

# P2 STRATEGIC PERFORMANCE MANAGEMENT TABLES

## Appendices

The table gives the present value of a single payment received  $n$  years in the future discounted at  $x\%$  per year. For example, with a discount rate of 7% a single payment of €1 in six years time has a present value of €0.6663 or 66.63c.

| Years | 1%     | 2%     | 3%     | 4%     | 5%     | 6%     | 7%     | 8%     | 9%     | 10%    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1     | 0.9901 | 0.9804 | 0.9709 | 0.9615 | 0.9524 | 0.9434 | 0.9346 | 0.9259 | 0.9174 | 0.9091 |
| 2     | 0.9803 | 0.9612 | 0.9426 | 0.9246 | 0.9070 | 0.8900 | 0.8734 | 0.8573 | 0.8417 | 0.8264 |
| 3     | 0.9706 | 0.9423 | 0.9151 | 0.8890 | 0.8638 | 0.8396 | 0.8163 | 0.7938 | 0.7722 | 0.7513 |
| 4     | 0.9610 | 0.9238 | 0.8885 | 0.8548 | 0.8227 | 0.7921 | 0.7629 | 0.7350 | 0.7084 | 0.6830 |
| 5     | 0.9515 | 0.9057 | 0.8626 | 0.8219 | 0.7835 | 0.7473 | 0.7130 | 0.6806 | 0.6499 | 0.6209 |
| 6     | 0.9420 | 0.8880 | 0.8375 | 0.7903 | 0.7462 | 0.7050 | 0.6663 | 0.6302 | 0.5963 | 0.5645 |
| 7     | 0.9327 | 0.8706 | 0.8131 | 0.7599 | 0.7107 | 0.6651 | 0.6227 | 0.5835 | 0.5470 | 0.5132 |
| 8     | 0.9235 | 0.8535 | 0.7894 | 0.7307 | 0.6768 | 0.6274 | 0.5820 | 0.5403 | 0.5019 | 0.4665 |
| 9     | 0.9143 | 0.8368 | 0.7664 | 0.7026 | 0.6446 | 0.5919 | 0.5439 | 0.5002 | 0.4604 | 0.4241 |
| 10    | 0.9053 | 0.8203 | 0.7441 | 0.6756 | 0.6139 | 0.5584 | 0.5083 | 0.4632 | 0.4224 | 0.3855 |
| 11    | 0.8963 | 0.8043 | 0.7224 | 0.6496 | 0.5847 | 0.5268 | 0.4751 | 0.4289 | 0.3875 | 0.3505 |
| 12    | 0.8874 | 0.7885 | 0.7014 | 0.6246 | 0.5568 | 0.4970 | 0.4440 | 0.3971 | 0.3555 | 0.3186 |
| 13    | 0.8787 | 0.7730 | 0.6810 | 0.6006 | 0.5303 | 0.4688 | 0.4150 | 0.3677 | 0.3262 | 0.2897 |
| 14    | 0.8700 | 0.7579 | 0.6611 | 0.5775 | 0.5051 | 0.4423 | 0.3878 | 0.3405 | 0.2992 | 0.2633 |
| 15    | 0.8613 | 0.7430 | 0.6419 | 0.5553 | 0.4810 | 0.4173 | 0.3624 | 0.3152 | 0.2745 | 0.2394 |
| 16    | 0.8528 | 0.7284 | 0.6232 | 0.5339 | 0.4581 | 0.3936 | 0.3387 | 0.2919 | 0.2519 | 0.2176 |
| 17    | 0.8444 | 0.7142 | 0.6050 | 0.5134 | 0.4363 | 0.3714 | 0.3166 | 0.2703 | 0.2311 | 0.1978 |
| 18    | 0.8360 | 0.7002 | 0.5874 | 0.4936 | 0.4155 | 0.3503 | 0.2959 | 0.2502 | 0.2120 | 0.1799 |
| 19    | 0.8277 | 0.6864 | 0.5703 | 0.4746 | 0.3957 | 0.3305 | 0.2765 | 0.2317 | 0.1945 | 0.1635 |
| 20    | 0.8195 | 0.6730 | 0.5537 | 0.4564 | 0.3769 | 0.3118 | 0.2584 | 0.2145 | 0.1784 | 0.1486 |
| 21    | 0.8114 | 0.6598 | 0.5375 | 0.4388 | 0.3589 | 0.2942 | 0.2415 | 0.1987 | 0.1637 | 0.1351 |
| 22    | 0.8034 | 0.6468 | 0.5219 | 0.4220 | 0.3418 | 0.2775 | 0.2257 | 0.1839 | 0.1502 | 0.1228 |
| 23    | 0.7954 | 0.6342 | 0.5067 | 0.4057 | 0.3256 | 0.2618 | 0.2109 | 0.1703 | 0.1378 | 0.1117 |
| 24    | 0.7876 | 0.6217 | 0.4919 | 0.3901 | 0.3101 | 0.2470 | 0.1971 | 0.1577 | 0.1264 | 0.1015 |
| 25    | 0.7798 | 0.6095 | 0.4776 | 0.3751 | 0.2953 | 0.2330 | 0.1842 | 0.1460 | 0.1160 | 0.0923 |
| 26    | 0.7720 | 0.5976 | 0.4637 | 0.3607 | 0.2812 | 0.2198 | 0.1722 | 0.1352 | 0.1064 | 0.0839 |
| 27    | 0.7644 | 0.5859 | 0.4502 | 0.3468 | 0.2678 | 0.2074 | 0.1609 | 0.1252 | 0.0976 | 0.0763 |
| 28    | 0.7568 | 0.5744 | 0.4371 | 0.3335 | 0.2551 | 0.1956 | 0.1504 | 0.1159 | 0.0895 | 0.0693 |
| 29    | 0.7493 | 0.5631 | 0.4243 | 0.3207 | 0.2429 | 0.1846 | 0.1406 | 0.1073 | 0.0822 | 0.0630 |
| 30    | 0.7419 | 0.5521 | 0.4120 | 0.3083 | 0.2314 | 0.1741 | 0.1314 | 0.0994 | 0.0754 | 0.0573 |
| 35    | 0.7059 | 0.5000 | 0.3554 | 0.2534 | 0.1813 | 0.1301 | 0.0937 | 0.0676 | 0.0490 | 0.0356 |
