

Contribution from Dr Jitka Rychtarikova

vik	qx	px	lx	dx	Lx_1	Tx	ex
0	0.110446166	0.889553834	100000	11044.61656	89838.95277	5590949.153	55.90949153
1	0.010996016	0.989003984	88955.38344	978.1548035	88466.30604	5501110.2	61.84122857
2	0.005730364	0.994269636	87977.22864	504.141528	87725.15788	5412643.894	61.52323707
3	0.004448615	0.995551385	87473.08711	389.1340495	87278.52009	5324918.736	60.87493779
4	0.00343223	0.99656777	87083.95306	298.892149	86934.50699	5237640.216	60.14472279
5	0.003391077	0.996608923	86785.06091	294.2948646	86637.91348	5150705.709	59.35014224
6	0.003144488	0.996855512	86490.76605	271.9691461	86354.78148	5064067.796	58.55038667
7	0.002883681	0.997116319	86218.7969	248.6274956	86094.48315	4977713.014	57.7335012
8	0.002580283	0.997419717	85970.16941	221.8273675	85859.25572	4891618.531	56.89902166
9	0.002333304	0.997666696	85748.34204	200.0769337	85648.30357	4805759.275	56.04492356
10	0.00212493	0.99787507	85548.26511	181.7840371	85457.37309	4720110.972	55.17482986
11	0.001995475	0.998004525	85366.48107	170.3467172	85281.30771	4634653.599	54.29125742
12	0.001761555	0.998238445	85196.13435	150.0777089	85121.0955	4549372.291	53.39881117
13	0.001764393	0.998235607	85046.05664	150.0547033	84971.02929	4464251.195	52.4921598
14	0.001708214	0.998291786	84896.00194	145.0205713	84823.49165	4379280.166	51.58405656
15	0.002030835	0.997969165	84750.98137	172.1152554	84664.92374	4294456.674	50.6714684
16	0.002520318	0.997479682	84578.86611	213.1656593	84472.28328	4209791.751	49.77356572
17	0.002937477	0.997062523	84365.70045	247.8222845	84241.78931	4125319.467	48.89806456
18	0.003229951	0.996770049	84117.87817	271.6966573	83982.02984	4041077.678	48.0406516
19	0.003584536	0.996415464	83846.18151	300.5496474	83695.90669	3957095.648	47.19470317
20	0.003613744	0.996386256	83545.63186	301.9125142	83394.67561	3873399.742	46.36268414
21	0.003648899	0.996351101	83243.71935	303.7479006	83091.8454	3790005.066	45.52902124
22	0.003748353	0.996251647	82939.97145	310.8883045	82784.5273	3706913.221	44.69392931
23	0.003647526	0.996352474	82629.08314	301.3917148	82478.38729	3624128.693	43.86020703
24	0.003538073	0.996461927	82327.69143	291.2814055	82182.05073	3541650.306	43.0189435
25	0.003457097	0.996542903	82036.41002	283.6078367	81894.60611	3459468.255	42.16991278
26	0.0034171	0.9965829	81752.80219	279.3574832	81613.12345	3377573.649	41.31446946
27	0.003390745	0.996609255	81473.4447	276.2557025	81335.31685	3295960.526	40.45441478
28	0.00348346	0.99651654	81197.189	282.847137	81055.76543	3214625.209	39.59035095
29	0.003582304	0.996417696	80914.34186	289.8597618	80769.41198	3133569.443	38.72699661
30	0.003607268	0.996392732	80624.4821	290.8341379	80479.06503	3052800.031	37.86442966
31	0.003698705	0.996301295	80333.64797	297.1304383	80185.08275	2972320.966	36.99970114
32	0.003926831	0.996073169	80036.51753	314.2899162	79879.37257	2892135.884	36.13520394
33	0.004144854	0.995855146	79722.22761	330.4370293	79557.0091	2812256.511	35.27568904
34	0.004432947	0.995567053	79391.79058	351.9395851	79215.82079	2732699.502	34.42042914
35	0.004933789	0.995066211	79039.851	389.9659815	78844.86801	2653483.681	33.57146614
36	0.005204405	0.994795595	78649.88501	409.3258454	78445.22209	2574638.813	32.73544281
37	0.005692729	0.994307271	78240.55917	445.402299	78017.85802	2496193.591	31.9040868
38	0.006038557	0.993961443	77795.15687	469.7704961	77560.27162	2418175.733	31.0838853
39	0.006298806	0.993701194	77325.38637	487.0576237	77081.85756	2340615.461	30.26968983
40	0.00646342	0.99353658	76838.32875	496.6383639	76590.00957	2263533.604	29.45839193
