

The MEANS Procedure

YEAR=1971

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	1534	4.3315663	1.6043829	3.6545797	6.3038734	3.7308067	-4.2350856	23.4648433
PD_iterative	1534	0.0900031	1.451488E-10	0.000128805	0.0543148	0.2012907	4.66317E-122	0.9999886
DD_direct	1534	4.4979602	1.7353681	3.7062100	6.4627624	3.7604834	-6.5816935	23.8613646
PD_direct	1534	0.0739462	5.140433E-11	0.000105217	0.0413378	0.1752506	3.85902E-126	1.0000000
DD_naive	1534	4.3515050	1.6978913	3.6183120	6.0996688	3.6328911	-3.1689866	23.8586890
PD_naive	1534	0.0713126	5.314425E-10	0.000148268	0.0447641	0.1641187	4.11387E-126	0.9992351

YEAR=1972

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	1613	6.3548337	3.1373719	5.2842673	8.3040450	4.7709877	-3.0565033	36.0885956
PD_iterative	1613	0.0272581	5.031276E-17	6.3104418E-8	0.000852349	0.1023846	1.71207E-285	0.9988803
DD_direct	1613	6.8581169	3.5845943	5.7540734	8.9620418	4.8434138	-4.3722312	36.5078478
PD_direct	1613	0.0154979	1.593604E-19	4.3559145E-9	0.000168801	0.0735968	4.16267E-292	0.9999939
DD_naive	1613	6.5760037	3.4179819	5.4472064	8.4229779	4.7666048	-2.5885159	36.5036232
PD_naive	1613	0.0160287	1.835169E-17	2.5583531E-8	0.000315437	0.0709003	4.85735E-292	0.9951805

YEAR=1973

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	2644	8.5077613	3.2743167	6.1171826	10.2532576	11.1642911	-3.9475319	275.2764024
PD_iterative	2644	0.0371745	5.721763E-25	4.762321E-10	0.000529590	0.1336854	0	0.9999605
DD_direct	2644	8.8103975	3.6336285	6.5503009	10.7696302	9.9954137	-6.8377341	223.3067797
PD_direct	2644	0.0256109	2.396902E-27	2.87107E-11	0.000139732	0.1104510	0	1.0000000
DD_naive	2644	8.2185881	3.4405295	6.1339448	9.9760882	9.2336939	-3.1888916	220.5357063
PD_naive	2644	0.0242071	9.704896E-24	4.286455E-10	0.000290289	0.1013002	0	0.9992859

YEAR=1974

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	2760	3.5461539	0.7486560	2.5519900	4.9037301	17.6172689	-13.1397858	907.8788144
PD_iterative	2760	0.1701431	4.7017615E-7	0.0053556	0.2270324	0.2829672	0	1.0000000
DD_direct	2760	3.7272326	0.9702908	2.7787660	5.1573296	16.4812537	-15.0969751	845.1312400
PD_direct	2760	0.1509288	1.2527442E-7	0.0027283	0.1659508	0.2729876	0	1.0000000
DD_naive	2760	3.6821134	1.0057342	2.7262514	5.0027786	15.3028183	-6.6729534	784.2386711
PD_naive	2760	0.1403321	2.8255306E-7	0.0032029	0.1572719	0.2541570	0	1.0000000

YEAR=1975

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	3138	2.1160759	-0.0061166	1.6636748	3.7294166	3.3157587	-8.7978416	51.6994528
PD_iterative	3138	0.2658462	0.000095962	0.0480888	0.5024401	0.3489374	0	1.0000000
DD_direct	3138	2.4006786	0.3588278	2.0356551	4.1506538	3.8420188	-21.3632655	71.2977085
PD_direct	3138	0.2276670	0.000016576	0.0208926	0.3598620	0.3359612	0	1.0000000
DD_naive	3138	2.4558287	0.4787701	1.9840598	3.9542160	3.4524205	-6.5210967	70.8543644
PD_naive	3138	0.2096235	0.000038393	0.0236251	0.3160511	0.3120640	0	1.0000000

YEAR=1976

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	3085	4.9638883	2.1847686	4.5090775	7.2788448	4.8434483	-145.9648215	26.7176636
PD_iterative	3085	0.0834471	1.683453E-13	3.2555058E-6	0.0144529	0.2158730	1.4673E-157	1.0000000
DD_direct	3085	6.1924091	3.3362931	5.7164188	8.5489156	4.3823404	-42.3807547	47.6748579
PD_direct	3085	0.0407646	6.212517E-18	5.4396204E-9	0.000424518	0.1551616	0	1.0000000
DD_naive	3085	5.7805712	3.1615251	5.3096942	7.7605849	3.7691345	-7.5365931	27.5323104
PD_naive	3085	0.0342419	4.226928E-15	5.4904657E-8	0.000784727	0.1351244	3.60398E-167	1.0000000

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YEAR=1977

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	3126	6.1489215	2.7282310	5.4958175	8.5183942	6.8741949	-10.8498034	281.6464192
PD_iterative	3126	0.0732083	8.089039E-18	1.9445783E-8	0.0031838	0.2009687	0	1.0000000
DD_direct	3126	7.5604474	3.9416703	6.8139477	10.1845563	5.6710677	-34.2531178	82.0376812
PD_direct	3126	0.0309215	1.162088E-24	4.747873E-12	0.000040458	0.1295388	0	1.0000000
DD_naive	3126	6.8181066	3.7048404	6.2706664	9.0731865	4.5626518	-5.6458838	57.2737139
PD_naive	3126	0.0275196	5.779309E-20	1.797718E-10	0.000105762	0.1153758	0	1.0000000

YEAR=1978

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	3150	6.0051766	2.5653658	5.3134897	8.3282975	4.9991453	-5.3395104	38.5761284
PD_iterative	3150	0.0773944	4.100659E-17	5.377316E-8	0.0051534	0.2082904	0	1.0000000
DD_direct	3150	7.1294225	3.2351880	5.3616331	9.7457509	6.0912735	-55.1338427	102.2248317
PD_direct	3150	0.0454883	9.617577E-23	3.039622E-11	0.000070852	0.1674934	0	1.0000000
DD_naive	3150	6.6765521	3.5129093	5.9865498	8.7488632	5.0482985	-5.0082778	89.7086830
PD_naive	3150	0.0399105	1.077563E-18	1.0717942E-9	0.000221614	0.1467294	0	0.9999997

YEAR=1979

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	3154	5.0777888	2.2470383	4.3266286	6.8315548	4.7567737	-4.1724395	102.6466529
PD_iterative	3154	0.0734618	4.19996E-12	7.570461E-6	0.0123188	0.1918986	0	0.9999849
DD_direct	3154	7.1294225	3.2351880	5.3616331	7.8878973	62.5585237	-9.3602936	3510.66
PD_direct	3154	0.0366670	1.536603E-15	4.1239405E-8	0.000607813	0.1373993	0	1.0000000
DD_naive	3154	5.7121812	3.1445632	5.0041591	7.2611832	4.1476788	-3.7949582	71.8248171
PD_naive	3154	0.0291982	1.918594E-13	2.8062745E-7	0.000831675	0.1117336	0	0.9999262

YEAR=1980

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	3110	5.5981920	2.4202057	4.9462863	7.8247780	4.5998394	-6.5670622	47.2438608
PD_iterative	3110	0.0667608	2.542767E-15	3.7822493E-7	0.0077559	0.1833488	0	1.0000000
DD_direct	3110	6.8729416	3.6967180	6.2926314	9.0983324	5.0445327	-25.2183993	60.4805978
PD_direct	3110	0.0373341	4.586471E-20	1.560649E-10	0.000109202	0.1472460	0	1.0000000
DD_naive	3110	6.5591553	3.6184225	5.8638496	8.5481523	4.6172696	-3.6946136	60.4097781
PD_naive	3110	0.0285446	6.253728E-18	2.2615807E-9	0.000148202	0.1187843	0	0.9998899

YEAR=1981

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	3183	5.1884992	2.5020830	4.6516365	7.1665690	4.2420197	-5.4573352	50.7851641
PD_iterative	3183	0.0737753	3.845033E-13	1.6465557E-6	0.0061732	0.1980550	0	1.0000000
DD_direct	3183	6.0726764	3.2601183	5.3788181	7.9355742	5.3096229	-30.5425084	93.3374197
PD_direct	3183	0.0459791	1.047618E-15	3.7488206E-8	0.000556829	0.1619215	0	1.0000000
DD_naive	3183	5.9098399	3.2849585	5.2706997	7.6889189	4.3930966	-5.3550537	82.2723852
PD_naive	3183	0.0334725	7.419175E-15	6.795233E-8	0.000509987	0.1268064	0	1.0000000

YEAR=1982

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	3323	5.1119546	2.2146549	4.3764525	6.9578386	4.5479428	-9.9531070	51.6646645
PD_iterative	3323	0.0775092	1.727664E-12	6.0313226E-6	0.0133919	0.2048323	0	1.0000000
DD_direct	3323	6.2218341	3.0086283	5.3922444	8.3469300	5.5722080	-50.7698755	67.4288404
PD_direct	3323	0.0525614	3.50301E-17	3.4791525E-8	0.0013121	0.1788913	0	1.0000000
DD_naive	3323	5.8916949	2.9571632	5.2015979	7.7839608	4.5680747	-8.2611545	51.5700925
PD_naive	3323	0.0440236	3.514426E-15	9.8791171E-8	0.0015524	0.1545786	0	1.0000000

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YEAR=1983

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	3366	5.4872974	2.2867946	4.8074939	7.7856308	5.2315018	-16.9086912	110.0633598
PD_iterative	3366	0.0848813	3.468311E-15	7.6424767E-7	0.0111039	0.2119068	0	1.0000000
DD_direct	3366	6.9744398	3.1467696	5.9690091	9.2190741	8.7380014	-16.0745052	244.4407045
PD_direct	3366	0.0530837	1.498383E-20	1.1935333E-9	0.000825425	0.1700625	0	1.0000000
DD_naive	3366	6.3450860	3.0361004	5.6472923	8.5401257	5.9379021	-5.4931478	184.4237829
PD_naive	3366	0.0468129	6.703796E-18	8.1497358E-9	0.0011983	0.1504126	0	1.0000000

YEAR=1984

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	3576	6.7981007	3.4831543	6.0508926	9.1041602	5.0185737	-18.6830445	55.8394198
PD_iterative	3576	0.0413155	4.348758E-20	7.202309E-10	0.000247778	0.1497628	0	1.0000000
DD_direct	3576	7.9682969	4.4184637	7.0805416	10.3307513	5.4844228	-9.2425158	91.2725114
PD_direct	3576	0.0232149	2.558159E-25	7.179852E-13	4.970252E-6	0.1142425	0	1.0000000
DD_naive	3576	7.5650925	4.2763481	6.8013003	9.7700648	5.0646313	-4.3374142	86.7039954
PD_naive	3576	0.0198112	7.567794E-23	5.184382E-12	9.5003911E-6	0.0980511	0	0.9999928

YEAR=1985

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	3671	5.9016853	2.1295353	4.9687994	8.1605952	5.6165961	-8.8086356	64.0231380
PD_iterative	3671	0.0833677	1.666889E-16	3.368436E-7	0.0166050	0.2133537	0	1.0000000
DD_direct	3671	6.7751751	2.8073505	5.8386588	9.3836195	6.3217327	-57.1511371	105.4476447
PD_direct	3671	0.0627486	3.1873E-21	2.6311349E-9	0.0024975	0.1899568	0	1.0000000
DD_naive	3671	6.4765841	2.7622048	5.5606091	8.8164098	5.8175408	-10.6380085	101.5498278
PD_naive	3671	0.0571434	5.909416E-19	1.3441734E-8	0.0028706	0.1730143	0	1.0000000

YEAR=1986

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	3641	6.4000403	2.6277593	5.5069245	9.2318872	5.2743554	-7.8832230	65.7755055
PD_iterative	3641	0.0669522	1.329525E-20	1.8257837E-8	0.0042975	0.1890790	0	1.0000000
DD_direct	3641	7.6204914	3.5828759	6.7657354	10.6428811	6.2343350	-14.5031231	122.5491311
PD_direct	3641	0.0468753	9.410883E-27	6.631686E-12	0.000169916	0.1619601	0	1.0000000
DD_naive	3641	7.1670728	3.4833597	6.4480264	9.9493700	5.4552760	-6.3959126	108.7664819
PD_naive	3641	0.0425007	1.268923E-23	5.665803E-11	0.000247581	0.1475529	0	1.0000000

YEAR=1987

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	3752	5.2774977	2.1706702	4.4764178	7.5812650	4.5741635	-21.4018392	57.6317191
PD_iterative	3752	0.0830987	1.711009E-14	3.7953376E-6	0.0149792	0.2123874	0	1.0000000
DD_direct	3752	6.0299495	2.8687435	5.3883554	8.4691270	4.7768189	-30.8193437	57.6425111
PD_direct	3752	0.0958160	1.236312E-17	3.5553112E-8	0.0020606	0.1798916	0	1.0000000
DD_naive	3752	5.8418646	2.7777845	5.1422676	8.1416089	4.4987279	-6.2678134	57.2515006
PD_naive	3752	0.0520088	1.952321E-16	1.3572106E-7	0.0027365	0.1623374	0	1.0000000

YEAR=1988

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	3871	3.4961977	1.3015466	3.0370038	5.1734874	3.3010975	-7.3927021	32.4982091
PD_iterative	3871	0.1211325	1.1488233E-7	0.0011947	0.0965357	0.2415045	5.65125E-232	1.0000000
DD_direct	3871	3.7965328	1.5741127	3.3688055	5.4858477	3.5299390	-21.0931798	34.6765923
PD_direct	3871	0.0958160	2.0574564E-8	0.000377473	0.0577307	0.2152560	8.87826E-264	1.0000000
DD_naive	3871	3.7847815	1.5638325	3.3122465	5.3872213	3.2895754	-8.1479484	34.6501578
PD_naive	3871	0.0886924	3.5777645E-8	0.000462750	0.0589285	0.1984393	2.22129E-263	1.0000000

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YEAR=1989

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	3775	5.2298611	1.8943461	4.4385441	7.5662764	4.7585497	-7.1698464	44.9960356
PD_iterative	3775	0.0966516	1.920372E-14	4.5284717E-6	0.0290895	0.2269469	0	1.0000000
DD_direct	3775	6.0976396	2.6558879	5.4306159	8.6198758	5.1171803	-31.4357335	47.3043498
PD_direct	3775	0.0669496	3.351338E-18	2.8079953E-8	0.0039550	0.1921314	0	1.0000000
DD_naive	3775	5.8804447	2.6289553	5.2023019	8.1660662	4.6853682	-6.0552193	44.3624865
PD_naive	3775	0.0579507	1.593042E-16	9.8417562E-8	0.0042824	0.1695706	0	1.0000000

YEAR=1990

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	3615	5.6567050	1.7763113	4.6478799	8.3434456	5.3856823	-14.1352534	53.3693602
PD_iterative	3615	0.1075393	3.607832E-17	1.6768207E-6	0.0378408	0.2425608	0	1.0000000
DD_direct	3615	6.5191819	2.4909305	5.6050221	9.5209153	5.9091440	-56.6569998	55.2934199
PD_direct	3615	0.0760040	8.583018E-22	1.0411422E-8	0.0063705	0.2081702	0	1.0000000
DD_naive	3615	6.3219621	2.4152168	5.3571455	9.0389085	5.4001926	-8.6144881	52.8193448
PD_naive	3615	0.0679817	7.912194E-20	4.2273519E-8	0.0078629	0.1886837	0	1.0000000