| 40    | 0.6717 | 0.4529 | 0.3066 | 0.2083 | 0.1420 | 0.0972 | 0.0668 | 0.0460 | 0.0318 | 0.0221 |
| 45    | 0.6391 | 0.4102 | 0.2644 | 0.1712 | 0.1113 | 0.0727 | 0.0476 | 0.0313 | 0.0207 | 0.0137 |
| 50    | 0.6080 | 0.3715 | 0.2281 | 0.1407 | 0.0872 | 0.0543 | 0.0339 | 0.0213 | 0.0134 | 0.0085 |

| Years | 11%    | 12%    | 13%    | 14%    | 15%    | 16%    | 17%    | 18%    | 19%    | 20%    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1     | 0.9009 | 0.8929 | 0.8850 | 0.8772 | 0.8696 | 0.8621 | 0.8547 | 0.8475 | 0.8403 | 0.8333 |
| 2     | 0.8116 | 0.7972 | 0.7831 | 0.7695 | 0.7561 | 0.7432 | 0.7305 | 0.7182 | 0.7062 | 0.6944 |
| 3     | 0.7312 | 0.7118 | 0.6931 | 0.6750 | 0.6575 | 0.6407 | 0.6244 | 0.6086 | 0.5934 | 0.5787 |
| 4     | 0.6587 | 0.6355 | 0.6133 | 0.5921 | 0.5718 | 0.5523 | 0.5337 | 0.5158 | 0.4987 | 0.4823 |
| 5     | 0.5935 | 0.5674 | 0.5428 | 0.5194 | 0.4972 | 0.4761 | 0.4561 | 0.4371 | 0.4190 | 0.4019 |
| 6     | 0.5346 | 0.5066 | 0.4803 | 0.4556 | 0.4323 | 0.4104 | 0.3898 | 0.3704 | 0.3521 | 0.3349 |
| 7     | 0.4817 | 0.4523 | 0.4251 | 0.3996 | 0.3759 | 0.3538 | 0.3332 | 0.3139 | 0.2959 | 0.2791 |
| 8     | 0.4339 | 0.4039 | 0.3762 | 0.3506 | 0.3269 | 0.3050 | 0.2848 | 0.2660 | 0.2487 | 0.2326 |
| 9     | 0.3909 | 0.3606 | 0.3329 | 0.3075 | 0.2843 | 0.2630 | 0.2434 | 0.2255 | 0.2090 | 0.1938 |
| 10    | 0.3522 | 0.3220 | 0.2946 | 0.2697 | 0.2472 | 0.2267 | 0.2080 | 0.1911 | 0.1756 | 0.1615 |
| 11    | 0.3173 | 0.2875 | 0.2607 | 0.2366 | 0.2149 | 0.1954 | 0.1778 | 0.1619 | 0.1476 | 0.1346 |
| 12    | 0.2858 | 0.2567 | 0.2307 | 0.2076 | 0.1869 | 0.1685 | 0.1520 | 0.1372 | 0.1240 | 0.1122 |
| 13    | 0.2575 | 0.2292 | 0.2042 | 0.1821 | 0.1625 | 0.1452 | 0.1299 | 0.1163 | 0.1042 | 0.0935 |
| 14    | 0.2320 | 0.2046 | 0.1807 | 0.1597 | 0.1413 | 0.1252 | 0.1110 | 0.0985 | 0.0876 | 0.0779 |
| 15    | 0.2090 | 0.1827 | 0.1599 | 0.1401 | 0.1229 | 0.1079 | 0.0949 | 0.0835 | 0.0736 | 0.0649 |
| 16    | 0.1883 | 0.1631 | 0.1415 | 0.1229 | 0.1069 | 0.0930 | 0.0811 | 0.0708 | 0.0618 | 0.0541 |
| 17    | 0.1696 | 0.1456 | 0.1252 | 0.1078 | 0.0929 | 0.0802 | 0.0693 | 0.0600 | 0.0520 | 0.0451 |
| 18    | 0.1528 | 0.1300 | 0.1108 | 0.0946 | 0.0808 | 0.0691 | 0.0592 | 0.0508 | 0.0437 | 0.0376 |
| 19    | 0.1377 | 0.1161 | 0.0981 | 0.0829 | 0.0703 | 0.0596 | 0.0506 | 0.0431 | 0.0367 | 0.0313 |
| 20    | 0.1240 | 0.1037 | 0.0868 | 0.0728 | 0.0611 | 0.0514 | 0.0433 | 0.0365 | 0.0308 | 0.0261 |
| 21    | 0.1117 | 0.0926 | 0.0768 | 0.0638 | 0.0531 | 0.0443 | 0.0370 | 0.0309 | 0.0259 | 0.0217 |
| 22    | 0.1007 | 0.0826 | 0.0680 | 0.0560 | 0.0462 | 0.0382 | 0.0316 | 0.0262 | 0.0218 | 0.0181 |
| 23    | 0.0907 | 0.0738 | 0.0601 | 0.0491 | 0.0402 | 0.0329 | 0.0270 | 0.0222 | 0.0183 | 0.0151 |
| 24    | 0.0817 | 0.0659 | 0.0532 | 0.0431 | 0.0349 | 0.0284 | 0.0231 | 0.0188 | 0.0154 | 0.0126 |
| 25    | 0.0736 | 0.0588 | 0.0471 | 0.0378 | 0.0304 | 0.0245 | 0.0197 | 0.0160 | 0.0129 | 0.0105 |
| 26    | 0.0663 | 0.0525 | 0.0417 | 0.0331 | 0.0264 | 0.0211 | 0.0169 | 0.0135 | 0.0109 | 0.0087 |
| 27    | 0.0597 | 0.0469 | 0.0369 | 0.0291 | 0.0230 | 0.0182 | 0.0144 | 0.0115 | 0.0091 | 0.0073 |
| 28    | 0.0538 | 0.0419 | 0.0326 | 0.0255 | 0.0200 | 0.0157 | 0.0123 | 0.0097 | 0.0077 | 0.0061 |
| 29    | 0.0485 | 0.0374 | 0.0289 | 0.0224 | 0.0174 | 0.0135 | 0.0105 | 0.0082 | 0.0064 | 0.0051 |
| 30    | 0.0437 | 0.0334 | 0.0256 | 0.0196 | 0.0151 | 0.0116 | 0.0090 | 0.0070 | 0.0054 | 0.0042 |
| 35    | 0.0259 | 0.0189 | 0.0139 | 0.0102 | 0.0075 | 0.0055 | 0.0041 | 0.0030 | 0.0023 | 0.0017 |
| 40    | 0.0154 | 0.0107 | 0.0075 | 0.0053 | 0.0037 | 0.0026 | 0.0019 | 0.0013 | 0.0010 | 0.0007 |
