

Contribution from Dr Jitka Rychtarikova

vik	qx	px	lx	dx	Lx_1	Tx	ex
0	0.037080725	0.962919275	100000	3708.072514	96588.57329	6538175.097	65.38175097
1	0.003703576	0.996296424	96291.92749	356.6244248	96113.61527	6441586.524	66.8964335
2	0.001963056	0.998036944	95935.30306	188.3263907	95841.13987	6345472.909	66.14325182
3	0.001493903	0.998506097	95746.97667	143.0367301	95675.45831	6249631.769	65.27236667
4	0.001005465	0.998994535	95603.93994	96.12643386	95555.87672	6153956.311	64.3692751
5	0.00089864	0.99910136	95507.81351	85.82715531	95464.89993	6058400.434	63.43355807
6	0.000750902	0.999249098	95421.98635	71.6526048	95386.16005	5962935.534	62.49016356
7	0.000670174	0.999329826	95350.33375	63.90133578	95318.38308	5867549.374	61.5367471
8	0.000606321	0.999393679	95286.43241	57.77414614	95257.54534	5772230.991	60.57767979
9	0.000605757	0.999394243	95228.65826	57.68539789	95199.81557	5676973.446	59.61412824
10	0.000671121	0.999328879	95170.97287	63.87122395	95139.03725	5581773.63	58.64995872
11	0.000687924	0.999312076	95107.10164	65.42643006	95074.38843	5486634.593	57.68901058
12	0.000699244	0.999300756	95041.67521	66.45727654	95008.44657	5391560.204	56.72837934
13	0.000800715	0.999199285	94975.21794	76.04804506	94937.19391	5296551.758	55.76772418
14	0.000841666	0.999158334	94899.16989	79.87336051	94859.23321	5201614.564	54.81201332
15	0.001016286	0.998983714	94819.29653	96.36353304	94771.11476	5106755.331	53.85776437
16	0.001231839	0.998768161	94722.933	116.6833714	94664.59131	5011984.216	52.91204629
17	0.001337578	0.998662422	94606.24963	126.5432487	94542.978	4917319.625	51.97668911
18	0.001505219	0.998494781	94479.70638	142.2126221	94408.60007	4822776.647	51.04563542
19	0.001659326	0.998340674	94337.49376	156.5366271	94259.22544	4728368.046	50.12182325
20	0.00173859	0.99826141	94180.95713	163.7420402	94099.08611	4634108.821	49.20430799
21	0.001819014	0.998180986	94017.21509	171.018605	93931.70579	4540009.735	48.28913227
22	0.001960486	0.998039514	93846.19648	183.9841518	93754.20441	4446078.029	47.37621977
23	0.001905731	0.998094269	93662.21233	178.4949569	93572.96485	4352323.825	46.46830046
24	0.001915421	0.998084579	93483.71737	179.0606493	93394.18705	4258750.86	45.55607093
25	0.001811395	0.998188605	93304.65673	169.0115837	93220.15093	4165356.673	44.64253789
26	0.001753766	0.998246234	93135.64514	163.3381268	93053.97608	4072136.522	43.72264256
27	0.001794585	0.998205415	92972.30701	166.8466769	92888.88368	3979082.546	42.79857813
28	0.001877682	0.998122318	92805.46034	174.2591469	92718.33076	3886193.662	41.87462298
29	0.001887853	0.998112147	92631.20119	174.8741242	92543.76413	3793475.331	40.95245751
30	0.001906046	0.998093954	92456.32707	176.2260283	92368.21405	3700931.567	40.02897027
31	0.002064182	0.997935818	92280.10104	190.4829566	92184.85956	3608563.353	39.10445819
32	0.002095629	0.997904371	92089.61808	192.9857185	91993.12522	3516378.494	38.18430966
33	0.002262514	0.997737486	91896.63236	207.9174067	91792.67366	3424385.368	37.26344786
34	0.002322795	0.997677205	91688.71496	212.9740883	91582.22791	3332592.695	36.34681429
35	0.002379247	0.997620753	91475.74087	217.6433577	91366.91919	3241010.467	35.43027294
36	0.002452396	0.997547604	91258.09751	223.8009654	91146.19703	3149643.548	34.51357889
37	0.002766192	0.997233808	91034.29655	251.8182974	90908.3874	3058497.351	33.59719871
38	0.002814589	0.997185411	90782.47825	255.5153686	90654.72056	2967588.963	32.68900586
39	0.003088689	0.996911311	90526.96288	279.6096317	90387.15806	2876934.243	31.7798604
40	0.003328355	0.996671645	90247.35325	300.3751941	90097.16565	2786547.085	30.87677349