YEAR=1991

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	3537	3.5781691	0.5751752	2.6688885	5.6441885	4.5570418	-6.9070995	91.2659302
PD_iterative	3537	0.1951293	8.2981094E-9	0.0038051	0.2825864	0.3176408	0	1.0000000
DD_direct	3537	3.9213802	0.9371008	3.0824235	6.1805051	5.1513298	-55.2934970	91.8342714
PD_direct	3537	0.1658052	3.194841E-10	0.0010266	0.1743534	0.2992793	0	1.0000000
DD_naive	3537	3.9383385	0.9857869	3.0068884	5.9419259	4.6272765	-10.1297340	91.8168418
PD_naive	3537	0.1528038	1.4084639E-9	0.0013197	0.1621188	0.2782463	0	1.0000000

YEAR=1992

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	3537	5.4068164	1.9887621	4.6522420	7.9159041	4.8860598	-37.6221273	32.5706994
PD_iterative	3537	0.1027369	1.227314E-15	1.6417271E-6	0.0233637	0.2419664	5.33242E-233	1.0000000
DD_direct	3537	6.4868815	2.6564871	5.4364706	9.0257972	6.0037187	-17.8620855	98.2028472
PD_direct	3537	0.0708274	8.919587E-20	2.7173147E-8	0.0039480	0.1996652	0	1.0000000
DD_naive	3537	6.1134601	2.6149581	5.2365349	8.5599918	4.8394859	-6.5023648	39.2468602
PD_naive	3537	0.0590234	5.643779E-18	8.1809647E-8	0.0044619	0.1721952	0	1.0000000

YEAR=1993

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	3615	5.0431015	1.8326131	4.2514752	7.5394637	4.5273018	-24.1692495	28.7334477
PD_iterative	3615	0.1050443	2.35954E-14	0.000010618	0.0334301	0.2403813	7.29196E-182	1.0000000
DD_direct	3615	5.8777933	2.3833805	4.9124374	8.4441678	5.5699915	-11.8315702	161.6501986
PD_direct	3615	0.0761146	1.531095E-17	4.4975561E-7	0.0085772	0.2011805	0	1.0000000
DD_naive	3615	5.5924906	2.3351535	4.7538347	7.9581425	4.4479938	-4.2687269	28.6821192
PD_naive	3615	0.0650399	8.732059E-16	9.9797122E-7	0.0097677	0.1733970	3.18833E-181	0.9999902

YEAR=1994

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	4129	5.3956090	2.2827869	4.6417001	7.7054409	4.4506507	-32.4596093	41.7264616
PD_iterative	4129	0.0728356	6.519617E-15	1.7277708E-6	0.0112215	0.1966288	0	1.0000000
DD_direct	4129	6.1450901	2.8908712	5.4047931	8.5183248	4.5743210	-9.6431806	42.8471781
PD_direct	4129	0.0488906	8.093888E-18	3.2441629E-8	0.0019209	0.1588695	0	1.0000000
DD_naive	4129	5.8944616	2.7942576	5.1116007	8.1423068	4.3134320	-3.7008683	42.8179337
PD_naive	4129	0.0420364	1.939085E-16	1.5972027E-7	0.0026010	0.1349279	0	0.9998926

## The MEANS Procedure

YEAR=1995

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	4396	4.8189897	1.7628010	4.0071918	6.9129443	4.5002299	-21.9048840	50.7202666
PD_iterative	4396	0.0938624	2.373505E-12	0.000030723	0.0389671	0.2146057	0	1.0000000
DD_direct	4396	5.3850035	2.3799213	4.6051656	7.5438664	4.6394422	-40.8192065	51.7476973
PD_direct	4396	0.0654987	2.281213E-14	2.060693E-6	0.0086583	0.1822488	0	1.0000000
DD_naive	4396	5.2759932	2.3036052	4.3813576	7.2417362	4.4020939	-6.3094853	51.7096470
PD_naive	4396	0.0591325	2.215343E-13	5.8975941E-6	0.0106224	0.1625091	0	1.0000000

YEAR=1996

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	4504	5.9000036	2.3253389	4.9849244	8.5395628	4.9821848	-9.8472807	45.4825740
PD_iterative	4504	0.0741253	6.745586E-18	3.0993604E-7	0.0100270	0.1967124	0	1.0000000
DD_direct	4504	6.9403158	3.0088943	6.0130945	9.9044930	5.4574905	-25.9574731	58.5231790
PD_direct	4504	0.0525702	1.992998E-23	9.102019E-10	0.0013110	0.1630961	0	1.0000000
DD_naive	4504	6.5602288	2.9377425	5.7391035	9.2843106	4.9340887	-6.6742137	47.0573138
PD_naive	4504	0.0466832	8.138021E-21	4.7589543E-9	0.0016531	0.1438472	0	1.0000000

YEAR=1997

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	4724	5.3457488	2.2179045	4.6457789	7.7841223	4.6693754	-74.8015221	45.9657502
PD_iterative	4724	0.0763332	3.510032E-15	1.6939786E-6	0.0132809	0.1994497	0	1.0000000
DD_direct	4724	6.4075037	2.9896619	5.6464014	9.0060447	5.0651801	-12.2335953	127.5546803
PD_direct	4724	0.0480760	1.068426E-19	8.1920541E-9	0.0013964	0.1552238	0	1.0000000
DD_naive	4724	6.0913141	2.9359307	5.3721398	8.4154979	4.4319977	-4.6438234	55.4055388
PD_naive	4724	0.0423836	1.956503E-17	3.8904213E-8	0.0016628	0.1354280	0	0.9999983

YEAR=1998

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	4749	5.4813028	2.4775161	4.9548348	7.8518012	5.7258535	-253.4475168	60.3451278
PD_iterative	4749	0.0705201	2.050521E-15	3.6195878E-7	0.0066150	0.1932738	0	1.0000000
DD_direct	4749	6.5878769	3.2747262	6.0551361	9.1984802	4.6141044	-8.1740095	61.1528117
PD_direct	4749	0.0467170	1.815241E-20	7.014951E-10	0.000528822	0.1547951	0	1.0000000
DD_naive	4749	6.3037331	3.2199988	5.8278766	8.6904927	4.2587477	-4.3458162	61.1053839
PD_naive	4749	0.0411537	1.804355E-18	2.8068537E-9	0.000640956	0.1361368	0	0.9999931

YEAR=1999

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	4585	3.7145527	1.1813353	3.0826022	5.5184809	3.9637937	-53.2497955	98.0547024
PD_iterative	4585	0.1289904	1.7097135E-8	0.0010260	0.1187348	0.2477624	0	1.0000000
DD_direct	4585	4.2157622	1.6065967	3.5827934	6.1088575	3.9064880	-11.9026170	96.1893150
PD_direct	4585	0.0958978	5.017345E-10	0.000169970	0.0540714	0.2130378	0	1.0000000
DD_naive	4585	4.1386014	1.5658864	3.4760353	5.9777507	3.6717482	-4.5297880	74.2106174
PD_naive	4585	0.0891421	1.131198E-9	0.000254443	0.0586876	0.1956108	0	0.9999970

YEAR=2000

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	4455	3.7173725	1.1784047	3.1679558	5.5144853	3.8112196	-51.2518535	36.1567770
PD_iterative	4455	0.1305969	1.7490112E-8	0.000767574	0.1193176	0.2497562	1.45573E-286	1.0000000
DD_direct	4455	4.2487570	1.7445915	3.6937829	5.9853227	3.7002934	-6.9415082	36.2082626
PD_direct	4455	0.0933208	1.0798065E-9	0.000110471	0.0405280	0.2154060	2.25646E-287	1.0000000
DD_naive	4455	4.1706513	1.7174360	3.5891193	5.7834577	3.5556251	-4.2784366	36.1166355
PD_naive	4455	0.0843579	3.6590305E-9	0.000165899	0.0429498	0.1937766	6.21646E-286	0.9999906

## The MEANS Procedure

YEAR=2001

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	4190	2.8737506	0.7950642	2.5608019	4.7210374	3.8684835	-69.8014788	26.1170198
PD_iterative	4190	0.1695138	1.1732239E-6	0.0052216	0.2132881	0.2883734	1.16814E-150	1.0000000
DD_direct	4190	3.5197180	1.2099495	3.0558122	5.2652125	3.3728547	-11.2867831	32.5165174
PD_direct	4190	0.1310851	7.0013657E-8	0.0011223	0.1131491	0.2553314	3.11479E-232	1.0000000
DD_naive	4190	3.3933650	1.2378271	2.9570241	5.0401662	3.0696085	-5.9471306	26.1352731
PD_naive	4190	0.1216591	2.3256392E-7	0.0015532	0.1078901	0.2369266	7.24575E-151	1.0000000

YEAR=2002

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	3739	4.0021327	1.6134358	3.6564668	5.9550903	3.7356750	-43.1128829	28.0749841
PD_iterative	3739	0.1183777	1.2996415E-9	0.000127858	0.0533249	0.2548402	9.89825E-174	1.0000000
DD_direct	3739	4.9297256	2.2349360	4.4704119	7.0667611	4.2296659	-30.6489303	82.0274266
PD_direct	3739	0.0829294	7.929581E-13	3.9034542E-6	0.0127108	0.2104570	0	1.0000000
DD_naive	3739	4.6153398	2.1963240	4.2128515	6.5140898	3.5414077	-9.2114674	26.3285385
PD_naive	3739	0.0748597	3.656588E-11	0.000012608	0.0140344	0.1915508	4.52004E-153	1.0000000

YEAR=2003

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	3501	3.9223719	1.4302676	3.5746753	5.9498500	3.6665018	-23.1451900	28.6379715
PD_iterative	3501	0.1291109	1.3419419E-9	0.000175331	0.0763201	0.2656243	1.1317E-180	1.0000000
DD_direct	3501	4.6033141	1.9159880	4.2610050	6.6910149	3.7994803	-12.2229596	28.7219532
PD_direct	3501	0.0978082	1.10814E-11	0.000010175	0.0276833	0.2311976	1.01491E-181	1.0000000
DD_naive	3501	4.3350650	1.8502520	4.0113521	6.2353518	3.5479386	-8.0812459	28.7216577
PD_naive	3501	0.0931272	2.25382E-10	0.000030186	0.0321386	0.2169185	1.02356E-181	1.0000000

YEAR=2004

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	3237	6.8452896	3.8056876	6.4667651	9.1837051	4.7150727	-36.3903606	37.4322070
PD_iterative	3237	0.0442954	2.082541E-20	5.006154E-11	0.000070705	0.1642754	5.84963E-307	1.0000000
DD_direct	3237	8.3591695	5.1453877	7.8096834	10.8085683	5.0820929	-12.9008896	63.4017931
PD_direct	3237	0.0214332	1.567625E-27	2.866591E-15	1.3348441E-7	0.1139109	0	1.0000000
DD_naive	3237	7.7024877	4.8044550	7.2249571	9.7597814	4.5308846	-5.7048622	49.6653850
PD_naive	3237	0.0189821	8.375797E-23	2.5063E-13	7.7586812E-7	0.1007666	0	1.0000000

YEAR=2005

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	3197	6.9189902	3.5923126	6.3834699	9.5987427	5.7842259	-112.2715891	54.5500441
PD_iterative	3197	0.0509946	4.046274E-22	8.655985E-11	0.000163878	0.1741577	0	1.0000000
DD_direct	3197	8.2811170	4.9044999	7.6283363	10.7342808	5.2103926	-27.1562720	55.0986025
PD_direct	3197	0.0208060	3.513196E-27	1.189013E-14	4.6832824E-7	0.1056369	0	1.0000000
DD_naive	3197	7.8060347	4.5530777	7.0218179	10.0077910	5.0206517	-7.5039731	55.0926829
PD_naive	3197	0.0201129	7.04313E-24	1.094999E-12	2.6433372E-6	0.0986639	0	1.0000000

YEAR=2006

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	3149	6.8697187	3.4707865	6.2026522	9.5651871	5.8379116	-65.2642925	43.2634546
PD_iterative	3149	0.0554483	5.599934E-22	2.775972E-10	0.000259468	0.1897025	0	1.0000000
DD_direct	3149	7.9837297	4.5996864	7.1362869	10.4230502	5.8233812	-35.1794638	132.3706173
PD_direct	3149	0.0272088	9.73049E-26	4.794288E-13	2.1156373E-6	0.1333867	0	1.0000000
DD_naive	3149	7.6654190	4.3118651	6.7691139	10.0052397	5.3044998	-5.7883757	68.0831017
PD_naive	3149	0.0260027	7.227061E-24	6.478674E-12	8.0941611E-6	0.1247820	0	1.0000000

## Descriptive statistics per year for PD and DD

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### The MEANS Procedure

YEAR=2007

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	3090	7.6238925	4.1121141	6.9511257	10.3374936	5.6707544	-52.9610442	42.3660285
PD_iterative	3090	0.0403334	2.384231E-25	1.811934E-12	0.000019603	0.1618597	0	1.0000000
DD_direct	3090	8.9292491	5.4715694	8.0495828	11.5195114	5.6668823	-15.7363253	94.3268915
PD_direct	3090	0.0168415	5.260295E-31	4.154358E-16	2.2303379E-8	0.1035471	0	1.0000000
DD_naive	3090	8.4609790	5.0423553	7.5489163	10.8140003	5.2308240	-5.3340505	44.2675710
PD_naive	3090	0.0158656	1.477483E-27	2.194517E-14	2.2991817E-7	0.0961628	0	1.0000000

YEAR=2008

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	3047	5.7608201	2.3107730	5.0422706	8.2172227	5.4062341	-57.5732073	45.5273903
PD_iterative	3047	0.0832649	1.041351E-16	2.300200E-7	0.0104227	0.2232732	0	1.0000000
DD_direct	3047	6.5582756	3.1532732	5.7276960	8.8931033	5.3699764	-23.5356092	79.8581330
PD_direct	3047	0.0537664	2.971276E-19	5.09019E-9	0.000807253	0.1824469	0	1.0000000
DD_naive	3047	6.4098541	2.8915758	5.4545147	8.6438588	5.2529581	-8.0823138	79.8333905
PD_naive	3047	0.0529726	2.717285E-18	2.4553386E-8	0.0019166	0.1743004	0	1.0000000

YEAR=2009

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	2902	2.0015136	0.1324273	1.6333168	3.3711693	4.1170156	-122.6745606	36.2851221
PD_iterative	2902	0.2454887	0.000374249	0.0512014	0.4473232	0.3282608	1.38869E-288	1.0000000
DD_direct	2902	2.2687481	0.3787383	1.7889829	3.4731159	3.0860572	-20.2858220	44.6422453
PD_direct	2902	0.2129768	0.000257227	0.0368088	0.3524411	0.3015500	0	1.0000000
DD_naive	2902	2.2373635	0.3737897	1.7171847	3.3751322	2.9891663	-7.9270993	38.8507545
PD_naive	2902	0.2100924	0.000368901	0.0429728	0.3542804	0.2918703	0	1.0000000