| 45    | 0.0091 | 0.0061 | 0.0041 | 0.0027 | 0.0019 | 0.0013 | 0.0009 | 0.0006 | 0.0004 | 0.0003 |
| 50    | 0.0054 | 0.0035 | 0.0022 | 0.0014 | 0.0009 | 0.0006 | 0.0004 | 0.0003 | 0.0002 | 0.0001 |

| Years | 21%    | 22%    | 23%    | 24%    | 25%    | 26%    | 27%    | 28%    | 29%    | 30%    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1     | 0.8264 | 0.8197 | 0.8130 | 0.8065 | 0.8000 | 0.7937 | 0.7874 | 0.7813 | 0.7752 | 0.7692 |
| 2     | 0.6830 | 0.6719 | 0.6610 | 0.6504 | 0.6400 | 0.6299 | 0.6200 | 0.6104 | 0.6009 | 0.5917 |
| 3     | 0.5645 | 0.5507 | 0.5374 | 0.5245 | 0.5120 | 0.4999 | 0.4882 | 0.4768 | 0.4658 | 0.4552 |
| 4     | 0.4665 | 0.4514 | 0.4369 | 0.4230 | 0.4096 | 0.3968 | 0.3844 | 0.3725 | 0.3611 | 0.3501 |
| 5     | 0.3855 | 0.3700 | 0.3552 | 0.3411 | 0.3277 | 0.3149 | 0.3027 | 0.2910 | 0.2799 | 0.2693 |
| 6     | 0.3186 | 0.3033 | 0.2888 | 0.2751 | 0.2621 | 0.2499 | 0.2383 | 0.2274 | 0.2170 | 0.2072 |
| 7     | 0.2633 | 0.2486 | 0.2348 | 0.2218 | 0.2097 | 0.1983 | 0.1877 | 0.1776 | 0.1682 | 0.1594 |
| 8     | 0.2176 | 0.2038 | 0.1909 | 0.1789 | 0.1678 | 0.1574 | 0.1478 | 0.1388 | 0.1304 | 0.1226 |
| 9     | 0.1799 | 0.1670 | 0.1552 | 0.1443 | 0.1342 | 0.1249 | 0.1164 | 0.1084 | 0.1011 | 0.0943 |
| 10    | 0.1486 | 0.1369 | 0.1262 | 0.1164 | 0.1074 | 0.0992 | 0.0916 | 0.0847 | 0.0784 | 0.0725 |
| 11    | 0.1228 | 0.1122 | 0.1026 | 0.0938 | 0.0859 | 0.0787 | 0.0721 | 0.0662 | 0.0607 | 0.055B |
| 12    | 0.1015 | 0.0920 | 0.0834 | 0.0757 | 0.0687 | 0.0625 | 0.0568 | 0.0517 | 0.0471 | 0.0429 |
| 13    | 0.0839 | 0.0754 | 0.0678 | 0.0610 | 0.0550 | 0.0496 | 0.0447 | 0.0404 | 0.0365 | 0.0330 |
| 14    | 0.0693 | 0.0618 | 0.0551 | 0.0492 | 0.0440 | 0.0393 | 0.0352 | 0.0316 | 0.0283 | 0.0254 |
| 15    | 0.0573 | 0.0507 | 0.0448 | 0.0397 | 0.0352 | 0.0312 | 0.0277 | 0.0247 | 0.0219 | 0.0195 |
| 16    | 0.0474 | 0.0415 | 0.0364 | 0.0320 | 0.0281 | 0.0248 | 0.0218 | 0.0193 | 0.0170 | 0.0150 |
| 17    | 0.0391 | 0.0340 | 0.0296 | 0.0258 | 0.0225 | 0.0197 | 0.0172 | 0.0150 | 0.0132 | 0.0116 |
| 18    | 0.0323 | 0.0279 | 0.0241 | 0.0208 | 0.0180 | 0.0156 | 0.0135 | 0.0118 | 0.0102 | 0.00B9 |
| 19    | 0.0267 | 0.0229 | 0.0196 | 0.0168 | 0.0144 | 0.0124 | 0.0107 | 0.0092 | 0.0079 | 0.0068 |
| 20    | 0.0221 | 0.0187 | 0.0159 | 0.0135 | 0.0115 | 0.0098 | 0.0084 | 0.0072 | 0.0061 | 0.0053 |
| 21    | 0.0183 | 0.0154 | 0.0129 | 0.0109 | 0.0092 | 0.0078 | 0.0066 | 0.0056 | 0.0048 | 0.0040 |
| 22    | 0.0151 | 0.0126 | 0.0105 | 0.0088 | 0.0074 | 0.0062 | 0.0052 | 0.0044 | 0.0037 | 0.0031 |
| 23    | 0.0125 | 0.0103 | 0.0086 | 0.0071 | 0.0059 | 0.0049 | 0.0041 | 0.0034 | 0.0029 | 0.0024 |
| 24    | 0.0103 | 0.0085 | 0.0070 | 0.0057 | 0.0047 | 0.0039 | 0.0032 | 0.0027 | 0.0022 | 0.0018 |
| 25    | 0.0085 | 0.0069 | 0.0057 | 0.0046 | 0.0038 | 0.0031 | 0.0025 | 0.0021 | 0.0017 | 0.0014 |
| 26    | 0.0070 | 0.0057 | 0.0046 | 0.0037 | 0.0030 | 0.0025 | 0.0020 | 0.0016 | 0.0013 | 0.0011 |
| 27    | 0.0058 | 0.0047 | 0.0037 | 0.0030 | 0.0024 | 0.0019 | 0.0016 | 0.0013 | 0.0010 | 0.0008 |
| 28    | 0.0048 | 0.0038 | 0.0030 | 0.0024 | 0.0019 | 0.0015 | 0.0012 | 0.0010 | 0.0008 | 0.0006 |
| 29    | 0.0040 | 0.0031 | 0.0025 | 0.0020 | 0.0015 | 0.0012 | 0.0010 | 0.0008 | 0.0006 | 0.0005 |
| 30    | 0.0033 | 0.0026 | 0.0020 | 0.0016 | 0.0012 | 0.0010 | 0.0008 | 0.0006 | 0.0005 | 0.0004 |
| 35    | 0.0013 | 0.0009 | 0.0007 | 0.0005 | 0.0004 | 0.0003 | 0.0002 | 0.0002 | 0.0001 | 0.0001 |
| 40    | 0.0005 | 0.0004 | 0.0003 | 0.0002 | 0.0001 | 0.0001 | 0.0001 | 0.0001 |        |        |
| 45    | 0.0002 | 0.0001 | 0.0001 | 0.0001 |        |        |        |        |        |        |
