Introducing ENNs: A Measure of the Size of Interest Rate Swap Markets Update as of December 14, 2018

by

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The tables below provide an update on the notional and entity-netted notional (ENN) size of the CFTC-regulated interest rate market. Entity-netted notionals were introduced in a paper published in the beginning of 2018; ENNs aim to provide a measure for the amount of risk transfer in rate swaps that is comparable to measures used for other interest rate markets. The tables below represent aggregated interest rate swap position data as of December 14, 2018. As with the earlier reports, we continue to improve both the calculation and the classification methodologies. One improvement included in this report is a breakout of the corporate category into "non-financial" and "other" subcategories. Relevant tables and figures now show the two subcategories in place of the earlier, more general, corporate category.

Compared to the prior report, total interest rate swap notional fell by just under 1% while total ENNs decreased by just over 15%, in part driven by a reduction in average swap tenor. Histograms of ENNs by participant category, introduced in the September report, are again included in the figures below.

Table 1 (updates original Table 2): Notional Amounts and ENNs by Sector (\$ Trillions)

| | Notiona | al Amounts | | Notional Amounts in 5-Year Equivalents | | | |
|-------------------|---------|--------------|-------------|--|--------------|-----------------------------|--------------------|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| <u>Sector</u> | Long | <u>Short</u> | <u>Long</u> | <u>Short</u> | ENNs Long | <u>ENNs</u> <u>Short</u> | ENNs <u>Net</u> |
| Swap Dealer | 168.3 | 167.1 | 83.1 | 81.5 | 8.7 | 7.1 | 1.5 |
| Bank | 22.6 | 23.1 | 15.2 | 16.0 | 1.7 | 2.5 | -0.9 |
| Hedge Fund | 22.2 | 21.1 | 6.6 | 6.6 | 0.8 | 0.9 | -0.1 |
| Asset Manager | 4.4 | 4.9 | 3.4 | 3.6 | 1.0 | 1.2 | -0.2 |
| Insurance | 0.9 | 0.8 | 1.5 | 1.0 | 0.7 | 0.2 | 0.5 |
| Pension Fund | 1.9 | 1.7 | 2.4 | 1.8 | 0.9 | 0.3 | 0.5 |
| Nonfinancial Corp | 0.4 | 1.6 | 0.3 | 0.9 | 0.2 | 0.8 | -0.6 |
| Other Corp | 0.3 | 0.5 | 0.2 | 0.3 | 0.1 | 0.2 | -0.1 |
| Gov't/Quasi-Gov't | 1.2 | 1.4 | 0.6 | 1.1 | 0.1 | 0.6 | -0.5 |
| Unclassified | 0.3 | 0.5 | 0.2 | 0.4 | 0.1 | 0.2 | -0.1 |
| CCP Adj | 0.3 | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | -0.1 |
| Total | 222.9 | 222.9 | 113.4 | 113.4 | 14.3 | 14.3 | 0.0 |

¹ Office of the Chief Economist, Commodity Futures Trading Commission. While this paper was produced in the authors' official capacity, the analyses and conclusions expressed here are those of the authors and do not necessarily reflect the views of other Commission staff, the Office of the Chief Economist, or the Commission.

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² The link to the original paper can be found <u>here</u>. An update as of September 2018 can be found <u>here</u>.

Table 2 (updates original Table 4): Notional Amounts and ENNs by product type (\$ Trillions)³

| | Notional Amounts | Notional Amounts in 5-Year Equivalents | | |
|--------------------------|------------------|--|-----------|--|
| <u>Product</u> | Long | Long | ENNs Long | |
| Fixed-for-Floating Swaps | 118.5 | 98.3 | 12.3 | |
| FRAs | 40.3 | 1.7 | 0.2 | |
| OIS | 40.6 | 6.4 | 0.8 | |
| Swaptions | 15.5 | 6.7 | 0.8 | |
| Cap/Floor | 7.6 | 0.3 | 0.0 | |
| CCP Adj | 0.3 | 0.1 | 0.1 | |
| Total | 222.9 | 113.4 | 14.3 | |