41	0.003533771	0.996466229	89946.97805	317.8520646	89788.05202	2696449.919	29.9782158
42	0.003830082	0.996169918	89629.12599	343.2868632	89457.48256	2606661.867	29.0827545
43	0.004299194	0.995700806	89285.83913	383.8571378	89093.91056	2517204.384	28.19264969
44	0.00465943	0.99534057	88901.98199	414.2325883	88694.86569	2428110.474	27.31221981
45	0.005126476	0.994873524	88487.7494	453.6302847	88260.93426	2339415.608	26.43773431
46	0.005747914	0.994252086	88034.11911	506.0125327	87781.11285	2251154.674	25.57138864
47	0.006295172	0.993704828	87528.10658	551.0045242	87252.60432	2163373.561	24.71632994
48	0.0069447	0.9930553	86977.10206	604.0298883	86675.08711	2076120.957	23.86974166
49	0.007717333	0.992282667	86373.07217	666.5697428	86039.7873	1989445.87	23.03317249
50	0.00891778	0.99108222	85706.50243	764.3117555	85324.34655	1903406.082	22.20842093
51	0.0102107	0.9897893	84942.19067	867.3192173	84508.53106	1818081.736	21.40375379
52	0.011601616	0.988398384	84074.87145	975.4043946	83587.16926	1733573.205	20.61939762
53	0.012753043	0.987246957	83099.46706	1059.771089	82569.58151	1649986.035	19.85555496
54	0.013770005	0.986229995	82039.69597	1129.686989	81474.85248	1567416.454	19.10558584
55	0.014767068	0.985232932	80910.00898	1194.803579	80312.60719	1485941.601	18.36536196
56	0.016347935	0.983652065	79715.2054	1303.179023	79063.61589	1405628.994	17.6331352
57	0.017991469	0.982008531	78412.02638	1410.747566	77706.6526	1326565.378	16.9178816
58	0.020085712	0.979914288	77001.27881	1546.625488	76227.96607	1248858.726	16.21867513
59	0.022136013	0.977863987	75454.65332	1670.265189	74619.52073	1172630.76	15.54086737
60	0.023782489	0.976217511	73784.38814	1754.776406	72906.99993	1098011.239	14.88134911
61	0.025649828	0.974350172	72029.61173	1847.547169	71105.83815	1025104.239	14.23170574
62	0.027930174	0.972069826	70182.06456	1960.197307	69201.96591	953998.4008	13.59319374
63	0.030439241	0.969560759	68221.86725	2076.621834	67183.55634	884796.4349	12.96939633
64	0.033522003	0.966477997	66145.24542	2217.321115	65036.58486	817612.8786	12.36087149
65	0.037174333	0.962825667	63927.92431	2376.477932	62739.68534	752576.2937	11.77226231
66	0.040259739	0.959740261	61551.44637	2478.045177	60312.42379	689836.6084	11.20748007
67	0.043391712	0.956608288	59073.4012	2563.296004	57791.75319	629524.1846	10.65664363
68	0.047735076	0.952264924	56510.10519	2697.514177	55161.3481	571732.4314	10.11734856
69	0.051757398	0.948242602	53812.59102	2785.199681	52419.99118	516571.0833	9.599446404
70	0.054606989	0.945393011	51027.39133	2786.452187	49634.16524	464151.0921	9.096116419
71	0.059213906	0.940786094	48240.93915	2856.534455	46812.67192	414516.9269	8.592638
72	0.064828676	0.935171324	45384.40469	2942.210855	43913.29926	367704.255	8.101995773
73	0.070631725	0.929368275	42442.19384	2997.765377	40943.31115	323790.9557	7.628987251
74	0.07860119	0.92139881	39444.42846	3100.378999	37894.23896	282847.6445	7.17078826
75	0.08620793	0.91379207	36344.04946	3133.145266	34777.47683	244953.4056	6.739849004
76	0.094820913	0.905179087	33210.9042	3149.088248	31636.36007	210175.9288	6.328521726
77	0.103563657	0.896436343	30061.81595	3113.311601	28505.16015	178539.5687	5.939081291
78	0.113250436	0.886749564	26948.50435	3051.929858	25422.53942	150034.4085	5.567448442

79	0.122514229	0.877485771	23896.57449	2927.670406	22432.73929	124611.8691	5.214633134
80	0.133207901	0.866792099	20968.90408	2793.22369	19572.29224	102179.1298	4.872888417
81	0.145502526	0.854497474	18175.68039	2644.607409	16853.37669	82606.83759	4.544910331
82	0.158877123	0.841122877	15531.07298	2467.53219	14297.30689	65753.4609	4.23367149
