Appendix 15 : Additional Calculations Related to Changes in Survey and CPUE Indices for Namibian Hake

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The log-linear regression analyses described in BEN/DEC04/H/NA/4a are repeated here for the fishable component of the survey biomass indices of abundance. The regressions are fitted to all the data as well as to only "comparable" years. (note that the fishable component values used here have not been corrected for certain errors, which were corrected for the data used in BEN/DEC04/H/NA/4a, but the consequent differences are believed to be small.)

Table 1. Parameter estimates and their associated standard error of trend for the fishable survey biomass and the commercial standardised CPUE indices of abundance. The estimates (and standard error) of the difference of the slopes and the test of the hypothesis of equal slopes is shown.

All data		
	Final year	**2004**
Survey	**slope estimate**	-0.0323
	std error	0.0309
	Degrees of freedom	13
CPUE	**slope estimate**	-0.1006
	std error	0.0184
	Degrees of freedom	10
Difference of slopes	**slope estimate**	0.0683
	std error	0.0360
	Degrees of freedom	23
	95% CI	-0.0061
		0.1427
	t statistic	1.8992
	p-value	0.0702
Comparable years		
	Final year	**2004**
Survey	**difference estimate**	-0.0898
	std error	0.0271
	Degrees of freedom	11
CPUE	**difference estimate**	-0.1006
	std error	0.0184
	Degrees of freedom	10
Difference of slopes	**difference estimate**	0.0108
	std error	0.0328
	Degrees of freedom	21
	95% CI	-0.0573
		0.0789
	t statistic	0.3297
	p-value	0.7449