| 50    | 0.0001 |        |        |        |        |        |        |        |        |        |

| Years | 31%    | 32%    | 33%    | 34%    | 35%    | 36%    | 37%    | 38%    | 39%    | 40%    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1     | 0.7634 | 0.7576 | 0.7519 | 0.7463 | 0.7407 | 0.7353 | 0.7299 | 0.7246 | 0.7194 | 0.7143 |
| 2     | 0.5827 | 0.5739 | 0.5653 | 0.5569 | 0.5487 | 0.5407 | 0.5328 | 0.5251 | 0.5176 | 0.5102 |
| 3     | 0.4448 | 0.4348 | 0.4251 | 0.4156 | 0.4064 | 0.3975 | 0.3889 | 0.3805 | 0.3724 | 0.3644 |
| 4     | 0.3396 | 0.3294 | 0.3196 | 0.3102 | 0.3011 | 0.2923 | 0.2839 | 0.2757 | 0.2679 | 0.2603 |
| 5     | 0.2592 | 0.2495 | 0.2403 | 0.2315 | 0.2230 | 0.2149 | 0.2072 | 0.1998 | 0.1927 | 0.1859 |
| 6     | 0.1979 | 0.1890 | 0.1807 | 0.1727 | 0.1652 | 0.1580 | 0.1512 | 0.1448 | 0.1386 | 0.1328 |
| 7     | 0.1510 | 0.1432 | 0.1358 | 0.1289 | 0.1224 | 0.1162 | 0.1104 | 0.1049 | 0.0997 | 0.0949 |
| 8     | 0.1153 | 0.1085 | 0.1021 | 0.0962 | 0.0906 | 0.0854 | 0.0806 | 0.0760 | 0.0718 | 0.0678 |
| 9     | 0.0880 | 0.0822 | 0.0768 | 0.0718 | 0.0671 | 0.0628 | 0.0588 | 0.0551 | 0.0516 | 0.0484 |
| 10    | 0.0672 | 0.0623 | 0.0577 | 0.0536 | 0.0497 | 0.0462 | 0.0429 | 0.0399 | 0.0371 | 0.0346 |
| 11    | 0.0513 | 0.0472 | 0.0434 | 0.0400 | 0.0368 | 0.0340 | 0.0313 | 0.0289 | 0.0267 | 0.0247 |
| 12    | 0.0392 | 0.0357 | 0.0326 | 0.0298 | 0.0273 | 0.0250 | 0.0229 | 0.0210 | 0.0192 | 0.0176 |
| 13    | 0.0299 | 0.0271 | 0.0245 | 0.0223 | 0.0202 | 0.0184 | 0.0167 | 0.0152 | 0.0138 | 0.0126 |
| 14    | 0.0228 | 0.0205 | 0.0185 | 0.0166 | 0.0150 | 0.0135 | 0.0122 | 0.0110 | 0.0099 | 0.0090 |
| 15    | 0.0174 | 0.0155 | 0.0139 | 0.0124 | 0.0111 | 0.0099 | 0.0089 | 0.0080 | 0.0072 | 0.0064 |
| 16    | 0.0133 | 0.0118 | 0.0104 | 0.0093 | 0.0082 | 0.0073 | 0.0065 | 0.0058 | 0.0051 | 0.0046 |
| 17    | 0.0101 | 0.0089 | 0.0078 | 0.0069 | 0.0061 | 0.0054 | 0.0047 | 0.0042 | 0.0037 | 0.0033 |
| 18    | 0.0077 | 0.0068 | 0.0059 | 0.0052 | 0.0045 | 0.0039 | 0.0035 | 0.0030 | 0.0027 | 0.0023 |
| 19    | 0.0059 | 0.0051 | 0.0044 | 0.0038 | 0.0033 | 0.0029 | 0.0025 | 0.0022 | 0.0019 | 0.0017 |
| 20    | 0.0045 | 0.0039 | 0.0033 | 0.0029 | 0.0025 | 0.0021 | 0.0018 | 0.0016 | 0.0014 | 0.0012 |
| 21    | 0.0034 | 0.0029 | 0.0025 | 0.0021 | 0.0018 | 0.0016 | 0.0013 | 0.0012 | 0.0010 | 0.0009 |
| 22    | 0.0026 | 0.0022 | 0.0019 | 0.0016 | 0.0014 | 0.0012 | 0.0010 | 0.0008 | 0.0007 | 0.0006 |
| 23    | 0.0020 | 0.0017 | 0.0014 | 0.0012 | 0.0010 | 0.0008 | 0.0007 | 0.0006 | 0.0005 | 0.0004 |
| 24    | 0.0015 | 0.0013 | 0.0011 | 0.0009 | 0.0007 | 0.0006 | 0.0005 | 0.0004 | 0.0004 | 0.0003 |
| 25    | 0.0012 | 0.0010 | 0.0008 | 0.0007 | 0.0006 | 0.0005 | 0.0004 | 0.0003 | 0.0003 | 0.0002 |
| 26    | 0.0009 | 0.0007 | 0.0006 | 0.0005 | 0.0004 | 0.0003 | 0.0003 | 0.0002 | 0.0002 | 0.0002 |
| 27    | 0.0007 | 0.0006 | 0.0005 | 0.0004 | 0.0003 | 0.0002 | 0.0002 | 0.0002 | 0.0001 | 0.0001 |
| 28    | 0.0005 | 0.0004 | 0.0003 | 0.0003 | 0.0002 | 0.0002 | 0.0001 | 0.0001 | 0.0001 | 0.0001 |
| 29    | 0.0004 | 0.0003 | 0.0003 | 0.0002 | 0.0002 | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 |
| 30    | 0.0003 | 0.0002 | 0.0002 | 0.0002 | 0.0001 | 0.0001 | 0.0001 | 0.0001 | 0.0001 |        |
| 35    | 0.0001 | 0.0001 |        |        |        |        |        |        |        |        |

## Appendix B: Cumulative present value factors

The table gives the present value of  $n$  annual payments of €1 received for the next  $n$  years with a constant discount of  $x\%$  per year.