YEAR=2010

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	2710	3.9791665	1.2643025	3.4895756	6.2294721	4.5585030	-97.7180790	32.4380789
PD_iterative	2710	0.1477817	2.340047E-10	0.000241896	0.1030607	0.2879986	3.98866E-231	1.0000000
DD_direct	2710	4.7036992	1.9249600	3.9832382	6.6625737	4.7169453	-9.3552086	78.0633126
PD_direct	2710	0.1015975	1.345366E-11	0.000033992	0.0271172	0.2367983	0	1.0000000
DD_naive	2710	4.6421188	1.9014899	3.8622496	6.4441915	4.6411178	-8.9078780	81.0463561
PD_naive	2710	0.0907183	5.810913E-11	0.000056175	0.0286189	0.2158394	0	1.0000000

YEAR=2011

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	2599	6.2405449	3.0592631	5.6370792	8.6339827	5.5627991	-101.9474795	39.3498715
PD_iterative	2599	0.0728896	2.962597E-18	8.6479304E-9	0.0011094	0.2111827	0	1.0000000
DD_direct	2599	7.3074263	4.1476173	6.4774302	9.4290731	5.3966621	-28.0190981	99.0635882
PD_direct	2599	0.0371307	2.068644E-21	4.664897E-11	0.000016798	0.1545871	0	1.0000000
DD_naive	2599	6.8850391	3.8256443	6.0046967	8.8756870	4.8880208	-4.8631832	40.5147075
PD_naive	2599	0.0362440	3.475151E-19	9.584497E-10	0.000065215	0.1468310	0	0.9999994

YEAR=2012

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	2484	4.5466664	2.0581998	4.1902264	6.8577458	8.3444638	-255.5427922	32.9148921
PD_iterative	2484	0.0958249	3.498418E-12	0.000013938	0.0197855	0.2388582	6.72887E-238	1.0000000
DD_direct	2484	5.3163559	2.5916775	4.7408502	7.3305312	4.6613946	-68.7033842	40.4948834
PD_direct	2484	0.0624030	1.146452E-13	1.06418E-6	0.0047755	0.1929641	0	1.0000000
DD_naive	2484	5.1380287	2.3969329	4.4751421	7.0422856	4.2665394	-8.1037613	38.4672986
PD_naive	2484	0.0639246	9.455848E-13	3.8183086E-6	0.0082665	0.1890115	0	1.0000000

## The MEANS Procedure

YEAR=2013

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	2488	7.3287805	3.7176490	6.5679642	10.0621097	5.6017346	-57.0885745	50.0779528
PD_iterative	2488	0.0492298	4.069966E-24	2.550402E-11	0.000100543	0.1727939	0	1.0000000
DD_direct	2488	8.6896835	4.9957495	7.7919320	11.3175842	6.9927540	-7.3128766	188.4868913
PD_direct	2488	0.0261346	5.402221E-30	3.306146E-15	2.9310112E-7	0.1255848	0	1.0000000
DD_naive	2488	8.0158500	4.5802587	7.0441390	10.5372640	5.4412368	-5.0778852	62.4768755
PD_naive	2488	0.0257971	2.908337E-26	9.333846E-13	2.3221154E-6	0.1197173	0	0.9999998

YEAR=2014

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	2504	8.8863550	4.9308306	8.2842418	11.9672994	6.6149677	-116.3997170	50.1035134
PD_iterative	2504	0.0328761	2.649855E-33	5.951248E-17	4.0980967E-7	0.1451203	0	1.0000000
DD_direct	2504	10.2804362	6.5561954	9.7084971	12.9353701	5.8248261	-7.8434003	50.4322367
PD_direct	2504	0.0145714	1.421379E-38	1.388845E-22	2.75998E-11	0.0963674	0	1.0000000
DD_naive	2504	9.6407802	5.9956672	8.8585241	12.0881067	5.7249656	-3.8642783	50.4292580
PD_naive	2504	0.0137163	6.106596E-34	4.055468E-19	1.0138572E-9	0.0875404	0	0.9999443

YEAR=2015

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	2609	7.6113695	3.7599587	6.8619903	10.8852955	6.2981283	-118.8943622	51.8279460
PD_iterative	2609	0.0444975	6.772927E-28	3.395383E-12	0.000084971	0.1602472	0	1.0000000
DD_direct	2609	8.9442150	5.1323517	8.1463558	12.0241849	5.6366098	-12.8382081	55.0096252
PD_direct	2609	0.0206983	1.325961E-33	1.875278E-16	1.4307211E-7	0.1102138	0	1.0000000
DD_naive	2609	8.3442631	4.6283958	7.4791827	11.2639304	5.4362040	-4.4766519	54.9770236
PD_naive	2609	0.0206921	9.886916E-30	3.739312E-14	1.8425464E-6	0.1054620	0	0.9999962



The CORR Procedure

2 Variables:	DD_naive PD_naive
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Simple Statistics						
Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
DD_naive	150764	5.86892	5.32358	884822	-10.63801	784.23867
PD_naive	150764	0.06099	0.17612	9194	0	1.00000

Pearson Correlation Coefficients, N = 150764 Prob >  r  under H0: Rho=0		
	DD_naive	PD_naive
DD_naive	1.00000	-0.40831 <.0001
PD_naive	-0.40831 <.0001	1.00000

The CORR Procedure

2 Variables:	DD_direct PD_direct
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Simple Statistics						
Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
DD_direct	150764	6.18854	10.80480	933009	-68.70338	3511
PD_direct	150764	0.06709	0.19342	10114	0	1.00000

Pearson Correlation Coefficients, N = 150764 Prob >  r  under H0: Rho=0		
	DD_direct	PD_direct
DD_direct	1.00000	-0.22913 <.0001
PD_direct	-0.22913 <.0001	1.00000

The CORR Procedure

2 Variables:	DD_iterative PD_iterative
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Simple Statistics						
Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
DD_iterative	150764	5.27050	5.79333	794602	-255.54279	907.87881
PD_iterative	150764	0.09577	0.22894	14438	0	1.00000

Pearson Correlation Coefficients, N = 150764 Prob >  r  under H0: Rho=0		
	DD_iterative	PD_iterative
DD_iterative	1.00000	-0.45080 <.0001
PD_iterative	-0.45080 <.0001	1.00000

The CORR Procedure

3 Variables:	DD_naive	DD_direct	DD_iterative
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Simple Statistics						
Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
DD_naive	150764	5.86892	5.32358	884822	-10.63801	784.23867
DD_direct	150764	6.18854	10.80480	933009	-68.70338	3511
DD_iterative	150764	5.27050	5.79333	794602	-255.54279	907.87881

Pearson Correlation Coefficients, N = 150764 Prob >  r  under H0: Rho=0			
	DD_naive	DD_direct	DD_iterative
DD_naive	1.00000	0.52615 <.0001	0.88835 <.0001
DD_direct	0.52615 <.0001	1.00000	0.48747 <.0001
DD_iterative	0.88835 <.0001	0.48747 <.0001	1.00000

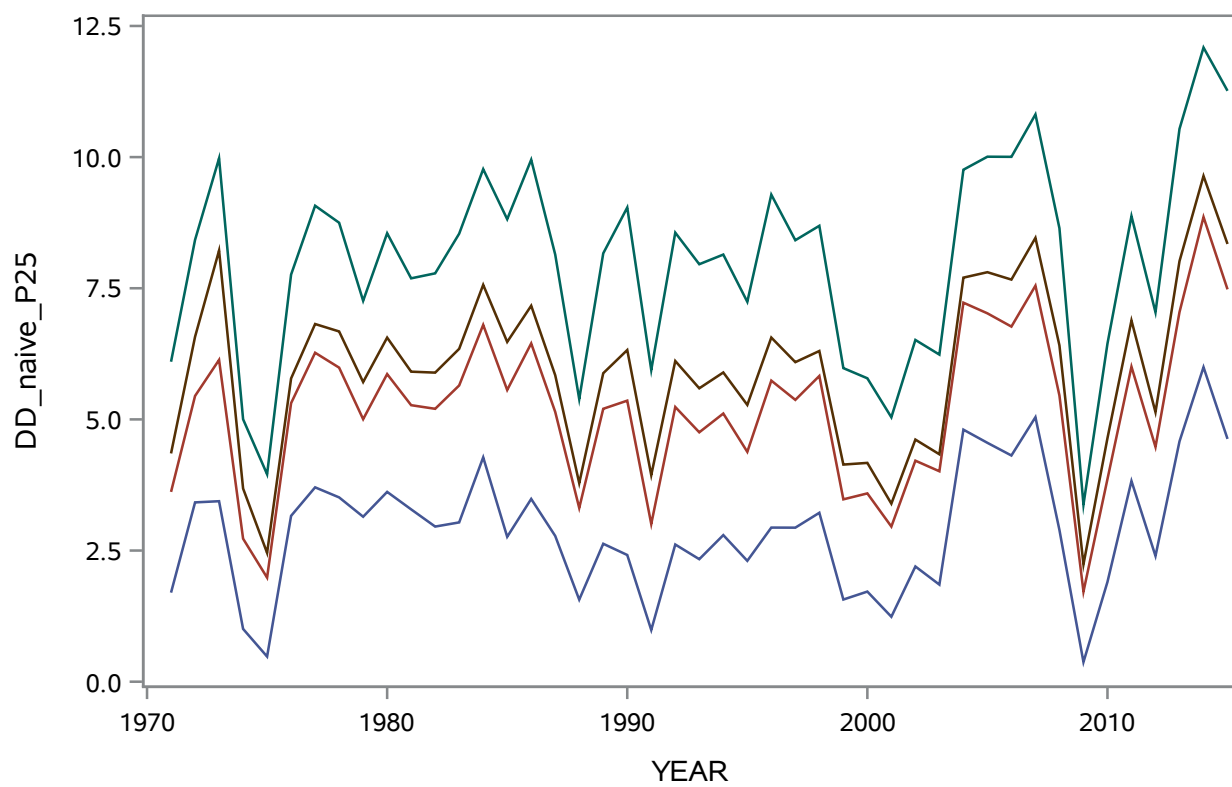
The CORR Procedure

3 Variables:	PD_naive	PD_direct	PD_iterative
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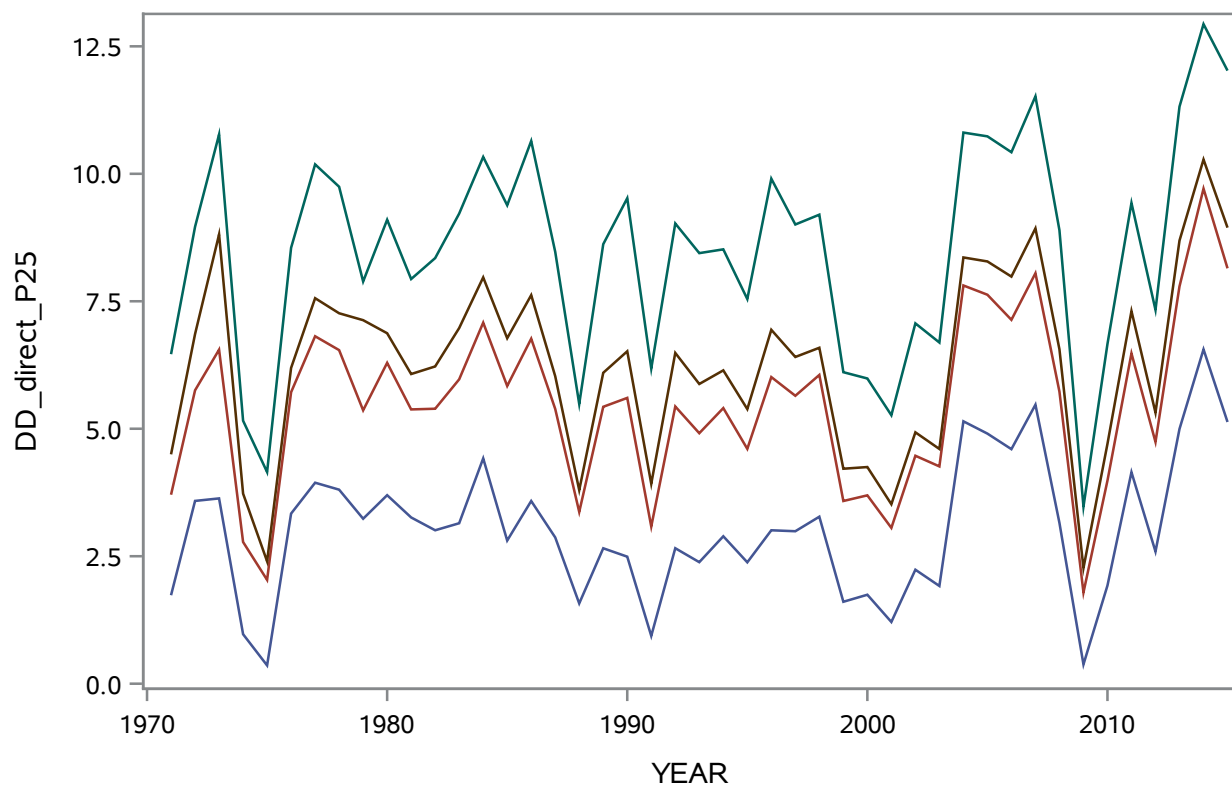
Simple Statistics						
Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
PD_naive	150764	0.06099	0.17612	9194	0	1.00000
PD_direct	150764	0.06709	0.19342	10114	0	1.00000
PD_iterative	150764	0.09577	0.22894	14438	0	1.00000

Pearson Correlation Coefficients, N = 150764 Prob >  r  under H0: Rho=0			
	PD_naive	PD_direct	PD_iterative
PD_naive	1.00000	0.98808 <.0001	0.87391 <.0001
PD_direct	0.98808 <.0001	1.00000	0.88733 <.0001
PD_iterative	0.87391 <.0001	0.88733 <.0001	1.00000

