

## **Tabel Durbin-Watson (DW), $\alpha = 5\%$**

Direproduksi oleh:

Junaidi (<http://junaidichaniago.wordpress.com>)

dari sumber: <http://www.stanford.edu>

### **Catatan-Catatan Reproduksi dan Cara Membaca Tabel:**

1. Tabel DW ini direproduksi dengan merubah format tabel mengikuti format tabel DW yang umumnya dilampirkan pada buku-buku teks statistik/ekonometrik di Indonesia, agar lebih mudah dibaca dan diperbandingkan
2. Simbol 'k' pada tabel menunjukkan banyaknya variabel bebas (penjelas), tidak termasuk variabel terikat.
3. Simbol 'n' pada tabel menunjukkan banyaknya observasi



Tabel Durbin-Watson (DW),  $\alpha = 5\%$

| n  | k=1    |        | k=2    |        | k=3    |        | k=4    |        | k=5    |        |
|----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|    | dL     | dU     | dL     | dU     | dL     | dU     | dL     | dU     | dL     | dU     |
| 6  | 0.6102 | 1.4002 |        |        |        |        |        |        |        |        |
| 7  | 0.6996 | 1.3564 | 0.4672 | 1.8964 |        |        |        |        |        |        |
| 8  | 0.7629 | 1.3324 | 0.5591 | 1.7771 | 0.3674 | 2.2866 |        |        |        |        |
| 9  | 0.8243 | 1.3199 | 0.6291 | 1.6993 | 0.4548 | 2.1282 | 0.2957 | 2.5881 |        |        |
| 10 | 0.8791 | 1.3197 | 0.6972 | 1.6413 | 0.5253 | 2.0163 | 0.3760 | 2.4137 | 0.2427 | 2.8217 |
| 11 | 0.9273 | 1.3241 | 0.7580 | 1.6044 | 0.5948 | 1.9280 | 0.4441 | 2.2833 | 0.3155 | 2.6446 |
| 12 | 0.9708 | 1.3314 | 0.8122 | 1.5794 | 0.6577 | 1.8640 | 0.5120 | 2.1766 | 0.3796 | 2.5061 |
| 13 | 1.0097 | 1.3404 | 0.8612 | 1.5621 | 0.7147 | 1.8159 | 0.5745 | 2.0943 | 0.4445 | 2.3897 |
| 14 | 1.0450 | 1.3503 | 0.9054 | 1.5507 | 0.7667 | 1.7788 | 0.6321 | 2.0296 | 0.5052 | 2.2959 |
| 15 | 1.0770 | 1.3605 | 0.9455 | 1.5432 | 0.8140 | 1.7501 | 0.6852 | 1.9774 | 0.5620 | 2.2198 |
| 16 | 1.1062 | 1.3709 | 0.9820 | 1.5386 | 0.8572 | 1.7277 | 0.7340 | 1.9351 | 0.6150 | 2.1567 |
| 17 | 1.1330 | 1.3812 | 1.0154 | 1.5361 | 0.8968 | 1.7101 | 0.7790 | 1.9005 | 0.6641 | 2.1041 |
| 18 | 1.1576 | 1.3913 | 1.0461 | 1.5353 | 0.9331 | 1.6961 | 0.8204 | 1.8719 | 0.7098 | 2.0600 |
| 19 | 1.1804 | 1.4012 | 1.0743 | 1.5355 | 0.9666 | 1.6851 | 0.8588 | 1.8482 | 0.7523 | 2.0226 |
| 20 | 1.2015 | 1.4107 | 1.1004 | 1.5367 | 0.9976 | 1.6763 | 0.8943 | 1.8283 | 0.7918 | 1.9908 |
| 21 | 1.2212 | 1.4200 | 1.1246 | 1.5385 | 1.0262 | 1.6694 | 0.9272 | 1.8116 | 0.8286 | 1.9635 |
| 22 | 1.2395 | 1.4289 | 1.1471 | 1.5408 | 1.0529 | 1.6640 | 0.9578 | 1.7974 | 0.8629 | 1.9400 |
| 23 | 1.2567 | 1.4375 | 1.1682 | 1.5435 | 1.0778 | 1.6597 | 0.9864 | 1.7855 | 0.8949 | 1.9196 |
| 24 | 1.2728 | 1.4458 | 1.1878 | 1.5464 | 1.1010 | 1.6565 | 1.0131 | 1.7753 | 0.9249 | 1.9018 |
| 25 | 1.2879 | 1.4537 | 1.2063 | 1.5495 | 1.1228 | 1.6540 | 1.0381 | 1.7666 | 0.9530 | 1.8863 |
| 26 | 1.3022 | 1.4614 | 1.2236 | 1.5528 | 1.1432 | 1.6523 | 1.0616 | 1.7591 | 0.9794 | 1.8727 |
| 27 | 1.3157 | 1.4688 | 1.2399 | 1.5562 | 1.1624 | 1.6510 | 1.0836 | 1.7527 | 1.0042 | 1.8608 |
| 28 | 1.3284 | 1.4759 | 1.2553 | 1.5596 | 1.1805 | 1.6503 | 1.1044 | 1.7473 | 1.0276 | 1.8502 |
| 29 | 1.3405 | 1.4828 | 1.2699 | 1.5631 | 1.1976 | 1.6499 | 1.1241 | 1.7426 | 1.0497 | 1.8409 |
| 30 | 1.3520 | 1.4894 | 1.2837 | 1.5666 | 1.2138 | 1.6498 | 1.1426 | 1.7386 | 1.0706 | 1.8326 |
| 31 | 1.3630 | 1.4957 | 1.2969 | 1.5701 | 1.2292 | 1.6500 | 1.1602 | 1.7352 | 1.0904 | 1.8252 |
| 32 | 1.3734 | 1.5019 | 1.3093 | 1.5736 | 1.2437 | 1.6505 | 1.1769 | 1.7323 | 1.1092 | 1.8187 |
| 33 | 1.3834 | 1.5078 | 1.3212 | 1.5770 | 1.2576 | 1.6511 | 1.1927 | 1.7298 | 1.1270 | 1.8128 |
| 34 | 1.3929 | 1.5136 | 1.3325 | 1.5805 | 1.2707 | 1.6519 | 1.2078 | 1.7277 | 1.1439 | 1.8076 |
| 35 | 1.4019 | 1.5191 | 1.3433 | 1.5838 | 1.2833 | 1.6528 | 1.2221 | 1.7259 | 1.1601 | 1.8029 |
| 36 | 1.4107 | 1.5245 | 1.3537 | 1.5872 | 1.2953 | 1.6539 | 1.2358 | 1.7245 | 1.1755 | 1.7987 |
| 37 | 1.4190 | 1.5297 | 1.3635 | 1.5904 | 1.3068 | 1.6550 | 1.2489 | 1.7233 | 1.1901 | 1.7950 |
| 38 | 1.4270 | 1.5348 | 1.3730 | 1.5937 | 1.3177 | 1.6563 | 1.2614 | 1.7223 | 1.2042 | 1.7916 |
| 39 | 1.4347 | 1.5396 | 1.3821 | 1.5969 | 1.3283 | 1.6575 | 1.2734 | 1.7215 | 1.2176 | 1.7886 |
| 40 | 1.4421 | 1.5444 | 1.3908 | 1.6000 | 1.3384 | 1.6589 | 1.2848 | 1.7209 | 1.2305 | 1.7859 |
| 41 | 1.4493 | 1.5490 | 1.3992 | 1.6031 | 1.3480 | 1.6603 | 1.2958 | 1.7205 | 1.2428 | 1.7835 |
| 42 | 1.4562 | 1.5534 | 1.4073 | 1.6061 | 1.3573 | 1.6617 | 1.3064 | 1.7202 | 1.2546 | 1.7814 |
| 43 | 1.4628 | 1.5577 | 1.4151 | 1.6091 | 1.3663 | 1.6632 | 1.3166 | 1.7200 | 1.2660 | 1.7794 |
| 44 | 1.4692 | 1.5619 | 1.4226 | 1.6120 | 1.3749 | 1.6647 | 1.3263 | 1.7200 | 1.2769 | 1.7777 |
| 45 | 1.4754 | 1.5660 | 1.4298 | 1.6148 | 1.3832 | 1.6662 | 1.3357 | 1.7200 | 1.2874 | 1.7762 |
| 46 | 1.4814 | 1.5700 | 1.4368 | 1.6176 | 1.3912 | 1.6677 | 1.3448 | 1.7201 | 1.2976 | 1.7748 |
| 47 | 1.4872 | 1.5739 | 1.4435 | 1.6204 | 1.3989 | 1.6692 | 1.3535 | 1.7203 | 1.3073 | 1.7736 |
| 48 | 1.4928 | 1.5776 | 1.4500 | 1.6231 | 1.4064 | 1.6708 | 1.3619 | 1.7206 | 1.3167 | 1.7725 |
| 49 | 1.4982 | 1.5813 | 1.4564 | 1.6257 | 1.4136 | 1.6723 | 1.3701 | 1.7210 | 1.3258 | 1.7716 |
| 50 | 1.5035 | 1.5849 | 1.4625 | 1.6283 | 1.4206 | 1.6739 | 1.3779 | 1.7214 | 1.3346 | 1.7708 |
| 51 | 1.5086 | 1.5884 | 1.4684 | 1.6309 | 1.4273 | 1.6754 | 1.3855 | 1.7218 | 1.3431 | 1.7701 |
| 52 | 1.5135 | 1.5917 | 1.4741 | 1.6334 | 1.4339 | 1.6769 | 1.3929 | 1.7223 | 1.3512 | 1.7694 |
| 53 | 1.5183 | 1.5951 | 1.4797 | 1.6359 | 1.4402 | 1.6785 | 1.4000 | 1.7228 | 1.3592 | 1.7689 |
| 54 | 1.5230 | 1.5983 | 1.4851 | 1.6383 | 1.4464 | 1.6800 | 1.4069 | 1.7234 | 1.3669 | 1.7684 |
| 55 | 1.5276 | 1.6014 | 1.4903 | 1.6406 | 1.4523 | 1.6815 | 1.4136 | 1.7240 | 1.3743 | 1.7681 |
| 56 | 1.5320 | 1.6045 | 1.4954 | 1.6430 | 1.4581 | 1.6830 | 1.4201 | 1.7246 | 1.3815 | 1.7678 |
| 57 | 1.5363 | 1.6075 | 1.5004 | 1.6452 | 1.4637 | 1.6845 | 1.4264 | 1.7253 | 1.3885 | 1.7675 |
| 58 | 1.5405 | 1.6105 | 1.5052 | 1.6475 | 1.4692 | 1.6860 | 1.4325 | 1.7259 | 1.3953 | 1.7673 |
| 59 | 1.5446 | 1.6134 | 1.5099 | 1.6497 | 1.4745 | 1.6875 | 1.4385 | 1.7266 | 1.4019 | 1.7672 |
| 60 | 1.5485 | 1.6162 | 1.5144 | 1.6518 | 1.4797 | 1.6889 | 1.4443 | 1.7274 | 1.4083 | 1.7671 |
| 61 | 1.5524 | 1.6189 | 1.5189 | 1.6540 | 1.4847 | 1.6904 | 1.4499 | 1.7281 | 1.4146 | 1.7671 |
| 62 | 1.5562 | 1.6216 | 1.5232 | 1.6561 | 1.4896 | 1.6918 | 1.4554 | 1.7288 | 1.4206 | 1.7671 |
| 63 | 1.5599 | 1.6243 | 1.5274 | 1.6581 | 1.4943 | 1.6932 | 1.4607 | 1.7296 | 1.4265 | 1.7671 |
| 64 | 1.5635 | 1.6268 | 1.5315 | 1.6601 | 1.4990 | 1.6946 | 1.4659 | 1.7303 | 1.4322 | 1.7672 |
| 65 | 1.5670 | 1.6294 | 1.5355 | 1.6621 | 1.5035 | 1.6960 | 1.4709 | 1.7311 | 1.4378 | 1.7673 |
| 66 | 1.5704 | 1.6318 | 1.5395 | 1.6640 | 1.5079 | 1.6974 | 1.4758 | 1.7319 | 1.4433 | 1.7675 |
| 67 | 1.5738 | 1.6343 | 1.5433 | 1.6660 | 1.5122 | 1.6988 | 1.4806 | 1.7327 | 1.4486 | 1.7676 |
| 68 | 1.5771 | 1.6367 | 1.5470 | 1.6678 | 1.5164 | 1.7001 | 1.4853 | 1.7335 | 1.4537 | 1.7678 |
| 69 | 1.5803 | 1.6390 | 1.5507 | 1.6697 | 1.5205 | 1.7015 | 1.4899 | 1.7343 | 1.4588 | 1.7680 |
| 70 | 1.5834 | 1.6413 | 1.5542 | 1.6715 | 1.5245 | 1.7028 | 1.4943 | 1.7351 | 1.4637 | 1.7683 |

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| n   | k=1    |        | k=2    |        | k=3    |        | k=4    |        | k=5    |        |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|     | dL     | dU     | dL     | dU     | dL     | dU     | dL     | dU     | dL     | dU     |
| 71  | 1.5865 | 1.6435 | 1.5577 | 1.6733 | 1.5284 | 1.7041 | 1.4987 | 1.7358 | 1.4685 | 1.7685 |
| 72  | 1.5895 | 1.6457 | 1.5611 | 1.6751 | 1.5323 | 1.7054 | 1.5029 | 1.7366 | 1.4732 | 1.7688 |
| 73  | 1.5924 | 1.6479 | 1.5645 | 1.6768 | 1.5360 | 1.7067 | 1.5071 | 1.7375 | 1.4778 | 1.7691 |
| 74  | 1.5953 | 1.6500 | 1.5677 | 1.6785 | 1.5397 | 1.7079 | 1.5112 | 1.7383 | 1.4822 | 1.7694 |
| 75  | 1.5981 | 1.6521 | 1.5709 | 1.6802 | 1.5432 | 1.7092 | 1.5151 | 1.7390 | 1.4866 | 1.7698 |
| 76  | 1.6009 | 1.6541 | 1.5740 | 1.6819 | 1.5467 | 1.7104 | 1.5190 | 1.7399 | 1.4909 | 1.7701 |
| 77  | 1.6036 | 1.6561 | 1.5771 | 1.6835 | 1.5502 | 1.7117 | 1.5228 | 1.7407 | 1.4950 | 1.7704 |
| 78  | 1.6063 | 1.6581 | 1.5801 | 1.6851 | 1.5535 | 1.7129 | 1.5265 | 1.7415 | 1.4991 | 1.7708 |
| 79  | 1.6089 | 1.6601 | 1.5830 | 1.6867 | 1.5568 | 1.7141 | 1.5302 | 1.7423 | 1.5031 | 1.7712 |
| 80  | 1.6114 | 1.6620 | 1.5859 | 1.6882 | 1.5600 | 1.7153 | 1.5337 | 1.7430 | 1.5070 | 1.7716 |
| 81  | 1.6139 | 1.6639 | 1.5888 | 1.6898 | 1.5632 | 1.7164 | 1.5372 | 1.7438 | 1.5109 | 1.7720 |
| 82  | 1.6164 | 1.6657 | 1.5915 | 1.6913 | 1.5663 | 1.7176 | 1.5406 | 1.7446 | 1.5146 | 1.7724 |
| 83  | 1.6188 | 1.6675 | 1.5942 | 1.6928 | 1.5693 | 1.7187 | 1.5440 | 1.7454 | 1.5183 | 1.7728 |
| 84  | 1.6212 | 1.6693 | 1.5969 | 1.6942 | 1.5723 | 1.7199 | 1.5472 | 1.7462 | 1.5219 | 1.7732 |
| 85  | 1.6235 | 1.6711 | 1.5995 | 1.6957 | 1.5752 | 1.7210 | 1.5505 | 1.7470 | 1.5254 | 1.7736 |
| 86  | 1.6258 | 1.6728 | 1.6021 | 1.6971 | 1.5780 | 1.7221 | 1.5536 | 1.7478 | 1.5289 | 1.7740 |
| 87  | 1.6280 | 1.6745 | 1.6046 | 1.6985 | 1.5808 | 1.7232 | 1.5567 | 1.7485 | 1.5322 | 1.7745 |
| 88  | 1.6302 | 1.6762 | 1.6071 | 1.6999 | 1.5836 | 1.7243 | 1.5597 | 1.7493 | 1.5356 | 1.7749 |
| 89  | 1.6324 | 1.6778 | 1.6095 | 1.7013 | 1.5863 | 1.7254 | 1.5627 | 1.7501 | 1.5388 | 1.7754 |
| 90  | 1.6345 | 1.6794 | 1.6119 | 1.7026 | 1.5889 | 1.7264 | 1.5656 | 1.7508 | 1.5420 | 1.7758 |
| 91  | 1.6366 | 1.6810 | 1.6143 | 1.7040 | 1.5915 | 1.7275 | 1.5685 | 1.7516 | 1.5452 | 1.7763 |
| 92  | 1.6387 | 1.6826 | 1.6166 | 1.7053 | 1.5941 | 1.7285 | 1.5713 | 1.7523 | 1.5482 | 1.7767 |
| 93  | 1.6407 | 1.6841 | 1.6188 | 1.7066 | 1.5966 | 1.7295 | 1.5741 | 1.7531 | 1.5513 | 1.7772 |
| 94  | 1.6427 | 1.6857 | 1.6211 | 1.7078 | 1.5991 | 1.7306 | 1.5768 | 1.7538 | 1.5542 | 1.7776 |
| 95  | 1.6447 | 1.6872 | 1.6233 | 1.7091 | 1.6015 | 1.7316 | 1.5795 | 1.7546 | 1.5572 | 1.7781 |
| 96  | 1.6466 | 1.6887 | 1.6254 | 1.7103 | 1.6039 | 1.7326 | 1.5821 | 1.7553 | 1.5600 | 1.7785 |
| 97  | 1.6485 | 1.6901 | 1.6275 | 1.7116 | 1.6063 | 1.7335 | 1.5847 | 1.7560 | 1.5628 | 1.7790 |
| 98  | 1.6504 | 1.6916 | 1.6296 | 1.7128 | 1.6086 | 1.7345 | 1.5872 | 1.7567 | 1.5656 | 1.7795 |
| 99  | 1.6522 | 1.6930 | 1.6317 | 1.7140 | 1.6108 | 1.7355 | 1.5897 | 1.7575 | 1.5683 | 1.7799 |
| 100 | 1.6540 | 1.6944 | 1.6337 | 1.7152 | 1.6131 | 1.7364 | 1.5922 | 1.7582 | 1.5710 | 1.7804 |
| 101 | 1.6558 | 1.6958 | 1.6357 | 1.7163 | 1.6153 | 1.7374 | 1.5946 | 1.7589 | 1.5736 | 1.7809 |
| 102 | 1.6576 | 1.6971 | 1.6376 | 1.7175 | 1.6174 | 1.7383 | 1.5969 | 1.7596 | 1.5762 | 1.7813 |
| 103 | 1.6593 | 1.6985 | 1.6396 | 1.7186 | 1.6196 | 1.7392 | 1.5993 | 1.7603 | 1.5788 | 1.7818 |
| 104 | 1.6610 | 1.6998 | 1.6415 | 1.7198 | 1.6217 | 1.7402 | 1.6016 | 1.7610 | 1.5813 | 1.7823 |
| 105 | 1.6627 | 1.7011 | 1.6433 | 1.7209 | 1.6237 | 1.7411 | 1.6038 | 1.7617 | 1.5837 | 1.7827 |
| 106 | 1.6644 | 1.7024 | 1.6452 | 1.7220 | 1.6258 | 1.7420 | 1.6061 | 1.7624 | 1.5861 | 1.7832 |
| 107 | 1.6660 | 1.7037 | 1.6470 | 1.7231 | 1.6277 | 1.7428 | 1.6083 | 1.7631 | 1.5885 | 1.7837 |
| 108 | 1.6676 | 1.7050 | 1.6488 | 1.7241 | 1.6297 | 1.7437 | 1.6104 | 1.7637 | 1.5909 | 1.7841 |
| 109 | 1.6692 | 1.7062 | 1.6505 | 1.7252 | 1.6317 | 1.7446 | 1.6125 | 1.7644 | 1.5932 | 1.7846 |
| 110 | 1.6708 | 1.7074 | 1.6523 | 1.7262 | 1.6336 | 1.7455 | 1.6146 | 1.7651 | 1.5955 | 1.7851 |
| 111 | 1.6723 | 1.7086 | 1.6540 | 1.7273 | 1.6355 | 1.7463 | 1.6167 | 1.7657 | 1.5977 | 1.7855 |
| 112 | 1.6738 | 1.7098 | 1.6557 | 1.7283 | 1.6373 | 1.7472 | 1.6187 | 1.7664 | 1.5999 | 1.7860 |
| 113 | 1.6753 | 1.7110 | 1.6574 | 1.7293 | 1.6391 | 1.7480 | 1.6207 | 1.7670 | 1.6021 | 1.7864 |
| 114 | 1.6768 | 1.7122 | 1.6590 | 1.7303 | 1.6410 | 1.7488 | 1.6227 | 1.7677 | 1.6042 | 1.7869 |
| 115 | 1.6783 | 1.7133 | 1.6606 | 1.7313 | 1.6427 | 1.7496 | 1.6246 | 1.7683 | 1.6063 | 1.7874 |
| 116 | 1.6797 | 1.7145 | 1.6622 | 1.7323 | 1.6445 | 1.7504 | 1.6265 | 1.7690 | 1.6084 | 1.7878 |
| 117 | 1.6812 | 1.7156 | 1.6638 | 1.7332 | 1.6462 | 1.7512 | 1.6284 | 1.7696 | 1.6105 | 1.7883 |
| 118 | 1.6826 | 1.7167 | 1.6653 | 1.7342 | 1.6479 | 1.7520 | 1.6303 | 1.7702 | 1.6125 | 1.7887 |
| 119 | 1.6839 | 1.7178 | 1.6669 | 1.7352 | 1.6496 | 1.7528 | 1.6321 | 1.7709 | 1.6145 | 1.7892 |
| 120 | 1.6853 | 1.7189 | 1.6684 | 1.7361 | 1.6513 | 1.7536 | 1.6339 | 1.7715 | 1.6164 | 1.7896 |
| 121 | 1.6867 | 1.7200 | 1.6699 | 1.7370 | 1.6529 | 1.7544 | 1.6357 | 1.7721 | 1.6184 | 1.7901 |
| 122 | 1.6880 | 1.7210 | 1.6714 | 1.7379 | 1.6545 | 1.7552 | 1.6375 | 1.7727 | 1.6203 | 1.7905 |
| 123 | 1.6893 | 1.7221 | 1.6728 | 1.7388 | 1.6561 | 1.7559 | 1.6392 | 1.7733 | 1.6222 | 1.7910 |
| 124 | 1.6906 | 1.7231 | 1.6743 | 1.7397 | 1.6577 | 1.7567 | 1.6409 | 1.7739 | 1.6240 | 1.7914 |
| 125 | 1.6919 | 1.7241 | 1.6757 | 1.7406 | 1.6592 | 1.7574 | 1.6426 | 1.7745 | 1.6258 | 1.7919 |
| 126 | 1.6932 | 1.7252 | 1.6771 | 1.7415 | 1.6608 | 1.7582 | 1.6443 | 1.7751 | 1.6276 | 1.7923 |
| 127 | 1.6944 | 1.7261 | 1.6785 | 1.7424 | 1.6623 | 1.7589 | 1.6460 | 1.7757 | 1.6294 | 1.7928 |
| 128 | 1.6957 | 1.7271 | 1.6798 | 1.7432 | 1.6638 | 1.7596 | 1.6476 | 1.7763 | 1.6312 | 1.7932 |
| 129 | 1.6969 | 1.7281 | 1.6812 | 1.7441 | 1.6653 | 1.7603 | 1.6492 | 1.7769 | 1.6329 | 1.7937 |
| 130 | 1.6981 | 1.7291 | 1.6825 | 1.7449 | 1.6667 | 1.7610 | 1.6508 | 1.7774 | 1.6346 | 1.7941 |
| 131 | 1.6993 | 1.7301 | 1.6838 | 1.7458 | 1.6682 | 1.7617 | 1.6523 | 1.7780 | 1.6363 | 1.7945 |
| 132 | 1.7005 | 1.7310 | 1.6851 | 1.7466 | 1.6696 | 1.7624 | 1.6539 | 1.7786 | 1.6380 | 1.7950 |
| 133 | 1.7017 | 1.7319 | 1.6864 | 1.7474 | 1.6710 | 1.7631 | 1.6554 | 1.7791 | 1.6397 | 1.7954 |
| 134 | 1.7028 | 1.7329 | 1.6877 | 1.7482 | 1.6724 | 1.7638 | 1.6569 | 1.7797 | 1.6413 | 1.7958 |
| 135 | 1.7040 | 1.7338 | 1.6889 | 1.7490 | 1.6738 | 1.7645 | 1.6584 | 1.7802 | 1.6429 | 1.7962 |
| 136 | 1.7051 | 1.7347 | 1.6902 | 1.7498 | 1.6751 | 1.7652 | 1.6599 | 1.7808 | 1.6445 | 1.7967 |

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| n   | k=1    |        | k=2    |        | k=3    |        | k=4    |        | k=5    |        |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|     | dL     | dU     | dL     | dU     | dL     | dU     | dL     | dU     | dL     | dU     |
| 137 | 1.7062 | 1.7356 | 1.6914 | 1.7506 | 1.6765 | 1.7659 | 1.6613 | 1.7813 | 1.6461 | 1.7971 |
| 138 | 1.7073 | 1.7365 | 1.6926 | 1.7514 | 1.6778 | 1.7665 | 1.6628 | 1.7819 | 1.6476 | 1.7975 |
| 139 | 1.7084 | 1.7374 | 1.6938 | 1.7521 | 1.6791 | 1.7672 | 1.6642 | 1.7824 | 1.6491 | 1.7979 |
| 140 | 1.7095 | 1.7382 | 1.6950 | 1.7529 | 1.6804 | 1.7678 | 1.6656 | 1.7830 | 1.6507 | 1.7984 |
| 141 | 1.7106 | 1.7391 | 1.6962 | 1.7537 | 1.6817 | 1.7685 | 1.6670 | 1.7835 | 1.6522 | 1.7988 |
| 142 | 1.7116 | 1.7400 | 1.6974 | 1.7544 | 1.6829 | 1.7691 | 1.6684 | 1.7840 | 1.6536 | 1.7992 |
| 143 | 1.7127 | 1.7408 | 1.6985 | 1.7552 | 1.6842 | 1.7697 | 1.6697 | 1.7846 | 1.6551 | 1.7996 |
| 144 | 1.7137 | 1.7417 | 1.6996 | 1.7559 | 1.6854 | 1.7704 | 1.6710 | 1.7851 | 1.6565 | 1.8000 |
| 145 | 1.7147 | 1.7425 | 1.7008 | 1.7566 | 1.6866 | 1.7710 | 1.6724 | 1.7856 | 1.6580 | 1.8004 |
| 146 | 1.7157 | 1.7433 | 1.7019 | 1.7574 | 1.6878 | 1.7716 | 1.6737 | 1.7861 | 1.6594 | 1.8008 |
| 147 | 1.7167 | 1.7441 | 1.7030 | 1.7581 | 1.6890 | 1.7722 | 1.6750 | 1.7866 | 1.6608 | 1.8012 |
| 148 | 1.7177 | 1.7449 | 1.7041 | 1.7588 | 1.6902 | 1.7729 | 1.6762 | 1.7871 | 1.6622 | 1.8016 |
| 149 | 1.7187 | 1.7457 | 1.7051 | 1.7595 | 1.6914 | 1.7735 | 1.6775 | 1.7876 | 1.6635 | 1.8020 |
| 150 | 1.7197 | 1.7465 | 1.7062 | 1.7602 | 1.6926 | 1.7741 | 1.6788 | 1.7881 | 1.6649 | 1.8024 |
| 151 | 1.7207 | 1.7473 | 1.7072 | 1.7609 | 1.6937 | 1.7747 | 1.6800 | 1.7886 | 1.6662 | 1.8028 |
| 152 | 1.7216 | 1.7481 | 1.7083 | 1.7616 | 1.6948 | 1.7752 | 1.6812 | 1.7891 | 1.6675 | 1.8032 |
| 153 | 1.7226 | 1.7488 | 1.7093 | 1.7622 | 1.6959 | 1.7758 | 1.6824 | 1.7896 | 1.6688 | 1.8036 |
| 154 | 1.7235 | 1.7496 | 1.7103 | 1.7629 | 1.6971 | 1.7764 | 1.6836 | 1.7901 | 1.6701 | 1.8040 |
| 155 | 1.7244 | 1.7504 | 1.7114 | 1.7636 | 1.6982 | 1.7770 | 1.6848 | 1.7906 | 1.6714 | 1.8044 |
| 156 | 1.7253 | 1.7511 | 1.7123 | 1.7642 | 1.6992 | 1.7776 | 1.6860 | 1.7911 | 1.6727 | 1.8048 |
| 157 | 1.7262 | 1.7519 | 1.7133 | 1.7649 | 1.7003 | 1.7781 | 1.6872 | 1.7915 | 1.6739 | 1.8052 |
| 158 | 1.7271 | 1.7526 | 1.7143 | 1.7656 | 1.7014 | 1.7787 | 1.6883 | 1.7920 | 1.6751 | 1.8055 |
| 159 | 1.7280 | 1.7533 | 1.7153 | 1.7662 | 1.7024 | 1.7792 | 1.6895 | 1.7925 | 1.6764 | 1.8059 |
| 160 | 1.7289 | 1.7541 | 1.7163 | 1.7668 | 1.7035 | 1.7798 | 1.6906 | 1.7930 | 1.6776 | 1.8063 |
| 161 | 1.7298 | 1.7548 | 1.7172 | 1.7675 | 1.7045 | 1.7804 | 1.6917 | 1.7934 | 1.6788 | 1.8067 |
| 162 | 1.7306 | 1.7555 | 1.7182 | 1.7681 | 1.7055 | 1.7809 | 1.6928 | 1.7939 | 1.6800 | 1.8070 |
| 163 | 1.7315 | 1.7562 | 1.7191 | 1.7687 | 1.7066 | 1.7814 | 1.6939 | 1.7943 | 1.6811 | 1.8074 |
| 164 | 1.7324 | 1.7569 | 1.7200 | 1.7693 | 1.7075 | 1.7820 | 1.6950 | 1.7948 | 1.6823 | 1.8078 |
| 165 | 1.7332 | 1.7576 | 1.7209 | 1.7700 | 1.7085 | 1.7825 | 1.6960 | 1.7953 | 1.6834 | 1.8082 |
| 166 | 1.7340 | 1.7582 | 1.7218 | 1.7706 | 1.7095 | 1.7831 | 1.6971 | 1.7957 | 1.6846 | 1.8085 |
| 167 | 1.7348 | 1.7589 | 1.7227 | 1.7712 | 1.7105 | 1.7836 | 1.6982 | 1.7961 | 1.6857 | 1.8089 |
| 168 | 1.7357 | 1.7596 | 1.7236 | 1.7718 | 1.7115 | 1.7841 | 1.6992 | 1.7966 | 1.6868 | 1.8092 |
| 169 | 1.7365 | 1.7603 | 1.7245 | 1.7724 | 1.7124 | 1.7846 | 1.7002 | 1.7970 | 1.6879 | 1.8096 |
| 170 | 1.7373 | 1.7609 | 1.7254 | 1.7730 | 1.7134 | 1.7851 | 1.7012 | 1.7975 | 1.6890 | 1.8100 |
| 171 | 1.7381 | 1.7616 | 1.7262 | 1.7735 | 1.7143 | 1.7856 | 1.7023 | 1.7979 | 1.6901 | 1.8103 |
| 172 | 1.7389 | 1.7622 | 1.7271 | 1.7741 | 1.7152 | 1.7861 | 1.7033 | 1.7983 | 1.6912 | 1.8107 |
| 173 | 1.7396 | 1.7629 | 1.7279 | 1.7747 | 1.7162 | 1.7866 | 1.7042 | 1.7988 | 1.6922 | 1.8110 |
| 174 | 1.7404 | 1.7635 | 1.7288 | 1.7753 | 1.7171 | 1.7872 | 1.7052 | 1.7992 | 1.6933 | 1.8114 |
| 175 | 1.7412 | 1.7642 | 1.7296 | 1.7758 | 1.7180 | 1.7877 | 1.7062 | 1.7996 | 1.6943 | 1.8117 |
| 176 | 1.7420 | 1.7648 | 1.7305 | 1.7764 | 1.7189 | 1.7881 | 1.7072 | 1.8000 | 1.6954 | 1.8121 |
| 177 | 1.7427 | 1.7654 | 1.7313 | 1.7769 | 1.7197 | 1.7886 | 1.7081 | 1.8005 | 1.6964 | 1.8124 |
| 178 | 1.7435 | 1.7660 | 1.7321 | 1.7775 | 1.7206 | 1.7891 | 1.7091 | 1.8009 | 1.6974 | 1.8128 |
| 179 | 1.7442 | 1.7667 | 1.7329 | 1.7780 | 1.7215 | 1.7896 | 1.7100 | 1.8013 | 1.6984 | 1.8131 |
| 180 | 1.7449 | 1.7673 | 1.7337 | 1.7786 | 1.7224 | 1.7901 | 1.7109 | 1.8017 | 1.6994 | 1.8135 |
| 181 | 1.7457 | 1.7679 | 1.7345 | 1.7791 | 1.7232 | 1.7906 | 1.7118 | 1.8021 | 1.7004 | 1.8138 |
| 182 | 1.7464 | 1.7685 | 1.7353 | 1.7797 | 1.7241 | 1.7910 | 1.7128 | 1.8025 | 1.7014 | 1.8141 |
| 183 | 1.7471 | 1.7691 | 1.7360 | 1.7802 | 1.7249 | 1.7915 | 1.7137 | 1.8029 | 1.7023 | 1.8145 |
| 184 | 1.7478 | 1.7697 | 1.7368 | 1.7807 | 1.7257 | 1.7920 | 1.7146 | 1.8033 | 1.7033 | 1.8148 |
| 185 | 1.7485 | 1.7702 | 1.7376 | 1.7813 | 1.7266 | 1.7924 | 1.7155 | 1.8037 | 1.7042 | 1.8151 |
| 186 | 1.7492 | 1.7708 | 1.7384 | 1.7818 | 1.7274 | 1.7929 | 1.7163 | 1.8041 | 1.7052 | 1.8155 |
| 187 | 1.7499 | 1.7714 | 1.7391 | 1.7823 | 1.7282 | 1.7933 | 1.7172 | 1.8045 | 1.7061 | 1.8158 |
| 188 | 1.7506 | 1.7720 | 1.7398 | 1.7828 | 1.7290 | 1.7938 | 1.7181 | 1.8049 | 1.7070 | 1.8161 |
| 189 | 1.7513 | 1.7725 | 1.7406 | 1.7833 | 1.7298 | 1.7942 | 1.7189 | 1.8053 | 1.7080 | 1.8165 |
| 190 | 1.7520 | 1.7731 | 1.7413 | 1.7838 | 1.7306 | 1.7947 | 1.7198 | 1.8057 | 1.7089 | 1.8168 |
| 191 | 1.7526 | 1.7737 | 1.7420 | 1.7843 | 1.7314 | 1.7951 | 1.7206 | 1.8061 | 1.7098 | 1.8171 |
| 192 | 1.7533 | 1.7742 | 1.7428 | 1.7848 | 1.7322 | 1.7956 | 1.7215 | 1.8064 | 1.7107 | 1.8174 |
| 193 | 1.7540 | 1.7748 | 1.7435 | 1.7853 | 1.7329 | 1.7960 | 1.7223 | 1.8068 | 1.7116 | 1.8178 |
| 194 | 1.7546 | 1.7753 | 1.7442 | 1.7858 | 1.7337 | 1.7965 | 1.7231 | 1.8072 | 1.7124 | 1.8181 |
| 195 | 1.7553 | 1.7759 | 1.7449 | 1.7863 | 1.7345 | 1.7969 | 1.7239 | 1.8076 | 1.7133 | 1.8184 |
| 196 | 1.7559 | 1.7764 | 1.7456 | 1.7868 | 1.7352 | 1.7973 | 1.7247 | 1.8079 | 1.7142 | 1.8187 |
| 197 | 1.7566 | 1.7769 | 1.7463 | 1.7873 | 1.7360 | 1.7977 | 1.7255 | 1.8083 | 1.7150 | 1.8190 |
| 198 | 1.7572 | 1.7775 | 1.7470 | 1.7878 | 1.7367 | 1.7982 | 1.7263 | 1.8087 | 1.7159 | 1.8193 |
| 199 | 1.7578 | 1.7780 | 1.7477 | 1.7882 | 1.7374 | 1.7986 | 1.7271 | 1.8091 | 1.7167 | 1.8196 |
| 200 | 1.7584 | 1.7785 | 1.7483 | 1.7887 | 1.7382 | 1.7990 | 1.7279 | 1.8094 | 1.7176 | 1.8199 |

Tabel Durbin-Watson (DW),  $\alpha = 5\%$

| n  | k=6    |        | k=7    |        | k=8    |        | k=9    |        | k=10   |        |
|----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|    | dL     | dU     | dL     | dU     | dL     | dU     | dL     | dU     | dL     | dU     |
| 11 | 0.2025 | 3.0045 |        |        |        |        |        |        |        |        |
| 12 | 0.2681 | 2.8320 | 0.1714 | 3.1494 |        |        |        |        |        |        |
| 13 | 0.3278 | 2.6920 | 0.2305 | 2.9851 | 0.1469 | 3.2658 |        |        |        |        |
| 14 | 0.3890 | 2.5716 | 0.2856 | 2.8477 | 0.2001 | 3.1112 | 0.1273 | 3.3604 |        |        |
| 15 | 0.4471 | 2.4715 | 0.3429 | 2.7270 | 0.2509 | 2.9787 | 0.1753 | 3.2160 | 0.1113 | 3.4382 |
| 16 | 0.5022 | 2.3881 | 0.3981 | 2.6241 | 0.3043 | 2.8601 | 0.2221 | 3.0895 | 0.1548 | 3.3039 |
| 17 | 0.5542 | 2.3176 | 0.4511 | 2.5366 | 0.3564 | 2.7569 | 0.2718 | 2.9746 | 0.1978 | 3.1840 |
| 18 | 0.6030 | 2.2575 | 0.5016 | 2.4612 | 0.4070 | 2.6675 | 0.3208 | 2.8727 | 0.2441 | 3.0735 |
| 19 | 0.6487 | 2.2061 | 0.5494 | 2.3960 | 0.4557 | 2.5894 | 0.3689 | 2.7831 | 0.2901 | 2.9740 |
| 20 | 0.6915 | 2.1619 | 0.5945 | 2.3394 | 0.5022 | 2.5208 | 0.4156 | 2.7037 | 0.3357 | 2.8854 |
| 21 | 0.7315 | 2.1236 | 0.6371 | 2.2899 | 0.5465 | 2.4605 | 0.4606 | 2.6332 | 0.3804 | 2.8059 |
| 22 | 0.7690 | 2.0902 | 0.6772 | 2.2465 | 0.5884 | 2.4072 | 0.5036 | 2.5705 | 0.4236 | 2.7345 |
| 23 | 0.8041 | 2.0609 | 0.7149 | 2.2082 | 0.6282 | 2.3599 | 0.5448 | 2.5145 | 0.4654 | 2.6704 |
| 24 | 0.8371 | 2.0352 | 0.7505 | 2.1743 | 0.6659 | 2.3177 | 0.5840 | 2.4643 | 0.5055 | 2.6126 |
| 25 | 0.8680 | 2.0125 | 0.7840 | 2.1441 | 0.7015 | 2.2801 | 0.6213 | 2.4192 | 0.5440 | 2.5604 |
| 26 | 0.8972 | 1.9924 | 0.8156 | 2.1172 | 0.7353 | 2.2463 | 0.6568 | 2.3786 | 0.5808 | 2.5132 |
| 27 | 0.9246 | 1.9745 | 0.8455 | 2.0931 | 0.7673 | 2.2159 | 0.6906 | 2.3419 | 0.6159 | 2.4703 |
| 28 | 0.9505 | 1.9585 | 0.8737 | 2.0715 | 0.7975 | 2.1884 | 0.7227 | 2.3086 | 0.6495 | 2.4312 |
| 29 | 0.9750 | 1.9442 | 0.9004 | 2.0520 | 0.8263 | 2.1636 | 0.7532 | 2.2784 | 0.6815 | 2.3956 |
| 30 | 0.9982 | 1.9313 | 0.9256 | 2.0343 | 0.8535 | 2.1410 | 0.7822 | 2.2508 | 0.7120 | 2.3631 |
| 31 | 1.0201 | 1.9198 | 0.9496 | 2.0183 | 0.8794 | 2.1205 | 0.8098 | 2.2256 | 0.7412 | 2.3332 |
| 32 | 1.0409 | 1.9093 | 0.9724 | 2.0038 | 0.9040 | 2.1017 | 0.8361 | 2.2026 | 0.7690 | 2.3058 |
| 33 | 1.0607 | 1.8999 | 0.9940 | 1.9906 | 0.9274 | 2.0846 | 0.8612 | 2.1814 | 0.7955 | 2.2806 |
| 34 | 1.0794 | 1.8913 | 1.0146 | 1.9785 | 0.9497 | 2.0688 | 0.8851 | 2.1619 | 0.8209 | 2.2574 |
| 35 | 1.0974 | 1.8835 | 1.0342 | 1.9674 | 0.9710 | 2.0544 | 0.9079 | 2.1440 | 0.8452 | 2.2359 |
| 36 | 1.1144 | 1.8764 | 1.0529 | 1.9573 | 0.9913 | 2.0410 | 0.9297 | 2.1274 | 0.8684 | 2.2159 |
| 37 | 1.1307 | 1.8700 | 1.0708 | 1.9480 | 1.0107 | 2.0288 | 0.9505 | 2.1120 | 0.8906 | 2.1975 |
| 38 | 1.1463 | 1.8641 | 1.0879 | 1.9394 | 1.0292 | 2.0174 | 0.9705 | 2.0978 | 0.9118 | 2.1803 |
| 39 | 1.1612 | 1.8587 | 1.1042 | 1.9315 | 1.0469 | 2.0069 | 0.9895 | 2.0846 | 0.9322 | 2.1644 |
| 40 | 1.1754 | 1.8538 | 1.1198 | 1.9243 | 1.0639 | 1.9972 | 1.0078 | 2.0723 | 0.9517 | 2.1495 |
| 41 | 1.1891 | 1.8493 | 1.1348 | 1.9175 | 1.0802 | 1.9881 | 1.0254 | 2.0609 | 0.9705 | 2.1356 |
| 42 | 1.2022 | 1.8451 | 1.1492 | 1.9113 | 1.0958 | 1.9797 | 1.0422 | 2.0502 | 0.9885 | 2.1226 |
| 43 | 1.2148 | 1.8413 | 1.1630 | 1.9055 | 1.1108 | 1.9719 | 1.0584 | 2.0403 | 1.0058 | 2.1105 |
| 44 | 1.2269 | 1.8378 | 1.1762 | 1.9002 | 1.1252 | 1.9646 | 1.0739 | 2.0310 | 1.0225 | 2.0991 |
| 45 | 1.2385 | 1.8346 | 1.1890 | 1.8952 | 1.1391 | 1.9578 | 1.0889 | 2.0222 | 1.0385 | 2.0884 |
| 46 | 1.2497 | 1.8317 | 1.2013 | 1.8906 | 1.1524 | 1.9514 | 1.1033 | 2.0140 | 1.0539 | 2.0783 |
| 47 | 1.2605 | 1.8290 | 1.2131 | 1.8863 | 1.1653 | 1.9455 | 1.1171 | 2.0064 | 1.0687 | 2.0689 |
| 48 | 1.2709 | 1.8265 | 1.2245 | 1.8823 | 1.1776 | 1.9399 | 1.1305 | 1.9992 | 1.0831 | 2.0600 |
| 49 | 1.2809 | 1.8242 | 1.2355 | 1.8785 | 1.1896 | 1.9346 | 1.1434 | 1.9924 | 1.0969 | 2.0516 |
| 50 | 1.2906 | 1.8220 | 1.2461 | 1.8750 | 1.2011 | 1.9297 | 1.1558 | 1.9860 | 1.1102 | 2.0437 |
| 51 | 1.3000 | 1.8201 | 1.2563 | 1.8718 | 1.2122 | 1.9251 | 1.1678 | 1.9799 | 1.1231 | 2.0362 |
| 52 | 1.3090 | 1.8183 | 1.2662 | 1.8687 | 1.2230 | 1.9208 | 1.1794 | 1.9743 | 1.1355 | 2.0291 |
| 53 | 1.3177 | 1.8166 | 1.2758 | 1.8659 | 1.2334 | 1.9167 | 1.1906 | 1.9689 | 1.1476 | 2.0224 |
| 54 | 1.3262 | 1.8151 | 1.2851 | 1.8632 | 1.2435 | 1.9128 | 1.2015 | 1.9638 | 1.1592 | 2.0161 |
| 55 | 1.3344 | 1.8137 | 1.2940 | 1.8607 | 1.2532 | 1.9092 | 1.2120 | 1.9590 | 1.1705 | 2.0101 |
| 56 | 1.3424 | 1.8124 | 1.3027 | 1.8584 | 1.2626 | 1.9058 | 1.2222 | 1.9545 | 1.1814 | 2.0044 |
| 57 | 1.3501 | 1.8112 | 1.3111 | 1.8562 | 1.2718 | 1.9026 | 1.2320 | 1.9502 | 1.1920 | 1.9990 |
| 58 | 1.3576 | 1.8101 | 1.3193 | 1.8542 | 1.2806 | 1.8995 | 1.2416 | 1.9461 | 1.2022 | 1.9938 |
| 59 | 1.3648 | 1.8091 | 1.3272 | 1.8523 | 1.2892 | 1.8967 | 1.2509 | 1.9422 | 1.2122 | 1.9889 |
| 60 | 1.3719 | 1.8082 | 1.3349 | 1.8505 | 1.2976 | 1.8939 | 1.2599 | 1.9386 | 1.2218 | 1.9843 |
| 61 | 1.3787 | 1.8073 | 1.3424 | 1.8488 | 1.3057 | 1.8914 | 1.2686 | 1.9351 | 1.2312 | 1.9798 |
| 62 | 1.3854 | 1.8066 | 1.3497 | 1.8472 | 1.3136 | 1.8889 | 1.2771 | 1.9318 | 1.2403 | 1.9756 |
| 63 | 1.3918 | 1.8058 | 1.3567 | 1.8457 | 1.3212 | 1.8866 | 1.2853 | 1.9286 | 1.2492 | 1.9716 |
| 64 | 1.3981 | 1.8052 | 1.3636 | 1.8443 | 1.3287 | 1.8844 | 1.2934 | 1.9256 | 1.2578 | 1.9678 |
| 65 | 1.4043 | 1.8046 | 1.3703 | 1.8430 | 1.3359 | 1.8824 | 1.3012 | 1.9228 | 1.2661 | 1.9641 |
| 66 | 1.4102 | 1.8041 | 1.3768 | 1.8418 | 1.3429 | 1.8804 | 1.3087 | 1.9200 | 1.2742 | 1.9606 |
| 67 | 1.4160 | 1.8036 | 1.3831 | 1.8406 | 1.3498 | 1.8786 | 1.3161 | 1.9174 | 1.2822 | 1.9572 |
| 68 | 1.4217 | 1.8032 | 1.3893 | 1.8395 | 1.3565 | 1.8768 | 1.3233 | 1.9150 | 1.2899 | 1.9540 |
| 69 | 1.4272 | 1.8028 | 1.3953 | 1.8385 | 1.3630 | 1.8751 | 1.3303 | 1.9126 | 1.2974 | 1.9510 |
| 70 | 1.4326 | 1.8025 | 1.4012 | 1.8375 | 1.3693 | 1.8735 | 1.3372 | 1.9104 | 1.3047 | 1.9481 |
| 71 | 1.4379 | 1.8021 | 1.4069 | 1.8366 | 1.3755 | 1.8720 | 1.3438 | 1.9082 | 1.3118 | 1.9452 |
| 72 | 1.4430 | 1.8019 | 1.4125 | 1.8358 | 1.3815 | 1.8706 | 1.3503 | 1.9062 | 1.3188 | 1.9426 |
| 73 | 1.4480 | 1.8016 | 1.4179 | 1.8350 | 1.3874 | 1.8692 | 1.3566 | 1.9042 | 1.3256 | 1.9400 |
| 74 | 1.4529 | 1.8014 | 1.4232 | 1.8343 | 1.3932 | 1.8679 | 1.3628 | 1.9024 | 1.3322 | 1.9375 |
| 75 | 1.4577 | 1.8013 | 1.4284 | 1.8336 | 1.3988 | 1.8667 | 1.3688 | 1.9006 | 1.3386 | 1.9352 |

