
Denmark	2	2	5
Netherlands	3	8	4
Italy	3	6	3
Belgium	2	5	3
U. S and Canada	11	4	8
	61% of total	**83% of total**	**83% of total**

Source: ASTRA, SCA and STORA´s annual reports.

Table 2. The yearly average transaction exposure in the four most important currencies measured in million SEK.

	1993			1994			1995		
	ASTRA	**SCA**	**STORA**	**ASTRA**	**SCA**	**STORA**	**ASTRA**	**SCA**	**STORA**
DEM	1553	1283	56	1446	3478	815	1940	4422	1405
FRF		1548	785		567	1081		1824	1731
GBP	1087	3336	4252	1228	5335	4971	1689	4116	4824
NLG	503			526			1111		
DKK		1469			1801			1675	
USD	934		3912	1274		3026	1499		2673
TOTAL	4077	7636	9005	4474	11181	9893	6239	12037	10597
% of total stock value	0.035	0.290	0.382	0.038	0.303	0.355	0.038	0.593	0.421

Source: ASTRA, SCA and STORA Financial Services

Table 3. The distribution of debts in the four most important foreign currencies, in million SEK.

	1993			1994			1995		
	ASTRA	**SCA**	**STORA**	**ASTRA**	**SCA**	**STORA**	**ASTRA**	**SCA**	**STORA**
DEM	446	49	13579	1014	186	12458	800	6241	11354
FRF	916	3483	6759	1616	2365	5998	897	1699	5073
GBP		4753	942		5571	878		4442	855
NLG	867	6741		756	4147		2205	2245	
DKK									
USD	1596		1838	931		269	486		10
TOTAL	3825	15026	23118	4317	12269	19603	4388	14627	17292
% of total stock value	0.033	0.571	0.979	0.036	0.398	0.703	0.027	0.721	0.687

Source: ASTRA, SCA and STORA Financial Services

Table 4 a-d. **Correlation matrices and standard deviations of the weekly rates of change of interest rates, exchange rates, stock market index and STORA´s stock price.***

Table 4a. Correlation matrix for 3 month interest rates.*

	GER	USA	SWE	Std. dev
GER	1.0			0.0166
USA	0.1051	1.0		0.0225
SWE	0.1538	0.1384	1.0	0.0248
MARKET	-0.2112	-0.2547	-0.4167	
ASTRA	-0.1263	-0.1949	-0.2618	
TL-ASTRA	-0.1259	-0.1947	-0.2581	
TA-ASTRA	-0.1261	-0.1954	-0.2587	
UH-ASTRA	-0.1257	-0.1951	-0.2548	
SCA	-0.0588	-0.1679	-0.3400	
TL-SCA	-0.0599	-0.1696	-0.3295	
TA-SCA	-0.0363	-0.1601	-0.2627	
UH-SCA	-0.0372	-0.1608	-0.2511	
STORA	-0.1338	-0.1125	-0.2952	
TL-STORA	-0.0931	-0.0973	-0.1989	
TA-STORA	-0.1340	-0.1133	-0.2900	
UH-STORA	-0.0931	-0.0974	-0.1930	

Table 4b. Correlation matrix for 10 year interest rates.*

	GER	USA	SWE	Std. dev
GER	1.0			0.0162
USA	0.4505	1.0		0.0193
SWE	0.5296	0.2906	1.0	0.0242
MARKET	-0.2866	-0.1697	-0.4397	
ASTRA	-0.1583	-0.1612	-0.2431	
TL-ASTRA	-0.1587	-0.1615	-0.2363	
TA-ASTRA	-0.1592	-0.1619	-0.2368	
UH-ASTRA	-0.1595	-0.1621	-0.2299	
SCA	-0.2097	-0.0255	-0.3285	
TL-SCA	-0.1930	-0.0262	-0.2086	
TA-SCA	-0.2103	-0.0262	-0.3142	
UH-SCA	-0.1924	-0.0267	-0.1934	
STORA	-0.1880	0.0316	-0.2446	
TL-STORA	-0.1774	0.0198	-0.0972	
TA-STORA	-0.1889	0.0311	-0.2331	
UH-STORA	-0.1769	0.0192	-0.0859	

* The first difference of logarithmic form is used.

