A Work Project, presented as part of the requirements for the Award of a Master Degree in Finance from NOVA – School of Business and Economics.

THE RELEVANCE OF ACCURATE MONITORING PARAMETERS IN THE CONTEXT OF EDPSC’S BPO CONTRACTS

DIOGO MARIA AMORIM BON DE SOUSA - 3227

A Project carried out on the Master in Finance Program, Under the supervision of:

Professor Afonso Eça
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSTRACT</td>
<td>3</td>
</tr>
<tr>
<td>EDP GROUP</td>
<td>4</td>
</tr>
<tr>
<td>EDP SOLUÇÕES COMERCIAIS</td>
<td>7</td>
</tr>
<tr>
<td>A CONCEPTUALLY FLAWED SLA PARAMETER</td>
<td>9</td>
</tr>
<tr>
<td>LITERATURE REVIEW</td>
<td>11</td>
</tr>
<tr>
<td>METHODOLOGY</td>
<td>13</td>
</tr>
<tr>
<td>RESULTS</td>
<td>15</td>
</tr>
<tr>
<td>CONCLUSIONS</td>
<td>18</td>
</tr>
<tr>
<td>REFERENCES</td>
<td>19</td>
</tr>
<tr>
<td>EXHIBITS</td>
<td>21</td>
</tr>
</tbody>
</table>
THE RELEVANCE OF ACCURATE MONITORING PARAMETERS IN THE CONTEXT OF EDPSC’S BPO CONTRACTS

ABSTRACT

Given its strategic significance for EDPSC - a shared services company within EDP group - the collection process is outsourced to a third-party service provider. EDPSC focuses on management and control through a performance-based SLA defined as the ratio of bank transfers dully allocated to clients’ current accounts within two business days over the total bank transfers correctly allocated. The aforementioned SLA is conceptually biased as it neglects the service provider’s resolution rate. This paper upholds that by imposing a more complete SLA, combining both celerity and efficiency parameters, EDPSC can significantly reduce its trailing amount whilst marginally increasing costs.

KEYWORDS

EDP; BPO; SLA; ACCURACY
ENERGIAS DE PORTUGAL ("EDP") is Portugal’s incumbent utility, one of the largest players in the Iberian energy sector and a worldwide reference in renewable energy production – leading global position in wind energy. EDP was established in 1976 as the outgrowth of a state promoted merger between thirteen generation companies. Nowadays, EDP is a fully private company, listed on the EURONEXT LISBON stock exchange with a market cap of 11.1bn EUR as of October 2017. EDP benefits from a diversified and stable ownership structure, with a free float of c. 35% and key shareholder being the People’s Republic of China, through its SOEs CHINA THREE GORGES CORPORATION ("CTG") and CNIC CO LTD ("CNIC"), accounting for c. 24% of outstanding shares and voting rights.

With FY2016 revenues of 14.5bn EUR and an EBITDA of 3.8bn EUR, EDP is the fourth largest utility in the Iberian market, superseded only by Spanish energy giants IBERDROLA, ENDESA and GAS NATURAL FENOSA, respectively. EDP has a widely diversified geographic footprint, with active presence in 14 countries, catering to nearly 10m customers worldwide and with a headcount of 12k workers. The most relevant international markets are Spain, Brazil and North America, altogether accounting for more than 50% of FY2016 EBITDA.

EDP is a fully integrated utility, engaging in all activities comprising the energy value chain: generation, distribution and commercialization. It benefits from a low risk business profile with c. 75% of EBITDA stemming from LT contracted activities, namely Power Purchase Agreements (PPA) with C&I customers and regulated generation and networks remuneration schemes. Installed capacity totals 25,223GW with average residual useful life of generation assets totaling c. 29 years. Its generation portfolio is distinctive when compared to other incumbent utilities, namely due to its acknowledged state-of-the-art technology – which results
in lower OPEX - primary source diversity and low carbon intensity. Group strategy, as stated in its 2016-20 business plan, is to reinforce the stability of its business model and inherent recurrence of its income stream by directing c. 84% of the predicted yearly average 1.4bn EUR net expansion capex towards LT contracted renewables - through PPAs and feed-in tariffs mostly in the USA - and regulated Transmission and Distribution (T&D) networks, with emphasis in Brazil.

