**Supplementary Information 2: potential scale of a wildlife imagery royalty**

Using one of the world’s largest and most reputable company search engines (Hoovers), we found 23897 companies which use large felids in their names. We found another 355 on the Securities and Exchange Commission website, 17 on the Forbes 2000 list of largest companies and 214 companies using an ad hoc search of the fashion, food and beverage, automotive and sports industries (Table 1, Supplementary Information 2). Across all four search mechanisms, the most commonly used species was the lion (32-86% of results) followed by the tiger. Of the 17 corporations from the Forbes 2000 list which had a big cat on their emblem (defined as a distinctive badge of an organization), 14 recorded a profit in the 2014 fiscal year.

If we consider a scenario where these 14 profit-making companies were charged a wildlife imagery royalty based upon 0.1-1% of their sales, they would collectively generate between US$385 million - US$3.85 billion in donations per year (Table 2, Supplementary Information 2). These royalty margins err on the conservative side of several philanthropic initiatives. For example, the 1% for the planet initiative donates 1% of all sales (1% for the planet 2014), Wells Fargo & Company donates on average between 1.2 – 1.5% annually, while Goldman Sachs donated 3% of sales in 2015 (Preston 2016). The median philanthropic contribution of Fortune 500 companies is 1% of pre-tax profits (Preston 2016). These philanthropic contributions contrast strongly with royalty payment margins, and are generally negotiated 1) based on the profitability of patented technologies incorporated into products and 2) the so termed 25% Rule (Epstein 2012; Goldscheider et al. 2002).

Based upon an analysis of 3887 companies across 14 industries, Kemmerer and Lu (2008) showed that royalty payments generally fall between 25% of gross margins and operating margins, and suggest that a company’s EBITDA (earnings before interest, taxes, depreciation, and amoritization) is a reasonable framework for applying the 25% rule. Even if we consider the very conservative margins of the 14 companies on our list (as defined by 0.1-1% of profits), then this figure would still amount to $202 million - US2.02 billion. Similarly, the application of these donation figures to the sales and profits of the specific products of Tiger Beer (Heineken Group), Kellogg’s Frosties (Kellogg’s), vehicles (Jaguar and Peugeot) and ticket sales to sporting games (Chelsea Football Club and Carolina Panthers American football team) could leverage between $US14-181 million annually (Table 3, Supplementary Information 2).

To place these figures in context, $ 2.02 billion could make up the shortfall for conserving and stabilizing Africa’s largest and most critical protected areas which feature African lion populations, for two years (Lindsey et al., 2018) and would have a plethora of other broader benefits for other species living in lion range (Lindsey et al. 2018). Similarly, from the estimated 5.1 million hectoliters of Tiger Beer (a Singaporean brand famous across Asia) produced annually by the Heineken Group, 1% of sales (assuming 80% of this figure is sold) sold at $1.3 per 330 ml can (pre-markup price), would equal $ 16.07 million annually. This figure represents 46% of the current tiger conservation shortfall as calculated by Walston et al. (2010).

