

Contribution from Dr Jitka Rychtarikova

vik	qx	px	lx	dx	Lx_1	Tx	ex
0	0.125268389	0.874731611	100000	12526.83888	88475.30823	5421976.428	54.21976428
1	0.014805979	0.985194021	87473.16112	1295.125789	86825.59822	5333501.12	60.97300077
2	0.006282725	0.993717275	86178.03533	541.4328889	85907.31888	5246675.522	60.88181869
3	0.004942919	0.995057081	85636.60244	423.2947547	85424.95506	5160768.203	60.26357954
4	0.003424211	0.996575789	85213.30768	291.7883123	85067.41353	5075343.248	59.56045347
5	0.003493372	0.996506628	84921.51937	296.6624176	84773.18816	4990275.834	58.76338378
6	0.003164385	0.996835615	84624.85695	267.7856313	84490.96414	4905502.646	57.96763294
7	0.002870327	0.997129673	84357.07132	242.1323968	84236.00512	4821011.682	57.15005993
8	0.002549126	0.997450874	84114.93893	214.4195442	84007.72915	4736775.677	56.31313221
9	0.002197072	0.997802928	83900.51938	184.3355238	83808.35162	4652767.947	55.4557705
10	0.001848144	0.998151856	83716.18386	154.7195744	83638.82407	4568959.596	54.57677817
11	0.001562123	0.998437877	83561.46428	130.5332694	83496.19765	4485320.772	53.6769049
12	0.001409359	0.998590641	83430.93101	117.5841521	83372.13894	4401824.574	52.76010372
13	0.001533605	0.998466395	83313.34686	127.7697354	83249.46199	4318452.435	51.83386093
14	0.001857575	0.998142425	83185.57713	154.5234719	83108.31539	4235202.973	50.9127077
15	0.002195569	0.997804431	83031.05365	182.3004042	82939.90345	4152094.658	50.00652738
16	0.002603205	0.997396795	82848.75325	215.6722932	82740.9171	4069154.754	49.11546155
17	0.003001135	0.996998865	82633.08096	247.9930524	82509.08443	3986413.837	48.24234787
18	0.003391197	0.996608803	82385.0879	279.3840761	82245.39587	3903904.753	47.38606042
19	0.003903122	0.996096878	82105.70383	320.4685962	81945.46953	3821659.357	46.54560133
20	0.004235736	0.995764264	81785.23523	346.4206267	81612.02492	3739713.887	45.72602716
21	0.004364988	0.995635012	81438.81461	355.4794749	81261.07487	3658101.863	44.91840752
22	0.004468526	0.995531474	81083.33513	362.3230284	80902.17362	3576840.788	44.11314337
23	0.004514346	0.995485654	80721.0121	364.4026172	80538.81079	3495938.614	43.30890462
24	0.004432721	0.995567279	80356.60949	356.1984313	80178.51027	3415399.803	42.50303522
25	0.004348295	0.995651705	80000.41105	347.8653573	79826.47838	3335221.293	41.69005195
26	0.004256536	0.995743464	79652.5457	339.0439441	79483.02372	3255394.815	40.86994064
27	0.004141258	0.995858742	79313.50175	328.4576875	79149.27291	3175911.791	40.04251131
28	0.004316362	0.995683638	78985.04406	340.9280555	78814.58004	3096762.518	39.20694803
29	0.004544327	0.995455673	78644.11601	357.384599	78465.42371	3017947.938	38.37474551
30	0.004771141	0.995228859	78286.73141	373.5170038	78099.97291	2939482.514	37.54764647
31	0.004900279	0.995099721	77913.21441	381.7965128	77722.31615	2861382.541	36.72525339
32	0.004990876	0.995009124	77531.41789	386.9496949	77337.94305	2783660.225	35.9036414
33	0.005027657	0.994972343	77144.4682	387.8559579	76950.54022	2706322.282	35.08122287
34	0.005221389	0.994778611	76756.61224	400.7761131	76556.22418	2629371.742	34.25596395
35	0.005245991	0.994754009	76355.83613	400.5619928	76155.55513	2552815.518	33.43314208
36	0.005389116	0.994610884	75955.27414	409.3317532	75750.60826	2476659.963	32.60682014
37	0.005825173	0.994174827	75545.94238	440.0681575	75325.9083	2400909.354	31.78078502
38	0.006138923	0.993861077	75105.87422	461.0691732	74875.33964	2325583.446	30.96406866
39	0.006377019	0.993622981	74644.80505	476.0113251	74406.79939	2250708.106	30.1522404
40	0.006937993	0.993062007	74168.79373	514.5825708	73911.50244	2176301.307	29.34254688