Despite the resilience of its business model, the ongoing simplification of its corporate structure through partial minority buyout at its subsidiary EDP RENOVEVIS ("EDPR") – (83% shareholding from previous 78%) and net debt reduction via proceeds from well-valued mature asset rotation with minor EBITDA contribution (disposal of Iberian gas network assets NATURGAS and PORTGAS for c. 3bn EUR), EDP’s ST & LT performance might be impaired by the following exogenous adverse impacts, mostly affecting its Iberian operations:

a. Prolonged drought in Iberia results in a hydro production of 4.7TWh during 1H17, c. 42% below historical average. Production mix shifts towards thermal (coal and CCGT) leading to a 145% YoY increase in production cost (33 EUR/MWh vs. 14 EUR/MWh as of 1H16) and an increase in net energy imports from France (3TWh) amidst a context of rising pool prices (51 EUR/MWh vs 30 EUR/MWh in 1H16);

b. Estimated decrease in regulated returns by c. 40% on Spanish distribution and renewable assets for the next 5-year regulatory period (2020-25). According to cabinet officials in the Spanish Government, the existing regulatory framework will remain unaltered. Given that RAB on T&D assets and renewables’ IRRs are linked to Spanish bond yields – with the latter decreasing by 250bps since last review –, unless the government allows for higher spreads or bond prices drop, such regulatory reset would imply a sharp hit on EBITDA generation from these activities;
c. Downward pressure on power prices following recent renewable capacity additions. During 2017 the Spanish government auctioned 9GW of renewable capacity, c. 8% of installed base, and is likely to undergo future additions;

d. Recent announcement by the Portuguese regulator ERSE of the 2018 proposed last resort tariff and the parameters for the new regulatory period of 2018-20. Regulatory review came in harsher than the market and EDP anticipated, with detrimental measures to the group, amongst which we highlight:

a. 10% cut in remuneration for electricity distribution networks;

b. Proposed cut of 0.2% in last resort electricity tariff, contradicting the planned annual increase of 1.5/2% to reduce the prevailing tariff deficit (4.3bn EUR estimate for EoY 2016);

c. 0.7bn tariff deficit reduction expected for 2018 to be financed partially through one-off remuneration claw-backs on past generation revenues. Recent Decree-Law disallows, retroactively, the pass-through of the special energy tax and social tariff;

d. Final adjustment to stranded costs compensation (CMECs) of 83m EUR per year, 10m EUR lower than EDP’s proposal during the intense 4 months’ negotiation period;

e. Maintaining retail margins in a context of falling energy prices, increasing usage of storage systems and alternative micro-grids through tight control on OPEX.

Aligned with the group’s commitment towards an increasingly resilient and stable business model is its deleveraging strategy. As of FY2016, EDP posted a net debt position of c. 17bn EUR, which translates into a leverage ratio above 3.0x and sector average. Funding sources are well diversified both in terms of instruments (68% bonds / 28% bank loans / 4% ECP), fixed/floating ratio (53/47% respectively) and currency mix. The group’s funding lies
essentially in an on-lent strategy, with c. 85% of gross debt raised through the holdco and main finco, whilst renewable asset development is financed via non-recourse project finance and Brazilian operations, aggregated under subsidiary EDP BRAZIL (“EDPB”) borrow locally under a ring-fence policy. Liquidity totals 5.4bn EUR covering refinancing needs for upcoming 24 months. The average debt maturity is 4.8 years with proactive market tapping to extend maturities and smoothen the redemption schedule, thus avoiding frontloading refinancing needs.

EDP SOLUÇÕES COMERCIAIS

EDP SOLUÇÕES COMERCIAIS (“EDPSC”) is a shared-services company (SSC) within EDP group. Key activities include the management and optimization of common IT platforms, payables management (billing, invoicing and printing) according to individual procurement policies of the group’s opcos and, more importantly for the purpose of this paper, the collection process for all end clients of the group’s Iberian operations (except generation), including T&D and retail (B2C & B2B / last resort / social tariff) gas and electricity customers.