41	0.006944757	0.993055243	76341.69039	530.1744713	76076.60315	2186943.594	28.6467798
42	0.007140812	0.992859188	75811.51592	541.3557699	75540.83803	2110866.991	27.84361935
43	0.007530401	0.992469599	75270.16015	566.8144743	74986.75291	2035326.153	27.0402793
44	0.007857018	0.992142982	74703.34567	586.9455511	74409.8729	1960339.4	26.24165468
45	0.008542046	0.991457954	74116.40012	633.1057293	73799.84726	1885929.527	25.44550901
46	0.009220689	0.990779311	73483.29439	677.5666198	73144.51108	1812129.68	24.66043058
47	0.010125103	0.989874897	72805.72777	737.1654906	72437.14503	1738985.169	23.88527967
48	0.010778212	0.989221788	72068.56228	776.770261	71680.17715	1666548.024	23.12447996
49	0.011415111	0.988584889	71291.79202	813.8037548	70884.89014	1594867.847	22.37098832
50	0.011811021	0.988188979	70477.98826	832.4169642	70061.77978	1523982.957	21.6235309
51	0.012662538	0.987337462	69645.5713	881.8897275	69204.62644	1453921.177	20.87600331
52	0.013503184	0.986496816	68763.68157	928.5286216	68299.41726	1384716.551	20.13732422
53	0.014839733	0.985160267	67835.15295	1006.655552	67331.82518	1316417.133	19.40612022
54	0.016279747	0.983720253	66828.4974	1087.951034	66284.52188	1249085.308	18.69090817
55	0.017330005	0.982669995	65740.54636	1139.284027	65170.90435	1182800.786	17.99195248
56	0.018156037	0.981843963	64601.26234	1172.902891	64014.81089	1117629.882	17.3004341
57	0.019372385	0.980627615	63428.35945	1228.758575	62813.98016	1053615.071	16.61110393
58	0.021076799	0.978923201	62199.60087	1310.968511	61544.11662	990801.0908	15.9293802
59	0.023140383	0.976859617	60888.63236	1408.986256	60184.13923	929256.9742	15.26158395
60	0.025414677	0.974585323	59479.6461	1511.656021	58723.81809	869072.8349	14.61126439
61	0.027158977	0.972841023	57967.99008	1574.3513	57180.81443	810349.0168	13.97924985
62	0.028870937	0.971129063	56393.63878	1628.137203	55579.57018	753168.2024	13.35555248
63	0.030440717	0.969559283	54765.50158	1667.101149	53931.95101	697588.6322	12.7377384
64	0.033171545	0.966828455	53098.40043	1761.355966	52217.72245	643656.6812	12.12195991
65	0.037105649	0.962894351	51337.04447	1904.894341	50384.5973	591438.9588	11.52070527
66	0.040544903	0.959455097	49432.15013	2004.221721	48430.03926	541054.3615	10.94539404
67	0.044455997	0.955544003	47427.9284	2108.45582	46373.70049	492624.3222	10.38679822
68	0.04819811	0.95180189	45319.47258	2184.312903	44227.31613	446250.6217	9.846774384
69	0.051423798	0.948576202	43135.15968	2218.173756	42026.0728	402023.3056	9.320083861
70	0.056750135	0.943249865	40916.98592	2322.04448	39755.96368	359997.2328	8.798234392
71	0.063107481	0.936892519	38594.94145	2435.629534	37377.12668	320241.2691	8.297493327
72	0.068203868	0.931796132	36159.31191	2466.204953	34926.20943	282864.1424	7.822719169
73	0.075238246	0.924761754	33693.10696	2535.010282	32425.60182	247937.933	7.358713855
74	0.082431242	0.917568758	31158.09668	2568.400607	29873.89637	215512.3312	6.916736071
75	0.090315041	0.909684959	28589.69607	2582.079572	27298.65628	185638.4348	6.493193714
76	0.098253953	0.900746047	26007.6165	2581.358753	24716.93712	158339.7785	6.088207988
77	0.108491691	0.891508309	23426.25774	2541.554311	22155.48059	133622.8414	5.703977257
78	0.117263187	0.882736813	20884.70343	2449.006891	19660.19999	111467.3608	5.337272859

79	0.128746571	0.871253429	18435.69654	2373.532717	17248.93018	91807.16082	4.979858538
80	0.141107037	0.858892963	16062.16382	2266.484352	14928.92165	74558.23063	4.6418547
81	0.154305926	0.845694074	13795.67947	2128.755101	12731.30192	59629.30899	4.322317658
82	0.168658967	0.831341033	11666.92437	1967.73141	10683.05867	46898.00707	4.019740385