83	0.173403768	0.826596232	13063.54079	2265.267203	11930.90719	51456.15401	3.938913257
84	0.18915441	0.81084559	10798.27359	2042.541067	9777.003058	39525.24682	3.66033019
85	0.206199567	0.793800433	8755.732524	1805.428251	7853.018399	29748.24376	3.397573382
86	0.224606738	0.775393262	6950.304273	1561.085172	6169.761687	21895.22537	3.15025422
87	0.244438479	0.755561521	5389.219102	1317.332519	4730.552842	15725.46368	2.917948479
88	0.265750114	0.734249886	4071.886583	1082.104322	3530.834422	10994.91084	2.700200659
89	0.288587075	0.711412925	2989.782261	862.8125171	2558.376002	7464.076414	2.49652843
90	0.312981848	0.687018152	2126.969744	665.7029203	1794.118284	4905.700412	2.306426984
91	0.338950538	0.661049462	1461.266824	495.2971762	1213.618235	3111.582128	2.129373006
92	0.366489098	0.633510902	965.9696473	354.0173447	788.9609749	1897.963893	1.964827671
93	0.395569275	0.604430725	611.9523025	242.0695284	490.9175383	1109.002918	1.812237511
94	0.426134401	0.573865599	369.8827741	157.6197744	291.0728869	618.0853794	1.671030452
95	0.458095188	0.541904812	212.2629997	97.23665874	163.6446704	327.0124924	1.540600542
96	0.491325745	0.508674255	115.026341	56.51540271	86.76863964	163.3678221	1.420264443
97	0.525660123	0.474339877	58.51093829	30.75686701	43.13250478	76.59918245	1.309142952
98	0.560889733	0.439110267	27.75407127	15.56697361	19.97058446	33.46667767	1.205829492
99	0.596762071	0.403237929	12.18709766	7.27279764	8.550698838	13.4960932	1.107408308
100	0.632981218	0.367018782	4.914300018	3.110659613	3.358970211	4.945394364	1.00632732
101	0.669210593	0.330789407	1.803640405	1.207015266	1.200132772	1.586424153	0.879567872
102	0.705078431	0.294921569	0.596625139	0.420667517	0.386291381	0.386291381	0.647460784
103	0.740186346	0.259813654	0.175957622	0.175957622	0	0	0

vik	qx	px	lx	dx	Lx_1	Tx	ex
0	0.031468671	0.968531329	100000	3146.867144	97104.88223	6996868.208	69.96868208
1	0.003417793	0.996582207	96853.13286	331.023938	96687.62089	6899763.326	71.23944391
2	0.00201542	0.99798458	96522.10892	194.5325527	96424.84264	6803075.705	70.48204584
3	0.001147773	0.998852227	96327.57637	110.5621588	96272.29529	6706650.863	69.62337386
4	0.000745827	0.999254173	96217.01421	71.76121398	96181.1336	6610378.567	68.70280295
5	0.000584941	0.999415059	96145.25299	56.23927961	96117.13335	6514197.434	67.75370838
6	0.000469004	0.999530996	96089.01371	45.06617021	96066.48063	6418080.3	66.79307084
7	0.000387735	0.999612265	96043.94754	37.23956327	96025.32776	6322013.82	65.82417717
8	0.000298902	0.999701098	96006.70798	28.69657417	95992.35969	6225988.492	64.84951544
9	0.000293695	0.999706305	95978.01141	28.18824997	95963.91728	6129996.132	63.86875538
10	0.000329314	0.999670686	95949.82316	31.59760962	95934.02435	6034032.215	62.88737192
11	0.000421649	0.999578351	95918.22555	40.44378908	95898.00365	5938098.191	61.90792372
12	0.000439825	0.999560175	95877.78176	42.169445	95856.69703	5842200.187	60.93382721
13	0.00046081	0.99953919	95835.61231	44.16200525	95813.53131	5746343.49	59.96041921
14	0.000497944	0.999502056	95791.45031	47.6987665	95767.60092	5650529.959	58.9878318
15	0.000522065	0.999477935	95743.75154	49.98445048	95718.75931	5554762.358	58.01696997
16	0.00058092	0.99941908	95693.76709	55.59046252	95665.97186	5459043.598	57.04701324
17	0.000759698	0.999240302	95638.17663	72.65613784	95601.84856	5363377.626	56.07988165
18	0.000835139	0.999164861	95565.52049	79.81052736	95525.61523	5267775.778	55.12213768
19	0.000872139	0.999127861	95485.70996	83.27684344	95444.07154	5172250.163	54.16779291