Considering the volume and complexity of the collection process, the latter is outsourced, allowing EDPSC to focus on data validation and management control of overall client balances. Moreover, due to steep learning rates and vendors’ specialization, business process outsourcing frequently entails cost advantages, specialized resources and consequent quality improvements (Gewald. H et al. 2009). Such BPO relationship is governed under a Service Level Agreement which defines, broadly, service parameters, response time and quality performance.
EDSC handles more than 6bn EUR in client receivables on a yearly basis, which translates into more than 50m transactions. To streamline collection procedures and proper client current account management, most transactions are automatically processed through three online platforms, each attributable to a distinct commercialized product and client profile: T&D, liberalized electricity market, last resort tariff (including social tariff) and gas customers. Collection complexity stems from the aforementioned diversified customer base and product offering allied with the multiplicity of payment methods offered, which translates into batch origination mixes with numerous possible combinations.

As of October 2017, payment method mix was split between (as a percentage of total number of transactions): direct debit (“DD” / 60.2%), ATM (26.1%), PayShop (“Y” / 7.3%), CTT postal office (3.6%) and bank transfers (“BT” / 0.3%). Checks forwarded to EDPSC and other payment methods, although still a valid payment method, represent a negligible amount of transactions and thus are disregarded in the present analysis (Exhibit 1).

Exhibit 1

Note that, BT correspond mostly to B2B clients, with multiple access points and different contracted product offerings, such as counties, external entities, SMEs et al, and thus do not include mobile banking payments, similar in nature to ATM settlements. In some cases, such
B2B accounts date back decades and are, therefore, prior to the introduction of more efficient and accurate payment methods. Despite EDPSC efforts to steer such clients towards updated settlement procedures, the latter still rely on BT to a designated IBAN that was provided upon contract inception.

A CONCEPTUALLY FLAWED SLA PARAMETER

Although bank transfers account for only a mere 0.3% share in total transactions processed, they represent c. 25.5% of total amount collected whilst being the payment method that encompasses a higher degree of complexity, human interaction and, therefore, higher margin of error. All other payment methods immediately allocate a debtor balance to a client reference, whilst disallowing transactions that mismatch the aforementioned parameters. The latter resemble a highly standardized process thus leading to higher BPO success levels (Wüllemberg et al. 2008).

Moreover, BPO partner service fees are substantially higher for bank transfers thus creating an inception imbalance between the relevance of such payment method in overall transactions and the proportional cash outlay associated with its processing.

Besides the proportionate cost related with service fees being higher than for other payment methods, it also generates additional impairments for EDP, both monetary and reputational, considering additional charges in client interaction – namely via phone contacts to gather relevant information to resolve the anomaly - printing & finishing and client retention in case of wrongful billing. It also implies higher monitoring and validation demands on EDPSC headcount.
Base assumption of this paper is that the specific SLA that covers the bank transfer collection process is conceptually flawed and biased towards the BPO partner - promoting uncooperative relationships thus potentially undermining the contract’s success (Goo et al. 2006) - as service parameters and incentives are misaligned for the following reasons:

1. Compliance of agreed service levels is measured as a function of the number of transactions duly allocated to clients’ current accounts, rather than by the total collections in any given day;

2. SLA determines that a minimum percentage of all valid allocations must be made within a two business days’ time period. If the service provider allocates that share of validated transactions within the aforementioned time period, its achievement level is 100%, thus undermining incentives for a “clean sheet”;

One could argue that given the fact that BPO partner is remunerated on an item base it has all economic incentives to maximize transaction allocation. Nonetheless, by setting SLA compliance on a celerity basis it deters BPO partner from focusing on complex transactions thus reducing its OPEX, maximizing cost efficiency and consequently net operating income derived from such contract. As can be inferred by Exhibit 2, the monthly average collection inflow amounts to c. 46,129,294 EUR, from which c. 39,753,061 EUR is duly settled, leaving unresolved the remainder 6,376,234 EUR. Hence, there is a prevailing amount that is not allocated to clients’ current accounts, wrongfully categorizing them as noncompliant and bearing additional costs for the company.
LITERATURE REVIEW

Business Process Outsourcing ("BPO") is the delegation of one or more business processes to third party service providers, including all related resources such as IT or HR (Dayasindhu 2004; Halvey and Melby 1996). Over the past decade, virtually all companies have relied on BPO (from IT, to data management, billing platforms, occupational health et al) to increase focus on core activities and consequently achieve higher levels of competitiveness. The key advantage of BPO is its cost efficiency and effectiveness in handling non-core activities that would otherwise have to be internalised by and within a company.