83	0.184240315	0.815759685	9699.192961	1786.98237	8805.701776	36214.9484	3.733810488
84	0.201123031	0.798876969	7912.210591	1591.327777	7116.546702	27409.24662	3.464170513
85	0.21937749	0.78062251	6320.882814	1386.659406	5627.553111	20292.69992	3.210421791
86	0.239069459	0.760930541	4934.223408	1179.622122	4344.412347	14665.14681	2.972128661
87	0.260257798	0.739742202	3754.601286	977.1642644	3266.019154	10320.73446	2.748823025
88	0.282991762	0.717008238	2777.437022	785.9917972	2384.441123	7054.71531	2.5400091
89	0.307307894	0.692692106	1991.445225	611.9868372	1685.451806	4670.274186	2.345168287
90	0.333226511	0.666773489	1379.458387	459.6721055	1149.622335	2984.82238	2.163763987
91	0.360747823	0.639252177	919.7862819	331.8108992	753.8808323	1835.200046	1.995246159
92	0.389847737	0.610152263	587.9753827	229.2208725	473.3649465	1081.319213	1.839055248
93	0.420473467	0.579526533	358.7545102	150.8467529	283.3311338	607.954267	1.694624736
94	0.452539115	0.547460885	207.9077573	94.08639245	160.8645611	324.6231332	1.561380573
95	0.48592144	0.51407856	113.8213649	55.30824147	86.16724415	163.7585721	1.438733161
96	0.52045613	0.47954387	58.51312341	30.45351376	43.28636653	77.59132795	1.326050011
97	0.555934937	0.444065063	28.05960965	15.59931733	20.25995098	34.30496142	1.222574435
98	0.592104119	0.407895881	12.46029232	7.377790407	8.771397118	14.04501044	1.127181456
99	0.628664688	0.371335312	5.082501914	3.195189481	3.484907174	5.273613322	1.037601837
100	0.665274984	0.334725016	1.887312433	1.255581748	1.259521559	1.788706148	0.947753067
101	0.701556062	0.298443938	0.631730685	0.443194492	0.410133439	0.529184589	0.837674346
102	0.737100317	0.262899683	0.188536193	0.138970088	0.119051149	0.119051149	0.631449841
103	0.771483554	0.228516446	0.049566105	0.049566105	0	0	0

vik	qx	px	lx	dx	Lx_1	Tx	ex
0	0.088671114	0.911328886	100000	8867.111372	91842.25754	5986059.13	59.8605913
1	0.0096143	0.9903857	91132.88863	876.1789185	90694.79917	5894216.872	64.67716497
2	0.004740881	0.995259119	90256.70971	427.8963452	90042.76154	5803522.073	64.30017327
3	0.004076714	0.995923286	89828.81336	366.2063896	89645.71017	5713479.312	63.60408312
4	0.003126395	0.996873605	89462.60698	279.6954628	89322.75924	5623833.602	62.86239348
5	0.00317032	0.99682968	89182.91151	282.7383829	89041.54232	5534510.842	62.05797443
6	0.002937099	0.997062901	88900.17313	261.1086128	88769.61882	5445469.3	61.2537536
7	0.002761915	0.997238085	88639.06452	244.8135197	88516.65776	5356699.681	60.43271903
8	0.002486797	0.997513203	88394.251	219.8185568	88284.34172	5268183.023	59.59870652
9	0.002282787	0.997717213	88174.43244	201.2834449	88073.79072	5179898.682	58.74603939
10	0.001967936	0.998032064	87973.149	173.1254967	87886.58625	5091824.891	57.87930691
11	0.001797181	0.998202819	87800.0235	157.7925018	87721.12725	5003938.305	56.99244835
12	0.001659363	0.998340637	87642.231	145.4302355	87569.51588	4916217.177	56.09415828
13	0.00167431	0.99832569	87496.80076	146.4967321	87423.5524	4828647.662	55.18656248
14	0.001765506	0.998234494	87350.30403	154.2174727	87273.19529	4741224.109	54.27827827
15	0.001919311	0.998080689	87196.08656	167.3563864	87112.40836	4653950.914	53.37339206
16	0.00212748	0.99787252	87028.73017	185.1518631	86936.15424	4566838.506	52.47506768
17	0.002283536	0.997716464	86843.57831	198.3104603	86744.42308	4479902.351	51.58587933
18	0.002562647	0.997437353	86645.26785	222.0412372	86534.24723	4393157.928	50.70280279
19	0.002818054	0.997181946	86423.22661	243.5453238	86301.45395	4306623.681	49.83178539