Table 3 (updates original Table 5): Notional Amounts and ENNs by currency (\$ Trillions)

| | <u>Notion</u> | al Amounts | <u>Notion</u> | Notional Amounts in 5-Year Equivalents | | | | |
|----------|---------------|--------------|---------------|--|--------------|---------------|--|--|
| Currency | Long | <u>Short</u> | <u>Long</u> | <u>Short</u> | ENNs Long | ENNs Short | | |
| USD | 93.0 | 93.2 | 41.1 | 41.0 | 6.4 | 6.4 | | |
| EUR | 61.4 | 61.3 | 40.8 | 40.7 | 4.3 | 4.2 | | |
| GBP | 22.6 | 22.7 | 11.8 | 11.7 | 1.5 | 1.4 | | |
| AUD | 8.3 | 8.3 | 2.6 | 2.6 | 0.2 | 0.2 | | |
| JPY | 7.1 | 7.1 | 5.9 | 6.0 | 0.6 | 0.6 | | |
| CAD | 7.5 | 7.5 | 2.6 | 2.6 | 0.2 | 0.2 | | |
| Other | 22.7 | 22.7 | 8.6 | 8.6 | 1.0 | 1.0 | | |
| CCP Adj | 0.3 | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | | |
| Total | 222.9 | 222.9 | 113.4 | 113.4 | 14.3 | 14.3 | | |

³ Product-level ENNs in this table simply allocate total ENNs in the same proportions as the distribution of productlevel notional amounts.

Table 4 (updates original Table 6): Clearing percentages by sector (\$ Trillions), including clearing ratios

Notional Amounts

Notional Amounts in 5-Year Equivalents

| | | Notional Amounts | | | Notional Amounts in 5-real Equivalents | | | |
|-------------------|-------|------------------|--------------|-----------|--|---------------------|-----------------------------|---------------------|
| <u>Sector</u> | Long | Cleared % | <u>Short</u> | Cleared % | ENNs Long | Cleared <u>%</u> | <u>ENNs</u> <u>Short</u> | Cleared <u>%</u> |
| Swap Dealer | 168.3 | 85 | 167.1 | 85 | 8.7 | 39 | 7.1 | 28 |
| Bank | 22.6 | 91 | 23.1 | 92 | 1.7 | 55 | 2.5 | 73 |
| Hedge Fund | 22.2 | 81 | 21.1 | 87 | 0.8 | 49 | 0.9 | 62 |
| Asset Manager | 4.4 | 79 | 4.9 | 79 | 1.0 | 70 | 1.2 | 79 |
| Insurance | 0.9 | 58 | 0.8 | 54 | 0.7 | 55 | 0.2 | 43 |
| Pension Fund | 1.9 | 60 | 1.7 | 68 | 0.9 | 37 | 0.3 | 50 |
| Nonfinancial Corp | 0.4 | 6 | 1.6 | 3 | 0.2 | 2 | 0.8 | 3 |
| Other Corp | 0.3 | 24 | 0.5 | 20 | 0.1 | 12 | 0.2 | 21 |
| Gov't/Quasi-Gov't | 1.2 | 72 | 1.4 | 75 | 0.1 | 27 | 0.6 | 49 |
| Unclassified | 0.3 | 61 | 0.5 | 52 | 0.1 | 40 | 0.2 | 27 |
| CCP Adj | 0.3 | | 0.1 | | 0.1 | | 0.2 | |
| Total | 222.9 | 84 | 222.9 | 84 | 14.3 | 44 | 14.3 | 44 |