Tabel Durbin-Watson (DW),  $\alpha = 5\%$

| n   | k=6    |        | k=7    |        | k=8    |        | k=9    |        | k=10   |        |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|     | dL     | dU     | dL     | dU     | dL     | dU     | dL     | dU     | dL     | dU     |
| 76  | 1.4623 | 1.8011 | 1.4335 | 1.8330 | 1.4043 | 1.8655 | 1.3747 | 1.8989 | 1.3449 | 1.9329 |
| 77  | 1.4669 | 1.8010 | 1.4384 | 1.8324 | 1.4096 | 1.8644 | 1.3805 | 1.8972 | 1.3511 | 1.9307 |
| 78  | 1.4714 | 1.8009 | 1.4433 | 1.8318 | 1.4148 | 1.8634 | 1.3861 | 1.8957 | 1.3571 | 1.9286 |
| 79  | 1.4757 | 1.8009 | 1.4480 | 1.8313 | 1.4199 | 1.8624 | 1.3916 | 1.8942 | 1.3630 | 1.9266 |
| 80  | 1.4800 | 1.8008 | 1.4526 | 1.8308 | 1.4250 | 1.8614 | 1.3970 | 1.8927 | 1.3687 | 1.9247 |
| 81  | 1.4842 | 1.8008 | 1.4572 | 1.8303 | 1.4298 | 1.8605 | 1.4022 | 1.8914 | 1.3743 | 1.9228 |
| 82  | 1.4883 | 1.8008 | 1.4616 | 1.8299 | 1.4346 | 1.8596 | 1.4074 | 1.8900 | 1.3798 | 1.9211 |
| 83  | 1.4923 | 1.8008 | 1.4659 | 1.8295 | 1.4393 | 1.8588 | 1.4124 | 1.8888 | 1.3852 | 1.9193 |
| 84  | 1.4962 | 1.8008 | 1.4702 | 1.8291 | 1.4439 | 1.8580 | 1.4173 | 1.8876 | 1.3905 | 1.9177 |
| 85  | 1.5000 | 1.8009 | 1.4743 | 1.8288 | 1.4484 | 1.8573 | 1.4221 | 1.8864 | 1.3956 | 1.9161 |
| 86  | 1.5038 | 1.8010 | 1.4784 | 1.8285 | 1.4528 | 1.8566 | 1.4268 | 1.8853 | 1.4007 | 1.9146 |
| 87  | 1.5075 | 1.8010 | 1.4824 | 1.8282 | 1.4571 | 1.8559 | 1.4315 | 1.8842 | 1.4056 | 1.9131 |
| 88  | 1.5111 | 1.8011 | 1.4863 | 1.8279 | 1.4613 | 1.8553 | 1.4360 | 1.8832 | 1.4104 | 1.9117 |
| 89  | 1.5147 | 1.8012 | 1.4902 | 1.8277 | 1.4654 | 1.8547 | 1.4404 | 1.8822 | 1.4152 | 1.9103 |
| 90  | 1.5181 | 1.8014 | 1.4939 | 1.8275 | 1.4695 | 1.8541 | 1.4448 | 1.8813 | 1.4198 | 1.9090 |
| 91  | 1.5215 | 1.8015 | 1.4976 | 1.8273 | 1.4735 | 1.8536 | 1.4490 | 1.8804 | 1.4244 | 1.9077 |
| 92  | 1.5249 | 1.8016 | 1.5013 | 1.8271 | 1.4774 | 1.8530 | 1.4532 | 1.8795 | 1.4288 | 1.9065 |
| 93  | 1.5282 | 1.8018 | 1.5048 | 1.8269 | 1.4812 | 1.8526 | 1.4573 | 1.8787 | 1.4332 | 1.9053 |
| 94  | 1.5314 | 1.8019 | 1.5083 | 1.8268 | 1.4849 | 1.8521 | 1.4613 | 1.8779 | 1.4375 | 1.9042 |
| 95  | 1.5346 | 1.8021 | 1.5117 | 1.8266 | 1.4886 | 1.8516 | 1.4653 | 1.8772 | 1.4417 | 1.9031 |
| 96  | 1.5377 | 1.8023 | 1.5151 | 1.8265 | 1.4922 | 1.8512 | 1.4691 | 1.8764 | 1.4458 | 1.9021 |
| 97  | 1.5407 | 1.8025 | 1.5184 | 1.8264 | 1.4958 | 1.8508 | 1.4729 | 1.8757 | 1.4499 | 1.9011 |
| 98  | 1.5437 | 1.8027 | 1.5216 | 1.8263 | 1.4993 | 1.8505 | 1.4767 | 1.8750 | 1.4539 | 1.9001 |
| 99  | 1.5467 | 1.8029 | 1.5248 | 1.8263 | 1.5027 | 1.8501 | 1.4803 | 1.8744 | 1.4578 | 1.8991 |
| 100 | 1.5496 | 1.8031 | 1.5279 | 1.8262 | 1.5060 | 1.8498 | 1.4839 | 1.8738 | 1.4616 | 1.8982 |
| 101 | 1.5524 | 1.8033 | 1.5310 | 1.8261 | 1.5093 | 1.8495 | 1.4875 | 1.8732 | 1.4654 | 1.8973 |
| 102 | 1.5552 | 1.8035 | 1.5340 | 1.8261 | 1.5126 | 1.8491 | 1.4909 | 1.8726 | 1.4691 | 1.8965 |
| 103 | 1.5580 | 1.8037 | 1.5370 | 1.8261 | 1.5158 | 1.8489 | 1.4944 | 1.8721 | 1.4727 | 1.8956 |
| 104 | 1.5607 | 1.8040 | 1.5399 | 1.8261 | 1.5189 | 1.8486 | 1.4977 | 1.8715 | 1.4763 | 1.8948 |
| 105 | 1.5634 | 1.8042 | 1.5428 | 1.8261 | 1.5220 | 1.8483 | 1.5010 | 1.8710 | 1.4798 | 1.8941 |
| 106 | 1.5660 | 1.8044 | 1.5456 | 1.8261 | 1.5250 | 1.8481 | 1.5043 | 1.8705 | 1.4833 | 1.8933 |
| 107 | 1.5686 | 1.8047 | 1.5484 | 1.8261 | 1.5280 | 1.8479 | 1.5074 | 1.8701 | 1.4867 | 1.8926 |
| 108 | 1.5711 | 1.8049 | 1.5511 | 1.8261 | 1.5310 | 1.8477 | 1.5106 | 1.8696 | 1.4900 | 1.8919 |
| 109 | 1.5736 | 1.8052 | 1.5538 | 1.8261 | 1.5338 | 1.8475 | 1.5137 | 1.8692 | 1.4933 | 1.8913 |
| 110 | 1.5761 | 1.8054 | 1.5565 | 1.8262 | 1.5367 | 1.8473 | 1.5167 | 1.8688 | 1.4965 | 1.8906 |
| 111 | 1.5785 | 1.8057 | 1.5591 | 1.8262 | 1.5395 | 1.8471 | 1.5197 | 1.8684 | 1.4997 | 1.8900 |
| 112 | 1.5809 | 1.8060 | 1.5616 | 1.8263 | 1.5422 | 1.8470 | 1.5226 | 1.8680 | 1.5028 | 1.8894 |
| 113 | 1.5832 | 1.8062 | 1.5642 | 1.8264 | 1.5449 | 1.8468 | 1.5255 | 1.8676 | 1.5059 | 1.8888 |
| 114 | 1.5855 | 1.8065 | 1.5667 | 1.8264 | 1.5476 | 1.8467 | 1.5284 | 1.8673 | 1.5089 | 1.8882 |
| 115 | 1.5878 | 1.8068 | 1.5691 | 1.8265 | 1.5502 | 1.8466 | 1.5312 | 1.8670 | 1.5119 | 1.8877 |
| 116 | 1.5901 | 1.8070 | 1.5715 | 1.8266 | 1.5528 | 1.8465 | 1.5339 | 1.8667 | 1.5148 | 1.8872 |
| 117 | 1.5923 | 1.8073 | 1.5739 | 1.8267 | 1.5554 | 1.8463 | 1.5366 | 1.8663 | 1.5177 | 1.8867 |
| 118 | 1.5945 | 1.8076 | 1.5763 | 1.8268 | 1.5579 | 1.8463 | 1.5393 | 1.8661 | 1.5206 | 1.8862 |
| 119 | 1.5966 | 1.8079 | 1.5786 | 1.8269 | 1.5603 | 1.8462 | 1.5420 | 1.8658 | 1.5234 | 1.8857 |
| 120 | 1.5987 | 1.8082 | 1.5808 | 1.8270 | 1.5628 | 1.8461 | 1.5445 | 1.8655 | 1.5262 | 1.8852 |
| 121 | 1.6008 | 1.8084 | 1.5831 | 1.8271 | 1.5652 | 1.8460 | 1.5471 | 1.8653 | 1.5289 | 1.8848 |
| 122 | 1.6029 | 1.8087 | 1.5853 | 1.8272 | 1.5675 | 1.8459 | 1.5496 | 1.8650 | 1.5316 | 1.8844 |
| 123 | 1.6049 | 1.8090 | 1.5875 | 1.8273 | 1.5699 | 1.8459 | 1.5521 | 1.8648 | 1.5342 | 1.8839 |
| 124 | 1.6069 | 1.8093 | 1.5896 | 1.8274 | 1.5722 | 1.8458 | 1.5546 | 1.8646 | 1.5368 | 1.8835 |
| 125 | 1.6089 | 1.8096 | 1.5917 | 1.8276 | 1.5744 | 1.8458 | 1.5570 | 1.8644 | 1.5394 | 1.8832 |
| 126 | 1.6108 | 1.8099 | 1.5938 | 1.8277 | 1.5767 | 1.8458 | 1.5594 | 1.8641 | 1.5419 | 1.8828 |
| 127 | 1.6127 | 1.8102 | 1.5959 | 1.8278 | 1.5789 | 1.8458 | 1.5617 | 1.8639 | 1.5444 | 1.8824 |
| 128 | 1.6146 | 1.8105 | 1.5979 | 1.8280 | 1.5811 | 1.8457 | 1.5640 | 1.8638 | 1.5468 | 1.8821 |
| 129 | 1.6165 | 1.8107 | 1.5999 | 1.8281 | 1.5832 | 1.8457 | 1.5663 | 1.8636 | 1.5493 | 1.8817 |
| 130 | 1.6184 | 1.8110 | 1.6019 | 1.8282 | 1.5853 | 1.8457 | 1.5686 | 1.8634 | 1.5517 | 1.8814 |
| 131 | 1.6202 | 1.8113 | 1.6039 | 1.8284 | 1.5874 | 1.8457 | 1.5708 | 1.8633 | 1.5540 | 1.8811 |
| 132 | 1.6220 | 1.8116 | 1.6058 | 1.8285 | 1.5895 | 1.8457 | 1.5730 | 1.8631 | 1.5564 | 1.8808 |
| 133 | 1.6238 | 1.8119 | 1.6077 | 1.8287 | 1.5915 | 1.8457 | 1.5751 | 1.8630 | 1.5586 | 1.8805 |
| 134 | 1.6255 | 1.8122 | 1.6096 | 1.8288 | 1.5935 | 1.8457 | 1.5773 | 1.8629 | 1.5609 | 1.8802 |
| 135 | 1.6272 | 1.8125 | 1.6114 | 1.8290 | 1.5955 | 1.8457 | 1.5794 | 1.8627 | 1.5632 | 1.8799 |
| 136 | 1.6289 | 1.8128 | 1.6133 | 1.8292 | 1.5974 | 1.8458 | 1.5815 | 1.8626 | 1.5654 | 1.8797 |
| 137 | 1.6306 | 1.8131 | 1.6151 | 1.8293 | 1.5994 | 1.8458 | 1.5835 | 1.8625 | 1.5675 | 1.8794 |
| 138 | 1.6323 | 1.8134 | 1.6169 | 1.8295 | 1.6013 | 1.8458 | 1.5855 | 1.8624 | 1.5697 | 1.8792 |
| 139 | 1.6340 | 1.8137 | 1.6186 | 1.8297 | 1.6031 | 1.8459 | 1.5875 | 1.8623 | 1.5718 | 1.8789 |
| 140 | 1.6356 | 1.8140 | 1.6204 | 1.8298 | 1.6050 | 1.8459 | 1.5895 | 1.8622 | 1.5739 | 1.8787 |
| 141 | 1.6372 | 1.8143 | 1.6221 | 1.8300 | 1.6068 | 1.8459 | 1.5915 | 1.8621 | 1.5760 | 1.8785 |



Tabel Durbin-Watson (DW),  $\alpha = 5\%$

| n   | k=6    |        | k=7    |        | k=8    |        | k=9    |        | k=10   |        |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|     | dL     | dU     | dL     | dU     | dL     | dU     | dL     | dU     | dL     | dU     |
| 142 | 1.6388 | 1.8146 | 1.6238 | 1.8302 | 1.6087 | 1.8460 | 1.5934 | 1.8620 | 1.5780 | 1.8783 |
| 143 | 1.6403 | 1.8149 | 1.6255 | 1.8303 | 1.6104 | 1.8460 | 1.5953 | 1.8619 | 1.5800 | 1.8781 |
| 144 | 1.6419 | 1.8151 | 1.6271 | 1.8305 | 1.6122 | 1.8461 | 1.5972 | 1.8619 | 1.5820 | 1.8779 |
| 145 | 1.6434 | 1.8154 | 1.6288 | 1.8307 | 1.6140 | 1.8462 | 1.5990 | 1.8618 | 1.5840 | 1.8777 |
| 146 | 1.6449 | 1.8157 | 1.6304 | 1.8309 | 1.6157 | 1.8462 | 1.6009 | 1.8618 | 1.5859 | 1.8775 |
| 147 | 1.6464 | 1.8160 | 1.6320 | 1.8310 | 1.6174 | 1.8463 | 1.6027 | 1.8617 | 1.5878 | 1.8773 |
| 148 | 1.6479 | 1.8163 | 1.6336 | 1.8312 | 1.6191 | 1.8463 | 1.6045 | 1.8617 | 1.5897 | 1.8772 |
| 149 | 1.6494 | 1.8166 | 1.6351 | 1.8314 | 1.6207 | 1.8464 | 1.6062 | 1.8616 | 1.5916 | 1.8770 |
| 150 | 1.6508 | 1.8169 | 1.6367 | 1.8316 | 1.6224 | 1.8465 | 1.6080 | 1.8616 | 1.5935 | 1.8768 |
| 151 | 1.6523 | 1.8172 | 1.6382 | 1.8318 | 1.6240 | 1.8466 | 1.6097 | 1.8615 | 1.5953 | 1.8767 |
| 152 | 1.6537 | 1.8175 | 1.6397 | 1.8320 | 1.6256 | 1.8466 | 1.6114 | 1.8615 | 1.5971 | 1.8765 |
| 153 | 1.6551 | 1.8178 | 1.6412 | 1.8322 | 1.6272 | 1.8467 | 1.6131 | 1.8615 | 1.5989 | 1.8764 |
| 154 | 1.6565 | 1.8181 | 1.6427 | 1.8323 | 1.6288 | 1.8468 | 1.6148 | 1.8614 | 1.6007 | 1.8763 |
| 155 | 1.6578 | 1.8184 | 1.6441 | 1.8325 | 1.6303 | 1.8469 | 1.6164 | 1.8614 | 1.6024 | 1.8761 |
| 156 | 1.6592 | 1.8186 | 1.6456 | 1.8327 | 1.6319 | 1.8470 | 1.6181 | 1.8614 | 1.6041 | 1.8760 |
| 157 | 1.6605 | 1.8189 | 1.6470 | 1.8329 | 1.6334 | 1.8471 | 1.6197 | 1.8614 | 1.6058 | 1.8759 |
| 158 | 1.6618 | 1.8192 | 1.6484 | 1.8331 | 1.6349 | 1.8472 | 1.6213 | 1.8614 | 1.6075 | 1.8758 |
| 159 | 1.6631 | 1.8195 | 1.6498 | 1.8333 | 1.6364 | 1.8472 | 1.6229 | 1.8614 | 1.6092 | 1.8757 |
| 160 | 1.6644 | 1.8198 | 1.6512 | 1.8335 | 1.6379 | 1.8473 | 1.6244 | 1.8614 | 1.6108 | 1.8756 |
| 161 | 1.6657 | 1.8201 | 1.6526 | 1.8337 | 1.6393 | 1.8474 | 1.6260 | 1.8614 | 1.6125 | 1.8755 |
| 162 | 1.6670 | 1.8204 | 1.6539 | 1.8339 | 1.6408 | 1.8475 | 1.6275 | 1.8614 | 1.6141 | 1.8754 |
| 163 | 1.6683 | 1.8207 | 1.6553 | 1.8341 | 1.6422 | 1.8476 | 1.6290 | 1.8614 | 1.6157 | 1.8753 |
| 164 | 1.6695 | 1.8209 | 1.6566 | 1.8343 | 1.6436 | 1.8478 | 1.6305 | 1.8614 | 1.6173 | 1.8752 |
| 165 | 1.6707 | 1.8212 | 1.6579 | 1.8345 | 1.6450 | 1.8479 | 1.6320 | 1.8614 | 1.6188 | 1.8751 |
| 166 | 1.6720 | 1.8215 | 1.6592 | 1.8346 | 1.6464 | 1.8480 | 1.6334 | 1.8614 | 1.6204 | 1.8751 |
| 167 | 1.6732 | 1.8218 | 1.6605 | 1.8348 | 1.6477 | 1.8481 | 1.6349 | 1.8615 | 1.6219 | 1.8750 |
| 168 | 1.6743 | 1.8221 | 1.6618 | 1.8350 | 1.6491 | 1.8482 | 1.6363 | 1.8615 | 1.6234 | 1.8749 |
| 169 | 1.6755 | 1.8223 | 1.6630 | 1.8352 | 1.6504 | 1.8483 | 1.6377 | 1.8615 | 1.6249 | 1.8748 |
| 170 | 1.6767 | 1.8226 | 1.6643 | 1.8354 | 1.6517 | 1.8484 | 1.6391 | 1.8615 | 1.6264 | 1.8748 |
| 171 | 1.6779 | 1.8229 | 1.6655 | 1.8356 | 1.6531 | 1.8485 | 1.6405 | 1.8615 | 1.6279 | 1.8747 |
| 172 | 1.6790 | 1.8232 | 1.6667 | 1.8358 | 1.6544 | 1.8486 | 1.6419 | 1.8616 | 1.6293 | 1.8747 |
| 173 | 1.6801 | 1.8235 | 1.6679 | 1.8360 | 1.6556 | 1.8487 | 1.6433 | 1.8616 | 1.6308 | 1.8746 |
| 174 | 1.6813 | 1.8237 | 1.6691 | 1.8362 | 1.6569 | 1.8489 | 1.6446 | 1.8617 | 1.6322 | 1.8746 |
| 175 | 1.6824 | 1.8240 | 1.6703 | 1.8364 | 1.6582 | 1.8490 | 1.6459 | 1.8617 | 1.6336 | 1.8745 |
| 176 | 1.6835 | 1.8243 | 1.6715 | 1.8366 | 1.6594 | 1.8491 | 1.6472 | 1.8617 | 1.6350 | 1.8745 |
| 177 | 1.6846 | 1.8246 | 1.6727 | 1.8368 | 1.6606 | 1.8492 | 1.6486 | 1.8618 | 1.6364 | 1.8744 |
| 178 | 1.6857 | 1.8248 | 1.6738 | 1.8370 | 1.6619 | 1.8493 | 1.6499 | 1.8618 | 1.6377 | 1.8744 |
| 179 | 1.6867 | 1.8251 | 1.6750 | 1.8372 | 1.6631 | 1.8495 | 1.6511 | 1.8618 | 1.6391 | 1.8744 |
| 180 | 1.6878 | 1.8254 | 1.6761 | 1.8374 | 1.6643 | 1.8496 | 1.6524 | 1.8619 | 1.6404 | 1.8744 |
| 181 | 1.6888 | 1.8256 | 1.6772 | 1.8376 | 1.6655 | 1.8497 | 1.6537 | 1.8619 | 1.6418 | 1.8743 |
| 182 | 1.6899 | 1.8259 | 1.6783 | 1.8378 | 1.6667 | 1.8498 | 1.6549 | 1.8620 | 1.6431 | 1.8743 |
| 183 | 1.6909 | 1.8262 | 1.6794 | 1.8380 | 1.6678 | 1.8500 | 1.6561 | 1.8621 | 1.6444 | 1.8743 |
| 184 | 1.6919 | 1.8264 | 1.6805 | 1.8382 | 1.6690 | 1.8501 | 1.6574 | 1.8621 | 1.6457 | 1.8743 |
| 185 | 1.6930 | 1.8267 | 1.6816 | 1.8384 | 1.6701 | 1.8502 | 1.6586 | 1.8622 | 1.6469 | 1.8742 |
| 186 | 1.6940 | 1.8270 | 1.6826 | 1.8386 | 1.6712 | 1.8503 | 1.6598 | 1.8622 | 1.6482 | 1.8742 |
| 187 | 1.6950 | 1.8272 | 1.6837 | 1.8388 | 1.6724 | 1.8505 | 1.6610 | 1.8623 | 1.6495 | 1.8742 |
| 188 | 1.6959 | 1.8275 | 1.6848 | 1.8390 | 1.6735 | 1.8506 | 1.6621 | 1.8623 | 1.6507 | 1.8742 |
| 189 | 1.6969 | 1.8278 | 1.6858 | 1.8392 | 1.6746 | 1.8507 | 1.6633 | 1.8624 | 1.6519 | 1.8742 |
| 190 | 1.6979 | 1.8280 | 1.6868 | 1.8394 | 1.6757 | 1.8509 | 1.6644 | 1.8625 | 1.6531 | 1.8742 |
| 191 | 1.6988 | 1.8283 | 1.6878 | 1.8396 | 1.6768 | 1.8510 | 1.6656 | 1.8625 | 1.6543 | 1.8742 |
| 192 | 1.6998 | 1.8285 | 1.6889 | 1.8398 | 1.6778 | 1.8511 | 1.6667 | 1.8626 | 1.6555 | 1.8742 |
| 193 | 1.7007 | 1.8288 | 1.6899 | 1.8400 | 1.6789 | 1.8513 | 1.6678 | 1.8627 | 1.6567 | 1.8742 |
| 194 | 1.7017 | 1.8291 | 1.6909 | 1.8402 | 1.6799 | 1.8514 | 1.6690 | 1.8627 | 1.6579 | 1.8742 |
| 195 | 1.7026 | 1.8293 | 1.6918 | 1.8404 | 1.6810 | 1.8515 | 1.6701 | 1.8628 | 1.6591 | 1.8742 |
| 196 | 1.7035 | 1.8296 | 1.6928 | 1.8406 | 1.6820 | 1.8516 | 1.6712 | 1.8629 | 1.6602 | 1.8742 |
| 197 | 1.7044 | 1.8298 | 1.6938 | 1.8407 | 1.6831 | 1.8518 | 1.6722 | 1.8629 | 1.6614 | 1.8742 |
| 198 | 1.7053 | 1.8301 | 1.6947 | 1.8409 | 1.6841 | 1.8519 | 1.6733 | 1.8630 | 1.6625 | 1.8742 |
| 199 | 1.7062 | 1.8303 | 1.6957 | 1.8411 | 1.6851 | 1.8521 | 1.6744 | 1.8631 | 1.6636 | 1.8742 |
| 200 | 1.7071 | 1.8306 | 1.6966 | 1.8413 | 1.6861 | 1.8522 | 1.6754 | 1.8632 | 1.6647 | 1.8742 |



Tabel Durbin-Watson (DW),  $\alpha = 5\%$

| n  | k=11   |        | k=12   |        | k=13   |        | k=14   |        | k=15   |        |
|----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|    | dL     | dU     | dL     | dU     | dL     | dU     | dL     | dU     | dL     | dU     |
| 16 | 0.0981 | 3.5029 |        |        |        |        |        |        |        |        |
| 17 | 0.1376 | 3.3782 | 0.0871 | 3.5572 |        |        |        |        |        |        |
| 18 | 0.1773 | 3.2650 | 0.1232 | 3.4414 | 0.0779 | 3.6032 |        |        |        |        |
| 19 | 0.2203 | 3.1593 | 0.1598 | 3.3348 | 0.1108 | 3.4957 | 0.0700 | 3.6424 |        |        |
| 20 | 0.2635 | 3.0629 | 0.1998 | 3.2342 | 0.1447 | 3.3954 | 0.1002 | 3.5425 | 0.0633 | 3.6762 |
| 21 | 0.3067 | 2.9760 | 0.2403 | 3.1413 | 0.1820 | 3.2998 | 0.1317 | 3.4483 | 0.0911 | 3.5832 |
| 22 | 0.3493 | 2.8973 | 0.2812 | 3.0566 | 0.2200 | 3.2106 | 0.1664 | 3.3576 | 0.1203 | 3.4946 |
| 23 | 0.3908 | 2.8259 | 0.3217 | 2.9792 | 0.2587 | 3.1285 | 0.2022 | 3.2722 | 0.1527 | 3.4087 |
| 24 | 0.4312 | 2.7611 | 0.3616 | 2.9084 | 0.2972 | 3.0528 | 0.2387 | 3.1929 | 0.1864 | 3.3270 |
| 25 | 0.4702 | 2.7023 | 0.4005 | 2.8436 | 0.3354 | 2.9830 | 0.2754 | 3.1191 | 0.2209 | 3.2506 |
| 26 | 0.5078 | 2.6488 | 0.4383 | 2.7844 | 0.3728 | 2.9187 | 0.3118 | 3.0507 | 0.2558 | 3.1790 |
| 27 | 0.5439 | 2.6000 | 0.4748 | 2.7301 | 0.4093 | 2.8595 | 0.3478 | 2.9872 | 0.2906 | 3.1122 |
| 28 | 0.5785 | 2.5554 | 0.5101 | 2.6803 | 0.4449 | 2.8049 | 0.3831 | 2.9284 | 0.3252 | 3.0498 |
| 29 | 0.6117 | 2.5146 | 0.5441 | 2.6345 | 0.4793 | 2.7545 | 0.4175 | 2.8738 | 0.3592 | 2.9916 |
| 30 | 0.6435 | 2.4771 | 0.5769 | 2.5923 | 0.5126 | 2.7079 | 0.4511 | 2.8232 | 0.3926 | 2.9374 |
| 31 | 0.6739 | 2.4427 | 0.6083 | 2.5535 | 0.5447 | 2.6648 | 0.4836 | 2.7762 | 0.4251 | 2.8868 |
| 32 | 0.7030 | 2.4110 | 0.6385 | 2.5176 | 0.5757 | 2.6249 | 0.5151 | 2.7325 | 0.4569 | 2.8396 |
| 33 | 0.7309 | 2.3818 | 0.6675 | 2.4844 | 0.6056 | 2.5879 | 0.5456 | 2.6918 | 0.4877 | 2.7956 |
| 34 | 0.7576 | 2.3547 | 0.6953 | 2.4536 | 0.6343 | 2.5535 | 0.5750 | 2.6539 | 0.5176 | 2.7544 |
| 35 | 0.7831 | 2.3297 | 0.7220 | 2.4250 | 0.6620 | 2.5215 | 0.6035 | 2.6186 | 0.5466 | 2.7159 |
| 36 | 0.8076 | 2.3064 | 0.7476 | 2.3984 | 0.6886 | 2.4916 | 0.6309 | 2.5856 | 0.5746 | 2.6799 |
| 37 | 0.8311 | 2.2848 | 0.7722 | 2.3737 | 0.7142 | 2.4638 | 0.6573 | 2.5547 | 0.6018 | 2.6461 |
| 38 | 0.8536 | 2.2647 | 0.7958 | 2.3506 | 0.7389 | 2.4378 | 0.6828 | 2.5258 | 0.6280 | 2.6144 |
| 39 | 0.8751 | 2.2459 | 0.8185 | 2.3290 | 0.7626 | 2.4134 | 0.7074 | 2.4987 | 0.6533 | 2.5847 |
| 40 | 0.8959 | 2.2284 | 0.8404 | 2.3089 | 0.7854 | 2.3906 | 0.7312 | 2.4733 | 0.6778 | 2.5567 |
| 41 | 0.9158 | 2.2120 | 0.8613 | 2.2900 | 0.8074 | 2.3692 | 0.7540 | 2.4494 | 0.7015 | 2.5304 |
| 42 | 0.9349 | 2.1967 | 0.8815 | 2.2723 | 0.8285 | 2.3491 | 0.7761 | 2.4269 | 0.7243 | 2.5056 |
| 43 | 0.9533 | 2.1823 | 0.9009 | 2.2556 | 0.8489 | 2.3302 | 0.7973 | 2.4058 | 0.7464 | 2.4822 |
| 44 | 0.9710 | 2.1688 | 0.9196 | 2.2400 | 0.8686 | 2.3124 | 0.8179 | 2.3858 | 0.7677 | 2.4601 |
| 45 | 0.9880 | 2.1561 | 0.9377 | 2.2252 | 0.8875 | 2.2956 | 0.8377 | 2.3670 | 0.7883 | 2.4392 |
| 46 | 1.0044 | 2.1442 | 0.9550 | 2.2113 | 0.9058 | 2.2797 | 0.8568 | 2.3492 | 0.8083 | 2.4195 |
| 47 | 1.0203 | 2.1329 | 0.9718 | 2.1982 | 0.9234 | 2.2648 | 0.8753 | 2.3324 | 0.8275 | 2.4008 |
| 48 | 1.0355 | 2.1223 | 0.9879 | 2.1859 | 0.9405 | 2.2506 | 0.8931 | 2.3164 | 0.8461 | 2.3831 |
| 49 | 1.0502 | 2.1122 | 1.0035 | 2.1742 | 0.9569 | 2.2372 | 0.9104 | 2.3013 | 0.8642 | 2.3663 |
| 50 | 1.0645 | 2.1028 | 1.0186 | 2.1631 | 0.9728 | 2.2245 | 0.9271 | 2.2870 | 0.8816 | 2.3503 |
| 51 | 1.0782 | 2.0938 | 1.0332 | 2.1526 | 0.9882 | 2.2125 | 0.9432 | 2.2734 | 0.8985 | 2.3352 |
| 52 | 1.0915 | 2.0853 | 1.0473 | 2.1426 | 1.0030 | 2.2011 | 0.9589 | 2.2605 | 0.9148 | 2.3207 |
| 53 | 1.1043 | 2.0772 | 1.0609 | 2.1332 | 1.0174 | 2.1902 | 0.9740 | 2.2482 | 0.9307 | 2.3070 |
| 54 | 1.1167 | 2.0696 | 1.0741 | 2.1242 | 1.0314 | 2.1799 | 0.9886 | 2.2365 | 0.9460 | 2.2939 |
| 55 | 1.1288 | 2.0623 | 1.0869 | 2.1157 | 1.0449 | 2.1700 | 1.0028 | 2.2253 | 0.9609 | 2.2815 |
| 56 | 1.1404 | 2.0554 | 1.0992 | 2.1076 | 1.0579 | 2.1607 | 1.0166 | 2.2147 | 0.9753 | 2.2696 |
| 57 | 1.1517 | 2.0489 | 1.1112 | 2.0998 | 1.0706 | 2.1518 | 1.0299 | 2.2046 | 0.9893 | 2.2582 |
| 58 | 1.1626 | 2.0426 | 1.1228 | 2.0925 | 1.0829 | 2.1432 | 1.0429 | 2.1949 | 1.0029 | 2.2474 |
| 59 | 1.1733 | 2.0367 | 1.1341 | 2.0854 | 1.0948 | 2.1351 | 1.0555 | 2.1856 | 1.0161 | 2.2370 |
| 60 | 1.1835 | 2.0310 | 1.1451 | 2.0787 | 1.1064 | 2.1273 | 1.0676 | 2.1768 | 1.0289 | 2.2271 |
| 61 | 1.1936 | 2.0256 | 1.1557 | 2.0723 | 1.1176 | 2.1199 | 1.0795 | 2.1684 | 1.0413 | 2.2176 |
| 62 | 1.2033 | 2.0204 | 1.1660 | 2.0662 | 1.1286 | 2.1128 | 1.0910 | 2.1603 | 1.0534 | 2.2084 |
| 63 | 1.2127 | 2.0155 | 1.1760 | 2.0604 | 1.1392 | 2.1060 | 1.1022 | 2.1525 | 1.0651 | 2.1997 |
| 64 | 1.2219 | 2.0108 | 1.1858 | 2.0548 | 1.1495 | 2.0995 | 1.1131 | 2.1451 | 1.0766 | 2.1913 |
| 65 | 1.2308 | 2.0063 | 1.1953 | 2.0494 | 1.1595 | 2.0933 | 1.1236 | 2.1380 | 1.0877 | 2.1833 |
| 66 | 1.2395 | 2.0020 | 1.2045 | 2.0443 | 1.1693 | 2.0873 | 1.1339 | 2.1311 | 1.0985 | 2.1756 |
| 67 | 1.2479 | 1.9979 | 1.2135 | 2.0393 | 1.1788 | 2.0816 | 1.1440 | 2.1245 | 1.1090 | 2.1682 |
| 68 | 1.2561 | 1.9939 | 1.2222 | 2.0346 | 1.1880 | 2.0761 | 1.1537 | 2.1182 | 1.1193 | 2.1611 |
| 69 | 1.2642 | 1.9901 | 1.2307 | 2.0301 | 1.1970 | 2.0708 | 1.1632 | 2.1122 | 1.1293 | 2.1542 |
| 70 | 1.2720 | 1.9865 | 1.2390 | 2.0257 | 1.2058 | 2.0657 | 1.1725 | 2.1063 | 1.1390 | 2.1476 |
| 71 | 1.2796 | 1.9830 | 1.2471 | 2.0216 | 1.2144 | 2.0608 | 1.1815 | 2.1007 | 1.1485 | 2.1413 |
| 72 | 1.2870 | 1.9797 | 1.2550 | 2.0176 | 1.2227 | 2.0561 | 1.1903 | 2.0953 | 1.1578 | 2.1352 |
| 73 | 1.2942 | 1.9765 | 1.2626 | 2.0137 | 1.2308 | 2.0516 | 1.1989 | 2.0901 | 1.1668 | 2.1293 |
| 74 | 1.3013 | 1.9734 | 1.2701 | 2.0100 | 1.2388 | 2.0472 | 1.2073 | 2.0851 | 1.1756 | 2.1236 |
| 75 | 1.3082 | 1.9705 | 1.2774 | 2.0064 | 1.2465 | 2.0430 | 1.2154 | 2.0803 | 1.1842 | 2.1181 |
| 76 | 1.3149 | 1.9676 | 1.2846 | 2.0030 | 1.2541 | 2.0390 | 1.2234 | 2.0756 | 1.1926 | 2.1128 |
| 77 | 1.3214 | 1.9649 | 1.2916 | 1.9997 | 1.2615 | 2.0351 | 1.2312 | 2.0711 | 1.2008 | 2.1077 |
| 78 | 1.3279 | 1.9622 | 1.2984 | 1.9965 | 1.2687 | 2.0314 | 1.2388 | 2.0668 | 1.2088 | 2.1028 |
| 79 | 1.3341 | 1.9597 | 1.3050 | 1.9934 | 1.2757 | 2.0277 | 1.2462 | 2.0626 | 1.2166 | 2.0980 |
| 80 | 1.3402 | 1.9573 | 1.3115 | 1.9905 | 1.2826 | 2.0242 | 1.2535 | 2.0586 | 1.2242 | 2.0934 |
| 81 | 1.3462 | 1.9549 | 1.3179 | 1.9876 | 1.2893 | 2.0209 | 1.2606 | 2.0547 | 1.2317 | 2.0890 |