DD Naive Method mean p25 p50 and p75, 1970 to 2015

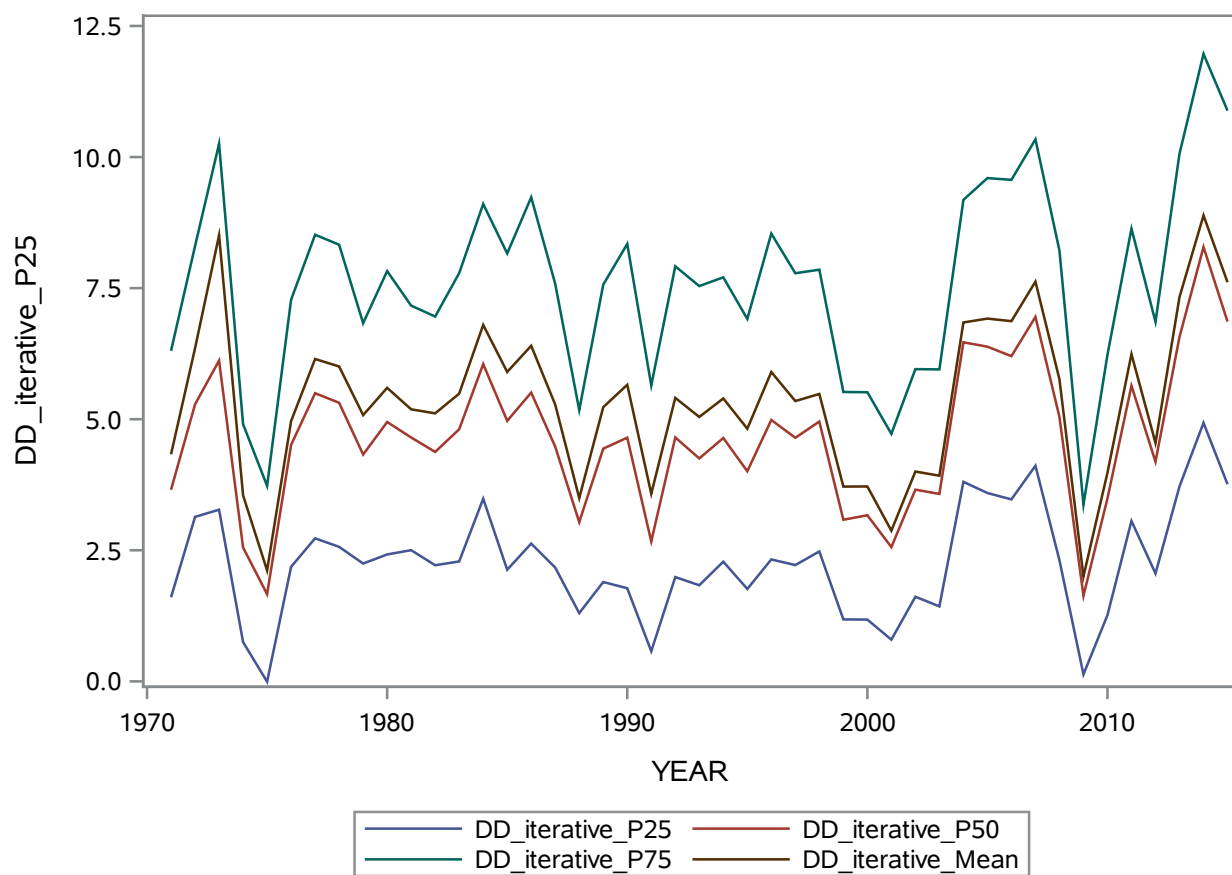


DD\_naive\_P25 DD\_naive\_P50  
DD\_naive\_P75 DD\_naive\_Mean

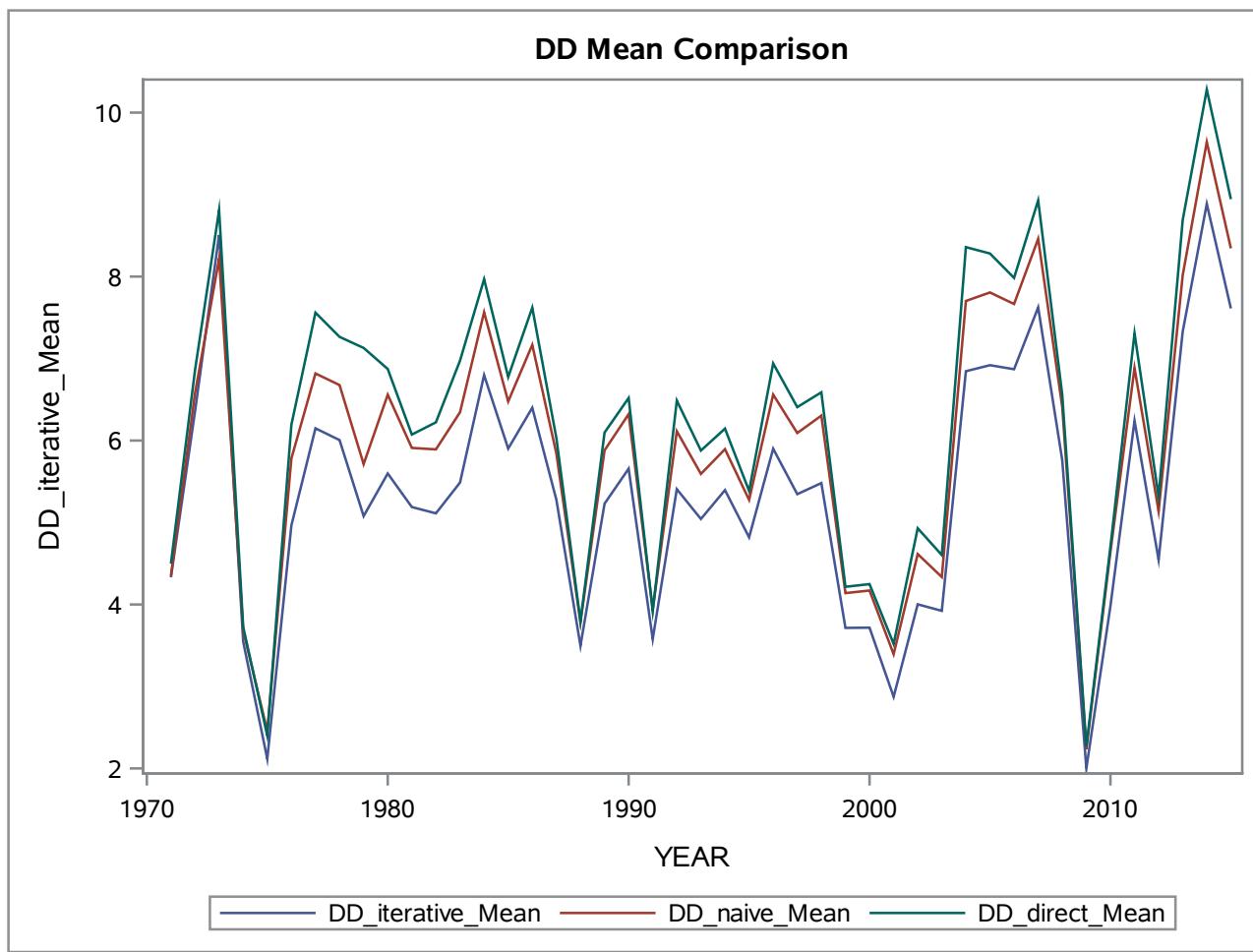
**DD Direct Method mean p25 p50 and p75, 1970 to 2015**

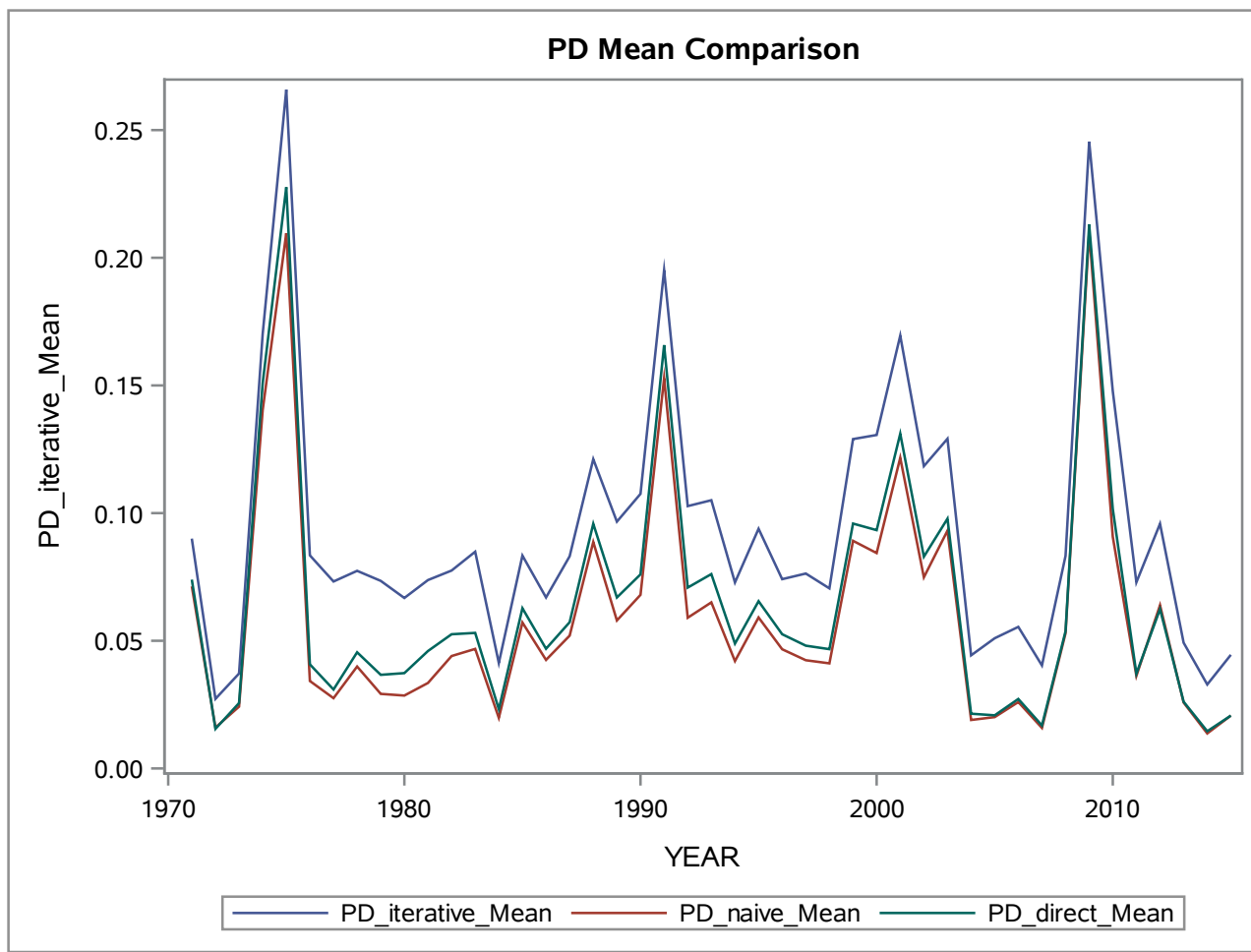
— DD\_direct\_P25 — DD\_direct\_P50  
— DD\_direct\_P75 — DD\_direct\_Mean

DD Iterative Method mean p25 p50 and p75, 1970 to 2015









The MEANS Procedure

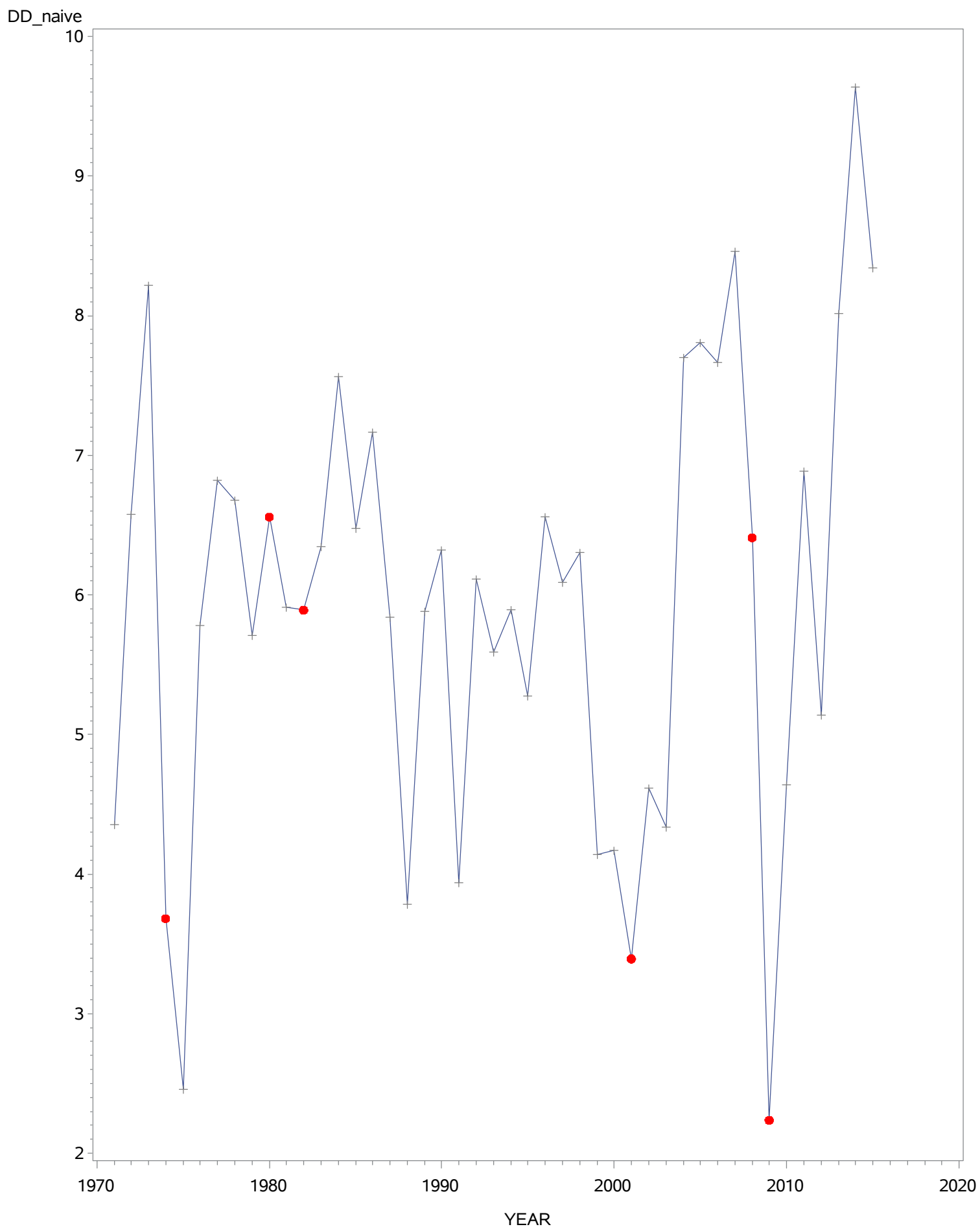
USREC=0

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	131432	5.4401850	2.1087616	4.6448645	7.7978206	5.3771111	-255.5427922	281.6464192
PD_iterative	131432	0.0899864	3.149275E-15	1.7014988E-6	0.0174826	0.2225999	0	1.0000000
DD_direct	131432	6.3862446	2.8323810	5.5227165	8.8442984	11.1731161	-68.7033842	3510.66
PD_direct	131432	0.0614453	4.605261E-19	1.6689908E-8	0.0023101	0.1853670	0	1.0000000
DD_naive	131432	6.0444946	2.7324945	5.2320962	8.3080460	4.9788073	-10.6380085	220.5357063
PD_naive	131432	0.0554754	4.864541E-17	8.3799247E-8	0.0031428	0.1676541	0	1.0000000

