

Cash Flow Equivalence

Eris Exchange Interest Rate Swap Futures and Un-cleared OTC Interest Rate Swaps

Eris Exchange interest rate swap futures contracts (“Eris contracts”) replicate the cash flows of un-cleared OTC interest rate swaps¹ (“IRS”), as encompassed in the Eris MethodologyTM. The sensitivity to changes in swap rates (i.e., DV01) and the exposure to changes in LIBOR are the same for both instruments.

The cash flow equivalence between Eris contracts and IRS can be defined as:

$$\text{Fixed/Floating Swap Payments (IRS)} + \text{Collateral (IRS)} = \text{Variation Margin (Eris contracts)} \quad [1]$$

Formula [1] can be analyzed and applied to daily and cumulative cash flows at all points in time over the life of the contracts. This paper will address both applications of the formula.

Note that there are 2 primary mechanical differences between Eris contracts and IRS:

1. Timing and Method of Cash Flows
 - a. IRS: Known fixed and floating payment amounts are exchanged directly between the counterparties on Payment Dates throughout the life of the transaction. The NPV of projected future cash flows is exchanged between counterparties via the daily collateral process, according to the terms of the applicable Credit Support Annex¹
 - b. Eris contracts: All cash flows are exchanged between counterparties through variation margin via the daily mark-to-market process administered by the Clearing House. This valuation process incorporates past fixed and floating amounts and the NPV of projected future cash flows
2. Distinction between Collateral for IRS and Variation Margin for cleared derivatives including Eris contracts
 - a. Collateral (IRS): Collateral posted under a bilateral Credit Support Annex belongs to the party posting the collateral; ownership does not transfer to the receiving party
 - b. Variation Margin (Eris contracts): Variation margin for cleared transactions (including Eris contracts) legally belongs to the owner of the account where the variation margin resides, and can be withdrawn and reinvested at the owner’s discretion

To focus the analysis, the following items are intentionally excluded from this discussion:

1. Interest paid on collateral in IRS and the equivalent calculation for Eris contracts, Eris Price Alignment Interest (Eris PAITM)
2. Initial Margin (Eris contracts) and Independent Amount (IRS)

¹ Un-cleared OTC interest rate swaps are assumed to be executed under an ISDA Master Agreement and Credit Support Annex with a \$0 Threshold.

Daily Net Cash flows are always equivalent between Eris contracts and IRS

$$\text{Daily Fixed/Floating Swap Payments (IRS)} + \text{Daily Change in Collateral (IRS)} =$$

Daily Change in Variation Margin (Eris contracts) [2]

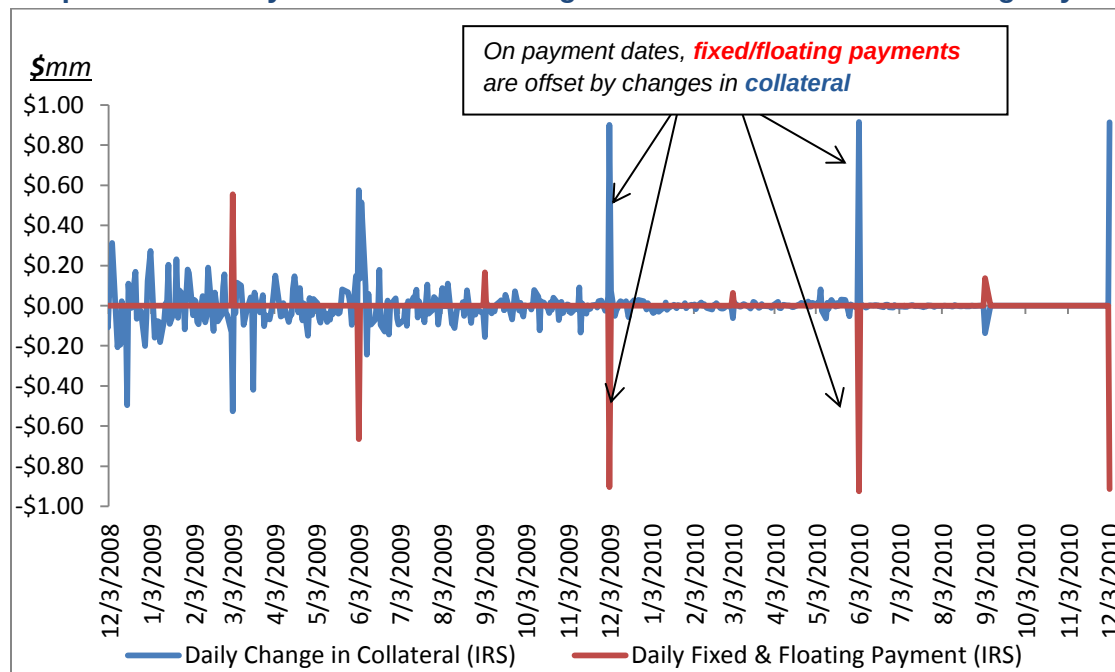
Fixed and floating swap payments made throughout the life of an IRS impact the NPV, but not the net cash flows of the swap, when movement of collateral is taken into account. For example, on a Payment Date in which a \$2 swap payment is exchanged, the NPV of an IRS will change by \$2, assuming swap rates are static that day. But the net cash flow on this Payment Date is zero, if collateral movement is included (see Graph #1 below).

Eris contracts track the total value of a swap from contract inception. The daily settlement value (or “settlement price”) of Eris contracts will not change on Reset Dates, assuming swap rates are static on those days. The net fixed and floating amounts due on the Reset Date accrue rather than being paid between counterparties. Historical fixed and floating reset amounts will impact the value of the Eris contract at a fixed value without any further interest rate sensitivity.

This discussion includes results from a hypothetical 2 year Eris contract and an IRS executed in December of 2008, which are represented in a series of 3 graphs below and the Appendices. The graph results are shown from the perspective of the party paying fixed and receiving floating and are based on \$100mm notional. This is equivalent to 1000 Eris contracts.

Note: Y-axis values on all 3 graphs below are shown from the perspective of the party paying fixed. Negative Y- axis values represent payments made and positive Y-values represent payments received by the party paying fixed.

