

Contribution from Dr Jitka Rychtarikova

vik	qx	px	lx	dx	Lx_1	Tx	ex
0	0.140736757	0.859263243	100000	14073.6757	87052.21836	5292207.603	52.92207603
1	0.017680067	0.982319933	85926.3243	1519.183176	85166.73272	5205155.384	60.57695853
2	0.006755456	0.993244544	84407.14113	570.2087258	84122.03676	5119988.652	60.65824032
3	0.004021756	0.995978244	83836.9324	337.1716879	83668.34656	5035866.615	60.06740073
4	0.002330275	0.997669725	83499.76071	194.5773846	83402.47202	4952198.268	59.30793365
5	0.002412739	0.997587261	83305.18333	200.9936989	83204.68648	4868795.796	58.44529238
6	0.002130665	0.997869335	83104.18963	177.0672082	83015.65603	4785591.11	57.5854374
7	0.001926697	0.998073303	82927.12242	159.7754351	82847.2347	4702575.454	56.70732706
8	0.001896611	0.998103389	82767.34699	156.9774786	82688.85825	4619728.219	55.8158306
9	0.00179011	0.99820989	82610.36951	147.8816587	82536.42868	4537039.361	54.92094259
10	0.001691914	0.998308086	82462.48785	139.5194483	82392.72813	4454502.932	54.01853677
11	0.001711315	0.998288685	82322.9684	140.880499	82252.52815	4372110.204	53.109239
12	0.001723244	0.998276756	82182.0879	141.6197522	82111.27803	4289857.676	52.19942429
13	0.001800048	0.998199952	82040.46815	147.6767749	81966.62976	4207746.398	51.28866878
14	0.001963284	0.998036716	81892.79138	160.7788269	81812.40196	4125779.768	50.38025568
15	0.002275567	0.997724433	81732.01255	185.9866898	81639.0192	4043967.366	49.47837744
16	0.002714598	0.997285402	81546.02586	221.3646431	81435.34354	3962328.347	48.59008523
17	0.003212258	0.996787742	81324.66122	261.2358062	81194.04331	3880893.003	47.7209858
18	0.00377123	0.99622877	81063.42541	305.7088579	80910.57098	3799698.96	46.87316062
19	0.004097988	0.995902012	80757.71655	330.9441152	80592.24449	3718788.389	46.04870652
20	0.004377948	0.995622052	80426.77244	352.1042064	80250.72033	3638196.144	45.23613262
21	0.004666695	0.995333305	80074.66823	373.6840266	79887.82622	3557945.424	44.43284628
22	0.004817527	0.995182473	79700.9842	383.9616469	79509.00338	3478057.598	43.63882871
23	0.004932328	0.995067672	79317.02256	391.2176009	79121.41376	3398548.595	42.84765722
24	0.004883862	0.995116138	78925.80496	385.4627479	78733.07358	3319427.181	42.05756511
25	0.004676739	0.995323261	78540.34221	367.3126552	78356.68588	3240694.107	41.26152263
26	0.004586092	0.995413908	78173.02955	358.5082756	77993.77519	3162337.421	40.45304934
27	0.00452962	0.99547038	77814.52083	352.4702085	77638.28572	3084343.646	39.63712188
28	0.004683676	0.995316324	77462.05062	362.8071511	77280.64704	3006705.36	38.81520482
29	0.004875309	0.995124691	77099.24347	375.8826054	76911.30216	2929424.713	37.99550529
30	0.004846696	0.995153304	76723.36086	371.854815	76537.43345	2852513.411	37.17920304
31	0.004748599	0.995251401	76351.50605	362.5627114	76170.22469	2775975.978	36.3578418
32	0.004878715	0.995121285	75988.94334	370.7284112	75803.57913	2699805.753	35.52892874
33	0.004873832	0.995126168	75618.21492	368.5504964	75433.93968	2624002.174	34.70066275
34	0.00521628	0.99478372	75249.66443	392.5232985	75053.40278	2548568.234	33.86816743
35	0.005362902	0.994637098	74857.14113	401.4515322	74656.41536	2473514.831	33.04313782
36	0.005728316	0.994271684	74455.6896	426.5056826	74242.43676	2398858.416	32.2186045
37	0.005959277	0.994040723	74029.18391	441.1604115	73808.60371	2324615.979	31.40134548
38	0.00649835	0.99350165	73588.0235	478.2007455	73348.92313	2250807.376	30.58659913
39	0.006609259	0.993390741	73109.82276	483.2017858	72868.22186	2177458.453	29.78339121
40	0.007101596	0.992898404	72626.62097	515.7649183	72368.73851	2104590.231	28.97822042