Tabel Durbin-Watson (DW),  $\alpha = 5\%$

| n   | k=11   |        | k=12   |        | k=13   |        | k=14   |        | k=15   |        |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|     | dL     | dU     | dL     | dU     | dL     | dU     | dL     | dU     | dL     | dU     |
| 82  | 1.3521 | 1.9527 | 1.3241 | 1.9849 | 1.2959 | 2.0176 | 1.2675 | 2.0509 | 1.2390 | 2.0847 |
| 83  | 1.3578 | 1.9505 | 1.3302 | 1.9822 | 1.3023 | 2.0144 | 1.2743 | 2.0472 | 1.2461 | 2.0805 |
| 84  | 1.3634 | 1.9484 | 1.3361 | 1.9796 | 1.3086 | 2.0114 | 1.2809 | 2.0437 | 1.2531 | 2.0765 |
| 85  | 1.3689 | 1.9464 | 1.3419 | 1.9771 | 1.3148 | 2.0085 | 1.2874 | 2.0403 | 1.2599 | 2.0726 |
| 86  | 1.3743 | 1.9444 | 1.3476 | 1.9747 | 1.3208 | 2.0056 | 1.2938 | 2.0370 | 1.2666 | 2.0688 |
| 87  | 1.3795 | 1.9425 | 1.3532 | 1.9724 | 1.3267 | 2.0029 | 1.3000 | 2.0338 | 1.2732 | 2.0652 |
| 88  | 1.3847 | 1.9407 | 1.3587 | 1.9702 | 1.3325 | 2.0002 | 1.3061 | 2.0307 | 1.2796 | 2.0616 |
| 89  | 1.3897 | 1.9389 | 1.3640 | 1.9680 | 1.3381 | 1.9976 | 1.3121 | 2.0277 | 1.2859 | 2.0582 |
| 90  | 1.3946 | 1.9372 | 1.3693 | 1.9659 | 1.3437 | 1.9951 | 1.3179 | 2.0247 | 1.2920 | 2.0548 |
| 91  | 1.3995 | 1.9356 | 1.3744 | 1.9639 | 1.3491 | 1.9927 | 1.3237 | 2.0219 | 1.2980 | 2.0516 |
| 92  | 1.4042 | 1.9340 | 1.3794 | 1.9619 | 1.3544 | 1.9903 | 1.3293 | 2.0192 | 1.3039 | 2.0485 |
| 93  | 1.4089 | 1.9325 | 1.3844 | 1.9600 | 1.3597 | 1.9881 | 1.3348 | 2.0165 | 1.3097 | 2.0454 |
| 94  | 1.4135 | 1.9310 | 1.3892 | 1.9582 | 1.3648 | 1.9859 | 1.3402 | 2.0139 | 1.3154 | 2.0424 |
| 95  | 1.4179 | 1.9295 | 1.3940 | 1.9564 | 1.3698 | 1.9837 | 1.3455 | 2.0114 | 1.3210 | 2.0396 |
| 96  | 1.4223 | 1.9282 | 1.3986 | 1.9547 | 1.3747 | 1.9816 | 1.3507 | 2.0090 | 1.3264 | 2.0368 |
| 97  | 1.4266 | 1.9268 | 1.4032 | 1.9530 | 1.3796 | 1.9796 | 1.3557 | 2.0067 | 1.3318 | 2.0341 |
| 98  | 1.4309 | 1.9255 | 1.4077 | 1.9514 | 1.3843 | 1.9777 | 1.3607 | 2.0044 | 1.3370 | 2.0314 |
| 99  | 1.4350 | 1.9243 | 1.4121 | 1.9498 | 1.3889 | 1.9758 | 1.3656 | 2.0021 | 1.3422 | 2.0289 |
| 100 | 1.4391 | 1.9231 | 1.4164 | 1.9483 | 1.3935 | 1.9739 | 1.3705 | 2.0000 | 1.3472 | 2.0264 |
| 101 | 1.4431 | 1.9219 | 1.4206 | 1.9468 | 1.3980 | 1.9722 | 1.3752 | 1.9979 | 1.3522 | 2.0239 |
| 102 | 1.4470 | 1.9207 | 1.4248 | 1.9454 | 1.4024 | 1.9704 | 1.3798 | 1.9958 | 1.3571 | 2.0216 |
| 103 | 1.4509 | 1.9196 | 1.4289 | 1.9440 | 1.4067 | 1.9687 | 1.3844 | 1.9938 | 1.3619 | 2.0193 |
| 104 | 1.4547 | 1.9186 | 1.4329 | 1.9426 | 1.4110 | 1.9671 | 1.3889 | 1.9919 | 1.3666 | 2.0171 |
| 105 | 1.4584 | 1.9175 | 1.4369 | 1.9413 | 1.4151 | 1.9655 | 1.3933 | 1.9900 | 1.3712 | 2.0149 |
| 106 | 1.4621 | 1.9165 | 1.4408 | 1.9401 | 1.4192 | 1.9640 | 1.3976 | 1.9882 | 1.3758 | 2.0128 |
| 107 | 1.4657 | 1.9155 | 1.4446 | 1.9388 | 1.4233 | 1.9624 | 1.4018 | 1.9864 | 1.3802 | 2.0107 |
| 108 | 1.4693 | 1.9146 | 1.4483 | 1.9376 | 1.4272 | 1.9610 | 1.4060 | 1.9847 | 1.3846 | 2.0087 |
| 109 | 1.4727 | 1.9137 | 1.4520 | 1.9364 | 1.4311 | 1.9595 | 1.4101 | 1.9830 | 1.3889 | 2.0067 |
| 110 | 1.4762 | 1.9128 | 1.4556 | 1.9353 | 1.4350 | 1.9582 | 1.4141 | 1.9813 | 1.3932 | 2.0048 |
| 111 | 1.4795 | 1.9119 | 1.4592 | 1.9342 | 1.4387 | 1.9568 | 1.4181 | 1.9797 | 1.3973 | 2.0030 |
| 112 | 1.4829 | 1.9111 | 1.4627 | 1.9331 | 1.4424 | 1.9555 | 1.4220 | 1.9782 | 1.4014 | 2.0011 |
| 113 | 1.4861 | 1.9103 | 1.4662 | 1.9321 | 1.4461 | 1.9542 | 1.4258 | 1.9766 | 1.4055 | 1.9994 |
| 114 | 1.4893 | 1.9095 | 1.4696 | 1.9311 | 1.4497 | 1.9530 | 1.4296 | 1.9752 | 1.4094 | 1.9977 |
| 115 | 1.4925 | 1.9087 | 1.4729 | 1.9301 | 1.4532 | 1.9518 | 1.4333 | 1.9737 | 1.4133 | 1.9960 |
| 116 | 1.4956 | 1.9080 | 1.4762 | 1.9291 | 1.4567 | 1.9506 | 1.4370 | 1.9723 | 1.4172 | 1.9943 |
| 117 | 1.4987 | 1.9073 | 1.4795 | 1.9282 | 1.4601 | 1.9494 | 1.4406 | 1.9709 | 1.4209 | 1.9927 |
| 118 | 1.5017 | 1.9066 | 1.4827 | 1.9273 | 1.4635 | 1.9483 | 1.4441 | 1.9696 | 1.4247 | 1.9912 |
| 119 | 1.5047 | 1.9059 | 1.4858 | 1.9264 | 1.4668 | 1.9472 | 1.4476 | 1.9683 | 1.4283 | 1.9896 |
| 120 | 1.5076 | 1.9053 | 1.4889 | 1.9256 | 1.4700 | 1.9461 | 1.4511 | 1.9670 | 1.4319 | 1.9881 |
| 121 | 1.5105 | 1.9046 | 1.4919 | 1.9247 | 1.4733 | 1.9451 | 1.4544 | 1.9658 | 1.4355 | 1.9867 |
| 122 | 1.5133 | 1.9040 | 1.4950 | 1.9239 | 1.4764 | 1.9441 | 1.4578 | 1.9646 | 1.4390 | 1.9853 |
| 123 | 1.5161 | 1.9034 | 1.4979 | 1.9231 | 1.4795 | 1.9431 | 1.4611 | 1.9634 | 1.4424 | 1.9839 |
| 124 | 1.5189 | 1.9028 | 1.5008 | 1.9223 | 1.4826 | 1.9422 | 1.4643 | 1.9622 | 1.4458 | 1.9825 |
| 125 | 1.5216 | 1.9023 | 1.5037 | 1.9216 | 1.4857 | 1.9412 | 1.4675 | 1.9611 | 1.4492 | 1.9812 |
| 126 | 1.5243 | 1.9017 | 1.5065 | 1.9209 | 1.4886 | 1.9403 | 1.4706 | 1.9600 | 1.4525 | 1.9799 |
| 127 | 1.5269 | 1.9012 | 1.5093 | 1.9202 | 1.4916 | 1.9394 | 1.4737 | 1.9589 | 1.4557 | 1.9786 |
| 128 | 1.5295 | 1.9006 | 1.5121 | 1.9195 | 1.4945 | 1.9385 | 1.4768 | 1.9578 | 1.4589 | 1.9774 |
| 129 | 1.5321 | 1.9001 | 1.5148 | 1.9188 | 1.4973 | 1.9377 | 1.4798 | 1.9568 | 1.4621 | 1.9762 |
| 130 | 1.5346 | 1.8997 | 1.5175 | 1.9181 | 1.5002 | 1.9369 | 1.4827 | 1.9558 | 1.4652 | 1.9750 |
| 131 | 1.5371 | 1.8992 | 1.5201 | 1.9175 | 1.5029 | 1.9360 | 1.4856 | 1.9548 | 1.4682 | 1.9738 |
| 132 | 1.5396 | 1.8987 | 1.5227 | 1.9169 | 1.5057 | 1.9353 | 1.4885 | 1.9539 | 1.4713 | 1.9727 |
| 133 | 1.5420 | 1.8983 | 1.5253 | 1.9163 | 1.5084 | 1.9345 | 1.4914 | 1.9529 | 1.4742 | 1.9716 |
| 134 | 1.5444 | 1.8978 | 1.5278 | 1.9157 | 1.5110 | 1.9337 | 1.4942 | 1.9520 | 1.4772 | 1.9705 |
| 135 | 1.5468 | 1.8974 | 1.5303 | 1.9151 | 1.5137 | 1.9330 | 1.4969 | 1.9511 | 1.4801 | 1.9695 |
| 136 | 1.5491 | 1.8970 | 1.5328 | 1.9145 | 1.5163 | 1.9323 | 1.4997 | 1.9502 | 1.4829 | 1.9684 |
| 137 | 1.5514 | 1.8966 | 1.5352 | 1.9140 | 1.5188 | 1.9316 | 1.5024 | 1.9494 | 1.4858 | 1.9674 |
| 138 | 1.5537 | 1.8962 | 1.5376 | 1.9134 | 1.5213 | 1.9309 | 1.5050 | 1.9486 | 1.4885 | 1.9664 |
| 139 | 1.5559 | 1.8958 | 1.5400 | 1.9129 | 1.5238 | 1.9302 | 1.5076 | 1.9477 | 1.4913 | 1.9655 |
| 140 | 1.5582 | 1.8955 | 1.5423 | 1.9124 | 1.5263 | 1.9296 | 1.5102 | 1.9469 | 1.4940 | 1.9645 |
| 141 | 1.5603 | 1.8951 | 1.5446 | 1.9119 | 1.5287 | 1.9289 | 1.5128 | 1.9461 | 1.4967 | 1.9636 |
| 142 | 1.5625 | 1.8947 | 1.5469 | 1.9114 | 1.5311 | 1.9283 | 1.5153 | 1.9454 | 1.4993 | 1.9627 |
| 143 | 1.5646 | 1.8944 | 1.5491 | 1.9110 | 1.5335 | 1.9277 | 1.5178 | 1.9446 | 1.5019 | 1.9618 |
| 144 | 1.5667 | 1.8941 | 1.5513 | 1.9105 | 1.5358 | 1.9271 | 1.5202 | 1.9439 | 1.5045 | 1.9609 |
| 145 | 1.5688 | 1.8938 | 1.5535 | 1.9100 | 1.5381 | 1.9265 | 1.5226 | 1.9432 | 1.5070 | 1.9600 |
| 146 | 1.5709 | 1.8935 | 1.5557 | 1.9096 | 1.5404 | 1.9259 | 1.5250 | 1.9425 | 1.5095 | 1.9592 |
| 147 | 1.5729 | 1.8932 | 1.5578 | 1.9092 | 1.5427 | 1.9254 | 1.5274 | 1.9418 | 1.5120 | 1.9584 |

Tabel Durbin-Watson (DW),  $\alpha = 5\%$

| n   | k=11   |        | k=12   |        | k=13   |        | k=14   |        | k=15   |        |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|     | dL     | dU     | dL     | dU     | dL     | dU     | dL     | dU     | dL     | dU     |
| 148 | 1.5749 | 1.8929 | 1.5600 | 1.9088 | 1.5449 | 1.9248 | 1.5297 | 1.9411 | 1.5144 | 1.9576 |
| 149 | 1.5769 | 1.8926 | 1.5620 | 1.9083 | 1.5471 | 1.9243 | 1.5320 | 1.9404 | 1.5169 | 1.9568 |
| 150 | 1.5788 | 1.8923 | 1.5641 | 1.9080 | 1.5493 | 1.9238 | 1.5343 | 1.9398 | 1.5193 | 1.9560 |
| 151 | 1.5808 | 1.8920 | 1.5661 | 1.9076 | 1.5514 | 1.9233 | 1.5365 | 1.9392 | 1.5216 | 1.9552 |
| 152 | 1.5827 | 1.8918 | 1.5682 | 1.9072 | 1.5535 | 1.9228 | 1.5388 | 1.9386 | 1.5239 | 1.9545 |
| 153 | 1.5846 | 1.8915 | 1.5701 | 1.9068 | 1.5556 | 1.9223 | 1.5410 | 1.9379 | 1.5262 | 1.9538 |
| 154 | 1.5864 | 1.8913 | 1.5721 | 1.9065 | 1.5577 | 1.9218 | 1.5431 | 1.9374 | 1.5285 | 1.9531 |
| 155 | 1.5883 | 1.8910 | 1.5740 | 1.9061 | 1.5597 | 1.9214 | 1.5453 | 1.9368 | 1.5307 | 1.9524 |
| 156 | 1.5901 | 1.8908 | 1.5760 | 1.9058 | 1.5617 | 1.9209 | 1.5474 | 1.9362 | 1.5330 | 1.9517 |
| 157 | 1.5919 | 1.8906 | 1.5779 | 1.9054 | 1.5637 | 1.9205 | 1.5495 | 1.9356 | 1.5352 | 1.9510 |
| 158 | 1.5937 | 1.8904 | 1.5797 | 1.9051 | 1.5657 | 1.9200 | 1.5516 | 1.9351 | 1.5373 | 1.9503 |
| 159 | 1.5954 | 1.8902 | 1.5816 | 1.9048 | 1.5676 | 1.9196 | 1.5536 | 1.9346 | 1.5395 | 1.9497 |
| 160 | 1.5972 | 1.8899 | 1.5834 | 1.9045 | 1.5696 | 1.9192 | 1.5556 | 1.9340 | 1.5416 | 1.9490 |
| 161 | 1.5989 | 1.8897 | 1.5852 | 1.9042 | 1.5715 | 1.9188 | 1.5576 | 1.9335 | 1.5437 | 1.9484 |
| 162 | 1.6006 | 1.8896 | 1.5870 | 1.9039 | 1.5734 | 1.9184 | 1.5596 | 1.9330 | 1.5457 | 1.9478 |
| 163 | 1.6023 | 1.8894 | 1.5888 | 1.9036 | 1.5752 | 1.9180 | 1.5616 | 1.9325 | 1.5478 | 1.9472 |
| 164 | 1.6040 | 1.8892 | 1.5906 | 1.9033 | 1.5771 | 1.9176 | 1.5635 | 1.9320 | 1.5498 | 1.9466 |
| 165 | 1.6056 | 1.8890 | 1.5923 | 1.9030 | 1.5789 | 1.9172 | 1.5654 | 1.9316 | 1.5518 | 1.9460 |
| 166 | 1.6072 | 1.8888 | 1.5940 | 1.9028 | 1.5807 | 1.9169 | 1.5673 | 1.9311 | 1.5538 | 1.9455 |
| 167 | 1.6089 | 1.8887 | 1.5957 | 1.9025 | 1.5825 | 1.9165 | 1.5692 | 1.9306 | 1.5557 | 1.9449 |
| 168 | 1.6105 | 1.8885 | 1.5974 | 1.9023 | 1.5842 | 1.9161 | 1.5710 | 1.9302 | 1.5577 | 1.9444 |
| 169 | 1.6120 | 1.8884 | 1.5991 | 1.9020 | 1.5860 | 1.9158 | 1.5728 | 1.9298 | 1.5596 | 1.9438 |
| 170 | 1.6136 | 1.8882 | 1.6007 | 1.9018 | 1.5877 | 1.9155 | 1.5746 | 1.9293 | 1.5615 | 1.9433 |
| 171 | 1.6151 | 1.8881 | 1.6023 | 1.9015 | 1.5894 | 1.9151 | 1.5764 | 1.9289 | 1.5634 | 1.9428 |
| 172 | 1.6167 | 1.8879 | 1.6039 | 1.9013 | 1.5911 | 1.9148 | 1.5782 | 1.9285 | 1.5652 | 1.9423 |
| 173 | 1.6182 | 1.8878 | 1.6055 | 1.9011 | 1.5928 | 1.9145 | 1.5799 | 1.9281 | 1.5670 | 1.9418 |
| 174 | 1.6197 | 1.8876 | 1.6071 | 1.9009 | 1.5944 | 1.9142 | 1.5817 | 1.9277 | 1.5688 | 1.9413 |
| 175 | 1.6212 | 1.8875 | 1.6087 | 1.9006 | 1.5961 | 1.9139 | 1.5834 | 1.9273 | 1.5706 | 1.9408 |
| 176 | 1.6226 | 1.8874 | 1.6102 | 1.9004 | 1.5977 | 1.9136 | 1.5851 | 1.9269 | 1.5724 | 1.9404 |
| 177 | 1.6241 | 1.8873 | 1.6117 | 1.9002 | 1.5993 | 1.9133 | 1.5868 | 1.9265 | 1.5742 | 1.9399 |
| 178 | 1.6255 | 1.8872 | 1.6133 | 1.9000 | 1.6009 | 1.9130 | 1.5884 | 1.9262 | 1.5759 | 1.9394 |
| 179 | 1.6270 | 1.8870 | 1.6148 | 1.8998 | 1.6025 | 1.9128 | 1.5901 | 1.9258 | 1.5776 | 1.9390 |
| 180 | 1.6284 | 1.8869 | 1.6162 | 1.8996 | 1.6040 | 1.9125 | 1.5917 | 1.9255 | 1.5793 | 1.9386 |
| 181 | 1.6298 | 1.8868 | 1.6177 | 1.8995 | 1.6056 | 1.9122 | 1.5933 | 1.9251 | 1.5810 | 1.9381 |
| 182 | 1.6312 | 1.8867 | 1.6192 | 1.8993 | 1.6071 | 1.9120 | 1.5949 | 1.9248 | 1.5827 | 1.9377 |
| 183 | 1.6325 | 1.8866 | 1.6206 | 1.8991 | 1.6086 | 1.9117 | 1.5965 | 1.9244 | 1.5844 | 1.9373 |
| 184 | 1.6339 | 1.8865 | 1.6220 | 1.8989 | 1.6101 | 1.9115 | 1.5981 | 1.9241 | 1.5860 | 1.9369 |
| 185 | 1.6352 | 1.8864 | 1.6234 | 1.8988 | 1.6116 | 1.9112 | 1.5996 | 1.9238 | 1.5876 | 1.9365 |
| 186 | 1.6366 | 1.8864 | 1.6248 | 1.8986 | 1.6130 | 1.9110 | 1.6012 | 1.9235 | 1.5892 | 1.9361 |
| 187 | 1.6379 | 1.8863 | 1.6262 | 1.8984 | 1.6145 | 1.9107 | 1.6027 | 1.9232 | 1.5908 | 1.9357 |
| 188 | 1.6392 | 1.8862 | 1.6276 | 1.8983 | 1.6159 | 1.9105 | 1.6042 | 1.9228 | 1.5924 | 1.9353 |
| 189 | 1.6405 | 1.8861 | 1.6289 | 1.8981 | 1.6173 | 1.9103 | 1.6057 | 1.9226 | 1.5939 | 1.9349 |
| 190 | 1.6418 | 1.8860 | 1.6303 | 1.8980 | 1.6188 | 1.9101 | 1.6071 | 1.9223 | 1.5955 | 1.9346 |
| 191 | 1.6430 | 1.8860 | 1.6316 | 1.8978 | 1.6202 | 1.9099 | 1.6086 | 1.9220 | 1.5970 | 1.9342 |
| 192 | 1.6443 | 1.8859 | 1.6329 | 1.8977 | 1.6215 | 1.9096 | 1.6101 | 1.9217 | 1.5985 | 1.9339 |
| 193 | 1.6455 | 1.8858 | 1.6343 | 1.8976 | 1.6229 | 1.9094 | 1.6115 | 1.9214 | 1.6000 | 1.9335 |
| 194 | 1.6468 | 1.8858 | 1.6355 | 1.8974 | 1.6243 | 1.9092 | 1.6129 | 1.9211 | 1.6015 | 1.9332 |
| 195 | 1.6480 | 1.8857 | 1.6368 | 1.8973 | 1.6256 | 1.9090 | 1.6143 | 1.9209 | 1.6030 | 1.9328 |
| 196 | 1.6492 | 1.8856 | 1.6381 | 1.8972 | 1.6270 | 1.9088 | 1.6157 | 1.9206 | 1.6044 | 1.9325 |
| 197 | 1.6504 | 1.8856 | 1.6394 | 1.8971 | 1.6283 | 1.9087 | 1.6171 | 1.9204 | 1.6059 | 1.9322 |
| 198 | 1.6516 | 1.8855 | 1.6406 | 1.8969 | 1.6296 | 1.9085 | 1.6185 | 1.9201 | 1.6073 | 1.9318 |
| 199 | 1.6528 | 1.8855 | 1.6419 | 1.8968 | 1.6309 | 1.9083 | 1.6198 | 1.9199 | 1.6087 | 1.9315 |
| 200 | 1.6539 | 1.8854 | 1.6431 | 1.8967 | 1.6322 | 1.9081 | 1.6212 | 1.9196 | 1.6101 | 1.9312 |

Tabel Durbin-Watson (DW),  $\alpha = 5\%$

| n  | k=16   |        | k=17   |        | k=18   |        | k=19   |        | k=20   |        |
|----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|    | dL     | dU     | dL     | dU     | dL     | dU     | dL     | dU     | dL     | dU     |
| 21 | 0.0575 | 3.7054 |        |        |        |        |        |        |        |        |
| 22 | 0.0832 | 3.6188 | 0.0524 | 3.7309 |        |        |        |        |        |        |
| 23 | 0.1103 | 3.5355 | 0.0762 | 3.6501 | 0.0480 | 3.7533 |        |        |        |        |
| 24 | 0.1407 | 3.4540 | 0.1015 | 3.5717 | 0.0701 | 3.6777 | 0.0441 | 3.7730 |        |        |
| 25 | 0.1723 | 3.3760 | 0.1300 | 3.4945 | 0.0937 | 3.6038 | 0.0647 | 3.7022 | 0.0407 | 3.7904 |
| 26 | 0.2050 | 3.3025 | 0.1598 | 3.4201 | 0.1204 | 3.5307 | 0.0868 | 3.6326 | 0.0598 | 3.7240 |
| 27 | 0.2382 | 3.2333 | 0.1907 | 3.3494 | 0.1485 | 3.4597 | 0.1119 | 3.5632 | 0.0806 | 3.6583 |
| 28 | 0.2715 | 3.1681 | 0.2223 | 3.2825 | 0.1779 | 3.3919 | 0.1384 | 3.4955 | 0.1042 | 3.5925 |
| 29 | 0.3046 | 3.1070 | 0.2541 | 3.2192 | 0.2079 | 3.3273 | 0.1663 | 3.4304 | 0.1293 | 3.5279 |
| 30 | 0.3374 | 3.0497 | 0.2859 | 3.1595 | 0.2383 | 3.2658 | 0.1949 | 3.3681 | 0.1557 | 3.4655 |
| 31 | 0.3697 | 2.9960 | 0.3175 | 3.1032 | 0.2688 | 3.2076 | 0.2239 | 3.3086 | 0.1830 | 3.4055 |
| 32 | 0.4013 | 2.9458 | 0.3487 | 3.0503 | 0.2992 | 3.1525 | 0.2532 | 3.2519 | 0.2108 | 3.3478 |
| 33 | 0.4322 | 2.8987 | 0.3793 | 3.0005 | 0.3294 | 3.1005 | 0.2825 | 3.1981 | 0.2389 | 3.2928 |
| 34 | 0.4623 | 2.8545 | 0.4094 | 2.9536 | 0.3591 | 3.0513 | 0.3116 | 3.1470 | 0.2670 | 3.2402 |
| 35 | 0.4916 | 2.8131 | 0.4388 | 2.9095 | 0.3883 | 3.0048 | 0.3403 | 3.0985 | 0.2951 | 3.1901 |
| 36 | 0.5201 | 2.7742 | 0.4675 | 2.8680 | 0.4169 | 2.9610 | 0.3687 | 3.0526 | 0.3230 | 3.1425 |
| 37 | 0.5477 | 2.7377 | 0.4954 | 2.8289 | 0.4449 | 2.9195 | 0.3966 | 3.0091 | 0.3505 | 3.0972 |
| 38 | 0.5745 | 2.7033 | 0.5225 | 2.7921 | 0.4723 | 2.8804 | 0.4240 | 2.9678 | 0.3777 | 3.0541 |
| 39 | 0.6004 | 2.6710 | 0.5489 | 2.7573 | 0.4990 | 2.8434 | 0.4507 | 2.9288 | 0.4044 | 3.0132 |
| 40 | 0.6256 | 2.6406 | 0.5745 | 2.7246 | 0.5249 | 2.8084 | 0.4769 | 2.8917 | 0.4305 | 2.9743 |
| 41 | 0.6499 | 2.6119 | 0.5994 | 2.6936 | 0.5502 | 2.7753 | 0.5024 | 2.8566 | 0.4562 | 2.9373 |
| 42 | 0.6734 | 2.5848 | 0.6235 | 2.6643 | 0.5747 | 2.7439 | 0.5273 | 2.8233 | 0.4812 | 2.9022 |
| 43 | 0.6962 | 2.5592 | 0.6469 | 2.6366 | 0.5986 | 2.7142 | 0.5515 | 2.7916 | 0.5057 | 2.8688 |
| 44 | 0.7182 | 2.5351 | 0.6695 | 2.6104 | 0.6218 | 2.6860 | 0.5751 | 2.7616 | 0.5295 | 2.8370 |
| 45 | 0.7396 | 2.5122 | 0.6915 | 2.5856 | 0.6443 | 2.6593 | 0.5980 | 2.7331 | 0.5528 | 2.8067 |
| 46 | 0.7602 | 2.4905 | 0.7128 | 2.5621 | 0.6661 | 2.6339 | 0.6203 | 2.7059 | 0.5755 | 2.7779 |
| 47 | 0.7802 | 2.4700 | 0.7334 | 2.5397 | 0.6873 | 2.6098 | 0.6420 | 2.6801 | 0.5976 | 2.7504 |
| 48 | 0.7995 | 2.4505 | 0.7534 | 2.5185 | 0.7079 | 2.5869 | 0.6631 | 2.6555 | 0.6191 | 2.7243 |
| 49 | 0.8182 | 2.4320 | 0.7728 | 2.4983 | 0.7279 | 2.5651 | 0.6836 | 2.6321 | 0.6400 | 2.6993 |
| 50 | 0.8364 | 2.4144 | 0.7916 | 2.4791 | 0.7472 | 2.5443 | 0.7035 | 2.6098 | 0.6604 | 2.6755 |
| 51 | 0.8540 | 2.3977 | 0.8098 | 2.4608 | 0.7660 | 2.5245 | 0.7228 | 2.5885 | 0.6802 | 2.6527 |
| 52 | 0.8710 | 2.3818 | 0.8275 | 2.4434 | 0.7843 | 2.5056 | 0.7416 | 2.5682 | 0.6995 | 2.6310 |
| 53 | 0.8875 | 2.3666 | 0.8446 | 2.4268 | 0.8020 | 2.4876 | 0.7599 | 2.5487 | 0.7183 | 2.6102 |
| 54 | 0.9035 | 2.3521 | 0.8612 | 2.4110 | 0.8193 | 2.4704 | 0.7777 | 2.5302 | 0.7365 | 2.5903 |
| 55 | 0.9190 | 2.3383 | 0.8774 | 2.3959 | 0.8360 | 2.4539 | 0.7949 | 2.5124 | 0.7543 | 2.5713 |
| 56 | 0.9341 | 2.3252 | 0.8930 | 2.3814 | 0.8522 | 2.4382 | 0.8117 | 2.4955 | 0.7716 | 2.5531 |
| 57 | 0.9487 | 2.3126 | 0.9083 | 2.3676 | 0.8680 | 2.4232 | 0.8280 | 2.4792 | 0.7884 | 2.5356 |
| 58 | 0.9629 | 2.3005 | 0.9230 | 2.3544 | 0.8834 | 2.4088 | 0.8439 | 2.4636 | 0.8047 | 2.5189 |
| 59 | 0.9767 | 2.2890 | 0.9374 | 2.3417 | 0.8983 | 2.3950 | 0.8593 | 2.4487 | 0.8207 | 2.5028 |
| 60 | 0.9901 | 2.2780 | 0.9514 | 2.3296 | 0.9128 | 2.3817 | 0.8744 | 2.4344 | 0.8362 | 2.4874 |
| 61 | 1.0031 | 2.2674 | 0.9649 | 2.3180 | 0.9269 | 2.3690 | 0.8890 | 2.4206 | 0.8513 | 2.4726 |
| 62 | 1.0157 | 2.2573 | 0.9781 | 2.3068 | 0.9406 | 2.3569 | 0.9032 | 2.4074 | 0.8660 | 2.4584 |
| 63 | 1.0280 | 2.2476 | 0.9910 | 2.2961 | 0.9539 | 2.3452 | 0.9170 | 2.3947 | 0.8803 | 2.4447 |
| 64 | 1.0400 | 2.2383 | 1.0035 | 2.2858 | 0.9669 | 2.3340 | 0.9305 | 2.3826 | 0.8943 | 2.4316 |
| 65 | 1.0517 | 2.2293 | 1.0156 | 2.2760 | 0.9796 | 2.3232 | 0.9437 | 2.3708 | 0.9079 | 2.4189 |
| 66 | 1.0630 | 2.2207 | 1.0274 | 2.2665 | 0.9919 | 2.3128 | 0.9565 | 2.3595 | 0.9211 | 2.4068 |
| 67 | 1.0740 | 2.2125 | 1.0390 | 2.2574 | 1.0039 | 2.3028 | 0.9689 | 2.3487 | 0.9340 | 2.3950 |
| 68 | 1.0848 | 2.2045 | 1.0502 | 2.2486 | 1.0156 | 2.2932 | 0.9811 | 2.3382 | 0.9466 | 2.3837 |
| 69 | 1.0952 | 2.1969 | 1.0612 | 2.2401 | 1.0270 | 2.2839 | 0.9930 | 2.3281 | 0.9589 | 2.3728 |
| 70 | 1.1054 | 2.1895 | 1.0718 | 2.2320 | 1.0382 | 2.2750 | 1.0045 | 2.3184 | 0.9709 | 2.3623 |
| 71 | 1.1154 | 2.1824 | 1.0822 | 2.2241 | 1.0490 | 2.2663 | 1.0158 | 2.3090 | 0.9826 | 2.3522 |
| 72 | 1.1251 | 2.1756 | 1.0924 | 2.2166 | 1.0596 | 2.2580 | 1.0268 | 2.3000 | 0.9940 | 2.3424 |
| 73 | 1.1346 | 2.1690 | 1.1023 | 2.2093 | 1.0699 | 2.2500 | 1.0375 | 2.2912 | 1.0052 | 2.3329 |
| 74 | 1.1438 | 2.1626 | 1.1119 | 2.2022 | 1.0800 | 2.2423 | 1.0480 | 2.2828 | 1.0161 | 2.3238 |
| 75 | 1.1528 | 2.1565 | 1.1214 | 2.1954 | 1.0898 | 2.2348 | 1.0583 | 2.2747 | 1.0267 | 2.3149 |
| 76 | 1.1616 | 2.1506 | 1.1306 | 2.1888 | 1.0994 | 2.2276 | 1.0683 | 2.2668 | 1.0371 | 2.3064 |
| 77 | 1.1702 | 2.1449 | 1.1395 | 2.1825 | 1.1088 | 2.2206 | 1.0780 | 2.2591 | 1.0472 | 2.2981 |
| 78 | 1.1786 | 2.1393 | 1.1483 | 2.1763 | 1.1180 | 2.2138 | 1.0876 | 2.2518 | 1.0571 | 2.2901 |
| 79 | 1.1868 | 2.1340 | 1.1569 | 2.1704 | 1.1269 | 2.2073 | 1.0969 | 2.2446 | 1.0668 | 2.2824 |
| 80 | 1.1948 | 2.1288 | 1.1653 | 2.1647 | 1.1357 | 2.2010 | 1.1060 | 2.2377 | 1.0763 | 2.2749 |
| 81 | 1.2026 | 2.1238 | 1.1735 | 2.1591 | 1.1442 | 2.1949 | 1.1149 | 2.2310 | 1.0856 | 2.2676 |
| 82 | 1.2103 | 2.1190 | 1.1815 | 2.1537 | 1.1526 | 2.1889 | 1.1236 | 2.2246 | 1.0946 | 2.2606 |
| 83 | 1.2178 | 2.1143 | 1.1893 | 2.1485 | 1.1608 | 2.1832 | 1.1322 | 2.2183 | 1.1035 | 2.2537 |
| 84 | 1.2251 | 2.1098 | 1.1970 | 2.1435 | 1.1688 | 2.1776 | 1.1405 | 2.2122 | 1.1122 | 2.2471 |
| 85 | 1.2323 | 2.1054 | 1.2045 | 2.1386 | 1.1766 | 2.1722 | 1.1487 | 2.2063 | 1.1206 | 2.2407 |
| 86 | 1.2393 | 2.1011 | 1.2119 | 2.1338 | 1.1843 | 2.1670 | 1.1567 | 2.2005 | 1.1290 | 2.2345 |

Tabel Durbin-Watson (DW),  $\alpha = 5\%$

| n   | k=16   |        | k=17   |        | k=18   |        | k=19   |        | k=20   |        |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|     | dL     | dU     | dL     | dU     | dL     | dU     | dL     | dU     | dL     | dU     |
| 87  | 1.2462 | 2.0970 | 1.2191 | 2.1293 | 1.1918 | 2.1619 | 1.1645 | 2.1950 | 1.1371 | 2.2284 |
| 88  | 1.2529 | 2.0930 | 1.2261 | 2.1248 | 1.1992 | 2.1570 | 1.1722 | 2.1896 | 1.1451 | 2.2225 |
| 89  | 1.2595 | 2.0891 | 1.2330 | 2.1205 | 1.2064 | 2.1522 | 1.1797 | 2.1843 | 1.1529 | 2.2168 |
| 90  | 1.2659 | 2.0853 | 1.2397 | 2.1163 | 1.2134 | 2.1476 | 1.1870 | 2.1793 | 1.1605 | 2.2113 |
| 91  | 1.2723 | 2.0817 | 1.2464 | 2.1122 | 1.2204 | 2.1431 | 1.1942 | 2.1743 | 1.1680 | 2.2059 |
| 92  | 1.2785 | 2.0781 | 1.2529 | 2.1082 | 1.2271 | 2.1387 | 1.2013 | 2.1695 | 1.1754 | 2.2007 |
| 93  | 1.2845 | 2.0747 | 1.2592 | 2.1044 | 1.2338 | 2.1344 | 1.2082 | 2.1648 | 1.1826 | 2.1956 |
| 94  | 1.2905 | 2.0713 | 1.2654 | 2.1006 | 1.2403 | 2.1303 | 1.2150 | 2.1603 | 1.1897 | 2.1906 |
| 95  | 1.2963 | 2.0681 | 1.2716 | 2.0970 | 1.2467 | 2.1262 | 1.2217 | 2.1559 | 1.1966 | 2.1858 |
| 96  | 1.3021 | 2.0649 | 1.2776 | 2.0935 | 1.2529 | 2.1223 | 1.2282 | 2.1515 | 1.2034 | 2.1811 |
| 97  | 1.3077 | 2.0619 | 1.2834 | 2.0900 | 1.2591 | 2.1185 | 1.2346 | 2.1474 | 1.2100 | 2.1765 |
| 98  | 1.3132 | 2.0589 | 1.2892 | 2.0867 | 1.2651 | 2.1148 | 1.2409 | 2.1433 | 1.2166 | 2.1721 |
| 99  | 1.3186 | 2.0560 | 1.2949 | 2.0834 | 1.2710 | 2.1112 | 1.2470 | 2.1393 | 1.2230 | 2.1677 |
| 100 | 1.3239 | 2.0531 | 1.3004 | 2.0802 | 1.2768 | 2.1077 | 1.2531 | 2.1354 | 1.2293 | 2.1635 |
| 101 | 1.3291 | 2.0504 | 1.3059 | 2.0772 | 1.2825 | 2.1043 | 1.2590 | 2.1317 | 1.2355 | 2.1594 |
| 102 | 1.3342 | 2.0477 | 1.3112 | 2.0741 | 1.2881 | 2.1009 | 1.2649 | 2.1280 | 1.2415 | 2.1554 |
| 103 | 1.3392 | 2.0451 | 1.3165 | 2.0712 | 1.2936 | 2.0977 | 1.2706 | 2.1244 | 1.2475 | 2.1515 |
| 104 | 1.3442 | 2.0426 | 1.3216 | 2.0684 | 1.2990 | 2.0945 | 1.2762 | 2.1210 | 1.2534 | 2.1477 |
| 105 | 1.3490 | 2.0401 | 1.3267 | 2.0656 | 1.3043 | 2.0914 | 1.2817 | 2.1175 | 1.2591 | 2.1440 |
| 106 | 1.3538 | 2.0377 | 1.3317 | 2.0629 | 1.3095 | 2.0884 | 1.2872 | 2.1142 | 1.2648 | 2.1403 |
| 107 | 1.3585 | 2.0353 | 1.3366 | 2.0602 | 1.3146 | 2.0855 | 1.2925 | 2.1110 | 1.2703 | 2.1368 |
| 108 | 1.3631 | 2.0330 | 1.3414 | 2.0577 | 1.3196 | 2.0826 | 1.2978 | 2.1078 | 1.2758 | 2.1333 |
| 109 | 1.3676 | 2.0308 | 1.3461 | 2.0552 | 1.3246 | 2.0798 | 1.3029 | 2.1048 | 1.2811 | 2.1300 |
| 110 | 1.3720 | 2.0286 | 1.3508 | 2.0527 | 1.3294 | 2.0771 | 1.3080 | 2.1018 | 1.2864 | 2.1267 |
| 111 | 1.3764 | 2.0265 | 1.3554 | 2.0503 | 1.3342 | 2.0744 | 1.3129 | 2.0988 | 1.2916 | 2.1235 |
| 112 | 1.3807 | 2.0244 | 1.3599 | 2.0480 | 1.3389 | 2.0718 | 1.3178 | 2.0959 | 1.2967 | 2.1203 |
| 113 | 1.3849 | 2.0224 | 1.3643 | 2.0457 | 1.3435 | 2.0693 | 1.3227 | 2.0931 | 1.3017 | 2.1173 |
| 114 | 1.3891 | 2.0204 | 1.3686 | 2.0435 | 1.3481 | 2.0668 | 1.3274 | 2.0904 | 1.3066 | 2.1143 |
| 115 | 1.3932 | 2.0185 | 1.3729 | 2.0413 | 1.3525 | 2.0644 | 1.3321 | 2.0877 | 1.3115 | 2.1113 |
| 116 | 1.3972 | 2.0166 | 1.3771 | 2.0392 | 1.3569 | 2.0620 | 1.3366 | 2.0851 | 1.3162 | 2.1085 |
| 117 | 1.4012 | 2.0148 | 1.3813 | 2.0371 | 1.3613 | 2.0597 | 1.3411 | 2.0826 | 1.3209 | 2.1057 |
| 118 | 1.4051 | 2.0130 | 1.3854 | 2.0351 | 1.3655 | 2.0575 | 1.3456 | 2.0801 | 1.3256 | 2.1029 |
| 119 | 1.4089 | 2.0112 | 1.3894 | 2.0331 | 1.3697 | 2.0553 | 1.3500 | 2.0776 | 1.3301 | 2.1002 |
| 120 | 1.4127 | 2.0095 | 1.3933 | 2.0312 | 1.3739 | 2.0531 | 1.3543 | 2.0752 | 1.3346 | 2.0976 |
| 121 | 1.4164 | 2.0079 | 1.3972 | 2.0293 | 1.3779 | 2.0510 | 1.3585 | 2.0729 | 1.3390 | 2.0951 |
| 122 | 1.4201 | 2.0062 | 1.4010 | 2.0275 | 1.3819 | 2.0489 | 1.3627 | 2.0706 | 1.3433 | 2.0926 |
| 123 | 1.4237 | 2.0046 | 1.4048 | 2.0257 | 1.3858 | 2.0469 | 1.3668 | 2.0684 | 1.3476 | 2.0901 |
| 124 | 1.4272 | 2.0031 | 1.4085 | 2.0239 | 1.3897 | 2.0449 | 1.3708 | 2.0662 | 1.3518 | 2.0877 |
| 125 | 1.4307 | 2.0016 | 1.4122 | 2.0222 | 1.3936 | 2.0430 | 1.3748 | 2.0641 | 1.3560 | 2.0854 |
| 126 | 1.4342 | 2.0001 | 1.4158 | 2.0205 | 1.3973 | 2.0411 | 1.3787 | 2.0620 | 1.3600 | 2.0831 |
| 127 | 1.4376 | 1.9986 | 1.4194 | 2.0188 | 1.4010 | 2.0393 | 1.3826 | 2.0599 | 1.3641 | 2.0808 |
| 128 | 1.4409 | 1.9972 | 1.4229 | 2.0172 | 1.4047 | 2.0374 | 1.3864 | 2.0579 | 1.3680 | 2.0786 |
| 129 | 1.4442 | 1.9958 | 1.4263 | 2.0156 | 1.4083 | 2.0357 | 1.3902 | 2.0559 | 1.3719 | 2.0764 |
| 130 | 1.4475 | 1.9944 | 1.4297 | 2.0141 | 1.4118 | 2.0339 | 1.3939 | 2.0540 | 1.3758 | 2.0743 |
| 131 | 1.4507 | 1.9931 | 1.4331 | 2.0126 | 1.4153 | 2.0322 | 1.3975 | 2.0521 | 1.3796 | 2.0722 |
| 132 | 1.4539 | 1.9918 | 1.4364 | 2.0111 | 1.4188 | 2.0306 | 1.4011 | 2.0503 | 1.3833 | 2.0702 |
| 133 | 1.4570 | 1.9905 | 1.4397 | 2.0096 | 1.4222 | 2.0289 | 1.4046 | 2.0485 | 1.3870 | 2.0682 |
| 134 | 1.4601 | 1.9893 | 1.4429 | 2.0082 | 1.4255 | 2.0273 | 1.4081 | 2.0467 | 1.3906 | 2.0662 |
| 135 | 1.4631 | 1.9880 | 1.4460 | 2.0068 | 1.4289 | 2.0258 | 1.4116 | 2.0450 | 1.3942 | 2.0643 |
| 136 | 1.4661 | 1.9868 | 1.4492 | 2.0054 | 1.4321 | 2.0243 | 1.4150 | 2.0433 | 1.3978 | 2.0624 |
| 137 | 1.4691 | 1.9857 | 1.4523 | 2.0041 | 1.4353 | 2.0227 | 1.4183 | 2.0416 | 1.4012 | 2.0606 |
| 138 | 1.4720 | 1.9845 | 1.4553 | 2.0028 | 1.4385 | 2.0213 | 1.4216 | 2.0399 | 1.4047 | 2.0588 |
| 139 | 1.4748 | 1.9834 | 1.4583 | 2.0015 | 1.4416 | 2.0198 | 1.4249 | 2.0383 | 1.4081 | 2.0570 |
| 140 | 1.4777 | 1.9823 | 1.4613 | 2.0002 | 1.4447 | 2.0184 | 1.4281 | 2.0368 | 1.4114 | 2.0553 |
| 141 | 1.4805 | 1.9812 | 1.4642 | 1.9990 | 1.4478 | 2.0170 | 1.4313 | 2.0352 | 1.4147 | 2.0536 |
| 142 | 1.4832 | 1.9801 | 1.4671 | 1.9978 | 1.4508 | 2.0156 | 1.4344 | 2.0337 | 1.4180 | 2.0519 |
| 143 | 1.4860 | 1.9791 | 1.4699 | 1.9966 | 1.4538 | 2.0143 | 1.4375 | 2.0322 | 1.4212 | 2.0503 |
| 144 | 1.4887 | 1.9781 | 1.4727 | 1.9954 | 1.4567 | 2.0130 | 1.4406 | 2.0307 | 1.4244 | 2.0486 |
| 145 | 1.4913 | 1.9771 | 1.4755 | 1.9943 | 1.4596 | 2.0117 | 1.4436 | 2.0293 | 1.4275 | 2.0471 |
| 146 | 1.4939 | 1.9761 | 1.4782 | 1.9932 | 1.4625 | 2.0105 | 1.4466 | 2.0279 | 1.4306 | 2.0455 |
| 147 | 1.4965 | 1.9751 | 1.4809 | 1.9921 | 1.4653 | 2.0092 | 1.4495 | 2.0265 | 1.4337 | 2.0440 |
| 148 | 1.4991 | 1.9742 | 1.4836 | 1.9910 | 1.4681 | 2.0080 | 1.4524 | 2.0252 | 1.4367 | 2.0425 |
| 149 | 1.5016 | 1.9733 | 1.4862 | 1.9900 | 1.4708 | 2.0068 | 1.4553 | 2.0238 | 1.4396 | 2.0410 |
| 150 | 1.5041 | 1.9724 | 1.4889 | 1.9889 | 1.4735 | 2.0056 | 1.4581 | 2.0225 | 1.4426 | 2.0396 |
| 151 | 1.5066 | 1.9715 | 1.4914 | 1.9879 | 1.4762 | 2.0045 | 1.4609 | 2.0212 | 1.4455 | 2.0381 |
| 152 | 1.5090 | 1.9706 | 1.4940 | 1.9869 | 1.4788 | 2.0034 | 1.4636 | 2.0200 | 1.4484 | 2.0367 |