Graph #1: IRS Daily Cash Flow including Collateral and Fixed & Floating Payments

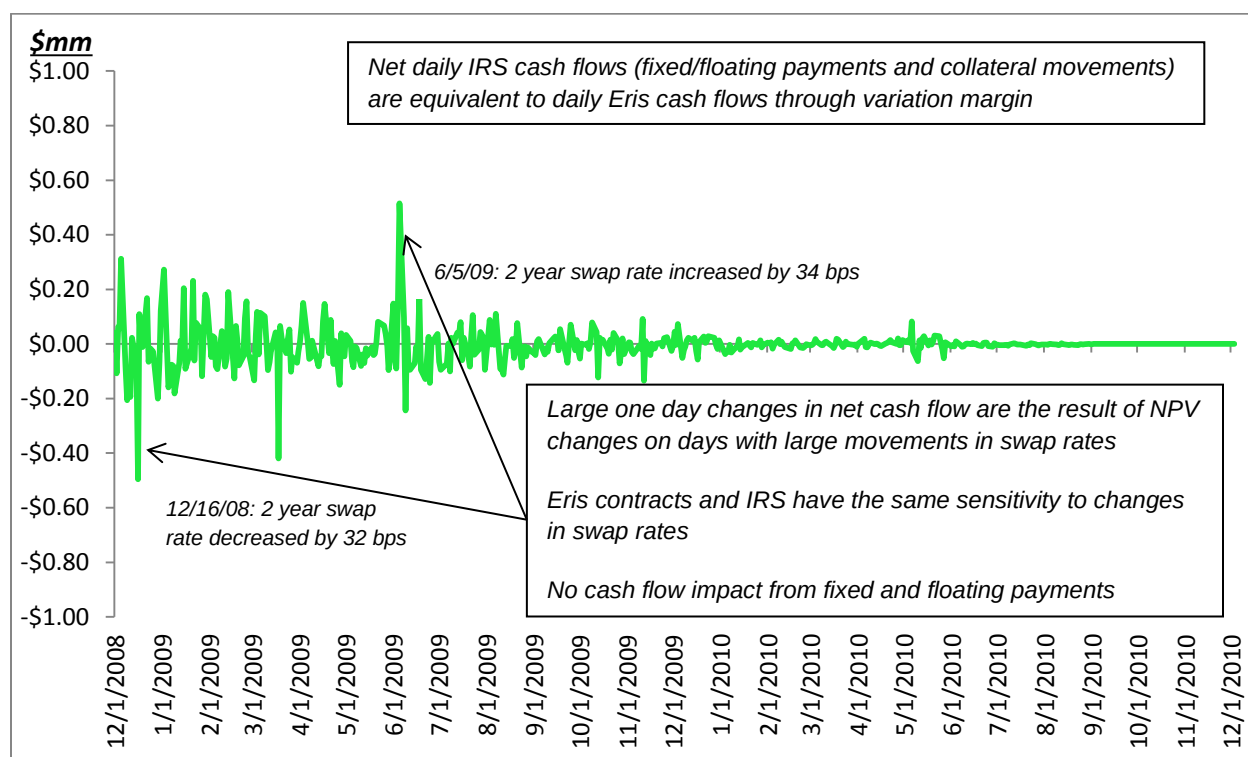


Graph #1 illustrates the daily cash flow on IRS which comes from:

1. Daily movements in collateral (blue line)
2. Fixed and floating swap payments (red line)

Collateral cash flows occur daily and swap payments occur once every 3 months. On swap payment days (red line), there is an offsetting move in collateral of similar magnitude (blue line).

Graph #2: IRS Net Daily Cash Flow including Collateral and Fixed & Floating Payments; also illustrates daily Eris cash flows which occur solely through variation margin



Graph #2 illustrates the cash flow on IRS which comes from movements in collateral and fixed and floating swap payments. This is equivalent to the cash flows shown in Graph #1. However, cash flows are shown with collateral and fixed and floating swap payments combined into a single value for each day.

Many of the spikes in Graph #1 do not appear in Graph #2 because swap payment dates no longer represent significant cash flow events, as offsetting cash flows between collateral and swap payments are netted.

As expected, the volatility of net cash flows decreases over time as the duration of the swap decreases. The remaining spikes in Graph #2 are the result of days with exceptional volatility. There were several days in late 2008 and 2009 in which rates moved by 30+ basis points.



Graph #2 also represents the cash flows on Eris contracts, which occur solely via daily variation margin. The amount of variation margin at any point in time is determined by the past fixed and floating amounts from trade inception plus the NPV of future fixed and floating amounts. However, *the daily change* in variation margin is only impacted by the change in the NPV of future fixed and floating amounts, with no further impact from past fixed and floating amounts.

As demonstrated above, the change in collateral (IRS) on a payment date is completely offset by the amount of the swap payment that occurs between parties, assuming static swap rates on the payment date. *When netting IRS collateral and swap payments, the change in IRS cash flow on payment dates (and all other days) is the same as for Eris contracts.*

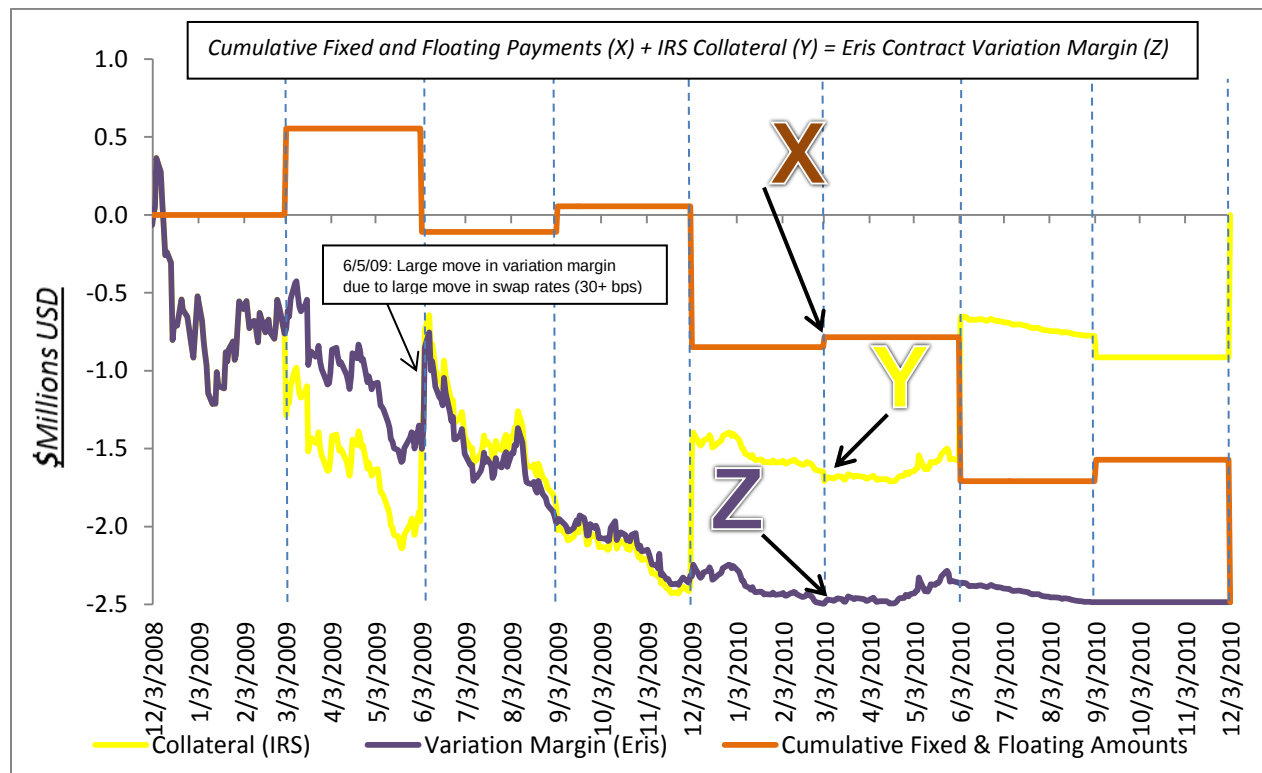
Cumulative Cash flows are always equivalent between Eris contracts and IRS

$$\text{Cumulative Fixed/Floating Swap Payments (IRS)} + \text{Collateral (IRS)} =$$

Variation Margin (Eris contracts) [3]

At all times over the life an Eris contract, the amount of variation margin differs from the collateral on account for an analogous IRS by the amount of past fixed and floating swap payment amounts. This is illustrated by the example in Graph #3 which shows the amount of collateral (yellow line) and variation margin (purple line) for each day over the life of the swap. The graph also shows the cumulative fixed and floating IRS payments (orange line). The orange line also represents the difference between the amount of collateral and variation margin.

Graph #3: Collateral (IRS), Cumulative Fixed and Floating Payments (IRS), and Variation Margin (Eris) over time



The graph highlights this relationship as of 3/3/2010:

$$(-\$0.78\text{mm}) + (-\$1.71\text{mm}) = -\$2.49\text{mm} = X + Y = Z \quad [4]$$



The fixed rate payer is indifferent between posting an extra \$0.78mm of variation margin and making a swap payment of the same amount because same amount of cash has transferred from one party to the other at the same point(s) in time. The recipient of the cash is also indifferent between receiving money through variation margin and in the form of a separate swap payment (IRS). They are the owner of the funds in the variation margin account and they may withdraw it and re-invest at their discretion, as they may do with fixed and floating swap payments.