41	0.007108278	0.992891722	72110.85605	512.5840178	71854.56404	2032221.492	28.18190774
42	0.007655998	0.992344002	71598.27204	548.1562267	71324.19392	1960366.928	27.38008715
43	0.008228974	0.991771026	71050.11581	584.6695392	70757.78104	1889042.734	26.58746876
44	0.00876204	0.99123796	70465.44627	617.4210336	70156.73575	1818284.953	25.80392305
45	0.009016318	0.990983682	69848.02524	629.772013	69533.13923	1748128.217	25.02759686
46	0.00978222	0.99021778	69218.25322	677.1082148	68879.69912	1678595.078	24.25075757
47	0.010032062	0.989967938	68541.14501	687.6089873	68197.34051	1609715.379	23.48538792
48	0.010671649	0.989328351	67853.53602	724.1091121	67491.48146	1541518.039	22.71831549
49	0.011711279	0.988288721	67129.42691	786.1714474	66736.34119	1474026.557	21.95797916
50	0.012638917	0.987361083	66343.25546	838.5069288	65924.002	1407290.216	21.21225746
51	0.013734847	0.986265153	65504.74853	899.6976855	65054.89969	1341366.214	20.47738895
52	0.014942301	0.985057699	64605.05085	965.3481413	64122.37678	1276311.314	19.75559647
53	0.015908662	0.984091338	63639.70271	1012.422492	63133.49146	1212188.937	19.04768385
54	0.017000384	0.982999616	62627.28021	1064.687815	62094.93631	1149055.446	18.34752271
55	0.018177818	0.981822182	61562.5924	1119.073627	61003.05559	1086960.51	17.65618482
56	0.019833722	0.980166278	60443.51877	1198.819928	59844.10881	1025957.454	16.97382077
57	0.020894862	0.979105138	59244.69884	1237.909788	58625.74395	966113.3453	16.30716949
58	0.022920188	0.977079812	58006.78906	1329.526497	57342.02581	907487.6013	15.64450672
59	0.025089409	0.974910591	56677.26256	1421.999037	55966.26304	850145.5755	14.99976423
60	0.027119237	0.972880763	55255.26352	1498.480605	54506.02322	794179.3125	14.37291693
61	0.028869732	0.971130268	53756.78292	1551.943932	52980.81095	739673.2892	13.75962714
62	0.030851201	0.969148799	52204.83899	1610.581963	51399.54801	686692.4783	13.15380895
63	0.03186375	0.96813625	50594.25702	1612.12274	49788.19565	635292.9303	12.5566214
64	0.035132637	0.964867363	48982.13428	1720.871527	48121.69852	585504.7346	11.95343452
65	0.038154587	0.961845413	47261.26276	1803.233955	46359.64578	537383.0361	11.37047562
66	0.041961602	0.958038398	45458.0288	1907.491702	44504.28295	491023.3903	10.80168681
67	0.044610567	0.955389433	43550.5371	1942.814165	42579.13002	446519.1074	10.25289553
68	0.050056058	0.949943942	41607.72293	2082.718587	40566.36364	403939.9774	9.708293289
69	0.054346673	0.945653327	39525.00435	2148.052504	38450.9781	363373.6137	9.193512302
70	0.060585302	0.939414698	37376.95184	2264.493914	36244.70489	324922.6356	8.69312824
71	0.066772955	0.933227045	35112.45793	2344.562565	33940.17665	288677.9307	8.221524432
72	0.073187349	0.926812651	32767.89537	2398.195388	31568.79767	254737.7541	7.774004136
73	0.078513553	0.921486447	30369.69998	2384.433042	29177.48346	223168.9564	7.348408334
74	0.085976533	0.914023467	27985.26693	2406.076228	26782.22882	193991.473	6.931914332
75	0.093005655	0.906994345	25579.19071	2379.009396	24389.68601	167209.2441	6.536924723
76	0.101247524	0.898752476	23200.18131	2348.960922	22025.70085	142819.5581	6.155967327
77	0.109183807	0.890816193	20851.22039	2276.615621	19712.91258	120793.8573	5.79313129
78	0.11892684	0.88107316	18574.60477	2209.019055	17470.09524	101080.9447	5.441889395

79	0.129171949	0.870828051	16365.58571	2113.974598	15308.59841	83610.84946	5.108943298
80	0.140268274	0.859731726	14251.61112	1999.048896	13252.08667	68302.25104	4.792598569
81	0.151983737	0.848016263	12252.56222	1862.19019	11321.46713	55050.16437	4.49295122