Tabel Durbin-Watson (DW),  $\alpha = 5\%$

| n   | k=16   |        | k=17   |        | k=18   |        | k=19   |        | k=20   |        |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|     | dL     | dU     | dL     | dU     | dL     | dU     | dL     | dU     | dL     | dU     |
| 153 | 1.5114 | 1.9698 | 1.4965 | 1.9859 | 1.4815 | 2.0022 | 1.4664 | 2.0187 | 1.4512 | 2.0354 |
| 154 | 1.5138 | 1.9689 | 1.4990 | 1.9850 | 1.4841 | 2.0012 | 1.4691 | 2.0175 | 1.4540 | 2.0340 |
| 155 | 1.5161 | 1.9681 | 1.5014 | 1.9840 | 1.4866 | 2.0001 | 1.4717 | 2.0163 | 1.4567 | 2.0327 |
| 156 | 1.5184 | 1.9673 | 1.5038 | 1.9831 | 1.4891 | 1.9990 | 1.4743 | 2.0151 | 1.4595 | 2.0314 |
| 157 | 1.5207 | 1.9665 | 1.5062 | 1.9822 | 1.4916 | 1.9980 | 1.4769 | 2.0140 | 1.4622 | 2.0301 |
| 158 | 1.5230 | 1.9657 | 1.5086 | 1.9813 | 1.4941 | 1.9970 | 1.4795 | 2.0129 | 1.4648 | 2.0289 |
| 159 | 1.5252 | 1.9650 | 1.5109 | 1.9804 | 1.4965 | 1.9960 | 1.4820 | 2.0117 | 1.4675 | 2.0276 |
| 160 | 1.5274 | 1.9642 | 1.5132 | 1.9795 | 1.4989 | 1.9950 | 1.4845 | 2.0106 | 1.4701 | 2.0264 |
| 161 | 1.5296 | 1.9635 | 1.5155 | 1.9787 | 1.5013 | 1.9941 | 1.4870 | 2.0096 | 1.4726 | 2.0252 |
| 162 | 1.5318 | 1.9628 | 1.5178 | 1.9779 | 1.5037 | 1.9931 | 1.4894 | 2.0085 | 1.4752 | 2.0241 |
| 163 | 1.5339 | 1.9621 | 1.5200 | 1.9771 | 1.5060 | 1.9922 | 1.4919 | 2.0075 | 1.4777 | 2.0229 |
| 164 | 1.5360 | 1.9614 | 1.5222 | 1.9762 | 1.5083 | 1.9913 | 1.4943 | 2.0064 | 1.4802 | 2.0218 |
| 165 | 1.5381 | 1.9607 | 1.5244 | 1.9755 | 1.5105 | 1.9904 | 1.4966 | 2.0054 | 1.4826 | 2.0206 |
| 166 | 1.5402 | 1.9600 | 1.5265 | 1.9747 | 1.5128 | 1.9895 | 1.4990 | 2.0045 | 1.4851 | 2.0195 |
| 167 | 1.5422 | 1.9594 | 1.5287 | 1.9739 | 1.5150 | 1.9886 | 1.5013 | 2.0035 | 1.4875 | 2.0185 |
| 168 | 1.5443 | 1.9587 | 1.5308 | 1.9732 | 1.5172 | 1.9878 | 1.5036 | 2.0025 | 1.4898 | 2.0174 |
| 169 | 1.5463 | 1.9581 | 1.5329 | 1.9724 | 1.5194 | 1.9869 | 1.5058 | 2.0016 | 1.4922 | 2.0164 |
| 170 | 1.5482 | 1.9574 | 1.5349 | 1.9717 | 1.5215 | 1.9861 | 1.5080 | 2.0007 | 1.4945 | 2.0153 |
| 171 | 1.5502 | 1.9568 | 1.5370 | 1.9710 | 1.5236 | 1.9853 | 1.5102 | 1.9997 | 1.4968 | 2.0143 |
| 172 | 1.5521 | 1.9562 | 1.5390 | 1.9703 | 1.5257 | 1.9845 | 1.5124 | 1.9988 | 1.4991 | 2.0133 |
| 173 | 1.5540 | 1.9556 | 1.5410 | 1.9696 | 1.5278 | 1.9837 | 1.5146 | 1.9980 | 1.5013 | 2.0123 |
| 174 | 1.5559 | 1.9551 | 1.5429 | 1.9689 | 1.5299 | 1.9830 | 1.5167 | 1.9971 | 1.5035 | 2.0114 |
| 175 | 1.5578 | 1.9545 | 1.5449 | 1.9683 | 1.5319 | 1.9822 | 1.5189 | 1.9962 | 1.5057 | 2.0104 |
| 176 | 1.5597 | 1.9539 | 1.5468 | 1.9676 | 1.5339 | 1.9815 | 1.5209 | 1.9954 | 1.5079 | 2.0095 |
| 177 | 1.5615 | 1.9534 | 1.5487 | 1.9670 | 1.5359 | 1.9807 | 1.5230 | 1.9946 | 1.5100 | 2.0086 |
| 178 | 1.5633 | 1.9528 | 1.5506 | 1.9664 | 1.5379 | 1.9800 | 1.5251 | 1.9938 | 1.5122 | 2.0076 |
| 179 | 1.5651 | 1.9523 | 1.5525 | 1.9657 | 1.5398 | 1.9793 | 1.5271 | 1.9930 | 1.5143 | 2.0068 |
| 180 | 1.5669 | 1.9518 | 1.5544 | 1.9651 | 1.5418 | 1.9786 | 1.5291 | 1.9922 | 1.5164 | 2.0059 |
| 181 | 1.5687 | 1.9513 | 1.5562 | 1.9645 | 1.5437 | 1.9779 | 1.5311 | 1.9914 | 1.5184 | 2.0050 |
| 182 | 1.5704 | 1.9507 | 1.5580 | 1.9639 | 1.5456 | 1.9772 | 1.5330 | 1.9906 | 1.5205 | 2.0042 |
| 183 | 1.5721 | 1.9503 | 1.5598 | 1.9633 | 1.5474 | 1.9766 | 1.5350 | 1.9899 | 1.5225 | 2.0033 |
| 184 | 1.5738 | 1.9498 | 1.5616 | 1.9628 | 1.5493 | 1.9759 | 1.5369 | 1.9891 | 1.5245 | 2.0025 |
| 185 | 1.5755 | 1.9493 | 1.5634 | 1.9622 | 1.5511 | 1.9753 | 1.5388 | 1.9884 | 1.5265 | 2.0017 |
| 186 | 1.5772 | 1.9488 | 1.5651 | 1.9617 | 1.5529 | 1.9746 | 1.5407 | 1.9877 | 1.5284 | 2.0009 |
| 187 | 1.5788 | 1.9483 | 1.5668 | 1.9611 | 1.5547 | 1.9740 | 1.5426 | 1.9870 | 1.5304 | 2.0001 |
| 188 | 1.5805 | 1.9479 | 1.5685 | 1.9606 | 1.5565 | 1.9734 | 1.5444 | 1.9863 | 1.5323 | 1.9993 |
| 189 | 1.5821 | 1.9474 | 1.5702 | 1.9600 | 1.5583 | 1.9728 | 1.5463 | 1.9856 | 1.5342 | 1.9985 |
| 190 | 1.5837 | 1.9470 | 1.5719 | 1.9595 | 1.5600 | 1.9722 | 1.5481 | 1.9849 | 1.5361 | 1.9978 |
| 191 | 1.5853 | 1.9465 | 1.5736 | 1.9590 | 1.5618 | 1.9716 | 1.5499 | 1.9842 | 1.5379 | 1.9970 |
| 192 | 1.5869 | 1.9461 | 1.5752 | 1.9585 | 1.5635 | 1.9710 | 1.5517 | 1.9836 | 1.5398 | 1.9963 |
| 193 | 1.5885 | 1.9457 | 1.5768 | 1.9580 | 1.5652 | 1.9704 | 1.5534 | 1.9829 | 1.5416 | 1.9956 |
| 194 | 1.5900 | 1.9453 | 1.5785 | 1.9575 | 1.5668 | 1.9699 | 1.5551 | 1.9823 | 1.5434 | 1.9948 |
| 195 | 1.5915 | 1.9449 | 1.5801 | 1.9570 | 1.5685 | 1.9693 | 1.5569 | 1.9817 | 1.5452 | 1.9941 |
| 196 | 1.5931 | 1.9445 | 1.5816 | 1.9566 | 1.5701 | 1.9688 | 1.5586 | 1.9810 | 1.5470 | 1.9934 |
| 197 | 1.5946 | 1.9441 | 1.5832 | 1.9561 | 1.5718 | 1.9682 | 1.5603 | 1.9804 | 1.5487 | 1.9928 |
| 198 | 1.5961 | 1.9437 | 1.5848 | 1.9556 | 1.5734 | 1.9677 | 1.5620 | 1.9798 | 1.5505 | 1.9921 |
| 199 | 1.5975 | 1.9433 | 1.5863 | 1.9552 | 1.5750 | 1.9672 | 1.5636 | 1.9792 | 1.5522 | 1.9914 |
| 200 | 1.5990 | 1.9429 | 1.5878 | 1.9547 | 1.5766 | 1.9667 | 1.5653 | 1.9787 | 1.5539 | 1.9908 |

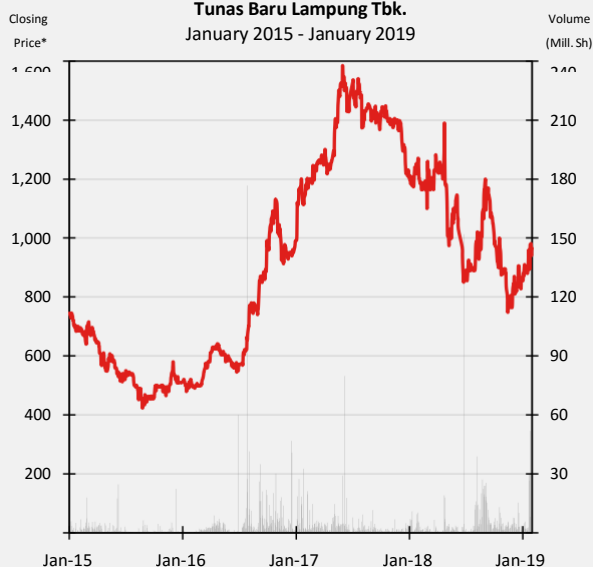




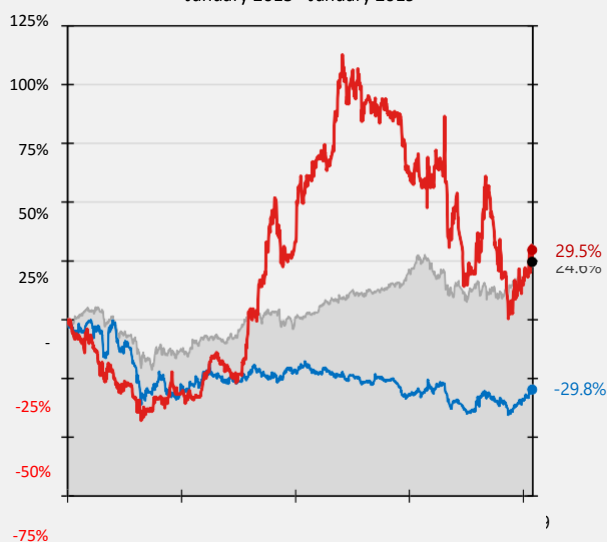


# TBLA Tunas Baru Lampung Tbk.

**Closing Price\* and Trading Volume  
Tunas Baru Lampung Tbk.  
January 2015 - January 2019**



**Closing Price\*, Jakarta Composite Index (IHSG) and  
Agriculture Index  
January 2015 - January 2019**



| SHARES TRADED        | 2015  | 2016  | 2017  | 2018  | Jan-19 |
|----------------------|-------|-------|-------|-------|--------|
| Volume (Million Sh.) | 370   | 1,267 | 893   | 1,160 | 245    |
| Value (Billion Rp)   | 221   | 1,012 | 1,186 | 1,196 | 232    |
| Frequency (Thou. X)  | 14    | 48    | 72    | 165   | 26     |
| Days                 | 242   | 244   | 238   | 240   | 22     |
| Price (Rupiah)       |       |       |       |       |        |
| High                 | 755   | 1,150 | 1,585 | 1,390 | 1,015  |
| Low                  | 420   | 480   | 975   | 745   | 855    |
| Close                | 510   | 990   | 1,225 | 865   | 965    |
| Close*               | 510   | 990   | 1,225 | 865   | 965    |
| PER (X)              | 13.83 | 8.47  | 6.90  | 6.45  | 7.19   |
| PER Industry (X)     | -6.37 | 19.38 | 2.40  | 19.27 | 19.33  |
| PBV (X)              | 0.95  | 1.64  | 1.64  | 1.05  | 1.18   |

\* Adjusted price after corporate action

## TRADING ACTIVITIES

| Month  | Closing Price |       |       | Freq.<br>(X) | Volume<br>(Thou. Sh.) | Value<br>(Million Rp) | Day |
|--------|---------------|-------|-------|--------------|-----------------------|-----------------------|-----|
|        | High          | Low   | Close |              |                       |                       |     |
| Jan-15 | 755           | 675   | 700   | 1,281        | 33,724                | 24,086                | 21  |
| Feb-15 | 710           | 640   | 695   | 2,432        | 60,522                | 40,450                | 19  |
| Mar-15 | 720           | 645   | 645   | 2,329        | 52,534                | 35,912                | 22  |
| Apr-15 | 675           | 540   | 550   | 1,773        | 39,191                | 23,623                | 21  |
| May-15 | 620           | 540   | 560   | 1,243        | 24,610                | 14,433                | 19  |
| Jun-15 | 575           | 495   | 520   | 778          | 59,109                | 29,813                | 21  |
| Jul-15 | 565           | 490   | 500   | 255          | 5,196                 | 2,921                 | 19  |
| Aug-15 | 530           | 420   | 440   | 984          | 16,751                | 7,971                 | 19  |
| Sep-15 | 490           | 433   | 457   | 918          | 18,647                | 8,459                 | 21  |
| Oct-15 | 520           | 440   | 480   | 649          | 14,928                | 7,410                 | 21  |
| Nov-15 | 575           | 461   | 550   | 1,106        | 19,365                | 9,859                 | 20  |
| Dec-15 | 580           | 510   | 510   | 321          | 25,689                | 16,251                | 19  |
| Jan-16 | 525           | 480   | 515   | 368          | 2,262                 | 887                   | 20  |
| Feb-16 | 515           | 480   | 500   | 533          | 9,447                 | 4,731                 | 19  |
| Mar-16 | 615           | 497   | 610   | 3,320        | 38,204                | 21,343                | 21  |
| Apr-16 | 640           | 605   | 625   | 3,788        | 89,005                | 55,867                | 21  |
| May-16 | 625           | 575   | 590   | 1,975        | 51,584                | 31,156                | 20  |
| Jun-16 | 595           | 535   | 570   | 375          | 65,832                | 37,120                | 21  |
| Jul-16 | 725           | 565   | 675   | 3,070        | 276,073               | 178,571               | 16  |
| Aug-16 | 805           | 675   | 775   | 4,513        | 111,865               | 84,444                | 22  |
| Sep-16 | 995           | 750   | 975   | 9,613        | 220,824               | 192,922               | 21  |
| Oct-16 | 1,150         | 955   | 1,120 | 8,212        | 149,606               | 158,509               | 21  |
| Nov-16 | 1,120         | 890   | 940   | 8,465        | 125,016               | 125,595               | 22  |
| Dec-16 | 990           | 920   | 990   | 3,382        | 127,699               | 121,332               | 20  |
| Jan-17 | 1,210         | 975   | 1,150 | 6,955        | 189,553               | 220,137               | 21  |
| Feb-17 | 1,300         | 1,100 | 1,210 | 4,547        | 97,686                | 114,102               | 19  |
| Mar-17 | 1,290         | 1,185 | 1,250 | 3,621        | 73,625                | 92,008                | 22  |
| Apr-17 | 1,320         | 1,180 | 1,270 | 4,746        | 52,587                | 66,309                | 17  |
| May-17 | 1,585         | 1,270 | 1,585 | 11,684       | 131,753               | 189,848               | 20  |
| Jun-17 | 1,570         | 1,400 | 1,470 | 7,942        | 132,498               | 198,753               | 15  |
| Jul-17 | 1,570         | 1,440 | 1,485 | 5,254        | 40,183                | 60,659                | 21  |
| Aug-17 | 1,480         | 1,360 | 1,400 | 6,619        | 54,405                | 76,902                | 22  |
| Sep-17 | 1,460         | 1,345 | 1,390 | 5,826        | 41,202                | 58,464                | 19  |
| Oct-17 | 1,450         | 1,385 | 1,395 | 4,049        | 22,951                | 32,531                | 22  |
| Nov-17 | 1,420         | 1,350 | 1,395 | 5,044        | 25,727                | 37,610                | 22  |
| Dec-17 | 1,405         | 1,190 | 1,225 | 5,921        | 30,612                | 38,812                | 18  |
| Jan-18 | 1,300         | 1,165 | 1,235 | 8,833        | 84,850                | 103,424               | 22  |
| Feb-18 | 1,255         | 1,100 | 1,210 | 8,195        | 31,504                | 37,395                | 19  |
| Mar-18 | 1,330         | 1,150 | 1,255 | 7,481        | 29,603                | 36,406                | 21  |
| Apr-18 | 1,390         | 1,140 | 1,180 | 9,342        | 66,469                | 84,892                | 21  |
| May-18 | 1,170         | 955   | 1,130 | 9,444        | 44,087                | 46,642                | 20  |
| Jun-18 | 1,150         | 820   | 885   | 4,785        | 175,906               | 158,576               | 13  |
| Jul-18 | 960           | 825   | 890   | 6,841        | 25,293                | 22,680                | 22  |
| Aug-18 | 1,190         | 890   | 1,165 | 36,705       | 295,660               | 306,620               | 21  |
| Sep-18 | 1,245         | 980   | 1,045 | 23,108       | 161,225               | 182,502               | 19  |
| Oct-18 | 1,050         | 845   | 890   | 20,575       | 98,370                | 93,780                | 23  |
| Nov-18 | 915           | 745   | 825   | 13,710       | 67,417                | 54,604                | 21  |
| Dec-18 | 930           | 795   | 865   | 15,722       | 79,635                | 68,796                | 18  |
| Jan-19 | 1,015         | 855   | 965   | 25,940       | 245,107               | 231,976               | 22  |

| BALANCE SHEET                     | Dec-14    | Dec-15    | Dec-16     | Dec-17     | Sep-18     |
|-----------------------------------|-----------|-----------|------------|------------|------------|
| (in Million Rp, except Par Value) |           |           |            |            |            |
| Cash & Cash Equivalents           | 519,690   | 295,969   | 126,377    | 125,992    | 251,860    |
| Receivables                       | 734,352   | 819,181   | 1,156,884  | 1,668,603  | 2,050,650  |
| Inventories                       | 956,097   | 1,145,978 | 2,579,842  | 2,140,137  | 2,735,338  |
| Current Assets                    | 2,860,451 | 3,128,687 | 5,058,143  | 5,143,894  | 6,493,478  |
| Fixed Assets                      | 2,843,642 | 4,433,234 | 5,472,981  | 6,192,524  | 6,527,156  |
| Other Assets                      | 102,538   | 60,955    | 121,899    | 79,619     | 65,169     |
| Total Assets                      | 7,328,419 | 9,283,775 | 12,596,824 | 14,024,486 | 15,927,583 |
| Growth (%)                        |           | 26.68%    | 35.69%     | 11.33%     | 13.57%     |

|                       |           |           |           |            |            |
|-----------------------|-----------|-----------|-----------|------------|------------|
| Current Liabilities   | 2,590,132 | 2,707,963 | 4,583,285 | 4,637,979  | 3,370,143  |
| Long Term Liabilities | 2,273,870 | 3,697,335 | 4,592,924 | 5,386,561  | 8,176,708  |
| Total Liabilities     | 4,864,002 | 6,405,298 | 9,176,209 | 10,024,540 | 11,546,851 |
| Growth (%)            |           | 31.69%    | 43.26%    | 9.24%      | 15.19%     |

|                          |           |           |           |           |           |
|--------------------------|-----------|-----------|-----------|-----------|-----------|
| Authorized Capital       | 800,000   | 800,000   | 800,000   | 800,000   | 800,000   |
| Paid up Capital          | 667,762   | 667,762   | 667,762   | 667,762   | 667,762   |
| Paid up Capital (Shares) | 5,342     | 5,342     | 5,342     | 5,342     | 5,342     |
| Par Value                | 125       | 125       | 125       | 125       | 125       |
| Retained Earnings        | 1,278,690 | 1,350,333 | 1,854,854 | 2,429,887 | 2,807,163 |
| Total Equity             | 2,464,417 | 2,878,477 | 3,420,615 | 3,999,946 | 4,380,732 |
| Growth (%)               |           | 16.80%    | 18.83%    | 16.94%    | 9.52%     |

| INCOME STATEMENTS | Dec-14    | Dec-15    | Dec-16    | Dec-17    | Sep-18    |
|-------------------|-----------|-----------|-----------|-----------|-----------|
| Total Revenues    | 6,337,561 | 5,331,404 | 6,513,980 | 8,974,708 | 6,290,429 |
| Growth (%)        |           | -15.88%   | 22.18%    | 37.78%    |           |

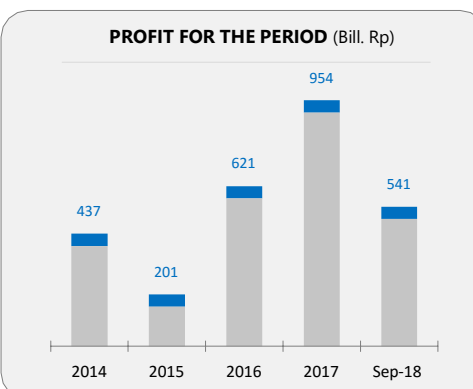
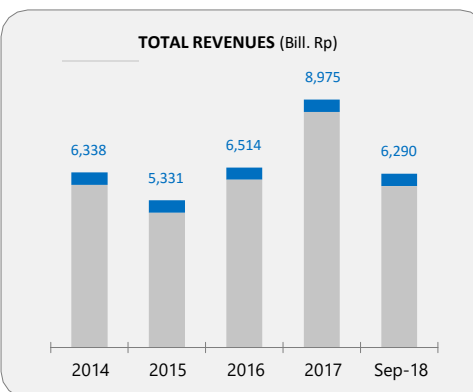
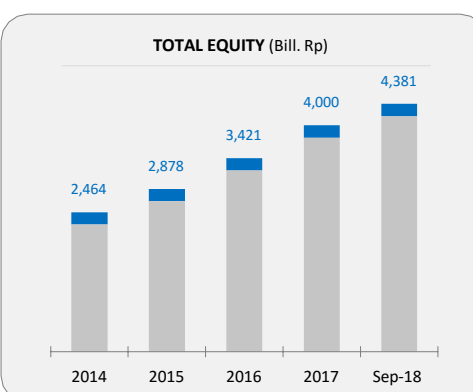
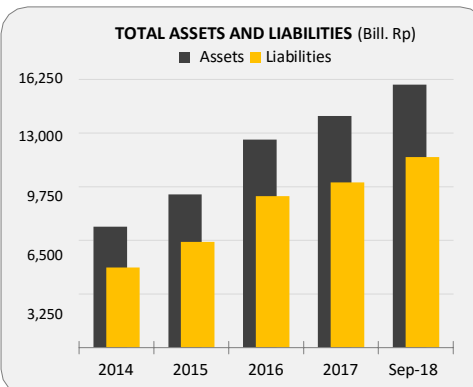
|                   |           |           |           |           |           |
|-------------------|-----------|-----------|-----------|-----------|-----------|
| Cost of Revenues  | 5,044,887 | 4,160,926 | 4,888,655 | 6,709,085 | 4,616,086 |
| Gross Profit      | 1,292,674 | 1,170,478 | 1,625,325 | 2,265,623 | 1,674,343 |
| Expenses (Income) | -         | 907,264   | 822,613   | 1,021,027 | 957,708   |
| Operating Profit  | -         | -         | -         | 1,244,596 | 716,635   |
| Growth (%)        |           |           |           |           |           |

|                         |          |         |         |           |         |
|-------------------------|----------|---------|---------|-----------|---------|
| Other Income (Expenses) | -730,255 | -       | -       | -         | -       |
| Income before Tax       | 562,419  | 263,214 | 802,712 | 1,244,596 | 716,635 |
| Tax                     | 125,916  | 62,431  | 181,701 | 290,239   | 175,432 |
| Profit for the period   | 436,503  | 200,783 | 621,011 | 954,357   | 541,203 |
| Growth (%)              |          | -54.00% | 209.29% | 53.68%    |         |

|                            |         |         |         |         |         |
|----------------------------|---------|---------|---------|---------|---------|
| Period Attributable        | 433,463 | 197,012 | 615,446 | 948,993 | 537,693 |
| Comprehensive Income       | 435,953 | 558,226 | 638,167 | 900,718 | 541,203 |
| Comprehensive Attributable | 432,913 | 554,332 | 632,489 | 895,253 | 537,693 |

| RATIOS            | Dec-14 | Dec-15 | Dec-16 | Dec-17 | Sep-18 |
|-------------------|--------|--------|--------|--------|--------|
| Current Ratio (%) | 110.44 | 115.54 | 110.36 | 110.91 | 192.68 |
| Dividend (Rp)     | -      | 12.00  | 20.00  | 75.00  | -      |
| EPS (Rp)          | 81.14  | 36.88  | 115.21 | 177.64 | 100.65 |
| BV (Rp)           | 461.32 | 538.83 | 640.31 | 748.76 | 820.04 |
| DAR (X)           | 0.66   | 0.69   | 0.73   | 0.71   | 0.72   |
| DER(X)            | 1.97   | 2.23   | 2.68   | 2.51   | 2.64   |
| ROA (%)           | 5.96   | 2.16   | 4.93   | 6.80   | 3.40   |
| ROE (%)           | 17.71  | 6.98   | 18.15  | 23.86  | 12.35  |
| GPM (%)           | 20.40  | 21.95  | 24.95  | 25.24  | 26.62  |
| OPM (%)           | -      | -      | -      | 13.87  | 11.39  |
| NPM (%)           | 6.89   | 3.77   | 9.53   | 10.63  | 8.60   |
| Payout Ratio (%)  | -      | 32.54  | 17.36  | 42.22  | -      |
| Yield (%)         | -      | 2.35   | 2.02   | 6.12   | -      |

|                    |        |        |        |        |        |
|--------------------|--------|--------|--------|--------|--------|
| *US\$ Rate (B), Rp | 12,436 | 13,794 | 13,436 | 13,548 | 14,929 |
|--------------------|--------|--------|--------|--------|--------|



# BUDI Budi Starch & Sweetener Tbk.

## COMPANY REPORT : JANUARY 2019

Main Board  
Industry Sector : Consumer Goods Industry (5)  
Industry Sub Sector : Food And Beverages (51)

## As of 31 January 2019

Individual Index : 55.824  
Listed Shares : 4,498,997,362  
Market Capitalization : 463,396,728,286



### COMPANY HISTORY

Established Date : 15-Jan-1979  
Listing Date : 08-May-1995 (IPO Price: 3,000)  
Underwriter IPO :  
PT Inter-Pacific Securities  
PT Lippo Securities  
PT DBS Securities Indonesia  
Securities Administration Bureau :  
PT Sinartama Gunita

### BOARD OF COMMISSIONERS

1. Widarto
  2. Daniel Kandinata \*)
  3. Oey Alfred
- \*) Independent Commissioners

### BOARD OF DIRECTORS

1. Santoso Winata
2. Djunaedi Nur
3. Mawarti Wongso
4. Oey Albert
5. Sudarmo Tasmin
6. Sugandhi
7. Tan Anthony Sudirdjo

### AUDIT COMMITTEE

1. Daniel Kandinata
2. Liesye Lestari
3. Yetty Semiawaty

### CORPORATE SECRETARY

Alice Yuliana

### HEAD OFFICE

Wisma Budi floor 8-9  
Jl. H.R. Rasuna Said Kav.C-6  
Jakarta 12940  
Phone : (021) 521-3383  
Fax : (021) 521-3392  
Homepage : [www.budistarchsweetener.com](http://www.budistarchsweetener.com)  
Email : [alice.yuliana@sungaibudi.com](mailto:alice.yuliana@sungaibudi.com)

### SHAREHOLDERS (December 2018)

|                           |               |        |
|---------------------------|---------------|--------|
| 1. PT Sungai Budi         | 1,201,296,998 | 26.70% |
| 2. PT Budi Delta Swakarya | 1,201,271,833 | 26.70% |
| 3. Public (<5%)           | 2,096,428,531 | 46.60% |

### DIVIDEND ANNOUNCEMENT

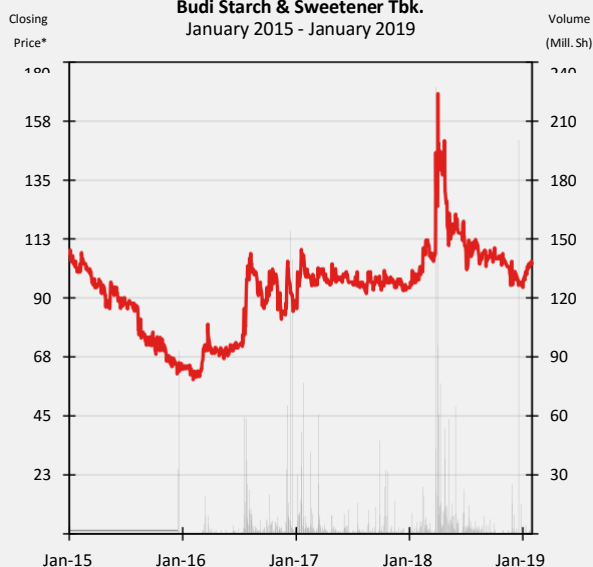
| Year | Bonus<br>Shares | Cash<br>Dividend    | Cum Date  | Ex Date   | Recording<br>Date | Payment<br>Date | F/I |
|------|-----------------|---------------------|-----------|-----------|-------------------|-----------------|-----|
| 1994 |                 | 50.00               | 20-Jul-95 | 21-Jul-95 | 31-Jul-95         | 14-Aug-95       | F   |
| 1995 |                 | 100.00              | 9-Oct-95  | 10-Oct-95 | 18-Oct-95         | 25-Oct-95       | I   |
| 1995 | 1 : 1           | 50.00               | 10-Jul-96 | 11-Jul-96 | 19-Jul-96         | 15-Aug-96       | F   |
| 1996 |                 | 100.00              | 4-Dec-96  | 5-Dec-96  | 13-Dec-96         | 23-Dec-96       | I   |
| 1996 |                 | 50.00               | 21-Jul-97 | 22-Jul-97 | 31-Jul-97         | 13-Aug-97       | F   |
| 1997 | 4 : 1           |                     | 21-Jul-97 | 22-Jul-97 | 31-Jul-97         | 13-Aug-97       | BS  |
| 1999 |                 | 30.00               | 28-Mar-00 | 29-Mar-00 | 11-Apr-00         | 18-Apr-00       | I   |
| 2007 |                 | 3.00                | 4-Dec-07  | 5-Dec-07  | 7-Dec-07          | 27-Dec-07       | I   |
| 2007 |                 | 1.80                | 10-Jul-08 | 11-Jul-08 | 15-Jul-08         | 29-Jul-08       | F   |
| 2008 |                 | 7.00                | 8-Sep-08  | 9-Sep-08  | 11-Sep-08         | 23-Sep-08       | I   |
| 2008 |                 | 6.00                | 3-Sep-09  | 4-Sep-09  | 8-Sep-09          | 15-Sep-09       | F   |
| 2009 |                 | 9.67                | 15-Jun-10 | 16-Jun-10 | 18-Jun-10         | 29-Jun-10       | F   |
| 2010 |                 | min 4.63 - max 5.03 | 13-Jun-11 | 14-Jun-11 | 16-Jun-11         | 28-Jun-11       | F   |
| 2011 |                 | 8.00                | 28-Sep-11 | 29-Sep-11 | 3-Oct-11          | 11-Oct-11       | I   |
| 2017 |                 | 4.00                | 4-Jun-18  | 5-Jun-18  | 7-Jun-18          | 26-Jun-18       | F   |

### ISSUED HISTORY

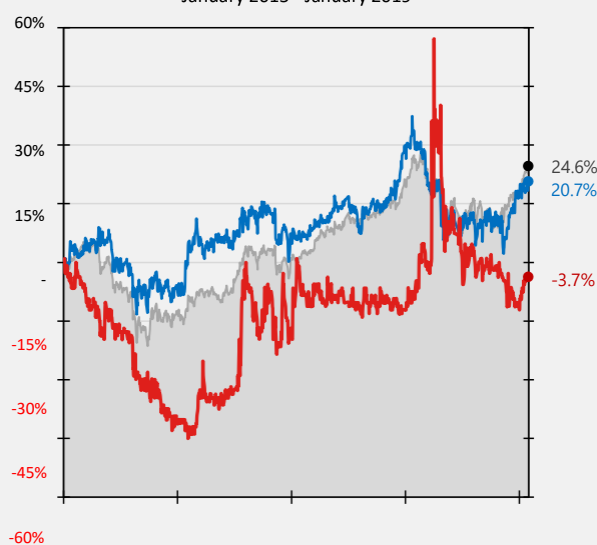
| No. | Type of Listing         | Shares         | Listing<br>Date | Trading<br>Date |
|-----|-------------------------|----------------|-----------------|-----------------|
| 1.  | First Issue             | 30,000,000     | 8-May-95        | 8-May-95        |
| 2.  | Company Listing         | 70,000,000 T:  | 8-May-95        | 30-Nov-95       |
| 3.  | Bonus Shares            | 150,000,000 T: | 16-Aug-96       | 14-Aug-97       |
| 4.  | Additional Listing      | 12,500,000     | 5-Jan-99        | 5-Jan-99        |
| 5.  | Stock Split             | 787,500,000    | 28-Sep-99       | 28-Sep-99       |
| 6.  | Add. Listing without RI | 581,500,000 T: | 24-Feb-05       | 26-Jun-15       |
| 7.  | Right Issue             | 2,463,000,000  | 1-Aug-07        | 1-Aug-07        |
| 8.  | Warrant I               | 404,497,362 T: | 23-Jan-08       | 16-Jul-12       |

# BUDI Budi Starch & Sweetener Tbk.

**Closing Price\* and Trading Volume  
Budi Starch & Sweetener Tbk.  
January 2015 - January 2019**



**Closing Price\*, Jakarta Composite Index (IHSG) and  
Consumer Goods Industry Index  
January 2015 - January 2019**



| SHARES TRADED        | 2015 | 2016  | 2017  | 2018  | Jan-19 |
|----------------------|------|-------|-------|-------|--------|
| Volume (Million Sh.) | 178  | 1,103 | 1,067 | 1,944 | 22     |
| Value (Billion Rp)   | 12   | 115   | 107   | 251   | 2      |
| Frequency (Thou. X)  | 3    | 75    | 120   | 125   | 2      |
| Days                 | 236  | 238   | 238   | 240   | 22     |

|                |     |     |     |     |     |
|----------------|-----|-----|-----|-----|-----|
| Price (Rupiah) |     |     |     |     |     |
| High           | 112 | 116 | 115 | 183 | 104 |
| Low            | 59  | 59  | 85  | 92  | 94  |
| Close          | 63  | 87  | 94  | 96  | 103 |
| Close*         | 63  | 87  | 94  | 96  | 103 |

|                  |       |       |       |       |       |
|------------------|-------|-------|-------|-------|-------|
| PER (X)          | 14.46 | 9.75  | 10.30 | 11.60 | 12.45 |
| PER Industry (X) | 4.10  | 23.77 | 18.48 | 24.94 | 36.52 |
| PBV (X)          | 0.26  | 0.34  | 0.35  | 0.36  | 0.38  |

\* Adjusted price after corporate action

## TRADING ACTIVITIES

| Month  | Closing Price |     |       | Freq.<br>(X) | Volume<br>(Thou. Sh.) | Value<br>(Million Rp) | Day |
|--------|---------------|-----|-------|--------------|-----------------------|-----------------------|-----|
|        | High          | Low | Close |              |                       |                       |     |
| Jan-15 | 112           | 99  | 100   | 699          | 9,098                 | 946                   | 21  |
| Feb-15 | 108           | 99  | 101   | 255          | 3,953                 | 412                   | 19  |
| Mar-15 | 103           | 92  | 94    | 476          | 11,015                | 1,062                 | 22  |
| Apr-15 | 97            | 87  | 88    | 184          | 3,177                 | 297                   | 19  |
| May-15 | 102           | 86  | 93    | 459          | 8,667                 | 802                   | 17  |
| Jun-15 | 97            | 85  | 88    | 214          | 2,927                 | 262                   | 20  |
| Jul-15 | 89            | 82  | 85    | 96           | 648                   | 56                    | 18  |
| Aug-15 | 90            | 62  | 76    | 243          | 1,098                 | 85                    | 19  |
| Sep-15 | 90            | 68  | 74    | 172          | 657                   | 48                    | 20  |
| Oct-15 | 75            | 68  | 70    | 243          | 4,109                 | 295                   | 21  |
| Nov-15 | 73            | 63  | 64    | 182          | 3,502                 | 237                   | 21  |
| Dec-15 | 67            | 59  | 63    | 140          | 128,675               | 7,982                 | 19  |
| Jan-16 | 65            | 60  | 63    | 66           | 705                   | 44                    | 14  |
| Feb-16 | 63            | 59  | 62    | 104          | 1,652                 | 100                   | 18  |
| Mar-16 | 83            | 62  | 70    | 5,974        | 62,863                | 4,606                 | 21  |
| Apr-16 | 78            | 67  | 68    | 700          | 11,245                | 788                   | 21  |
| May-16 | 74            | 66  | 70    | 457          | 7,619                 | 529                   | 20  |
| Jun-16 | 78            | 68  | 72    | 779          | 19,396                | 1,386                 | 22  |
| Jul-16 | 116           | 72  | 102   | 11,073       | 232,327               | 21,631                | 16  |
| Aug-16 | 113           | 90  | 93    | 13,149       | 121,883               | 12,677                | 22  |
| Sep-16 | 100           | 84  | 89    | 6,379        | 46,687                | 4,282                 | 21  |
| Oct-16 | 106           | 89  | 97    | 11,946       | 82,756                | 8,189                 | 21  |
| Nov-16 | 100           | 79  | 86    | 5,396        | 49,868                | 4,402                 | 22  |
| Dec-16 | 114           | 83  | 87    | 18,803       | 466,334               | 55,919                | 20  |
| Jan-17 | 115           | 85  | 99    | 29,346       | 330,929               | 34,603                | 21  |
| Feb-17 | 103           | 91  | 97    | 4,365        | 114,056               | 11,260                | 19  |
| Mar-17 | 106           | 94  | 99    | 10,335       | 141,302               | 14,135                | 22  |
| Apr-17 | 106           | 95  | 101   | 2,288        | 43,020                | 4,284                 | 17  |
| May-17 | 103           | 96  | 97    | 1,652        | 27,042                | 2,657                 | 20  |
| Jun-17 | 104           | 95  | 96    | 4,997        | 52,088                | 5,178                 | 15  |
| Jul-17 | 101           | 93  | 95    | 7,288        | 42,009                | 4,068                 | 21  |
| Aug-17 | 102           | 91  | 96    | 3,525        | 41,079                | 3,983                 | 22  |
| Sep-17 | 104           | 93  | 95    | 18,835       | 89,465                | 8,860                 | 19  |
| Oct-17 | 104           | 93  | 96    | 33,195       | 128,467               | 12,675                | 22  |
| Nov-17 | 99            | 93  | 97    | 3,119        | 40,975                | 4,221                 | 22  |
| Dec-17 | 97            | 93  | 94    | 673          | 16,695                | 1,542                 | 18  |
| Jan-18 | 103           | 92  | 97    | 2,532        | 40,610                | 3,976                 | 22  |
| Feb-18 | 117           | 97  | 110   | 7,593        | 107,188               | 11,529                | 19  |
| Mar-18 | 183           | 101 | 126   | 16,583       | 316,725               | 47,645                | 21  |
| Apr-18 | 178           | 121 | 126   | 33,798       | 669,209               | 99,738                | 21  |
| May-18 | 136           | 106 | 120   | 16,470       | 247,323               | 30,574                | 20  |
| Jun-18 | 128           | 109 | 110   | 7,763        | 90,840                | 10,680                | 13  |
| Jul-18 | 117           | 98  | 109   | 8,851        | 80,872                | 8,741                 | 22  |
| Aug-18 | 116           | 102 | 108   | 2,723        | 52,763                | 5,725                 | 21  |
| Sep-18 | 113           | 102 | 104   | 3,663        | 28,489                | 3,037                 | 19  |
| Oct-18 | 112           | 100 | 104   | 1,537        | 18,479                | 1,975                 | 23  |
| Nov-18 | 108           | 93  | 95    | 18,021       | 52,432                | 5,407                 | 21  |
| Dec-18 | 106           | 94  | 96    | 5,459        | 239,568               | 21,884                | 18  |
| Jan-19 | 104           | 94  | 103   | 1,772        | 21,590                | 2,179                 | 22  |

# BUDI Budi Starch & Sweetener Tbk.

## Financial Data and Ratios

Public Accountant : Mirawati Sensi Idris

Book End : December

| BALANCE SHEET                     | Dec-14    | Dec-15    | Dec-16    | Dec-17    | Sep-18    |
|-----------------------------------|-----------|-----------|-----------|-----------|-----------|
| (in Million Rp, except Par Value) |           |           |           |           |           |
| Cash & Cash Equivalents           | 34,885    | 30,782    | 183,546   | 66,430    | 49,109    |
| Receivables                       | 526,564   | 922,862   | 347,280   | 465,038   | 650,659   |
| Inventories                       | 269,981   | 370,284   | 452,315   | 442,334   | 578,581   |
| Current Assets                    | 988,526   | 1,492,365 | 1,092,360 | 1,027,489 | 1,384,040 |
| Fixed Assets                      | 1,480,942 | 1,712,330 | 1,771,780 | 1,863,833 | 1,832,068 |
| Other Assets                      | 7,514     | 61,258    | 67,667    | 48,134    | 48,098    |
| Total Assets                      | 2,476,982 | 3,265,953 | 2,931,807 | 2,939,456 | 3,264,206 |
| Growth (%)                        |           | 31.85%    | -10.23%   | 0.26%     | 11.05%    |

|                       |           |           |           |           |           |
|-----------------------|-----------|-----------|-----------|-----------|-----------|
| Current Liabilities   | 945,117   | 1,491,109 | 1,090,816 | 1,019,986 | 1,380,843 |
| Long Term Liabilities | 618,514   | 669,593   | 676,009   | 724,770   | 678,872   |
| Total Liabilities     | 1,563,631 | 2,160,702 | 1,766,825 | 1,744,756 | 2,059,715 |
| Growth (%)            |           | 38.18%    | -18.23%   | -1.25%    | 18.05%    |

|                          |         |           |           |           |           |
|--------------------------|---------|-----------|-----------|-----------|-----------|
| Authorized Capital       | 525,000 | 750,000   | 750,000   | 750,000   | 750,000   |
| Paid up Capital          | 512,375 | 562,375   | 6,000     | 562,375   | 562,375   |
| Paid up Capital (Shares) | 4,099   | 4,499     | 48        | 4,499     | 4,499     |
| Par Value                | 125     | 125       | 125       | 125       | 125       |
| Retained Earnings        | 248,723 | 264,296   | 295,458   | 322,873   | 332,790   |
| Total Equity             | 913,351 | 1,105,251 | 1,164,982 | 1,194,700 | 1,204,491 |
| Growth (%)               |         | 21.01%    | 5.40%     | 2.55%     | 0.82%     |

| INCOME STATEMENTS | Dec-14    | Dec-15    | Dec-16    | Dec-17    | Sep-18    |
|-------------------|-----------|-----------|-----------|-----------|-----------|
| Total Revenues    | 2,284,211 | 2,378,805 | 2,467,553 | 2,510,578 | 2,065,855 |
| Growth (%)        |           | 4.14%     | 3.73%     | 1.74%     |           |

|                   |           |           |           |           |           |
|-------------------|-----------|-----------|-----------|-----------|-----------|
| Cost of Revenues  | 2,007,000 | 2,158,224 | 2,193,293 | 2,162,779 | 1,815,770 |
| Gross Profit      | 277,211   | 220,581   | 274,260   | 347,799   | 250,085   |
| Expenses (Income) | 144,847   | 98,244    | 109,409   | 165,086   | 99,389    |
| Operating Profit  | 132,364   | 122,337   | 164,851   | 182,713   | 150,696   |
| Growth (%)        |           | -7.58%    | 34.75%    | 10.84%    |           |