The vertical dashed lines represent fixed and floating swap payment dates (IRS). As you can observe on graph #3, collateral movements are extreme on these days and the change in the variation margin line is very small. Note however, that the variation margin line experienced a significant move close to the 6/3/09 IRS payment date. This was purely the result of a day in which swap rates experienced a significant move as the 2 year swap rate changed by approximately 34 basis points on 6/5/2009.

Conclusion

For trades that are fully collateralized or margined, fixed and floating swap amounts that are paid out to the counterparties or accrued until maturity result in the same cash flows and economic outcome for both parties. The difference between the amount of variation margin (Eris contract) and collateral (IRS) is equivalent to prior fixed and floating swap payments.

In addition, it is worth highlighting that this conclusion is not impacted by individual counterparty funding costs because the same cash flows occur at the same points in time on Eris contracts and IRS.

Appendix A: Examination of an IRS payment date

Cash flow equivalence between Eris contracts and IRS can also be analyzed by focusing on cash flow in the days immediately prior to, and following a fixed and/floating payment date.

Below is data from the days surrounding the second payment date of the 2 year contract above:

Date	Daily Fixed/Floating Payment (IRS)	Collateral Amount (IRS)	Daily Change in Collateral (IRS)	Daily Net IRS Cash Flow (Swap payment + Change in collateral)	Variation Margin Amount (Eris)	Daily Change Variation Margin (Eris contract)
6/2/09	\$0.000	-\$1.967			-\$1.412	
6/3/09	-\$0.666	-\$1.391	\$0.576	-\$0.090	-\$1.502	-\$0.090
6/4/09	\$0.000	-\$1.255	\$0.136	\$0.136	-\$1.366	\$0.136

6/3/09 was a fixed and floating payment date. The change in variation margin for the Eris contract (-\$0.09) was driven entirely by changes in the swap curve and was not impacted by the occurrence of a fixed and floating Reset Date.

The change in collateral for the IRS (\$0.576) was determined by a combination of the net swap payment made by the fixed rate payer (-\$0.666) and the change in the present value of future fixed and floating amounts resulting from changes in the swap curve (-\$0.09). As you can observe from the highlighted cells in the table, the net cash flows for the IRS and Eris contract are the same.

The following day, 6/4/11, the changes in collateral and variation margin are equivalent (\$0.136) and are determined solely by the change in the present value of future fixed and floating amounts resulting from changes in the swap curve.

In the case of the IRS and the Eris contract, the net cash flow impact on both parties is the same on both days. This relationship holds throughout the life of the contracts:

- 6/3/09: Fixed rate payer pays out \$0.09
- 6/4/09: Fixed rate payer receives in \$0.136

For the fixed rate receiver, the cash flow impact is the same as well. A dollar received in the form of a swap payment (IRS) is equivalent to a dollar of variation margin.

Appendix B: Daily Cash Flow Table, Eris contract and IRS

Date	Daily IRS Cash Flow			Daily Eris Contract Cash Flow			Daily IRS vs Eris contract Cash Flows
	Change in Collateral ²	Net Fixed and Floating Payment	Net Cash Flow	Change in Variation Margin ³	Net Fixed and Floating Payment	Net Cash Flow	
12/01/08	0.041	0.000	0.041	0.041	0.000	0.041	0.000
12/02/08	(0.108)	0.000	(0.108)	(0.108)	0.000	(0.108)	0.000
12/03/08	0.063	0.000	0.063	0.063	0.000	0.063	0.000
12/04/08	0.055	0.000	0.055	0.055	0.000	0.055	0.000
12/05/08	0.313	0.000	0.313	0.313	0.000	0.313	0.000
12/08/08	(0.086)	0.000	(0.086)	(0.086)	0.000	(0.086)	0.000
12/09/08	(0.206)	0.000	(0.206)	(0.206)	0.000	(0.206)	0.000
12/10/08	(0.137)	0.000	(0.137)	(0.137)	0.000	(0.137)	0.000
12/11/08	(0.194)	0.000	(0.194)	(0.194)	0.000	(0.194)	0.000
12/12/08	0.022	0.000	0.022	0.022	0.000	0.022	0.000
12/15/08	(0.069)	0.000	(0.069)	(0.069)	0.000	(0.069)	0.000
12/16/08	(0.496)	0.000	(0.496)	(0.496)	0.000	(0.496)	0.000
12/17/08	0.110	0.000	0.110	0.110	0.000	0.110	0.000
12/18/08	(0.007)	0.000	(0.007)	(0.007)	0.000	(0.007)	0.000
12/19/08	(0.011)	0.000	(0.011)	(0.011)	0.000	(0.011)	0.000
12/22/08	0.168	0.000	0.168	0.168	0.000	0.168	0.000
12/23/08	(0.065)	0.000	(0.065)	(0.065)	0.000	(0.065)	0.000
12/24/08	(0.017)	0.000	(0.017)	(0.017)	0.000	(0.017)	0.000
12/26/08	(0.028)	0.000	(0.028)	(0.028)	0.000	(0.028)	0.000
12/29/08	(0.201)	0.000	(0.201)	(0.201)	0.000	(0.201)	0.000
12/30/08	(0.063)	0.000	(0.063)	(0.063)	0.000	(0.063)	0.000

² This analysis does not include interest on collateral that may be required under the terms of the CSA

³ This analysis does not include synthetic interest on variation margin known as Eris Price Alignment Interest, Eris PAI™

Date	Change in Collateral	Net Fixed and Floating Payment	Net Cash Flow	Change in Variation Margin	Net Fixed and Floating Payment	Net Cash Flow	Daily IRS vs Eris contract Cash Flows
01/02/09	0.273	0.000	0.273	0.273	0.000	0.273	0.000
01/05/09	(0.160)	0.000	(0.160)	(0.160)	0.000	(0.160)	0.000
01/06/09	(0.126)	0.000	(0.126)	(0.126)	0.000	(0.126)	0.000
01/07/09	(0.076)	0.000	(0.076)	(0.076)	0.000	(0.076)	0.000
01/08/09	(0.080)	0.000	(0.080)	(0.080)	0.000	(0.080)	0.000
01/09/09	(0.182)	0.000	(0.182)	(0.182)	0.000	(0.182)	0.000
01/12/09	(0.069)	0.000	(0.069)	(0.069)	0.000	(0.069)	0.000
01/13/09	0.012	0.000	0.012	0.012	0.000	0.012	0.000
01/14/09	(0.010)	0.000	(0.010)	(0.010)	0.000	(0.010)	0.000
01/15/09	0.204	0.000	0.204	0.204	0.000	0.204	0.000
01/16/09	(0.091)	0.000	(0.091)	(0.091)	0.000	(0.091)	0.000
01/20/09	(0.014)	0.000	(0.014)	(0.014)	0.000	(0.014)	0.000
01/21/09	0.232	0.000	0.232	0.232	0.000	0.232	0.000
01/22/09	(0.060)	0.000	(0.060)	(0.060)	0.000	(0.060)	0.000
01/23/09	0.077	0.000	0.077	0.077	0.000	0.077	0.000
01/26/09	0.053	0.000	0.053	0.053	0.000	0.053	0.000
01/27/09	(0.118)	0.000	(0.118)	(0.118)	0.000	(0.118)	0.000
01/28/09	0.031	0.000	0.031	0.031	0.000	0.031	0.000
01/29/09	0.181	0.000	0.181	0.181	0.000	0.181	0.000
01/30/09	0.163	0.000	0.163	0.163	0.000	0.163	0.000
02/02/09	(0.048)	0.000	(0.048)	(0.048)	0.000	(0.048)	0.000
02/03/09	0.028	0.000	0.028	0.028	0.000	0.028	0.000
02/04/09	0.022	0.000	0.022	0.022	0.000	0.022	0.000
02/05/09	(0.082)	0.000	(0.082)	(0.082)	0.000	(0.082)	0.000
02/06/09	(0.092)	0.000	(0.092)	(0.092)	0.000	(0.092)	0.000
02/10/09	(0.002)	0.000	(0.002)	(0.002)	0.000	(0.002)	0.000
02/11/09	(0.083)	0.000	(0.083)	(0.083)	0.000	(0.083)	0.000
02/12/09	(0.053)	0.000	(0.053)	(0.053)	0.000	(0.053)	0.000