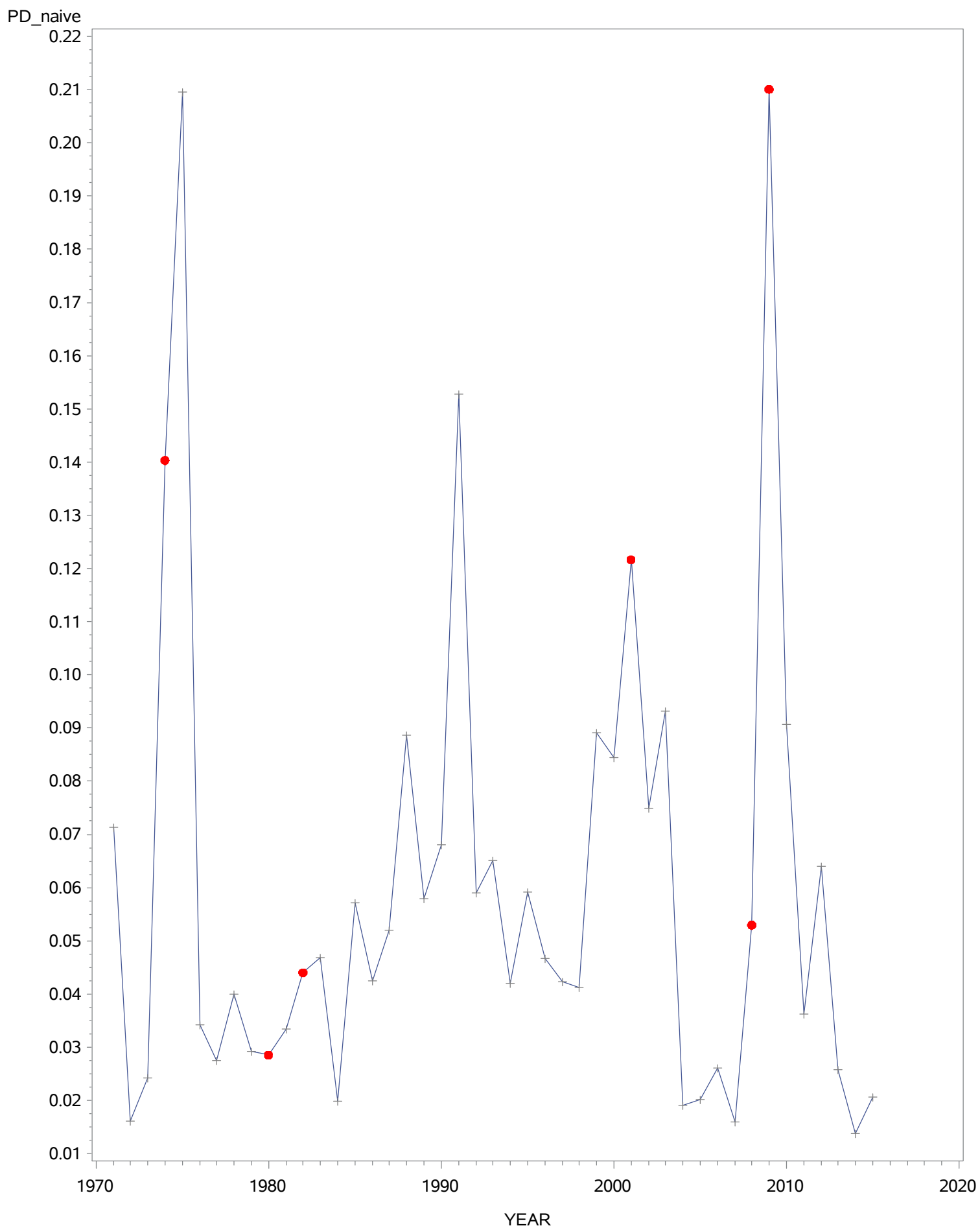
USREC=1

Variable	N	Mean	25th Pctl	50th Pctl	75th Pctl	Std Dev	Minimum	Maximum
DD_iterative	19332	4.1168743	1.2375453	3.3201997	6.0307675	7.9780210	-122.6745606	907.8788144
PD_iterative	19332	0.1350695	8.159142E-10	0.000449765	0.1079424	0.2647591	0	1.0000000
DD_direct	19332	4.8443905	1.7288475	3.9815485	6.9556908	7.7227417	-50.7698755	845.1312400
PD_direct	19332	0.1054452	1.754203E-12	0.000034234	0.0419182	0.2376197	0	1.0000000
DD_naive	19332	4.6752308	1.7031887	3.8390699	6.5879641	7.1313999	-8.2611545	784.2386711
PD_naive	19332	0.0984496	2.229492E-11	0.000061751	0.0442664	0.2217884	0	1.0000000

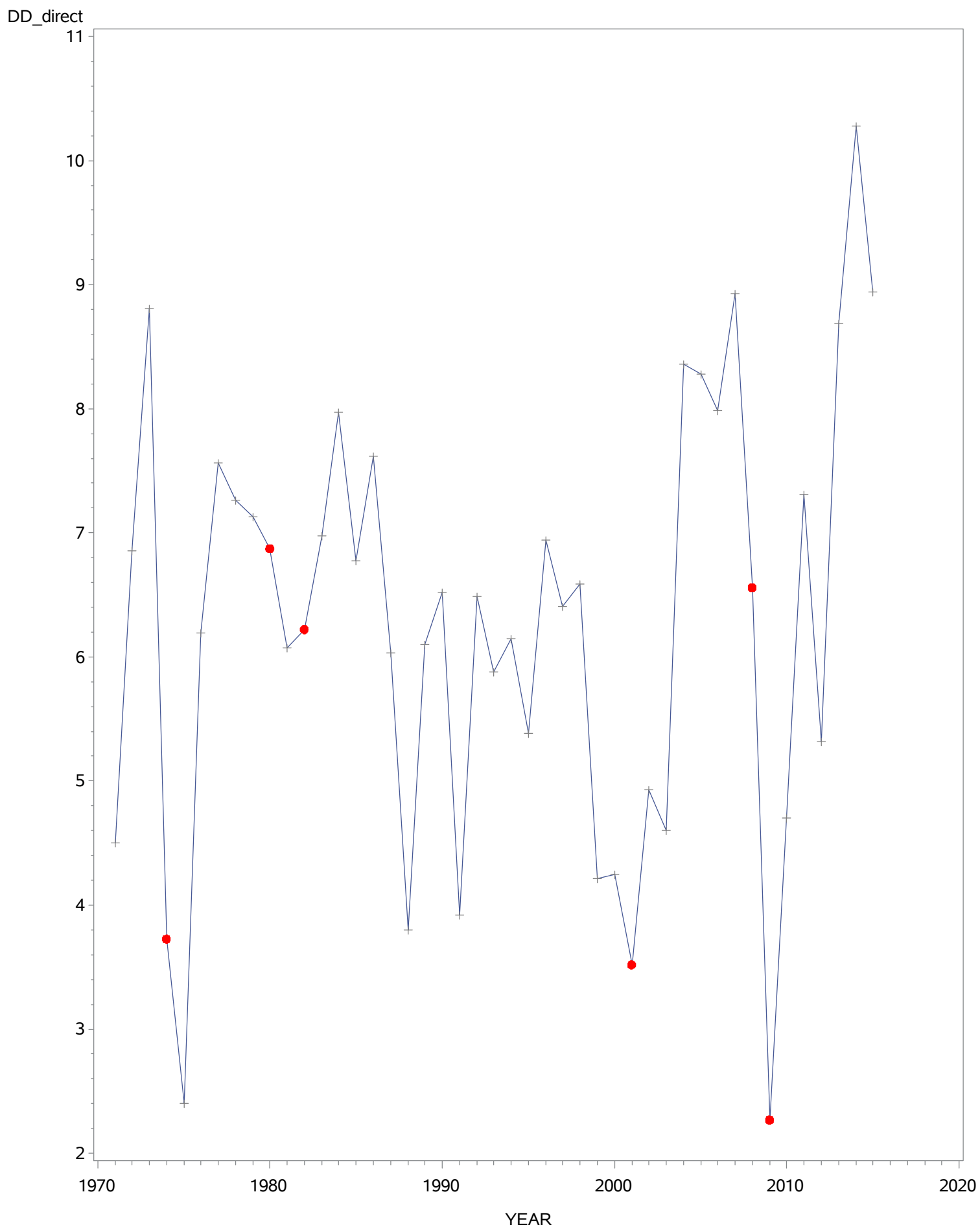
DD\_naive per year with USREC data, 1970 to 2015



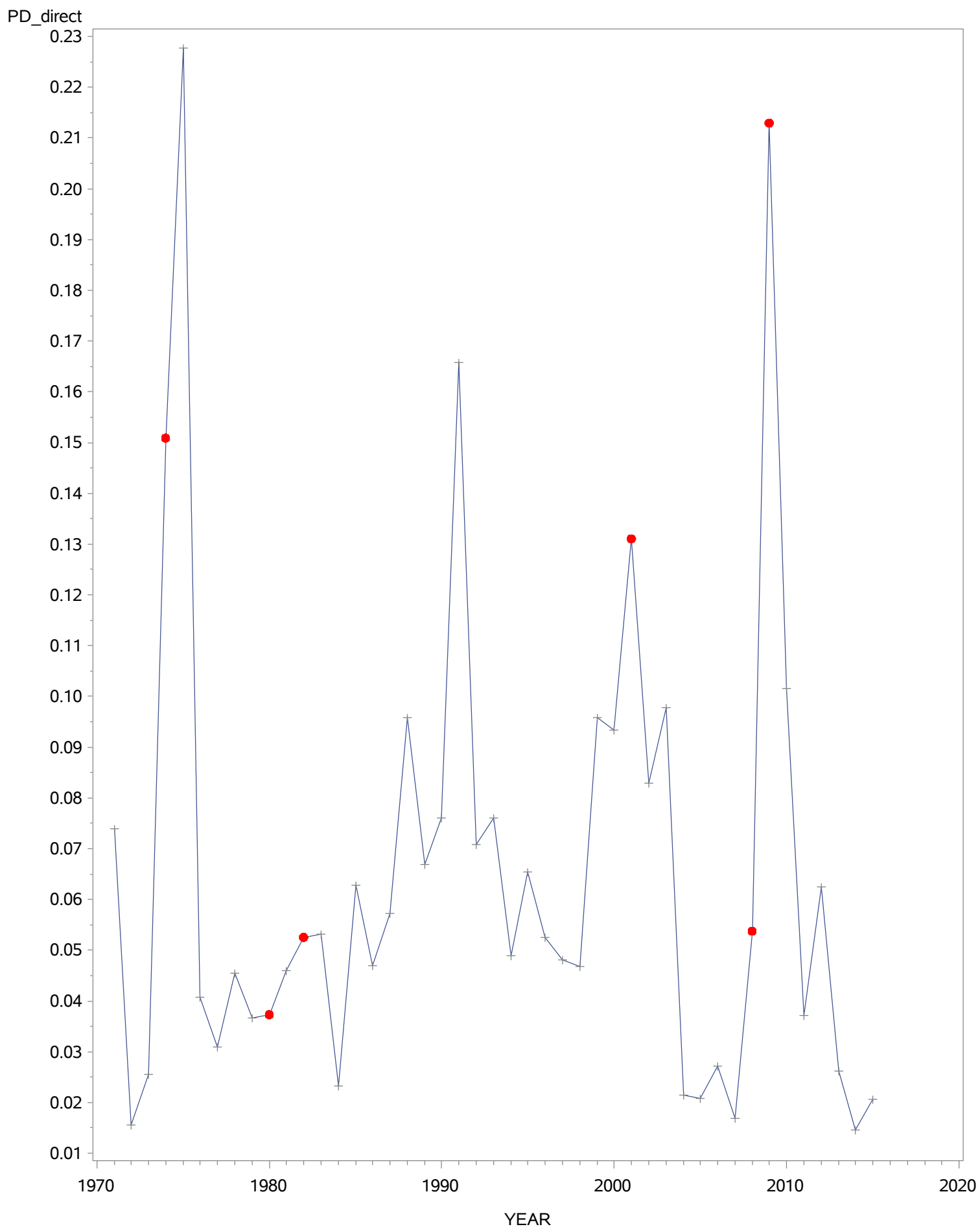
PD\_naive per year with USREC data, 1970 to 2015



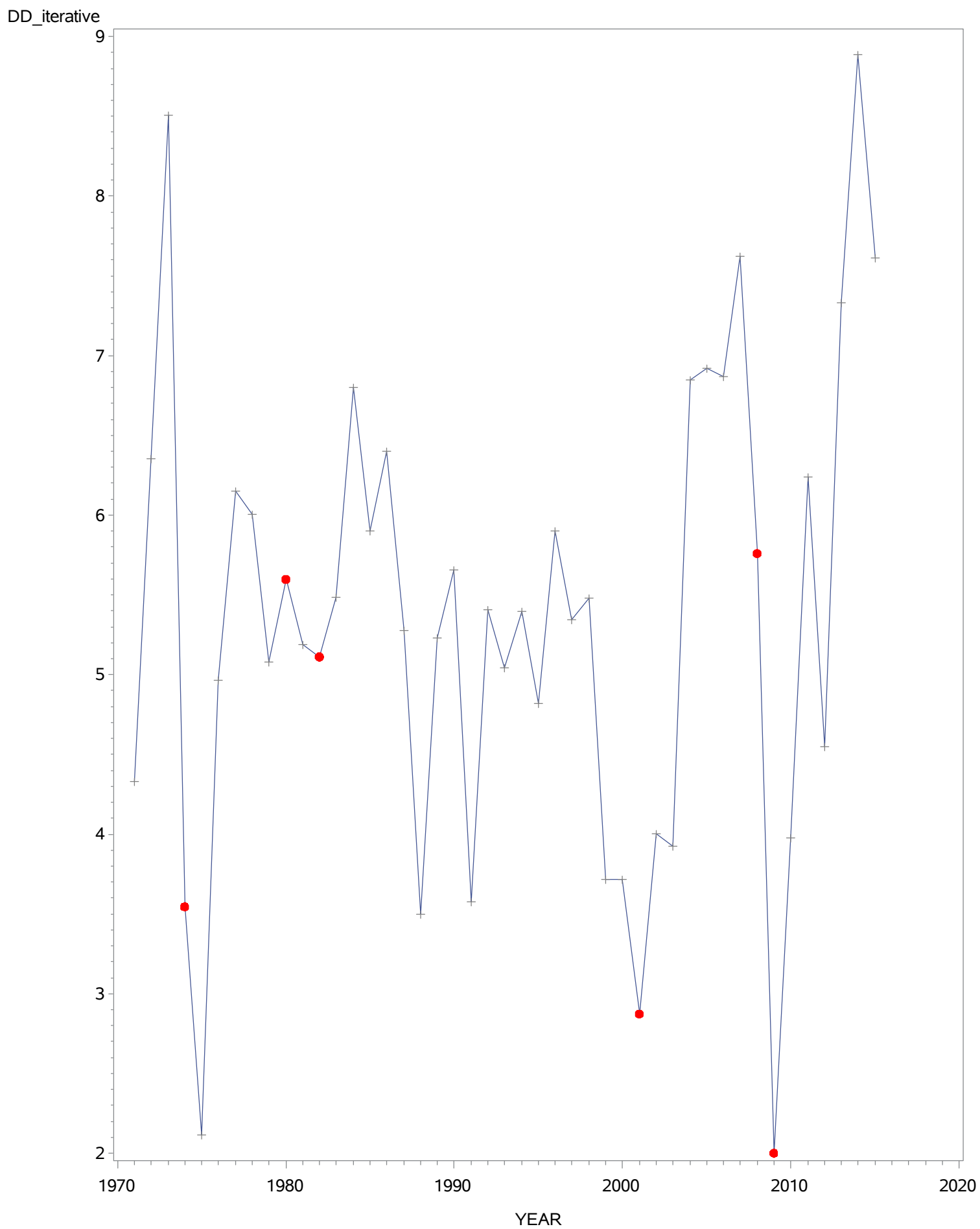
DD\_direct per year with USREC data, 1970 to 2015