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**Table 1.** The number of companies found through our respective search mechanisms for each of the seven large felid species in our assessment.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| **Search Mechanism** | **Species** | **Source** | **Criteria** | **Number of Companies** |
| Hoovers | Tiger | [www.hoovers.com](http://www.hoovers.com/) | Company name | 5945 |
| Lion | 9685 |
| Mountain lion\* | 5622 |
| Jaguar | 1624 |
| Leopard | 642 |
| Cheetah | 355 |
| Snow leopard |  |  | 24 |
|  |  |  | **Total:** | **23897** |
| SEC | Tiger | [www.sec.gov](http://www.sec.gov/) | Company name | 89 |
| Lion | 176 |
| Mountain lion\* | 58 |
| Jaguar | 15 |
| Leopard | 6 |
| Cheetah | 11 |
| Snow leopard |  |  | 0 |
|  |  |  | **Total:** | **355** |
| Forbes 2000 | Tiger | [www.forbes.com/global2000/](http://www.forbes.com/global2000/) | Mascot | 0 |
| Lion | 14 |
| Mountain lion | 0 |
| Jaguar | 0 |
| Leopard | 0 |
| Cheetah | 0 |
| Snow leopard |  |  | 0 |
|  |  |  | **Total:** | **14** |
| Ad-Hoc | Tiger | [www.google.com](http://www.google.com/) | Mascot, product, name | 56 |
| Lion | 68 |
| Mountain lion\* | 17 |
| Jaguar | 13 |
| Leopard | 57 |
| Cheetah | 2 |
| Snow leopard |  |  | 1 |
|  |  |  | **Total:** | **214** |
|  |  | \*We used panther, cougar, mountain lion and puma in our search term for this species. |  |  |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |
| **Company name** | **Country** | **Forbes ranking** | **Industry** | **Emblem** | **Sales** | **Profits** | **1% of sales** | **1% of profits** | **0.5% of profits** | **0.1% of profits** |
| Royal Bank of Canada | Canada | 53 | Financial management | Lion | 38.9 billion | 8.3 billion | 389000000.00 | 830000000 | 415000000 | 83000000 |
| ING Group | Netherlands | 92 | Financial management | Lion | 65.7 billion | 2.6 billion | 657000000.00 | 260000000 | 130000000 | 26000000 |
| Generali Group | Italy | 129 | Insurance | Lion | 111.7 billion | 2.2 billion | 1117000000.00 | 220000000 | 110000000 | 22000000 |
| Baidu | China | 546 | Web services | Cat footprint | 7.9 billion | 2.1 billion | 79000000.00 | 210000000 | 105000000 | 21000000 |
| Publicis Groupe | France | 617 | Advertising and Public Relations | Lion | 9.6 billion | 955 million | 96000000.00 | 95500000 | 47750000 | 9550000 |
| Peugeot | France | 635 | Automotive | Lion | 71.1 billion | -936 million | 711000000.00 | NA | NA | NA |
| UPM - Kymmene | Finland | 792 | Wood production | Lion | 13.1 billion | 679 million | 131000000.00 | 67900000 | 33950000 | 6790000 |
| Schroders | UK | 934 | Asset management | Lion on coat of arms | 3.2 billion | 680 million | 32000000.00 | 68000000 | 34000000 | 6800000 |
| St James's Place Wealth Management | UK | 1014 | Financial management | Lion | 7.5 billion | 310 million | 75000000.00 | 31000000 | 15500000 | 3100000 |
| Delhaize Group | Belgium | 1027 | Food retail | Lion | 28.7 billion | 118 million | 287000000.00 | 11800000 | 5900000 | 1180000 |
| MGM Resorts | US | 1029 | Hospitality and entertainment | Lion | 10.1 billion | -149 million | 101000000.00 | NA | NA | NA |
| London Stock Exchange | UK | 1031 | Financial management | Lion on coat of arms | 2.1 billion | 270 million | 21000000.00 | 27000000 | 13500000 | 2700000 |
| Yamato Holdings | Japan | 1176 | Transportation | Black mother cat carrying kitten | 13.2 billion | 384 million | 132000000.00 | 38400000 | 19200000 | 3840000 |
| Annaly Capital Management, Inc. | US | 1235 | Financial management | Lion on coat of arms | -115 million | -842 million | NA | NA | NA | NA |
| Bank of the Philippine Islands | Philippines | 1243 | Financial management | Lion on coat of arms | 1.5 billion | 406 million | 15000000.00 | 40600000 | 20300000 | 4060000 |
| Chimera Investments | US | 1533 | Financial management | Lion | 697 million | 589 million | 6970000.00 | 58900000 | 29450000 | 5890000 |
| RMB Holdings | South Africa | 1671 | Financial management | Lion | 2 million | 620 million | 20000.00 | 62000000 | 31000000 | 6200000 |
|  |  |  |  |  |  | **Total contribution scenarios** | **3.85 billion** | **2.02 billion** | **1.01 billion** | **202 million** |
|  |  |  |  |  |  |  |  |  |  |  |

**Table 2.** The 17 companies found from Forbes’ 2000 Largest Companies List for the 2015 year. The Forbes ranking of the world’s largest and most powerful public companies is measured by a composite score made up of a particular company’s revenue, profit, assets and market value. These four metrics are considered equally. Companies with NA suffered profit losses in the 2014 financial year. All figures are presented in USD$.

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Company** | **Product** | **Mascot** | **Product price** | **Units sold** | **Total sales** | **Company profit margin** | **1% sales** | **0.5% sales** | **0.01% sales** | **1% profit** | **0.5% profit** | **0.01% profit** |
| Kellogg's | Frosted Flakes | Tiger | 3.108254803 | 88802120 | 276019616 | 0.09 | 2760196.16 | 1380098.1 | 276019.616 | 248417.65 | 124208.83 | 24841.77 |
| Heineken (Asia Pacific Breweries) | Tiger beer | Tiger | 1.3 | 1236363636 | 1607272727 | 0.09 | 16072727.27 | 8036363.6 | 1607272.73 | 1446545.46 | 723272.73 | 144654.55 |
| Jaguar | Motor vehicles | Jaguar | 71948.3076 | 87174 | 9784353956 | 0.12 | 97843539.56 | 48921770 | 9784353.96 | 11741224.75 | 5870612.37 | 1174122.48 |
| Peugeot | Motor vehicles | Lion | 41300.0237 | 153790 | 6351530645 | 0.02 | 63515306.45 | 31757653 | 6351530.64 | 1270306.13 | 635153.06 | 127030.61 |
| Chelsea Football Club | Football tickets | Lion | 26-120 (tickets), 137-311 (suites) | 90531 | 104811343.7 | 0.06 | 1048113.437 | 524056.72 | 104811.344 | 60304.21 | 30152.11 | 6030.42 |
| Carolina Panthers (NFL) | Football tickets | Panther | 78.82 | 72355 | 5703021.1 | 0.24 | 57030.211 | 28515.106 | 5703.0211 | 13687.25 | 6843.63 | 1368.73 |
|  |  |  |  |  |  | **Total contribution scenarios** | **181.29 million** | **90.65 million** | **18.13 million** | **14.78 million** | **7.39 million** | **1.48 million** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |

**Table 3.** Sales and profit margins of specific products sold by Kellogg’s, Heineken Group, Jaguar, Peugeot, Chelsea Football Club and Carolina Panthers. We applied company profit margins to specific product profit margins and assumed them to be equal. All figures are presented in USD$.