# Data of exploration over parameters in the ABM model ($2^{nd}$ part)

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## Table of contents

## Firms Y

Table 1: Output of firms (logarithm)

| $\beta$ \ $\eta$ | 0.0001 | 0.1 | 0.3 | 0.5 | 0.8 |
|---|---|---|---|---|---|
| 0.02 | 102.979 | 67.9496 | 19.4134 | 6.47718 | 5.45065 |
| 0.03 | 110.183 | 64.9893 | 19.2517 | 6.48023 | 5.44931 |
| 0.04 | 99.9463 | 63.4206 | 18.3414 | 6.45007 | 5.44804 |
| 0.05 | 95.4972 | 62.5316 | 17.6694 | 6.4244 | 5.44928 |

Table 2: Standard deviation of output of firms (logarithm)

| $\beta$ \ $\eta$ | 0.0001 | 0.1 | 0.3 | 0.5 | 0.8 |
|---|---|---|---|---|---|
| 0.02 | 40.9544 | 23.869 | 5.19864 | 0.138531 | 0.0608013 |
| 0.03 | 46.0757 | 21.5909 | 4.64703 | 0.140909 | 0.0639022 |
| 0.04 | 40.3434 | 21.0393 | 4.3657 | 0.13598 | 0.0675155 |
| 0.05 | 38.7117 | 23.2697 | 4.29983 | 0.134317 | 0.0679727 |

## Firms R

Table 3: Interest rate of firms

| $\beta$ \ $\eta$ | 0.0001 | 0.1 | 0.3 | 0.5 | 0.8 |
|---|---|---|---|---|---|
| 0.02 | -5.21883 | -5.10618 | -4.34647 | -4.10611 | -3.76894 |
| 0.03 | -4.80997 | -4.68733 | -3.91404 | -3.67326 | -3.3027 |
| 0.04 | -4.48764 | -4.37346 | -3.59971 | -3.35791 | -2.96584 |
| 0.05 | -4.26351 | -4.14953 | -3.3283 | -3.0944 | -2.70701 |

Table 4: Standard deviation of interest rate

| $\beta$ \ $\eta$ | 0.0001 | 0.1 | 0.3 | 0.5 | 0.8 |
|---|---|---|---|---|---|
| 0.02 | 0.675279 | 0.68971 | 0.628362 | 0.614975 | 0.538328 |
| 0.03 | 0.682107 | 0.689224 | 0.610813 | 0.597232 | 0.536729 |
| 0.04 | 0.671568 | 0.696766 | 0.605545 | 0.579048 | 0.5204 |
| 0.05 | 0.671061 | 0.667009 | 0.603365 | 0.567113 | 0.492189 |

## Firms K

| $\beta$ \ $\eta$ | 0.0001 | 0.1 | 0.3 | 0.5 | 0.8 |
|---|---|---|---|---|---|
| 0.02 | 102.797 | 67.7673 | 19.2311 | 6.29486 | 5.26833 |
| 0.03 | 110.001 | 64.807 | 19.0694 | 6.29791 | 5.26699 |
| 0.04 | 99.764 | 63.2383 | 18.1591 | 6.26774 | 5.26572 |
| 0.05 | 95.3149 | 62.3493 | 17.4871 | 6.24208 | 5.26696 |

generate_markdown('FirmsK_std')

**Firms A**

| $\beta$ \ $\eta$ | 0.0001 | 0.1 | 0.3 | 0.5 | 0.8 |
|---|---|---|---|---|---|
| 0.02 | 3.73355e+97 | 1.32499e+55 | 1.4343e+16 | 456.387 | 121.171 |
| 0.03 | 9.76009e+104 | 5.20752e+51 | 5.41516e+13 | 456.713 | 115.998 |
| 0.04 | 2.24857e+103 | 1.30085e+52 | 2.01665e+13 | 440.341 | 111.605 |
| 0.05 | 3.24439e+89 | 2.52153e+57 | 3.59508e+12 | 426.169 | 107.383 |