PD\_direct per year with USREC data, 1970 to 2015

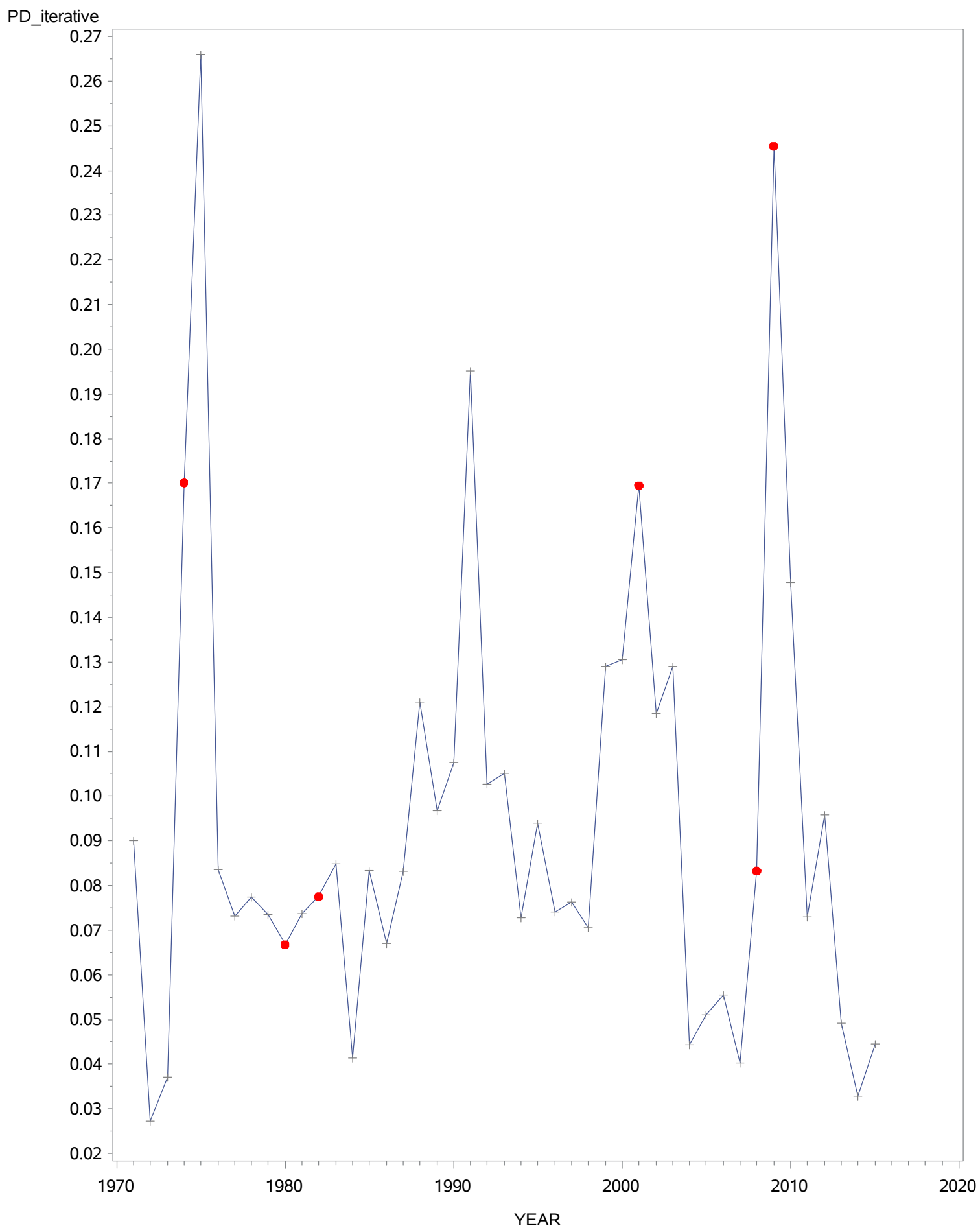


DD\_iterative per year with USREC data, 1970 to 2015

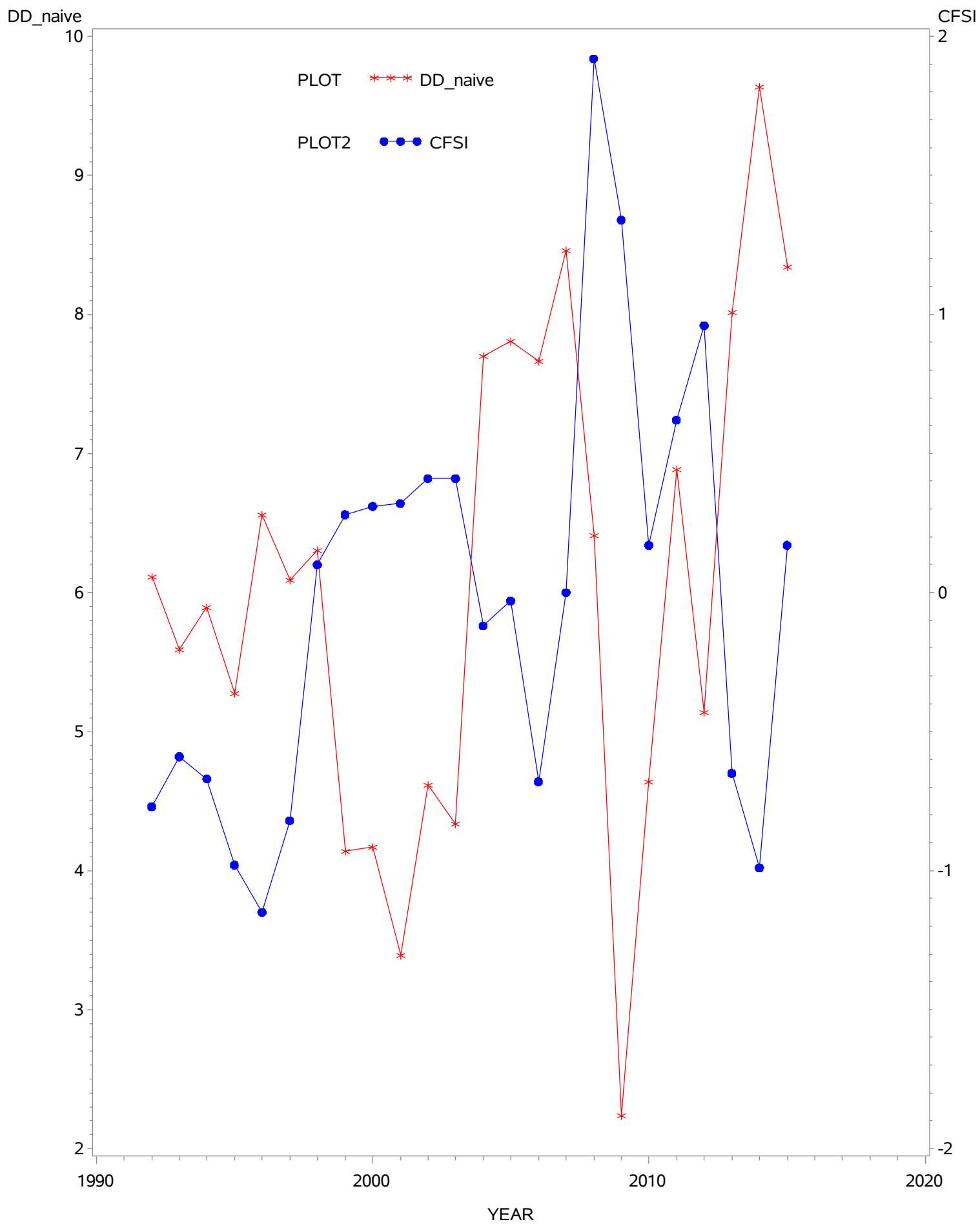




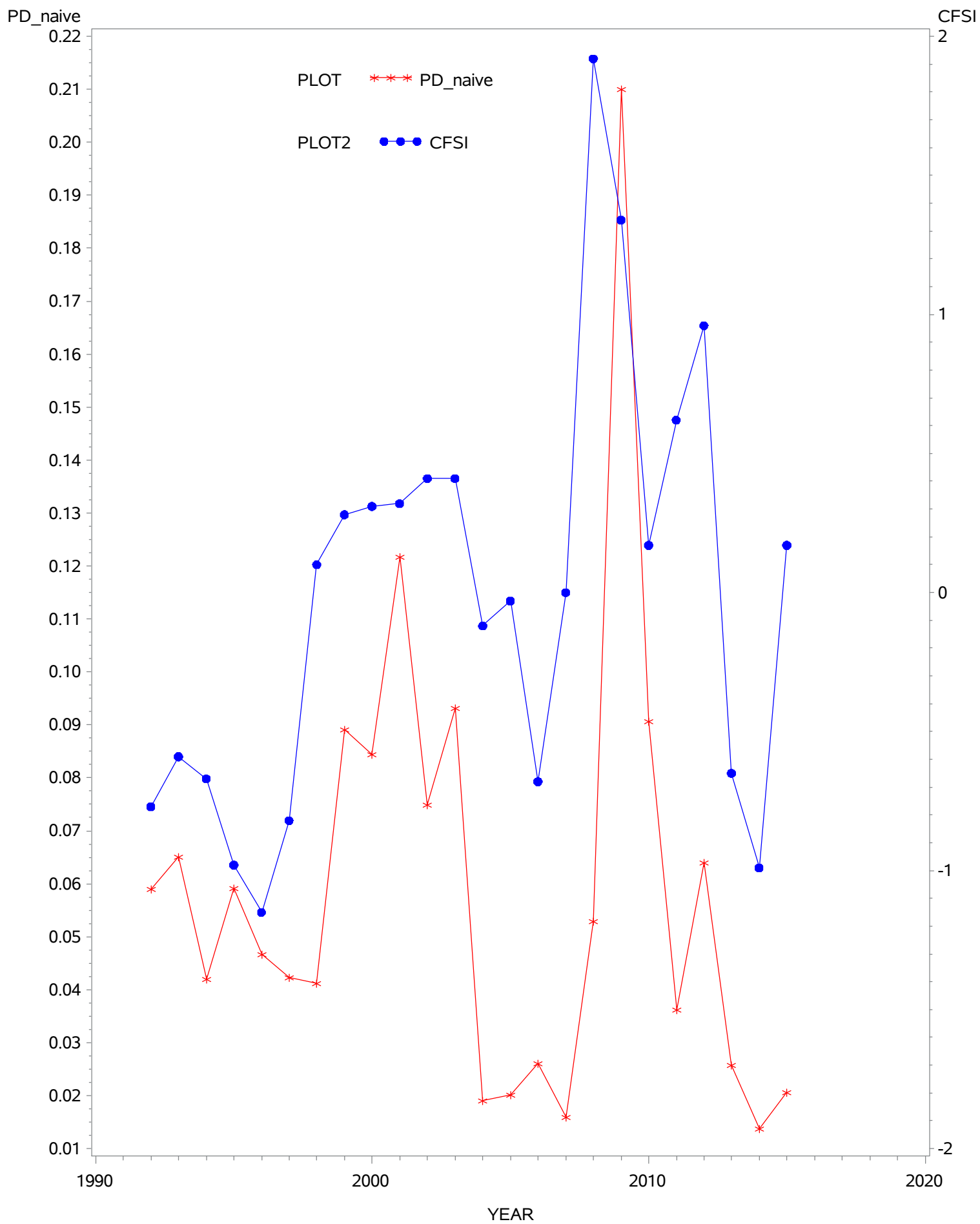
PD\_iterative per year with USREC data, 1970 to 2015