By transferring the responsibility for executing and managing a business process to an external organization (Mani et al. 2006), BPO offers a set of unique potentials, that can be, at minor marginal cost, tailored to the outsourcer’s core business and to its stakeholders (Willcocks et al. 2004). Not only may third-party service providers be specialized in a given set of logically related tasks, they can more easily achieve economies of scale through process replication for a large customer base, thus putting downward pressure in its pricing structure and becoming increasingly more attractive to outsourcers.
Nevertheless, the upside potential of BPO comes at the cost of additional risks. The complexity of the business process outsourced, its potential interdependence with other processes, and the lack of BPO governance experience are amongst the more relevant (Wüllemberg et al. 2008). In fact, in “Successfully Governing BPO Relationships” the authors (Mani et al. 2006) developed a decision-making framework that ponders the aforementioned, by creating a bi-dimensional model between process requirements and governance wherewithal.

Process requirements are referred to as the extent to which the process is strategically purposeful - directly interconnected to the firm’s competitiveness -, its complexity (understandability and measurability) and its interdependence on non-outsourced processes. Moreover, the authors mention that “(…) BPO governance includes the institutions, processes, and technologies that empower decision making and action to deliver sustainable value”, stressing the importance of BPO contracts and its monitoring tools.

EDPSC’s BT collection process has been reviewed and adjusted over the past three years. It cannot be unbundled from other collection processes, as they are all entirely outsourced to the same service provider and do not require third party intervention or cross-functional teams making the process self-contained. Outputs are verifiable and measured on a weekly basis, reducing complexity and interdependence costs to a minimum. Additionally, EDPSC’s KPIs are directly linked to the efficiency and efficacy of its collection processes. EDP customers’ value perception and brand distinction stem from that efficiency making the externalisation of extreme strategic significance.

The increasing strategic importance of BPO has pressured companies to concentrate on the skill-set needed to govern service provider relationships (Goo et al, 2006). Outsourcing contract design is amongst the more relevant key capabilities of an effective governance policy: “The contract represents a mutual attempt to control uncertainty in desired behaviours and outputs. It defines the important parameters of the BPO relationship such as SLAs, intellectual property
rights, performance metrics and indicators, rewards, privacy and regulatory issues and exit conditions” (Mani et al. 2006). Furthermore, it places enforceable limits on the actions of both parties of the agreement so that none may extract additional returns from the other by failing to perform as established (Williamson, 1985)

Service Level Agreements are legal contracts that specify minimum expectations and obligations between an outsourcer and its third-party service provider (Ward et al, 2002). For the outsourcer, “SLA mitigates expensive infrastructure and IT personnel costs and replaces them with a fee-based service”. Such contracts specify the outsourced service functions and its corresponding quality measurement criteria. Failing to design, develop, implement and monitor SLAs may result in lack of relationship governance and consequently BPO efficacy. Thus, it is of extreme relevance to ensure SLA accuracy, reliability and congruence.

**METHODOLOGY**

Provided by the third-party BPO service provider, internal data on EDPSC’s BT collection process was analysed for the period between the 1st of January and 31st of October 2017. Such data comprises, amongst other, (i) inbound transfers in any given week within aforementioned time period, (ii) the associated amount entered into EDPSC bank accounts, (iii) the duly allocated transfers in clients’ current accounts and (iv), corresponding service fees.

In essence, this study departs from a preliminary audit on SLA compliance (Exhibit 3) and expands towards a proposed increase in efficiency on BPO service levels by analysing different cost/benefit hypothetic scenarios.
Exhibit 3

The first finding withdrawn from data audit concurs with the preliminary assumption that the SLA is conceptually flawed. Data reveals that the third-party service provider is partly complying with SLA parameters as the ratio of allocated transfers within two business days and total allocations equals and/or exceeds, except for the first trimester, the contractually agreed 90% in the time period of this analysis. However, current resolution rate, measured by allocated transfers as a fraction of total inbound collections over the analysed time-period, amounts only to c. 86%, implying cumulative dangling amounts which were not correctly settled in clients’ current accounts. Such legacy implies a double impairment for EDPSC: on the one hand, it generates an accounting mismatch as income is registered on the group’s accounts but not rested in receivables’ balances; on the other, it implies additional costs, both reputational and monetary due to further human interaction necessary for anomaly resolution. Note that clients
for whom BT has not been correctly allocated are wrongfully considered noncompliant which drives Printing & Finishing and Shipping costs up, whilst permanently affecting customer satisfaction levels. Moreover, internal resources are periodically mobilized to create taskforces aiming to decrease dangling amounts and increase process efficiency, which also implies further costs.

