

## Multiplicador monetário e seus coeficientes entre 2003 à 2023

O multiplicador monetário é um valor, normalmente entre 1 e 2, no qual espera-se que a base monetária da economia multiplique e varie. Essa variável monetária é função de mais outras duas, o coeficiente “e” e o coeficiente “d”, e, por isso, condiz com essa fórmula:  $\alpha = \frac{1}{1-d(1-e)}$ . O “e” é uma razão entre os encaixes totais e os depósitos à vista dos bancos comerciais. O fato de haver os encaixes totais na fração torna o Banco Central (BACEN) influenciador direto desse coeficiente, visto que consta-se que o valor de encaixes compulsórios está intrínseco aos encaixes totais. Portanto, o BACEN tem o poder de decidir o quanto vai ser passado da reserva dos bancos comerciais para o mesmo, o que significa que o “e” tem caráter negativo no multiplicador, pois sabe-se ao aumentar esse encaixe, os bancos comerciais tenderão a oferecer menos empréstimos. Já o coeficiente “d” é a razão entre os depósitos à vista dos bancos comerciais e os meios de pagamento. Essa fração nada mais diz que os bancos comerciais estão mais ativos, e oferecem empréstimos em maior quantidade ao público de acordo com a demanda. Dessa forma, o “d” é um indicador da atuação dos bancos comerciais, e tem relação direta com o multiplicador.

Para a realização desse *short report*, consideramos encaixes totais a subtração da base monetária (B) pelo papel moeda no poder do público (PMPP).

Nos anos de 2003 à 2023, o multiplicador do banco central obteve uma média geral de 1,4262, o coeficiente “e” apresentou 0,4658 e o coeficiente “d”, por sua vez, mostrou 0,5555 de média geral. Apartir da tabela e dos gráficos é possível observar que os picos do coeficiente “e” está em 2003, nos meses de abril e julho, onde constaram respectivamente 0,650 e 0,648. É possível associar essa extremidade com as baixas expressivas do multiplicador monetário também em abril de 2003, com um valor de 1,281 e em julho com 1,283. No outro lado da moeda, houve uma grande queda no valor de “d” nos períodos de dezembro de 2015 e janeiro de 2016, 2017, 2018 e 2019 em que o coeficiente chegou a expressar os números de 0,466; 0,468; 0,465; 0,464 e 0,463 respectivamente, e como reflexo, o multiplicador teve uma de suas quedas mais agressivas do vintênio no meses de 2017 apontando valores de 1,242; 1.244; 1.253 etc, enquanto nesse momento, o coeficiente de “e” estava em níveis relativamente elevados, corroborando para o declínio do multiplicador.

## Segunda Análise - Os Efeitos da Copa do Mundo

Para que a copa sediada no Brasil em 2014 ocorresse com êxito, o governo procurou despende boa quantia de dinheiro para infraestrutura e urbanização. Um exemplo claro foi em 2010, momento em que foi anunciada o local da próxima copa, quando o BNDS (Banco Nacional de Desenvolvimento) criou o projeto “ProCopa” em que deferiu empréstimos e investimentos para a construção de novos estádios, reformas de arenas e urbanização em seu entorno. Nesse momento, do início em 2010 até julho 2014, onde a copa é encerrada, o multiplicador monetário encontrou uma média de 1,42, bem similar à média geral. É possível perceber também que houve uma queda brusca no meio do período de análise, porém logo se recupera com pequenos picos elevados, mas logo volta ao normativo e consagra a média. Contudo, ao analisar a trajetória do coeficiente “d”, é visível que vem em queda desde 2010 e que continua na decrescente até depois de 2015. Uma hipótese para o caso, seria de que, com os gastos governamentais em excesso, e bastante criação de demanda agregada, o BACEN, monopolizador da política monetária, preveu uma possível aumento da inflação com essa distribuição de renda e com a renda vinda de fora por parte dos imigrantes no momento de copa do mundo, e por isso o multiplicador, de acordo com o gráfico, apresenta algumas queda antes de 2014, mas apresenta aumentos no mesmo ano.

Table 1: Valores das Variáveis no Tempo

Data	Meios de Pagamentos	Depositos a vista	Encaixes Totais	e	d	alpha
2003-01-01	94.977.783	58.027.664	27.420.138	0.4725356	0.6109604	1.475492
2003-02-01	93.602.937	57.415.063	31.306.559	0.5452673	0.6133895	1.386825
2003-03-01	89.822.584	56.687.240	32.897.112	0.5803266	0.6311023	1.360279
2003-04-01	87.410.599	54.955.139	35.773.328	0.6509551	0.6287011	1.281140
2003-05-01	86.231.763	53.712.908	32.594.739	0.6068325	0.6228901	1.324328
2003-06-01	88.466.315	56.543.028	31.914.654	0.5644313	0.6391475	1.385795
2003-07-01	87.050.128	54.607.293	35.398.371	0.6482352	0.6273086	1.283145
2003-08-01	87.318.737	54.069.043	25.180.326	0.4657069	0.6192147	1.494416
2003-09-01	88.450.654	55.976.215	23.635.669	0.4222449	0.6328525	1.576376
2003-10-01	88.533.279	55.206.881	24.384.040	0.4416848	0.6235721	1.534095
2003-11-01	95.230.124	60.000.748	27.187.991	0.4531275	0.6300606	1.525699
2003-12-01	112.765.870	69.773.208	30.226.474	0.4332103	0.6187440	1.540115
2004-01-01	101.206.857	62.924.185	30.617.097	0.4865712	0.6217384	1.468900