20	0.000924163	0.999075837	95402.43312	88.16736668	95358.34944	5076806.091	53.21463956
21	0.000918208	0.999081792	95314.26575	87.51833108	95270.50659	4981447.742	52.26340152
22	0.000892187	0.999107813	95226.74742	84.96010508	95184.26737	4886177.235	51.31097478
23	0.000958228	0.999041772	95141.78732	91.16752293	95096.20355	4790992.968	50.35634817
24	0.000942533	0.999057467	95050.61979	89.58836957	95005.82561	4695896.764	49.40416774
25	0.000931125	0.999068875	94961.03142	88.42080818	94916.82113	4600890.939	48.45030503
26	0.000971343	0.999028657	94872.61084	92.153804	94826.53394	4505974.117	47.49499437
27	0.001014559	0.998985441	94780.45704	96.1603547	94732.37686	4411147.584	46.54068699
28	0.001059567	0.998940433	94684.29668	100.3243957	94634.13449	4316415.207	45.58744541
29	0.00119083	0.99880917	94583.97229	112.6334241	94527.65558	4221781.072	44.63526927
30	0.001309429	0.998690571	94471.33886	123.7035207	94409.4871	4127253.417	43.68788954
31	0.001491596	0.998508404	94347.63534	140.7285425	94277.27107	4032843.929	42.74451516
32	0.001501772	0.998498228	94206.9068	141.4772931	94136.16815	3938566.658	41.80762103
33	0.001539768	0.998460232	94065.42951	144.8389303	93993.01004	3844430.49	40.86974896
34	0.001466284	0.998533716	93920.59058	137.7142306	93851.73346	3750437.48	39.93200487
35	0.0015257	0.9984743	93782.87635	143.0845326	93711.33408	3656585.747	38.98990828
36	0.0016035	0.9983965	93639.79181	150.1514529	93564.71609	3562874.413	38.04872206
37	0.001905699	0.998094301	93489.64036	178.1631029	93400.55881	3469309.697	37.10902816
38	0.002118574	0.997881426	93311.47726	197.6872501	93212.63363	3375909.138	36.17892715
39	0.002433632	0.997566368	93113.79001	226.6047454	93000.48764	3282696.504	35.25467607
40	0.002601025	0.997398975	92887.18526	241.6019243	92766.3843	3189696.017	34.33946252
41	0.002720405	0.997279595	92645.58334	252.0335175	92519.56658	3096929.632	33.42770935
42	0.002763305	0.997236695	92393.54982	255.3115137	92265.89406	3004410.066	32.51753041
43	0.00298691	0.99701309	92138.23831	275.2086037	92000.63401	2912144.172	31.60624975
44	0.003351056	0.996648944	91863.0297	307.8381264	91709.11064	2820143.538	30.69943966
45	0.003640127	0.996359873	91555.19158	333.2725191	91388.55532	2728434.427	29.80097993
46	0.003940247	0.996059753	91221.91906	359.4369186	91042.2006	2637045.872	28.90802889
47	0.004328989	0.995671011	90862.48214	393.342729	90665.81078	2546003.671	28.02040634
48	0.004416124	0.995583876	90469.13941	399.5229481	90269.37794	2455337.86	27.14005987
49	0.004728911	0.995271089	90069.61646	425.9311864	89856.65087	2365068.482	26.25822753
50	0.005062526	0.994937474	89643.68528	453.8234497	89416.77355	2275211.831	25.38061464
51	0.005594382	0.994405618	89189.86183	498.9621236	88940.38077	2185795.058	24.50721431
52	0.006380366	0.993619634	88690.89971	565.8804344	88407.95949	2096854.677	23.64227541
53	0.007265059	0.992734941	88125.01927	640.2334826	87804.90253	2008446.718	22.79087975
54	0.007853124	0.992146876	87484.78579	687.0288859	87141.27135	1920641.815	21.95400946
55	0.00852793	0.99147207	86797.7569	740.2051754	86427.65431	1833500.544	21.12382404
56	0.008907687	0.991092313	86057.55173	766.5737464	85674.26485	1747072.889	20.30121534
57	0.009735493	0.990264507	85290.97798	830.3497223	84875.80312	1661398.625	19.47918366
58	0.010551015	0.989448985	84460.62826	891.1453684	84015.05557	1576522.821	18.6657719
59	0.011648069	0.988351931	83569.48289	973.4230881	83082.77135	1492507.766	17.85948308
60	0.012981733	0.987018267	82596.0598	1072.239988	82059.93981	1409424.995	17.06407059
61	0.014951316	0.985048684	81523.81981	1218.888407	80914.37561	1327365.055	16.28192911
