APPENDIX D: VARIATION MARGIN

Assume Counterparty A has a derivative receivable (Contract 1) that matures in 10 years from Counterparty B and a derivative payable (Contract 2) owed to Counterparty B that matures T=3.

EXAMPLE 1: TWO PROCESSES

Daily variation margin payments where contracts cash flows are settled separately from the variation margin payments (ie bilateral agreements)

	T=0		T=1		T=2		T=3		T=4		T=5		T=6	
	pmts	FV	pmts	FV	pmts	FV	pmts	FV	pmts	FV	pmts	FV	pmts	FV
Contract 1		0		100		100		100		100		120		120
Contract 2		0		(70)		(70)	(70)							
Net fair value		0		30		30		100		100		120		120
Variation margin received	0		0		30		0		70		0		20	
Total variation margin held		0		0		30		30		100		100		120
Net exposure (contract cash flows, discounting and FV changes)		0		30		0		70		0		20		0

EXAMPLE 2: SINGLE PROCESS

Daily variation margin payments where contracts are settled on one payment process with the variation margin payment (ie some CCPs)

	T=0		T=1		T=2		T=3		T=4		T=5		T=6	
	pmts	FV	pmts	FV	pmts	FV	deemed pmts*	FV	pmts	FV	pmts	FV	pmts	FV
Contract 1		0		100		100		100**		100		120		120
Contract 2		0		(70)		(70)	70							
Net fair value		0		30		30		100		100		120		120
Variation margin received/(paid)		0		0	30		(70)						20	
Total variation margin held		0		0		30		100		100		100		120
Net exposure (once variation margin is paid, only FV changes, or effects of discounting)**		0		30		0		0		0		20		0

*There are no separate payments made under the contracts in this situation. Effectively the clearinghouse does not require repayment of the 70 derivative payable because it would have to pay the cash immediately back as collateral. Instead this payment is combined into one variation margin payment, which reduces credit and liquidity risk.

** Some may argue that under a one payment system the fair value of the receivable and the payable are effectively zero as the variation margin covered future payments under both contracts. Additional payments, if any, would be made if the original fair value of the contract changes or as an effect of discounting (disregarding interest payments that are also sometimes made on variation margin amounts).