

Contribution from Dr Jitka Rychtarikova

vik	qx	px	lx	dx	Lx_1	Tx	ex
0	0.130784995	0.869215005	100000	13078.49952	87967.78044	5345003.861	53.45003861
1	0.016013284	0.983986716	86921.50048	1391.898643	86225.55116	5257036.081	60.48027303
2	0.006406489	0.993593511	85529.60183	547.9444421	85255.62961	5170810.53	60.45638491
3	0.004257692	0.995742308	84981.65739	361.825726	84800.74453	5085554.9	59.84297148
4	0.003172731	0.996827269	84619.83167	268.4759391	84485.5937	5000754.155	59.09671595
5	0.003372311	0.996627689	84351.35573	284.4590061	84209.12622	4916268.562	58.28321927
6	0.003131945	0.996868055	84066.89672	263.2929256	83935.25026	4832059.435	57.47874162
7	0.002624357	0.997375643	83803.60379	219.9305524	83693.63852	4748124.185	56.65775659
8	0.002410056	0.997589944	83583.67324	201.4413464	83482.95257	4664430.547	55.80552237
9	0.002084661	0.997915339	83382.2319	173.8236596	83295.32007	4580947.594	54.93913379
10	0.001732085	0.998267915	83208.40824	144.1240428	83136.34622	4497652.274	54.05285799
11	0.001482815	0.998517185	83064.28419	123.1689446	83002.69972	4414515.928	53.14577704
12	0.001382833	0.998617167	82941.11525	114.693728	82883.76839	4331513.228	52.2239569
13	0.001527931	0.998472069	82826.42152	126.5530984	82763.14497	4248629.46	51.29558155
14	0.001891789	0.998108211	82699.86842	156.4506936	82621.64308	4165866.315	50.37331249
15	0.002294968	0.997705032	82543.41773	189.4345276	82448.70047	4083244.672	49.4678411
16	0.00283917	0.99716083	82353.9832	233.8169595	82237.07472	4000795.971	48.58047924
17	0.003294284	0.996705716	82120.16624	270.5271224	81984.90268	3918558.896	47.71737657
18	0.003710923	0.996289077	81849.63912	303.7376946	81697.77027	3836573.994	46.87343811
19	0.004154313	0.995845687	81545.90143	338.7671746	81376.51784	3754876.224	46.04616735
20	0.004390254	0.995609746	81207.13425	356.5199631	81028.87427	3673499.706	45.2361697
21	0.004441883	0.995558117	80850.61429	359.1289779	80671.0498	3592470.831	44.43343892
22	0.004725802	0.995274198	80491.48531	380.386786	80301.29192	3511799.782	43.62945681
23	0.004707169	0.995292831	80111.09852	377.0964827	79922.55028	3431498.49	42.83424585
24	0.004639958	0.995360042	79734.00204	369.962452	79549.02081	3351575.939	42.03446276
25	0.004583161	0.995416839	79364.03959	363.7381453	79182.17052	3272026.919	41.22807931
26	0.004578547	0.995421453	79000.30144	361.7065813	78819.44815	3192844.748	40.41560209
27	0.004562798	0.995437202	78638.59486	358.8120546	78459.18883	3114025.3	39.59919815
28	0.004744237	0.995255763	78279.78281	371.377849	78094.09388	3035566.111	38.77841765
29	0.004811894	0.995188106	77908.40496	374.8869779	77720.96147	2957472.017	37.96088521
30	0.004874612	0.995125388	77533.51798	377.9458246	77344.54507	2879751.056	37.14201459
31	0.00486543	0.99513457	77155.57216	375.3950127	76967.87465	2802406.511	36.32150514
32	0.004913392	0.995086608	76780.17714	377.2511339	76591.55158	2725438.636	35.49664428
33	0.005086942	0.994913058	76402.92601	388.6572164	76208.5974	2648847.084	34.66944557
34	0.00516005	0.99483995	76014.26879	392.2374551	75818.15007	2572638.487	33.84415226
35	0.005416688	0.994583312	75622.03134	409.6209376	75417.22087	2496820.337	33.0171022
36	0.005704108	0.994295892	75212.4104	429.01972	74997.90054	2421403.116	32.19419645
37	0.005715039	0.994284961	74783.39068	427.3899863	74569.69569	2346405.216	31.37602072
38	0.005997142	0.994002858	74356.00069	445.9234841	74133.03895	2271835.52	30.55349264
39	0.006431368	0.993568632	73910.07721	475.3428963	73672.40576	2197702.481	29.73481511
40	0.0068583	0.9931417	73434.73431	503.6374628	73182.91558	2124030.075	28.92405202