41	0.007324648	0.992675352	73654.21116	539.491138	73384.46559	2102389.805	28.54405433
42	0.007700987	0.992299013	73114.72002	563.0555288	72833.19225	2029005.339	27.75098282
43	0.008522099	0.991477901	72551.66449	618.2924469	72242.51827	1956172.147	26.96247096
44	0.008870983	0.991129017	71933.37204	638.1197001	71614.31219	1883929.628	26.18992513
45	0.008995804	0.991004196	71295.25234	641.3581191	70974.57328	1812315.316	25.41985976
46	0.009422567	0.990577433	70653.89422	665.7410787	70321.02368	1741340.743	24.64606887
47	0.009929804	0.990070196	69988.15314	694.9686775	69640.66881	1671019.719	23.87575103
48	0.010721172	0.989278828	69293.18447	742.9041609	68921.73239	1601379.05	23.11019565
49	0.011936602	0.988063398	68550.28031	818.2574443	68141.15158	1532457.318	22.35523052
50	0.013027987	0.986972013	67732.02286	882.4119264	67290.8169	1464316.167	21.61925932
51	0.013866485	0.986133515	66849.61093	926.969132	66386.12637	1397025.35	20.89803262
52	0.01461476	0.98538524	65922.6418	963.4436059	65440.92	1330639.223	20.1848589
53	0.015423433	0.984576567	64959.1982	1001.893827	64458.25128	1265198.303	19.47681527
54	0.016183113	0.983816887	63957.30437	1035.028283	63439.79023	1200740.052	18.77408787
55	0.017648197	0.982351803	62922.27609	1110.464722	62367.04373	1137300.262	18.07468408
56	0.018912626	0.981087374	61811.81137	1169.02369	61227.29952	1074933.218	17.39041769
57	0.020598542	0.979401458	60642.78768	1249.153037	60018.21116	1013705.918	16.7160178
58	0.022498371	0.977501629	59393.63464	1336.260034	58725.50462	953687.7073	16.0570693
59	0.023937448	0.976062552	58057.3746	1389.745402	57362.5019	894962.2027	15.41513389
60	0.025657499	0.974342501	56667.6292	1453.949629	55940.65439	837599.7008	14.78092012
61	0.027608281	0.972391719	55213.67957	1524.354777	54451.50219	781659.0464	14.15698161
62	0.029572875	0.970427125	53689.3248	1587.747674	52895.45096	727207.5442	13.54473253
63	0.03204024	0.96795976	52101.57712	1669.347047	51266.9036	674312.0933	12.94225877
64	0.034781462	0.965218538	50432.23008	1754.106719	49555.17672	623045.1897	12.35410746
65	0.037448567	0.962551433	48678.12336	1822.925954	47766.66038	573490.013	11.78126792
66	0.040346124	0.959653876	46855.1974	1890.425615	45909.9846	525723.3526	11.22017154
67	0.043523643	0.956476357	44964.77179	1957.030662	43986.25646	479813.368	10.67087297
68	0.047509923	0.952490077	43007.74113	2043.294486	41986.09388	435827.1115	10.13368989
69	0.051480074	0.948519926	40964.44664	2108.852748	39910.02027	393841.0176	9.614215495
70	0.055895246	0.944104754	38855.59389	2171.842965	37769.67241	353930.9974	9.108881423
71	0.060063934	0.939936066	36683.75093	2203.370391	35582.06573	316161.325	8.618565904
72	0.065924608	0.934075392	34480.38054	2273.10557	33343.82775	280579.2592	8.137359707
73	0.071245159	0.928754841	32207.27497	2294.61243	31059.96875	247235.4315	7.67638466
74	0.077968007	0.922031993	29912.66254	2332.23068	28746.5472	216175.4627	7.226888027
75	0.085058935	0.914941065	27580.43186	2345.962157	26407.45078	187428.9155	6.79572084
76	0.093216093	0.906783907	25234.4697	2352.258677	24058.34036	161021.4648	6.381012428
77	0.101221581	0.898778419	22882.21102	2316.173565	21724.12424	136963.1244	5.985572123
78	0.111006048	0.888993952	20566.03746	2282.954549	19424.56018	115239.0002	5.603364305

79	0.12130863	0.87869137	18283.08291	2217.895738	17174.13504	95814.43999	5.240606328
80	0.132270396	0.867729604	16065.18717	2124.948668	15002.71283	78640.30495	4.895075552
81	0.144481301	0.855518699	13940.2385	2014.103796	12933.1866	63637.59211	4.565028935