For example, with a discount rate of 7% and with 6 annual payments of €1, the present value is €4.767.

| Years<br>0 to: | 1%     | 2%     | 3%     | 4%     | 5%     | 6%     | 7%     | 8%     | 9%     | 10%   |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
| 1              | 0.990  | 0.980  | 0.971  | 0.962  | 0.952  | 0.943  | 0.935  | 0.926  | 0.917  | 0.909 |
| 2              | 1.970  | 1.942  | 1.913  | 1.886  | 1.859  | 1.833  | 1.808  | 1.783  | 1.759  | 1.736 |
| 3              | 2.941  | 2.884  | 2.829  | 2.775  | 2.723  | 2.673  | 2.624  | 2.577  | 2.531  | 2.487 |
| 4              | 3.902  | 3.808  | 3.717  | 3.630  | 3.546  | 3.465  | 3.387  | 3.312  | 3.240  | 3.170 |
| 5              | 4.853  | 4.713  | 4.580  | 4.452  | 4.329  | 4.212  | 4.100  | 3.993  | 3.890  | 3.791 |
| 6              | 5.795  | 5.601  | 5.417  | 5.242  | 5.076  | 4.917  | 4.767  | 4.623  | 4.486  | 4.355 |
| 7              | 6.728  | 6.472  | 6.230  | 6.002  | 5.786  | 5.582  | 5.389  | 5.206  | 5.033  | 4.868 |
| 8              | 7.652  | 7.325  | 7.020  | 6.733  | 6.463  | 6.210  | 5.971  | 5.747  | 5.535  | 5.335 |
| 9              | 8.566  | 8.162  | 7.786  | 7.435  | 7.108  | 6.802  | 6.515  | 6.247  | 5.995  | 5.759 |
| 10             | 9.471  | 8.983  | 8.530  | 8.111  | 7.722  | 7.360  | 7.024  | 6.710  | 6.418  | 6.145 |
| 11             | 10.368 | 9.787  | 9.253  | 8.760  | 8.306  | 7.887  | 7.499  | 7.139  | 6.805  | 6.495 |
| 12             | 11.255 | 10.575 | 9.954  | 9.385  | 8.863  | 8.384  | 7.943  | 7.536  | 7.161  | 6.814 |
| 13             | 12.134 | 11.348 | 10.635 | 9.986  | 9.394  | 8.853  | 8.358  | 7.904  | 7.487  | 7.103 |
| 14             | 13.004 | 12.106 | 11.296 | 10.563 | 9.899  | 9.295  | 8.745  | 8.244  | 7.786  | 7.367 |
| 15             | 13.865 | 12.849 | 11.938 | 11.118 | 10.380 | 9.712  | 9.108  | 8.559  | 8.061  | 7.606 |
| 16             | 14.718 | 13.578 | 12.561 | 11.652 | 10.838 | 10.106 | 9.447  | 8.851  | 8.313  | 7.824 |
| 17             | 15.562 | 14.292 | 13.166 | 12.166 | 11.274 | 10.477 | 9.763  | 9.122  | 8.544  | 8.022 |
| 18             | 16.398 | 14.992 | 13.754 | 12.659 | 11.690 | 10.828 | 10.059 | 9.372  | 8.756  | 8.201 |
| 19             | 17.226 | 15.678 | 14.324 | 13.134 | 12.085 | 11.185 | 10.336 | 9.604  | 8.950  | 8.365 |
| 20             | 18.046 | 16.351 | 14.877 | 13.590 | 12.462 | 11.470 | 10.594 | 9.818  | 9.129  | 8.514 |
| 21             | 18.857 | 17.011 | 15.415 | 14.029 | 12.821 | 11.764 | 10.836 | 10.017 | 9.292  | 8.649 |
| 22             | 19.660 | 17.658 | 15.937 | 14.451 | 13.163 | 12.042 | 11.061 | 10.201 | 9.442  | 8.772 |
| 23             | 20.456 | 18.292 | 16.444 | 14.857 | 13.489 | 12.303 | 11.272 | 10.371 | 9.580  | 8.883 |
| 24             | 21.243 | 18.914 | 16.939 | 15.247 | 13.799 | 12.550 | 11.469 | 10.529 | 9.707  | 8.985 |
| 25             | 22.023 | 19.523 | 17.413 | 15.622 | 14.094 | 12.783 | 11.654 | 10.675 | 9.823  | 9.077 |
| 26             | 22.795 | 20.121 | 17.877 | 15.983 | 14.375 | 13.003 | 11.826 | 10.810 | 9.929  | 9.161 |
| 27             | 23.560 | 20.707 | 18.327 | 16.330 | 14.643 | 13.211 | 11.987 | 10.935 | 10.027 | 9.237 |
| 28             | 24.316 | 21.281 | 18.764 | 16.663 | 13.898 | 13.406 | 12.137 | 11.051 | 10.116 | 9.307 |
| 29             | 25.066 | 21.844 | 19.188 | 16.984 | 15.141 | 13.591 | 12.278 | 11.158 | 10.198 | 9.370 |
| 30             | 25.808 | 22.396 | 19.600 | 17.292 | 15.372 | 13.765 | 12.409 | 11.258 | 10.274 | 9.427 |