41	0.007688732	0.992311268	72931.09685	560.7476396	72650.72303	2050847.16	28.1203389
42	0.008046306	0.991953694	72370.34921	582.3139556	72079.19223	1978196.437	27.33434975
43	0.008543233	0.991456767	71788.03526	613.3018835	71481.38431	1906117.244	26.55201856
44	0.008966449	0.991033551	71174.73337	638.1846041	70855.64107	1834635.86	25.77650485
45	0.009396166	0.990603834	70536.54877	662.7731494	70205.16219	1763780.219	25.00519588
46	0.009861584	0.990138416	69873.77562	689.0661127	69529.24256	1693575.057	24.23763482
47	0.010469888	0.989530112	69184.70951	724.3561325	68822.53144	1624045.814	23.474057
48	0.011073462	0.988926538	68460.35337	758.0931175	68081.30681	1555223.283	22.71713782
49	0.012095352	0.987904648	67702.26026	818.8826913	67292.81891	1487141.976	21.96591325
50	0.01288092	0.98711908	66883.37756	861.5194488	66452.61784	1419849.157	21.22872919
51	0.01371175	0.98628825	66021.85812	905.2751995	65569.22052	1353396.539	20.49921966
52	0.014391778	0.985608222	65116.58292	937.1433738	64648.01123	1287827.319	19.77725582
53	0.015542172	0.984457828	64179.43954	997.4878982	63680.69559	1223179.307	19.05874087
54	0.017096936	0.982903064	63181.95164	1080.217768	62641.84276	1159498.612	18.35173783
55	0.018246458	0.981753542	62101.73388	1133.136668	61535.16554	1096856.769	17.66225676
56	0.01924878	0.98075122	60968.59721	1173.571091	60381.81166	1035321.604	16.98122724
57	0.020727908	0.979272092	59795.02612	1239.425816	59175.31321	974939.7919	16.30469715
58	0.022186323	0.977813677	58555.6003	1299.133459	57906.03357	915764.4787	15.63922962
59	0.024448423	0.975551577	57256.46684	1399.830333	56556.55168	857858.4451	14.98273457
60	0.026323087	0.973676913	55856.63651	1470.319116	55121.47695	801301.8934	14.34568824
61	0.028166601	0.971833399	54386.31739	1531.877691	53620.37855	746180.4165	13.72000261
62	0.030380447	0.969619553	52854.4397	1605.741524	52051.56894	692560.0379	13.10315731
63	0.033336077	0.966663923	51248.69818	1708.430543	50394.48291	640508.469	12.49804369
64	0.036033074	0.963966926	49540.26764	1785.08813	48647.72357	590113.9861	11.91180456
65	0.039304654	0.960695346	47755.17951	1877.000809	46816.6791	541466.2625	11.3383777
66	0.042690428	0.957309572	45878.1787	1958.559069	44898.89916	494649.5834	10.78180515
67	0.046558829	0.953441171	43919.61963	2044.846072	42897.19659	449750.6842	10.24031374
68	0.051106713	0.948893287	41874.77356	2140.082016	40804.73255	406853.4877	9.715956723
69	0.055823715	0.944176285	39734.69154	2218.138108	38625.62249	366048.7551	9.212321549
70	0.061234708	0.938765292	37516.55343	2297.315195	36367.89583	327423.1326	8.727431031
71	0.066691544	0.933308456	35219.23824	2348.825394	34044.82554	291055.2368	8.264098014
72	0.072509138	0.927490862	32870.41284	2383.405296	31678.7102	257010.4112	7.818898183
73	0.076839673	0.923160327	30487.00755	2342.611683	29315.70171	225331.701	7.391073089
74	0.083080495	0.916919505	28144.39586	2338.250336	26975.2707	196015.9993	6.964654714
75	0.09101931	0.90898069	25806.14553	2348.857569	24631.71674	169040.7286	6.550405928
76	0.100430219	0.899569781	23457.28796	2355.82056	22279.37768	144409.0119	6.156253534
77	0.108674416	0.891325584	21101.4674	2293.189652	19954.87257	122129.6342	5.787731816
78	0.117353572	0.882646428	18808.27775	2207.21857	17704.66846	102174.7617	5.432435815

79	0.12775495	0.87224505	16601.05918	2120.867491	15540.62543	84470.09319	5.088235172
80	0.140469992	0.859530008	14480.19169	2034.032415	13463.17548	68929.46776	4.760259343
81	0.152709441	0.847290559	12446.15927	1900.646028	11495.83626	55466.29228	4.456498673
82	0.164685823	0.835314177	10545.51324	1736.696527	9677.16498	43970.45602	4.169589