| $\beta$ \ $\eta$ | 0.0001 | 0.1 | 0.3 | 0.5 | 0.8 |
|---|---|---|---|---|---|
| 0.02 | 1.44606e+99 | 3.35922e+56 | 3.9417e+17 | 77.502 | 15.224 |
| 0.03 | 3.83243e+106 | 1.86083e+53 | 1.55636e+15 | 77.9337 | 15.7945 |
| 0.04 | 9.74748e+104 | 4.63215e+53 | 4.81385e+14 | 71.8703 | 16.0898 |
| 0.05 | 1.19292e+91 | 7.79117e+58 | 7.2835e+13 | 69.6728 | 16.9658 |

**Firms L**

| $\beta$ \ $\eta$ | 0.0001 | 0.1 | 0.3 | 0.5 | 0.8 |
|---|---|---|---|---|---|
| 0.02 | 75.2931 | 49.9736 | 13.922 | 4.47932 | 4.27204 |
| 0.03 | 78.0084 | 47.9812 | 13.839 | 4.49584 | 4.33918 |
| 0.04 | 71.3572 | 46.4984 | 13.2153 | 4.49404 | 4.39226 |
| 0.05 | 67.6318 | 44.8339 | 12.6535 | 4.5015 | 4.44531 |

| $\beta$ \ $\eta$ | 0.0001 | 0.1 | 0.3 | 0.5 | 0.8 |
|---|---|---|---|---|---|
| 0.02 | 33.1814 | 20.5702 | 4.61722 | 0.232176 | 0.199221 |
| 0.03 | 36.698 | 19.427 | 4.47122 | 0.23061 | 0.191573 |
| 0.04 | 31.9071 | 18.4562 | 4.21987 | 0.223548 | 0.187771 |
| 0.05 | 30.1295 | 19.0799 | 4.05608 | 0.217745 | 0.18716 |

**Firms PROFITS**

| $\beta$ \ $\eta$ | 0.0001 | 0.1 | 0.3 | 0.5 | 0.8 |
|---|---|---|---|---|---|
| 0.02 | 1.04837e+97 | -3.6835e+52 | -7.04001e+12 | -14.19 | -25.5539 |
| 0.03 | -7.23791e+102 | -1.57032e+50 | -7.47399e+11 | -15.0299 | -28.7905 |
| 0.04 | -1.68083e+102 | -5.08059e+49 | -7.07582e+10 | -16.1771 | -31.3101 |
| 0.05 | -2.22832e+88 | -3.65859e+55 | -6.31116e+09 | -17.1695 | -34.4419 |

| $\beta$ \ $\eta$ | 0.0001 | 0.1 | 0.3 | 0.5 | 0.8 |
|---|---|---|---|---|---|
| 0.02 | 8.52323e+98 | 2.31774e+56 | 1.98795e+17 | 123.14 | 22.2618 |
| 0.03 | 2.19356e+106 | 1.00534e+53 | 9.8448e+14 | 67.2837 | 39.8441 |
| 0.04 | 8.41614e+104 | 3.06338e+53 | 2.13869e+14 | 87.7967 | 22.563 |
| 0.05 | 9.07152e+90 | 5.4324e+58 | 3.14957e+13 | 66.0846 | 26.8435 |

**Firms I**

| $\beta$ \ $\eta$ | 0.0001 | 0.1 | 0.3 | 0.5 | 0.8 |
|---|---|---|---|---|---|
| 0.02 | -8.58854e+96 | -5.00101e+54 | -6.59573e+15 | -239.029 | -142.179 |
| 0.03 | -4.12845e+104 | -1.55697e+51 | -1.62875e+13 | -242.937 | -148.296 |
| 0.04 | -6.70094e+102 | -6.26778e+51 | -7.84024e+12 | -240.395 | -153.523 |
| 0.05 | -1.12111e+89 | -1.0112e+57 | -1.49192e+12 | -239.551 | -159.185 |