20	0.003025072	0.996974928	86179.68129	260.699762	86049.3314	4220322.227	48.9711979
21	0.003231424	0.996768576	85918.98152	277.6406314	85780.16121	4134272.896	48.11827168
22	0.003348104	0.996651896	85641.34089	286.3761493	85497.97282	4048492.734	47.27264534
23	0.003298164	0.996701836	85354.60474	281.5134486	85213.84802	3962994.762	46.42977111
24	0.003421899	0.996578101	85073.09129	291.1115443	84927.53552	3877780.914	45.58175628
25	0.00340884	0.99659116	84781.97975	289.0082026	84637.47565	3792853.378	44.7365512
26	0.003401184	0.996598816	84492.97155	287.3761034	84349.2835	3708215.902	43.88786232
27	0.003405877	0.996594123	84205.59544	286.7938625	84062.19851	3623866.619	43.03593603
28	0.003383397	0.996616603	83918.80158	283.9305925	83776.83629	3539804.42	42.18130328
29	0.003397567	0.996602433	83634.87099	284.1551002	83492.79344	3456027.584	41.32280642
30	0.003462096	0.996537904	83350.71589	288.568139	83206.43182	3372534.791	40.4619775
31	0.003547127	0.996452873	83062.14775	294.6319677	82914.83177	3289328.359	39.60081033
32	0.003680027	0.996319973	82767.51578	304.5866787	82615.22244	3206413.527	38.73999959
33	0.003776436	0.996223564	82462.9291	311.4159657	82307.22112	3123798.305	37.8124359
34	0.003814686	0.996185314	82151.51314	313.3822224	81994.82203	3041491.084	37.02294659
35	0.003879153	0.996120847	81838.13092	317.4626634	81679.39958	2959496.262	36.16280368
36	0.003935203	0.996064797	81520.66825	320.800379	81360.26806	2877816.862	35.3016839
37	0.004078276	0.995921724	81199.86787	331.1554616	81034.29014	2796456.594	34.43917665
38	0.004189105	0.995810895	80868.71241	338.7675446	80699.32864	2715422.304	33.57815678
39	0.004374019	0.995625981	80529.94487	352.2395327	80353.8251	2634722.975	32.71730757
40	0.004559638	0.995440362	80177.70533	365.58129	79994.91469	2554369.15	31.85884579
41	0.004753236	0.995246764	79812.12404	379.3658875	79622.4411	2474374.235	31.00248571
42	0.005033924	0.994966076	79432.75816	399.8584864	79232.82891	2394751.794	30.14816368
43	0.005349033	0.994650967	79032.89967	422.7495751	78821.52488	2315518.965	29.29816538
44	0.005480497	0.994519503	78610.1501	430.8227096	78394.73874	2236697.44	28.45303612
45	0.00582189	0.99417811	78179.32739	455.1514213	77951.75167	2158302.702	27.60707688
46	0.006289676	0.993710324	77724.17596	488.8599206	77479.746	2080350.95	26.76581545
47	0.006715894	0.993284106	77235.31604	518.7041862	76975.96395	2002871.204	25.93206459
48	0.007415503	0.992584497	76716.61186	568.8922514	76432.16573	1925895.24	25.10401846
49	0.008016861	0.991983139	76147.71961	610.4657087	75842.48675	1849463.074	24.2878327
50	0.008472586	0.991527414	75537.2539	639.9958446	75217.25598	1773620.588	23.48007766
51	0.009126159	0.990873841	74897.25805	683.5242934	74555.49591	1698403.332	22.67644205
52	0.009774225	0.990225775	74213.73376	725.3817044	73851.04291	1623847.836	21.8806918
53	0.010497415	0.989502585	73488.35206	771.4377191	73102.6332	1549996.793	21.09173426
54	0.011465214	0.988534786	72716.91434	833.7149984	72300.05684	1476894.16	20.31018743
55	0.012100222	0.987899778	71883.19934	869.8026468	71448.29801	1404594.103	19.53994975
56	0.012905105	0.987094895	71013.39669	916.4353668	70555.17901	1333145.805	18.77315925
57	0.014054679	0.985945321	70096.96132	985.1903198	69604.36616	1262590.626	18.01205932
58	0.015201546	0.984798454	69111.771	1050.605794	68586.46811	1192986.26	17.26169424
59	0.016798493	0.983201507	68061.16521	1143.324993	67489.50271	1124399.791	16.52043111
60	0.018164858	0.981835142	66917.84022	1215.553044	66310.0637	1056910.289	15.79414825
61	0.02034829	0.97965171	65702.28717	1336.929199	65033.82257	990600.225	15.07710413