83	0.178848662	0.821151338	8808.816717	1575.445085	8021.094174	34293.29104	3.893064431
84	0.193426213	0.806573787	7233.371631	1399.123679	6533.809792	26272.19687	3.632081719
85	0.212574474	0.787425526	5834.247952	1240.212189	5214.141857	19738.38708	3.383193042
86	0.227906826	0.772093174	4594.035763	1047.012111	4070.529707	14524.24522	3.161543786
87	0.245215848	0.754784152	3547.023652	869.7864121	3112.130446	10453.71551	2.947179534
88	0.264812251	0.735187749	2677.23724	708.9652191	2322.75463	7341.585067	2.742224319
89	0.285667742	0.714332258	1968.272021	562.2718234	1687.136109	5018.830437	2.549866271
90	0.307805878	0.692194122	1406.000197	432.7751245	1189.612635	3331.694328	2.36962579
91	0.331239138	0.668760862	973.2250726	322.3702342	812.0399555	2142.081693	2.201013674
92	0.355966628	0.644033372	650.8548384	231.682602	535.0135374	1330.041738	2.043530537
93	0.38197162	0.61802838	419.1722364	160.111898	339.1162873	795.0282002	1.896662353
94	0.409218996	0.590781004	259.0603383	106.0124117	206.0541325	455.9119128	1.759867665
95	0.437652665	0.562347335	153.0479266	66.98183302	119.5570101	249.8577803	1.632545999
96	0.467193047	0.532806953	86.06609363	40.2094805	65.96135338	130.3007702	1.513961709
97	0.497734771	0.502265229	45.85661313	22.82443084	34.44439771	64.33941681	1.40305645
98	0.529144745	0.470855255	23.03218229	12.18735823	16.93850317	29.8950191	1.297967284
99	0.561260783	0.438739217	10.84482406	6.086774438	7.801436838	12.95651593	1.194718869
100	0.593891015	0.406108985	4.758049619	2.825762916	3.345168161	5.155079092	1.083443744
101	0.626814328	0.373185672	1.932286703	1.211184991	1.326694207	1.809910931	0.936667902
102	0.659782065	0.340217935	0.721101712	0.475769976	0.483216724	0.483216724	0.670108968
103	0.692521225	0.307478775	0.245331736	0.245331736	0	0	0

vik	qx	px	lx	dx	Lx_1	Tx	ex
0	0.107219947	0.892780053	100000	10721.9947	90135.76488	5701019.386	57.01019386
1	0.014342382	0.985657618	89278.0053	1280.459242	88637.77568	5610883.621	62.84732283
2	0.006163243	0.993836757	87997.54606	542.3502315	87726.37095	5522245.845	62.75454365
3	0.003923497	0.996076503	87455.19583	343.130212	87283.63072	5434519.474	62.14061295
4	0.002895151	0.997104849	87112.06562	252.2026155	86985.96431	5347235.844	61.38341234
5	0.003028973	0.996971027	86859.863	263.0962075	86728.3149	5260249.879	60.56019083
6	0.00297493	0.99702507	86596.7668	257.6192881	86467.95715	5173521.564	59.74266426
7	0.002622874	0.997377126	86339.14751	226.4567385	86225.91914	5087053.607	58.91943289
8	0.002327409	0.997672591	86112.69077	200.419456	86012.48104	5000827.688	58.07306268
9	0.001962593	0.998037407	85912.27131	168.6108511	85827.96589	4914815.207	57.20737133
10	0.001629151	0.998370849	85743.66046	139.6893291	85673.8158	4828987.241	56.3188837
11	0.001438493	0.998561507	85603.97113	123.1407224	85542.40077	4743313.425	55.40996945
12	0.001422994	0.998577006	85480.83041	121.6387374	85420.01104	4657771.025	54.48907085
13	0.001536602	0.998463398	85359.19167	131.1630983	85293.61012	4572351.014	53.56600647
14	0.001860178	0.998139822	85228.02857	158.5393259	85148.75891	4487057.403	52.64767329
15	0.002248335	0.997751665	85069.48925	191.2646917	84973.8569	4401908.645	51.74485804
16	0.002663004	0.997336996	84878.22456	226.0310102	84765.20905	4316934.788	50.86033326
17	0.003074828	0.996925172	84652.19355	260.2908938	84522.0481	4232169.579	49.9948011
18	0.003365958	0.996634042	84391.90265	284.0595831	84249.87286	4147647.531	49.14745847
19	0.003752218	0.996247782	84107.84307	315.5909242	83950.04761	4063397.658	48.31175678