82	0.15779141	0.84220859	11926.1347	1881.841605	10985.2139	50704.40551	4.251537214
83	0.172276651	0.827723349	10044.2931	1730.397177	9179.094511	39719.19161	3.954403881
84	0.188013107	0.811986893	8313.895922	1563.121404	7532.33522	30540.0971	3.673379771
85	0.20507566	0.79492434	6750.774518	1384.419542	6058.564747	23007.76188	3.408166251
86	0.22353632	0.77646368	5366.354976	1199.575242	4766.567354	16949.19713	3.158418929
87	0.243462184	0.756537816	4166.779733	1014.453296	3659.553086	12182.62978	2.923751808
88	0.26491301	0.73508699	3152.326438	835.0922841	2734.780296	8523.076692	2.703741779
89	0.287938354	0.712061646	2317.234154	667.2205884	1983.623859	5788.296397	2.497933317
90	0.31257429	0.68742571	1650.013565	515.7518182	1392.137656	3804.672537	2.305843187
91	0.338839687	0.661160313	1134.261747	384.3328956	942.0952993	2412.534881	2.126964863
92	0.366732112	0.633267888	749.9288515	275.0229919	612.4173555	1470.439582	1.960772117
93	0.396223408	0.603776592	474.9058596	188.1688184	380.8214504	858.0222263	1.806720656
94	0.427255087	0.572744913	286.7370412	122.5098595	225.4821115	477.2007759	1.66424531
95	0.459733714	0.540266286	164.2271817	75.50077211	126.4767957	251.7186645	1.532746661
96	0.493526539	0.506473461	88.7264096	43.78883782	66.83199069	125.2418688	1.411551187
97	0.528457707	0.471542293	44.93757178	23.74760614	33.06376871	58.4098781	1.299800496
98	0.564305452	0.435694548	21.18996564	11.95761313	15.21115908	25.34610939	1.196137352
99	0.600800758	0.399199242	9.232352513	5.546804388	6.458950319	10.13495032	1.09776466
100	0.637628033	0.362371967	3.685548124	2.350008801	2.510543724	3.675999996	0.997409306
101	0.67442833	0.32557167	1.335539324	0.900725555	0.885176546	1.165456272	0.872648414
102	0.710805652	0.289194348	0.434813768	0.309068084	0.280279726	0.280279726	0.644597174
103	0.746336734	0.253663266	0.125745684	0.125745684	0	0	0

vik	qx	px	lx	dx	Lx_1	Tx	ex
0	0.103654997	0.896345003	100000	10365.49967	90463.7403	5803528.976	58.03528976
1	0.014202604	0.985797396	89634.50033	1273.043271	88997.97869	5713065.236	63.73734684
2	0.005945172	0.994054828	88361.45705	525.3240656	88098.79502	5624067.257	63.64842143
3	0.004555347	0.995444653	87836.13299	400.124101	87636.07094	5535968.462	63.026095
4	0.003283692	0.996716308	87436.00889	287.1129252	87292.45243	5448332.391	62.31222651
5	0.003418659	0.996581341	87148.89596	297.9323326	86999.9298	5361039.939	61.51586752
6	0.003151704	0.996848296	86850.96363	273.7285179	86714.09937	5274040.009	60.7251755
7	0.002834991	0.997165009	86577.23511	245.445672	86454.51228	5187325.91	59.91558754
8	0.002528726	0.997471274	86331.78944	218.3094644	86222.63471	5100871.397	59.08450908
9	0.00213059	0.99786941	86113.47998	183.4725536	86021.7437	5014648.763	58.23302884
10	0.001776246	0.998223754	85930.00742	152.6328446	85853.691	4928627.019	57.35629691
11	0.001586346	0.998413654	85777.37458	136.072559	85709.3383	4842773.328	56.45746739
12	0.001448424	0.998551576	85641.30202	124.0449437	85579.27955	4757063.99	55.54637631
13	0.001493045	0.998506955	85517.25708	127.6810733	85453.41654	4671484.71	54.62622247
14	0.001674883	0.998325117	85389.576	143.0175152	85318.06724	4586031.293	53.70715617
15	0.002092239	0.997907761	85246.55849	178.3561526	85157.38041	4500713.226	52.79642142
16	0.002427403	0.997572597	85068.20233	206.4947912	84964.95494	4415555.846	51.90606742
17	0.002898863	0.997101137	84861.70754	246.0025041	84738.70629	4330590.891	51.03115429
18	0.003025912	0.996974088	84615.70504	256.0396477	84487.68521	4245852.185	50.17806308
19	0.003240324	0.996759676	84359.66539	273.3562104	84222.98909	4161364.499	49.32884074