Date	Change in Collateral	Net Fixed and Floating Payment	Net Cash Flow	Change in Variation Margin	Net Fixed and Floating Payment	Net Cash Flow	Daily IRS vs Eris contract Cash Flows
02/17/09	(0.126)	0.000	(0.126)	(0.126)	0.000	(0.126)	0.000
02/18/09	0.066	0.000	0.066	0.066	0.000	0.066	0.000
02/19/09	0.016	0.000	0.016	0.016	0.000	0.016	0.000
02/20/09	(0.078)	0.000	(0.078)	(0.078)	0.000	(0.078)	0.000
02/23/09	(0.045)	0.000	(0.045)	(0.045)	0.000	(0.045)	0.000
02/24/09	0.094	0.000	0.094	0.094	0.000	0.094	0.000
02/25/09	0.156	0.000	0.156	0.156	0.000	0.156	0.000
02/26/09	(0.035)	0.000	(0.035)	(0.035)	0.000	(0.035)	0.000
02/27/09	(0.048)	0.000	(0.048)	(0.048)	0.000	(0.048)	0.000
03/02/09	(0.133)	0.000	(0.133)	(0.133)	0.000	(0.133)	0.000
03/03/09	(0.525)	0.555	0.030	0.030	0.000	0.030	0.000
03/04/09	0.117	0.000	0.117	0.117	0.000	0.117	0.000
03/05/09	(0.038)	0.000	(0.038)	(0.038)	0.000	(0.038)	0.000
03/06/09	0.115	0.000	0.115	0.115	0.000	0.115	0.000
03/09/09	0.101	0.000	0.101	0.101	0.000	0.101	0.000
03/10/09	0.012	0.000	0.012	0.012	0.000	0.012	0.000
03/11/09	(0.096)	0.000	(0.096)	(0.096)	0.000	(0.096)	0.000
03/12/09	(0.067)	0.000	(0.067)	(0.067)	0.000	(0.067)	0.000
03/13/09	(0.029)	0.000	(0.029)	(0.029)	0.000	(0.029)	0.000
03/16/09	0.042	0.000	0.042	0.042	0.000	0.042	0.000
03/17/09	0.032	0.000	0.032	0.032	0.000	0.032	0.000
03/19/09	0.065	0.000	0.065	0.065	0.000	0.065	0.000
03/20/09	0.021	0.000	0.021	0.021	0.000	0.021	0.000
03/23/09	(0.034)	0.000	(0.034)	(0.034)	0.000	(0.034)	0.000
03/24/09	0.017	0.000	0.017	0.017	0.000	0.017	0.000
03/25/09	0.053	0.000	0.053	0.053	0.000	0.053	0.000
03/26/09	(0.102)	0.000	(0.102)	(0.102)	0.000	(0.102)	0.000
03/27/09	(0.047)	0.000	(0.047)	(0.047)	0.000	(0.047)	0.000

Date	Change in Collateral	Net Fixed and Floating Payment	Net Cash Flow	Change in Variation Margin	Net Fixed and Floating Payment	Net Cash Flow	Daily IRS vs Eris contract Cash Flows
03/31/09	(0.029)	0.000	(0.029)	(0.029)	0.000	(0.029)	0.000
04/01/09	0.007	0.000	0.007	0.007	0.000	0.007	0.000
04/02/09	0.067	0.000	0.067	0.067	0.000	0.067	0.000
04/03/09	0.150	0.000	0.150	0.150	0.000	0.150	0.000
04/06/09	0.011	0.000	0.011	0.011	0.000	0.011	0.000
04/07/09	(0.054)	0.000	(0.054)	(0.054)	0.000	(0.054)	0.000
04/08/09	(0.051)	0.000	(0.051)	(0.051)	0.000	(0.051)	0.000
04/09/09	0.012	0.000	0.012	0.012	0.000	0.012	0.000
04/13/09	(0.081)	0.000	(0.081)	(0.081)	0.000	(0.081)	0.000
04/14/09	(0.046)	0.000	(0.046)	(0.046)	0.000	(0.046)	0.000
04/15/09	(0.045)	0.000	(0.045)	(0.045)	0.000	(0.045)	0.000
04/16/09	0.084	0.000	0.084	0.084	0.000	0.084	0.000
04/17/09	0.147	0.000	0.147	0.147	0.000	0.147	0.000
04/20/09	(0.034)	0.000	(0.034)	(0.034)	0.000	(0.034)	0.000
04/21/09	0.088	0.000	0.088	0.088	0.000	0.088	0.000
04/22/09	(0.028)	0.000	(0.028)	(0.028)	0.000	(0.028)	0.000
04/23/09	(0.074)	0.000	(0.074)	(0.074)	0.000	(0.074)	0.000
04/27/09	(0.150)	0.000	(0.150)	(0.150)	0.000	(0.150)	0.000
04/28/09	0.039	0.000	0.039	0.039	0.000	0.039	0.000
04/29/09	(0.040)	0.000	(0.040)	(0.040)	0.000	(0.040)	0.000
04/30/09	(0.046)	0.000	(0.046)	(0.046)	0.000	(0.046)	0.000
05/01/09	0.034	0.000	0.034	0.034	0.000	0.034	0.000
05/04/09	0.011	0.000	0.011	0.011	0.000	0.011	0.000
05/05/09	(0.064)	0.000	(0.064)	(0.064)	0.000	(0.064)	0.000
05/06/09	(0.085)	0.000	(0.085)	(0.085)	0.000	(0.085)	0.000
05/07/09	(0.010)	0.000	(0.010)	(0.010)	0.000	(0.010)	0.000
05/08/09	(0.015)	0.000	(0.015)	(0.015)	0.000	(0.015)	0.000
05/11/09	(0.081)	0.000	(0.081)	(0.081)	0.000	(0.081)	0.000

Date	Change in Collateral	Net Fixed and Floating Payment	Net Cash Flow	Change in Variation Margin	Net Fixed and Floating Payment	Net Cash Flow	Daily IRS vs Eris contract Cash Flows
05/13/09	(0.070)	0.000	(0.070)	(0.070)	0.000	(0.070)	0.000
05/14/09	(0.016)	0.000	(0.016)	(0.016)	0.000	(0.016)	0.000
05/15/09	(0.043)	0.000	(0.043)	(0.043)	0.000	(0.043)	0.000
05/18/09	(0.011)	0.000	(0.011)	(0.011)	0.000	(0.011)	0.000
05/19/09	(0.040)	0.000	(0.040)	(0.040)	0.000	(0.040)	0.000
05/20/09	(0.036)	0.000	(0.036)	(0.036)	0.000	(0.036)	0.000
05/21/09	0.007	0.000	0.007	0.007	0.000	0.007	0.000
05/22/09	0.081	0.000	0.081	0.081	0.000	0.081	0.000
05/26/09	0.067	0.000	0.067	0.067	0.000	0.067	0.000
05/27/09	0.036	0.000	0.036	0.036	0.000	0.036	0.000
05/28/09	(0.010)	0.000	(0.010)	(0.010)	0.000	(0.010)	0.000
05/29/09	(0.096)	0.000	(0.096)	(0.096)	0.000	(0.096)	0.000
06/01/09	0.148	0.000	0.148	0.148	0.000	0.148	0.000
06/03/09	0.576	(0.665)	(0.089)	(0.089)	0.000	(0.089)	0.000
06/04/09	0.136	0.000	0.136	0.136	0.000	0.136	0.000
06/05/09	0.515	0.000	0.515	0.515	0.000	0.515	0.000
06/08/09	0.098	0.000	0.098	0.098	0.000	0.098	0.000
06/09/09	(0.244)	0.000	(0.244)	(0.244)	0.000	(0.244)	0.000
06/10/09	0.058	0.000	0.058	0.058	0.000	0.058	0.000
06/11/09	(0.068)	0.000	(0.068)	(0.068)	0.000	(0.068)	0.000
06/12/09	(0.095)	0.000	(0.095)	(0.095)	0.000	(0.095)	0.000
06/15/09	(0.070)	0.000	(0.070)	(0.070)	0.000	(0.070)	0.000
06/16/09	(0.010)	0.000	(0.010)	(0.010)	0.000	(0.010)	0.000
06/17/09	(0.041)	0.000	(0.041)	(0.041)	0.000	(0.041)	0.000
06/18/09	0.178	0.000	0.178	0.178	0.000	0.178	0.000
06/19/09	(0.095)	0.000	(0.095)	(0.095)	0.000	(0.095)	0.000
06/22/09	(0.129)	0.000	(0.129)	(0.129)	0.000	(0.129)	0.000
06/23/09	(0.054)	0.000	(0.054)	(0.054)	0.000	(0.054)	0.000