20	0.004034087	0.995965913	83792.25215	338.0252253	83623.23953	3979447.61	47.49183258
21	0.004170061	0.995829939	83454.22692	348.0091786	83280.22233	3895824.371	46.68216955
22	0.004228646	0.995771354	83106.21774	351.4267699	82930.50436	3812544.148	45.87555843
23	0.004289743	0.995710257	82754.79097	354.9967704	82577.29259	3729613.644	45.06825043
24	0.004267872	0.995732128	82399.7942	351.6717624	82223.95832	3647036.351	44.26026044
25	0.004299027	0.995700973	82048.12244	352.7270689	81871.7589	3564812.393	43.44782412
26	0.004345979	0.995654021	81695.39537	355.0464455	81517.87215	3482940.634	42.63325513
27	0.004349485	0.995650515	81340.34892	353.7886039	81163.45462	3401422.762	41.81716463
28	0.004455198	0.995544802	80986.56032	360.8111472	80806.15475	3320259.307	40.99765806
29	0.004511221	0.995488779	80625.74917	363.720543	80443.8889	3239453.153	40.17889056
30	0.004480893	0.995519107	80262.02863	359.6455608	80082.20585	3159009.264	39.35870196
31	0.004520698	0.995479302	79902.38307	361.2145179	79721.77581	3078927.058	38.53360738
32	0.004632414	0.995367586	79541.16855	368.4676043	79356.93475	2999205.282	37.70632663
33	0.004673463	0.995326537	79172.70095	370.0107034	78987.6956	2919848.347	36.87948387
34	0.004778534	0.995221466	78802.69024	376.5613155	78614.40959	2840860.652	36.05030035
35	0.004915674	0.995084326	78426.12893	385.517308	78233.37027	2762246.242	35.22099433
36	0.00511025	0.99488975	78040.61162	398.807063	77841.20809	2684012.872	34.39251456
37	0.005247718	0.994752282	77641.80456	407.4422685	77438.08342	2606171.664	33.56660344
38	0.005436558	0.994563442	77234.36229	419.8890569	77024.41776	2528733.58	32.74104304
39	0.005492477	0.994507523	76814.47323	421.9017126	76603.52238	2451709.162	31.91728146
40	0.005517582	0.994482418	76392.57152	421.5022952	76181.82037	2375105.64	31.09079316
41	0.005629866	0.994370134	75971.06922	427.7069263	75757.21576	2298923.82	30.26051684
42	0.005907806	0.994092194	75543.3623	446.2955618	75320.21452	2223166.604	29.42901317
43	0.006147781	0.993852219	75097.06674	461.6803143	74866.22658	2147846.389	28.60093587
44	0.006569925	0.993430075	74635.38642	490.348891	74390.21198	2072980.163	27.77476291
45	0.00691013	0.99308987	74145.03753	512.3518663	73888.8616	1998589.951	26.95514113
46	0.007320967	0.992679033	73632.68566	539.0624446	73363.15444	1924701.089	26.13922162
47	0.007365285	0.992634715	73093.62322	538.3553786	72824.44553	1851337.935	25.32830982
48	0.007936925	0.992063075	72555.26784	575.8656976	72267.33499	1778513.489	24.51253427
49	0.008673158	0.991326842	71979.40214	624.2887473	71667.25777	1706246.154	23.70464471
50	0.009550949	0.990449051	71355.1134	681.5090354	71014.35888	1634578.897	22.90766308
51	0.010382356	0.989617644	70673.60436	733.758528	70306.7251	1563564.538	22.12374127
52	0.011418477	0.988581523	69939.84583	798.606487	69540.54259	1493257.813	21.350602
53	0.011680799	0.988319201	69141.23935	807.6248886	68737.4269	1423717.27	20.59143405
54	0.012404747	0.987595253	68333.61446	847.661196	67909.78386	1354979.843	19.82889174
55	0.012918431	0.987081569	67485.95326	871.8126333	67050.04695	1287070.059	19.07167339
56	0.013966008	0.986033992	66614.14063	930.3336329	66148.97381	1220020.012	18.31473019
57	0.014882485	0.985117515	65683.807	977.538256	65195.03787	1153871.038	17.56705482
58	0.016734453	0.983265547	64706.26874	1082.824003	64164.85674	1088676.001	16.82489227
59	0.01837704	0.98162296	63623.44474	1169.210571	63038.83945	1024511.144	16.10272987
60	0.020358039	0.979641961	62454.23417	1271.445744	61818.51129	961472.3044	15.39482979
61	0.022422175	0.977577825	61182.78842	1371.851195	60496.86282	899653.7931	14.70436076