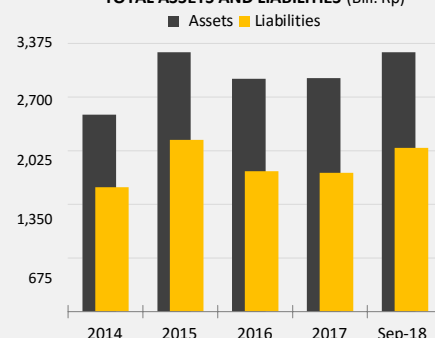
|                         |         |         |          |          |          |
|-------------------------|---------|---------|----------|----------|----------|
| Other Income (Expenses) | -88,876 | -70,212 | -112,019 | -121,697 | -102,461 |
| Income before Tax       | 43,488  | 52,125  | 52,832   | 61,016   | 48,235   |
| Tax                     | 14,989  | 31,053  | 14,208   | 15,325   | 18,501   |
| Profit for the period   | 28,499  | 21,072  | 38,624   | 45,691   | 29,734   |
| Growth (%)              |         | -26.06% | 83.30%   | 18.30%   |          |

|                            |        |         |        |        |        |
|----------------------------|--------|---------|--------|--------|--------|
| Period Attributable        | 27,912 | 19,602  | 33,651 | 41,078 | 27,913 |
| Comprehensive Income       | 28,230 | 146,466 | 36,956 | 40,965 | 27,787 |
| Comprehensive Attributable | 27,643 | 144,934 | 32,120 | 36,472 | 25,966 |

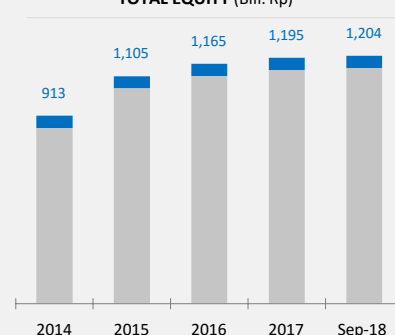
| RATIOS            | Dec-14 | Dec-15 | Dec-16    | Dec-17 | Sep-18 |
|-------------------|--------|--------|-----------|--------|--------|
| Current Ratio (%) | 104.59 | 100.08 | 100.14    | 100.74 | 100.23 |
| Dividend (Rp)     | -      | -      | -         | 4.00   | -      |
| EPS (Rp)          | 6.81   | 4.36   | 701.06    | 9.13   | 6.20   |
| BV (Rp)           | 222.82 | 245.67 | 24,270.46 | 265.55 | 267.72 |
| DAR (X)           | 0.63   | 0.66   | 0.60      | 0.59   | 0.63   |
| DER(X)            | 1.71   | 1.95   | 1.52      | 1.46   | 1.71   |
| ROA (%)           | 1.15   | 0.65   | 1.32      | 1.55   | 0.91   |
| ROE (%)           | 3.12   | 1.91   | 3.32      | 3.82   | 2.47   |
| GPM (%)           | 12.14  | 9.27   | 11.11     | 13.85  | 12.11  |
| OPM (%)           | 5.79   | 5.14   | 6.68      | 7.28   | 7.29   |
| NPM (%)           | 1.25   | 0.89   | 1.57      | 1.82   | 1.44   |
| Payout Ratio (%)  | -      | -      | -         | 43.81  | -      |
| Yield (%)         | -      | -      | -         | 4.26   | -      |

|                    |        |        |        |        |        |
|--------------------|--------|--------|--------|--------|--------|
| *US\$ Rate (B), Rp | 12,436 | 13,794 | 13,436 | 13,548 | 14,929 |
|--------------------|--------|--------|--------|--------|--------|

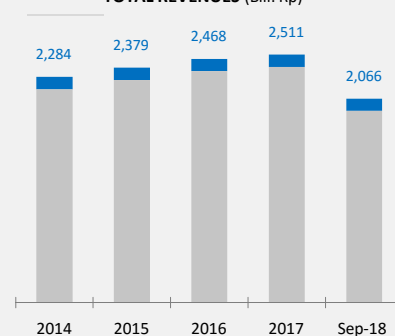
TOTAL ASSETS AND LIABILITIES (Bill. Rp)



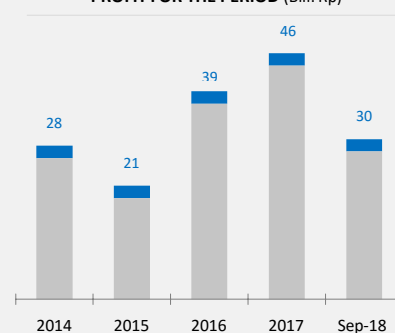
TOTAL EQUITY (Bill. Rp)



TOTAL REVENUES (Bill. Rp)



PROFIT FOR THE PERIOD (Bill. Rp)



# GGRM Gudang Garam Tbk.

COMPANY REPORT : JANUARY 2019

As of 31 January 2019

Main Board  
Industry Sector : Consumer Goods Industry (5)  
Industry Sub Sector : Tobacco Manufacturers (52)

Individual Index : 3,264.390  
Listed Shares : 1,924,088,000  
Market Capitalization : 160,949,961,200,000

9 | 160.9T | 2.17% | 45.66%  
29 | 19.0T | 0.92% | 60.70%

## COMPANY HISTORY

Established Date : 26-Jun-1958  
Listing Date : 27-Aug-1990 (IPO Price: 10,250)  
Underwriter IPO :  
PT Danareksa Sekuritas  
PT Finconesia  
Securities Administration Bureau :  
PT Raya Saham Registrasi

## BOARD OF COMMISSIONERS

1. Juni Setiawati Wonowidjojo
  2. Frank Willem Van Gelder
  3. Gotama Hengdratsonata
  4. Lucas Mulia Suhardja
- \*) Independent Commissioners

## BOARD OF DIRECTORS

1. Susilo Wonowidjojo
2. Buana Susilo
3. Herry Susianto
4. Heru Budiman
5. Istata Taswin Siddharta
6. Lengga Nurullah
7. Sony Sasono Rahmadi

## AUDIT COMMITTEE

1. Gotama Hengdratsonata
2. Chetryana Gunardi
3. Tony Gunawan

## CORPORATE SECRETARY

Heru Budiman

## HEAD OFFICE

Jl. Jend. A. Yani No. 75-79  
Jakarta 10510

Phone : (021) 2955-7000

Fax : (021) 2955-7009

Homepage : www.gudanggaramtbk.com

Email : corporate\_secretary@gudanggaramtbk.com

## SHAREHOLDERS (December 2018)

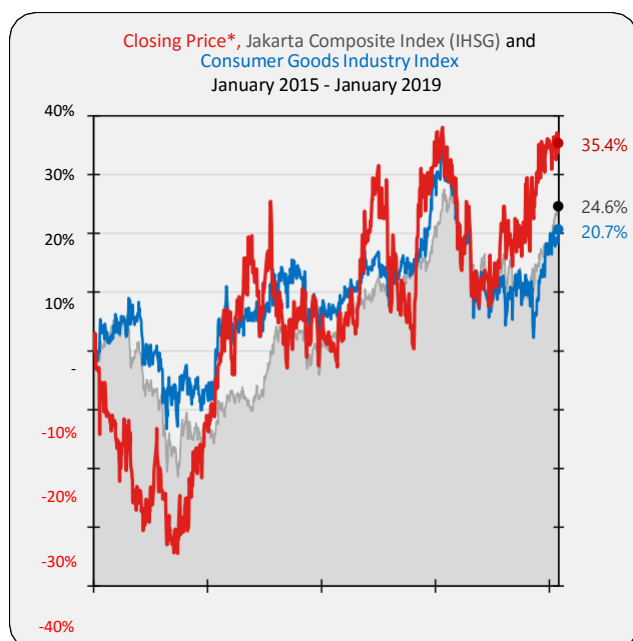
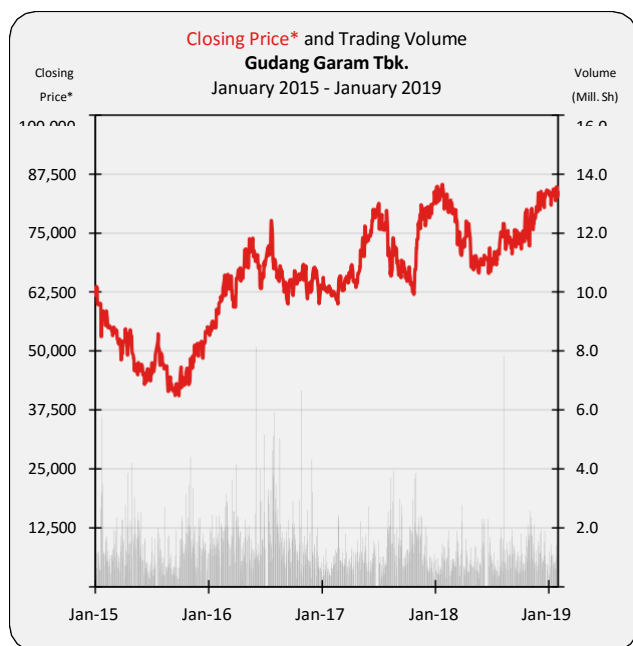
1. Suryaduta Investama 1,333,146,800 : 69.29%
2. Suryamitra Kusuma 120,442,700 : 6.26%
3. Public (<5%) 470,498,500 : 24.45%

## DIVIDEND ANNOUNCEMENT

| Year | Bonus Shares | Cash Dividend | Cum Date  | Ex Date   | Recording Date | Payment Date | F/I |
|------|--------------|---------------|-----------|-----------|----------------|--------------|-----|
| 1990 |              | 150.00        | 12-Jul-91 | 15-Jul-91 | 20-Jul-91      | 9-Aug-91     | F   |
| 1992 |              | 150.00        | 22-Jul-93 | 23-Jul-93 | 30-Jul-93      | 23-Aug-93    | F   |
| 1993 |              | 155.00        | 6-Jul-94  | 7-Jul-94  | 14-Jul-94      | 13-Aug-94    | F   |
| 1994 |              | 210.00        | 5-Jul-95  | 6-Jul-95  | 14-Jul-95      | 14-Aug-95    | F   |
| 1995 | 1 : 1        |               | 25-Apr-96 | 26-Apr-96 | 6-May-96       | 3-Jun-96     | BS  |
| 1995 |              | 75.00         | 16-Jul-96 | 17-Jul-96 | 25-Jul-96      | 19-Aug-96    | F   |
| 1996 |              | 150.00        | 7-Jul-97  | 8-Jul-97  | 16-Jul-97      | 14-Aug-97    | F   |
| 1997 |              | 120.00        | 3-Jul-98  | 7-Jul-98  | 15-Jul-98      | 13-Aug-98    | F   |
| 1998 |              | 260.00        | 5-Jul-99  | 6-Jul-99  | 14-Jul-99      | 11-Aug-99    | F   |
| 1999 |              | 500.00        | 6-Jul-00  | 7-Jul-00  | 17-Jul-00      | 31-Jul-00    | F   |
| 2000 |              | 500.00        | 27-Nov-00 | 28-Nov-00 | 5-Dec-00       | 19-Dec-00    | I   |
| 2001 |              | 300.00        | 2-Jul-02  | 3-Jul-02  | 8-Jul-02       | 19-Jul-02    | F   |
| 2002 |              | 300.00        | 27-Jun-03 | 30-Jun-03 | 2-Jul-03       | 11-Jul-03    | F   |
| 2003 |              | 300.00        | 16-Jul-04 | 19-Jul-04 | 21-Jul-04      | 4-Aug-04     | F   |
| 2004 |              | 500.00        | 21-Jul-05 | 22-Jul-05 | 26-Jul-05      | 8-Aug-05     | F   |
| 2005 |              | 500.00        | 21-Jul-06 | 24-Jul-06 | 26-Jul-06      | 7-Aug-06     | F   |
| 2006 |              | 250.00        | 23-Jul-07 | 24-Jul-07 | 26-Jul-07      | 9-Aug-07     | F   |
| 2007 |              | 250.00        | 15-Jul-08 | 16-Jul-08 | 18-Jul-08      | 1-Aug-08     | F   |
| 2008 |              | 350.00        | 14-Jul-09 | 15-Jul-09 | 17-Jul-09      | 30-Jul-09    | F   |
| 2009 |              | 650.00        | 13-Jul-10 | 14-Jul-10 | 16-Jul-10      | 29-Jul-10    | F   |
| 2010 |              | 880.00        | 25-Jul-11 | 26-Jul-11 | 28-Jul-11      | 8-Aug-11     | F   |
| 2011 |              | 1,000.00      | 30-Jul-12 | 31-Jul-12 | 2-Aug-12       | 16-Aug-12    | F   |
| 2012 |              | 800.00        | 22-Jul-13 | 23-Jul-13 | 25-Jul-13      | 15-Aug-13    | F   |
| 2013 |              | 800.00        | 6-Aug-14  | 7-Aug-14  | 11-Aug-14      | 25-Aug-14    | F   |
| 2014 |              | 800.00        | 3-Jul-15  | 6-Jul-15  | 8-Jul-15       | 30-Jul-15    | F   |
| 2015 |              | 2,600.00      | 28-Jun-16 | 29-Jun-16 | 1-Jul-16       | 22-Jul-16    | F   |
| 2016 |              | 2,600.00      | 3-Jul-17  | 4-Jul-17  | 6-Jul-17       | 19-Jul-17    | F   |
| 2017 |              | 2,600.00      | 3-Jul-18  | 4-Jul-18  | 6-Jul-18       | 26-Jul-18    | F   |

## ISSUED HISTORY

| No. | Type of Listing | Shares      | Listing Date | Trading Date |
|-----|-----------------|-------------|--------------|--------------|
| 1.  | First Issue     | 57,807,800  | 27-Aug-90    | 27-Aug-90    |
| 2.  | Partial Listing | 38,396,600  | 27-Aug-90    | 27-Feb-91    |
| 3.  | Founder Shares  | 375,197,600 | 31-May-94    | 31-May-94    |
| 4.  | Koperasi        | 9,620,000   | 31-May-94    | 0-Jan-00     |
| 5.  | Stock Split     | 481,022,000 | 3-Jun-96     | 3-Jun-96     |
| 6.  | Bonus Shares    | 962,044,000 | 4-Jun-96     | 5-Jun-96     |



| SHARES TRADED        | 2015   | 2016   | 2017   | 2018   | Jan-19 |
|----------------------|--------|--------|--------|--------|--------|
| Volume (Million Sh.) | 312    | 408    | 273    | 245    | 23     |
| Value (Billion Rp)   | 15,434 | 26,537 | 19,135 | 18,480 | 1,928  |
| Frequency (Thou. X)  | 547    | 724    | 595    | 602    | 65     |
| Days                 | 244    | 246    | 238    | 240    | 22     |

|                |        |        |        |        |        |
|----------------|--------|--------|--------|--------|--------|
| Price (Rupiah) |        |        |        |        |        |
| High           | 64,000 | 77,950 | 83,800 | 86,400 | 86,650 |
| Low            | 39,500 | 52,550 | 60,050 | 66,125 | 80,525 |
| Close          | 55,000 | 63,900 | 83,800 | 83,625 | 83,650 |
| Close*         | 55,000 | 63,900 | 83,800 | 83,625 | 83,650 |

|                  |       |       |       |       |       |
|------------------|-------|-------|-------|-------|-------|
| PER (X)          | 16.44 | 20.04 | 22.32 | 20.95 | 20.95 |
| PER Industry (X) | 17.71 | 23.77 | 18.48 | 24.94 | 36.52 |
| PBV (X)          | 2.78  | 3.27  | 4.04  | 3.75  | 3.75  |

\* Adjusted price after corporate action

| TRADING ACTIVITIES |               |        |        |              |                       |                       |     |
|--------------------|---------------|--------|--------|--------------|-----------------------|-----------------------|-----|
| Month              | Closing Price |        |        | Freq.<br>(X) | Volume<br>(Thou. Sh.) | Value<br>(Million Rp) | Day |
|                    | High          | Low    | Close  |              |                       |                       |     |
| Jan-15             | 64,000        | 51,900 | 57,800 | 51,790       | 31,660                | 1,822,015             | 21  |
| Feb-15             | 58,500        | 53,400 | 53,425 | 34,568       | 20,001                | 1,112,549             | 19  |
| Mar-15             | 55,325        | 47,525 | 51,000 | 46,689       | 28,926                | 1,510,900             | 22  |
| Apr-15             | 54,650        | 49,025 | 50,000 | 49,629       | 33,822                | 1,754,518             | 21  |
| May-15             | 50,600        | 44,750 | 47,100 | 58,307       | 34,542                | 1,620,711             | 19  |
| Jun-15             | 47,500        | 42,000 | 45,100 | 37,643       | 15,845                | 710,356               | 21  |
| Jul-15             | 54,150        | 44,775 | 49,500 | 37,887       | 20,455                | 1,000,185             | 19  |
| Aug-15             | 49,875        | 41,000 | 44,500 | 35,432       | 17,485                | 776,131               | 20  |
| Sep-15             | 44,500        | 39,500 | 42,000 | 30,568       | 13,048                | 548,579               | 21  |
| Oct-15             | 47,800        | 41,950 | 42,950 | 59,672       | 36,514                | 1,616,201             | 21  |
| Nov-15             | 52,650        | 42,925 | 48,900 | 62,483       | 33,338                | 1,609,672             | 21  |
| Dec-15             | 55,000        | 48,275 | 55,000 | 42,043       | 26,125                | 1,352,426             | 19  |
|                    |               |        |        |              |                       |                       |     |
| Jan-16             | 59,000        | 52,550 | 58,350 | 48,532       | 30,319                | 1,683,368             | 20  |
| Feb-16             | 67,225        | 56,300 | 63,700 | 51,055       | 36,430                | 2,260,534             | 20  |
| Mar-16             | 67,375        | 58,750 | 65,300 | 70,197       | 39,728                | 2,495,093             | 21  |
| Apr-16             | 72,300        | 64,200 | 69,250 | 57,516       | 30,735                | 2,066,825             | 21  |
| May-16             | 74,400        | 67,300 | 69,200 | 49,033       | 24,657                | 1,738,467             | 20  |
| Jun-16             | 70,600        | 62,150 | 69,000 | 72,203       | 46,355                | 3,057,574             | 22  |
| Jul-16             | 77,950        | 67,525 | 67,525 | 84,491       | 40,981                | 2,936,952             | 16  |
| Aug-16             | 69,650        | 63,500 | 64,400 | 86,929       | 47,960                | 3,218,504             | 22  |
| Sep-16             | 65,275        | 59,225 | 62,000 | 52,759       | 30,092                | 1,902,824             | 21  |
| Oct-16             | 67,975        | 62,500 | 67,900 | 49,877       | 31,931                | 2,009,656             | 21  |
| Nov-16             | 68,400        | 60,725 | 65,000 | 65,177       | 29,638                | 1,901,121             | 22  |
| Dec-16             | 67,750        | 60,025 | 63,900 | 36,559       | 19,464                | 1,265,700             | 20  |
|                    |               |        |        |              |                       |                       |     |
| Jan-17             | 65,600        | 61,750 | 61,750 | 30,623       | 12,128                | 769,625               | 21  |
| Feb-17             | 66,000        | 60,050 | 65,850 | 39,070       | 21,477                | 1,339,524             | 19  |
| Mar-17             | 66,900        | 62,150 | 65,525 | 39,752       | 18,844                | 1,217,926             | 22  |
| Apr-17             | 68,575        | 63,500 | 66,400 | 36,236       | 15,542                | 1,022,339             | 17  |
| May-17             | 78,475        | 66,325 | 73,950 | 57,052       | 23,491                | 1,688,339             | 20  |
| Jun-17             | 80,325        | 73,200 | 78,300 | 36,237       | 13,843                | 1,075,711             | 15  |
| Jul-17             | 81,300        | 75,000 | 76,100 | 49,236       | 17,460                | 1,348,653             | 21  |
| Aug-17             | 76,700        | 65,500 | 69,200 | 78,252       | 39,566                | 2,763,675             | 22  |
| Sep-17             | 69,550        | 65,500 | 65,800 | 50,306       | 25,176                | 1,683,983             | 19  |
| Oct-17             | 71,025        | 61,925 | 70,000 | 75,945       | 38,516                | 2,523,652             | 22  |
| Nov-17             | 83,100        | 69,000 | 76,525 | 66,757       | 33,626                | 2,597,224             | 22  |
| Dec-17             | 83,800        | 77,500 | 83,800 | 35,450       | 13,805                | 1,104,763             | 18  |
|                    |               |        |        |              |                       |                       |     |
| Jan-18             | 86,400        | 80,000 | 81,050 | 47,800       | 16,441                | 1,367,066             | 22  |
| Feb-18             | 83,600        | 78,700 | 79,750 | 35,633       | 16,596                | 1,341,811             | 19  |
| Mar-18             | 80,400        | 69,675 | 72,475 | 50,676       | 23,410                | 1,743,515             | 21  |
| Apr-18             | 78,900        | 67,800 | 69,325 | 45,299       | 16,526                | 1,221,465             | 21  |
| May-18             | 72,000        | 66,525 | 68,500 | 50,280       | 17,037                | 1,171,658             | 20  |
| Jun-18             | 72,900        | 66,125 | 67,250 | 44,813       | 18,925                | 1,309,459             | 13  |
| Jul-18             | 75,975        | 66,850 | 75,150 | 37,452       | 15,803                | 1,120,874             | 22  |
| Aug-18             | 77,425        | 70,600 | 73,000 | 54,522       | 28,614                | 2,149,730             | 21  |
| Sep-18             | 75,725        | 69,950 | 74,050 | 48,523       | 18,684                | 1,368,052             | 19  |
| Oct-18             | 80,250        | 71,200 | 72,300 | 56,725       | 25,324                | 1,895,899             | 23  |
| Nov-18             | 84,200        | 71,700 | 82,000 | 70,171       | 27,614                | 2,175,620             | 21  |
| Dec-18             | 84,525        | 78,000 | 83,625 | 59,663       | 19,657                | 1,614,473             | 18  |
|                    |               |        |        |              |                       |                       |     |
| Jan-19             | 86,650        | 80,525 | 83,650 | 64,577       | 23,178                | 1,927,819             | 22  |



| BALANCE SHEET                     | Dec-14     | Dec-15     | Dec-16     | Dec-17     | Sep-18     |
|-----------------------------------|------------|------------|------------|------------|------------|
| (in Million Rp, except Par Value) |            |            |            |            |            |
| Cash & Cash Equivalents           | 1,588,110  | 2,725,891  | 1,595,120  | 2,329,179  | 2,662,748  |
| Receivables                       | 1,532,275  | 1,568,098  | 2,089,949  | 2,229,097  | 2,525,692  |
| Inventories                       | 34,739,327 | 37,255,928 | 37,545,222 | 37,920,289 | 36,964,732 |
| Current Assets                    | 38,532,600 | 42,568,431 | 41,933,173 | 43,764,490 | 43,403,961 |
| Fixed Assets                      | 18,973,272 | 20,106,488 | 20,498,950 | 21,408,575 | 20,819,977 |
| Other Assets                      | 604,404    | 639,170    | 381,081    | 629,881    | 1,493,452  |
| Total Assets                      | 58,220,600 | 63,505,413 | 62,951,634 | 66,759,930 | 66,751,360 |
| Growth (%)                        |            | 9.08%      | -0.87%     | 6.05%      | -0.01%     |

|                       |            |            |            |            |            |
|-----------------------|------------|------------|------------|------------|------------|
| Current Liabilities   | 23,783,134 | 24,045,086 | 21,638,565 | 22,611,042 | 21,753,835 |
| Long Term Liabilities | 1,208,746  | 1,452,418  | 1,748,841  | 1,961,224  | 2,069,826  |
| Total Liabilities     | 24,991,880 | 25,497,504 | 23,387,406 | 24,572,266 | 23,823,661 |
| Growth (%)            |            | 2.02%      | -8.28%     | 5.07%      | -3.05%     |

|                          |            |            |            |            |            |
|--------------------------|------------|------------|------------|------------|------------|
| Authorized Capital       | 1,158,000  | 1,158,000  | 1,158,000  | 1,158,000  | 1,158,000  |
| Paid up Capital          | 962,044    | 962,044    | 962,044    | 962,044    | 962,044    |
| Paid up Capital (Shares) | 1,924      | 1,924      | 1,924      | 1,924      | 1,924      |
| Par Value                | 500        | 500        | 500        | 500        | 500        |
| Retained Earnings        | 32,090,712 | 36,899,588 | 38,487,441 | 41,186,735 | 41,945,284 |
| Total Equity             | 33,228,720 | 38,007,909 | 39,564,228 | 42,187,664 | 42,927,699 |
| Growth (%)               |            | 14.38%     | 4.09%      | 6.63%      | 1.75%      |

| INCOME STATEMENTS | Dec-14     | Dec-15     | Dec-16     | Dec-17     | Sep-18     |
|-------------------|------------|------------|------------|------------|------------|
| Total Revenues    | 65,185,850 | 70,365,573 | 76,274,147 | 83,305,925 | 69,889,350 |
| Growth (%)        |            | 7.95%      | 8.40%      | 9.22%      |            |

|                   |            |            |            |            |            |
|-------------------|------------|------------|------------|------------|------------|
| Cost of Revenues  | 51,806,284 | 54,879,962 | 59,657,431 | 65,084,263 | 56,179,100 |
| Gross Profit      | 13,379,566 | 15,485,611 | 16,616,716 | 18,221,662 | 13,710,250 |
| Expenses (Income) | 4,801,910  | 5,420,744  | 6,494,678  | 6,984,409  | 5,473,307  |
| Operating Profit  | 8,577,656  | 10,064,867 | 10,122,038 | 11,237,253 | 8,236,943  |
| Growth (%)        |            | 17.34%     | 0.57%      | 11.02%     |            |

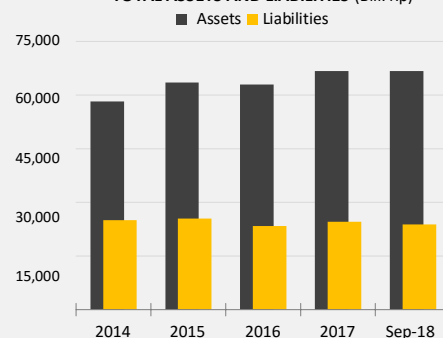
|                         |            |            |            |            |           |
|-------------------------|------------|------------|------------|------------|-----------|
| Other Income (Expenses) | -1,371,811 | -1,429,592 | -1,190,902 | -800,741   | -476,153  |
| Income before Tax       | 7,205,845  | 8,635,275  | 8,931,136  | 10,436,512 | 7,760,790 |
| Tax                     | 1,810,552  | 2,182,441  | 2,258,454  | 2,681,165  | 1,998,367 |
| Profit for the period   | 5,395,293  | 6,452,834  | 6,672,682  | 7,755,347  | 5,762,423 |
| Growth (%)              |            | 19.60%     | 3.41%      | 16.23%     |           |

|                            |           |           |           |           |           |
|----------------------------|-----------|-----------|-----------|-----------|-----------|
| Period Attributable        | 5,368,568 | 6,435,654 | 6,677,083 | 7,755,347 | 5,761,178 |
| Comprehensive Income       | 5,395,293 | 6,458,516 | 6,586,081 | 7,703,622 | 5,762,423 |
| Comprehensive Attributable | 5,368,568 | 6,441,336 | 6,590,482 | 7,701,923 | 5,761,178 |

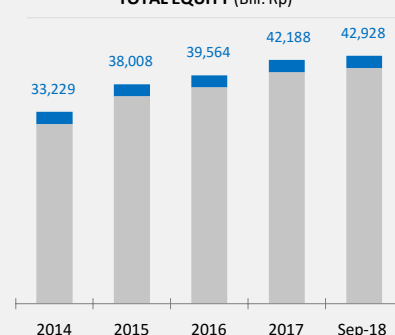
| RATIOS            | Dec-14    | Dec-15    | Dec-16    | Dec-17    | Sep-18    |
|-------------------|-----------|-----------|-----------|-----------|-----------|
| Current Ratio (%) | 162.02    | 177.04    | 193.79    | 193.55    | 199.52    |
| Dividend (Rp)     | 800.00    | 2,600.00  | 2,600.00  | 2,600.00  | -         |
| EPS (Rp)          | 2,790.19  | 3,344.78  | 3,470.26  | 4,030.66  | 2,994.24  |
| BV (Rp)           | 17,269.85 | 19,753.73 | 20,562.59 | 21,926.06 | 22,310.67 |
| DAR (X)           | 0.43      | 0.40      | 0.37      | 0.37      | 0.36      |
| DER(X)            | 0.75      | 0.67      | 0.59      | 0.58      | 0.55      |
| ROA (%)           | 9.27      | 10.16     | 10.60     | 11.62     | 8.63      |
| ROE (%)           | 16.24     | 16.98     | 16.87     | 18.38     | 13.42     |
| GPM (%)           | 20.53     | 22.01     | 21.79     | 21.87     | 19.62     |
| OPM (%)           | 13.16     | 14.30     | 13.27     | 13.49     | 11.79     |
| NPM (%)           | 8.28      | 9.17      | 8.75      | 9.31      | 8.25      |
| Payout Ratio (%)  | 28.67     | 77.73     | 74.92     | 64.51     | -         |
| Yield (%)         | 1.32      | 4.73      | 4.07      | 3.10      | -         |

|                    |        |        |        |        |        |
|--------------------|--------|--------|--------|--------|--------|
| *US\$ Rate (B), Rp | 12,436 | 13,794 | 13,436 | 13,548 | 14,929 |
|--------------------|--------|--------|--------|--------|--------|

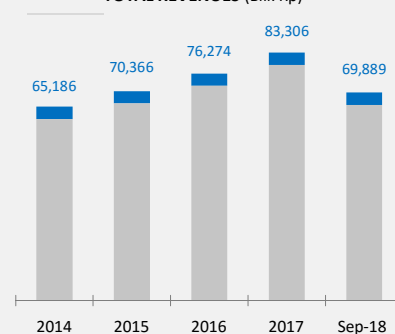
TOTAL ASSETS AND LIABILITIES (Bill. Rp)



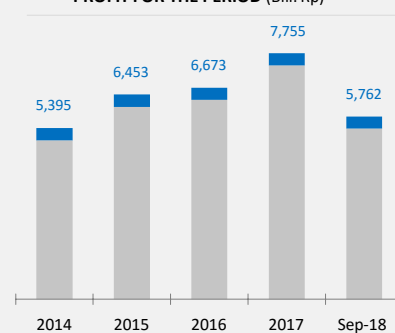
TOTAL EQUITY (Bill. Rp)



TOTAL REVENUES (Bill. Rp)



PROFIT FOR THE PERIOD (Bill. Rp)



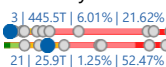
# HMSP H.M. Sampoerna Tbk.

## COMPANY REPORT : JANUARY 2019

Main Board  
Industry Sector : Consumer Goods Industry (5)  
Industry Sub Sector : Tobacco Manufacturers (52)

## As of 31 January 2019

Individual Index : 19,119,409  
Listed Shares : 116,318,076,900  
Market Capitalization : 445,498,234,527,000



### COMPANY HISTORY

Established Date : 1913  
Listing Date : 15-Aug-1990 (IPO Price: 12,600)  
Underwriter IPO :  
PT Inter-Pacific Securities  
PT Jardine Fleming Nusantara  
PT Multicor  
PT PDFCI Securities  
PT Inter-Pacific  
PT PDFCI Securities  
PT Usaha Pembiayaan Pembangunan Indonesia  
Securities Administration Bureau :  
PT Sirca Datapro Perdana

### BOARD OF COMMISSIONERS

1. John Gledhill
2. Goh Kok Ho \*)
3. Niken Kristiawan Rachmad
4. RB Permana Agung Dradjattun \*)
5. Wayan Mertasana Tantra
6. Yos Adiguna Ginting

\*) Independent Commissioners

### BOARD OF DIRECTORS

1. Mindaugas Trumpaitis
2. Elvira Lianita
3. Ingo Rose
4. Ivan Cahyadi
5. J. B. Wardhana
6. Michael Scharer
7. Troy J. Modlin
8. William Reilly Giff

### AUDIT COMMITTEE

1. Goh Kok Ho
2. Hanafi Usman
3. RB Permana Agung Dradjattun

### CORPORATE SECRETARY

Andy Revianto

### HEAD OFFICE

One Pacific Place, 18th Floor, SCBD  
Jl. Jend. Sudirman Kav. 52-53  
Jakarta 12190  
Phone : (021) 515-1234

Fax : (021) 515-2234

Homepage : [www.sampoerna.com](http://www.sampoerna.com)

Email : [contact@sampoerna.com](mailto:contact@sampoerna.com)  
[investor.relations@sampoerna.com](mailto:investor.relations@sampoerna.com)

### SHAREHOLDERS (December 2018)

1. PT Philip Morris Indonesia 107,594,221,125 : 92.50%
2. Public (<5%) 8,723,855,775 : 7.50%

### DIVIDEND ANNOUNCEMENT

|      | Bonus  | Cash     |           |           | Recording | Payment   |     |
|------|--------|----------|-----------|-----------|-----------|-----------|-----|
| Year | Shares | Dividend | Cum Date  | Ex Date   | Date      | Date      | F/I |
| 2001 |        | 25.00    | 8-Aug-02  | 9-Aug-02  | 14-Aug-02 | 27-Aug-02 | F   |
| 2002 |        | 50.00    | 7-Apr-03  | 8-Apr-03  | 10-Apr-03 | 17-Apr-03 | I   |
| 2002 |        | 140.00   | 21-Jul-03 | 22-Jul-03 | 24-Jul-03 | 7-Aug-03  | F   |
| 2003 |        | 120.00   | 18-May-04 | 19-May-04 | 24-May-04 | 31-May-04 | F   |
| 2003 |        | 120.00   | 18-May-04 | 19-May-04 | 24-May-04 | 31-May-04 | I   |
| 2003 |        | 120.00   | 26-Jul-04 | 27-Jul-04 | 29-Jul-04 | 9-Aug-04  | F   |
| 2003 |        | 80.00    | 26-Jul-04 | 27-Jul-04 | 29-Jul-04 | 9-Aug-04  | F   |
| 2003 |        | 175.00   | 23-Nov-04 | 24-Nov-04 | 26-Nov-04 | 9-Dec-04  | F   |
| 2004 |        | 175.00   | 23-Nov-04 | 24-Nov-04 | 26-Nov-04 | 9-Dec-04  | I   |
| 2004 |        | 275.00   | 21-Jul-05 | 22-Jul-05 | 26-Jul-05 | 9-Aug-05  | F   |
| 2005 |        | 340.00   | 13-Oct-05 | 14-Oct-05 | 18-Oct-05 | 27-Oct-05 | I   |
| 2005 |        | 200.00   | 30-Jun-06 | 3-Jul-06  | 5-Jul-06  | 19-Jul-06 | F   |
| 2005 |        | 250.00   | 15-Sep-06 | 18-Sep-06 | 20-Sep-06 | 4-Oct-06  | F   |
| 2006 |        | 100.00   | 23-Nov-06 | 24-Nov-06 | 28-Nov-06 | 12-Dec-06 | I   |
| 2006 |        | 145.00   | 11-Jun-07 | 12-Jun-07 | 14-Jun-07 | 28-Jun-07 | F   |
| 2007 |        | 150.00   | 31-Aug-07 | 3-Sep-07  | 5-Sep-07  | 21-Sep-07 | I   |
| 2006 |        | 510.00   | 26-Feb-08 | 27-Feb-08 | 29-Feb-08 | 17-Mar-08 | F   |
| 2007 |        | 280.00   | 10-Oct-08 | 13-Oct-08 | 15-Oct-08 | 29-Oct-08 | I   |
| 2007 |        | 110.00   | 6-Mar-09  | 10-Mar-09 | 12-Mar-09 | 25-Mar-09 | F   |
| 2008 |        | 110.00   | 2-Dec-09  | 3-Dec-09  | 7-Dec-09  | 22-Dec-09 | F   |
| 2009 |        | 150.00   | 8-Feb-10  | 9-Feb-10  | 11-Feb-10 | 25-Feb-10 | F   |
| 2009 |        | 615.00   | 7-Sep-10  | 15-Sep-10 | 17-Sep-10 | 29-Sep-10 | F   |
| 2010 |        | 1,110.00 | 10-Jun-11 | 13-Jun-11 | 15-Jun-11 | 24-Jun-11 | F   |
| 2010 |        | 270.00   | 12-Sep-11 | 13-Sep-11 | 15-Sep-11 | 29-Sep-11 | F   |
| 2010 |        | 260.00   | 6-Dec-11  | 7-Dec-11  | 9-Dec-11  | 23-Dec-11 | F   |
| 2011 |        | 200.00   | 6-Dec-11  | 7-Dec-11  | 9-Dec-11  | 23-Dec-11 | I   |
| 2011 |        | 1,050.00 | 22-May-12 | 23-May-12 | 25-May-12 | 5-Jun-12  | F   |
| 2011 |        | 500.00   | 6-Dec-12  | 7-Dec-12  | 11-Dec-12 | 27-Dec-12 | F   |
| 2012 |        | 1,300.00 | 10-Jun-13 | 11-Jun-13 | 13-Jun-13 | 27-Jun-13 | F   |
| 2013 |        | 969.00   | 2-Dec-13  | 3-Dec-13  | 6-Dec-13  | 18-Dec-13 | I   |
| 2013 |        | 927.00   | 3-Jun-14  | 4-Jun-14  | 6-Jun-14  | 20-Jun-14 | F   |
| 2013 |        | 360.00   | 11-Sep-14 | 12-Sep-14 | 16-Sep-14 | 30-Sep-14 | F   |
| 2013 |        | 1,143.00 | 4-Dec-14  | 5-Dec-14  | 9-Dec-14  | 23-Dec-14 | F   |
| 2014 |        | 975.00   | 5-May-15  | 6-May-15  | 8-May-15  | 28-May-15 | F   |
| 2014 |        | 1,033.00 | 18-Aug-15 | 19-Aug-15 | 21-Aug-15 | 9-Sep-15  | F   |
| 2015 |        | 2,225.00 | 4-May-16  | 9-May-16  | 11-May-16 | 27-May-16 | F   |
| 2016 |        | 107.70   | 5-May-17  | 8-May-17  | 10-May-17 | 26-May-17 | F   |
| 2017 |        | 107.30   | 7-May-18  | 8-May-18  | 11-May-18 | 25-May-18 | F   |

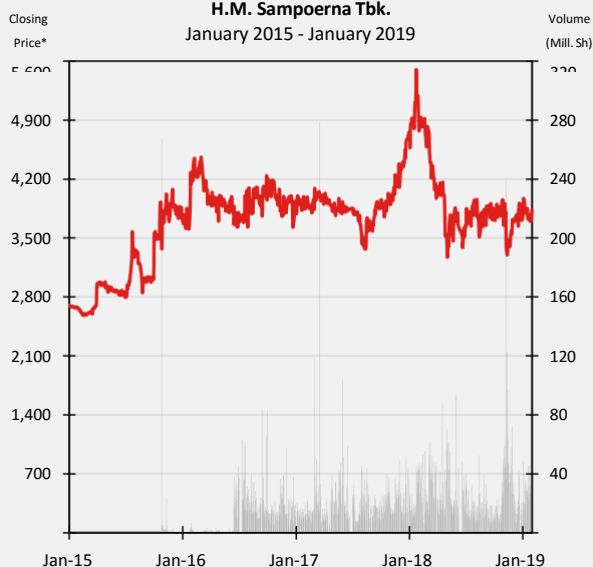
### ISSUED HISTORY

| No. | Type of Listing    | Shares             | Listing Date | Trading Date |
|-----|--------------------|--------------------|--------------|--------------|
| 1.  | First Issue        | 27,000,000         | 15-Aug-90    | 15-Aug-90    |
| 2.  | Partial Listing    | 18,000,000 T:      | 15-Aug-90 :  | 15-Feb-91    |
| 3.  | Company Listing    | 135,000,000        | 15-Jun-92    | 15-Jun-92    |
| 4.  | Bonus Shares       | 270,000,000        | 28-Sep-94    | 28-Sep-94    |
| 5.  | Stock Split        | 115,827,353,824 T: | 18-Nov-96 :  | 14-Jun-16    |
| 6.  | Additional Listing | 28,000,000         | 18-Jun-99    | 18-Jun-99    |
| 7.  | Buy Back           | -257,000,000 T:    | 17-Oct-01 :  | 27-Sep-04    |
| 8.  | Right Issue        | 269,723,076 T:     | 27-Oct-15 :  | 5-Nov-15     |

Closing Price\* and Trading Volume

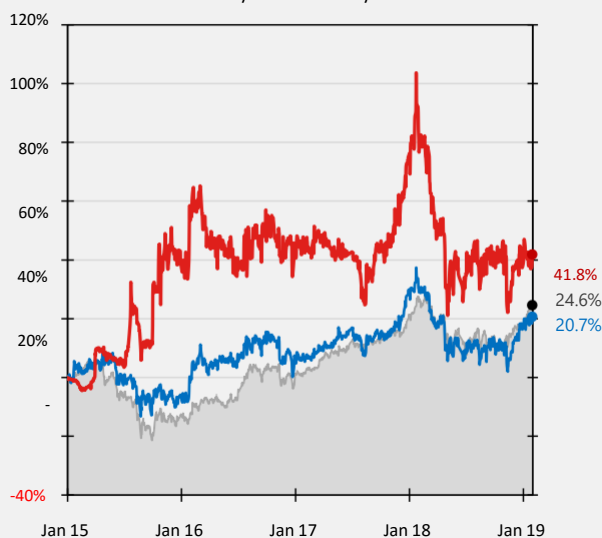
H.M. Sampoerna Tbk.