62	0.01670313	0.98329687	80304.93141	1341.343749	79634.25953	1246450.679	15.52147119
63	0.018846751	0.981153249	78963.58766	1488.207095	78219.48411	1166816.42	14.77663888
64	0.020908423	0.979091577	77475.38056	1619.888023	76665.43655	1088596.935	14.05087561
65	0.023566332	0.976433668	75855.49254	1787.63571	74961.67469	1011931.499	13.34025349
66	0.025901454	0.974098546	74067.85683	1918.465161	73108.62425	936969.8242	12.65015439
67	0.028658124	0.971341876	72149.39167	2067.666237	71115.55855	863861.2	11.97322916
68	0.032042908	0.967957092	70081.72543	2245.62227	68958.9143	792745.6414	11.31173122
69	0.035659016	0.964340984	67836.10316	2418.968699	66626.61881	723786.7271	10.66963893
70	0.040000705	0.959999295	65417.13446	2616.73152	64108.7687	657160.1083	10.04568778
71	0.044642148	0.955357852	62800.40294	2803.544878	61398.6305	593051.3396	9.443432077
72	0.05078616	0.94921384	59996.85806	3047.010015	58473.35306	531652.7091	8.861342514
73	0.056518725	0.943481275	56949.84805	3218.73282	55340.48164	473179.356	8.308702696
74	0.063152199	0.936847801	53731.11523	3393.238092	52034.49618	417838.8744	7.776478724
75	0.071952444	0.928047556	50337.87714	3621.933276	48526.9105	365804.3782	7.266980632
76	0.080080046	0.919919954	46715.94386	3741.014943	44845.43639	317277.4677	6.791631325
77	0.088940128	0.911059872	42974.92892	3822.195658	41063.83109	272432.0313	6.339324769
78	0.098602333	0.901397667	39152.73326	3860.550845	37222.45784	231368.2002	5.909375437

79	0.107856921	0.892143079	35292.18242	3806.506143	33388.92934	194145.7424	5.501097669
80	0.11850975	0.88149025	31485.67627	3731.35963	29619.99646	160756.8131	5.105712568
81	0.132411952	0.867588048	27754.31664	3675.003237	25916.81502	131136.8166	4.724916066
82	0.145837529	0.854162471	24079.3134	3511.667564	22323.47962	105220.0016	4.369725989
83	0.162327927	0.837672073	20567.64584	3338.70332	18898.29418	82896.52195	4.030433167
84	0.177952788	0.822047212	17228.94252	3065.938359	15695.97334	63998.22777	3.714576661
85	0.198642326	0.801357674	14163.00416	2813.372083	12756.31812	48302.25443	3.410452605
86	0.220080958	0.779919042	11349.63208	2497.8379	10100.71313	35545.93631	3.13190208
87	0.242635348	0.757364652	8851.794179	2147.75816	7777.915099	25445.22318	2.874583691
88	0.26707666	0.73292334	6704.036019	1790.491552	5808.790243	17667.30809	2.635324159
89	0.293465995	0.706534005	4913.544467	1441.958217	4192.565358	11858.51784	2.413434522
90	0.321842286	0.678157714	3471.58625	1117.303256	2912.934622	7665.952484	2.208198769
91	0.352215927	0.647784073	2354.282994	829.2159677	1939.67501	4753.017862	2.018881279
92	0.384561754	0.615438246	1525.067027	586.4824514	1231.825801	2813.342851	1.844733905
93	0.41881159	0.58118841	938.5845752	393.0900982	742.0395261	1581.51705	1.685002175
94	0.454846665	0.545153335	545.494477	248.1163436	421.4363052	839.4775242	1.538929466
95	0.492490393	0.507509607	297.3781334	146.4558739	224.1501965	418.041219	1.405756416
96	0.531502128	0.468497872	150.9222595	80.21550215	110.8145084	193.8910225	1.284707923
97	0.571572708	0.428427292	70.70675737	40.41405278	50.49973098	83.07651409	1.174944477
98	0.612322754	0.387677246	30.29270459	18.54891231	21.01824844	32.57678311	1.075400284
99	0.653304798	0.346695202	11.74379228	7.672275838	7.907654361	11.55853468	0.984225061
100	0.694010312	0.305989688	4.071516442	2.825674398	2.658679243	3.650880315	0.896688093
101	0.733882625	0.266117375	1.245842044	0.914301829	0.78869113	0.992201072	0.796410007
102	0.772336309	0.227663691	0.331540215	0.256060546	0.203509942	0.203509942	0.613831846
103	0.808783114	0.191216886	0.075479669	0.075479669	0	0	0