2004-02-01	102.857.652	65.239.476	31.250.817	0.4790170	0.6342695	1.493526
2004-03-01	101.282.219	65.156.928	26.997.337	0.4143433	0.6433205	1.604531
2004-04-01	101.821.601	64.958.452	28.749.835	0.4425881	0.6379634	1.551851
2004-05-01	103.074.482	65.839.915	29.587.586	0.4493868	0.6387606	1.542520
2004-06-01	104.182.650	66.353.551	30.163.172	0.4545826	0.6368964	1.532272
2004-07-01	104.856.804	65.368.248	33.621.872	0.5143456	0.6234049	1.434225
2004-08-01	107.417.168	68.370.508	33.154.623	0.4849258	0.6364952	1.487746
2004-09-01	111.720.476	71.352.499	30.587.283	0.4286785	0.6386698	1.574520
2004-10-01	111.602.434	70.104.053	30.174.101	0.4304188	0.6281588	1.557117
2004-11-01	115.140.420	73.045.476	33.002.657	0.4518097	0.6344034	1.533210
2004-12-01	129.659.697	77.716.947	36.789.928	0.4733836	0.5993917	1.461240
2005-01-01	120.494.681	75.218.161	38.194.815	0.5077871	0.6242447	1.443546
2005-02-01	119.527.456	75.698.564	35.286.990	0.4661514	0.6333153	1.510790
2005-03-01	118.560.874	75.776.042	35.491.609	0.4683751	0.6391319	1.514643
2005-04-01	115.498.041	72.395.984	34.689.917	0.4791691	0.6268157	1.484704
2005-05-01	117.556.869	75.113.374	37.287.669	0.4964185	0.6389535	1.474416
2005-06-01	118.793.487	75.288.887	34.989.574	0.4647376	0.6337796	1.513405
2005-07-01	118.562.751	73.692.328	35.413.152	0.4805541	0.6215470	1.476800
2005-08-01	118.761.803	74.610.871	35.669.121	0.4780687	0.6282396	1.487869
2005-09-01	123.969.884	78.288.945	34.424.632	0.4397126	0.6315158	1.547581
2005-10-01	121.587.677	76.449.964	34.749.249	0.4545358	0.6287641	1.521997
2005-11-01	128.417.217	81.279.829	38.377.882	0.4721698	0.6329356	1.501688
2005-12-01	146.745.131	88.565.816	43.067.920	0.4862815	0.6035350	1.449374
2006-01-01	131.864.737	81.960.310	42.938.635	0.5238955	0.6215484	1.420297
2006-02-01	133.094.132	81.915.411	43.448.518	0.5304071	0.6154697	1.406510
2006-03-01	130.778.017	82.149.357	40.106.639	0.4882161	0.6281588	1.473799
2006-04-01	129.541.055	80.547.724	39.919.395	0.4955993	0.6217930	1.456946
2006-05-01	132.963.024	84.400.264	37.596.167	0.4454508	0.6347649	1.543230
2006-06-01	134.245.964	83.593.603	43.982.516	0.5261469	0.6226899	1.418568
2006-07-01	135.771.480	84.529.383	43.349.911	0.5128384	0.6225857	1.435338
2006-08-01	138.653.095	86.598.257	47.806.065	0.5520442	0.6245678	1.388462
2006-09-01	145.599.225	89.541.543	44.313.871	0.4948973	0.6149864	1.450602
2006-10-01	147.551.340	92.472.265	44.782.858	0.4842842	0.6267125	1.477553
2006-11-01	154.440.846	96.945.902	47.840.064	0.4934718	0.6277219	1.466187
2006-12-01	176.889.613	108.078.762	52.291.150	0.4838245	0.6109955	1.460666

2007-01-01	158.186.929	98.241.034	49.749.701	0.5064045	0.6210439	1.442054
2007-02-01	156.332.282	97.676.339	46.480.797	0.4758655	0.6247995	1.486942
2007-03-01	158.398.773	99.404.163	48.241.093	0.4853025	0.6275564	1.477109
2007-04-01	159.310.973	100.718.056	55.813.321	0.5541541	0.6322104	1.392503
2007-05-01	160.825.317	101.610.122	49.035.457	0.4825844	0.6318043	1.485675
2007-06-01	167.144.535	105.868.554	54.328.150	0.5131661	0.6333952	1.445835
2007-07-01	169.869.344	108.686.777	54.629.514	0.5026326	0.6398257	1.466767
2007-08-01	173.480.653	110.373.399	51.381.124	0.4655209	0.6362289	1.515269
2007-09-01	178.379.774	112.221.174	54.181.459	0.4828096	0.6291138	1.482298
2007-10-01	181.580.850	116.202.772	57.588.508	0.4955864	0.6399506	1.476668
2007-11-01	191.309.446	121.973.280	61.511.310	0.5043015	0.6375706	1.462080
2007-12-01	235.075.119	152.979.688	64.521.436	0.4217647	0.6507694	1.603329
2008-01-01	193.738.675	120.700.544	57.549.988	0.4767997	0.6230070	1.483586
2008-02-01	187.697.652	116.264.488	54.896.021	0.4721650	0.6194243	1.485782
2008-03-01	187.702.397	117.618.217	58.792.633	0.4998599	0.6266208	1.456448
2008-04-01	190.959.053	120.003.337	53.728.199	0.4477225	0.6284244	1.531545
2008-05-01	187.522.192	115.492.925	61.129.475	0.5292919	0.6158894	1.408260
2008-06-01	190.551.872	117.807.002	60.048.242	0.5097171	0.6182411	1.434953
2008-07-01	189.986.585	116.080.696	55.186.302	0.4754133	0.6109942	1.471712
2008-08-01	190.995.678	114.912.688	55.988.168	0.4872236	0.6016507	1.446157
2008-09-01	199.382.244	121.931.736	59.485.668	0.4878604	0.6115476	1.456023
2008-10-01	193.650.031	114.710.960	53.835.135	0.4693112	0.5923622	1.458491
2008-11-01	201.858.589	119.894.037	50.354.208	0.4199893	0.5939506	1.525548
2008-12-01	227.166.817	134.985.099	55.367.987	0.4101785	0.5942113	1.539595
2009-01-01	199.815.307	116.952.314	54.674.882	0.4674972	0.5853021	1.452802
2009-02-01	198.079.554	116.876.546	55.064.898	0.4711373	0.5900485	1.453604
2009-03-01	196.166.112	117.318.742	56.208.995	0.4791135	0.5980581	1.452476
2009-04-01	198.350.552	117.597.123	64.009.123	0.5443086	0.5928752	1.370179
2009-05-01	199.654.739	118.154.447	51.822.628	0.4386007	0.5917939	1.497527
2009-06-01	206.491.951	124.949.831	57.643.715	0.4613349	0.6051075	1.483570
2009-07-01	202.506.493	118.838.033	51.877.383	0.4365386	0.5868357	1.494007
2009-08-01	206.840.405	122.298.409	52.476.965	0.4290895	0.5912694	1.509575
2009-09-01	214.465.555	128.696.321	59.929.225	0.4656639	0.6000792	1.471982
2009-10-01	214.528.687	125.764.653	58.689.907	0.4666646	0.5862370	1.454886
2009-11-01	225.273.361	132.771.238	64.365.940	0.4847883	0.5893783	1.436069