| 35             | 29.409 | 24.999 | 21.487 | 18.665 | 16.374 | 14.498 | 12.948 | 11.655 | 10.567 | 9.644 |
| 40             | 32.835 | 27.355 | 23.115 | 19.793 | 17.159 | 15.046 | 13.332 | 11.925 | 10.757 | 9.779 |
| 45             | 36.095 | 29.490 | 24.519 | 20.720 | 17.774 | 15.456 | 13.606 | 12.108 | 10.881 | 9.863 |
| 50             | 39.196 | 31.424 | 25.730 | 21.482 | 18.256 | 15.762 | 13.801 | 12.233 | 10.962 | 9.915 |

| Years<br>0 to: | 11%   | 12%   | 13%   | 14%   | 15%   | 16%   | 17%   | 18%   | 19%   | 20%   |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1              | 0.901 | 0.893 | 0.885 | 0.877 | 0.870 | 0.862 | 0.855 | 0.847 | 0.840 | 0.833 |
| 2              | 1.713 | 1.690 | 1.668 | 1.647 | 1.626 | 1.605 | 1.585 | 1.566 | 1.547 | 1.528 |
| 3              | 2.444 | 2.402 | 2.361 | 2.322 | 2.283 | 2.246 | 2.210 | 2.174 | 2.140 | 2.106 |
| 4              | 3.102 | 3.037 | 2.974 | 2.914 | 2.855 | 2.798 | 2.743 | 2.690 | 2.639 | 2.589 |
| 5              | 3.696 | 3.605 | 3.517 | 3.433 | 3.352 | 3.274 | 3.199 | 3.127 | 3.058 | 2.991 |
| 6              | 4.231 | 4.111 | 3.998 | 3.889 | 3.784 | 3.685 | 3.589 | 3.498 | 3.410 | 3.326 |
| 7              | 4.712 | 4.564 | 4.423 | 4.288 | 4.160 | 4.039 | 3.922 | 3.812 | 3.706 | 3.605 |
| 8              | 5.146 | 4.968 | 4.799 | 4.639 | 4.487 | 4.344 | 4.207 | 4.078 | 3.954 | 3.837 |
| 9              | 5.537 | 5.328 | 5.132 | 4.946 | 4.772 | 4.607 | 4.451 | 4.303 | 4.163 | 4.031 |
| 10             | 5.889 | 5.650 | 5.426 | 5.216 | 5.019 | 4.833 | 4.659 | 4.494 | 4.339 | 4.192 |
| 11             | 6.207 | 5.938 | 5.687 | 5.453 | 5.234 | 5.029 | 4.836 | 4.656 | 4.486 | 4.327 |
| 12             | 6.492 | 6.194 | 5.918 | 5.660 | 5.421 | 5.197 | 4.988 | 4.793 | 4.611 | 4.439 |
| 13             | 6.750 | 6.424 | 6.122 | 5.842 | 5.583 | 5.342 | 5.118 | 4.910 | 4.715 | 4.533 |
| 14             | 6.982 | 6.628 | 6.302 | 6.002 | 5.724 | 5.468 | 5.229 | 5.008 | 4.802 | 4.611 |
| 15             | 7.191 | 6.811 | 6.462 | 6.142 | 5.847 | 5.575 | 5.324 | 5.092 | 4.876 | 4.675 |
| 16             | 7.379 | 6.974 | 6.604 | 6.265 | 5.954 | 5.668 | 5.405 | 5.162 | 4.938 | 4.730 |
| 17             | 7.549 | 7.120 | 6.729 | 6.373 | 6.047 | 5.749 | 5.475 | 5.222 | 4.990 | 4.775 |
| 18             | 7.702 | 7.250 | 6.840 | 6.467 | 6.128 | 5.818 | 5.534 | 5.273 | 5.033 | 4.812 |
| 19             | 7.839 | 7.366 | 6.938 | 6.550 | 6.198 | 5.877 | 5.584 | 5.316 | 5.070 | 4.843 |
| 20             | 7.963 | 7.469 | 7.025 | 6.623 | 6.259 | 5.929 | 5.628 | 5.353 | 5.101 | 4.870 |
| 21             | 8.075 | 7.562 | 7.102 | 6.687 | 6.312 | 5.973 | 5.665 | 5.384 | 5.127 | 4.891 |
| 22             | 8.176 | 7.645 | 7.170 | 6.743 | 6.359 | 6.011 | 5.696 | 5.410 | 5.149 | 4.909 |
| 23             | 8.266 | 7.718 | 7.230 | 6.792 | 6.399 | 6.044 | 5.723 | 5.432 | 5.167 | 4.925 |
| 24             | 8.348 | 7.784 | 7.283 | 6.835 | 6.434 | 6.073 | 5.746 | 5.451 | 5.182 | 4.937 |
| 25             | 8.422 | 7.843 | 7.330 | 6.873 | 6.464 | 6.097 | 5.766 | 5.467 | 5.195 | 4.948 |
| 26             | 8.488 | 7.896 | 7.372 | 6.906 | 6.491 | 6.118 | 5.783 | 5.480 | 5.206 | 4.956 |
| 27             | 8.548 | 7.943 | 7.409 | 6.935 | 6.514 | 6.136 | 5.798 | 5.492 | 5.215 | 4.964 |
| 28             | 8.602 | 7.984 | 7.441 | 6.961 | 6.534 | 6.152 | 5.810 | 5.502 | 5.223 | 4.970 |
| 29             | 8.650 | 8.022 | 7.470 | 6.983 | 6.551 | 6.166 | 5.820 | 5.510 | 5.229 | 4.975 |