January 2015 - January 2019



Closing Price\*, Jakarta Composite Index (IHSG) and Consumer Goods Industry Index

January 2015 - January 2019



| SHARES TRADED        | 2015   | 2016   | 2017   | 2018   | Jan-19 |
|----------------------|--------|--------|--------|--------|--------|
| Volume (Million Sh.) | 357    | 2,985  | 5,043  | 6,517  | 680    |
| Value (Billion Rp)   | 29,089 | 22,740 | 19,824 | 25,835 | 2,589  |
| Frequency (Thou. X)  | 116    | 676    | 692    | 943    | 101    |
| Days                 | 234    | 246    | 238    | 240    | 22     |

|                |         |         |       |       |       |
|----------------|---------|---------|-------|-------|-------|
| Price (Rupiah) |         |         |       |       |       |
| High           | 102,000 | 112,125 | 4,780 | 5,550 | 4,080 |
| Low            | 64,900  | 3,560   | 3,350 | 3,230 | 3,660 |
| Close          | 94,000  | 3,830   | 4,730 | 3,710 | 3,830 |
| Close*         | 3,760   | 3,830   | 4,730 | 3,710 | 3,830 |

|                  |       |       |       |       |       |
|------------------|-------|-------|-------|-------|-------|
| PER (X)          | 42.20 | 36.79 | 43.42 | 33.40 | 34.48 |
| PER Industry (X) | 17.71 | 23.77 | 18.48 | 24.94 | 36.52 |
| PBV (X)          | 13.66 | 14.51 | 16.13 | 13.74 | 14.18 |

\* Adjusted price after corporate action

## TRADING ACTIVITIES

| Month  | Closing Price |        |         | Freq. (X) | Volume (Thou. Sh.) | Value (Million Rp) | Day |
|--------|---------------|--------|---------|-----------|--------------------|--------------------|-----|
|        | High          | Low    | Close   |           |                    |                    |     |
| Jan-15 | 68,650        | 66,250 | 67,200  | 294       | 99                 | 6,683              | 21  |
| Feb-15 | 66,900        | 64,900 | 65,200  | 269       | 1,889              | 121,465            | 19  |
| Mar-15 | 73,850        | 64,900 | 73,475  | 562       | 440                | 29,284             | 21  |
| Apr-15 | 75,375        | 71,750 | 73,500  | 273       | 99                 | 7,369              | 19  |
| May-15 | 73,750        | 71,000 | 72,500  | 156       | 203                | 7,970              | 17  |
| Jun-15 | 72,500        | 70,500 | 72,000  | 149       | 64                 | 4,562              | 16  |
| Jul-15 | 90,050        | 70,500 | 83,450  | 1,318     | 584                | 47,679             | 19  |
| Aug-15 | 84,850        | 71,000 | 76,000  | 633       | 291                | 22,329             | 20  |
| Sep-15 | 77,250        | 74,250 | 75,975  | 588       | 288                | 21,750             | 21  |
| Oct-15 | 99,000        | 76,000 | 91,975  | 37,998    | 287,642            | 22,430,794         | 21  |
| Nov-15 | 101,900       | 91,900 | 101,900 | 51,731    | 54,195             | 5,310,744          | 21  |
| Dec-15 | 102,000       | 91,025 | 94,000  | 21,935    | 11,202             | 1,078,449          | 19  |
|        |               |        |         |           |                    |                    |     |
| Jan-16 | 109,800       | 89,000 | 103,500 | 36,158    | 24,636             | 2,430,871          | 20  |
| Feb-16 | 112,125       | 99,400 | 109,950 | 36,736    | 17,453             | 1,853,483          | 20  |
| Mar-16 | 111,875       | 95,050 | 98,400  | 54,403    | 26,004             | 2,648,824          | 21  |
| Apr-16 | 102,850       | 92,500 | 99,875  | 50,409    | 24,529             | 2,391,750          | 21  |
| May-16 | 99,975        | 95,000 | 95,000  | 35,839    | 14,736             | 1,429,239          | 20  |
| Jun-16 | 100,100       | 3,560  | 3,800   | 68,602    | 344,650            | 2,049,175          | 22  |
| Jul-16 | 4,070         | 3,630  | 3,630   | 65,162    | 498,828            | 1,917,070          | 16  |
| Aug-16 | 4,100         | 3,770  | 3,980   | 76,242    | 451,888            | 1,790,344          | 22  |
| Sep-16 | 4,250         | 3,760  | 3,950   | 53,596    | 529,459            | 2,103,398          | 21  |
| Oct-16 | 4,240         | 3,950  | 3,950   | 57,637    | 262,366            | 1,069,604          | 21  |
| Nov-16 | 4,100         | 3,680  | 3,800   | 86,379    | 478,176            | 1,846,862          | 22  |
| Dec-16 | 4,050         | 3,620  | 3,830   | 54,880    | 312,401            | 1,208,891          | 20  |
|        |               |        |         |           |                    |                    |     |
| Jan-17 | 4,020         | 3,750  | 3,850   | 63,603    | 265,560            | 1,042,308          | 21  |
| Feb-17 | 4,000         | 3,800  | 3,870   | 48,665    | 263,177            | 1,023,576          | 19  |
| Mar-17 | 4,150         | 3,830  | 3,900   | 76,777    | 829,211            | 3,320,768          | 22  |
| Apr-17 | 4,030         | 3,820  | 3,820   | 39,258    | 268,009            | 1,047,348          | 17  |
| May-17 | 4,000         | 3,760  | 3,930   | 81,391    | 607,522            | 2,346,984          | 20  |
| Jun-17 | 3,900         | 3,770  | 3,840   | 46,422    | 303,374            | 1,167,097          | 15  |
| Jul-17 | 3,870         | 3,550  | 3,550   | 54,271    | 318,070            | 1,194,273          | 21  |
| Aug-17 | 3,770         | 3,350  | 3,640   | 76,016    | 494,045            | 1,743,689          | 22  |
| Sep-17 | 3,950         | 3,550  | 3,860   | 46,154    | 305,382            | 1,165,007          | 19  |
| Oct-17 | 4,060         | 3,760  | 3,980   | 47,188    | 483,631            | 1,888,289          | 22  |
| Nov-17 | 4,390         | 3,870  | 4,100   | 57,050    | 478,796            | 1,980,465          | 22  |
| Dec-17 | 4,780         | 4,200  | 4,730   | 55,250    | 426,241            | 1,903,758          | 18  |
|        |               |        |         |           |                    |                    |     |
| Jan-18 | 5,550         | 4,530  | 4,900   | 80,107    | 502,618            | 2,512,091          | 22  |
| Feb-18 | 4,970         | 4,550  | 4,820   | 69,261    | 549,982            | 2,658,291          | 19  |
| Mar-18 | 4,850         | 3,940  | 3,980   | 84,126    | 755,076            | 3,272,923          | 21  |
| Apr-18 | 4,220         | 3,500  | 3,540   | 67,241    | 553,852            | 2,200,752          | 21  |
| May-18 | 3,930         | 3,230  | 3,790   | 100,455   | 710,811            | 2,549,413          | 20  |
| Jun-18 | 3,830         | 3,350  | 3,580   | 58,295    | 336,721            | 1,210,968          | 13  |
| Jul-18 | 3,970         | 3,560  | 3,840   | 63,174    | 403,828            | 1,522,203          | 22  |
| Aug-18 | 3,950         | 3,470  | 3,830   | 69,228    | 398,000            | 1,477,578          | 21  |
| Sep-18 | 3,910         | 3,620  | 3,850   | 49,570    | 266,703            | 1,012,984          | 19  |
| Oct-18 | 3,980         | 3,620  | 3,730   | 53,101    | 379,154            | 1,448,003          | 23  |
| Nov-18 | 3,940         | 3,240  | 3,680   | 186,761   | 1,296,595          | 4,602,481          | 21  |
| Dec-18 | 3,920         | 3,590  | 3,710   | 61,969    | 363,440            | 1,367,711          | 18  |
|        |               |        |         |           |                    |                    |     |
| Jan-19 | 4,080         | 3,660  | 3,830   | 100,969   | 679,941            | 2,589,041          | 22  |

| BALANCE SHEET                     | Dec-14     | Dec-15     | Dec-16     | Dec-17     | Sep-18     |
|-----------------------------------|------------|------------|------------|------------|------------|
| (in Million Rp, except Par Value) |            |            |            |            |            |
| Cash & Cash Equivalents           | 65,086     | 1,718,738  | 5,056,183  | 7,501,737  | 21,370,931 |
| Receivables                       | 1,097,937  | 4,726,827  | 4,996,420  | 3,780,990  | 2,799,072  |
| Inventories                       | 17,431,586 | 19,071,523 | 19,442,023 | 18,023,238 | 13,092,503 |
| Current Assets                    | 20,777,514 | 29,807,330 | 33,647,496 | 34,180,353 | 40,621,474 |
| Fixed Assets                      | 5,919,600  | 6,281,176  | 6,895,483  | 6,890,750  | 6,940,249  |
| Other Assets                      | 804,448    | 844,896    | 870,447    | 1,017,533  | 541,458    |
| Total Assets                      | 28,380,630 | 38,010,724 | 42,508,277 | 43,141,063 | 49,114,276 |
| Growth (%)                        |            | 33.93%     | 11.83%     | 1.49%      | 13.85%     |

|                       |            |           |           |           |            |
|-----------------------|------------|-----------|-----------|-----------|------------|
| Current Liabilities   | 13,600,230 | 4,538,674 | 6,428,478 | 6,482,969 | 15,236,730 |
| Long Term Liabilities | 1,282,286  | 1,455,990 | 1,904,785 | 2,545,109 | 2,469,564  |
| Total Liabilities     | 14,882,516 | 5,994,664 | 8,333,263 | 9,028,078 | 17,706,294 |
| Growth (%)            |            | -59.72%   | 39.01%    | 8.34%     | 96.12%     |

|                          |            |            |            |            |            |
|--------------------------|------------|------------|------------|------------|------------|
| Authorized Capital       | 630,000    | 630,000    | 630,000    | 630,000    | 630,000    |
| Paid up Capital          | 438,300    | 465,272    | 465,272    | 465,272    | 465,272    |
| Paid up Capital (Shares) | 4,383      | 4,653      | 116,318    | 116,318    | 116,318    |
| Par Value                | 100        | 100        | 4          | 4          | 4          |
| Retained Earnings        | 12,343,869 | 10,448,143 | 12,625,625 | 12,581,976 | 9,791,343  |
| Total Equity             | 13,498,114 | 32,016,060 | 34,175,014 | 34,112,985 | 31,407,982 |
| Growth (%)               |            | 137.19%    | 6.74%      | -0.18%     | -7.93%     |

| INCOME STATEMENTS | Dec-14     | Dec-15     | Dec-16     | Dec-17     | Sep-18     |
|-------------------|------------|------------|------------|------------|------------|
| Total Revenues    | 80,690,139 | 89,069,306 | 95,466,657 | 99,091,484 | 77,534,836 |
| Growth (%)        |            | 10.38%     | 7.18%      | 3.80%      |            |

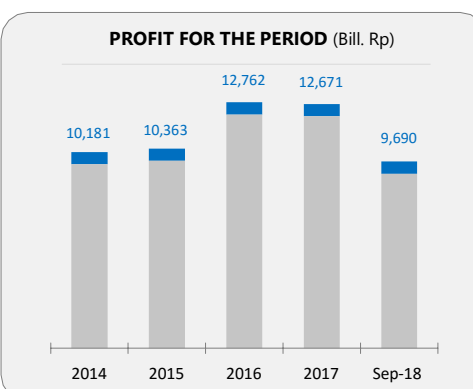
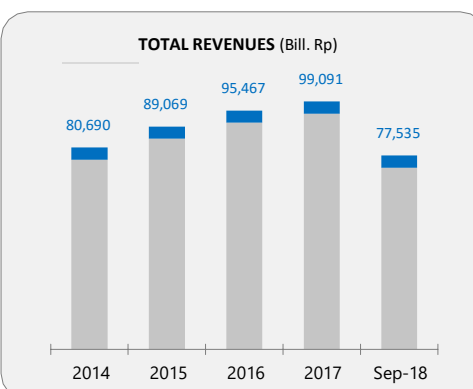
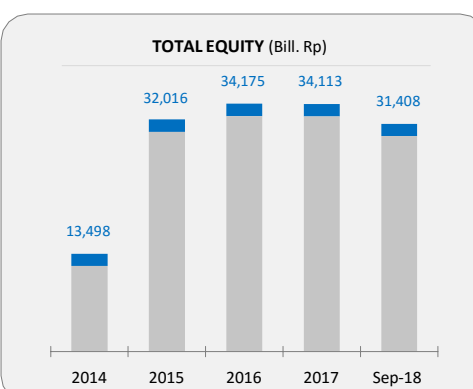
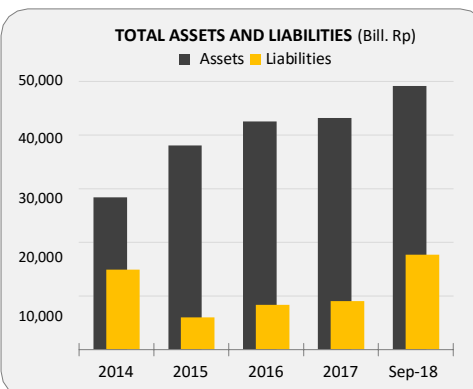
|                   |            |            |            |            |            |
|-------------------|------------|------------|------------|------------|------------|
| Cost of Revenues  | 60,190,077 | 67,304,917 | 71,611,981 | 74,875,642 | 59,226,764 |
| Gross Profit      | 20,500,062 | 21,764,389 | 23,854,676 | 24,215,842 | 18,308,072 |
| Expenses (Income) | 6,781,763  | 7,831,745  | 6,843,229  | 7,321,036  | 5,475,965  |
| Operating Profit  | -          | -          | -          | -          | -          |
| Growth (%)        |            |            |            |            |            |

|                         |            |            |            |            |            |
|-------------------------|------------|------------|------------|------------|------------|
| Other Income (Expenses) | -          | -          | -          | -          | -          |
| Income before Tax       | 13,718,299 | 13,932,644 | 17,011,447 | 16,894,806 | 12,832,107 |
| Tax                     | 3,537,216  | 3,569,336  | 4,249,218  | 4,224,272  | 3,141,810  |
| Profit for the period   | 10,181,083 | 10,363,308 | 12,762,229 | 12,670,534 | 9,690,297  |
| Growth (%)              |            | 1.79%      | 23.15%     | -0.72%     |            |

|                            |            |            |            |            |           |
|----------------------------|------------|------------|------------|------------|-----------|
| Period Attributable        | 10,181,083 | 10,363,308 | 12,762,229 | 12,670,534 | 9,690,297 |
| Comprehensive Income       | 10,014,995 | 10,355,007 | 12,530,201 | 12,483,134 | 9,689,725 |
| Comprehensive Attributable | 10,014,995 | 10,355,007 | 12,530,201 | 12,483,134 | 9,689,725 |

| RATIOS            | Dec-14   | Dec-15   | Dec-16 | Dec-17 | Sep-18 |
|-------------------|----------|----------|--------|--------|--------|
| Current Ratio (%) | 152.77   | 656.74   | 523.41 | 527.23 | 266.60 |
| Dividend (Rp)     | 2,008.00 | 2,225.00 | 107.70 | 107.30 | -      |
| EPS (Rp)          | 2,322.86 | 2,227.36 | 109.72 | 108.93 | 83.31  |
| BV (Rp)           | 3,079.65 | 6,881.14 | 293.81 | 293.27 | 270.02 |
| DAR (X)           | 0.52     | 0.16     | 0.20   | 0.21   | 0.36   |
| DER(X)            | 1.10     | 0.19     | 0.24   | 0.26   | 0.56   |
| ROA (%)           | 35.87    | 27.26    | 30.02  | 29.37  | 19.73  |
| ROE (%)           | 75.43    | 32.37    | 37.34  | 37.14  | 30.85  |
| GPM (%)           | 25.41    | 24.44    | 24.99  | 24.44  | 23.61  |
| OPM (%)           | -        | -        | -      | -      | -      |
| NPM (%)           | 12.62    | 11.64    | 13.37  | 12.79  | 12.50  |
| Payout Ratio (%)  | 86.45    | 99.89    | 98.16  | 98.50  | -      |
| Yield (%)         | 2.92     | 2.37     | 2.81   | 2.27   | -      |

|                    |        |        |        |        |        |
|--------------------|--------|--------|--------|--------|--------|
| *US\$ Rate (B), Rp | 12,436 | 13,794 | 13,436 | 13,548 | 14,929 |
|--------------------|--------|--------|--------|--------|--------|



# ICBP Indofood CBP Sukses Makmur Tbk.

## COMPANY REPORT : JANUARY 2019

Main Board  
Industry Sector : Consumer Goods Industry (5)  
Industry Sub Sector : Food And Beverages (51)

## As of 31 January 2019

Individual Index : 399,444  
Listed Shares : 11,661,908,000  
Market Capitalization : 125,657,058,700,000

10 | 125.7T | 1.69% | 47.35%

46 | 10.6T | 0.51% | 72.60%

## COMPANY HISTORY

Established Date : 02-Sep-2009  
Listing Date : 07-Oct-2010 (IPO Price: 5,395)  
Underwriter IPO :  
PT Kim Eng Securities  
PT Credit Suisse Securities Indonesia  
PT Deutsche Securities Indonesia  
PT Mandiri Sekuritas.  
Securities Administration Bureau :  
PT Raya Saham Registra

## BOARD OF COMMISSIONERS

1. Franciscus Welirang
2. A. Prijohandojo Kristanto \*)
3. Alamsyah
4. Florentinus Gregorius Winarno \*)
5. Hans Kartikahadi \*)
6. Moleonoto

\*) Independent Commissioners

## BOARD OF DIRECTORS

1. Anthoni Salim
2. Axton Salim
3. Hendra Widjaja
4. Joedianto Soejonopoetro
5. Suaimi Suriady
6. T. Eddy Hariyanto
7. Taufik Wiraatmadja
8. Tjhie Tje Fie (Thomas Tjhie)

## AUDIT COMMITTEE

1. Hans Kartikahadi
2. A. Prijohandojo Kristanto
3. Hendra Susanto

## CORPORATE SECRETARY

Gideon A. Putro

## HEAD OFFICE

Sudirman Plaza, Indofood Tower 23rd Floor  
Jl. Jend. Sudirman Kav. 76-78  
Jakarta 12910  
Phone : (021) 5793-7500  
Fax : (021) 5793-7557  
Homepage : [www.indofoodcbp.com](http://www.indofoodcbp.com)  
Email : [corporate.secretary@icbp.indofood.co.id](mailto:corporate.secretary@icbp.indofood.co.id)  
[gideon.putro@icbp.indofood.co.id](mailto:gideon.putro@icbp.indofood.co.id)

## SHAREHOLDERS (December 2018)

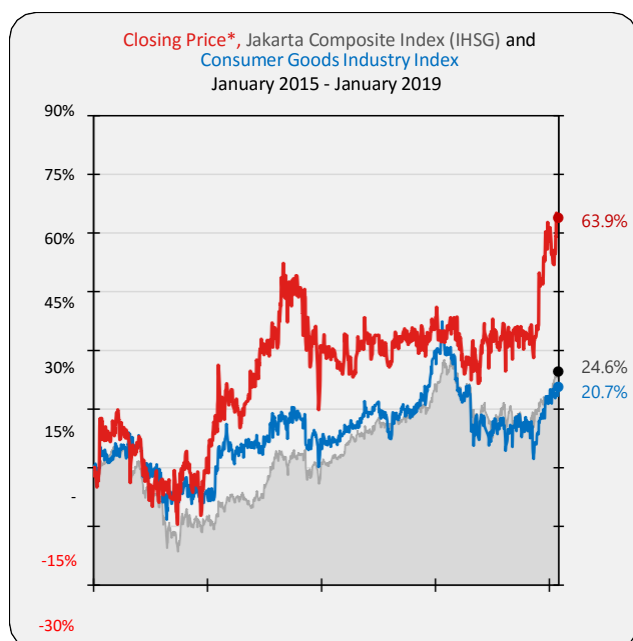
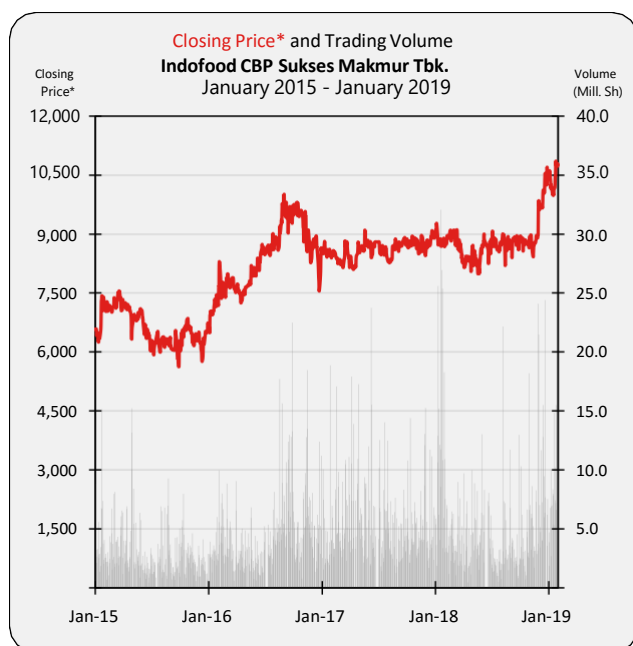
1. PT Indofood Sukses Makmur 9,329,526,000 : 80.00%
2. Public (<5%) 2,332,382,000 : 20.00%

## DIVIDEND ANNOUNCEMENT

| Yea  | Bonus<br>Shares | Cash<br>Dividend | Cum Date  | Ex Date   | Recording<br>Date | Payment<br>Date | F/I |
|------|-----------------|------------------|-----------|-----------|-------------------|-----------------|-----|
|      |                 |                  |           |           |                   |                 |     |
| 2010 |                 | 116.00           | 21-Jun-11 | 22-Jun-11 | 24-Jun-11         | 7-Jul-11        | F   |
| 2011 |                 | 169.00           | 13-Jul-12 | 16-Jul-12 | 18-Jul-12         | 31-Jul-12       | F   |
| 2012 |                 | 190.00           | 10-Jul-14 | 11-Jul-14 | 15-Jul-14         | 5-Aug-14        | F   |
| 2013 |                 | 222.00           | 18-May-15 | 19-May-15 | 21-May-15         | 9-Jun-15        | F   |
| 2014 |                 | 256.00           | 10-Jun-16 | 13-Jun-16 | 15-Jun-16         | 24-Jun-16       | F   |
| 2016 |                 | 154.00           | 9-Jun-17  | 12-Jun-17 | 14-Jun-17         | 4-Jul-17        | F   |
| 2017 |                 | 162.00           | 8-Jun-18  | 20-Jun-18 | 22-Jun-18         | 3-Jul-18        | F   |
| 2018 |                 | 58.00            | 5-Nov-18  | 6-Nov-18  | 8-Nov-18          | 28-Nov-18       | I   |

## ISSUED HISTORY

| No. | Type of Listing | Shares        | Listing<br>Date | Trading<br>Date |
|-----|-----------------|---------------|-----------------|-----------------|
| 1.  | First Issue     | 1,166,191,000 | 7-Oct-10        | 7-Oct-10        |
| 2.  | Company Listing | 4,664,763,000 | 7-Oct-10        | 7-Apr-11        |
| 3.  | Stock Split     | 5,830,954,000 | 27-Jul-16       | 27-Jul-16       |



| SHARES TRADED        | 2015  | 2016   | 2017   | 2018   | Jan-19 |
|----------------------|-------|--------|--------|--------|--------|
| Volume (Million Sh.) | 735   | 1,093  | 1,298  | 1,258  | 172    |
| Value (Billion Rp)   | 9,796 | 12,752 | 11,158 | 11,189 | 1,784  |
| Frequency (Thou. X)  | 389   | 559    | 373    | 405    | 61     |
| Days                 | 244   | 246    | 238    | 240    | 22     |

|                |        |        |       |        |        |
|----------------|--------|--------|-------|--------|--------|
| Price (Rupiah) |        |        |       |        |        |
| High           | 16,050 | 18,025 | 9,225 | 10,825 | 10,950 |
| Low            | 10,900 | 7,550  | 7,975 | 7,900  | 9,925  |
| Close          | 13,475 | 8,575  | 8,900 | 10,450 | 10,775 |
| Close*         | 6,738  | 8,575  | 8,900 | 10,450 | 10,775 |

|                  |       |       |       |       |       |
|------------------|-------|-------|-------|-------|-------|
| PER (X)          | 26.18 | 26.48 | 27.34 | 26.23 | 27.04 |
| PER Industry (X) | 17.71 | 23.77 | 18.48 | 24.94 | 36.52 |
| PBV (X)          | 4.79  | 5.61  | 5.11  | 5.56  | 5.73  |

\* Adjusted price after corporate action

## TRADING ACTIVITIES

| Month  | Closing Price |        |        | Freq.  | Volume      | Value        | Day |
|--------|---------------|--------|--------|--------|-------------|--------------|-----|
|        | High          | Low    | Close  | (X)    | (Thou. Sh.) | (Million Rp) |     |
| Jan-15 | 16,050        | 12,450 | 14,500 | 33,591 | 90,954      | 1,243,010    | 21  |
| Feb-15 | 14,650        | 13,900 | 14,300 | 28,064 | 53,007      | 751,753      | 19  |
| Mar-15 | 15,500        | 14,025 | 14,675 | 38,018 | 88,680      | 1,289,971    | 22  |
| Apr-15 | 14,700        | 12,300 | 13,200 | 31,277 | 95,059      | 1,306,487    | 21  |
| May-15 | 14,225        | 13,300 | 14,100 | 34,554 | 63,037      | 855,040      | 19  |
| Jun-15 | 14,200        | 12,050 | 12,475 | 31,709 | 37,052      | 483,342      | 21  |
| Jul-15 | 13,050        | 11,800 | 12,300 | 33,854 | 44,360      | 545,752      | 19  |
| Aug-15 | 13,000        | 11,550 | 12,750 | 32,387 | 69,230      | 863,442      | 20  |
| Sep-15 | 13,175        | 10,900 | 12,400 | 28,987 | 42,367      | 523,143      | 21  |
| Oct-15 | 13,800        | 12,050 | 13,200 | 37,513 | 65,176      | 848,257      | 21  |
| Nov-15 | 13,500        | 11,925 | 12,625 | 32,730 | 48,234      | 616,032      | 21  |
| Dec-15 | 13,600        | 11,325 | 13,475 | 26,651 | 37,590      | 470,086      | 19  |

|        |        |        |        |        |         |           |    |
|--------|--------|--------|--------|--------|---------|-----------|----|
| Jan-16 | 14,900 | 12,850 | 14,450 | 37,740 | 60,286  | 851,215   | 20 |
| Feb-16 | 16,600 | 14,200 | 15,750 | 50,673 | 94,923  | 1,447,933 | 20 |
| Mar-16 | 16,150 | 14,975 | 15,200 | 42,757 | 75,626  | 1,171,017 | 21 |
| Apr-16 | 15,600 | 14,125 | 15,275 | 37,415 | 56,794  | 850,608   | 21 |
| May-16 | 16,500 | 15,125 | 16,200 | 33,163 | 55,538  | 873,493   | 20 |
| Jun-16 | 17,700 | 15,800 | 17,225 | 33,168 | 50,653  | 849,521   | 22 |
| Jul-16 | 18,025 | 8,600  | 8,600  | 40,394 | 56,169  | 841,159   | 16 |
| Aug-16 | 10,000 | 8,575  | 9,975  | 55,993 | 137,918 | 1,260,347 | 22 |
| Sep-16 | 10,275 | 8,975  | 9,475  | 69,142 | 176,081 | 1,670,088 | 21 |
| Oct-16 | 10,000 | 9,350  | 9,400  | 38,816 | 71,519  | 689,735   | 21 |
| Nov-16 | 9,650  | 8,150  | 8,650  | 71,847 | 163,183 | 1,451,319 | 22 |
| Dec-16 | 9,025  | 7,550  | 8,575  | 47,590 | 94,406  | 795,561   | 20 |

|        |       |       |       |        |         |           |    |
|--------|-------|-------|-------|--------|---------|-----------|----|
| Jan-17 | 8,825 | 8,350 | 8,400 | 34,645 | 93,349  | 800,266   | 21 |
| Feb-17 | 8,575 | 8,250 | 8,325 | 31,128 | 112,405 | 945,296   | 19 |
| Mar-17 | 8,950 | 8,075 | 8,150 | 44,076 | 123,072 | 1,040,304 | 22 |
| Apr-17 | 8,950 | 7,975 | 8,775 | 27,002 | 135,455 | 1,133,363 | 17 |
| May-17 | 9,225 | 8,425 | 8,700 | 40,655 | 114,581 | 998,113   | 20 |
| Jun-17 | 8,875 | 8,275 | 8,800 | 25,087 | 93,137  | 801,977   | 15 |
| Jul-17 | 8,825 | 8,275 | 8,350 | 34,204 | 125,801 | 1,075,742 | 21 |
| Aug-17 | 8,875 | 8,175 | 8,725 | 32,518 | 95,805  | 812,822   | 22 |
| Sep-17 | 8,950 | 8,550 | 8,725 | 22,505 | 79,872  | 700,606   | 19 |
| Oct-17 | 9,000 | 8,625 | 8,800 | 25,985 | 113,186 | 995,252   | 22 |
| Nov-17 | 9,000 | 8,450 | 8,450 | 27,382 | 126,518 | 1,101,028 | 22 |
| Dec-17 | 9,150 | 8,600 | 8,900 | 28,099 | 85,041  | 753,177   | 18 |

|        |        |       |        |        |         |           |    |
|--------|--------|-------|--------|--------|---------|-----------|----|
| Jan-18 | 9,275  | 8,575 | 8,725  | 43,250 | 266,660 | 2,346,622 | 22 |
| Feb-18 | 9,100  | 8,675 | 8,975  | 28,974 | 85,391  | 758,367   | 19 |
| Mar-18 | 9,150  | 8,200 | 8,275  | 29,575 | 77,593  | 676,664   | 21 |
| Apr-18 | 8,800  | 7,900 | 8,675  | 25,995 | 77,452  | 644,319   | 21 |
| May-18 | 8,825  | 7,900 | 8,700  | 38,324 | 98,631  | 825,036   | 20 |
| Jun-18 | 9,000  | 8,150 | 8,850  | 33,097 | 66,837  | 578,738   | 13 |
| Jul-18 | 9,075  | 8,450 | 8,725  | 30,551 | 45,518  | 397,556   | 22 |
| Aug-18 | 9,050  | 8,150 | 8,675  | 37,300 | 99,502  | 871,219   | 21 |
| Sep-18 | 8,975  | 8,325 | 8,825  | 29,734 | 61,847  | 541,709   | 19 |
| Oct-18 | 9,050  | 8,500 | 8,925  | 26,122 | 96,172  | 845,941   | 23 |
| Nov-18 | 9,875  | 8,300 | 9,850  | 45,905 | 135,459 | 1,230,037 | 21 |
| Dec-18 | 10,825 | 9,450 | 10,450 | 35,857 | 146,635 | 1,473,137 | 18 |

|        |        |       |        |        |         |           |    |
|--------|--------|-------|--------|--------|---------|-----------|----|
| Jan-19 | 10,950 | 9,925 | 10,775 | 61,326 | 171,656 | 1,784,384 | 22 |
|--------|--------|-------|--------|--------|---------|-----------|----|

# ICBP Indofood CBP Sukses Makmur Tbk.

## Financial Data and Ratios

Public Accountant : Purwantono, Sungkoro & Surja

Book End : December

| BALANCE SHEET                     | Dec-14     | Dec-15     | Dec-16     | Dec-17     | Sep-18     |
|-----------------------------------|------------|------------|------------|------------|------------|
| (in Million Rp, except Par Value) |            |            |            |            |            |
| Cash & Cash Equivalents           | 7,342,986  | 7,657,510  | 8,371,980  | 8,796,690  | 5,592,535  |
| Receivables                       | 2,902,202  | 3,363,697  | 3,893,925  | 4,126,439  | 5,039,150  |
| Inventories                       | 2,821,618  | 2,546,835  | 3,109,916  | 3,261,635  | 3,324,242  |
| Current Assets                    | 13,603,527 | 13,961,500 | 15,571,362 | 16,579,331 | 14,943,180 |
| Fixed Assets                      | 5,838,843  | 6,555,660  | 7,114,288  | 8,120,254  | 10,221,162 |
| Other Assets                      | 213,907    | 222,280    | 111,864    | 257,382    | 1,653,763  |
| Total Assets                      | 24,910,211 | 26,560,624 | 28,901,948 | 31,619,514 | 33,820,264 |
| Growth (%)                        |            | 6.63%      | 8.82%      | 9.40%      | 6.96%      |

|                       |           |            |            |            |            |
|-----------------------|-----------|------------|------------|------------|------------|
| Current Liabilities   | 6,230,997 | 6,002,344  | 6,469,785  | 6,827,588  | 7,397,157  |
| Long Term Liabilities | 3,639,267 | 4,171,369  | 3,931,340  | 4,467,596  | 4,499,761  |
| Total Liabilities     | 9,870,264 | 10,173,713 | 10,401,125 | 11,295,184 | 11,896,918 |
| Growth (%)            |           | 3.07%      | 2.24%      | 8.60%      | 5.33%      |

|                          |            |            |            |            |            |
|--------------------------|------------|------------|------------|------------|------------|
| Authorized Capital       | 750,000    | 750,000    | 750,000    | 750,000    | 750,000    |
| Paid up Capital          | 583,095    | 583,095    | 583,095    | 583,095    | 583,095    |
| Paid up Capital (Shares) | 5,831      | 5,831      | 5,831      | 11,662     | 11,662     |
| Par Value                | 100        | 100        | 100        | 50         | 50         |
| Retained Earnings        | 7,475,019  | 8,850,067  | 10,979,473 | 12,799,244 | 14,386,950 |
| Total Equity             | 15,039,947 | 16,386,911 | 18,500,823 | 20,324,330 | 21,923,346 |
| Growth (%)               |            | 8.96%      | 12.90%     | 9.86%      | 7.87%      |

| INCOME STATEMENTS | Dec-14     | Dec-15     | Dec-16     | Dec-17     | Sep-18     |
|-------------------|------------|------------|------------|------------|------------|
| Total Revenues    | 30,022,463 | 31,741,094 | 34,466,069 | 35,606,593 | 29,478,275 |
| Growth (%)        |            | 5.72%      | 8.59%      | 3.31%      |            |

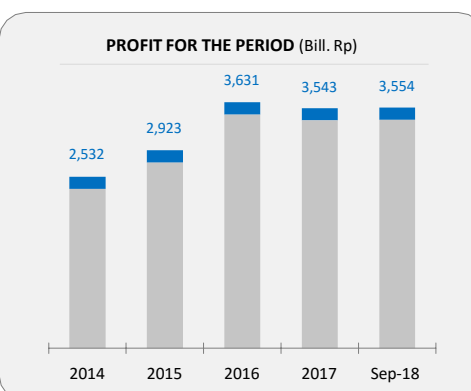
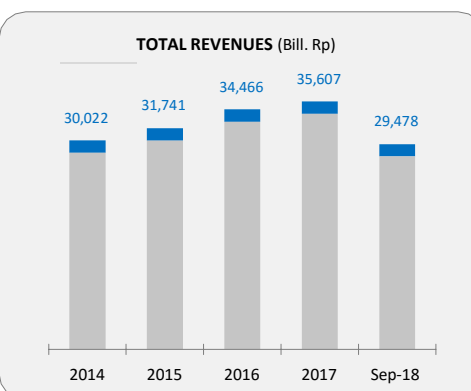
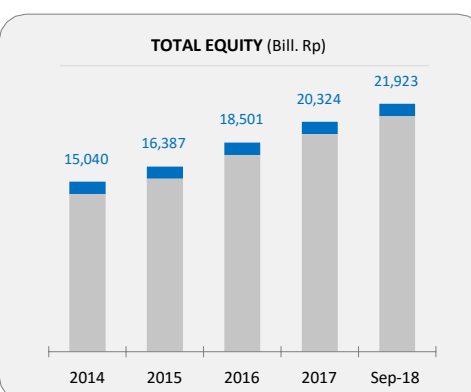
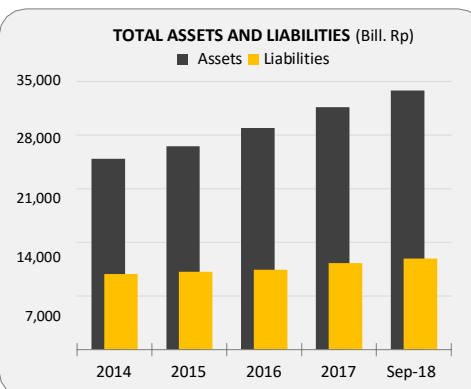
|                   |            |            |            |            |            |
|-------------------|------------|------------|------------|------------|------------|
| Cost of Revenues  | 21,962,609 | 22,121,957 | 23,606,755 | 24,547,757 | 19,886,903 |
| Gross Profit      | 8,059,854  | 9,619,137  | 10,859,314 | 11,058,836 | 9,591,372  |
| Expenses (Income) | 4,931,161  | 5,627,005  | 5,995,146  | 5,837,090  | 4,616,974  |
| Operating Profit  | 3,128,693  | 3,992,132  | 4,864,168  | 5,221,746  | 4,974,398  |
| Growth (%)        |            | 27.60%     | 21.84%     | 7.35%      |            |

|                         |           |           |           |           |           |
|-------------------------|-----------|-----------|-----------|-----------|-----------|
| Other Income (Expenses) | 260,032   | 17,502    | 125,086   | -15,185   | -26,760   |
| Income before Tax       | 3,388,725 | 4,009,634 | 4,989,254 | 5,206,561 | 4,947,638 |
| Tax                     | 857,044   | 1,086,486 | 1,357,953 | 1,663,388 | 1,393,341 |
| Profit for the period   | 2,531,681 | 2,923,148 | 3,631,301 | 3,543,173 | 3,554,297 |
| Growth (%)              |           | 15.46%    | 24.23%    | -2.43%    |           |

|                            |           |           |           |           |           |
|----------------------------|-----------|-----------|-----------|-----------|-----------|
| Period Attributable        | 2,604,239 | 3,000,713 | 3,600,351 | 3,796,545 | 3,484,918 |
| Comprehensive Income       | 2,522,328 | 3,025,095 | 3,635,216 | 3,531,220 | 3,746,673 |
| Comprehensive Attributable | 2,598,808 | 3,093,809 | 3,601,819 | 3,795,644 | 3,676,350 |

| RATIOS            | Dec-14   | Dec-15   | Dec-16   | Dec-17   | Sep-18   |
|-------------------|----------|----------|----------|----------|----------|
| Current Ratio (%) | 218.32   | 232.60   | 240.68   | 242.83   | 202.01   |
| Dividend (Rp)     | 222.00   | 256.00   | 154.00   | 162.00   | 58.00    |
| EPS (Rp)          | 446.62   | 514.62   | 617.45   | 325.55   | 298.83   |
| BV (Rp)           | 2,579.33 | 2,810.33 | 3,172.86 | 1,742.80 | 1,879.91 |
| DAR (X)           | 0.40     | 0.38     | 0.36     | 0.36     | 0.35     |
| DER(X)            | 0.66     | 0.62     | 0.56     | 0.56     | 0.54     |
| ROA (%)           | 10.16    | 11.01    | 12.56    | 11.21    | 10.51    |
| ROE (%)           | 16.83    | 17.84    | 19.63    | 17.43    | 16.21    |
| GPM (%)           | 26.85    | 30.30    | 31.51    | 31.06    | 32.54    |
| OPM (%)           | 10.42    | 12.58    | 14.11    | 14.67    | 16.87    |
| NPM (%)           | 8.43     | 9.21     | 10.54    | 9.95     | 12.06    |
| Payout Ratio (%)  | 49.71    | 49.75    | 24.94    | 49.76    | 19.41    |
| Yield (%)         | 1.69     | 1.90     | 1.80     | 1.82     | 0.66     |

|                    |        |        |        |        |        |
|--------------------|--------|--------|--------|--------|--------|
| *US\$ Rate (B), Rp | 12,436 | 13,794 | 13,436 | 13,548 | 14,929 |
|--------------------|--------|--------|--------|--------|--------|





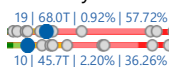
# INDF Indofood Sukses Makmur Tbk.