2009-12-01	254.714.119	149.140.190	60.498.906	0.4056513	0.5855199	1.533749
2010-01-01	231.954.830	135.496.822	59.192.317	0.4368539	0.5841518	1.490230
2010-02-01	229.539.682	133.990.063	58.784.799	0.4387251	0.5837338	1.487288
2010-03-01	234.321.660	139.746.208	62.134.815	0.4446261	0.5963862	1.495254
2010-04-01	233.688.103	138.583.896	59.523.120	0.4295096	0.5930293	1.511299
2010-05-01	236.231.009	141.194.428	63.650.729	0.4508020	0.5976964	1.488657
2010-06-01	240.063.569	144.262.764	63.827.165	0.4424369	0.6009357	1.503894
2010-07-01	241.185.103	142.448.893	63.792.132	0.4478247	0.5906206	1.483957
2010-08-01	248.096.060	148.020.454	73.167.045	0.4943036	0.5966256	1.432073
2010-09-01	254.630.048	150.821.245	72.192.925	0.4786655	0.5923152	1.446747
2010-10-01	255.602.306	150.789.085	72.621.509	0.4816099	0.5899363	1.440543
2010-11-01	265.053.833	157.534.763	70.966.448	0.4504812	0.5943501	1.485016
2010-12-01	287.739.157	166.032.777	85.146.942	0.5128321	0.5770253	1.391030
2011-01-01	263.311.792	154.131.680	84.367.115	0.5473704	0.5853581	1.360452
2011-02-01	260.344.752	153.399.980	78.662.158	0.5127912	0.5892186	1.402667
2011-03-01	258.418.003	152.946.557	74.447.336	0.4867539	0.5918572	1.436304
2011-04-01	254.881.493	149.122.567	66.966.513	0.4490703	0.5850663	1.475645
2011-05-01	256.145.571	151.393.660	73.545.747	0.4857915	0.5910454	1.436618
2011-06-01	260.499.957	154.364.464	84.375.369	0.5465984	0.5925700	1.367376
2011-07-01	259.274.878	150.832.033	73.656.353	0.4883336	0.5817457	1.423811
2011-08-01	255.050.276	146.827.417	71.062.573	0.4839871	0.5756803	1.422593
2011-09-01	262.523.711	150.158.812	76.139.849	0.5070621	0.5719819	1.392664
2011-10-01	260.305.090	147.891.957	75.655.999	0.5115626	0.5681485	1.384093
2011-11-01	268.690.702	152.457.744	66.437.956	0.4357795	0.5674098	1.470900
2011-12-01	292.168.445	160.792.831	82.859.696	0.5153196	0.5503429	1.363774
2012-01-01	266.624.937	148.461.917	93.973.220	0.6329786	0.5568193	1.256857
2012-02-01	263.700.653	147.175.679	74.963.794	0.5093491	0.5581165	1.377108
2012-03-01	265.172.466	148.173.897	84.957.558	0.5733639	0.5587831	1.313020
2012-04-01	266.494.252	150.133.418	76.823.101	0.5116989	0.5633646	1.379485
2012-05-01	267.179.533	149.788.445	74.271.966	0.4958458	0.5606284	1.394006
2012-06-01	273.604.994	152.913.772	78.167.240	0.5111851	0.5588852	1.375878
2012-07-01	273.823.647	152.516.010	82.319.912	0.5397460	0.5569863	1.344728
2012-08-01	275.496.620	150.475.668	78.554.344	0.5220402	0.5461979	1.353291
2012-09-01	283.624.015	155.189.755	73.765.745	0.4753261	0.5471672	1.402690
2012-10-01	281.894.017	154.978.708	77.841.651	0.5022732	0.5497765	1.376725