| $\beta$ \ $\eta$ | 0.0001 | 0.1 | 0.3 | 0.5 | 0.8 |
|---|---|---|---|---|---|
| 0.02 | 2.8956e+98 | 1.37799e+56 | 1.81503e+17 | 31.5796 | 22.3264 |
| 0.03 | 1.52995e+106 | 5.43751e+52 | 4.48541e+14 | 32.4013 | 22.4469 |
| 0.04 | 2.80358e+104 | 2.54849e+53 | 2.01721e+14 | 30.3492 | 22.6747 |
| 0.05 | 3.77082e+90 | 2.98887e+58 | 3.30878e+13 | 29.1524 | 23.4286 |

**Firms GAMMA**

| $\beta$ \ $\eta$ | 0.0001 | 0.1 | 0.3 | 0.5 | 0.8 |
|---|---|---|---|---|---|
| 0.02 | 0.709517 | 0.727405 | 0.720479 | 0.729575 | 0.734324 |
| 0.03 | 0.713249 | 0.723268 | 0.726645 | 0.741662 | 0.749289 |
| 0.04 | 0.717219 | 0.719644 | 0.737697 | 0.752336 | 0.753477 |
| 0.05 | 0.723096 | 0.723124 | 0.744654 | 0.757792 | 0.763984 |

| $\beta$ \ $\eta$ | 0.0001 | 0.1 | 0.3 | 0.5 | 0.8 |
|---|---|---|---|---|---|
| 0.02 | 0.0646458 | 1.45385 | 0.225986 | 0.715348 | 0.532637 |
| 0.03 | 0.0631314 | 0.822353 | 0.1331 | 0.778815 | 1.02607 |
| 0.04 | 0.0931982 | 0.0983304 | 0.342586 | 0.90861 | 0.285511 |
| 0.05 | 0.153604 | 0.105404 | 0.157462 | 0.523502 | 0.320801 |

**Firms U**

| $\beta$ \ $\eta$ | 0.0001 | 0.1 | 0.3 | 0.5 | 0.8 |
|---|---|---|---|---|---|
| 0.02 | 0.999388 | 0.999882 | 1.00067 | 0.99941 | 1.00105 |
| 0.03 | 1.00029 | 1.00025 | 1.0014 | 1.00067 | 0.999672 |
| 0.04 | 0.999461 | 1.00048 | 1.00034 | 1.00012 | 0.999701 |
| 0.05 | 0.999899 | 0.999036 | 1.0005 | 0.999062 | 1.00067 |

| $\beta$ \ $\eta$ | 0.0001 | 0.1 | 0.3 | 0.5 | 0.8 |
|---|---|---|---|---|---|
| 0.02 | 0.0578837 | 0.0581232 | 0.057267 | 0.0579261 | 0.0574756 |
| 0.03 | 0.0576865 | 0.0578825 | 0.057873 | 0.0575323 | 0.057514 |
| 0.04 | 0.0575045 | 0.0568961 | 0.0573696 | 0.0576156 | 0.0567413 |
| 0.05 | 0.0579953 | 0.0574492 | 0.0578362 | 0.0576964 | 0.0575323 |

**Firms DK**

| $\beta$ \ $\eta$ | 0.0001 | 0.1 | 0.3 | 0.5 | 0.8 |
|---|---|---|---|---|---|
| 0.02 | 1.91561e+97 | 9.39839e+54 | 1.01689e+16 | 325.875 | 92.0117 |
| 0.03 | 6.95271e+104 | 3.71632e+51 | 3.86382e+13 | 325.536 | 89.9636 |
| 0.04 | 1.6043e+103 | 9.19934e+51 | 1.43171e+13 | 313.101 | 88.2466 |
| 0.05 | 2.28729e+89 | 1.7827e+57 | 2.53223e+12 | 302.775 | 86.9349 |

| $\beta$ \ $\eta$ | 0.0001 | 0.1 | 0.3 | 0.5 | 0.8 |
|---|---|---|---|---|---|
| 0.02 | 7.11595e+98 | 2.37927e+56 | 2.80383e+17 | 54.5997 | 6.65564 |
| 0.03 | 2.73175e+106 | 1.32828e+53 | 1.11153e+15 | 54.5483 | 6.74662 |
| 0.04 | 6.96145e+104 | 3.28936e+53 | 3.43071e+14 | 50.4596 | 6.62587 |
| 0.05 | 8.50956e+90 | 5.51575e+58 | 5.1365e+13 | 48.6279 | 6.79378 |