82	0.164560436	0.835439564	10390.37203	1709.84415	9535.449955	43728.69725	4.208578588
83	0.178044477	0.821955523	8680.52788	1545.520044	7907.767858	34193.24729	3.939074647
84	0.192481255	0.807518745	7135.007836	1373.355266	6448.330203	26285.47943	3.684015496
85	0.207914731	0.792085269	5761.652571	1197.932442	5162.68635	19837.14923	3.442961717
86	0.224386563	0.775613437	4563.720128	1024.037472	4051.701393	14674.46288	3.215460735
87	0.24193511	0.75806489	3539.682657	856.3735127	3111.4959	10622.76149	3.001049111
88	0.260594277	0.739405723	2683.309144	699.255005	2333.681641	7511.265588	2.799254646
89	0.2803922	0.7196078	1984.054139	556.3133043	1705.897487	5177.583947	2.609598118
90	0.301349782	0.698650218	1427.740835	430.2493887	1212.61614	3471.68646	2.431594289
91	0.323479066	0.676520934	997.4914459	322.6676009	836.1576455	2259.07032	2.264751571
92	0.346781471	0.653218529	674.823845	234.0164059	557.815642	1422.912674	2.10856905
93	0.37124591	0.62875409	440.8074391	163.6479588	358.9834597	865.0970321	1.962528205
94	0.396846813	0.603153187	277.1594803	109.9898564	222.1645521	506.1135724	1.826073464
95	0.423542127	0.576457873	167.169624	70.80337806	131.7679349	283.9490202	1.698568277
96	0.451271337	0.548728663	96.36624591	43.48732464	74.62258359	152.1810853	1.579194912
97	0.479953606	0.520046394	52.87892127	25.37942893	40.1892068	77.55850167	1.466718681
98	0.509486131	0.490513869	27.49949233	14.01060995	20.49418736	37.36929487	1.358908536
99	0.539742853	0.460257147	13.48888238	7.280527857	9.848618451	16.87510752	1.251038228
100	0.570573651	0.429426349	6.208354522	3.542323509	4.437192768	7.026489065	1.131779611
101	0.601804197	0.398195803	2.666031014	1.604428654	1.863816687	2.589296297	0.97121762
102	0.633236627	0.366763373	1.061602359	0.672245498	0.725479611	0.725479611	0.683381686
103	0.66465121	0.33534879	0.389356862	0.389356862	0	0	0

vik	qx	px	lx	dx	Lx_1	Tx	ex
0	0.116570211	0.883429789	100000	11657.02108	89275.5406	5604632.12	56.0463212
1	0.015957157	0.984042843	88342.97892	1409.702772	87638.12753	5515356.579	62.43118182
2	0.005935448	0.994064552	86933.27615	515.9879099	86675.28219	5427718.452	62.43545271
3	0.003819281	0.996180719	86417.28824	330.051889	86252.26229	5341043.17	61.80526234
4	0.002192809	0.997807191	86087.23635	188.7728396	85992.84993	5254790.907	61.04030203
5	0.002351764	0.997648236	85898.46351	202.0129204	85797.45705	5168798.058	60.17334707
6	0.002034952	0.997965048	85696.45059	174.3881414	85609.25652	5083000.6	59.31401552
7	0.001767457	0.998232543	85522.06245	151.1565931	85446.48415	4997391.344	58.43394325
8	0.001721554	0.998278446	85370.90585	146.9705949	85297.42056	4911944.86	57.53652033
9	0.001620499	0.998379501	85223.93526	138.1053363	85154.88259	4826647.439	56.63488109
10	0.001522067	0.998477933	85085.82992	129.5063206	85021.07676	4741492.557	55.72599528
11	0.001666081	0.998333919	84956.3236	141.5440949	84885.55155	4656471.48	54.81018107
12	0.001719643	0.998280357	84814.77951	145.8511305	84741.85394	4571585.928	53.90081723
13	0.001847321	0.998152679	84668.92838	156.4107314	84590.72301	4486844.074	52.99280575
14	0.002055513	0.997944487	84512.51764	173.716554	84425.65937	4402253.351	52.08995631
15	0.002395849	0.997604151	84338.80109	202.0630502	84237.76956	4317827.692	51.19621854
16	0.002655001	0.997344999	84136.73804	223.3831059	84025.04649	4233589.922	50.31797074
17	0.003088297	0.996911703	83913.35493	259.1493679	83783.78025	4149564.876	49.45058959
18	0.00333502	0.99666498	83654.20557	278.9884306	83514.71135	4065781.096	48.60223187
19	0.003498689	0.996501311	83375.21714	291.7039555	83229.36516	3982266.384	47.76319056