2012-11-01	296.879.634	163.382.994	75.527.971	0.4622756	0.5503341	1.420309
2012-12-01	333.485.628	183.846.901	83.732.726	0.4554481	0.5512888	1.428991
2013-01-01	295.955.770	162.718.149	83.226.287	0.5114751	0.5498056	1.367229
2013-02-01	295.465.665	164.228.182	73.785.111	0.4492841	0.5558283	1.441137
2013-03-01	302.533.983	169.180.350	74.363.852	0.4395537	0.5592111	1.456469
2013-04-01	297.020.509	166.393.966	78.995.284	0.4747485	0.5602104	1.416935
2013-05-01	302.852.163	169.194.913	67.389.080	0.3982926	0.5586716	1.506380
2013-06-01	310.759.832	175.804.388	79.612.063	0.4528446	0.5657243	1.448308
2013-07-01	304.941.433	169.590.819	75.120.855	0.4429535	0.5561423	1.448849
2013-08-01	308.211.808	169.254.733	70.651.044	0.4174243	0.5491507	1.470419
2013-09-01	311.800.042	171.086.110	88.860.911	0.5193929	0.5487046	1.358163
2013-10-01	308.363.436	167.540.939	70.312.585	0.4196741	0.5433230	1.460503
2013-11-01	325.398.936	177.403.957	67.551.824	0.3807797	0.5451891	1.509644
2013-12-01	354.650.948	190.771.859	85.630.689	0.4488644	0.5379144	1.421391
2014-01-01	323.274.695	173.300.906	72.973.330	0.4210788	0.5360794	1.450006
2014-02-01	326.389.329	175.170.967	73.452.772	0.4193205	0.5366933	1.452743
2014-03-01	321.036.411	174.460.885	81.438.522	0.4668010	0.5434302	1.407968
2014-04-01	320.332.877	174.919.967	77.050.081	0.4404876	0.5460569	1.439938
2014-05-01	314.796.451	168.512.887	68.488.291	0.4064276	0.5353075	1.465725
2014-06-01	317.270.689	169.699.057	75.286.963	0.4436499	0.5348715	1.423641
2014-07-01	313.720.506	165.291.106	75.165.288	0.4547449	0.5268738	1.403077
2014-08-01	317.892.917	166.100.565	79.552.547	0.4789421	0.5225048	1.374108
2014-09-01	325.937.821	170.413.242	82.884.803	0.4863754	0.5228397	1.367135
2014-10-01	324.782.470	167.492.124	73.737.979	0.4402474	0.5157056	1.405812
2014-11-01	338.309.402	175.547.059	78.863.220	0.4492426	0.5188950	1.400139
2014-12-01	363.361.535	185.109.929	85.276.911	0.4606825	0.5094373	1.378832
2015-01-01	333.454.078	170.885.983	75.956.597	0.4444870	0.5124723	1.397986
2015-02-01	330.708.611	168.715.875	76.822.852	0.4553386	0.5101647	1.384787
2015-03-01	327.928.960	166.300.293	79.027.687	0.4752108	0.5071229	1.362644
2015-04-01	319.444.733	159.236.641	74.812.017	0.4698166	0.4984795	1.359223
2015-05-01	318.441.737	158.728.623	79.800.347	0.5027471	0.4984542	1.329536
2015-06-01	318.619.292	159.866.795	73.206.227	0.4579202	0.5017486	1.373603
2015-07-01	312.043.132	151.094.978	64.114.690	0.4243337	0.4842118	1.386471
2015-08-01	310.097.600	151.353.295	72.972.154	0.4821313	0.4880828	1.338263
2015-09-01	308.941.546	149.465.996	68.971.906	0.4614555	0.4838002	1.352353

2015-10-01	311.859.455	146.448.053	74.209.934	0.5067321	0.4695963	1.301468
2015-11-01	323.866.983	155.124.287	74.104.158	0.4777083	0.4789753	1.333626
2015-12-01	347.220.589	161.940.172	70.008.505	0.4323109	0.4663899	1.360108
2016-01-01	321.522.785	150.475.360	69.281.323	0.4604164	0.4680084	1.337846
2016-02-01	319.261.836	151.449.785	84.747.841	0.5595772	0.4743748	1.264103
2016-03-01	313.677.641	148.210.093	77.062.381	0.5199537	0.4724917	1.293356
2016-04-01	316.640.864	150.235.933	75.737.654	0.5041248	0.4744679	1.307663
2016-05-01	314.364.643	149.595.843	75.196.819	0.5026665	0.4758673	1.310040
2016-06-01	315.458.133	150.166.522	69.386.503	0.4620637	0.4760268	1.344216
2016-07-01	313.978.056	147.268.307	74.135.585	0.5034049	0.4690401	1.303650
2016-08-01	313.375.647	147.823.688	70.216.736	0.4750033	0.4717140	1.329166
2016-09-01	323.287.076	151.306.402	75.055.280	0.4960483	0.4680249	1.308664
2016-10-01	322.983.773	154.121.852	78.983.625	0.5124752	0.4771814	1.303166
2016-11-01	332.706.192	158.865.851	71.079.643	0.4474193	0.4774959	1.358428
2016-12-01	363.028.546	171.055.078	78.313.677	0.4578273	0.4711891	1.343122
2017-01-01	326.435.805	151.990.251	87.946.650	0.5786335	0.4656053	1.244076
2017-02-01	333.845.630	157.535.566	90.014.932	0.5713943	0.4718815	1.253527
2017-03-01	325.270.676	152.547.049	70.886.723	0.4646876	0.4689849	1.335209
2017-04-01	327.570.800	154.598.729	90.682.464	0.5865667	0.4719552	1.242424
2017-05-01	326.537.000	154.731.915	65.846.429	0.4255517	0.4738572	1.374016
2017-06-01	333.582.469	157.053.070	83.709.571	0.5330018	0.4708073	1.281831
2017-07-01	333.533.428	157.343.278	79.670.107	0.5063458	0.4717467	1.303577
2017-08-01	330.016.863	154.505.115	76.648.563	0.4960908	0.4681734	1.308758
2017-09-01	335.224.186	156.549.485	84.095.610	0.5371823	0.4669994	1.275731
2017-10-01	334.125.389	156.944.793	77.272.744	0.4923562	0.4697182	1.313111
2017-11-01	348.897.769	165.505.188	80.827.224	0.4883667	0.4743659	1.320483
2017-12-01	383.839.562	179.929.926	92.845.819	0.5160110	0.4687634	1.293454
2018-01-01	347.816.120	161.528.707	86.108.698	0.5330860	0.4644083	1.276876
2018-02-01	349.603.126	165.472.077	80.385.985	0.4857979	0.4733141	1.321666
2018-03-01	355.419.947	170.388.005	90.024.238	0.5283484	0.4793991	1.292172
2018-04-01	359.192.039	175.792.371	79.943.191	0.4547592	0.4894105	1.363971
2018-05-01	358.130.097	173.902.943	85.325.752	0.4906516	0.4855859	1.328608
2018-06-01	359.116.892	171.743.091	82.453.962	0.4801006	0.4782373	1.330912
2018-07-01	356.789.583	170.376.496	88.925.463	0.5219350	0.4775265	1.295821
2018-08-01	365.719.880	174.125.250	86.082.656	0.4943720	0.4761164	1.317068