## COMPANY REPORT : JANUARY 2019

As of 31 January 2019

Main Board  
Industry Sector : Consumer Goods Industry (5)  
Industry Sub Sector : Food And Beverages (51)

Individual Index : 1,326.619  
Listed Shares : 8,780,426,500  
Market Capitalization : 68,048,305,375,000



### COMPANY HISTORY

Established Date : 14-Aug-1990  
Listing Date : 14-Jul-1994 (IPO Price: 6,200)  
Underwriter IPO :  
PT Merincorp S.I.  
Securities Administration Bureau :  
PT Raya Saham Registra

### BOARD OF COMMISSIONERS

1. Manuel Velez Pangilinan
  2. Adi Pranoto Leman \*)
  3. Bambang Subianto \*)
  4. Benny Setiawan Santoso
  5. Christopher Huxley Young
  6. Joseph Hon Pong Ng
  7. Robert Charles Nicholson
  8. Utomo Josodirdjo \*)
- \*) Independent Commissioners

### BOARD OF DIRECTORS

1. Anthoni Salim
2. Axton Salim
3. Franciscus Welirang
4. Hendra Widjaja
5. Joedianto Soejonopoetro
6. Moleonoto (Paulus Moleonoto)
7. Sulianto Pratama
8. Taufik Wiraatmadja
9. Tjhie Tje Fie (Thomas Tjhie)

### AUDIT COMMITTEE

1. Utomo Josodirdjo
2. Adi Pranoto Leman
3. Timotius

### CORPORATE SECRETARY

Victor Suhendra

### HEAD OFFICE

Sudirman Plaza, Indofood Tower 27th Floor  
Jl. Jend. Sudirman Kav. 76 - 78  
Jakarta 12190

Phone : (021) 5795-8822

Fax : (021) 5793-5960

Homepage : [www.indofood.com](http://www.indofood.com)

Email : [corporate.secretary@indofood.co.id](mailto:corporate.secretary@indofood.co.id)  
[victor.suhendra@indofood.co.id](mailto:victor.suhendra@indofood.co.id)

### SHAREHOLDERS (December 2018)

1. First Pacific Investment Management Ltd. 4,396,103,450 : 50.07%
2. Public (<5%) 4,384,323,050 : 49.93%

### DIVIDEND ANNOUNCEMENT

| Year | Bonus<br>Shares | Cash<br>Dividend | Cum Date  | Ex Date   | Recording<br>Date | Payment<br>Date | ε/η |
|------|-----------------|------------------|-----------|-----------|-------------------|-----------------|-----|
| 1994 |                 | 58.00            | 21-Jul-95 | 24-Jul-95 | 1-Aug-95          | 31-Aug-95       | F   |
| 1995 |                 | 80.00            | 11-Jul-96 | 12-Jul-96 | 22-Jul-96         | 21-Aug-96       | F   |
| 1996 |                 | 47.00            | 10-Jul-97 | 11-Jul-97 | 22-Jul-97         | 22-Aug-97       | F   |
| 2000 |                 | 18.00            | 11-Jul-01 | 12-Jul-01 | 17-Jul-01         | 31-Jul-01       | F   |
| 2001 |                 | 25.00            | 9-Jul-02  | 10-Jul-02 | 15-Jul-02         | 29-Jul-02       | F   |
| 2002 |                 | 28.00            | 17-Jul-03 | 18-Jul-03 | 22-Jul-03         | 5-Aug-03        | F   |
| 2003 |                 | 28.00            | 15-Jul-04 | 16-Jul-04 | 20-Jul-04         | 2-Aug-04        | F   |
| 2004 |                 | 17.50            | 26-Aug-05 | 29-Aug-05 | 31-Aug-05         | 15-Sep-05       | F   |
| 2005 |                 | 5.00             | 20-Jul-06 | 21-Jul-06 | 25-Jul-06         | 8-Aug-06        | F   |
| 2006 |                 | 31.00            | 27-Jul-07 | 30-Jul-07 | 1-Aug-07          | 15-Aug-07       | F   |
| 2007 |                 | 43.00            | 12-Aug-08 | 13-Aug-08 | 15-Aug-08         | 27-Aug-08       | F   |
| 2008 |                 | 47.00            | 2-Jul-09  | 3-Jul-09  | 7-Jul-09          | 22-Jul-09       | F   |
| 2009 |                 | 93.00            | 19-Jul-10 | 20-Jul-10 | 22-Jul-10         | 5-Aug-10        | F   |
| 2010 |                 | 133.00           | 26-Jul-11 | 27-Jul-11 | 29-Jul-11         | 9-Aug-11        | F   |
| 2011 |                 | 175.00           | 17-Jul-12 | 18-Jul-12 | 20-Jul-12         | 3-Aug-12        | F   |
| 2012 |                 | 185.00           | 17-Jul-13 | 18-Jul-13 | 22-Jul-13         | 2-Aug-13        | F   |
| 2013 |                 | 142.00           | 15-Jul-14 | 16-Jul-14 | 18-Jul-14         | 8-Aug-14        | F   |
| 2014 |                 | 220.00           | 18-May-15 | 19-May-15 | 21-May-15         | 11-Jun-15       | F   |
| 2015 |                 | 168.00           | 10-Jun-16 | 13-Jun-16 | 15-Jun-16         | 28-Jun-16       | F   |
| 2016 |                 | 235.00           | 9-Jun-17  | 12-Jun-17 | 14-Jun-17         | 6-Jul-17        | F   |
| 2017 |                 | 237.00           | 8-Jun-18  | 20-Jun-18 | 22-Jun-18         | 5-Jul-18        | F   |
| 2018 |                 | 65.00            | 5-Nov-18  | 6-Nov-18  | 8-Nov-18          | 29-Nov-18       | I   |

### ISSUED HISTORY

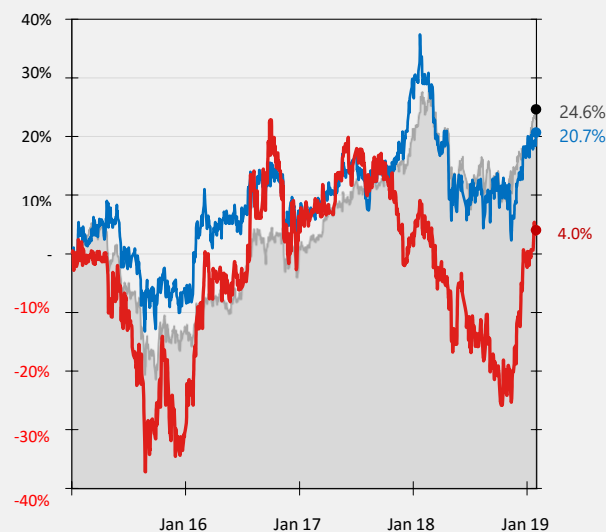
| No. | Type of Listing       | Shares        | Listing<br>Date | Trading<br>Date |
|-----|-----------------------|---------------|-----------------|-----------------|
| 1.  | First Issue           | 21,000,000    | 14-Jul-94       | 14-Jul-94       |
| 2.  | Founder Shares        | 742,000,000   | T: 14-Jul-94    | : 8-Feb-95      |
| 3.  | Stock Split           | 8,087,800,000 | T: 12-Aug-96    | : 29-Sep-00     |
| 4.  | Right Issue           | 305,200,000   | 24-Apr-97       | 24-Apr-97       |
| 5.  | Option Conversion     | 287,269,500   | T: 7-May-02     | : 12-Jun-03     |
| 6.  | Option III Conversion | 919,500       | T: 6-Feb-04     | : 24-May-04     |
| 7.  | Buy Back              | -663,762,500  | 28-Oct-08       | 28-Oct-08       |

# INDF Indofood Sukses Makmur Tbk.

**Closing Price\* and Trading Volume  
Indofood Sukses Makmur Tbk.  
January 2015 - January 2019**



**Closing Price\*, Jakarta Composite Index (IHSG) and  
Consumer Goods Industry Index  
January 2015 - January 2019**



| SHARES TRADED        | 2015   | 2016   | 2017   | 2018   | Jan-19 |
|----------------------|--------|--------|--------|--------|--------|
| Volume (Million Sh.) | 2,765  | 3,083  | 2,387  | 6,510  | 233    |
| Value (Billion Rp)   | 18,114 | 23,324 | 19,707 | 45,727 | 1,737  |
| Frequency (Thou. X)  | 630    | 641    | 537    | 611    | 60     |
| Days                 | 244    | 246    | 238    | 240    | 22     |

|                |       |       |       |       |       |
|----------------|-------|-------|-------|-------|-------|
| Price (Rupiah) |       |       |       |       |       |
| High           | 7,725 | 9,200 | 9,000 | 8,125 | 7,900 |
| Low            | 4,560 | 5,175 | 7,275 | 5,500 | 7,200 |
| Close          | 5,175 | 7,925 | 7,625 | 7,450 | 7,750 |
| Close*         | 5,175 | 7,925 | 7,625 | 7,450 | 7,750 |

|                  |       |       |       |       |       |
|------------------|-------|-------|-------|-------|-------|
| PER (X)          | 15.31 | 16.11 | 16.06 | 17.40 | 18.10 |
| PER Industry (X) | 17.71 | 23.77 | 18.48 | 24.94 | 36.52 |
| PBV (X)          | 1.05  | 1.55  | 1.43  | 1.35  | 1.40  |

\* Adjusted price after corporate action

## TRADING ACTIVITIES

| Month  | Closing Price |       |       | Freq.<br>(X) | Volume<br>(Thou. Sh.) | Value<br>(Million Rp) | Day |
|--------|---------------|-------|-------|--------------|-----------------------|-----------------------|-----|
|        | High          | Low   | Close |              |                       |                       |     |
| Jan-15 | 7,725         | 6,850 | 7,550 | 59,020       | 454,670               | 3,360,218             | 21  |
| Feb-15 | 7,675         | 7,250 | 7,400 | 38,795       | 183,393               | 1,357,302             | 19  |
| Mar-15 | 7,550         | 7,300 | 7,450 | 54,233       | 329,852               | 2,445,636             | 22  |
| Apr-15 | 7,500         | 6,475 | 6,750 | 41,210       | 220,479               | 1,599,979             | 21  |
| May-15 | 7,400         | 6,600 | 7,300 | 59,010       | 287,107               | 2,003,105             | 19  |
| Jun-15 | 7,250         | 6,425 | 6,575 | 51,699       | 152,355               | 1,030,242             | 21  |
| Jul-15 | 6,750         | 5,775 | 6,100 | 44,219       | 169,619               | 1,074,125             | 19  |
| Aug-15 | 6,325         | 4,560 | 5,300 | 66,387       | 264,443               | 1,448,909             | 20  |
| Sep-15 | 5,575         | 4,845 | 5,500 | 51,705       | 161,241               | 833,125               | 21  |
| Oct-15 | 6,425         | 5,275 | 5,525 | 52,746       | 189,030               | 1,106,788             | 21  |
| Nov-15 | 6,100         | 4,875 | 4,875 | 59,131       | 178,196               | 965,686               | 21  |
| Dec-15 | 5,300         | 4,840 | 5,175 | 51,839       | 174,809               | 889,022               | 19  |
| Jan-16 | 6,200         | 5,175 | 6,200 | 54,060       | 245,954               | 1,402,717             | 20  |
| Feb-16 | 7,250         | 6,050 | 7,050 | 49,174       | 194,555               | 1,287,771             | 20  |
| Mar-16 | 7,575         | 6,800 | 7,225 | 67,818       | 292,582               | 2,112,209             | 21  |
| Apr-16 | 7,300         | 6,800 | 7,125 | 38,431       | 173,600               | 1,240,617             | 21  |
| May-16 | 7,225         | 6,825 | 6,925 | 36,271       | 121,239               | 850,377               | 20  |
| Jun-16 | 7,400         | 6,875 | 7,250 | 51,200       | 193,240               | 1,382,192             | 22  |
| Jul-16 | 8,725         | 6,975 | 8,325 | 46,898       | 227,720               | 1,735,739             | 16  |
| Aug-16 | 8,500         | 7,750 | 7,925 | 61,179       | 240,903               | 1,946,059             | 22  |
| Sep-16 | 9,200         | 7,950 | 8,700 | 62,815       | 636,042               | 5,282,231             | 21  |
| Oct-16 | 9,200         | 8,400 | 8,500 | 46,509       | 229,612               | 1,981,983             | 21  |
| Nov-16 | 8,525         | 7,225 | 7,575 | 71,729       | 310,154               | 2,429,598             | 22  |
| Dec-16 | 8,125         | 7,200 | 7,925 | 54,497       | 217,445               | 1,672,999             | 20  |
| Jan-17 | 8,150         | 7,700 | 7,925 | 44,461       | 130,722               | 1,036,766             | 21  |
| Feb-17 | 8,200         | 7,875 | 8,125 | 31,002       | 148,451               | 1,188,765             | 19  |
| Mar-17 | 8,525         | 7,875 | 8,000 | 55,584       | 235,935               | 1,905,664             | 22  |
| Apr-17 | 8,525         | 7,925 | 8,375 | 35,597       | 192,281               | 1,571,623             | 17  |
| May-17 | 9,000         | 8,300 | 8,750 | 47,376       | 258,980               | 2,217,485             | 20  |
| Jun-17 | 8,950         | 8,300 | 8,600 | 41,418       | 259,018               | 2,213,387             | 15  |
| Jul-17 | 8,800         | 8,250 | 8,375 | 44,875       | 146,573               | 1,266,372             | 21  |
| Aug-17 | 8,700         | 8,150 | 8,375 | 42,185       | 123,377               | 1,031,101             | 22  |
| Sep-17 | 8,750         | 8,275 | 8,425 | 40,679       | 130,850               | 1,116,755             | 19  |
| Oct-17 | 8,675         | 8,150 | 8,200 | 43,969       | 174,948               | 1,463,871             | 22  |
| Nov-17 | 8,325         | 7,325 | 7,325 | 61,052       | 299,430               | 2,458,525             | 22  |
| Dec-17 | 7,775         | 7,275 | 7,625 | 48,562       | 286,838               | 2,236,345             | 18  |
| Jan-18 | 8,125         | 7,550 | 7,750 | 58,037       | 227,028               | 1,787,772             | 22  |
| Feb-18 | 7,925         | 7,550 | 7,575 | 37,655       | 152,504               | 1,180,453             | 19  |
| Mar-18 | 7,800         | 6,975 | 7,200 | 50,568       | 4,573,540             | 32,627,053            | 21  |
| Apr-18 | 7,350         | 6,575 | 6,975 | 40,446       | 167,418               | 1,184,145             | 21  |
| May-18 | 7,150         | 6,075 | 7,075 | 61,277       | 241,069               | 1,619,236             | 20  |
| Jun-18 | 7,250         | 6,350 | 6,650 | 46,680       | 153,680               | 1,061,834             | 13  |
| Jul-18 | 6,675         | 6,150 | 6,350 | 40,002       | 110,567               | 708,221               | 22  |
| Aug-18 | 6,775         | 6,000 | 6,375 | 48,924       | 140,212               | 898,271               | 21  |
| Sep-18 | 6,425         | 5,850 | 5,900 | 51,261       | 154,987               | 937,072               | 19  |
| Oct-18 | 6,100         | 5,500 | 5,975 | 50,032       | 152,362               | 878,716               | 23  |
| Nov-18 | 6,600         | 5,575 | 6,600 | 65,846       | 213,531               | 1,286,601             | 21  |
| Dec-18 | 7,550         | 6,400 | 7,450 | 59,855       | 223,380               | 1,557,553             | 18  |
| Jan-19 | 7,900         | 7,200 | 7,750 | 59,946       | 232,647               | 1,736,920             | 22  |

| BALANCE SHEET                     | Dec-14     | Dec-15     | Dec-16     | Dec-17     | Sep-18     |
|-----------------------------------|------------|------------|------------|------------|------------|
| (in Million Rp, except Par Value) |            |            |            |            |            |
| Cash & Cash Equivalents           | 14,157,619 | 13,076,076 | 13,362,236 | 13,689,998 | 12,661,468 |
| Receivables                       | 4,339,670  | 5,116,610  | 5,204,517  | 6,404,803  | 5,845,011  |
| Inventories                       | 8,454,845  | 7,627,360  | 8,469,821  | 9,690,981  | 12,145,480 |
| Current Assets                    | 40,995,736 | 42,816,745 | 28,985,443 | 32,515,399 | 35,553,231 |
| Fixed Assets                      | 22,011,488 | 25,096,342 | 25,701,913 | 29,787,303 | 42,050,257 |
| Other Assets                      | 1,702,988  | 1,529,983  | 3,479,254  | 1,305,985  | 2,760,298  |
| Total Assets                      | 85,938,885 | 91,831,526 | 82,174,515 | 87,939,488 | 95,989,207 |
| Growth (%)                        |            | 6.86%      | -10.52%    | 7.02%      | 9.15%      |

|                       |            |            |            |            |            |
|-----------------------|------------|------------|------------|------------|------------|
| Current Liabilities   | 22,681,686 | 25,107,538 | 19,219,441 | 21,637,763 | 31,435,755 |
| Long Term Liabilities | 22,028,823 | 23,602,395 | 19,013,651 | 19,545,001 | 15,999,688 |
| Total Liabilities     | 44,710,509 | 48,709,933 | 38,233,092 | 41,182,764 | 47,435,443 |
| Growth (%)            |            | 8.95%      | -21.51%    | 7.71%      | 15.18%     |

|                          |            |            |            |            |            |
|--------------------------|------------|------------|------------|------------|------------|
| Authorized Capital       | 3,000,000  | 3,000,000  | 3,000,000  | 3,000,000  | 3,000,000  |
| Paid up Capital          | 878,043    | 878,043    | 878,043    | 878,043    | 878,043    |
| Paid up Capital (Shares) | 8,780      | 8,780      | 8,780      | 8,780      | 8,780      |
| Par Value                | 100        | 100        | 100        | 100        | 100        |
| Retained Earnings        | 16,215,970 | 16,827,340 | 19,506,084 | 21,378,442 | 22,232,345 |
| Total Equity             | 41,228,376 | 43,121,593 | 43,941,423 | 46,756,724 | 48,553,764 |
| Growth (%)               |            | 4.59%      | 1.90%      | 6.41%      | 3.84%      |

| INCOME STATEMENTS | Dec-14     | Dec-15     | Dec-16     | Dec-17     | Sep-18     |
|-------------------|------------|------------|------------|------------|------------|
| Total Revenues    | 63,594,452 | 64,061,947 | 66,659,484 | 70,186,618 | 54,742,187 |
| Growth (%)        |            | 0.74%      | 4.05%      | 5.29%      |            |

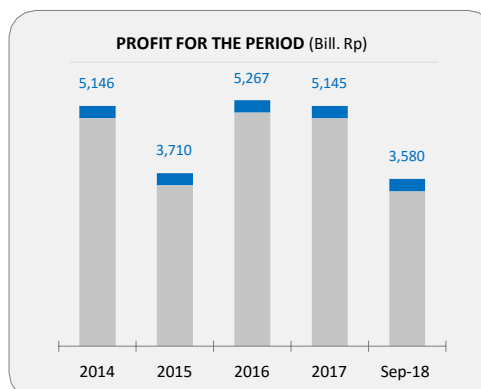
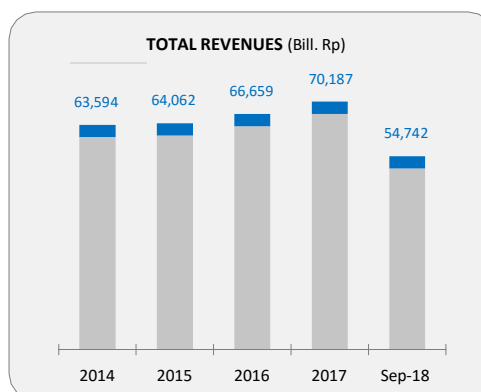
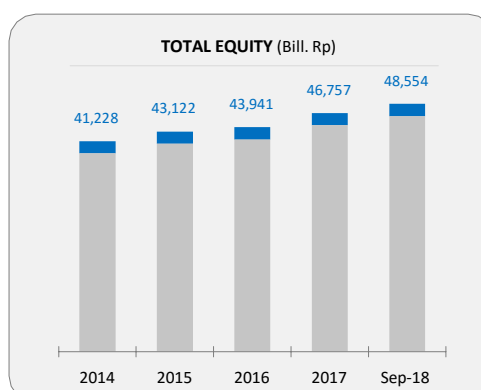
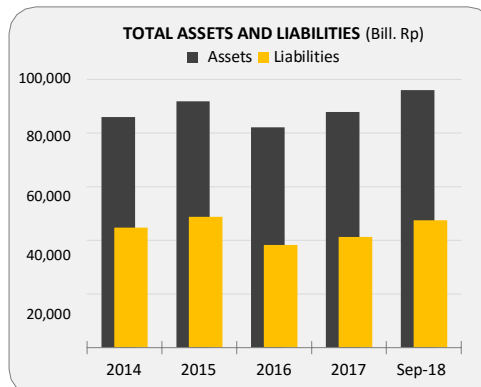
|                   |            |            |            |            |            |
|-------------------|------------|------------|------------|------------|------------|
| Cost of Revenues  | 46,544,646 | 46,803,889 | 47,321,877 | 50,318,096 | 39,272,319 |
| Gross Profit      | 17,049,806 | 17,258,058 | 19,337,607 | 19,868,522 | 15,469,868 |
| Expenses (Income) | 9,841,074  | 9,895,163  | 11,052,600 | 11,121,020 | 8,678,090  |
| Operating Profit  | 7,208,732  | 7,362,895  | 8,285,007  | 8,747,502  | 6,791,778  |
| Growth (%)        |            | 2.14%      | 12.52%     | 5.58%      |            |

|                         |           |            |           |            |            |
|-------------------------|-----------|------------|-----------|------------|------------|
| Other Income (Expenses) | -979,435  | -2,400,811 | -899,779  | -1,088,948 | -1,495,769 |
| Income before Tax       | 6,229,297 | 4,962,084  | 7,385,228 | 7,658,554  | 5,296,009  |
| Tax                     | 1,828,217 | 1,730,371  | 2,532,747 | 2,513,491  | 1,715,919  |
| Profit for the period   | 5,146,323 | 3,709,501  | 5,266,906 | 5,145,063  | 3,580,090  |
| Growth (%)              |           | -27.92%    | 41.98%    | -2.31%     |            |

|                            |           |           |           |           |           |
|----------------------------|-----------|-----------|-----------|-----------|-----------|
| Period Attributable        | 3,885,375 | 2,967,951 | 4,144,571 | 4,168,476 | 2,819,942 |
| Comprehensive Income       | 4,812,618 | 4,867,347 | 4,984,305 | 5,039,068 | 4,323,310 |
| Comprehensive Attributable | 3,528,115 | 4,066,347 | 3,817,112 | 4,267,959 | 3,522,409 |

| RATIOS            | Dec-14   | Dec-15   | Dec-16   | Dec-17   | Sep-18   |
|-------------------|----------|----------|----------|----------|----------|
| Current Ratio (%) | 180.74   | 170.53   | 150.81   | 150.27   | 113.10   |
| Dividend (Rp)     | 220.00   | 168.00   | 235.00   | 237.00   | 65.00    |
| EPS (Rp)          | 442.50   | 338.02   | 472.02   | 474.75   | 321.16   |
| BV (Rp)           | 4,695.49 | 4,911.10 | 5,004.47 | 5,325.11 | 5,529.77 |
| DAR (X)           | 0.52     | 0.53     | 0.47     | 0.47     | 0.49     |
| DER(X)            | 1.08     | 1.13     | 0.87     | 0.88     | 0.98     |
| ROA (%)           | 5.99     | 4.04     | 6.41     | 5.85     | 3.73     |
| ROE (%)           | 12.48    | 8.60     | 11.99    | 11.00    | 7.37     |
| GPM (%)           | 26.81    | 26.94    | 29.01    | 28.31    | 28.26    |
| OPM (%)           | 11.34    | 11.49    | 12.43    | 12.46    | 12.41    |
| NPM (%)           | 8.09     | 5.79     | 7.90     | 7.33     | 6.54     |
| Payout Ratio (%)  | 49.72    | 49.70    | 49.79    | 49.92    | 20.24    |
| Yield (%)         | 3.26     | 3.25     | 2.97     | 3.11     | 1.10     |

|                    |        |        |        |        |        |
|--------------------|--------|--------|--------|--------|--------|
| *US\$ Rate (B), Rp | 12,436 | 13,794 | 13,436 | 13,548 | 14,929 |
|--------------------|--------|--------|--------|--------|--------|



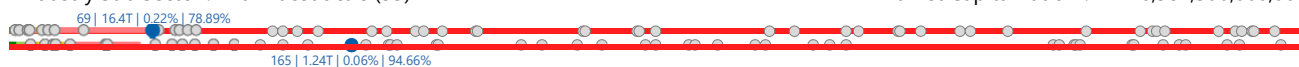
# KAEF Kimia Farma Tbk.

## COMPANY REPORT : JANUARY 2019

Main Board  
Industry Sector : Consumer Goods Industry (5)  
Industry Sub Sector : Pharmaceuticals (53)

## As of 31 January 2019

Individual Index : 2,950.000  
Listed Shares : 5,554,000,000  
Market Capitalization : 16,384,300,000,000



### COMPANY HISTORY

Established Date : 23-Jan-1969  
Listing Date : 04-Jul-2001 (IPO Price: 200)  
Underwriter IPO :  
Danareksa Sekuritas  
Securities Administration Bureau :  
PT Datindo Entrycom

### BOARD OF COMMISSIONERS

1. Untung Suseno Sutarjo
  2. Chrisma Aryani Albandjar
  3. Muhammad Umar Fauzi
  4. Nurrachman \*)
  5. Wahono Sumaryono \*)
- \*) Independent Commissioners

### BOARD OF DIRECTORS

1. Honesti Basyir
2. Arief Pramuhanto
3. I.G.N. Suharta Wijaya
4. Pujianto
5. Verdi Budidarmo

### AUDIT COMMITTEE

1. Nurrachman
2. Muhammad Umar Fauzi
3. Sri Yanto
4. Tjahjo Winarto

### CORPORATE SECRETARY

Ganti Winarno Putro

### HEAD OFFICE

Jl. Veteran No. 9  
Jakarta 10110  
Phone : (021) 384-7709  
Fax : (021) 381 4441  
Homepage : [www.kimiafarma.co.id](http://www.kimiafarma.co.id)  
Email : [corsec@kimiafarma.co.id](mailto:corsec@kimiafarma.co.id)  
[ipo@kimiafarma.co.id](mailto:ipo@kimiafarma.co.id)

### SHAREHOLDERS (December 2018)

1. Republic of Indonesia 5,000,000,000 : 90.03%
2. Public (<5%) 554,000,000 : 9.97%

### DIVIDEND ANNOUNCEMENT

| Year | Bonus<br>Shares | Cash<br>Dividend | Cum Date  | Ex Date   | Recording<br>Date | Payment<br>Date | F/H |
|------|-----------------|------------------|-----------|-----------|-------------------|-----------------|-----|
| 2001 |                 | 10.72            | 26-Jun-02 | 27-Jun-02 | 2-Jul-02          | 15-Jul-02       | F   |
| 2002 |                 | 1.91             | 6-Jun-03  | 7-Jun-03  | 11-Jun-03         | 25-Jun-03       | F   |
| 2003 |                 | 3.09             | 8-Jun-04  | 9-Jun-04  | 11-Jun-04         | 26-Jun-04       | F   |
| 2004 |                 | 4.18             | 2-Jun-05  | 3-Jun-05  | 7-Jun-05          | 21-Jun-05       | F   |
| 2005 |                 | 2.85             | 13-Jun-06 | 14-Jun-06 | 16-Jun-06         | 30-Jun-06       | F   |
| 2006 |                 | 2.37             | 18-Jun-07 | 19-Jun-07 | 21-Jun-07         | 5-Jul-07        | F   |
| 2007 |                 | 2.82             | 18-Jun-08 | 17-Jun-08 | 20-Jun-08         | 2-Jul-08        | F   |
| 2008 |                 | 2.49             | 25-Jun-09 | 26-Jun-09 | 30-Jun-09         | 14-Jul-09       | F   |
| 2009 |                 | 3.38             | 1-Feb-11  | 2-Feb-11  | 7-Feb-11          | 14-Feb-11       | F   |
| 2010 |                 | 5.00             | 7-Jul-11  | 8-Jul-11  | 12-Jul-11         | 26-Jul-11       | F   |
| 2011 |                 | 6.19             | 14-Jun-12 | 15-Jun-12 | 19-Jun-12         | 3-Jul-12        | F   |
| 2012 |                 | 5.54             | 1-May-13  | 2-May-13  | 6-May-13          | 17-May-13       | F   |
| 2013 |                 | 9.66             | 17-Apr-14 | 21-Apr-14 | 23-Apr-14         | 8-May-14        | F   |
| 2014 |                 | 8.45             | 15-Apr-15 | 16-Apr-15 | 20-Apr-15         | 8-May-15        | F   |
| 2016 |                 | 9.63             | 28-Apr-17 | 2-May-17  | 4-May-17          | 24-May-17       | F   |
| 2017 |                 | 17.66            | 26-Apr-18 | 27-Apr-18 | 2-May-18          | 23-May-18       | F   |

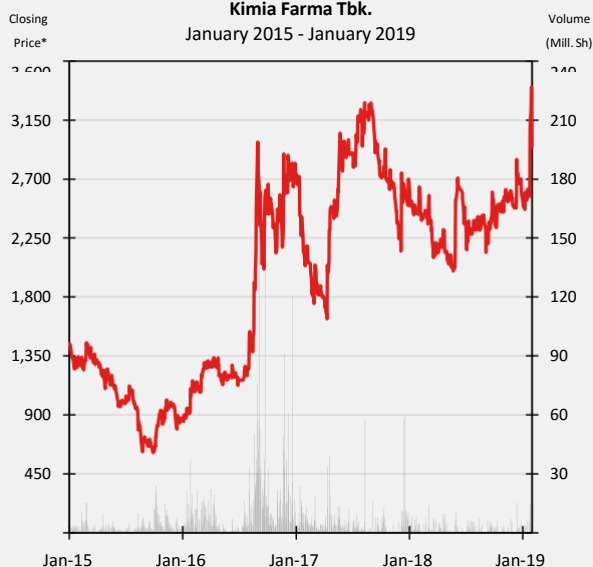
### ISSUED HISTORY

| No. Type of Listing     | Shares        | Listing<br>Date | Trading<br>Date |
|-------------------------|---------------|-----------------|-----------------|
| 1. First Issue          | 500,000,000   | 4-Jul-01        | 4-Jul-01        |
| 2. Negara RI (Series A) | 1             | 4-Jul-01        | 4-Jul-01        |
| 3. Company Listing      | 5,053,999,999 | 4-Jul-01        | 4-Jul-01        |

Closing Price\* and Trading Volume

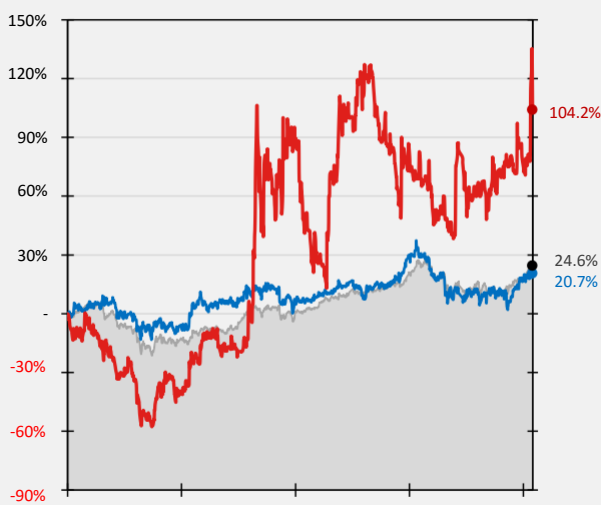
Kimia Farma Tbk.

January 2015 - January 2019



Closing Price\*, Jakarta Composite Index (IHSG) and Consumer Goods Industry Index

January 2015 - January 2019



| SHARES TRADED        | 2015 | 2016  | 2017  | 2018  | Jan-19 |
|----------------------|------|-------|-------|-------|--------|
| Volume (Million Sh.) | 728  | 2,961 | 1,159 | 466   | 92     |
| Value (Billion Rp)   | 723  | 6,725 | 2,967 | 1,133 | 274    |
| Frequency (Thou. X)  | 107  | 339   | 236   | 59    | 12     |
| Days                 | 244  | 246   | 238   | 240   | 22     |

|                |       |       |       |       |       |
|----------------|-------|-------|-------|-------|-------|
| Price (Rupiah) |       |       |       |       |       |
| High           | 1,475 | 3,400 | 3,400 | 3,000 | 3,730 |
| Low            | 590   | 835   | 1,635 | 1,990 | 2,470 |
| Close          | 870   | 2,750 | 2,700 | 2,600 | 2,950 |
| Close*         | 870   | 2,750 | 2,700 | 2,600 | 2,950 |

|                  |       |       |       |       |       |
|------------------|-------|-------|-------|-------|-------|
| PER (X)          | 19.42 | 65.90 | 45.89 | 48.07 | 54.54 |
| PER Industry (X) | 17.71 | 23.77 | 18.48 | 24.94 | 36.52 |
| PBV (X)          | 2.59  | 6.84  | 5.83  | 5.19  | 5.88  |

\* Adjusted price after corporate action

## TRADING ACTIVITIES

| Month  | Closing Price |       |       | Freq.<br>(X) | Volume<br>(Thou. Sh.) | Value<br>(Million Rp) | Day |
|--------|---------------|-------|-------|--------------|-----------------------|-----------------------|-----|
|        | High          | Low   | Close |              |                       |                       |     |
| Jan-15 | 1,475         | 1,225 | 1,340 | 8,092        | 44,418                | 59,116                | 21  |
| Feb-15 | 1,460         | 1,220 | 1,430 | 11,925       | 91,233                | 122,860               | 19  |
| Mar-15 | 1,455         | 1,275 | 1,315 | 6,536        | 31,674                | 42,727                | 22  |
| Apr-15 | 1,315         | 1,050 | 1,230 | 7,658        | 40,391                | 49,157                | 21  |
| May-15 | 1,275         | 1,090 | 1,120 | 8,914        | 45,735                | 53,295                | 19  |
| Jun-15 | 1,120         | 940   | 995   | 4,385        | 19,452                | 19,524                | 21  |
| Jul-15 | 1,165         | 960   | 990   | 6,201        | 27,728                | 28,931                | 19  |
| Aug-15 | 1,005         | 605   | 700   | 10,354       | 66,933                | 50,841                | 20  |
| Sep-15 | 765           | 590   | 640   | 7,293        | 45,242                | 30,927                | 21  |
| Oct-15 | 970           | 620   | 865   | 17,023       | 170,674               | 131,362               | 21  |
| Nov-15 | 1,050         | 845   | 970   | 12,485       | 98,700                | 94,360                | 21  |
| Dec-15 | 990           | 785   | 870   | 6,496        | 46,183                | 39,977                | 19  |
| Jan-16 | 1,145         | 835   | 1,050 | 15,532       | 149,354               | 145,706               | 20  |
| Feb-16 | 1,180         | 1,055 | 1,075 | 10,011       | 135,884               | 153,518               | 20  |
| Mar-16 | 1,325         | 1,060 | 1,270 | 12,119       | 190,056               | 238,832               | 21  |
| Apr-16 | 1,395         | 1,140 | 1,205 | 12,645       | 134,048               | 174,501               | 21  |
| May-16 | 1,255         | 1,075 | 1,190 | 5,693        | 24,737                | 29,243                | 20  |
| Jun-16 | 1,305         | 1,110 | 1,155 | 6,984        | 33,820                | 41,029                | 22  |
| Jul-16 | 1,295         | 1,120 | 1,245 | 8,016        | 79,309                | 97,878                | 16  |
| Aug-16 | 3,000         | 1,245 | 2,980 | 43,063       | 484,432               | 1,067,634             | 22  |
| Sep-16 | 3,400         | 2,000 | 2,470 | 84,223       | 741,659               | 2,003,858             | 21  |
| Oct-16 | 2,720         | 2,110 | 2,170 | 34,102       | 146,439               | 366,468               | 21  |
| Nov-16 | 2,940         | 2,150 | 2,730 | 67,177       | 445,719               | 1,266,110             | 22  |
| Dec-16 | 2,980         | 2,580 | 2,750 | 39,181       | 395,666               | 1,139,928             | 20  |
| Jan-17 | 2,790         | 2,000 | 2,040 | 33,058       | 159,009               | 379,322               | 21  |
| Feb-17 | 2,270         | 1,750 | 1,750 | 24,047       | 91,998                | 190,410               | 19  |
| Mar-17 | 2,100         | 1,750 | 1,795 | 27,536       | 81,410                | 156,856               | 22  |
| Apr-17 | 2,550         | 1,635 | 2,450 | 40,641       | 169,810               | 365,097               | 17  |
| May-17 | 3,110         | 2,340 | 2,760 | 27,749       | 108,029               | 290,716               | 20  |
| Jun-17 | 3,100         | 2,710 | 2,890 | 12,805       | 50,221                | 148,906               | 15  |
| Jul-17 | 3,300         | 2,750 | 3,200 | 13,169       | 65,320                | 189,600               | 21  |
| Aug-17 | 3,400         | 2,750 | 3,250 | 11,259       | 85,449                | 274,279               | 22  |
| Sep-17 | 3,320         | 2,690 | 2,740 | 7,525        | 50,986                | 153,145               | 19  |
| Oct-17 | 2,990         | 2,600 | 2,770 | 8,348        | 66,939                | 186,557               | 22  |
| Nov-17 | 2,770         | 2,250 | 2,270 | 5,278        | 15,539                | 41,160                | 22  |
| Dec-17 | 2,880         | 2,120 | 2,700 | 24,269       | 213,983               | 591,301               | 18  |
| Jan-18 | 2,730         | 2,400 | 2,440 | 8,228        | 65,729                | 163,949               | 22  |
| Feb-18 | 2,690         | 2,370 | 2,400 | 7,439        | 32,734                | 81,759                | 19  |
| Mar-18 | 2,690         | 2,030 | 2,190 | 11,243       | 56,294                | 133,858               | 21  |
| Apr-18 | 2,370         | 2,130 | 2,150 | 4,045        | 59,863                | 141,592               | 21  |
| May-18 | 2,880         | 1,990 | 2,540 | 7,799        | 32,741                | 78,005                | 20  |
| Jun-18 | 2,800         | 2,350 | 2,360 | 3,703        | 11,697                | 30,034                | 13  |
| Jul-18 | 2,590         | 2,110 | 2,330 | 3,308        | 51,623                | 120,818               | 22  |
| Aug-18 | 2,480         | 2,300 | 2,360 | 1,972        | 26,404                | 60,217                | 21  |
| Sep-18 | 2,730         | 2,010 | 2,550 | 3,589        | 37,137                | 87,696                | 19  |
| Oct-18 | 2,600         | 2,300 | 2,450 | 2,741        | 29,622                | 71,579                | 23  |
| Nov-18 | 2,660         | 2,450 | 2,500 | 2,070        | 27,108                | 68,869                | 21  |
| Dec-18 | 3,000         | 2,450 | 2,600 | 3,194        | 34,784                | 94,492                | 18  |
| Jan-19 | 3,730         | 2,470 | 2,950 | 12,093       | 91,821                | 274,073               | 22  |

| BALANCE SHEET                     | Dec-14    | Dec-15    | Dec-16    | Dec-17    | Sep-18    |
|-----------------------------------|-----------|-----------|-----------|-----------|-----------|
| (in Million Rp, except Par Value) |           |           |           |           |           |
| Cash & Cash Equivalents           | 573,360   | 460,994   | 647,684   | 989,637   | 1,363,623 |
| Receivables                       | 525,094   | 576,206   | 733,056   | 978,942   | 1,847,230 |
| Inventories                       | 687,407   | 742,318   | 967,327   | 1,192,343 | 1,759,387 |
| Current Assets                    | 2,040,431 | 2,100,922 | 2,906,737 | 3,662,090 | 5,578,440 |
| Fixed Assets                      | 557,939   | 681,743   | 1,006,745 | 1,687,785 | 2,313,195 |
| Other Assets                      | 147,995   | 182,351   | 219,953   | 220,560   | 187,514   |
| Total Assets                      | 2,968,185 | 3,236,224 | 4,612,563 | 6,096,149 | 8,626,246 |
| Growth (%)                        |           | 9.03%     | 42.53%    | 32.16%    | 41.50%    |

|                       |           |           |           |           |           |
|-----------------------|-----------|-----------|-----------|-----------|-----------|
| Current Liabilities   | 854,812   | 1,088,431 | 1,696,209 | 2,369,507 | 3,757,580 |
| Long Term Liabilities | 302,229   | 285,696   | 644,946   | 1,154,121 | 2,084,534 |
| Total Liabilities     | 1,157,041 | 1,374,127 | 2,341,155 | 3,523,628 | 5,842,113 |
| Growth (%)            |           | 18.76%    | 70.37%    | 50.51%    | 65.80%    |

|                          |           |           |           |           |           |
|--------------------------|-----------|-----------|-----------|-----------|-----------|
| Authorized Capital       | 2,000,000 | 2,000,000 | 2,000,000 | 2,000,000 | 2,000,000 |
| Paid up Capital          | 5,554     | 555,400   | 555,400   | 555,400   | 555,400   |
| Paid up Capital (Shares) | 56        | 5,554     | 5,554     | 5,554     | 5,554     |
| Par Value                | 100       | 100       | 100       | 100       | 100       |
| Retained Earnings        | 1,180,149 | 311,610   | 1,672,567 | 1,945,868 | 2,073,072 |
| Total Equity             | 1,811,144 | 1,862,097 | 2,271,407 | 2,572,521 | 2,784,133 |
| Growth (%)               |           | 2.81%     | 21.98%    | 13.26%    | 8.23%     |

| INCOME STATEMENTS | Dec-14    | Dec-15    | Dec-16    | Dec-17    | Sep-18    |
|-------------------|-----------|-----------|-----------|-----------|-----------|
| Total Revenues    | 4,521,024 | 4,860,371 | 5,811,503 | 6,127,479 | 5,307,365 |
| Growth (%)        |           | 7.51%     | 19.57%    | 5.44%     |           |

|                   |           |           |           |           |           |
|-------------------|-----------|-----------|-----------|-----------|-----------|
| Cost of Revenues  | 3,135,542 | 3,323,619 | 3,947,607 | 3,925,600 | 3,364,494 |
| Gross Profit      | 1,385,482 | 1,536,752 | 1,863,896 | 2,201,880 | 1,942,871 |
| Expenses (Income) | 1,043,001 | 1,162,475 | 1,421,072 | 1,666,218 | 1,459,576 |
| Operating Profit  | 342,481   | 374,277   | 442,824   | 535,661   | 483,295   |
| Growth (%)        |           | 9.28%     | 18.31%    | 20.96%    |           |

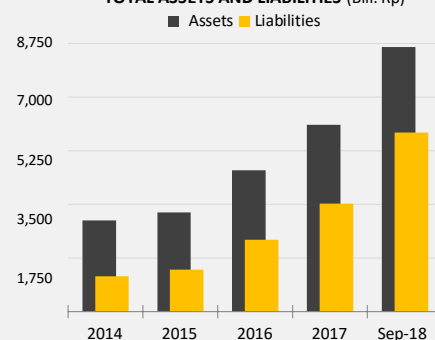
|                         |         |         |         |         |          |
|-------------------------|---------|---------|---------|---------|----------|
| Other Income (Expenses) | -26,870 | -36,142 | -59,798 | -85,952 | -126,620 |
| Income before Tax       | 315,611 | 338,135 | 383,026 | 449,710 | 356,675  |
| Tax                     | 79,080  | 85,163  | 111,428 | 118,002 | 130,698  |
| Profit for the period   | 236,531 | 252,973 | 271,598 | 331,708 | 225,977  |
| Growth (%)              |         | 6.95%   | 7.36%   | 22.13%  |          |

|                            |         |         |         |         |         |
|----------------------------|---------|---------|---------|---------|---------|
| Period Attributable        | 234,626 | 248,849 | 267,414 | 326,786 | 225,288 |
| Comprehensive Income       | 236,531 | 187,943 | 246,893 | 323,867 | 203,221 |
| Comprehensive Attributable | 234,626 | 183,820 | 242,709 | 326,786 | 202,532 |

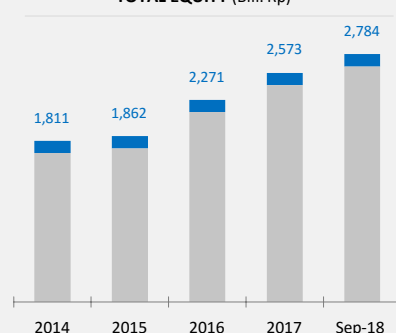
| RATIOS            | Dec-14    | Dec-15 | Dec-16 | Dec-17 | Sep-18 |
|-------------------|-----------|--------|--------|--------|--------|
| Current Ratio (%) | 238.70    | 193.02 | 171.37 | 154.55 | 148.46 |
| Dividend (Rp)     | 8.45      | -      | 9.63   | 17.66  | -      |
| EPS (Rp)          | 4,224.45  | 44.81  | 48.15  | 58.84  | 40.56  |
| BV (Rp)           | 32,609.72 | 335.27 | 408.97 | 463.18 | 501.28 |
| DAR (X)           | 0.39      | 0.42   | 0.51   | 0.58   | 0.68   |
| DER(X)            | 0.64      | 0.74   | 1.03   | 1.37   | 2.10   |
| ROA (%)           | 7.97      | 7.82   | 5.89   | 5.44   | 2.62   |
| ROE (%)           | 13.06     | 13.59  | 11.96  | 12.89  | 8.12   |
| GPM (%)           | 30.65     | 31.62  | 32.07  | 35.93  | 36.61  |
| OPM (%)           | 7.58      | 7.70   | 7.62   | 8.74   | 9.11   |
| NPM (%)           | 5.23      | 5.20   | 4.67   | 5.41   | 4.26   |
| Payout Ratio (%)  | 0.20      | -      | 20.00  | 30.01  | -      |
| Yield (%)         | 0.58      | -      | 0.35   | 0.65   | -      |

|                    |        |        |        |        |        |
|--------------------|--------|--------|--------|--------|--------|
| *US\$ Rate (B), Rp | 12,436 | 13,794 | 13,436 | 13,548 | 14,929 |
|--------------------|--------|--------|--------|--------|--------|

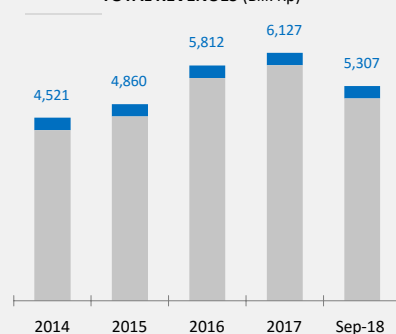
TOTAL ASSETS AND LIABILITIES (Bill. Rp)



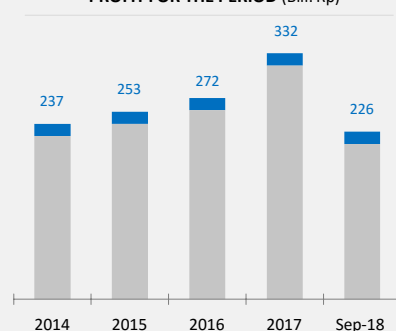
TOTAL EQUITY (Bill. Rp)



TOTAL REVENUES (Bill. Rp)



PROFIT FOR THE PERIOD (Bill. Rp)



# KLBF Kalbe Farma Tbk.

## COMPANY REPORT : JANUARY 2019

Main Board  
Industry Sector : Consumer Goods Industry (5)  
Industry Sub Sector : Pharmaceuticals (53)

## As of 31 January 2019

Individual Index : 15,605.189  
Listed Shares : 46,875,122,110  
Market Capitalization : 75,000,195,376,000

16 | 75.0T | 1.01% | 54.88%

47 | 10.6T | 0.51% | 73.11%

### COMPANY HISTORY

Established Date : 10-Sep-1966  
Listing Date : 30-Jul-1991 (IPO Price: 7,800)  
Underwriter IPO :  
PT Merincorp S.I.  
PT Niaga Securities  
Securities Administration Bureau :  
PT Adimitra Jasa Korpora