Base premise of this work is that by commingling SLA compliance as a function of both resolution celerity (prevailing parameter) and efficiency - through increment on current resolution rate – it is possible to decrease dangling amounts and consequent resolution costs (tangible and intangible) whilst marginally increasing BPO service fees invoice.

RESULTS

The departing point is to contrast the existing SLA service level requirements against our proposal:

*Equation 1.1*

**EXISTING SLA**

\[
\frac{S_{2BD}}{ALLOC_T} \geq 90\%
\]

*Equation 1.2*

**PROPOSED SLA**

\[
\frac{S_{2BD}}{ALLOC_T} \geq 90\% \land \frac{ALLOC_T}{INBOUND_T} \geq XX\%
\]
The proposed SLA, presented in Equation 1.2, not only considers the analysis of the service provider’s celerity performance, through the number of allocations within the contracted time period, but also its efficiency, by imposing a minimum resolution rate. Such parameter should reduce dangling amounts and its consequent monetary and reputational costs.

Further underlying math is simple and straightforward. We have calculated the average individual transaction amount and the corresponding service fee weighted average cost – note that fee structure differs for liberalised market and last resort B2B customers due to usage of different online platforms. With these computations, we have extrapolated the increase in current allocations for different thresholds and the corresponding cost/benefit outcomes.

We started by computing the average inbound transaction value by dividing the total collected amount by the number of incoming transfers for the entire period:

*Equation 2.1*

\[
\frac{\text{INBOUND}_\text{EUR}}{\text{INBOUND}_\text{T}} = \frac{461,293k \text{ EUR}}{41,606} = \text{AvG}_\text{T}_\text{EUR} = 11.09k \text{ EUR}
\]

Furthermore, the approximate amount duly allocated to clients’ current accounts was derived from multiplying the average inbound transaction value by the number of allocated transfers:

*Equation 2.2*

\[
\text{AvG}_\text{T}_\text{EUR} \times \text{ALLOC}_\text{T} = 11.09k \text{ EUR} \times 35,855 = 397,531 \text{ EUR}
\]

This translates into an approximate legacy amount, i.e., value received by EDSC but not correctly allocated to clients’ current account balances of:

*Equation 2.3*

\[
\text{INBOUND}_\text{EUR} - \text{ALLOC}_\text{EUR} = 461,293k \text{ EUR} - 397,531k \text{ EUR} = 63,762k \text{ EUR}
\]
Considering a weighted average service fee of 1.66 EUR/per transaction, the total invoice of BPO partner for the aforementioned time period totals:

*Equation 2.4*

\[ ALLOC_T \times 1.66 \text{ EUR} = 59.6k \text{ EUR} \]

Whereas:

- \( S_{2BD} = \text{Transfers allocated within two business days}; \)
- \( ALLOC\_T = \# \text{ of allocated transfers}; \)
- \( INBOUND\_T = \# \text{ of inbound transfers}; \)
- \( INBOUND\_EUR = \text{Value of inbound transfers, in EUR}; \)
- \( ALLOC\_EUR = \text{Value of allocated transfers, in EUR}; \)
- \( AvG\_T\_EUR = \text{Average inbound transaction value, in EUR}; \)

Finally, and based on the calculations above, we derived a sensitivity analysis that plots the increment of BPO service fees against the decrease in legacy amounts by uplifting efficiency as measured by current resolution rate.

As can be seen in exhibit 4, the increase in efficiency as measured by the allocation resolution rate, induces to a more than proportionate decrease in dandling amounts. By imposing a minimum resolution rate of i,e 90% to its third-party service provider, EDPSC would see a weighty accrued reduction of 28% in its pending allocations whilst the latter’s invoice would only inflate 4%. In absolute values, the imposition of a 90% minimum resolution rate threshold would reduce the legacy amount to c. 46,129k EUR while incrementing costs to c. 65.6k EUR, rather than the original 59.6k EUR. It is worth mentioning that while more ambitious scenarios
were created, it would depend on the outsourcer’s need and budget what the optimal point would be.