20	0.003411011	0.996588989	84086.31278	286.8193025	83942.90313	4077141.51	48.48757634
21	0.003667222	0.996332778	83799.49348	307.3113589	83645.8378	3993198.607	47.65182272
22	0.00375943	0.99624057	83492.18212	313.8830012	83335.24062	3909552.769	46.82537538
23	0.003892135	0.996107865	83178.29912	323.7411617	83016.42854	3826217.529	46.00018958
24	0.003934535	0.996065465	82854.55796	325.9941576	82691.56088	3743201.1	45.17797442
25	0.003940656	0.996059344	82528.5638	325.2167187	82365.95544	3660509.539	44.35445585
26	0.003994757	0.996005243	82203.34708	328.3823969	82039.15588	3578143.584	43.52795489
27	0.003980819	0.996019181	81874.96468	325.9294188	81711.99997	3496104.428	42.70053052
28	0.003946297	0.996053703	81549.03526	321.8166989	81388.12691	3414392.428	41.86919461
29	0.003950768	0.996049232	81227.21857	320.9098625	81066.76363	3333004.301	41.03309654
30	0.004015145	0.995984855	80906.3087	324.8505938	80743.88341	3251937.537	40.19386856
31	0.003991133	0.996008867	80581.45811	321.6112817	80420.65247	3171193.654	39.35388771
32	0.00413193	0.99586807	80259.84683	331.6281065	80094.03277	3090773.002	38.50958012
33	0.00425841	0.99574159	79928.21872	340.3671519	79758.03514	3010678.969	37.66728468
34	0.004458255	0.995541745	79587.85157	354.8229123	79410.44011	2930920.934	36.82623511
35	0.004655633	0.995344367	79233.02866	368.8799135	79048.5887	2851510.494	35.98891197
36	0.004749387	0.995250613	78864.14874	374.5563369	78676.87057	2772461.905	35.15490814
37	0.004951218	0.995048782	78489.59241	388.6190579	78295.28288	2693785.034	34.32028313
38	0.005074608	0.994925392	78100.97335	396.3318545	77902.80742	2615489.751	33.48856793
39	0.005212924	0.994787076	77704.64149	405.0684227	77502.10728	2537586.944	32.65682584
40	0.005287784	0.994712216	77299.57307	408.7434281	77095.20136	2460084.837	31.82533537
41	0.005393865	0.994606135	76890.82964	414.7387704	76683.46026	2382989.635	30.9918575
42	0.005505171	0.994494829	76476.09087	421.0139426	76265.5839	2306306.175	30.1572184
43	0.005738466	0.994261534	76055.07693	436.4395103	75836.85718	2230040.591	29.32139025
44	0.005959111	0.994040889	75618.63742	450.6198312	75393.3275	2154203.734	28.4877354
45	0.006114076	0.993885924	75168.01759	459.5829348	74938.22612	2078810.407	27.65551724
46	0.006482932	0.993517068	74708.43465	484.3297058	74466.2698	2003872.18	26.8225695
47	0.007042455	0.992957545	74224.10495	522.7199106	73962.74499	1929405.911	25.99433044
48	0.007598313	0.992401687	73701.38504	560.0062111	73421.38193	1855443.166	25.1751465
49	0.008085696	0.991914304	73141.37883	591.3989568	72845.67935	1782021.784	24.3640715
50	0.008596405	0.991403595	72549.97987	623.6690052	72238.14537	1709176.104	23.55860205
51	0.00912935	0.99087065	71926.31086	656.6404499	71597.99064	1636937.959	22.75854189
52	0.010095761	0.989904239	71269.67041	719.5215857	70909.90962	1565339.968	21.96362014
53	0.010825014	0.989174986	70550.14883	763.7063607	70168.29565	1494430.059	21.1825217
54	0.011612381	0.988387619	69786.44247	810.3867779	69381.24908	1424261.763	20.40886041
55	0.012205916	0.987794084	68976.05569	841.9159439	68555.09772	1354880.514	19.64276589
56	0.013062009	0.986937991	68134.13975	889.9687419	67689.15538	1286325.416	18.8793081
57	0.01463025	0.98536975	67244.171	983.7990525	66752.27148	1218636.261	18.12255609
58	0.016597599	0.983402401	66260.37195	1099.763066	65710.49042	1151883.989	17.38420651
59	0.018076443	0.981923557	65160.60889	1177.872003	64571.67288	1086173.499	16.66917356
60	0.01973619	0.98026381	63982.73688	1262.775477	63351.34914	1021601.826	15.96683537
61	0.020928936	0.979071064	62719.96141	1312.662083	62063.63036	958250.4769	15.27823767