20	0.003659522	0.996340478	83083.51318	304.0459819	82931.49019	3899037.019	46.92913034
21	0.003934036	0.996065964	82779.4672	325.6574379	82616.63848	3816105.529	46.09966285
22	0.00418008	0.99581992	82453.80976	344.6635205	82281.478	3733488.891	45.2797621
23	0.004529461	0.995470539	82109.14624	371.9101837	81923.19115	3651207.413	44.46773082
24	0.004623557	0.995376443	81737.23606	377.9168029	81548.27765	3569284.221	43.66778709
25	0.004598773	0.995401227	81359.31925	374.1530396	81172.24273	3487735.944	42.86830293
26	0.004653816	0.995346184	80985.16621	376.8900421	80796.72119	3406563.701	42.06404531
27	0.004758019	0.995241981	80608.27617	383.5356728	80416.50833	3325766.98	41.25838112
28	0.004804984	0.995195016	80224.7405	385.4785726	80032.00121	3245350.472	40.45323738
29	0.005031704	0.994968296	79839.26193	401.7274988	79638.39818	3165318.47	39.64613893
30	0.005054872	0.994945128	79437.53443	401.5465379	79236.76116	3085680.072	38.84410681
31	0.005094831	0.994905169	79035.98789	402.6750125	78834.65038	3006443.311	38.03891608
32	0.005218376	0.994781624	78633.31288	410.3381578	78428.1438	2927608.661	37.23114992
33	0.005253946	0.994746054	78222.97472	410.9793225	78017.48506	2849180.517	36.42383235
34	0.005270301	0.994729699	77811.9954	410.0926065	77606.94909	2771163.032	35.61357112
35	0.005299171	0.994700829	77401.90279	410.1659268	77196.81983	2693556.083	34.79961068
36	0.005369221	0.994630779	76991.73686	413.3856671	76785.04403	2616359.263	33.98233849
37	0.005503083	0.994496917	76578.3512	421.4170345	76367.64268	2539574.219	33.16308303
38	0.005872261	0.994127739	76156.93416	447.2133946	75933.32746	2463206.576	32.34382533
39	0.006129745	0.993870255	75709.72077	464.0812933	75477.68012	2387273.249	31.53192515
40	0.006473353	0.993526647	75245.63947	487.0915779	75002.09368	2311795.569	30.72331612
41	0.006451077	0.993548923	74758.5479	482.2731443	74517.41132	2236793.475	29.92023705
42	0.00662029	0.99337971	74276.27475	491.7304898	74030.40951	2162276.063	29.11126158
43	0.00667829	0.99332171	73784.54426	492.7546159	73538.16695	2088245.654	28.30193877
44	0.006983887	0.993016113	73291.78965	511.8615819	73035.85885	2014707.487	27.48885648
45	0.007253539	0.992746461	72779.92806	527.9120309	72515.97205	1941671.628	26.67866924
46	0.007685816	0.992314184	72252.01603	555.3157285	71974.35817	1869155.656	25.86994466
47	0.007946567	0.992053433	71696.7003	569.7426327	71411.82899	1797181.298	25.06644365
48	0.0085281	0.9914719	71126.95767	606.5777855	70823.66878	1725769.469	24.26322629
49	0.009141694	0.990858306	70520.37989	644.6757499	70198.04201	1654945.8	23.46762458
50	0.009896436	0.990103564	69875.70414	691.5204327	69529.94392	1584747.758	22.6795247
51	0.010947349	0.989052651	69184.1837	757.3833838	68805.49201	1515217.814	21.90121691
52	0.011609268	0.988390732	68426.80032	794.3850649	68029.60779	1446412.322	21.1380967
53	0.012286393	0.987713607	67632.41525	830.9584591	67216.93603	1378382.714	20.38050407
54	0.013212834	0.986787166	66801.4568	882.6365449	66360.13852	1311165.778	19.62780217
55	0.013995142	0.986004858	65918.82025	922.5432464	65457.54863	1244805.64	18.88391866
56	0.014956825	0.985043175	64996.277	972.1379199	64510.20804	1179348.091	18.14485607
57	0.016217175	0.983782825	64024.13908	1038.290659	63504.99375	1114837.883	17.41277429
58	0.017543598	0.982456402	62985.84843	1104.99838	62433.34924	1051332.889	16.69157304
59	0.019242935	0.980757065	61880.85005	1190.769185	61285.46545	988899.5403	15.98070388
60	0.020979514	0.979020486	60690.08086	1273.248402	60053.45666	927614.0748	15.28444289
61	0.022579292	0.977420708	59416.83246	1341.590016	58746.03745	867560.6181	14.60125998