ASTRA, SCA , STORA = ASTRA, SCA, and STORA´s share price.
TL-ASTRA, TL-SCA, TL-STORA = ASTRA, SCA and STORA´s share price adjusted for translation hedges.
TA-ASTRA, TA-SCA, TA-STORA= ASTRA, SCA and STORA´s share price adjusted for transaction hedges.
UH-ASTRA, UH-SCA,UH-STORA= ASTRA, SCA and STORA´s share price adjusted for transaction and translation hedges.

Table 4c. Nominal exchange rates and nominal stock prices.*

	EXUS	EXG	Std. dev
EXUS	1.0		0.0158
EXG	0.5052	1.0	0.0127
MARKET	-0.0112	-0.3056	
ASTRA	-0.0493	-0.2504	
TL-ASTRA	-0.0374	-0.2375	
TA-ASTRA	-0.0371	-0.2380	
UH-ASTRA	-0.0251	-0.2250	
SCA	0.1318	-0.1278	
TL-SCA	0.2689	0.0815	
TA-SCA	0.1494	-0.1028	
UH-SCA	0.2847	0.1055	
STORA	0.0711	0.1179	
TL-STORA	0.2615	0.3774	
TA-STORA	0.1006	0.1418	
UH-STORA	0.2867	0.3960	

Table 4d. Mean and variance of ASTRA, SCA and STORA´s unhedged and hedged stock price.**

	MEAN in SEK	Variance of value
ASTRA	183.3	0.0347
TL-ASTRA	184.2	0.0346
TA-ASTRA	183.9	0.0342
UH-ASTRA	184.6	0.0341
SCA	123.5	0.0067
TL-SCA	131.2	0.0077
TA-SCA	123.6	0.0069
UH-SCA	131.3	0.0079
STORA	81.00	0.0278
TL-STORA	89.12	0.0315
TA-STORA	81.43	0.0267
UH-STORA	89.56	0.0308

* The first difference of logarithmic form is used.
** The logarithmic form is used for the variance of stock prices and the raw data is used for the mean.

ASTRA, SCA , STORA = ASTRA, SCA, and STORA´s share price.
TL-ASTRA, TL-SCA, TL-STORA = ASTRA, SCA and STORA´s share price adjusted for translation hedges.
TA-ASTRA, TA-SCA, TA-STORA= ASTRA, SCA and STORA´s share price adjusted for transaction hedges.
UH-ASTRA, UH-SCA,UH-STORA= ASTRA, SCA and STORA´s share price adjusted for transaction and translation hedges.

Sensitivity coefficients for ASTRA, SCA and STORA

Table 5 **ASTRA, SCA, STORA =** ASTRA, SCA and STORA´s return.

Variable	Market index Coef.	Pr-v.	ASTRA Coeff.	Prob-v.	SCA Coeff.	Prob-v.	STORA Coeff.	Prob-v.
3 month interest rate in Sweden	-0.18	0.012	-0.165*		-0.182*		-0.222*	
3 month interest rate in Germany								
3 month interest rate in U.S	-0.13	0.025	-0.119*		-0.132*		-0.191*	
10 year interest rate in Sweden	-0.28	0.000	-0.257*		-0.284*		-0.385*	
10 year interest rate in Germany								
10 year interest rate in U.S							0.349	0.0042
Exchange Rate SEK/USD					0.367	0.0061		
Exchange Rate SEK/DEM							0.417	0.0215
Stock market index			0.918	0.0000	1.013	0.0000	1.352	0.0000

Table 6 ASTRA, SCA and STORA´s return without hedging for translation exposure.

Variable	ASTRA Coefficient	Prob-v.	SCA Coefficient	Prob-v.	STORA Coefficient	Prob-v.
3 month interest rate in Sweden	-0.164*		-0.154*		-0.206*	
3 month interest rate in Germany						
3 month interest rate in U.S	-0.118*		-0.111*		-0.151*	
10 year interest rate in Sweden	-0.255*		-0.470*		-0.321*	
10 year interest rate in Germany						
10 year interest rate in U.S			0.232	0.0320	0.314	0.0062
Exchange Rate SEK/USD			0.368	0.0099		
Exchange Rate SEK/DEM			0.731	0.0003	1.190	0.0000
Stock market index	0.909	0.0000	0.854	0.0000	1.127	0.0000

Table 7 ASTRA, SCA and STORA´s return without hedging for transaction exposure.