| 30             | 8.694 | 8.055 | 7.496 | 7.003 | 6.566 | 6.177 | 5.829 | 5.517 | 5.235 | 4.979 |
| 35             | 8.855 | 8.176 | 7.586 | 7.070 | 6.617 | 6.215 | 5.858 | 5.539 | 5.251 | 4.992 |
| 40             | 8.951 | 8.244 | 7.634 | 7.105 | 6.642 | 6.233 | 5.871 | 5.548 | 5.258 | 4.997 |
| 45             | 9.008 | 8.283 | 7.661 | 7.123 | 6.654 | 6.242 | 5.877 | 5.552 | 5.261 | 4.999 |
| 50             | 9.042 | 8.304 | 7.675 | 7.133 | 6.661 | 6.246 | 5.880 | 5.554 | 5.262 | 4.999 |

| Years |       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0 to: | 21%   | 22%   | 23%   | 24%   | 25%   | 26%   | 27%   | 28%   | 29%   | 30%   |
| 1     | 0.826 | 0.820 | 0.813 | 0.806 | 0.800 | 0.794 | 0.787 | 0.781 | 0.775 | 0.769 |
| 2     | 1.509 | 1.492 | 1.474 | 1.457 | 1.440 | 1.424 | 1.407 | 1.392 | 1.376 | 1.361 |
| 3     | 2.074 | 2.042 | 2.011 | 1.981 | 1.952 | 1.923 | 1.896 | 1.868 | 1.842 | 1.816 |
| 4     | 2.540 | 2.494 | 2.448 | 2.404 | 2.362 | 2.320 | 2.280 | 2.241 | 2.203 | 2.166 |
| 5     | 2.926 | 2.864 | 2.803 | 2.745 | 2.689 | 2.635 | 2.583 | 2.532 | 2.483 | 2.436 |
| 6     | 3.245 | 3.167 | 3.092 | 3.020 | 2.951 | 2.885 | 2.821 | 2.759 | 2.700 | 2.643 |
| 7     | 3.508 | 3.416 | 3.327 | 3.242 | 3.161 | 3.083 | 3.009 | 2.937 | 2.868 | 2.802 |
| 8     | 3.726 | 3.619 | 3.518 | 3.421 | 3.329 | 3.241 | 3.156 | 3.076 | 2.999 | 2.925 |
| 9     | 3.905 | 3.786 | 3.673 | 3.566 | 3.463 | 3.366 | 3.273 | 3.184 | 3.100 | 3.019 |
| 10    | 4.054 | 3.923 | 3.799 | 3.682 | 3.571 | 3.465 | 3.364 | 3.269 | 3.178 | 3.092 |
| 11    | 4.177 | 4.035 | 3.902 | 3.776 | 3.656 | 3.543 | 3.437 | 3.335 | 3.239 | 3.147 |
| 12    | 5.278 | 4.127 | 3.985 | 3.851 | 3.725 | 3.606 | 3.493 | 3.387 | 3.286 | 3.190 |
| 13    | 4.362 | 4.203 | 4.053 | 3.912 | 3.780 | 3.656 | 3.538 | 3.427 | 3.322 | 3.223 |
| 14    | 4.432 | 4.265 | 4.108 | 3.962 | 3.824 | 3.695 | 3.573 | 3.459 | 3.351 | 3.249 |
| 15    | 4.489 | 4.315 | 4.153 | 4.001 | 3.859 | 3.726 | 3.601 | 3.483 | 3.373 | 3.268 |
| 16    | 4.536 | 4.357 | 4.189 | 4.033 | 3.887 | 3.751 | 3.623 | 3.503 | 3.390 | 3.283 |
| 17    | 4.576 | 4.391 | 4.219 | 4.059 | 3.910 | 3.771 | 3.640 | 3.518 | 3.403 | 3.295 |
| 18    | 4.608 | 4.419 | 4.243 | 4.080 | 3.928 | 3.786 | 3.654 | 3.529 | 3.413 | 3.304 |
| 19    | 4.635 | 4.442 | 4.263 | 4.097 | 3.942 | 3.799 | 3.664 | 3.539 | 3.421 | 3.311 |
| 20    | 4.657 | 4.460 | 4.279 | 4.110 | 3.954 | 3.808 | 3.673 | 3.546 | 3.427 | 3.316 |
| 21    | 4.675 | 4.476 | 3.292 | 4.121 | 3.963 | 3.816 | 3.679 | 3.551 | 3.432 | 3.320 |
| 22    | 4.690 | 4.488 | 4.302 | 4.130 | 3.970 | 3.822 | 3.684 | 3.556 | 3.436 | 3.323 |
| 23    | 4.703 | 4.499 | 4.311 | 4.137 | 3.976 | 3.827 | 3.689 | 3.559 | 3.438 | 3.325 |
| 24    | 4.713 | 4.507 | 4.318 | 4.143 | 3.981 | 3.831 | 3.692 | 3.562 | 3.441 | 3.327 |
| 25    | 4.721 | 4.514 | 4.323 | 4.147 | 3.985 | 3.834 | 3.694 | 3.564 | 3.442 | 3.329 |
| 26    | 4.728 | 4.520 | 4.328 | 4.151 | 3.988 | 3.837 | 3.696 | 3.566 | 3.444 | 3.330 |
| 27    | 4.734 | 4.524 | 4.332 | 4.154 | 3.990 | 3.839 | 3.698 | 3.567 | 3.445 | 3.331 |
| 28    | 4.739 | 4.528 | 4.335 | 4.157 | 3.992 | 3.840 | 3.699 | 3.568 | 3.446 | 3.331 |
| 29    | 4.743 | 4.531 | 4.337 | 4.159 | 3.994 | 3.841 | 3.700 | 3.569 | 3.446 | 3.332 |
| 30    | 4.746 | 4.534 | 4.339 | 4.160 | 3.995 | 3.842 | 3.701 | 3.569 | 3.447 | 3.332 |
| 35    | 4.756 | 4.541 | 4.345 | 4.164 | 3.998 | 3.845 | 3.703 | 3.571 | 3.448 | 3.333 |