Date	Change in Collateral	Net Fixed and Floating Payment	Net Cash Flow	Change in Variation Margin	Net Fixed and Floating Payment	Net Cash Flow	Daily IRS vs Eris contract Cash Flows
06/25/09	(0.143)	0.000	(0.143)	(0.143)	0.000	(0.143)	0.000
06/26/09	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
06/29/09	0.029	0.000	0.029	0.029	0.000	0.029	0.000
06/30/09	0.036	0.000	0.036	0.036	0.000	0.036	0.000
07/01/09	(0.066)	0.000	(0.066)	(0.066)	0.000	(0.066)	0.000
07/02/09	(0.094)	0.000	(0.094)	(0.094)	0.000	(0.094)	0.000
07/06/09	(0.072)	0.000	(0.072)	(0.072)	0.000	(0.072)	0.000
07/07/09	0.001	0.000	0.001	0.001	0.000	0.001	0.000
07/08/09	(0.100)	0.000	(0.100)	(0.100)	0.000	(0.100)	0.000
07/10/09	0.000	0.000	0.000	0.000	0.000	0.000	0.000
07/13/09	0.041	0.000	0.041	0.041	0.000	0.041	0.000
07/14/09	0.038	0.000	0.038	0.038	0.000	0.038	0.000
07/15/09	0.080	0.000	0.080	0.080	0.000	0.080	0.000
07/16/09	(0.059)	0.000	(0.059)	(0.059)	0.000	(0.059)	0.000
07/17/09	0.023	0.000	0.023	0.023	0.000	0.023	0.000
07/20/09	(0.044)	0.000	(0.044)	(0.044)	0.000	(0.044)	0.000
07/21/09	(0.083)	0.000	(0.083)	(0.083)	0.000	(0.083)	0.000
07/22/09	0.024	0.000	0.024	0.024	0.000	0.024	0.000
07/23/09	0.105	0.000	0.105	0.105	0.000	0.105	0.000
07/24/09	(0.039)	0.000	(0.039)	(0.039)	0.000	(0.039)	0.000
07/27/09	(0.021)	0.000	(0.021)	(0.021)	0.000	(0.021)	0.000
07/28/09	0.044	0.000	0.044	0.044	0.000	0.044	0.000
07/29/09	0.033	0.000	0.033	0.033	0.000	0.033	0.000
07/30/09	0.021	0.000	0.021	0.021	0.000	0.021	0.000
07/31/09	(0.094)	0.000	(0.094)	(0.094)	0.000	(0.094)	0.000
08/03/09	0.088	0.000	0.088	0.088	0.000	0.088	0.000
08/04/09	(0.003)	0.000	(0.003)	(0.003)	0.000	(0.003)	0.000
08/05/09	0.055	0.000	0.055	0.055	0.000	0.055	0.000

Date	Change in Collateral	Net Fixed and Floating Payment	Net Cash Flow	Change in Variation Margin	Net Fixed and Floating Payment	Net Cash Flow	Daily IRS vs Eris contract Cash Flows
08/07/09	0.110	0.000	0.110	0.110	0.000	0.110	0.000
08/10/09	(0.091)	0.000	(0.091)	(0.091)	0.000	(0.091)	0.000
08/11/09	(0.095)	0.000	(0.095)	(0.095)	0.000	(0.095)	0.000
08/12/09	(0.112)	0.000	(0.112)	(0.112)	0.000	(0.112)	0.000
08/13/09	(0.050)	0.000	(0.050)	(0.050)	0.000	(0.050)	0.000
08/17/09	(0.008)	0.000	(0.008)	(0.008)	0.000	(0.008)	0.000
08/18/09	0.018	0.000	0.018	0.018	0.000	0.018	0.000
08/19/09	(0.051)	0.000	(0.051)	(0.051)	0.000	(0.051)	0.000
08/20/09	(0.020)	0.000	(0.020)	(0.020)	0.000	(0.020)	0.000
08/21/09	0.077	0.000	0.077	0.077	0.000	0.077	0.000
08/24/09	(0.087)	0.000	(0.087)	(0.087)	0.000	(0.087)	0.000
08/25/09	(0.012)	0.000	(0.012)	(0.012)	0.000	(0.012)	0.000
08/26/09	(0.009)	0.000	(0.009)	(0.009)	0.000	(0.009)	0.000
08/27/09	(0.045)	0.000	(0.045)	(0.045)	0.000	(0.045)	0.000
08/28/09	(0.012)	0.000	(0.012)	(0.012)	0.000	(0.012)	0.000
08/31/09	(0.032)	0.000	(0.032)	(0.032)	0.000	(0.032)	0.000
09/01/09	(0.032)	0.000	(0.032)	(0.032)	0.000	(0.032)	0.000
09/02/09	(0.041)	0.000	(0.041)	(0.041)	0.000	(0.041)	0.000
09/03/09	(0.157)	0.166	0.010	0.010	0.000	0.010	0.000
09/04/09	0.018	0.000	0.018	0.018	0.000	0.018	0.000
09/08/09	(0.038)	0.000	(0.038)	(0.038)	0.000	(0.038)	0.000
09/09/09	(0.015)	0.000	(0.015)	(0.015)	0.000	(0.015)	0.000
09/10/09	(0.029)	0.000	(0.029)	(0.029)	0.000	(0.029)	0.000
09/11/09	0.003	0.000	0.003	0.003	0.000	0.003	0.000
09/14/09	0.021	0.000	0.021	0.021	0.000	0.021	0.000
09/15/09	0.027	0.000	0.027	0.027	0.000	0.027	0.000
09/16/09	0.022	0.000	0.022	0.022	0.000	0.022	0.000
09/17/09	(0.023)	0.000	(0.023)	(0.023)	0.000	(0.023)	0.000