62	0.024650699	0.975349301	59810.93723	1474.381408	59073.74652	839156.9303	14.03015852
63	0.027278797	0.972721203	58336.55582	1591.351039	57540.8803	780083.1838	13.37211587
64	0.030708073	0.969291927	56745.20478	1742.53589	55873.93684	722542.3035	12.73309888
65	0.032995012	0.967004988	55002.66889	1814.813696	54095.26204	666668.3666	12.12065487
66	0.036017786	0.963982214	53187.85519	1915.708789	52230.0008	612573.1046	11.51716125
67	0.039471467	0.960528533	51272.1464	2023.786832	50260.25299	560343.1038	10.92880137
68	0.043629374	0.956370626	49248.35957	2148.675122	48174.02201	510082.8508	10.35735718
69	0.047873376	0.952126624	47099.68445	2254.820912	45972.27399	461908.8288	9.807047206
70	0.053702735	0.946297265	44844.86354	2408.29182	43640.71763	415936.5548	9.275009934
71	0.058455114	0.941544886	42436.57172	2480.634656	41196.25439	372295.8372	8.772995134
72	0.064235113	0.935764887	39955.93706	2566.574142	38672.64999	331099.5828	8.286617888
73	0.069328102	0.930671898	37389.36292	2592.13355	36093.29614	292426.9328	7.821126383
74	0.076431438	0.923568562	34797.22937	2659.602283	33467.42823	256333.6366	7.366495588
75	0.08227722	0.91772278	32137.62709	2644.194621	30815.52978	222866.2084	6.934743745
76	0.090124379	0.909875621	29493.43247	2658.077299	28164.39382	192050.6786	6.511642172
77	0.097761625	0.902238375	26835.35517	2623.467925	25523.6212	163886.2848	6.107103252
78	0.107431059	0.892568941	24211.88724	2601.108682	22911.3329	138362.6636	5.714658351

79	0.119886045	0.880113955	21610.77856	2590.830774	20315.36317	115451.3307	5.342303166
80	0.132997196	0.867002804	19019.94779	2529.599723	17755.14793	95135.96754	5.001904769
81	0.143553584	0.856446416	16490.34806	2367.248571	15306.72378	77380.81961	4.692491591
82	0.153719149	0.846280851	14123.09949	2170.990839	13037.60407	62074.09584	4.395217627
83	0.165873812	0.834126188	11952.10865	1982.541827	10960.83774	49036.49176	4.102748158
84	0.180126443	0.819873557	9969.566826	1795.782606	9071.675523	38075.65402	3.819188405
85	0.198551076	0.801448924	8173.78422	1622.913655	7362.327392	29003.9785	3.548414996
86	0.215396075	0.784603925	6550.870565	1411.031808	5845.354661	21641.65111	3.303629784
87	0.233144858	0.766855142	5139.838757	1198.326976	4540.675269	15796.29645	3.073305836
88	0.252552251	0.747447749	3941.51178	995.4376729	3443.792944	11255.62118	2.855660926
89	0.273254819	0.726745181	2946.074108	805.0289479	2543.559634	7811.828235	2.651606154
90	0.295282282	0.704717718	2141.04516	632.2127014	1824.938809	5268.268601	2.460606016
91	0.318653486	0.681346514	1508.832458	480.7947226	1268.435097	3443.329792	2.282115402
92	0.343373965	0.656626035	1028.037736	353.0013934	851.5370389	2174.894696	2.11557866
93	0.369433313	0.630566687	675.0363422	249.3809125	550.3458859	1323.357657	1.960424312
94	0.396802411	0.603197589	425.6554297	168.9011006	341.2048794	773.0117707	1.816050535
95	0.42543058	0.57456942	256.7543291	109.2311433	202.1387574	431.8068913	1.68179011
96	0.455242785	0.544757215	147.5231858	67.1588659	113.9437529	229.6681339	1.556827373
97	0.486136991	0.513863009	80.36431991	39.06806863	60.8302856	115.724381	1.439997018
98	0.517981885	0.482018115	41.29625128	21.3907101	30.60089623	54.8940954	1.329275508
99	0.550615144	0.449384856	19.90554119	10.96029242	14.42539498	24.29319917	1.220423948
100	0.583842492	0.416157508	8.945248767	5.222616335	6.333940599	9.867804191	1.103133568
101	0.617437839	0.382562161	3.722632431	2.298494124	2.573385369	3.533863592	0.949291572
102	0.651144741	0.348855259	1.424138307	0.92732017	0.960478223	0.960478223	0.674427629
103	0.68467949	0.31532051	0.496818138	0.496818138	0	0	0