2018-09-01	371.430.695	176.292.220	84.268.431	0.4780043	0.4746302	1.329354
2018-10-01	362.857.188	170.343.570	94.461.878	0.5545374	0.4694507	1.264419
2018-11-01	376.198.825	176.328.775	79.388.780	0.4502316	0.4687117	1.347133
2018-12-01	410.226.239	192.069.571	83.892.793	0.4367834	0.4682040	1.358143
2019-01-01	372.836.696	172.986.831	79.255.737	0.4581605	0.4639748	1.335827
2019-02-01	376.405.088	178.104.350	91.847.076	0.5156925	0.4731720	1.297287
2019-03-01	377.380.908	180.041.402	89.402.062	0.4965639	0.4770814	1.316101
2019-04-01	375.671.489	180.887.251	84.820.424	0.4689132	0.4815038	1.343581
2019-05-01	371.571.210	176.189.112	82.493.849	0.4682120	0.4741732	1.337184
2019-06-01	376.630.901	180.590.314	79.999.371	0.4429882	0.4794888	1.364407
2019-07-01	372.490.492	176.890.435	75.744.629	0.4282008	0.4748858	1.372758
2019-08-01	376.799.693	178.832.899	84.650.506	0.4733497	0.4746100	1.333251
2019-09-01	387.561.723	185.853.835	79.428.674	0.4273717	0.4795464	1.378553
2019-10-01	381.928.994	180.496.056	90.914.557	0.5036928	0.4725906	1.306421
2019-11-01	406.241.336	194.625.989	85.167.546	0.4375960	0.4790896	1.368817
2019-12-01	447.721.783	219.412.639	88.277.563	0.4023358	0.4900647	1.414215
2020-01-01	404.550.142	191.981.511	105.390.765	0.5489631	0.4745555	1.272333
2020-02-01	409.907.807	199.681.037	92.970.714	0.4655961	0.4871365	1.351950
2020-03-01	435.822.892	221.617.254	93.354.608	0.4212425	0.5085030	1.417033
2020-04-01	471.271.060	233.611.277	99.024.511	0.4238858	0.4957047	1.399742
2020-05-01	503.444.375	246.472.095	111.090.589	0.4507228	0.4895717	1.367822
2020-06-01	534.044.506	263.802.708	111.438.199	0.4224301	0.4939714	1.399194
2020-07-01	546.432.508	266.621.350	143.863.544	0.5395800	0.4879310	1.289745
2020-08-01	565.320.570	279.222.044	116.608.912	0.4176207	0.4939181	1.403800
2020-09-01	586.004.391	298.269.629	121.002.228	0.4056807	0.5089887	1.433696
2020-10-01	590.278.158	297.646.164	135.188.412	0.4541917	0.5042473	1.379734
2020-11-01	607.517.470	310.057.487	120.219.563	0.3877331	0.5103680	1.454506
2020-12-01	641.107.547	332.218.129	122.647.235	0.3691768	0.5181941	1.485639
2021-01-01	590.903.600	298.617.922	141.304.821	0.4731960	0.5053581	1.362815
2021-02-01	587.846.663	302.761.271	126.325.610	0.4172449	0.5150344	1.428855
2021-03-01	593.105.306	312.936.670	125.461.646	0.4009170	0.5276241	1.462182
2021-04-01	598.687.912	319.354.076	140.814.184	0.4409344	0.5334233	1.424945
2021-05-01	602.415.023	323.597.448	124.710.422	0.3853875	0.5371670	1.492870
2021-06-01	636.140.891	354.110.906	140.182.138	0.3958707	0.5566548	1.506686
2021-07-01	645.132.915	360.402.855	143.228.150	0.3974113	0.5586490	1.507467