Exhibit 4

| ∆ BPO COST → | = / 59.6k EUR | + 4% / 62.2k EUR | + 10% / 65.7k EUR | + 16% / 69.1k EUR |
| ∆ RESOLUTION RATE ↓ | = / 63,762k EUR | - 28% / 46,129k EUR | - 64% / 23,065k EUR | - 100% / 0.0k EUR |

CONCLUSIONS

The collection process, its outsource and monitoring, are amongst the most strategically relevant activities of EDPSC. Whilst delegating such core and key process to a third-party BPO service provider it is imperative that the company ensures the compliance of its contractually established performance levels. Moreover, monitoring Service Level Agreements mitigates risks for both service recipient and provider as it clarifies responsibilities, expectations, strengthens communication and ultimately reduces conflicts (Goo et al, 2006).

The service provider is currently performing in agreement with the compliance level negotiated in contract as at least ninety percent of dully allocations in clients’ current accounts is being treated within a two business days’ time period.

Nevertheless, this study argues that the current Service Level Agreement parameter is conceptually biased as it accesses performance exclusively based on a celerity criterion,
restricting therefore, any potential analysis on the amount and number of unsolved allocations. The SLA does not contemplate efficiency parameters, misinforming EDP on its service provider’s performance vis-à-vis the inbound number and amount of BT. As such, this performance is translated in a total resolution rate of 86%, emanating in an expected monthly legacy of c. 6,376,234 EUR.

By imposing a minimum resolution rate, EDPSC can see its core activity enhanced. Such parameter would uplift the amount duly allocated while downward pressuring the dangling amounts and only marginally increasing BPO service fees.

Depending on the service receiver’s budget restrictions, needs and governance capability, dangling amounts can be fully mitigated while increasing monthly fees by c. 956 EUR (16%). Nevertheless, more conservative scenarios were created, all converging to the conclusion that a marginal increase in fees derived from a steeper resolution rate, lead to a more than proportionate decrease in legacy.

REFERENCES


### Exhibit 5

#### AGGREGATED MONTHLY DATA

<table>
<thead>
<tr>
<th>MONTH</th>
<th>INBOUND TRANSFERS</th>
<th>ALLOCATED TRANSFERS</th>
<th>SLA</th>
<th>RESOLUTION RATE</th>
<th>TRAILINGS</th>
<th>TRAILINGS CTR</th>
<th>COST CTR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4958</td>
<td>3481</td>
<td>3112</td>
<td>70%</td>
<td>1477</td>
<td>16 375 755</td>
<td>6 932</td>
</tr>
<tr>
<td>2</td>
<td>4316</td>
<td>2962</td>
<td>2639</td>
<td>69%</td>
<td>1354</td>
<td>15 012 033</td>
<td>5 550</td>
</tr>
<tr>
<td>3</td>
<td>5394</td>
<td>4187</td>
<td>3544</td>
<td>78%</td>
<td>1207</td>
<td>13 382 218</td>
<td>7 220</td>
</tr>
<tr>
<td>4</td>
<td>3646</td>
<td>3366</td>
<td>3088</td>
<td>92%</td>
<td>280</td>
<td>3 104 409</td>
<td>5 170</td>
</tr>
<tr>
<td>5</td>
<td>4654</td>
<td>4176</td>
<td>3707</td>
<td>90%</td>
<td>478</td>
<td>5 299 669</td>
<td>6 412</td>
</tr>
<tr>
<td>6</td>
<td>4707</td>
<td>4394</td>
<td>4088</td>
<td>93%</td>
<td>313</td>
<td>3 470 285</td>
<td>6 772</td>
</tr>
<tr>
<td>7</td>
<td>4058</td>
<td>3899</td>
<td>3701</td>
<td>96%</td>
<td>159</td>
<td>1 762 861</td>
<td>6 538</td>
</tr>
<tr>
<td>8</td>
<td>3474</td>
<td>3244</td>
<td>3112</td>
<td>93%</td>
<td>230</td>
<td>2 550 050</td>
<td>4 840</td>
</tr>
<tr>
<td>9</td>
<td>3761</td>
<td>3534</td>
<td>3402</td>
<td>94%</td>
<td>227</td>
<td>2 516 788</td>
<td>5 202</td>
</tr>
<tr>
<td>10</td>
<td>2638</td>
<td>2612</td>
<td>2518</td>
<td>99%</td>
<td>26</td>
<td>288 267</td>
<td>4 981</td>
</tr>
<tr>
<td>TOTALS</td>
<td>41606</td>
<td>35855</td>
<td>32911</td>
<td>86%</td>
<td>5751</td>
<td>63 762 335</td>
<td>59 618</td>
</tr>
<tr>
<td>MONTHLY</td>
<td>4161</td>
<td>3586</td>
<td>3291</td>
<td>87%</td>
<td>575</td>
<td>6 376 234</td>
<td>5 962</td>
</tr>
<tr>
<td>YEARLY</td>
<td>49927</td>
<td>43026</td>
<td>39493</td>
<td>87%</td>
<td>6 901</td>
<td>76 514 802</td>
<td>71 542</td>
</tr>
</tbody>
</table>
## AGGREGATED WEEKLY DATA