**Firms OL**

| $\beta$ \ $\eta$ | 0.0001 | 0.1 | 0.3 | 0.5 | 0.8 |
|---|---|---|---|---|---|
| 0.02 | 9.6643e+96 | 3.36768e+56 | 4.0845e+16 | 11980 | 3601.33 |
| 0.03 | 2.54973e+105 | 1.65087e+53 | 2.18169e+14 | 12273.5 | 3498.28 |
| 0.04 | 4.76086e+103 | 1.25822e+53 | 6.74545e+13 | 12022.6 | 3418.4 |
| 0.05 | 4.4168e+90 | 1.56728e+58 | 3.52639e+13 | 11739.9 | 3318.44 |

| $\beta$ \ $\eta$ | 0.0001 | 0.1 | 0.3 | 0.5 | 0.8 |
|---|---|---|---|---|---|
| 0.02 | 2.73733e+98 | 1.35738e+57 | 5.45794e+17 | 6980.77 | 2086.09 |
| 0.03 | 3.69853e+106 | 6.69482e+53 | 1.14006e+15 | 7157.36 | 2031.65 |
| 0.04 | 8.7544e+104 | 9.93806e+53 | 6.79127e+14 | 6953.75 | 1976.66 |
| 0.05 | 2.60788e+91 | 1.61922e+59 | 2.09979e+14 | 6764.89 | 1933.13 |

**Firms GAP_OF_L**

| $\beta$ \ $\eta$ | 0.0001 | 0.1 | 0.3 | 0.5 | 0.8 |
|---|---|---|---|---|---|
| 0.02 | 1.42362e+23 | 2.03533e+13 | 0.0434089 | 0.000143454 | 6.65903e-05 |
| 0.03 | 2.45913e+18 | 5.26406e+12 | 0.00146815 | 0.000330591 | 3.73585e-06 |
| 0.04 | 4.76194e+36 | 3.86949e+09 | 0.00136314 | 8.15628e-05 | 0.000270041 |
| 0.05 | 9.34219e+21 | 2.39528e+09 | 1.41405 | 1.6308e-05 | 0.000220621 |

| $\beta$ \ $\eta$ | 0.0001 | 0.1 | 0.3 | 0.5 | 0.8 |
|---|---|---|---|---|---|
| 0.02 | 1.41493e+25 | 2.03532e+15 | 4.21838 | 0.0109198 | 0.00493967 |
| 0.03 | 2.45673e+20 | 5.26395e+14 | 0.133154 | 0.0235168 | 0.000373585 |
| 0.04 | 4.76194e+38 | 3.86908e+11 | 0.0962478 | 0.00815628 | 0.0147353 |
| 0.05 | 8.8559e+23 | 2.39523e+11 | 139.51 | 0.0016308 | 0.0107705 |

**Firms DL**

| $\beta$ \ $\eta$ | 0.0001 | 0.1 | 0.3 | 0.5 | 0.8 |
|---|---|---|---|---|---|
| 0.02 | -1.09382e+95 | -4.48815e+52 | -4.4236e+13 | -1.47166 | -0.531465 |
| 0.03 | -2.83537e+102 | -1.79662e+49 | -2.00629e+11 | -1.49022 | -0.529024 |
| 0.04 | -9.2718e+100 | -3.86669e+49 | -6.30549e+10 | -1.45648 | -0.527594 |
| 0.05 | -1.309e+87 | -1.00539e+55 | -1.09103e+10 | -1.42939 | -0.527811 |