62	0.022150817	0.977849183	64365.35797	1425.745251	63652.48535	925566.4024	14.37988433
63	0.024923473	0.975076527	62939.61272	1568.673755	62155.27585	861913.9171	13.69429966
64	0.027046787	0.972953213	61370.93897	1659.886704	60540.99562	799758.6413	13.03155296
65	0.030234806	0.969765194	59711.05226	1805.352074	58808.37623	739217.6456	12.37991323
66	0.033203622	0.966796378	57905.70019	1922.679006	56944.36069	680409.2694	11.75029863
67	0.036947679	0.963052321	55983.02118	2068.442724	54948.79982	623464.9087	11.13667851
68	0.040335363	0.959664637	53914.57846	2174.664078	52827.24642	568516.1089	10.54475663
69	0.04465582	0.95534418	51739.91438	2310.488289	50584.67024	515688.8625	9.966944643
70	0.049612676	0.950387324	49429.42609	2452.3261	48203.26304	465104.1922	9.409459688
71	0.054983171	0.945016829	46977.09999	2582.949927	45685.62503	416900.9292	8.874556523
72	0.060453248	0.939546752	44394.15007	2683.770546	43052.26479	371215.3042	8.361806761
73	0.066319278	0.933680722	41710.37952	2766.202251	40327.2784	328163.0394	7.867658917
74	0.072707438	0.927292562	38944.17727	2831.531365	37528.41159	287835.761	7.390983227
75	0.081961748	0.918038252	36112.6459	2959.855577	34632.71812	250307.3494	6.931293543
76	0.091704896	0.908295104	33152.79033	3040.273196	31632.65373	215674.6313	6.505474476
77	0.099202596	0.900797404	30112.51713	2987.239884	28618.89719	184041.9775	6.111809808
78	0.105835878	0.894164122	27125.27725	2870.827543	25689.86348	155423.0804	5.729824582

79	0.116516746	0.883483254	24254.4497	2826.049548	22841.42493	129733.2169	5.348841902
80	0.126667371	0.873332629	21428.40016	2714.279103	20071.2606	106891.7919	4.988323494
81	0.141835584	0.858164416	18714.12105	2654.328297	17386.9569	86820.53134	4.639305853
82	0.15483339	0.84516661	16059.79276	2486.592158	14816.49668	69433.57444	4.323441497
83	0.168313489	0.831686511	13573.2006	2284.552755	12430.92422	54617.07776	4.023890855
84	0.181585688	0.818414312	11288.64784	2049.85688	10263.7194	42186.15354	3.737042215
85	0.20158736	0.79841264	9238.790964	1862.42348	8307.579224	31922.43414	3.455261004
86	0.22076632	0.77923368	7376.367484	1628.453505	6562.140731	23614.85491	3.201420613
87	0.239809161	0.760190839	5747.913979	1378.402427	5058.712765	17052.71418	2.966765725
88	0.260980491	0.739019509	4369.511551	1140.35727	3799.332916	11994.00142	2.744929559
89	0.28363768	0.71636232	3229.154281	915.9098277	2771.199367	8194.668501	2.537713527
90	0.307811416	0.692188584	2313.244453	712.0430506	1957.222928	5423.469134	2.344529185
91	0.333516929	0.666483071	1601.201403	534.0277748	1334.187515	3466.246206	2.164778397
92	0.360750498	0.639249502	1067.173628	384.9834177	874.6819192	2132.05869	1.997855489
93	0.38948571	0.61051429	682.1902103	265.7033386	549.3385411	1257.376771	1.843146899
94	0.419669574	0.580330426	416.4868718	174.7868682	329.0934377	708.0382299	1.700025326
95	0.451218628	0.548781372	241.7000036	109.059544	187.1702316	378.9447923	1.56783114
96	0.48401524	0.51598476	132.6404596	64.20000395	100.5404577	191.7745607	1.445822498
97	0.51790437	0.48209563	68.44045568	35.4456111	50.71765013	91.23410301	1.333043477
98	0.552691088	0.447308912	32.99484458	18.23595655	23.87686631	40.51645288	1.227963138
99	0.588139243	0.411860757	14.75888803	8.680281229	10.41874742	16.63958657	1.1274282
100	0.623971685	0.376028315	6.078606803	3.792878527	4.18216754	6.220839157	1.023398841
101	0.659872481	0.340127519	2.285728276	1.508289188	1.531583682	2.038671617	0.891913373
102	0.695491539	0.304508461	0.777439089	0.540702308	0.507087935	0.507087935	0.652254231
103	0.730451988	0.269548012	0.236736781	0.236736781	0	0	0