2021-08-01	636.970.352	357.486.665	126.845.507	0.3548258	0.5612297	1.567621
2021-09-01	629.638.197	353.060.999	127.099.137	0.3599920	0.5607363	1.559760
2021-10-01	619.047.658	343.087.956	120.249.179	0.3504908	0.5542190	1.562428
2021-11-01	623.268.166	349.378.685	139.382.182	0.3989430	0.5605592	1.508132
2021-12-01	653.420.212	367.475.256	123.238.564	0.3353656	0.5623873	1.596888
2022-01-01	599.753.042	327.800.630	146.023.783	0.4454652	0.5465593	1.434898
2022-02-01	604.776.930	333.167.467	130.562.545	0.3918826	0.5508931	1.503777
2022-03-01	602.964.529	335.803.641	118.736.455	0.3535889	0.5569211	1.562500
2022-04-01	610.803.461	342.279.371	127.986.404	0.3739238	0.5603756	1.540447
2022-05-01	602.960.596	331.986.501	127.216.648	0.3831983	0.5505940	1.514251
2022-06-01	609.435.478	336.964.270	134.697.692	0.3997388	0.5529121	1.496763
2022-07-01	603.734.003	333.751.521	119.615.528	0.3583970	0.5528122	1.549633
2022-08-01	603.313.056	336.587.010	128.628.550	0.3821554	0.5578978	1.526005
2022-09-01	606.755.327	335.927.581	122.612.968	0.3649982	0.5536459	1.542177
2022-10-01	594.572.665	323.571.520	127.582.142	0.3942935	0.5442085	1.491715
2022-11-01	606.868.801	331.747.472	116.411.309	0.3509034	0.5466544	1.549983
2022-12-01	645.798.347	352.649.985	126.511.557	0.3587454	0.5460683	1.538861
2023-01-01	595.517.983	312.461.652	130.433.449	0.4174383	0.5246889	1.440224
2023-02-01	599.821.499	319.491.752	123.239.999	0.3857377	0.5326447	1.486290
2023-03-01	600.411.789	323.548.712	136.451.310	0.4217334	0.5388780	1.452676
2023-04-01	601.348.363	326.478.937	135.480.756	0.4149755	0.5429115	1.465452
2023-05-01	588.530.231	314.584.231	122.402.679	0.3890935	0.5345252	1.484880
2023-06-01	597.802.820	315.726.139	121.042.195	0.3833772	0.5281443	1.482944
2023-07-01	595.150.194	311.281.724	111.005.758	0.3566087	0.5230305	1.507189
2023-08-01	597.125.913	318.453.926	121.110.387	0.3803074	0.5333112	1.493627
2023-09-01	593.557.239	315.874.042	126.783.652	0.4013741	0.5321712	1.467505
2023-10-01	586.994.901	310.234.599	120.666.778	0.3889533	0.5285133	1.476988
2023-11-01	619.605.400	340.053.855	125.998.595	0.3705254	0.5488233	1.527815
2023-12-01	653.080.634	360.429.961	130.067.955	0.3608689	0.5518920	1.544954

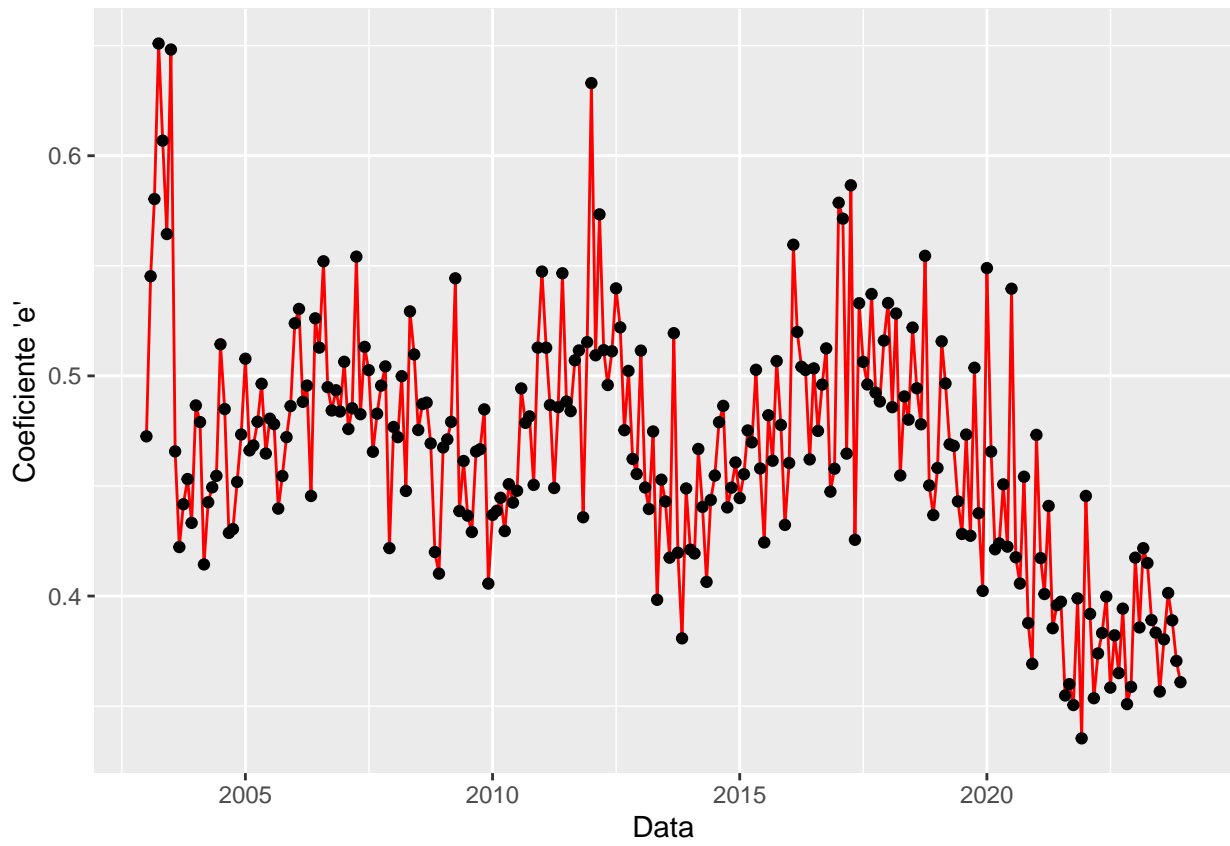


Figure 1: Plot da Série Temporal do Coeficiente “e”