| $\beta$ \ $\eta$ | 0.0001 | 0.1 | 0.3 | 0.5 | 0.8 |
|---|---|---|---|---|---|
| 0.02 | 6.09083e+96 | 2.74743e+54 | 2.51791e+15 | 0.447323 | 0.0862611 |
| 0.03 | 2.71532e+104 | 1.15653e+51 | 1.08129e+13 | 0.448558 | 0.0865587 |
| 0.04 | 8.65853e+102 | 3.72254e+51 | 2.7421e+12 | 0.415569 | 0.0839304 |
| 0.05 | 9.3699e+88 | 5.81446e+56 | 4.20546e+11 | 0.407927 | 0.0851786 |

**Firms FAIL**

| $\beta$ \ $\eta$ | 0.0001 | 0.1 | 0.3 | 0.5 | 0.8 |
|---|---|---|---|---|---|
| 0.02 | 1.4765 | 1.7771 | 4.2909 | 6.2358 | 12.7573 |
| 0.03 | 1.4875 | 1.8642 | 4.5515 | 6.5931 | 14.0245 |
| 0.04 | 1.6 | 1.9503 | 4.7906 | 6.9864 | 15.1324 |
| 0.05 | 1.6503 | 2.041 | 5.097 | 7.4705 | 16.3178 |

| $\beta$ \ $\eta$ | 0.0001 | 0.1 | 0.3 | 0.5 | 0.8 |
|---|---|---|---|---|---|
| 0.02 | 1.21934 | 1.32446 | 2.219 | 2.67786 | 4.1419 |
| 0.03 | 1.21449 | 1.37308 | 2.25003 | 2.68586 | 4.30766 |
| 0.04 | 1.24778 | 1.38507 | 2.29858 | 2.80667 | 4.38748 |
| 0.05 | 1.28046 | 1.4263 | 2.38142 | 2.82841 | 4.58645 |

**Bank L**

| $\beta$ \ $\eta$ | 0.0001 | 0.1 | 0.3 | 0.5 | 0.8 |
|---|---|---|---|---|---|
| 0.02 | 1.12799e+99 | 3.37617e+58 | 4.16297e+18 | 1.20051e+06 | 360884 |
| 0.03 | 2.60483e+107 | 1.65377e+55 | 2.19951e+16 | 1.2299e+06 | 350557 |
| 0.04 | 4.93107e+105 | 1.26627e+55 | 6.85086e+15 | 1.20476e+06 | 342552 |
| 0.05 | 4.44342e+92 | 1.58516e+60 | 3.54445e+15 | 1.17644e+06 | 332534 |

| $\beta$ \ $\eta$ | 0.0001 | 0.1 | 0.3 | 0.5 | 0.8 |
|---|---|---|---|---|---|
| 0.02 | 3.17806e+100 | 1.359e+59 | 5.51341e+19 | 698128 | 208625 |
| 0.03 | 3.73897e+108 | 6.70036e+55 | 1.1502e+17 | 715754 | 203179 |
| 0.04 | 8.91742e+106 | 9.96959e+55 | 6.86635e+16 | 695391 | 197679 |
| 0.05 | 2.6153e+93 | 1.62889e+61 | 2.10587e+16 | 676522 | 193321 |

**Bank A**

| $\beta$ \ $\eta$ | 0.0001 | 0.1 | 0.3 | 0.5 | 0.8 |
|---|---|---|---|---|---|
| 0.02 | 122.721 | 86.3737 | 28.5924 | 11.1633 | 9.97664 |
| 0.03 | 126.517 | 83.8496 | 28.5703 | 11.186 | 9.94304 |
| 0.04 | 117.762 | 81.9896 | 26.8241 | 11.1707 | 9.92078 |
| 0.05 | 115.37 | 78.4918 | 25.3343 | 11.1526 | 9.88442 |

| $\beta$ \ $\eta$ | 0.0001 | 0.1 | 0.3 | 0.5 | 0.8 |
|---|---|---|---|---|---|
| 0.02 | 50.7046 | 32.529 | 6.98442 | 0.992757 | 0.944219 |
| 0.03 | 53.615 | 29.8117 | 6.47226 | 0.994171 | 0.956366 |
| 0.04 | 49.0415 | 28.6506 | 6.04711 | 0.987172 | 0.956117 |
| 0.05 | 48.4048 | 29.1331 | 6.00239 | 0.974139 | 0.967542 |