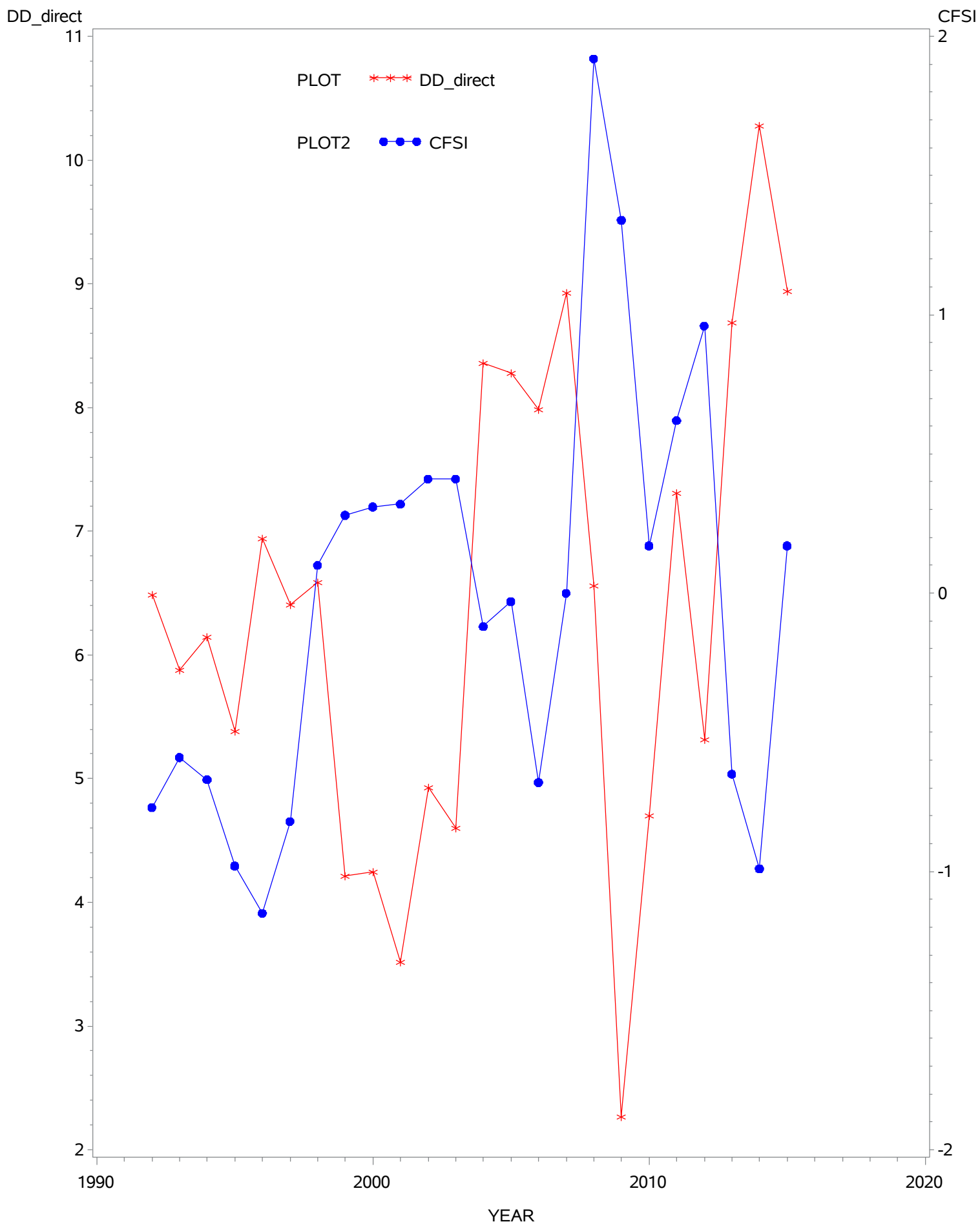
## Stress Index and DD\_naive per year



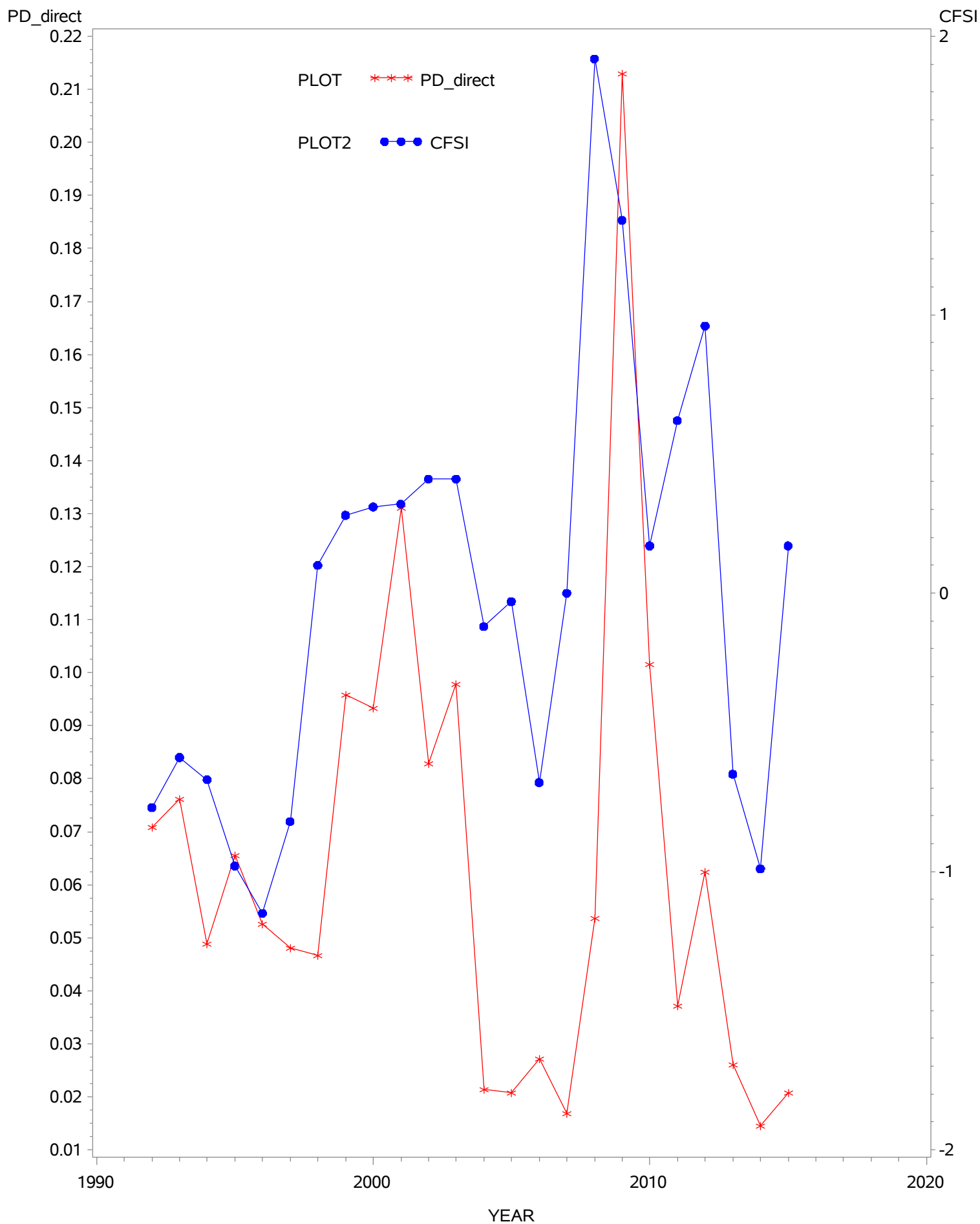
## Stress Index and PD\_naive per year



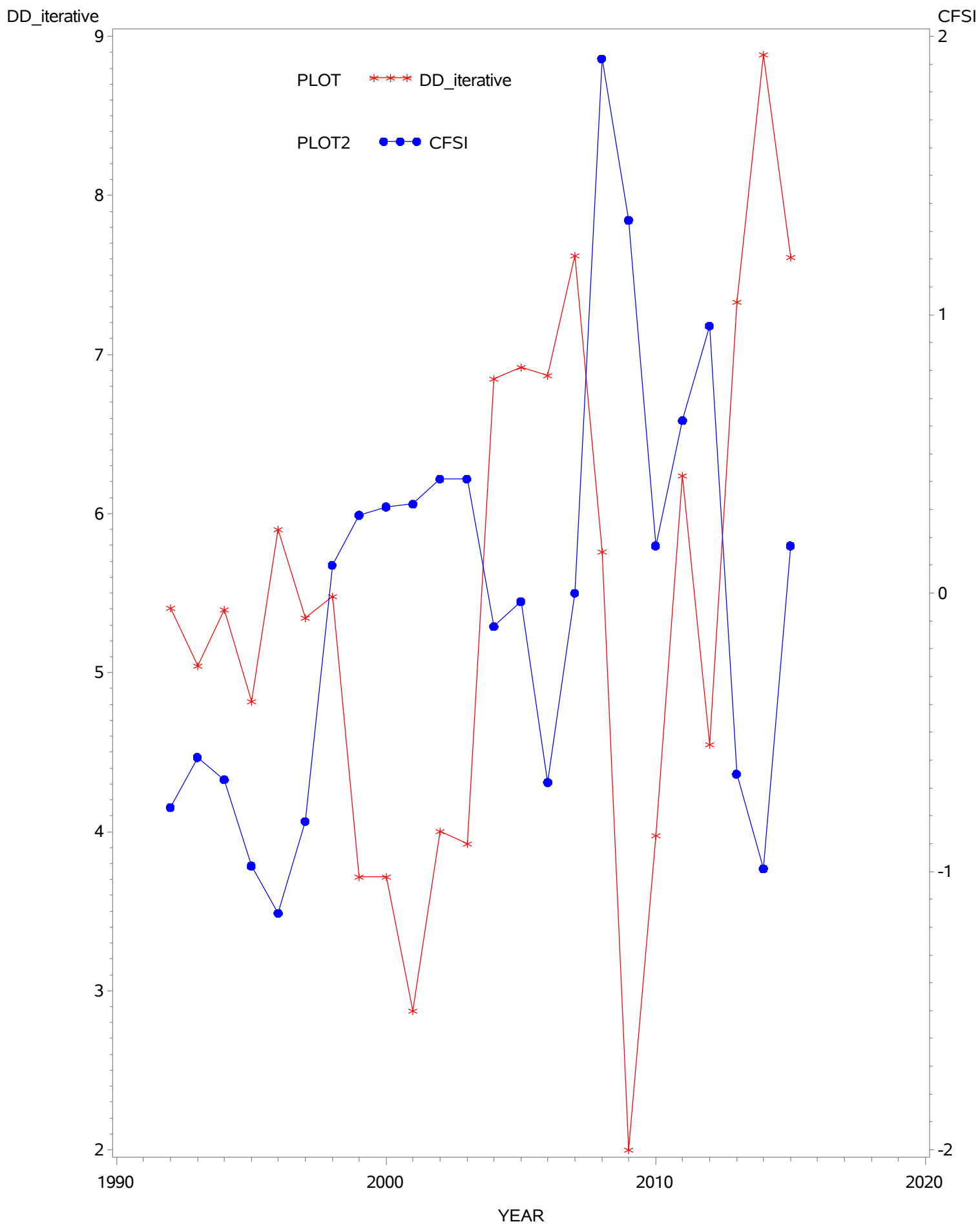
## Stress Index and DD\_direct per year



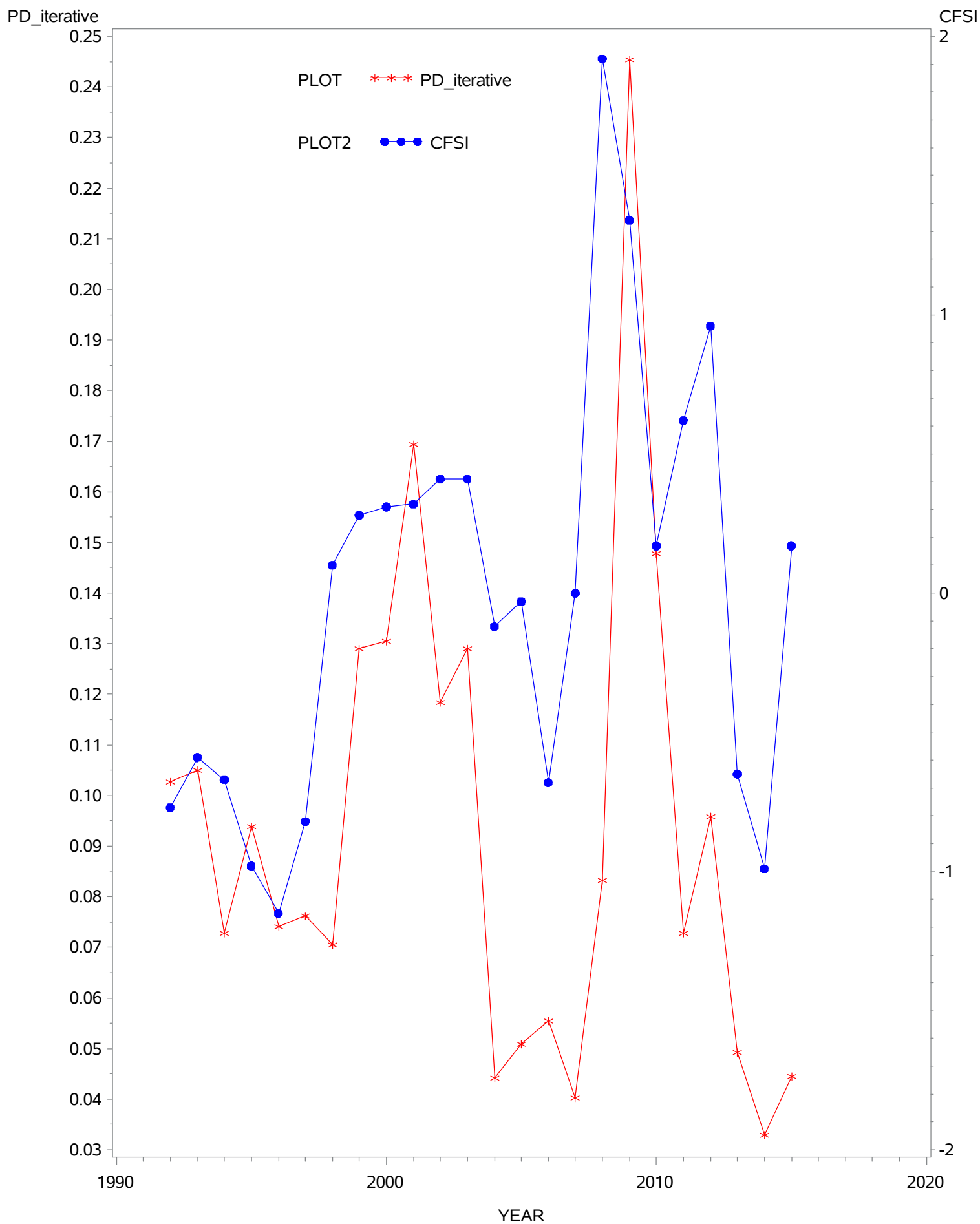
Stress Index and PD\_direct per year



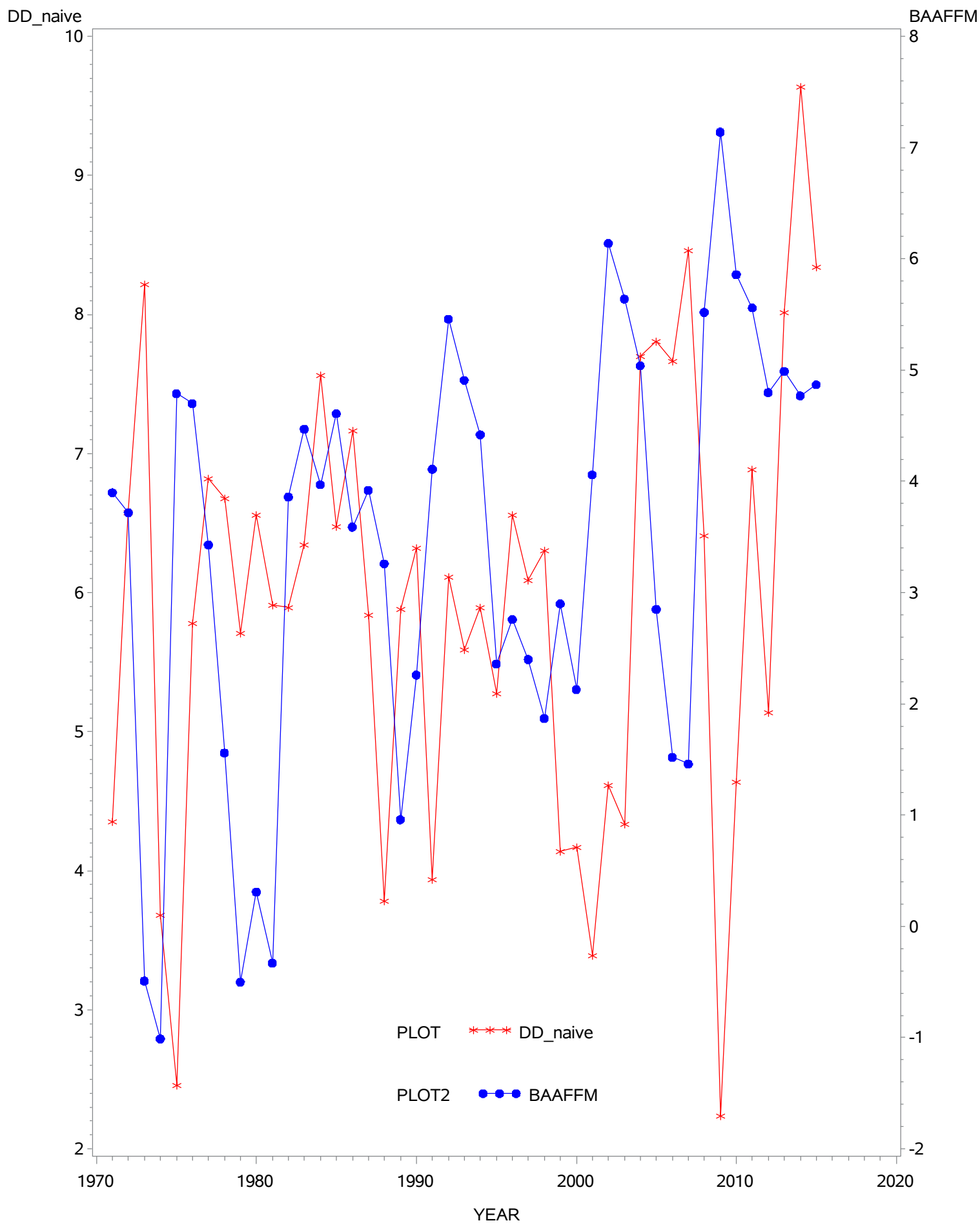
## Stress Index and DD\_iterative per year