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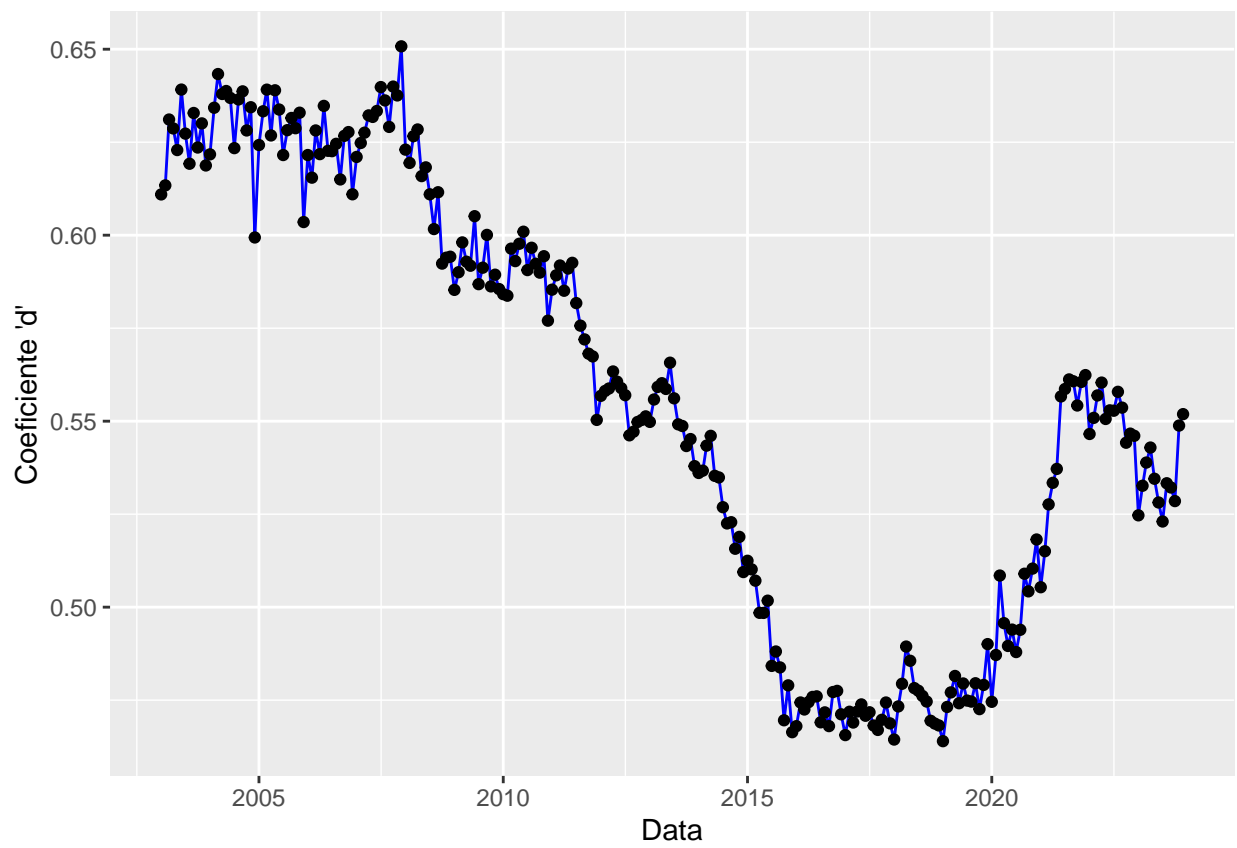


Figure 2: Plot da Série Temporal do Coeficiente “d”