| 40    | 4.760 | 4.544 | 4.347 | 4.166 | 3.999 | 3.846 | 3.703 | 3.571 | 3.448 | 3.333 |
| 45    | 4.761 |       |       |       |       |       |       |       |       |       |
| 50    | 4.762 | 4.545 | 4.348 | 4.167 | 4.000 | 3.846 | 3.704 | 3.571 | 3.448 | 3.333 |

| Years |       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0 to: | 31%   | 32%   | 33%   | 34%   | 35%   | 36%   | 37%   | 38%   | 39%   | 40%   |
| 1     | 0.763 | 0.758 | 0.752 | 0.746 | 0.741 | 0.735 | 0.730 | 0.725 | Q.719 | 0.714 |
| 2     | 1.346 | 1.331 | 1.317 | 1.303 | 1.289 | 1.276 | 1.263 | 1.250 | 1.937 | 1.224 |
| 3     | 1.791 | 1.766 | 1.742 | 1.719 | 1.696 | 1.673 | 1.652 | 1.630 | 1.609 | 1.589 |
| 4     | 2.130 | 2.096 | 2.062 | 2.029 | 1.997 | 1.966 | 1.930 | 1.906 | 1.877 | 1.849 |
| 5     | 2.390 | 2.345 | 2.302 | 2.260 | 2.220 | 2.181 | 2.143 | 2.106 | 2.070 | 2.035 |
| 6     | 2.588 | 2.534 | 2.483 | 2.433 | 0.385 | 2.339 | 2.294 | 2.251 | 2.209 | 2.168 |
| 7     | 2.739 | 2.677 | 2.619 | 2.562 | 9.508 | 2.455 | 2.404 | 2.355 | 2.308 | 2.263 |
| 8     | 2.854 | 2.786 | 2.721 | 2.658 | 2.598 | 2.540 | 2.485 | 2.432 | 2.380 | 2.331 |
| 9     | 2.942 | 2.868 | 2.798 | 2.730 | 2.665 | 2.603 | 2.544 | 2.487 | 2.432 | 2.379 |
| 10    | 3.009 | 2.930 | 2.855 | 2.784 | 2.715 | 2.649 | 2.587 | 2.527 | 2.469 | 2.414 |
| 11    | 3.060 | 2.978 | 2.899 | 2.824 | 2.752 | 2.683 | 2.618 | 2.555 | 2.496 | 2.438 |
| 12    | 3.100 | 2.013 | 2.931 | 2.853 | 2.779 | 2.708 | 2.641 | 2.576 | 2.515 | 2.456 |
| 13    | 3.129 | 3.040 | 2.956 | 2.876 | 2.799 | 2.727 | 2.658 | 2.592 | 2.529 | 2.469 |
| 14    | 3.152 | 3.061 | 2.974 | 2.982 | 2.814 | 2.740 | 2.670 | 2.603 | 2.539 | 2.478 |
| 15    | 3.170 | 3.076 | 2.988 | 2.905 | 2.825 | 2.750 | 2.679 | 2.611 | 2.546 | 2.484 |
| 16    | 3.183 | 3.088 | 2.999 | 2.914 | 2.834 | 2.757 | 2.685 | 2.616 | 2.551 | 2.489 |
| 17    | 3.193 | 3.097 | 3.007 | 2.921 | 2.840 | 2.763 | 2.690 | 2.621 | 2.555 | 2.492 |
| 18    | 3.201 | 3.104 | 3.012 | 2.926 | 2.844 | 2.767 | 2.693 | 2.624 | 2.557 | 2.494 |
| 19    | 3.207 | 3.109 | 3.017 | 2.930 | 2.848 | 2.770 | 2.696 | 2.626 | 2.559 | 2.496 |
| 20    | 3.211 | 3.113 | 3.020 | 2.933 | 2.850 | 2.772 | 2.698 | 2.627 | 2.561 | 2.497 |
| 21    | 3.215 | 3.116 | 3.023 | 2.935 | 2.852 | 2.773 | 2.699 | 2.629 | 2.562 | 2.498 |
| 22    | 3.217 | 3.118 | 3.025 | 2.936 | 2.853 | 2.775 | 2.700 | 2.629 | 2.562 | 2.438 |
| 23    | 3.219 | 3.120 | 3.026 | 2.938 | 2.854 | 2.775 | 2.701 | 2.630 | 2.563 | 2.499 |
| 24    | 3.221 | 3.121 | 3.027 | 2.939 | 2.855 | 2.776 | 2.701 | 2.630 | 2.563 | 2.499 |
| 25    | 3.222 | 3.122 | 3.028 | 2.939 | 2.856 | 2.777 | 2.702 | 2.631 | 2.563 | 2.499 |
| 26    | 3.223 | 3.123 | 3.028 | 2.940 | 2.856 | 2.777 | 2.702 | 2.631 | 2.564 | 2.500 |
| 27    | 3.224 | 3.123 | 3.029 | 2.940 | 2.856 | 2.777 | 2.702 | 2.631 |       |       |
| 28    | 3.224 | 3.124 | 3.029 | 2.940 | 2.857 | 2.777 | 2.702 | 2.631 |       |       |
| 29    | 3.225 | 3.124 | 3.030 | 2.941 | 2.857 | 2.777 | 2.702 | 2.631 |       |       |
| 30    | 3.225 | 3.124 | 3.030 | 2.941 | 2.857 | 2.778 | 2.702 | 2.631 |       |       |
| 35    | 3.226 | 3.125 |       |       |       |       |       |       |       |       |
| 40    | 3.226 |       |       |       |       |       |       |       |       |       |
| 45    | 3.226 | 3.125 | 3.030 | 2.941 | 2.857 | 2.778 | 2.703 | 2.632 | 2.564 | 2.500 |
| 50    | 3.226 | 3.125 | 3.030 | 2.941 | 2.857 | 2.778 | 2.703 | 2.632 | 2.564 | 2.500 |