Date	Change in Collateral	Net Fixed and Floating Payment	Net Cash Flow	Change in Variation Margin	Net Fixed and Floating Payment	Net Cash Flow	Daily IRS vs Eris contract Cash Flows
09/21/09	(0.018)	0.000	(0.018)	(0.018)	0.000	(0.018)	0.000
09/23/09	(0.069)	0.000	(0.069)	(0.069)	0.000	(0.069)	0.000
09/24/09	0.003	0.000	0.003	0.003	0.000	0.003	0.000
09/25/09	0.071	0.000	0.071	0.071	0.000	0.071	0.000
09/28/09	(0.024)	0.000	(0.024)	(0.024)	0.000	(0.024)	0.000
09/29/09	0.014	0.000	0.014	0.014	0.000	0.014	0.000
09/30/09	(0.027)	0.000	(0.027)	(0.027)	0.000	(0.027)	0.000
10/01/09	(0.054)	0.000	(0.054)	(0.054)	0.000	(0.054)	0.000
10/02/09	0.001	0.000	0.001	0.001	0.000	0.001	0.000
10/05/09	(0.004)	0.000	(0.004)	(0.004)	0.000	(0.004)	0.000
10/06/09	0.002	0.000	0.002	0.002	0.000	0.002	0.000
10/07/09	(0.018)	0.000	(0.018)	(0.018)	0.000	(0.018)	0.000
10/08/09	0.006	0.000	0.006	0.006	0.000	0.006	0.000
10/09/09	0.079	0.000	0.079	0.079	0.000	0.079	0.000
10/12/09	0.044	0.000	0.044	0.044	0.000	0.044	0.000
10/13/09	(0.122)	0.000	(0.122)	(0.122)	0.000	(0.122)	0.000
10/14/09	0.023	0.000	0.023	0.023	0.000	0.023	0.000
10/15/09	0.012	0.000	0.012	0.012	0.000	0.012	0.000
10/16/09	0.016	0.000	0.016	0.016	0.000	0.016	0.000
10/19/09	(0.017)	0.000	(0.017)	(0.017)	0.000	(0.017)	0.000
10/20/09	(0.036)	0.000	(0.036)	(0.036)	0.000	(0.036)	0.000
10/21/09	0.016	0.000	0.016	0.016	0.000	0.016	0.000
10/22/09	(0.021)	0.000	(0.021)	(0.021)	0.000	(0.021)	0.000
10/23/09	0.040	0.000	0.040	0.040	0.000	0.040	0.000
10/26/09	0.013	0.000	0.013	0.013	0.000	0.013	0.000
10/27/09	(0.071)	0.000	(0.071)	(0.071)	0.000	(0.071)	0.000

Date	Change in Collateral	Net Fixed and Floating Payment	Net Cash Flow	Change in Variation Margin	Net Fixed and Floating Payment	Net Cash Flow	Daily IRS vs Eris contract Cash Flows
10/29/09	0.020	0.000	0.020	0.020	0.000	0.020	0.000
10/30/09	(0.037)	0.000	(0.037)	(0.037)	0.000	(0.037)	0.000
11/02/09	0.007	0.000	0.007	0.007	0.000	0.007	0.000
11/03/09	0.005	0.000	0.005	0.005	0.000	0.005	0.000
11/04/09	(0.030)	0.000	(0.030)	(0.030)	0.000	(0.030)	0.000
11/05/09	(0.037)	0.000	(0.037)	(0.037)	0.000	(0.037)	0.000
11/06/09	(0.029)	0.000	(0.029)	(0.029)	0.000	(0.029)	0.000
11/09/09	(0.006)	0.000	(0.006)	(0.006)	0.000	(0.006)	0.000
11/10/09	(0.018)	0.000	(0.018)	(0.018)	0.000	(0.018)	0.000
11/11/09	0.092	0.000	0.092	0.092	0.000	0.092	0.000
11/12/09	(0.134)	0.000	(0.134)	(0.134)	0.000	(0.134)	0.000
11/13/09	0.011	0.000	0.011	0.011	0.000	0.011	0.000
11/16/09	(0.041)	0.000	(0.041)	(0.041)	0.000	(0.041)	0.000
11/17/09	0.002	0.000	0.002	0.002	0.000	0.002	0.000
11/18/09	(0.017)	0.000	(0.017)	(0.017)	0.000	(0.017)	0.000
11/19/09	(0.016)	0.000	(0.016)	(0.016)	0.000	(0.016)	0.000
11/20/09	0.001	0.000	0.001	0.001	0.000	0.001	0.000
11/23/09	0.004	0.000	0.004	0.004	0.000	0.004	0.000
11/24/09	(0.009)	0.000	(0.009)	(0.009)	0.000	(0.009)	0.000
11/25/09	0.022	0.000	0.022	0.022	0.000	0.022	0.000
11/27/09	0.025	0.000	0.025	0.025	0.000	0.025	0.000
11/30/09	(0.026)	0.000	(0.026)	(0.026)	0.000	(0.026)	0.000
12/01/09	(0.006)	0.000	(0.006)	(0.006)	0.000	(0.006)	0.000
12/02/09	0.044	0.000	0.044	0.044	0.000	0.044	0.000
12/03/09	0.901	(0.904)	(0.003)	(0.003)	0.000	(0.003)	0.000
12/07/09	(0.051)	0.000	(0.051)	(0.051)	0.000	(0.051)	0.000
12/08/09	(0.022)	0.000	(0.022)	(0.022)	0.000	(0.022)	0.000
12/09/09	(0.011)	0.000	(0.011)	(0.011)	0.000	(0.011)	0.000

Date	Change in Collateral	Net Fixed and Floating Payment	Net Cash Flow	Change in Variation Margin	Net Fixed and Floating Payment	Net Cash Flow	Daily IRS vs Eris contract Cash Flows
12/11/09	0.022	0.000	0.022	0.022	0.000	0.022	0.000
12/14/09	0.010	0.000	0.010	0.010	0.000	0.010	0.000
12/15/09	0.022	0.000	0.022	0.022	0.000	0.022	0.000
12/16/09	(0.024)	0.000	(0.024)	(0.024)	0.000	(0.024)	0.000
12/17/09	(0.057)	0.000	(0.057)	(0.057)	0.000	(0.057)	0.000
12/18/09	0.006	0.000	0.006	0.006	0.000	0.006	0.000
12/21/09	0.027	0.000	0.027	0.027	0.000	0.027	0.000
12/22/09	0.004	0.000	0.004	0.004	0.000	0.004	0.000
12/23/09	0.008	0.000	0.008	0.008	0.000	0.008	0.000
12/24/09	0.029	0.000	0.029	0.029	0.000	0.029	0.000
12/28/09	0.023	0.000	0.023	0.023	0.000	0.023	0.000
12/29/09	(0.003)	0.000	(0.003)	(0.003)	0.000	(0.003)	0.000
12/30/09	(0.019)	0.000	(0.019)	(0.019)	0.000	(0.019)	0.000
12/31/09	0.013	0.000	0.013	0.013	0.000	0.013	0.000
01/04/10	(0.037)	0.000	(0.037)	(0.037)	0.000	(0.037)	0.000
01/05/10	(0.027)	0.000	(0.027)	(0.027)	0.000	(0.027)	0.000
01/06/10	(0.029)	0.000	(0.029)	(0.029)	0.000	(0.029)	0.000
01/07/10	(0.003)	0.000	(0.003)	(0.003)	0.000	(0.003)	0.000
01/08/10	(0.031)	0.000	(0.031)	(0.031)	0.000	(0.031)	0.000
01/11/10	(0.012)	0.000	(0.012)	(0.012)	0.000	(0.012)	0.000
01/12/10	(0.012)	0.000	(0.012)	(0.012)	0.000	(0.012)	0.000
01/14/10	(0.021)	0.000	(0.021)	(0.021)	0.000	(0.021)	0.000
01/15/10	(0.013)	0.000	(0.013)	(0.013)	0.000	(0.013)	0.000
01/19/10	0.004	0.000	0.004	0.004	0.000	0.004	0.000
01/20/10	(0.006)	0.000	(0.006)	(0.006)	0.000	(0.006)	0.000
01/21/10	(0.013)	0.000	(0.013)	(0.013)	0.000	(0.013)	0.000
01/22/10	0.003	0.000	0.003	0.003	0.000	0.003	0.000
01/25/10	(0.004)	0.000	(0.004)	(0.004)	0.000	(0.004)	0.000