62	0.02254193	0.97745807	61407.29932	1384.23902	60715.17981	896186.8466	14.59414201
63	0.024642504	0.975357496	60023.0603	1479.118524	59283.50104	835471.6668	13.91917811
64	0.027498899	0.972501101	58543.94178	1609.893945	57738.99481	776188.1657	13.25821498
65	0.030655145	0.969344855	56934.04783	1745.321473	56061.3871	718449.1709	12.61897227
66	0.033975473	0.966024527	55188.72636	1875.063058	54251.19483	662387.7838	12.00222994
67	0.037293233	0.962706767	53313.6633	1988.238879	52319.54386	608136.589	11.40676801
68	0.040535094	0.959464906	51325.42442	2080.480897	50285.18398	555817.0451	10.82927324
69	0.044634196	0.955365804	49244.94353	2198.008444	48145.9393	505531.8612	10.26566029
70	0.049411145	0.950588855	47046.93508	2324.64295	45884.61361	457385.9219	9.72190688
71	0.054990252	0.945009748	44722.29213	2459.290133	43492.64707	411501.3082	9.201257105
72	0.06035778	0.93964222	42263.002	2550.900957	40987.55152	368008.6612	8.707584501
73	0.064686978	0.935313022	39712.10104	2568.855807	38427.67314	327021.1097	8.234797482
74	0.069784465	0.930215535	37143.24524	2592.021499	35847.23449	288593.4365	7.769742107
75	0.07643705	0.92356295	34551.22374	2640.993627	33230.72692	252746.202	7.315115782
76	0.084109209	0.915890791	31910.23011	2683.944217	30568.258	219515.4751	6.879156758
77	0.092340849	0.907659151	29226.28589	2698.780058	27876.89586	188947.2171	6.464975324
78	0.100660457	0.899339543	26527.50584	2670.270849	25192.37041	161070.3212	6.071823044

79	0.110020753	0.889979247	23857.23499	2624.790962	22544.83951	135877.9508	5.695460975
80	0.12018522	0.87981478	21232.44403	2551.825966	19956.53104	113333.1113	5.337732726
81	0.130956424	0.869043576	18680.61806	2446.346941	17457.44459	93376.58028	4.998580881
82	0.142441811	0.857558189	16234.27112	2312.438973	15078.05163	75919.13569	4.676473316
83	0.155007518	0.844992482	13921.83214	2157.988648	12842.83782	60841.08406	4.37019233
84	0.168550735	0.831449265	11763.8435	1982.804463	10772.44127	47998.24624	4.080150017
85	0.18312618	0.81687382	9781.039034	1791.164318	8885.456875	37225.80497	3.805915184
86	0.19878745	0.80121255	7989.874716	1588.286824	7195.731303	28340.3481	3.547032852
87	0.21558599	0.78441401	6401.587891	1380.092663	5711.541559	21144.6168	3.303026867
88	0.233569877	0.766430123	5021.495228	1172.870023	4435.060216	15433.07524	3.073402351
89	0.2527824	0.7472176	3848.625204	972.8647149	3362.192847	10998.01502	2.857647715
90	0.273260414	0.726739586	2875.760489	785.8315029	2482.844738	7635.822174	2.65523579
91	0.29503248	0.70496752	2089.928987	616.5969328	1781.63052	5152.977436	2.465623219
92	0.318116773	0.681883227	1473.332054	468.691639	1238.986234	3371.346916	2.2882465
93	0.342518788	0.657481212	1004.640415	344.1082175	832.5863059	2132.360681	2.122511348
94	0.368228864	0.631771136	660.5321972	243.2270207	538.9186869	1299.774375	1.967768386
95	0.395219572	0.604780428	417.3051765	164.9271732	334.84159	760.8556885	1.823259646
96	0.423443038	0.576556962	252.3780034	106.8677084	198.9441492	426.0140986	1.688000114
97	0.452828295	0.547171705	145.510295	65.89117885	112.5647056	227.0699494	1.560507794
98	0.483278791	0.516721209	79.61911613	38.4782302	60.38000103	114.5052439	1.43816271
99	0.5146702	0.4853298	41.14088593	21.17398798	30.55389194	54.12524283	1.315607129
100	0.546848742	0.453151258	19.96689794	10.91887301	14.50746144	23.57135089	1.180521429
101	0.579630218	0.420369782	9.048024931	5.244508665	6.425770599	9.063889452	1.001753368
102	0.612800015	0.387199985	3.803516266	2.330794826	2.638118853	2.638118853	0.693599992
103	0.646114324	0.353885676	1.47272144	1.47272144	0	0	0