Stress Index and PD\_iterative per year

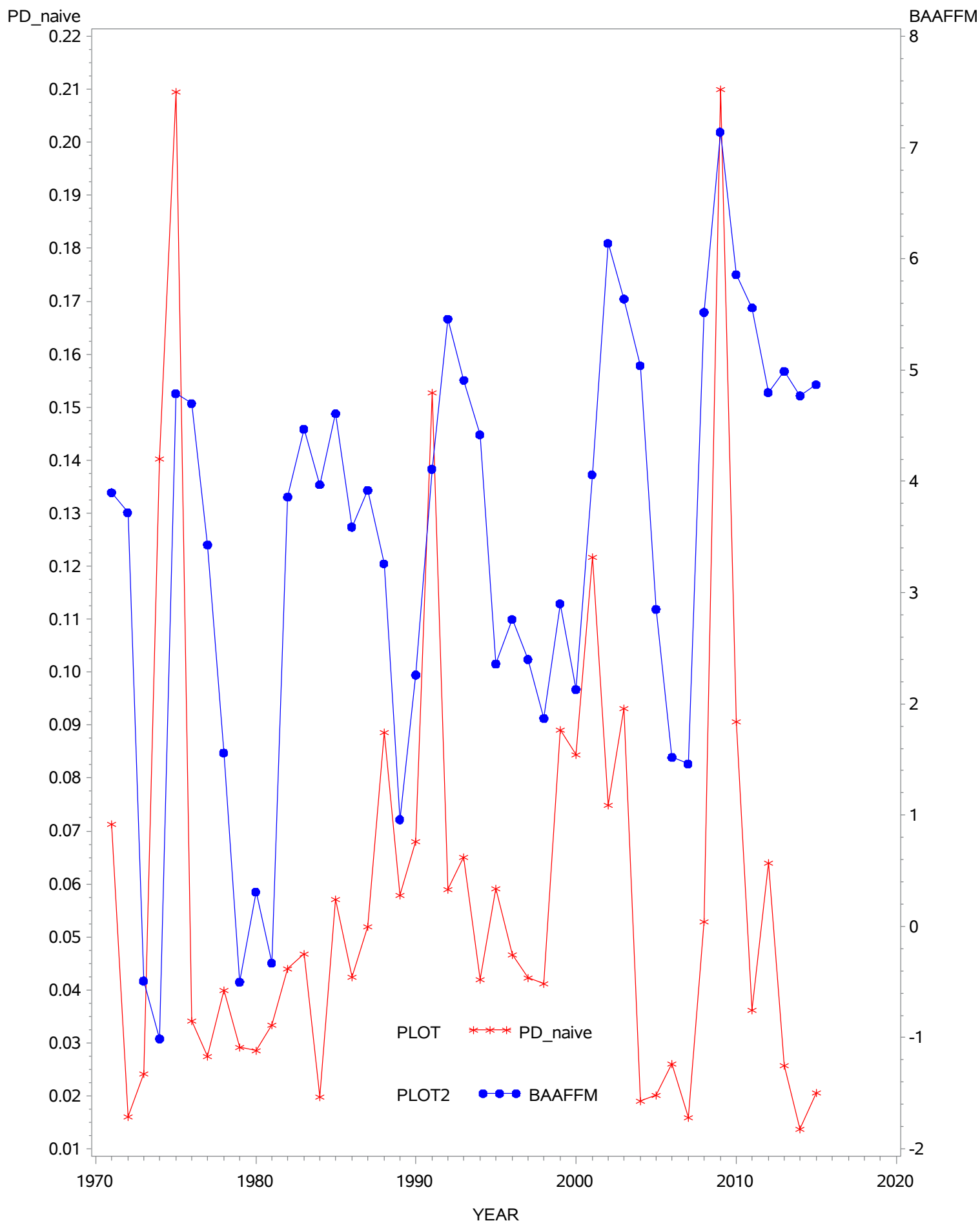


Baa and DD\_naive per year, 1970 to 2015

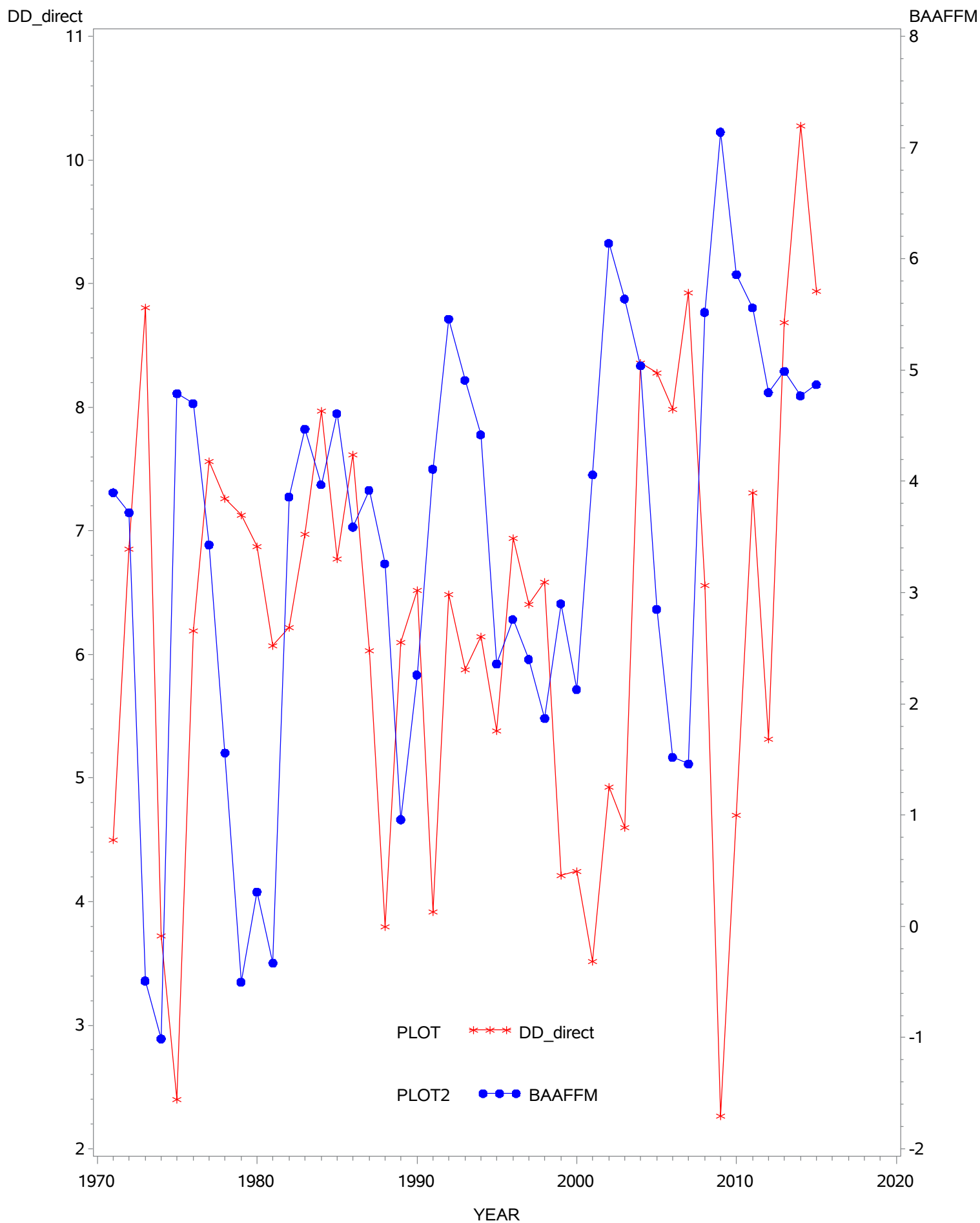




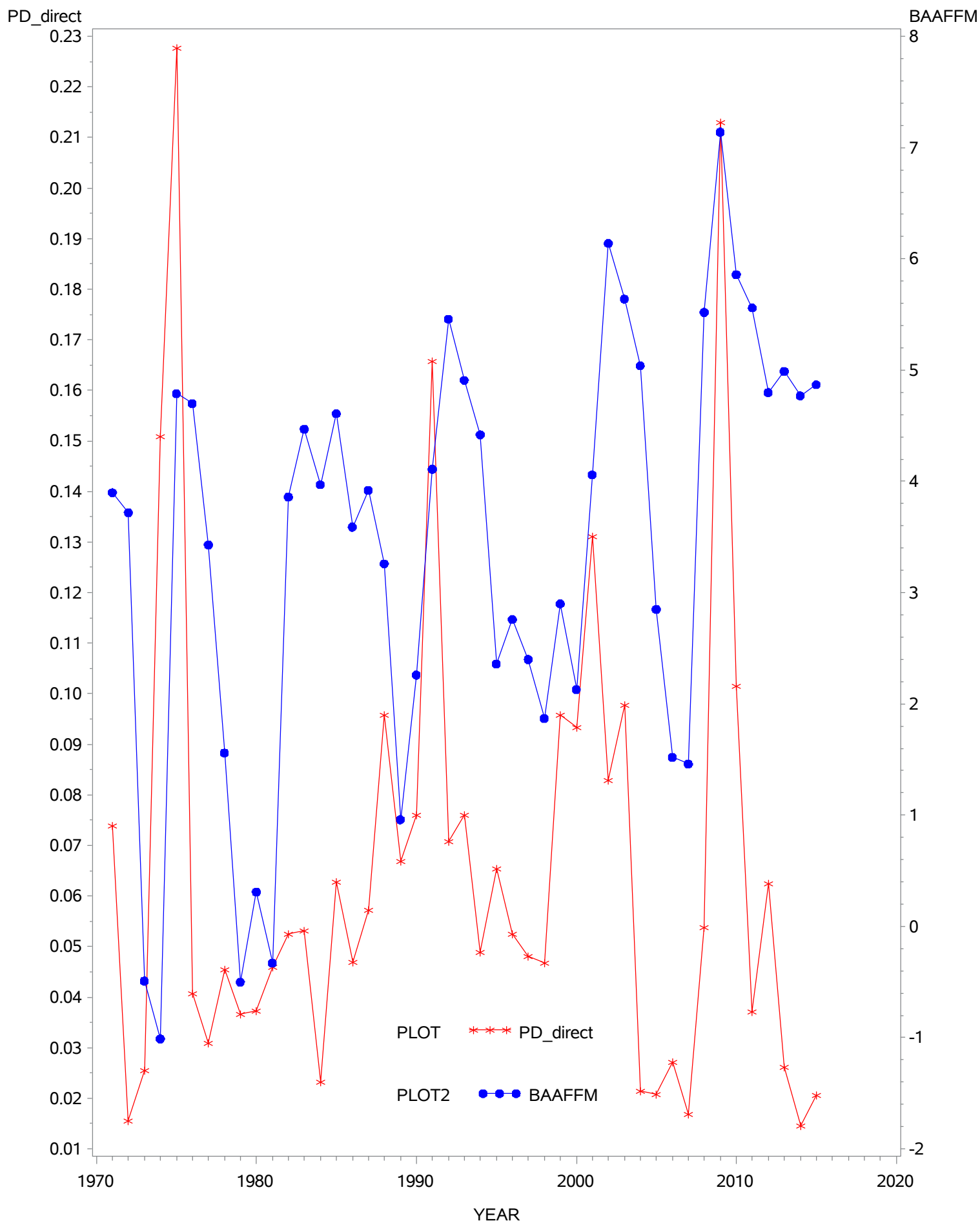
Baa and PD\_naive per year, 1970 to 2015



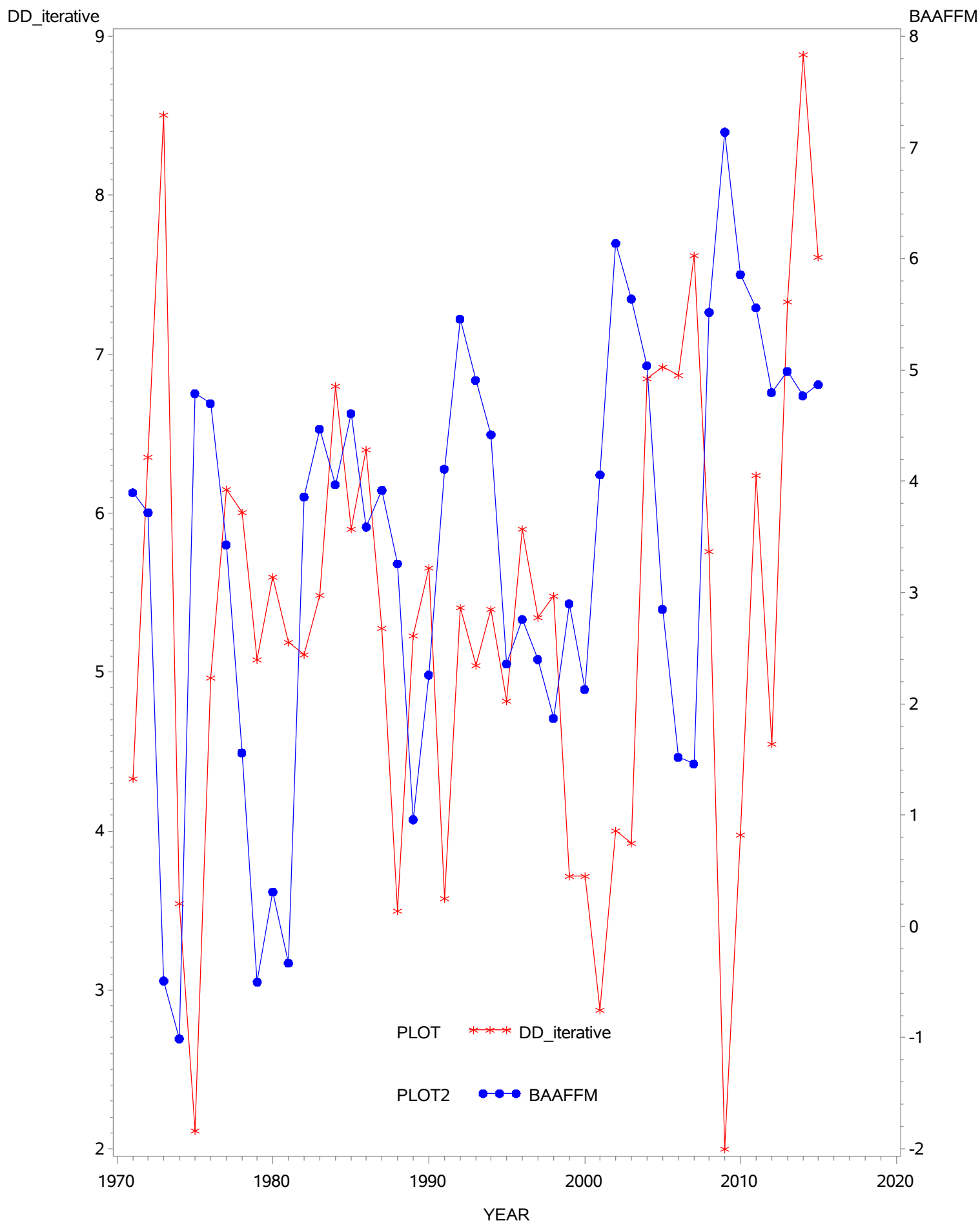
## Baa and DD\_direct per year, 1970 to 2015



Baa and PD\_direct per year, 1970 to 2015



## Baa and DD\_iterative per year, 1970 to 2015



Baa and PD\_iterative per year, 1970 to 2015