Variable	ASTRA Coefficient	Prob-v.	SCA Coefficient	Prob-v.	STORA Coefficient	Prob-v.
3 month interest rate in Sweden	-0.164*		-0.182*		-0.245*	
3 month interest rate in Germany						
3 month interest rate in U.S	-0.118*		-0.131*		-0.179*	
10 year interest rate in Sweden	-0.255*		-0.283*		-0.382*	
10 year interest rate in Germany						
10 year interest rate in U.S					0.349	0.0042
Exchange Rate SEK/USD			0.378	0.0030		
Exchange Rate SEK/DEM					0.493	0.0067
Stock market index	0.911	0.0000	1.0104	0.0000	1.341	0.0000

Table 8 ASTRA, SCA and STORA´s return without hedging for translation and transaction exposure.

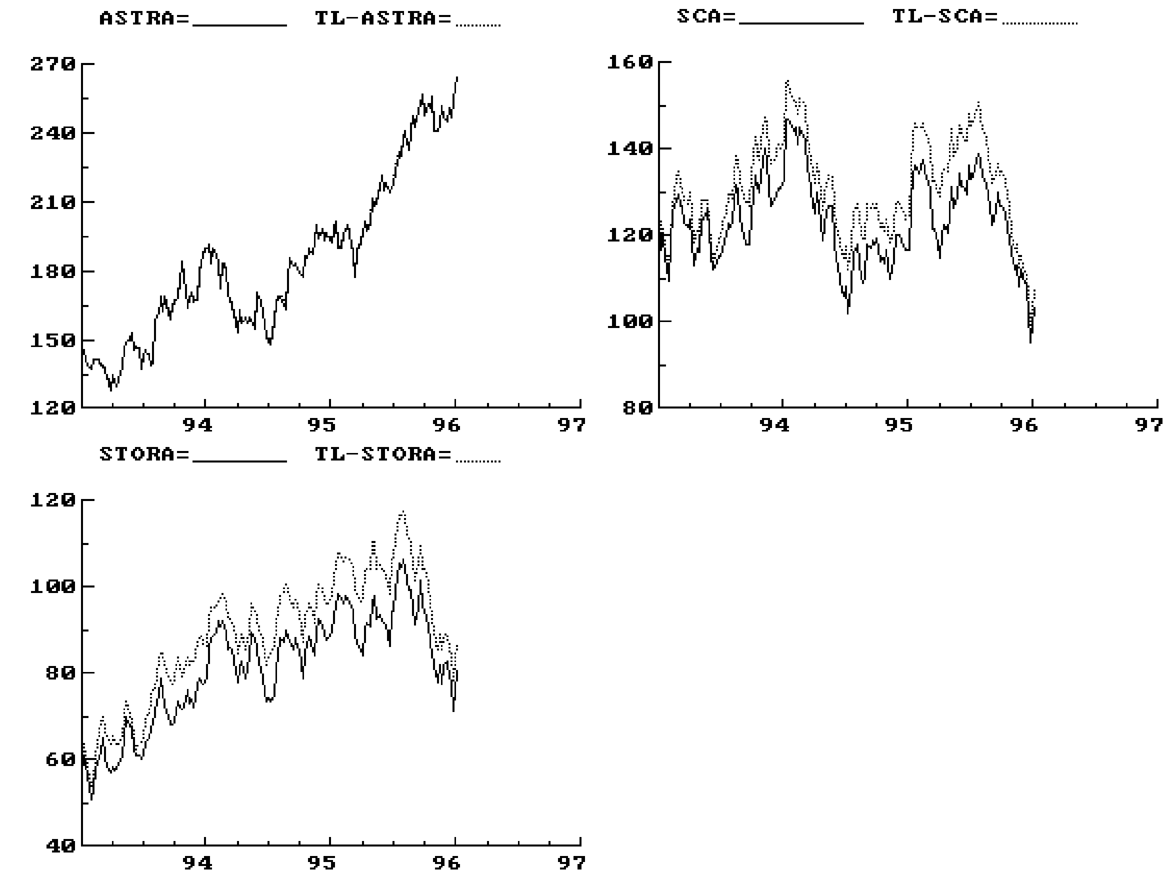
Variable	ASTRA Coefficient	Prob-v.	SCA Coefficient	Prob-v.	STORA Coefficient	Prob-v.
3 month interest rate in Sweden	-0.162*		-0.152*		-0.205*	
3 month interest rate in Germany						
3 month interest rate in U.S	-0.117*		-0.110*		-0.150*	
10 year interest rate in Sweden	-0.253*		-0.465*	0.0351	-0.362*	
10 year interest rate in Germany					-0.384	0.0308
10 year interest rate in U.S			0.231	0.0330	0.315	0.0063
Exchange Rate SEK/USD			0.382	0.0076		
Exchange Rate SEK/DEM			0.783	0.0001	1.255	0.0000
Stock market index	0.902	0.0000	0.847	0.0000	1.119	0.0000