| WEEK | BANK | CLINT | REPORTED || ALLOCATED | TOTALS || U.S. COMPANIES || ALLOCATED DATES || WEEKLY TOTalling || TRADED || COUPON || COSTS |
|------|------|-------|-----------|-----------|---------|---------|-----------------|-----------------|-----------------|--------|--------|--------|
|      |      |       |           |           |         |         |                 |                 |                 |        |        |        |
| 2    | LM_B2B | 902,812.67 | 81,659.35 | 984,472.02 | 984,472.02 | 0 | 1,987,331.58 | 81,659.35 | 2,068,991.05 | 32 | 11.30 |
| 3    | LM_B2B | 312,547.77 | 63,104.00 | 375,651.77 | 375,651.77 | 0 | 751,305.77 | 63,104.00 | 814,409.77 | 32 | 8.90 |
| 4    | LM_B2B | 0.00 | 0.00 | 0.00 | 0.00 | 0 | 0.00 | 0.00 | 0.00 | 0 | 0.00 |
| 5    | LM_B2B | 1,468,786.80 | 18,675.80 | 1,487,462.60 | 1,487,462.60 | 0 | 3,976,250.40 | 18,675.80 | 4,094,926.20 | 32 | 8.90 |
| 6    | LM_B2B | 715,305.77 | 30,561.33 | 745,867.10 | 745,867.10 | 0 | 1,491,174.80 | 30,561.33 | 1,521,736.13 | 32 | 3.34 |
| 8    | LM_B2B | 0.00 | 0.00 | 0.00 | 0.00 | 0 | 0.00 | 0.00 | 0.00 | 0 | 0.00 |
| 9    | LM_B2B | 899,019.39 | 53.00 | 999,072.39 | 999,072.39 | 0 | 1,898,144.78 | 53.00 | 1,908,197.78 | 32 | 3.34 |
| 10   | LM_B2B | 897,121.02 | 30,625.00 | 927,746.02 | 927,746.02 | 0 | 1,854,872.04 | 30,625.00 | 1,885,502.04 | 32 | 3.34 |
| 11   | LM_B2B | 1,007,705.04 | 136,012.86 | 1,143,717.90 | 1,143,717.90 | 0 | 2,287,435.80 | 136,012.86 | 2,423,448.66 | 32 | 4.56 |
| 12   | LM_B2B | 1,269,570.27 | 141,280.00 | 1,410,850.27 | 1,410,850.27 | 0 | 2,821,420.54 | 141,280.00 | 3,002,700.54 | 32 | 5.80 |
| 13   | LM_B2B | 0.00 | 0.00 | 0.00 | 0.00 | 0 | 0.00 | 0.00 | 0.00 | 0 | 0.00 |

**Notes:**
- **TOTALS** represents the total value of all reported amounts for the week.
- **U.S. COMPANIES** indicates the total number of U.S. companies involved.
- **ALLOCATED DATES** shows the number of allocated dates for the week.
- **WEEKLY TOTalling** is the total for each column.
- **TRADED** is the number of traded securities.
- **COUPON** represents the coupon rate for the week.
- **COSTS** indicate the total costs for the week.