### SHAREHOLDERS (December 2018)

|                               |                |        |
|-------------------------------|----------------|--------|
| 1. PT Gira Sole Prima         | 4,774,709,485  | 10.19% |
| 2. PT Santa Seha Sanadi       | 4,527,734,940  | 9.66%  |
| 3. PT Diptanala Bahana        | 4,454,807,040  | 9.50%  |
| 4. PT Ladang Ira Panen        | 4,452,558,840  | 9.50%  |
| 5. PT Lucasta Murni Cemerlang | 4,439,895,440  | 9.47%  |
| 6. PT Bina Artha Charisma     | 4,052,950,340  | 8.65%  |
| 7. Public (<5%)               | 20,172,466,025 | 43.03% |

### BOARD OF COMMISSIONERS

1. Bernadette Ruth Irawaty Setiady
  2. Farid Anfasa Moeloek \*)
  3. Ferdinand Aryanto
  4. Lucky Surjadi Slamet \*)
  5. Ronny Hadiana
  6. Santoso Oen
- \*) Independent Commissioners

### BOARD OF DIRECTORS

1. Vidjongtius
2. Bernadus Karmin Winata
3. Bujung Nugroho
4. Djonny Hartono Tjahyadi
5. Ongkie Tedjasurja
6. Sie Djohan

### AUDIT COMMITTEE

1. Lucky Surjadi Slamet
2. Kai Arief Iman Selomulya
3. Kurniawan Tedjo

### CORPORATE SECRETARY

Bernadus Karmin Winata

### HEAD OFFICE

Kalbe Building  
Jl. Let. Jend. Suprpto Kav. 4, Cempaka Putih  
Jakarta 10510  
Phone : (021) 4287-3888; 4287-3889  
Fax : (021) 4287-3680

Homepage : [www.kalbe.co.id](http://www.kalbe.co.id)

Email : [investor.relations@kalbe.co.id](mailto:investor.relations@kalbe.co.id)  
[Corp.comm@kalbe.co.id](mailto:Corp.comm@kalbe.co.id)  
[bernadus.winata@kalbe.co.id](mailto:bernadus.winata@kalbe.co.id)

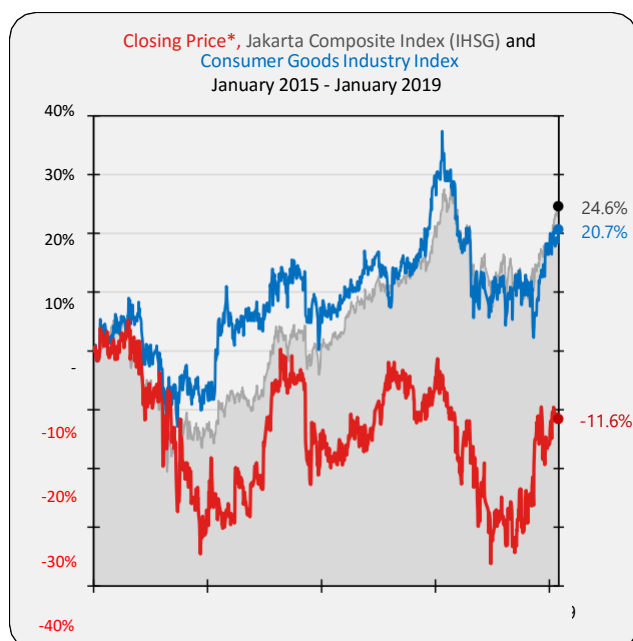
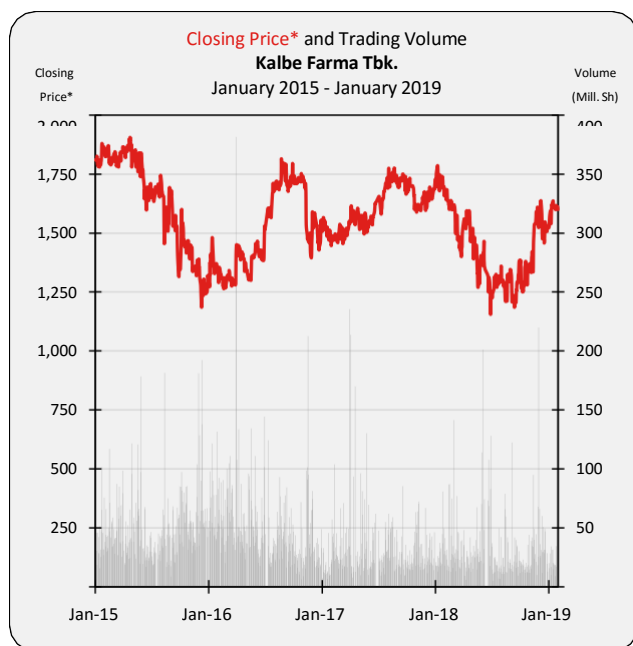
### DIVIDEND ANNOUNCEMENT

| Year | Bonus<br>Shares | Cash<br>Dividend | Cum Date  | Ex Date   | Recording<br>Date | Payment<br>Date | F/I |
|------|-----------------|------------------|-----------|-----------|-------------------|-----------------|-----|
| 1991 |                 | 200.00           | 16-Apr-92 | 20-Apr-92 | 27-Apr-92         | 29-May-92       | F   |
| 1991 | 1: 1            |                  | 20-Oct-92 | 21-Oct-92 | 28-Oct-92         | 16-Nov-92       | BS  |
| 1992 |                 | 60.00            | 9-Dec-92  | 10-Dec-92 | 17-Dec-92         | 15-Jan-93       | I   |
| 1992 |                 | 70.00            | 30-Jun-93 | 1-Jul-93  | 8-Jul-93          | 6-Aug-93        | F   |
| 1993 | 10: 3 & 10: 7   | 75.00            | 7-Jun-94  | 8-Jun-94  | 15-Jun-94         | 15-Jul-94       | --- |
| 1994 |                 | 50.00            | 29-Aug-94 | 30-Aug-94 | 6-Sep-94          | 6-Oct-94        | I   |
| 1994 |                 | 85.00            | 10-Jul-95 | 11-Jul-95 | 19-Jul-95         | 18-Aug-95       | F   |
| 1995 |                 | 115.00           | 9-Jul-96  | 10-Jul-96 | 18-Jul-96         | 15-Aug-96       | F   |
| 1996 |                 | 75.00            | 23-Jul-97 | 24-Jul-97 | 1-Aug-97          | 29-Aug-97       | F   |
| 1999 |                 | 2.00             | 10-Nov-00 | 13-Nov-00 | 20-Nov-00         | 6-Dec-00        | F   |
| 1999 | 100: 88         |                  | 10-Nov-00 | 13-Nov-00 | 20-Nov-00         | 6-Dec-00        | F   |
| 2002 |                 | 2.00             | 25-Aug-03 | 26-Aug-03 | 28-Aug-03         | 11-Sep-03       | F   |
| 2003 |                 | 1.00             | 16-Aug-04 | 18-Aug-04 | 20-Aug-04         | 3-Sep-04        | F   |
| 2004 |                 | 3.00             | 5-Jul-05  | 6-Jul-05  | 8-Jul-05          | 22-Jul-05       | F   |
| 2006 |                 | 10.00            | 14-Jun-07 | 15-Jun-07 | 19-Jun-07         | 3-Jul-07        | I   |
| 2007 |                 | 10.00            | 31-Jul-08 | 1-Aug-08  | 5-Aug-08          | 20-Aug-08       | F   |
| 2008 |                 | 12.50            | 29-Jul-09 | 30-Jul-09 | 3-Aug-09          | 14-Aug-09       | F   |
| 2009 |                 | 25.00            | 15-Jul-10 | 16-Jul-10 | 20-Jul-10         | 30-Jul-10       | F   |
| 2010 |                 | 70.00            | 27-Jun-11 | 28-Jun-11 | 1-Jul-11          | 13-Jul-11       | F   |
| 2011 |                 | 95.00            | 28-Jun-12 | 29-Jun-12 | 3-Jul-12          | 17-Jul-12       | F   |
| 2012 |                 | 19.00            | 13-Jun-13 | 14-Jun-13 | 18-Jun-13         | 2-Jul-13        | F   |
| 2013 |                 | 17.00            | 13-Jun-14 | 16-Jun-14 | 18-Jun-14         | 2-Jul-14        | F   |
| 2014 |                 | 19.00            | 25-May-15 | 26-May-15 | 28-May-15         | 17-Jun-15       | F   |
| 2015 |                 | 19.00            | 7-Jun-16  | 8-Jun-16  | 10-Jun-16         | 30-Jun-16       | F   |
| 2016 |                 | 22.00            | 12-Jun-17 | 13-Jun-17 | 15-Jun-17         | 7-Jul-17        | F   |
| 2017 |                 | 25.00            | 21-Jun-18 | 22-Jun-18 | 26-Jun-18         | 6-Jul-18        | F   |

### ISSUED HISTORY

| No. | Type of Listing                          | Shares            | Listing<br>Date | Trading<br>Date |
|-----|------------------------------------------|-------------------|-----------------|-----------------|
| 1.  | First Issue                              | 10,000,000        | 30-Jul-91       | 30-Jul-91       |
| 2.  | Partial Listing                          | 10,000,000 T:     | 30-Jul-91       | 30-Jan-92       |
| 3.  | Koperasi                                 | 500,000 T:        | 27-Feb-92       | 31-Dec-99       |
| 4.  | Company Listing                          | 29,500,000        | 29-Apr-92       | 29-Apr-92       |
| 5.  | Bonus Shares                             | 2,026,400,000 T:  | 17-Nov-92       | 6-Dec-00        |
| 6.  | Right Issue                              | 8,000,000 T:      | 14-May-93       | 25-Jun-93       |
| 7.  | Dividend Shares                          | 32,400,000        | 18-Jul-94       | 18-Jul-94       |
| 8.  | Stock Split                              | 46,628,857,688 T: | 7-Oct-96        | 8-Oct-12        |
| 9.  | Additional Listing (Merger)              | 2,034,414,422     | 21-Dec-05       | 21-Dec-05       |
| 10. | Decrease in Issued and Fully Paid Shares | -3,904,950,000    | 13-Dec-13       | 13-Dec-13       |





| SHARES TRADED        | 2015   | 2016   | 2017   | 2018   | Jan-19 |
|----------------------|--------|--------|--------|--------|--------|
| Volume (Million Sh.) | 12,168 | 12,520 | 7,595  | 7,544  | 482    |
| Value (Billion Rp)   | 19,698 | 18,398 | 11,953 | 10,875 | 769    |
| Frequency (Thou. X)  | 1,080  | 934    | 531    | 668    | 64     |
| Days                 | 244    | 246    | 238    | 240    | 22     |

| Price (Rupiah) |       |       |       |       |       |
|----------------|-------|-------|-------|-------|-------|
| High           | 1,915 | 1,815 | 1,795 | 1,785 | 1,635 |
| Low            | 1,135 | 1,250 | 1,440 | 1,155 | 1,500 |
| Close          | 1,320 | 1,515 | 1,690 | 1,520 | 1,600 |
| Close*         | 1,320 | 1,515 | 1,690 | 1,520 | 1,600 |

|                  |       |       |       |       |       |
|------------------|-------|-------|-------|-------|-------|
| PER (X)          | 30.87 | 31.28 | 33.39 | 29.61 | 31.17 |
| PER Industry (X) | 17.71 | 23.77 | 18.48 | 24.94 | 36.52 |
| PBV (X)          | 5.66  | 6.01  | 5.97  | 4.89  | 5.14  |

\* Adjusted price after corporate action

## TRADING ACTIVITIES

| Month  | Closing Price |       |       | Freq.<br>(X) | Volume<br>(Thou. Sh.) | Value<br>(Million Rp) | Day |
|--------|---------------|-------|-------|--------------|-----------------------|-----------------------|-----|
|        | High          | Low   | Close |              |                       |                       |     |
| Jan-15 | 1,880         | 1,775 | 1,865 | 67,451       | 931,699               | 1,699,637             | 21  |
| Feb-15 | 1,870         | 1,780 | 1,805 | 72,888       | 924,635               | 1,684,580             | 19  |
| Mar-15 | 1,865         | 1,775 | 1,865 | 76,831       | 1,156,024             | 2,102,717             | 22  |
| Apr-15 | 1,915         | 1,750 | 1,795 | 72,828       | 906,565               | 1,672,698             | 21  |
| May-15 | 1,870         | 1,730 | 1,840 | 92,844       | 1,178,383             | 2,127,734             | 19  |
| Jun-15 | 1,825         | 1,590 | 1,675 | 90,201       | 712,306               | 1,205,743             | 21  |
| Jul-15 | 1,745         | 1,630 | 1,745 | 92,629       | 560,733               | 938,956               | 19  |
| Aug-15 | 1,735         | 1,405 | 1,675 | 110,480      | 1,084,676             | 1,706,243             | 20  |
| Sep-15 | 1,700         | 1,250 | 1,375 | 86,684       | 887,975               | 1,334,895             | 21  |
| Oct-15 | 1,610         | 1,345 | 1,430 | 125,064      | 1,275,026             | 1,870,332             | 21  |
| Nov-15 | 1,455         | 1,305 | 1,335 | 94,453       | 1,193,529             | 1,635,558             | 21  |
| Dec-15 | 1,390         | 1,135 | 1,320 | 97,512       | 1,356,241             | 1,718,826             | 19  |
| Jan-16 | 1,505         | 1,275 | 1,335 | 88,640       | 1,293,400             | 1,780,459             | 20  |
| Feb-16 | 1,370         | 1,250 | 1,300 | 97,172       | 1,169,685             | 1,532,788             | 20  |
| Mar-16 | 1,465         | 1,270 | 1,445 | 111,539      | 1,864,143             | 2,497,670             | 21  |
| Apr-16 | 1,470         | 1,320 | 1,375 | 81,214       | 1,099,897             | 1,551,019             | 21  |
| May-16 | 1,430         | 1,295 | 1,430 | 81,608       | 1,189,673             | 1,617,860             | 20  |
| Jun-16 | 1,545         | 1,370 | 1,530 | 88,348       | 1,087,339             | 1,562,244             | 22  |
| Jul-16 | 1,715         | 1,490 | 1,675 | 62,357       | 569,437               | 912,427               | 16  |
| Aug-16 | 1,815         | 1,660 | 1,795 | 76,521       | 989,147               | 1,701,612             | 22  |
| Sep-16 | 1,805         | 1,650 | 1,715 | 62,071       | 879,271               | 1,517,409             | 21  |
| Oct-16 | 1,750         | 1,700 | 1,740 | 42,753       | 539,217               | 929,406               | 21  |
| Nov-16 | 1,755         | 1,385 | 1,500 | 76,734       | 1,188,212             | 1,805,036             | 22  |
| Dec-16 | 1,590         | 1,410 | 1,515 | 65,131       | 650,147               | 990,194               | 20  |
| Jan-17 | 1,570         | 1,450 | 1,450 | 42,602       | 341,931               | 516,733               | 21  |
| Feb-17 | 1,550         | 1,445 | 1,530 | 42,767       | 651,516               | 965,235               | 19  |
| Mar-17 | 1,550         | 1,440 | 1,540 | 51,872       | 925,901               | 1,331,644             | 22  |
| Apr-17 | 1,620         | 1,535 | 1,585 | 30,979       | 731,864               | 1,139,146             | 17  |
| May-17 | 1,595         | 1,480 | 1,540 | 51,643       | 849,651               | 1,190,064             | 20  |
| Jun-17 | 1,630         | 1,520 | 1,625 | 28,169       | 488,991               | 770,218               | 15  |
| Jul-17 | 1,735         | 1,580 | 1,735 | 45,995       | 558,286               | 927,632               | 21  |
| Aug-17 | 1,795         | 1,680 | 1,710 | 54,179       | 822,576               | 1,425,860             | 22  |
| Sep-17 | 1,750         | 1,660 | 1,665 | 39,731       | 473,128               | 813,566               | 19  |
| Oct-17 | 1,730         | 1,585 | 1,600 | 46,241       | 529,894               | 884,130               | 22  |
| Nov-17 | 1,675         | 1,590 | 1,600 | 51,831       | 724,597               | 1,167,338             | 22  |
| Dec-17 | 1,700         | 1,600 | 1,690 | 45,139       | 496,626               | 821,309               | 18  |
| Jan-18 | 1,785         | 1,650 | 1,665 | 62,747       | 630,303               | 1,080,246             | 22  |
| Feb-18 | 1,700         | 1,600 | 1,600 | 51,765       | 625,334               | 1,017,897             | 19  |
| Mar-18 | 1,625         | 1,390 | 1,500 | 57,212       | 715,111               | 1,087,414             | 21  |
| Apr-18 | 1,615         | 1,425 | 1,505 | 47,492       | 488,143               | 747,746               | 21  |
| May-18 | 1,515         | 1,270 | 1,370 | 61,253       | 714,222               | 986,700               | 20  |
| Jun-18 | 1,470         | 1,155 | 1,220 | 55,950       | 896,858               | 1,170,702             | 13  |
| Jul-18 | 1,325         | 1,195 | 1,295 | 41,458       | 412,238               | 527,588               | 22  |
| Aug-18 | 1,365         | 1,210 | 1,345 | 49,897       | 580,010               | 743,810               | 21  |
| Sep-18 | 1,390         | 1,190 | 1,380 | 44,239       | 531,087               | 661,687               | 19  |
| Oct-18 | 1,395         | 1,240 | 1,370 | 46,542       | 428,613               | 564,060               | 23  |
| Nov-18 | 1,625         | 1,315 | 1,525 | 74,856       | 907,726               | 1,348,882             | 21  |
| Dec-18 | 1,645         | 1,430 | 1,520 | 74,296       | 614,088               | 938,432               | 18  |
| Jan-19 | 1,635         | 1,500 | 1,600 | 63,506       | 481,695               | 769,246               | 22  |

## Financial Data and Ratios

Public Accountant : Purwantono, Suherman & Surja

Book End : December

| BALANCE SHEET                     | Dec-14     | Dec-15     | Dec-16     | Dec-17     | Sep-18     |
|-----------------------------------|------------|------------|------------|------------|------------|
| (in Million Rp, except Par Value) |            |            |            |            |            |
| Cash & Cash Equivalents           | 1,894,610  | 2,718,619  | 2,895,582  | 2,784,706  | 2,528,944  |
| Receivables                       | 2,464,902  | 2,434,082  | 2,725,808  | 2,967,693  | 3,599,204  |
| Inventories                       | 3,090,544  | 3,003,150  | 3,344,404  | 3,557,497  | 3,471,242  |
| Current Assets                    | 8,120,805  | 8,748,492  | 9,572,530  | 10,043,951 | 10,322,942 |
| Fixed Assets                      | 3,404,457  | 3,938,494  | 4,555,756  | 5,342,660  | 5,930,201  |
| Other Assets                      | 326,536    | 346,531    | 413,327    | 546,831    | 600,744    |
| Total Assets                      | 12,439,267 | 13,696,417 | 15,226,009 | 16,616,239 | 17,530,869 |
| Growth (%)                        |            | 10.11%     | 11.17%     | 9.13%      | 5.50%      |

|                       |           |           |           |           |           |
|-----------------------|-----------|-----------|-----------|-----------|-----------|
| Current Liabilities   | 2,385,920 | 2,365,880 | 2,317,162 | 2,227,336 | 2,427,568 |
| Long Term Liabilities | 289,246   | 392,251   | 445,000   | 494,872   | 525,311   |
| Total Liabilities     | 2,675,166 | 2,758,131 | 2,762,162 | 2,722,208 | 2,952,879 |
| Growth (%)            |           | 3.10%     | 0.15%     | -1.45%    | 8.47%     |

|                          |           |            |            |            |            |
|--------------------------|-----------|------------|------------|------------|------------|
| Authorized Capital       | 850,000   | 850,000    | 850,000    | 850,000    | 850,000    |
| Paid up Capital          | 468,751   | 468,751    | 468,751    | 468,751    | 468,751    |
| Paid up Capital (Shares) | 46,875    | 46,875     | 46,875     | 46,875     | 46,875     |
| Par Value                | 10        | 10         | 10         | 10         | 10         |
| Retained Earnings        | 8,892,788 | 10,006,398 | 11,415,505 | 12,787,858 | 13,420,411 |
| Total Equity             | 9,764,101 | 10,938,286 | 12,463,847 | 13,894,032 | 14,577,990 |
| Growth (%)               |           | 12.03%     | 13.95%     | 11.47%     | 4.92%      |

| INCOME STATEMENTS | Dec-14     | Dec-15     | Dec-16     | Dec-17     | Sep-18     |
|-------------------|------------|------------|------------|------------|------------|
| Total Revenues    | 17,368,533 | 17,887,464 | 19,374,231 | 20,182,120 | 15,678,301 |
| Growth (%)        |            | 2.99%      | 8.31%      | 4.17%      |            |

|                   |           |           |           |            |           |
|-------------------|-----------|-----------|-----------|------------|-----------|
| Cost of Revenues  | 8,892,726 | 9,295,887 | 9,886,263 | 10,369,837 | 8,194,448 |
| Gross Profit      | 8,475,807 | 8,591,577 | 9,487,968 | 9,812,283  | 7,483,853 |
| Expenses (Income) | 5,710,213 | 5,870,696 | 6,396,780 | 6,571,097  | 5,068,439 |
| Operating Profit  | -         | -         | -         | -          | -         |
| Growth (%)        |           |           |           |            |           |

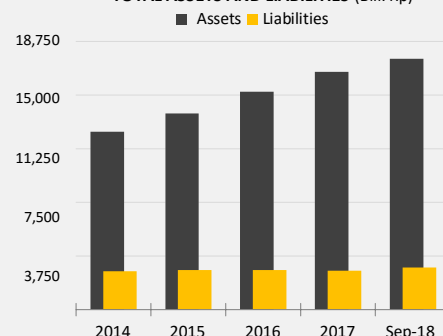
|                         |           |           |           |           |           |
|-------------------------|-----------|-----------|-----------|-----------|-----------|
| Other Income (Expenses) | -         | -         | -         | -         | -         |
| Income before Tax       | 2,765,593 | 2,720,881 | 3,091,188 | 3,241,187 | 2,415,415 |
| Tax                     | 642,916   | 663,187   | 740,304   | 787,935   | 581,769   |
| Profit for the period   | 2,122,678 | 2,057,694 | 2,350,885 | 2,453,251 | 1,833,646 |
| Growth (%)              |           | -3.06%    | 14.25%    | 4.35%     |           |

|                            |           |           |           |           |           |
|----------------------------|-----------|-----------|-----------|-----------|-----------|
| Period Attributable        | 2,066,022 | 2,004,237 | 2,299,735 | 2,403,606 | 1,804,431 |
| Comprehensive Income       | 2,096,408 | 2,083,403 | 2,353,924 | 2,442,945 | 1,850,409 |
| Comprehensive Attributable | 2,040,329 | 2,029,813 | 2,302,751 | 2,392,807 | 1,821,004 |

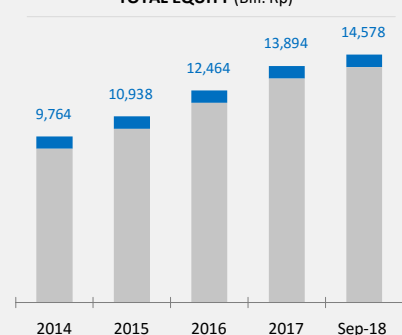
| RATIOS            | Dec-14 | Dec-15 | Dec-16 | Dec-17 | Sep-18 |
|-------------------|--------|--------|--------|--------|--------|
| Current Ratio (%) | 340.36 | 369.78 | 413.11 | 450.94 | 425.24 |
| Dividend (Rp)     | 19.00  | 19.00  | 22.00  | 25.00  | -      |
| EPS (Rp)          | 44.08  | 42.76  | 49.06  | 51.28  | 38.49  |
| BV (Rp)           | 208.30 | 233.35 | 265.89 | 296.41 | 311.00 |
| DAR (X)           | 0.22   | 0.20   | 0.18   | 0.16   | 0.17   |
| DER(X)            | 0.27   | 0.25   | 0.22   | 0.20   | 0.20   |
| ROA (%)           | 17.06  | 15.02  | 15.44  | 14.76  | 10.46  |
| ROE (%)           | 21.74  | 18.81  | 18.86  | 17.66  | 12.58  |
| GPM (%)           | 48.80  | 48.03  | 48.97  | 48.62  | 47.73  |
| OPM (%)           | -      | -      | -      | -      | -      |
| NPM (%)           | 12.22  | 11.50  | 12.13  | 12.16  | 11.70  |
| Payout Ratio (%)  | 43.11  | 44.44  | 44.84  | 48.75  | -      |
| Yield (%)         | 1.04   | 1.44   | 1.45   | 1.48   | -      |

|                    |        |        |        |        |        |
|--------------------|--------|--------|--------|--------|--------|
| *US\$ Rate (B), Rp | 12,436 | 13,794 | 13,436 | 13,548 | 14,929 |
|--------------------|--------|--------|--------|--------|--------|

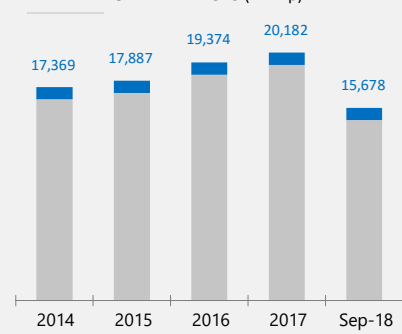
TOTAL ASSETS AND LIABILITIES (Bill. Rp)



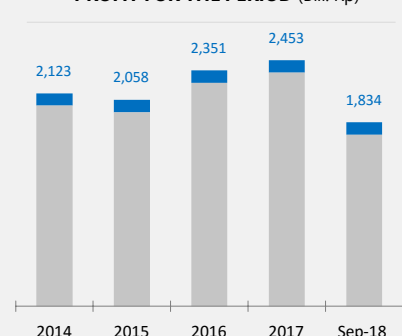
TOTAL EQUITY (Bill. Rp)



TOTAL REVENUES (Bill. Rp)



PROFIT FOR THE PERIOD (Bill. Rp)



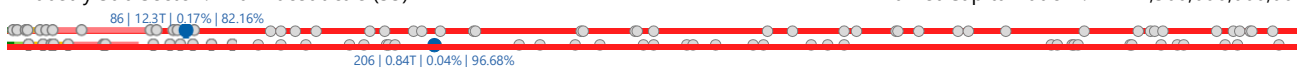
# SIDO Industri Jamu dan Farmasi Sido Muncul Tbk.

## COMPANY REPORT : JANUARY 2019

As of 31 January 2019

Main Board  
Industry Sector : Consumer Goods Industry (5)  
Industry Sub Sector : Pharmaceuticals (53)

Individual Index : 141.379  
Listed Shares : 15,000,000,000  
Market Capitalization : 12,300,000,000,000



### COMPANY HISTORY

Established Date : 18-Mar-1975  
Listing Date : 18-Dec-2013 (IPO Price: 580)  
Underwriter IPO :  
PT Kresna Graha Sekurindo Tbk.  
PT Mandiri Sekuritas  
Securities Administration Bureau :  
PT Sirca Datapro Perdana

### SHAREHOLDERS (December 2018)

|                     |               |        |
|---------------------|---------------|--------|
| 1. Hotel Candi Baru | 7,650,000,000 | 51.00% |
| 2. Hotel Candi Baru | 4,500,000,000 | 30.00% |
| 3. Public (<5%)     | 2,850,000,000 | 19.00% |

### DIVIDEND ANNOUNCEMENT

| Year | Bonus<br>Shares | Cash<br>Dividend | Cum Date  | Ex Date   | Recording<br>Date | Payment<br>Date | Unit |
|------|-----------------|------------------|-----------|-----------|-------------------|-----------------|------|
| 2013 |                 | 27.00            | 19-May-14 | 20-May-14 | 22-May-14         | 9-Jun-14        | F    |
| 2014 |                 | 24.00            | 21-May-15 | 22-May-15 | 26-May-15         | 12-Jun-15       | F    |
| 2015 |                 | 25.00            | 25-May-16 | 26-May-16 | 30-May-16         | 17-Jun-16       | F    |
| 2016 |                 | 26.00            | 26-May-17 | 29-May-17 | 31-May-17         | 16-Jun-17       | F    |
| 2017 |                 | 29.00            | 7-Jun-18  | 8-Jun-18  | 21-Jun-18         | 4-Jul-18        | F    |
| 2018 |                 | 15.00            | 1-Nov-18  | 2-Nov-18  | 6-Nov-18          | 28-Nov-18       | I    |

### BOARD OF COMMISSIONERS

1. Jonatha Sofjan Hidayat
  2. Eric Marnandus \*)
  3. Johan Hidayat
  4. Ronnie Behar \*)
  5. Sigit Hartojo Hadi Santoso
- \*) Independent Commissioners

### BOARD OF DIRECTORS

1. David Hdayat
2. Carlo Lukman Windarto
3. Irwan Hidayat
4. Venancia Sri Indriajati Wijono

### AUDIT COMMITTEE

1. Eric Marnandus
2. Arie Sandy Rachim
3. Eddy Sugito

### CORPORATE SECRETARY

Tiur Simamora

### HEAD OFFICE

Menara Suara Merdeka, 16th Floor  
Jl. Pandanaran No. 30  
Semarang 50134  
Phone : (024) 7692-8811  
Fax : (024) 7692-8815  
Homepage : [www.sidomuncul.com](http://www.sidomuncul.com)  
Email : [Info@sidomuncul.com](mailto:Info@sidomuncul.com)  
[tiur.simamora@sidomuncul.co.id](mailto:tiur.simamora@sidomuncul.co.id)

### ISSUED HISTORY

| No. | Type of Listing | Shares         | Listing<br>Date | Trading<br>Date |
|-----|-----------------|----------------|-----------------|-----------------|
| 1.  | First Issue     | 1,500,000,000  | 18-Dec-13       | 18-Dec-13       |
| 2.  | Company Listing | 13,500,000,000 | 18-Dec-13       | 18-Dec-13       |

# SIDO Industri Jamu dan Farmasi Sido Muncul Tbk.



| SHARES TRADED        | 2015  | 2016  | 2017   | 2018  | Jan-19 |
|----------------------|-------|-------|--------|-------|--------|
| Volume (Million Sh.) | 1,558 | 1,517 | 13,402 | 1,278 | 74     |
| Value (Billion Rp)   | 842   | 828   | 7,340  | 949   | 61     |
| Frequency (Thou. X)  | 172   | 79    | 67     | 117   | 12     |
| Days                 | 244   | 246   | 238    | 240   | 22     |
| Price (Rupiah)       |       |       |        |       |        |
| High                 | 625   | 620   | 585    | 975   | 865    |
| Low                  | 420   | 494   | 436    | 535   | 750    |
| Close                | 550   | 520   | 545    | 840   | 820    |
| Close*               | 550   | 520   | 545    | 840   | 820    |
| PER (X)              | 18.86 | 11.08 | 16.12  | 19.68 | 19.21  |
| PER Industry (X)     | 17.71 | 23.77 | 18.48  | 24.94 | 36.52  |
| PBV (X)              | 3.18  | 3.05  | 2.99   | 4.27  | 4.16   |

\* Adjusted price after corporate action

## TRADING ACTIVITIES

| Month  | Closing Price |       |     | Freq. (X) | Volume (Thou. Sh.) | Value (Million Rp) | Day |
|--------|---------------|-------|-----|-----------|--------------------|--------------------|-----|
| High   | Low           | Close |     |           |                    |                    |     |
| Jan-15 | 625           | 570   | 590 | 10,239    | 118,616            | 70,625             | 21  |
| Feb-15 | 610           | 555   | 585 | 8,713     | 115,648            | 67,933             | 19  |
| Mar-15 | 590           | 540   | 570 | 8,114     | 100,872            | 56,917             | 22  |
| Apr-15 | 570           | 474   | 520 | 9,395     | 131,718            | 67,670             | 21  |
| May-15 | 600           | 477   | 585 | 20,428    | 252,849            | 138,560            | 19  |
| Jun-15 | 595           | 510   | 565 | 33,482    | 208,156            | 116,622            | 21  |
| Jul-15 | 570           | 500   | 545 | 28,733    | 128,510            | 69,132             | 19  |
| Aug-15 | 545           | 420   | 510 | 14,709    | 102,745            | 50,455             | 20  |
| Sep-15 | 570           | 469   | 490 | 9,724     | 58,428             | 28,908             | 21  |
| Oct-15 | 515           | 470   | 483 | 14,549    | 129,815            | 63,933             | 21  |
| Nov-15 | 570           | 480   | 555 | 9,304     | 139,372            | 73,090             | 21  |
| Dec-15 | 555           | 515   | 550 | 5,010     | 71,321             | 38,315             | 19  |
| Jan-16 | 550           | 494   | 500 | 4,458     | 65,464             | 33,578             | 20  |
| Feb-16 | 525           | 497   | 510 | 5,709     | 64,217             | 32,381             | 20  |
| Mar-16 | 540           | 500   | 500 | 5,992     | 64,288             | 33,350             | 21  |
| Apr-16 | 510           | 495   | 500 | 4,240     | 76,401             | 38,278             | 21  |
| May-16 | 540           | 498   | 505 | 7,683     | 136,416            | 70,873             | 20  |
| Jun-16 | 520           | 498   | 505 | 5,999     | 120,607            | 60,615             | 22  |
| Jul-16 | 620           | 494   | 575 | 13,487    | 298,205            | 167,823            | 16  |
| Aug-16 | 610           | 540   | 565 | 7,346     | 123,791            | 72,200             | 22  |
| Sep-16 | 565           | 500   | 535 | 7,701     | 127,452            | 66,898             | 21  |
| Oct-16 | 590           | 535   | 565 | 6,873     | 287,481            | 168,252            | 21  |
| Nov-16 | 575           | 510   | 545 | 5,304     | 109,780            | 61,141             | 22  |
| Dec-16 | 560           | 505   | 520 | 4,046     | 42,892             | 23,102             | 20  |
| Jan-17 | 575           | 510   | 560 | 4,302     | 72,916             | 39,546             | 21  |
| Feb-17 | 585           | 545   | 565 | 2,635     | 39,812             | 22,718             | 19  |
| Mar-17 | 580           | 550   | 565 | 4,083     | 12,333,506         | 6,785,257          | 22  |
| Apr-17 | 585           | 550   | 560 | 3,332     | 75,323             | 42,931             | 17  |
| May-17 | 570           | 510   | 510 | 7,619     | 133,483            | 71,464             | 20  |
| Jun-17 | 515           | 494   | 498 | 5,877     | 148,833            | 75,250             | 15  |
| Jul-17 | 515           | 484   | 500 | 5,327     | 100,482            | 50,799             | 21  |
| Aug-17 | 510           | 496   | 500 | 2,925     | 46,522             | 23,601             | 22  |
| Sep-17 | 500           | 464   | 472 | 4,389     | 41,759             | 20,136             | 19  |
| Oct-17 | 520           | 436   | 492 | 11,087    | 170,317            | 80,455             | 22  |
| Nov-17 | 550           | 492   | 500 | 6,992     | 113,165            | 60,131             | 22  |
| Dec-17 | 560           | 494   | 545 | 8,871     | 125,559            | 67,602             | 18  |
| Jan-18 | 635           | 535   | 620 | 8,191     | 285,550            | 168,255            | 22  |
| Feb-18 | 700           | 625   | 680 | 9,434     | 161,327            | 107,080            | 19  |
| Mar-18 | 690           | 580   | 680 | 4,635     | 83,361             | 56,725             | 21  |
| Apr-18 | 825           | 675   | 815 | 8,621     | 84,548             | 62,629             | 21  |
| May-18 | 890           | 755   | 875 | 12,280    | 108,989            | 91,715             | 20  |
| Jun-18 | 975           | 675   | 780 | 19,430    | 133,438            | 117,280            | 13  |
| Jul-18 | 860           | 710   | 820 | 12,001    | 123,470            | 98,683             | 22  |
| Aug-18 | 875           | 740   | 830 | 10,228    | 69,639             | 57,655             | 21  |
| Sep-18 | 875           | 800   | 840 | 8,120     | 76,019             | 63,865             | 19  |
| Oct-18 | 860           | 780   | 800 | 8,601     | 58,806             | 47,939             | 23  |
| Nov-18 | 845           | 790   | 845 | 6,831     | 35,373             | 28,500             | 21  |
| Dec-18 | 880           | 800   | 840 | 8,261     | 57,750             | 48,944             | 18  |
| Jan-19 | 865           | 750   | 820 | 11,674    | 73,984             | 60,769             | 22  |

# SIDO Industri Jamu dan Farmasi Sido Muncul Tbk.

## Financial Data and Ratios

Public Accountant : Purwantono, Sungkoro & Surja

Book End : December

| BALANCE SHEET                     | Dec-14    | Dec-15    | Dec-16    | Dec-17    | Sep-18    |
|-----------------------------------|-----------|-----------|-----------|-----------|-----------|
| (in Million Rp, except Par Value) |           |           |           |           |           |
| Cash & Cash Equivalents           | 864,791   | 836,975   | 997,135   | 902,852   | 873,512   |
| Receivables                       | 334,258   | 347,730   | 387,218   | 431,502   | 298,124   |
| Inventories                       | 230,736   | 264,982   | 317,082   | 267,915   | 320,282   |
| Current Assets                    | 1,860,438 | 1,707,439 | 1,794,125 | 1,628,901 | 1,504,150 |
| Fixed Assets                      | 791,081   | 961,873   | 1,051,227 | 1,215,176 | 1,491,225 |
| Other Assets                      | 201       | 187       | 104       | -         | -         |
| Total Assets                      | 2,821,399 | 2,796,111 | 2,987,614 | 3,158,198 | 3,237,220 |
| Growth (%)                        |           | -0.90%    | 6.85%     | 5.71%     | 2.50%     |

|                       |         |         |         |         |         |
|-----------------------|---------|---------|---------|---------|---------|
| Current Liabilities   | 181,431 | 184,060 | 215,686 | 208,507 | 240,687 |
| Long Term Liabilities | 5,309   | 13,737  | 14,043  | 53,826  | 43,261  |
| Total Liabilities     | 186,740 | 197,797 | 229,729 | 262,333 | 283,948 |
| Growth (%)            |         | 5.92%   | 16.14%  | 14.19%  | 8.24%   |

|                          |           |           |           |           |           |
|--------------------------|-----------|-----------|-----------|-----------|-----------|
| Authorized Capital       | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 | 5,000,000 |
| Paid up Capital          | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 | 1,500,000 |
| Paid up Capital (Shares) | 15,000    | 15,000    | 15,000    | 15,000    | 15,000    |
| Par Value                | 100       | 100       | 100       | 100       | 100       |
| Retained Earnings        | 442,278   | 510,695   | 613,914   | 749,666   | 806,110   |
| Total Equity             | 2,634,659 | 2,598,314 | 2,757,885 | 2,895,865 | 2,953,272 |
| Growth (%)               |           | -1.38%    | 6.14%     | 5.00%     | 1.98%     |

| INCOME STATEMENTS | Dec-14    | Dec-15    | Dec-16    | Dec-17    | Sep-18    |
|-------------------|-----------|-----------|-----------|-----------|-----------|
| Total Revenues    | 2,197,907 | 2,218,536 | 2,561,806 | 2,573,840 | 1,944,223 |
| Growth (%)        |           | 0.94%     | 15.47%    | 0.47%     |           |

|                   |           |           |           |           |         |
|-------------------|-----------|-----------|-----------|-----------|---------|
| Cost of Revenues  | 1,358,342 | 1,335,171 | 1,494,142 | 1,411,881 | 957,190 |
| Gross Profit      | 839,565   | 883,365   | 1,067,664 | 1,161,959 | 987,033 |
| Expenses (Income) | -         | 322,966   | 438,582   | 521,723   | 408,622 |
| Operating Profit  | -         | -         | 629,082   | 640,236   | 578,411 |
| Growth (%)        |           |           |           | 1.77%     |         |

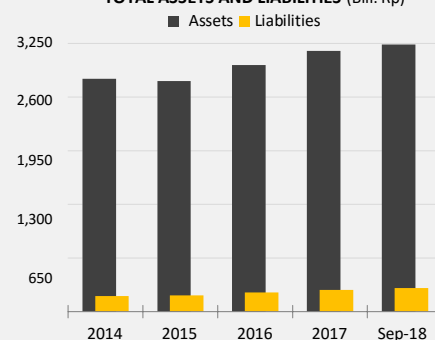
|                         |          |         |         |         |         |
|-------------------------|----------|---------|---------|---------|---------|
| Other Income (Expenses) | -293,914 | -       | -       | 41,653  | 41,664  |
| Income before Tax       | 545,651  | 560,399 | 629,082 | 681,889 | 620,075 |
| Tax                     | 130,458  | 122,924 | 148,557 | 148,090 | 139,965 |
| Profit for the period   | 415,193  | 437,475 | 480,525 | 533,799 | 480,110 |
| Growth (%)              |          | 5.37%   | 9.84%   | 11.09%  |         |

|                            |         |         |         |         |         |
|----------------------------|---------|---------|---------|---------|---------|
| Period Attributable        | 415,193 | 437,475 | 480,525 | 533,799 | 480,110 |
| Comprehensive Income       | 414,200 | 437,898 | 471,722 | 522,719 | 488,061 |
| Comprehensive Attributable | 414,200 | 437,898 | 471,722 | 522,719 | 488,061 |

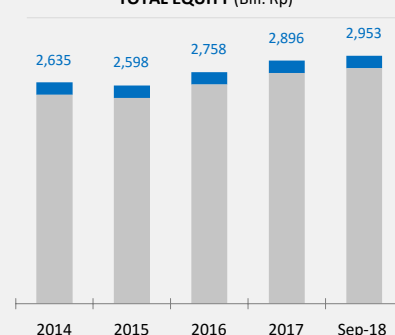
| RATIOS            | Dec-14   | Dec-15 | Dec-16 | Dec-17 | Sep-18 |
|-------------------|----------|--------|--------|--------|--------|
| Current Ratio (%) | 1,025.42 | 927.65 | 831.82 | 781.22 | 624.94 |
| Dividend (Rp)     | 24.00    | 25.00  | 26.00  | 29.00  | 15.00  |
| EPS (Rp)          | 27.68    | 29.17  | 32.04  | 35.59  | 32.01  |
| BV (Rp)           | 175.64   | 173.22 | 183.86 | 193.06 | 196.88 |
| DAR (X)           | 0.07     | 0.07   | 0.08   | 0.08   | 0.09   |
| DER(X)            | 0.07     | 0.08   | 0.08   | 0.09   | 0.10   |
| ROA (%)           | 14.72    | 15.65  | 16.08  | 16.90  | 14.83  |
| ROE (%)           | 15.76    | 16.84  | 17.42  | 18.43  | 16.26  |
| GPM (%)           | 38.20    | 39.82  | 41.68  | 45.14  | 50.77  |
| OPM (%)           | -        | -      | 24.56  | 24.87  | 29.75  |
| NPM (%)           | 18.89    | 19.72  | 18.76  | 20.74  | 24.69  |
| Payout Ratio (%)  | 86.71    | 85.72  | 81.16  | 81.49  | 46.86  |
| Yield (%)         | 3.93     | 4.55   | 5.00   | 5.32   | 1.79   |

|                    |        |        |        |        |        |
|--------------------|--------|--------|--------|--------|--------|
| *US\$ Rate (B), Rp | 12,436 | 13,794 | 13,436 | 13,548 | 14,929 |
|--------------------|--------|--------|--------|--------|--------|

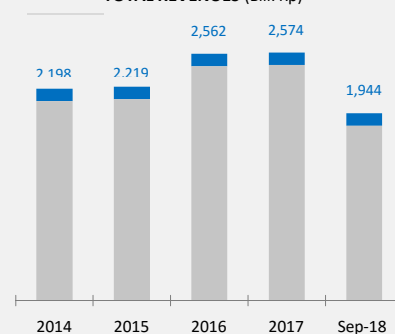
TOTAL ASSETS AND LIABILITIES (Bill. Rp)



TOTAL EQUITY (Bill. Rp)



TOTAL REVENUES (Bill. Rp)



PROFIT FOR THE PERIOD (Bill. Rp)