Date	Change in Collateral	Net Fixed and Floating Payment	Net Cash Flow	Change in Variation Margin	Net Fixed and Floating Payment	Net Cash Flow	Daily IRS vs Eris contract Cash Flows
01/27/10	0.014	0.000	0.014	0.014	0.000	0.014	0.000
01/28/10	(0.013)	0.000	(0.013)	(0.013)	0.000	(0.013)	0.000
01/29/10	(0.003)	0.000	(0.003)	(0.003)	0.000	(0.003)	0.000
02/01/10	0.005	0.000	0.005	0.005	0.000	0.005	0.000
02/02/10	0.002	0.000	0.002	0.002	0.000	0.002	0.000
02/03/10	0.007	0.000	0.007	0.007	0.000	0.007	0.000
02/04/10	(0.017)	0.000	(0.017)	(0.017)	0.000	(0.017)	0.000
02/05/10	(0.002)	0.000	(0.002)	(0.002)	0.000	(0.002)	0.000
02/08/10	0.016	0.000	0.016	0.016	0.000	0.016	0.000
02/09/10	(0.001)	0.000	(0.001)	(0.001)	0.000	(0.001)	0.000
02/10/10	0.009	0.000	0.009	0.009	0.000	0.009	0.000
02/11/10	(0.002)	0.000	(0.002)	(0.002)	0.000	(0.002)	0.000
02/12/10	(0.011)	0.000	(0.011)	(0.011)	0.000	(0.011)	0.000
02/16/10	(0.019)	0.000	(0.019)	(0.019)	0.000	(0.019)	0.000
02/17/10	0.003	0.000	0.003	0.003	0.000	0.003	0.000
02/18/10	0.002	0.000	0.002	0.002	0.000	0.002	0.000
02/19/10	0.013	0.000	0.013	0.013	0.000	0.013	0.000
02/23/10	(0.014)	0.000	(0.014)	(0.014)	0.000	(0.014)	0.000
02/24/10	(0.015)	0.000	(0.015)	(0.015)	0.000	(0.015)	0.000
02/25/10	(0.010)	0.000	(0.010)	(0.010)	0.000	(0.010)	0.000
02/26/10	(0.001)	0.000	(0.001)	(0.001)	0.000	(0.001)	0.000
03/01/10	(0.005)	0.000	(0.005)	(0.005)	0.000	(0.005)	0.000
03/02/10	(0.003)	0.000	(0.003)	(0.003)	0.000	(0.003)	0.000
03/03/10	(0.062)	0.064	0.002	0.002	0.000	0.002	0.000
03/04/10	0.018	0.000	0.018	0.018	0.000	0.018	0.000
03/05/10	0.008	0.000	0.008	0.008	0.000	0.008	0.000
03/08/10	(0.005)	0.000	(0.005)	(0.005)	0.000	(0.005)	0.000
03/09/10	(0.004)	0.000	(0.004)	(0.004)	0.000	(0.004)	0.000

Date	Change in Collateral	Net Fixed and Floating Payment	Net Cash Flow	Change in Variation Margin	Net Fixed and Floating Payment	Net Cash Flow	Daily IRS vs Eris contract Cash Flows
03/11/10	0.008	0.000	0.008	0.008	0.000	0.008	0.000
03/12/10	0.004	0.000	0.004	0.004	0.000	0.004	0.000
03/15/10	(0.007)	0.000	(0.007)	(0.007)	0.000	(0.007)	0.000
03/16/10	(0.015)	0.000	(0.015)	(0.015)	0.000	(0.015)	0.000
03/17/10	(0.002)	0.000	(0.002)	(0.002)	0.000	(0.002)	0.000
03/18/10	0.019	0.000	0.019	0.019	0.000	0.019	0.000
03/19/10	0.016	0.000	0.016	0.016	0.000	0.016	0.000
03/22/10	(0.012)	0.000	(0.012)	(0.012)	0.000	(0.012)	0.000
03/23/10	(0.007)	0.000	(0.007)	(0.007)	0.000	(0.007)	0.000
03/24/10	0.009	0.000	0.009	0.009	0.000	0.009	0.000
03/25/10	(0.001)	0.000	(0.001)	(0.001)	0.000	(0.001)	0.000
03/26/10	(0.001)	0.000	(0.001)	(0.001)	0.000	(0.001)	0.000
03/29/10	(0.003)	0.000	(0.003)	(0.003)	0.000	(0.003)	0.000
03/31/10	(0.010)	0.000	(0.010)	(0.010)	0.000	(0.010)	0.000
04/01/10	0.001	0.000	0.001	0.001	0.000	0.001	0.000
04/05/10	0.019	0.000	0.019	0.019	0.000	0.019	0.000
04/06/10	(0.012)	0.000	(0.012)	(0.012)	0.000	(0.012)	0.000
04/07/10	(0.013)	0.000	(0.013)	(0.013)	0.000	(0.013)	0.000
04/08/10	(0.002)	0.000	(0.002)	(0.002)	0.000	(0.002)	0.000
04/09/10	0.005	0.000	0.005	0.005	0.000	0.005	0.000
04/12/10	(0.001)	0.000	(0.001)	(0.001)	0.000	(0.001)	0.000
04/13/10	0.001	0.000	0.001	0.001	0.000	0.001	0.000
04/14/10	(0.001)	0.000	(0.001)	(0.001)	0.000	(0.001)	0.000
04/15/10	(0.006)	0.000	(0.006)	(0.006)	0.000	(0.006)	0.000
04/16/10	(0.008)	0.000	(0.008)	(0.008)	0.000	(0.008)	0.000
04/19/10	0.001	0.000	0.001	0.001	0.000	0.001	0.000
04/20/10	0.004	0.000	0.004	0.004	0.000	0.004	0.000
04/21/10	0.008	0.000	0.008	0.008	0.000	0.008	0.000

Date	Change in Collateral	Net Fixed and Floating Payment	Net Cash Flow	Change in Variation Margin	Net Fixed and Floating Payment	Net Cash Flow	Daily IRS vs Eris contract Cash Flows
04/23/10	0.007	0.000	0.007	0.007	0.000	0.007	0.000
04/26/10	0.000	0.000	0.000	0.000	0.000	0.000	0.000
04/27/10	0.021	0.000	0.021	0.021	0.000	0.021	0.000
04/28/10	(0.004)	0.000	(0.004)	(0.004)	0.000	(0.004)	0.000
04/29/10	(0.005)	0.000	(0.005)	(0.005)	0.000	(0.005)	0.000
04/30/10	0.014	0.000	0.014	0.014	0.000	0.014	0.000
05/03/10	0.006	0.000	0.006	0.006	0.000	0.006	0.000
05/04/10	0.014	0.000	0.014	0.014	0.000	0.014	0.000
05/05/10	0.004	0.000	0.004	0.004	0.000	0.004	0.000
05/07/10	(0.025)	0.000	(0.025)	(0.025)	0.000	(0.025)	0.000
05/10/10	(0.063)	0.000	(0.063)	(0.063)	0.000	(0.063)	0.000
05/11/10	0.014	0.000	0.014	0.014	0.000	0.014	0.000
05/12/10	(0.015)	0.000	(0.015)	(0.015)	0.000	(0.015)	0.000
05/13/10	0.020	0.000	0.020	0.020	0.000	0.020	0.000
05/14/10	0.029	0.000	0.029	0.029	0.000	0.029	0.000
05/17/10	(0.005)	0.000	(0.005)	(0.005)	0.000	(0.005)	0.000
05/18/10	0.013	0.000	0.013	0.013	0.000	0.013	0.000
05/19/10	(0.002)	0.000	(0.002)	(0.002)	0.000	(0.002)	0.000
05/20/10	0.011	0.000	0.011	0.011	0.000	0.011	0.000
05/21/10	0.031	0.000	0.031	0.031	0.000	0.031	0.000
05/24/10	0.029	0.000	0.029	0.029	0.000	0.029	0.000
05/25/10	0.008	0.000	0.008	0.008	0.000	0.008	0.000
05/26/10	(0.017)	0.000	(0.017)	(0.017)	0.000	(0.017)	0.000
05/27/10	(0.053)	0.000	(0.053)	(0.053)	0.000	(0.053)	0.000
05/28/10	0.006	0.000	0.006	0.006	0.000	0.006	0.000
06/01/10	(0.010)	0.000	(0.010)	(0.010)	0.000	(0.010)	0.000
06/02/10	(0.003)	0.000	(0.003)	(0.003)	0.000	(0.003)	0.000
06/03/10	0.915	(0.924)	(0.009)	(0.009)	0.000	(0.009)	0.000