**Bank D**

| $\beta$ \ $\eta$ | 0.0001 | 0.1 | 0.3 | 0.5 | 0.8 |
|---|---|---|---|---|---|
| 0.02 | 1.03775e+99 | 3.10608e+58 | 3.82993e+18 | 1.10447e+06 | 332014 |
| 0.03 | 2.39644e+107 | 1.52147e+55 | 2.02355e+16 | 1.13151e+06 | 322513 |
| 0.04 | 4.53658e+105 | 1.16497e+55 | 6.3028e+15 | 1.10838e+06 | 315148 |
| 0.05 | 4.08794e+92 | 1.45835e+60 | 3.2609e+15 | 1.08233e+06 | 305931 |

| $\beta$ \ $\eta$ | 0.0001 | 0.1 | 0.3 | 0.5 | 0.8 |
|---|---|---|---|---|---|
| 0.02 | 2.92381e+100 | 1.25028e+59 | 5.07234e+19 | 642277 | 191935 |
| 0.03 | 3.43985e+108 | 6.16433e+55 | 1.05818e+17 | 658494 | 186924 |
| 0.04 | 8.20403e+106 | 9.17202e+55 | 6.31704e+16 | 639759 | 181865 |
| 0.05 | 2.40608e+93 | 1.49858e+61 | 1.9374e+16 | 622400 | 177856 |

**Bank PROFITS**

| $\beta$ \ $\eta$ | 0.0001 | 0.1 | 0.3 | 0.5 | 0.8 |
|---|---|---|---|---|---|
| 0.02 | -2.67593e+95 | -1.42778e+53 | -5.34114e+14 | -5.08025 | -1.13592 |
| 0.03 | -9.25593e+102 | -5.90469e+49 | -1.18928e+13 | -5.88847 | -1.83721 |
| 0.04 | -3.55441e+101 | -2.9393e+50 | -3.2581e+11 | -6.32351 | -1.78055 |
| 0.05 | 5.61842e+87 | -2.01196e+55 | -1.10495e+11 | -6.76742 | -2.28245 |

| $\beta$ \ $\eta$ | 0.0001 | 0.1 | 0.3 | 0.5 | 0.8 |
|---|---|---|---|---|---|
| 0.02 | 1.19903e+97 | 4.93727e+54 | 3.71447e+16 | 54.3073 | 27.0045 |
| 0.03 | 5.24244e+104 | 2.77724e+51 | 1.13765e+15 | 116.403 | 53.6799 |
| 0.04 | 1.87892e+103 | 2.48143e+52 | 1.08466e+13 | 158.756 | 15.5012 |
| 0.05 | 9.7422e+89 | 1.98512e+57 | 6.20163e+12 | 82.9718 | 25.6848 |

**Bank BD**

| $\beta$ \ $\eta$ | 0.0001 | 0.1 | 0.3 | 0.5 | 0.8 |
|---|---|---|---|---|---|
| 0.02 | -inf | -inf | -inf | -inf | 2.42651 |
| 0.03 | -inf | -inf | -inf | -inf | 2.56326 |
| 0.04 | -inf | -inf | -inf | -inf | 2.67084 |
| 0.05 | -inf | -inf | -inf | -inf | 2.78521 |

| $\beta$ \ $\eta$ | 0.0001 | 0.1 | 0.3 | 0.5 | 0.8 |
|---|---|---|---|---|---|
| 0.02 | nan | nan | nan | nan | 0.403504 |
| 0.03 | nan | nan | nan | nan | 0.387831 |
| 0.04 | nan | nan | nan | nan | 0.373529 |
| 0.05 | nan | nan | nan | nan | 0.364838 |