Figure 1: Histogram of Swap Dealer ENNs

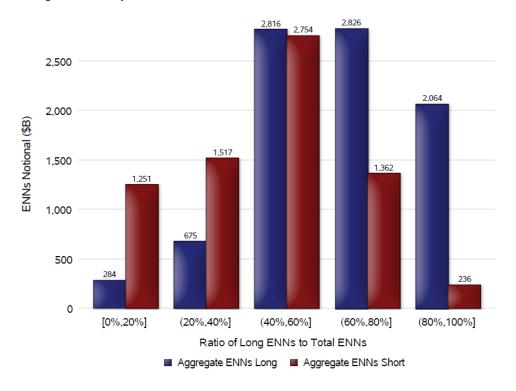


Figure 2: Histogram of Bank ENNs

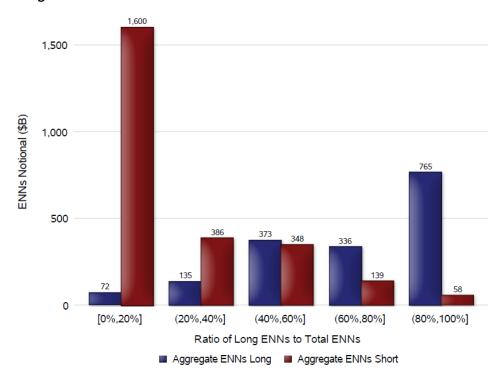


Figure 3: Histogram of Asset Manager ENNs

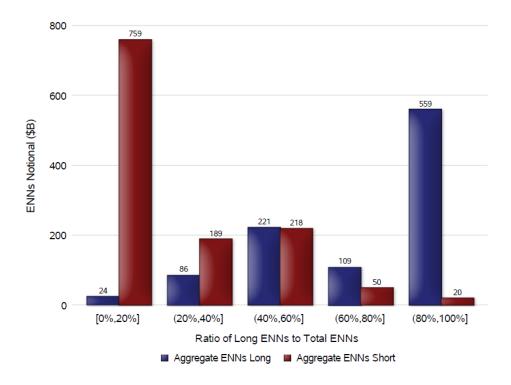


Figure 4: Histogram of Hedge Fund ENNs

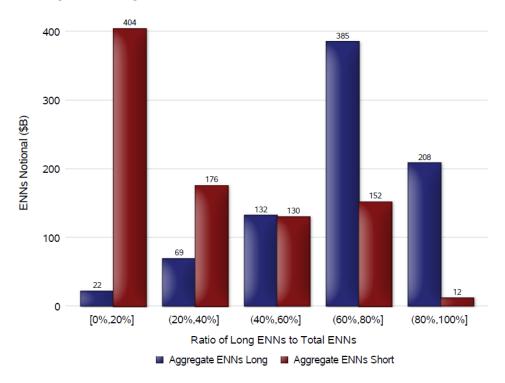


Figure 5: Histogram of Pension Fund ENNs

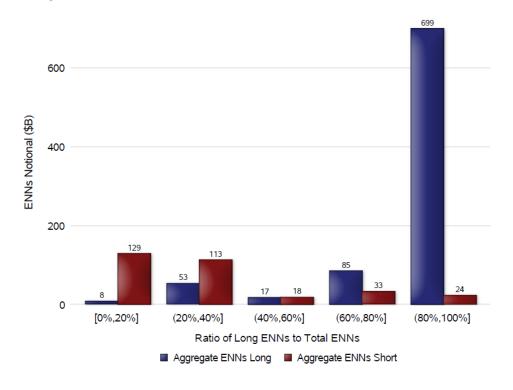


Figure 6: Histogram of Insurance Company ENNs

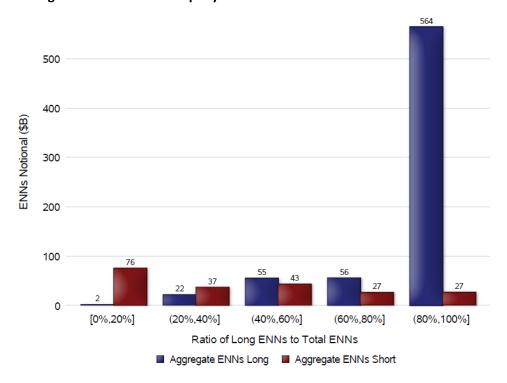


Figure 7: Histogram of Non-Financial Corporate ENNs

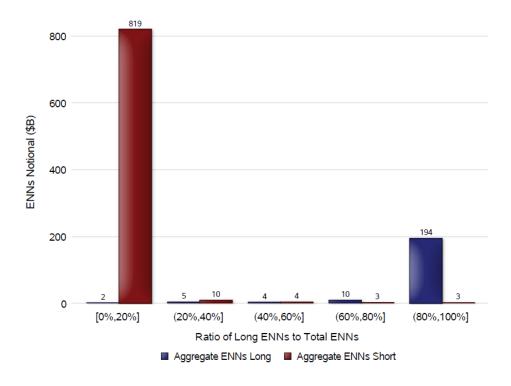


Figure 8: Histogram of Other Corporate ENNs