62	0.024921166	0.975078834	58075.24244	1447.302753	57351.59107	808814.5807	13.92701169
63	0.026946806	0.973053194	56627.93969	1525.942104	55864.96864	751462.9896	13.27018065
64	0.030447018	0.969552982	55101.99759	1677.691538	54263.15182	695598.021	12.62382584
65	0.034117617	0.965882383	53424.30605	1822.710011	52512.95104	641334.8692	12.00455217
66	0.037146905	0.962853095	51601.59604	1916.839575	50643.17625	588821.9181	11.41092453
67	0.039274002	0.960725998	49684.75646	1951.319239	48709.09684	538178.7419	10.83186837
68	0.04384298	0.95615702	47733.43722	2092.776112	46687.04917	489469.645	10.25423002
69	0.046711964	0.953288036	45640.66111	2131.96491	44574.67866	442782.5959	9.701493911
70	0.053372984	0.946627016	43508.6962	2322.188941	42347.60173	398207.9172	9.152375318
71	0.060215677	0.939784323	41186.50726	2480.073424	39946.47055	355860.3155	8.640215914
72	0.06676615	0.93323385	38706.43384	2584.279576	37414.29405	315913.8449	8.161791558
73	0.07255302	0.92744698	36122.15426	2620.771372	34811.76857	278499.5509	7.709937477
74	0.079331564	0.920668436	33501.38289	2657.717088	32172.52434	243687.7823	7.273961888
75	0.085817988	0.914182012	30843.6658	2646.941342	29520.19513	211515.258	6.857656264
76	0.094616697	0.905383303	28196.72446	2667.880934	26862.78399	181995.0628	6.454475345
77	0.102202597	0.897797403	25528.84353	2609.114107	24224.28647	155132.2788	6.076745259
78	0.110564976	0.889435024	22919.72942	2534.119334	21652.66975	130907.9924	5.71158542

79	0.120547577	0.879452423	20385.61008	2457.43591	19156.89213	109255.3226	5.35943355
80	0.131313179	0.868686821	17928.17417	2354.205536	16751.07141	90098.4305	5.02552182
81	0.142539077	0.857460923	15573.96864	2219.899108	14464.01908	73347.35909	4.709612611
82	0.153779491	0.846220509	13354.06953	2053.582021	12327.27852	58883.34001	4.409392948
83	0.168039963	0.831960037	11300.48751	1898.933498	10351.02076	46556.06149	4.119827703
84	0.181954969	0.818045031	9401.55401	1710.659472	8546.224274	36205.04073	3.850963436
85	0.197039804	0.802960196	7690.894538	1515.412355	6933.18836	27658.81646	3.596306817
86	0.213164972	0.786835028	6175.482183	1316.396484	5517.283941	20725.6281	3.356114953
87	0.230372095	0.769627905	4859.085699	1119.397752	4299.386823	15208.34416	3.129877738
88	0.2486988	0.7513012	3739.687946	930.0559046	3274.659994	10908.95733	2.917076903
89	0.268177417	0.731822583	2809.632042	753.4798634	2432.89211	7634.297338	2.717187598
90	0.288833516	0.711166484	2056.152178	593.8856637	1759.209347	5201.405228	2.529679118
91	0.310684276	0.689315724	1462.266515	454.3032136	1235.114908	3442.195882	2.354014023
92	0.33373669	0.66626331	1007.963301	336.3943362	839.7661331	2207.080974	2.189644178
93	0.357985637	0.642014363	671.568965	240.412044	551.362943	1367.314841	2.036000637
94	0.383411837	0.616588163	431.156921	165.3106672	348.5015874	815.9518976	1.892470834
95	0.409979745	0.590020255	265.8462538	108.9915792	211.3504642	467.4503102	1.758348307
96	0.43763544	0.56236456	156.8546746	68.6451645	122.5320923	256.0998461	1.632720521
97	0.466304598	0.533695402	88.20951008	41.13250015	67.64326	133.5677537	1.514210357
98	0.495890643	0.504109357	47.07700993	23.34504874	35.40448556	65.92449373	1.400354309
99	0.526273211	0.473726789	23.73196119	12.48949542	17.48721348	30.52000817	1.286029752
100	0.55730707	0.44269293	11.24246577	6.265505661	8.109712943	13.03279468	1.159246997
101	0.588821669	0.411178331	4.976960113	2.930541962	3.511689132	4.923081742	0.989174442
102	0.62062149	0.37937851	2.046418151	1.270051081	1.41139261	1.41139261	0.689689255
103	0.652487385	0.347512615	0.77636707	0.77636707	0	0	0