Percentage change in share price to one percentage points change in macroeconomic variable. Reported coefficients are signific different from zero at 5% level. Results for model specification tests are presented in Table 2 in the appendix. * Coeffficent obt multipling the coefficient for the market index with the coefficient in the market index regression.

Fig.1.

ASTRA, SCA and STORA´s share price adjusted for foreign loan in their four most important currencies, see Table 3.

ASTRA, SCA and STORA = ASTRA, SCA and STORA´s share price. TL-ASTRA, TL-SCA and TL-STORA = ASTRA, SCA and STORA´s share price adjusted for translation hedges.



Appendix

Table 1 Total stock value, TSV, measured in Billion SEK and percentage of foreign stock owner, FSO.

	1993			1994			1995		
	ASTRA	**SCA**	**STORA**	**ASTRA**	**SCA**	**STORA**	**ASTRA**	**SCA**	**STORA**
TSV	115	26.3	23.6	118	30.8	27.9	163	20.3	25.2
FSO	38	8.2	17	41	11.4	27	47	11.9	28

Source: ASTRA, SCA and STORA's annual reports.

Table 2 Results for model specification tests.

ASTRA, SCA, STORA = ASTRA, SCA and STORA´s return.

Market Index	**ASTRA**	**SCA**	**STORA**
R^2 0.30	R^2 0.37	R^2 0.50	R^2 0.53
ARCH [0.5125]	ARCH [0.9966]	ARCH [0.5858]	ARCH [0.6691]
DW 1.91	DW 2.03	DW 1.98	DW 2.11
N [0.2441]	N[0.0041]	N[0.4459]	N[0.9253]
AR 1-7 [0.1801]	AR 1-7 [0.9651]	AR 1-7 [0.3090]	AR 1-7 [0.2309]
RESET [0.4886]	RESET[0.5494]	RESET[0.5665]	RESET[0.2149]
Xi^2 [0.9688]	Xi^2 [0.3780]	Xi^2 [0.1657]	Xi^2 [0.3273]

ASTRA, SCA and STORA´s return without hedging for translation exposure.

ASTRA	**SCA**	**STORA**
R^2 0.37	R^2 0.50	R^2 0.54
ARCH [0.9974]	ARCH [0.4975]	ARCH [0.3246]
DW 2.03	DW 1.97	DW 2.10
N [0.0044]	N [0.2148]	N [1.0000]
AR 1-7 [0.9641]	AR 1-7 [0.2882]	AR 1-7 [0.1150]
RESET [0.5595]	RESET [0.4861]	RESET [0.2514]
Xi^2 [0.4110]	Xi^2 [0.1453]	Xi^2 [0.3462]

ASTRA, SCA and STORA´s return without hedging for transaction exposure.

ASTRA	**SCA**	**STORA**
R^2 0.37	R^2 0.49	R^2 0.53
ARCH [0.9975]	ARCH [0.6121]	ARCH [0.6121]
DW 2.03	DW 1.98	DW 2.11
N[0.0045]	N[0.4443]	N[0.8801]
AR 1-7 [0.9638]	AR 1-7 [0.2972]	AR 1-7 [0.2186]
RESET [0.5550]	RESET [0.5123]	RESET [0.2175]
Xi^2 [0.4049]	Xi^2 [0.1922]	Xi^2 [0.3616]

ASTRA, SCA and STORA´s return without hedging for translation and transaction exposure.

ASTRA	**SCA**	**STORA**
R^2 0.37	R^2 0.51	R^2 0.54
ARCH [0.9980]	ARCH [0.4681]	ARCH [0.2923]
DW 2.03	DW 1.97	DW 2.10
N[0.0049]	N[0.1999]	N[0.9986]
AR 1-7 [0.9621]	AR 1-7 [0.2779]	AR 1-7 [0.1132]
RESET [0.5652]	RESET [0.4761]	RESET [0.2663]
Xi^2 [0.4389]	Xi^2 [0.1673]	Xi^2 [0.3731]