Date	Change in Collateral	Net Fixed and Floating Payment	Net Cash Flow	Change in Variation Margin	Net Fixed and Floating Payment	Net Cash Flow	Daily IRS vs Eris contract Cash Flows
06/07/10	(0.005)	0.000	(0.005)	(0.005)	0.000	(0.005)	0.000
06/08/10	(0.010)	0.000	(0.010)	(0.010)	0.000	(0.010)	0.000
06/09/10	(0.009)	0.000	(0.009)	(0.009)	0.000	(0.009)	0.000
06/10/10	(0.001)	0.000	(0.001)	(0.001)	0.000	(0.001)	0.000
06/11/10	0.002	0.000	0.002	0.002	0.000	0.002	0.000
06/15/10	0.004	0.000	0.004	0.004	0.000	0.004	0.000
06/16/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
06/17/10	0.001	0.000	0.001	0.001	0.000	0.001	0.000
06/18/10	(0.004)	0.000	(0.004)	(0.004)	0.000	(0.004)	0.000
06/21/10	(0.008)	0.000	(0.008)	(0.008)	0.000	(0.008)	0.000
06/22/10	0.004	0.000	0.004	0.004	0.000	0.004	0.000
06/23/10	0.005	0.000	0.005	0.005	0.000	0.005	0.000
06/24/10	0.005	0.000	0.005	0.005	0.000	0.005	0.000
06/25/10	(0.008)	0.000	(0.008)	(0.008)	0.000	(0.008)	0.000
06/28/10	(0.010)	0.000	(0.010)	(0.010)	0.000	(0.010)	0.000
06/29/10	0.003	0.000	0.003	0.003	0.000	0.003	0.000
06/30/10	(0.003)	0.000	(0.003)	(0.003)	0.000	(0.003)	0.000
07/01/10	(0.002)	0.000	(0.002)	(0.002)	0.000	(0.002)	0.000
07/02/10	(0.004)	0.000	(0.004)	(0.004)	0.000	(0.004)	0.000
07/06/10	(0.005)	0.000	(0.005)	(0.005)	0.000	(0.005)	0.000
07/07/10	(0.004)	0.000	(0.004)	(0.004)	0.000	(0.004)	0.000
07/08/10	(0.006)	0.000	(0.006)	(0.006)	0.000	(0.006)	0.000
07/09/10	(0.002)	0.000	(0.002)	(0.002)	0.000	(0.002)	0.000
07/12/10	0.003	0.000	0.003	0.003	0.000	0.003	0.000
07/13/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
07/14/10	(0.002)	0.000	(0.002)	(0.002)	0.000	(0.002)	0.000
07/15/10	(0.002)	0.000	(0.002)	(0.002)	0.000	(0.002)	0.000
07/16/10	(0.002)	0.000	(0.002)	(0.002)	0.000	(0.002)	0.000

Date	Change in Collateral	Net Fixed and Floating Payment	Net Cash Flow	Change in Variation Margin	Net Fixed and Floating Payment	Net Cash Flow	Daily IRS vs Eris contract Cash Flows
07/20/10	(0.007)	0.000	(0.007)	(0.007)	0.000	(0.007)	0.000
07/22/10	(0.005)	0.000	(0.005)	(0.005)	0.000	(0.005)	0.000
07/23/10	0.002	0.000	0.002	0.002	0.000	0.002	0.000
07/26/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
07/27/10	(0.003)	0.000	(0.003)	(0.003)	0.000	(0.003)	0.000
07/28/10	(0.006)	0.000	(0.006)	(0.006)	0.000	(0.006)	0.000
07/29/10	(0.003)	0.000	(0.003)	(0.003)	0.000	(0.003)	0.000
07/30/10	(0.002)	0.000	(0.002)	(0.002)	0.000	(0.002)	0.000
08/02/10	(0.002)	0.000	(0.002)	(0.002)	0.000	(0.002)	0.000
08/03/10	(0.004)	0.000	(0.004)	(0.004)	0.000	(0.004)	0.000
08/04/10	0.000	0.000	0.000	0.000	0.000	0.000	0.000
08/05/10	0.000	0.000	0.000	0.000	0.000	0.000	0.000
08/06/10	(0.001)	0.000	(0.001)	(0.001)	0.000	(0.001)	0.000
08/09/10	(0.002)	0.000	(0.002)	(0.002)	0.000	(0.002)	0.000
08/10/10	(0.004)	0.000	(0.004)	(0.004)	0.000	(0.004)	0.000
08/11/10	(0.003)	0.000	(0.003)	(0.003)	0.000	(0.003)	0.000
08/12/10	0.003	0.000	0.003	0.003	0.000	0.003	0.000
08/13/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
08/16/10	(0.003)	0.000	(0.003)	(0.003)	0.000	(0.003)	0.000
08/17/10	(0.004)	0.000	(0.004)	(0.004)	0.000	(0.004)	0.000
08/18/10	(0.002)	0.000	(0.002)	(0.002)	0.000	(0.002)	0.000
08/19/10	(0.002)	0.000	(0.002)	(0.002)	0.000	(0.002)	0.000
08/20/10	(0.003)	0.000	(0.003)	(0.003)	0.000	(0.003)	0.000
08/23/10	(0.004)	0.000	(0.004)	(0.004)	0.000	(0.004)	0.000
08/24/10	(0.001)	0.000	(0.001)	(0.001)	0.000	(0.001)	0.000
08/25/10	(0.001)	0.000	(0.001)	(0.001)	0.000	(0.001)	0.000

Date	Change in Collateral	Net Fixed and Floating Payment	Net Cash Flow	Change in Variation Margin	Net Fixed and Floating Payment	Net Cash Flow	Daily IRS vs Eris contract Cash Flows
08/27/10	(0.001)	0.000	(0.001)	(0.001)	0.000	(0.001)	0.000
08/30/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
08/31/10	(0.001)	0.000	(0.001)	(0.001)	0.000	(0.001)	0.000
09/01/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
09/02/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
09/03/10	(0.137)	0.137	0.000	0.000	0.000	0.000	0.000
09/07/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
09/08/10	0.000	0.000	0.000	0.000	0.000	0.000	0.000
09/09/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
09/10/10	0.000	0.000	0.000	0.000	0.000	0.000	0.000
09/13/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
09/14/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
09/15/10	0.000	0.000	0.000	0.000	0.000	0.000	0.000
09/16/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
09/17/10	0.000	0.000	0.000	0.000	0.000	0.000	0.000
09/20/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
09/21/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
09/22/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
09/23/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
09/24/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
09/27/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
09/28/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
09/29/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
09/30/10	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10/01/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
10/05/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
10/06/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
10/07/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000

Date	Change in Collateral	Net Fixed and Floating Payment	Net Cash Flow	Change in Variation Margin	Net Fixed and Floating Payment	Net Cash Flow	Daily IRS vs Eris contract Cash Flows
10/11/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
10/12/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
10/13/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
10/14/10	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10/15/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
10/18/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
10/19/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
10/20/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
10/21/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
10/22/10	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10/25/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
10/26/10	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10/27/10	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10/28/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
10/29/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
11/01/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
11/02/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
11/03/10	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11/04/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
11/05/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
11/08/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
11/10/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
11/11/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
11/12/10	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11/15/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
11/16/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
11/17/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
11/18/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000

Date	Change in Collateral	Net Fixed and Floating Payment	Net Cash Flow	Change in Variation Margin	Net Fixed and Floating Payment	Net Cash Flow	Daily IRS vs Eris contract Cash Flows
11/22/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
11/23/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
11/24/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
11/26/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
11/29/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
11/30/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
12/01/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
12/02/10	(0.000)	0.000	(0.000)	(0.000)	0.000	(0.000)	0.000
12/03/10	0.914	(0.914)	(0.000)	(0.000)	0.000	(0.000)	0.000



Eris Exchange, LLC – Legal Notice 01/12/2018

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