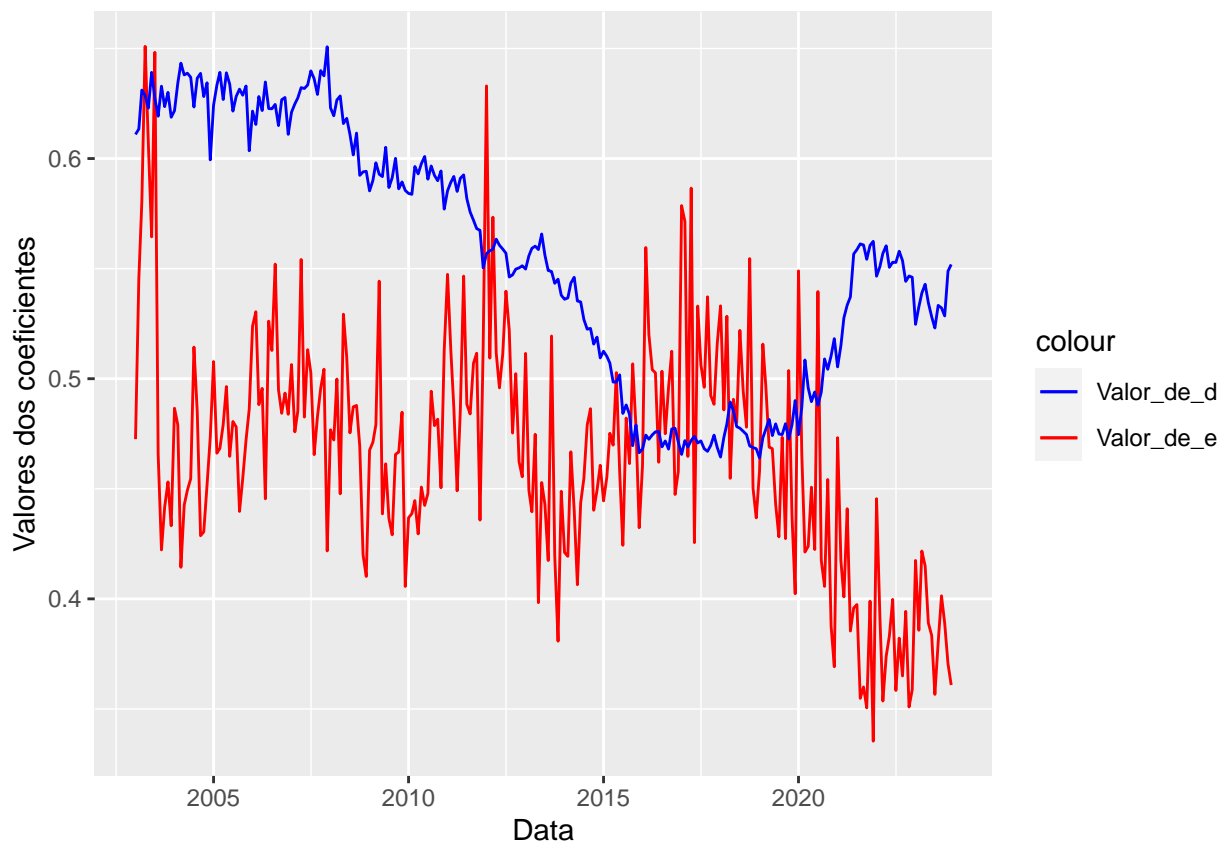


Figure 3: Plot da Série Temporal do Coeficiente “e” e “d”

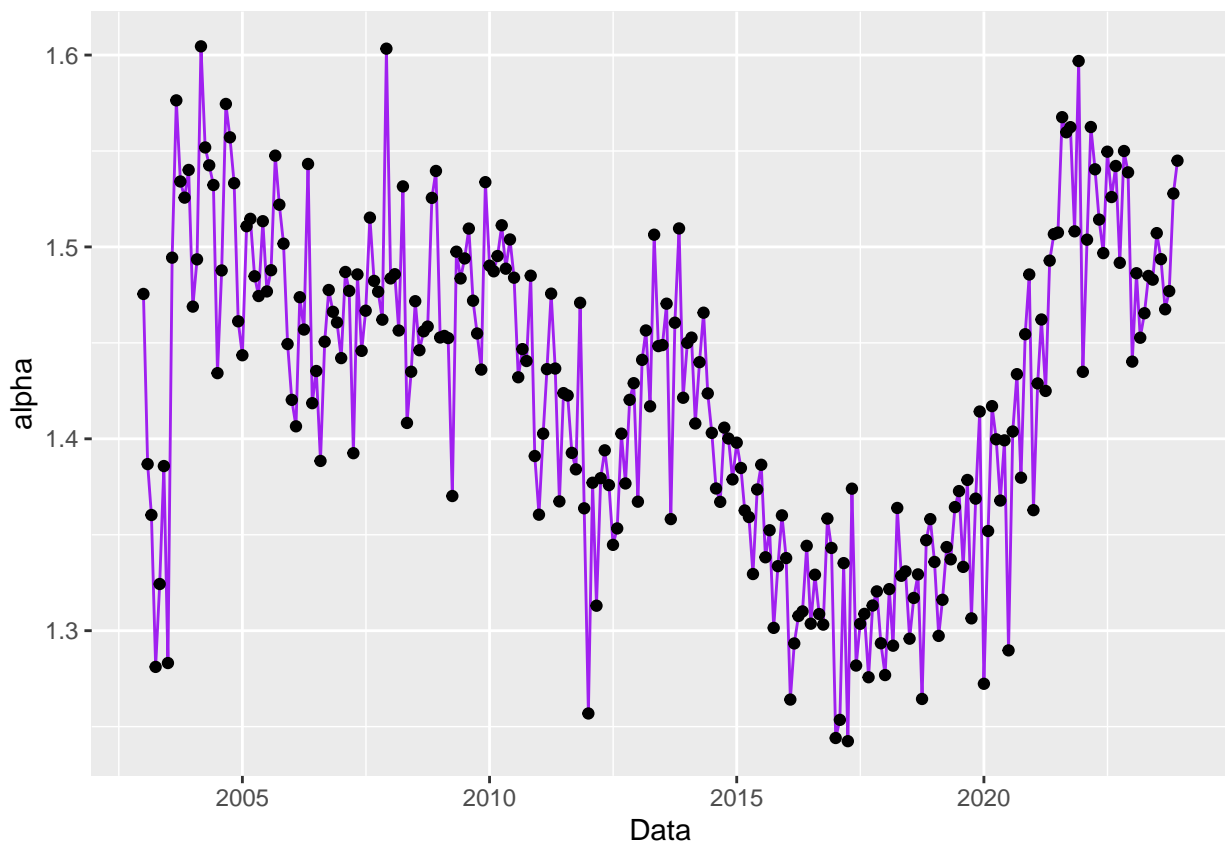


Figure 4: Plot Série Temporal do Multiplicador Monetário