

BAB V

PENUTUP

A. Kesimpulan

Harga saham waktu IPO dapat dihitung dengan menggunakan model *Real Option*. Hasil penelitian ini menunjukkan bahwa :

1. Perhitungan harga saham dengan menggunakan metode *Real Option* menghasilkan harga saham yang *overvalue*.
2. Harga saham IPO_{RO} yang diperoleh memiliki tingkat resiko yang tinggi dibandingkan dengan harga saham IPO yang menggunakan model tradisional.
3. Model *Real Option* dapat digunakan untuk menghitung equity suatu perusahaan.
4. Harga saham IPO model tradisional lebih mendekati *fair price* dibandingkan dengan model *Real Option*.
5. Variabel Volatilitas merupakan variabel dominan yang dapat menentukan apakah harga saham akan mengalami *undervalue* atau *overvalue*.

B. Keterbatasan Penelitian

Dalam penelitian ini terdapat beberapa keterbatasan yaitu :

Tidak mengikutsertakan emiten dari perusahaan Keuangan dan Lembaga Keuangan, perusahaan *Underwriter* dan perusahaan internet.

C. Saran

Penelitian ini dilakukan dengan beberapa pembatasan antara lain penelitian tidak memasukkan perusahaan-perusahaan perbankan dan lembaga keuangan, perusahaan *underwriter*, dan perusahaan internet kedalam objek penelitian. Peneliti selanjutnya dapat melanjutkan penelitian untuk meneliti:

1. Model Real Option untuk perusahaan-perusahaan perbankan dan lembaga keuangan, perusahaan *underwriter*, dan perusahaan internet.
2. Prediksi harga saham untuk memperkirakan kecenderungan harga saham setelah *listing* dengan menambah variabel DER (*debt to equity ratio*) dan variabel publik (presentase saham publik).

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LAMPIRAN

Lampiran 1 : Kode Saham, Variabel Penelitian (Asset,Hutang,Varians,Tenor dan Jibor)

KODE	Asset (V)	Hutang (D)	Varians	σ	Tenor (T)	Jibor (Rf)
LMAS	6.0933E+10	1585000000	3.647E+26	1.91E+13	1	15.44
CLPI	4.8901E+10	9670000000	3.647E+26	1.91E+13	1	15.56
ITTG	2.7839E+10	9215000000	3.647E+26	1.91E+13	1	15.56
CNKO	2.5088E+11	1.6002E+10	3.647E+26	1.91E+13	1	15.56
IATG	1.2682E+11	2.7078E+10	3.647E+26	1.91E+13	1	15.56
CENT	6.7672E+10	7121000000	3.647E+26	1.91E+13	1	15.56
RODA	9.5123E+10	2.0704E+10	3.647E+26	1.91E+13	1	15.53
PYFA	7.6668E+10	1.6144E+10	3.647E+26	1.91E+13	1	15.53
PANR	1.9033E+11	6.6595E+10	3.647E+26	1.91E+13	1	15.54
AIMS	2.0071E+10	3959000000	3.647E+26	1.91E+13	1	15.45
KARK	5.1881E+10	4486000000	3.647E+26	1.91E+13	1	15.45
BTON	3.2925E+10	1.3061E+10	3.647E+26	1.91E+13	1	15.45
LAMI	2.0262E+11	4.5489E+10	3.647E+26	1.91E+13	1	15.45
META	2.0481E+10	1399000000	3.647E+26	1.91E+13	1	15.45
ARNA	2.211E+11	1.5409E+11	3.647E+26	1.91E+13	1	15.45
LAPD	3.287E+10	1.0229E+10	3.647E+26	1.91E+13	1	15.45
KAEF	1.1882E+12	4.5417E+11	3.647E+26	1.91E+13	1	15.45
WAPO	9.1677E+10	1.841E+10	3.647E+26	1.91E+13	1	14.39
DOID	3.963E+10	8022000000	3.647E+26	1.91E+13	1	14.39
INDX	3.4962E+10	1798000000	3.647E+26	1.91E+13	1	14.06
INAF	8.1163E+11	3.0078E+11	3.647E+26	1.91E+13	1	13.53
TMPO	1.1425E+11	1.1485E+10	3.647E+26	1.91E+13	1	11.78
PTBA	1.9851E+12	6.2875E+11	3.647E+26	1.91E+13	1	12.38
GEMA	7.1178E+10	2.5002E+10	3.647E+26	1.91E+13	1	13.06
SCMA	1.8274E+12	6.6851E+11	3.647E+26	1.91E+13	1	14.31

Lampiran 1 : Kode Saham, Variabel Penelitian (Asset,Hutang,Varians,Tenor dan Jibor)

APEX	1.9031E+12	8.3272E+11	3.647E+26	1.91E+13	1	14.31
SUGI	5.801E+10	1.4351E+10	3.647E+26	1.91E+13	1	14.73
ATPK	9.8229E+10	3819000000	3.647E+26	1.91E+13	1	15.38
JTPE	6.7394E+10	1.4222E+10	3.647E+26	1.91E+13	1	15.38
ABBA	6.3531E+10	1.0167E+10	3.647E+26	1.91E+13	1	15.38
FPNI	2.403E+11	6.6728E+10	3.647E+26	1.91E+13	1	15.5
CITA	5.2573E+10	3.3577E+10	3.647E+26	1.91E+13	1	15.5
ANTA	1.7902E+11	1.0668E+11	3.647E+26	1.91E+13	1	15.57
FISH	1.1556E+11	6.0625E+10	3.647E+26	1.91E+13	1	15.57
FORU	7.7588E+10	1.7215E+10	3.647E+26	1.91E+13	1	15.57
PGAS	9.1121E+12	5.7965E+12	3.647E+26	1.91E+13	1	8.24
TMAS	2.7732E+11	9.8727E+10	3.647E+26	1.91E+13	1	9.25
ARTI	3.0534E+11	1.9561E+11	3.647E+26	1.91E+13	1	11.33
MAPI	1.766E+12	7.5507E+11	3.647E+26	1.91E+13	1	6.83
AKKU	3.7628E+13	3.6809E+12	3.647E+26	1.91E+13	1	6.83
IDKM	1.598E+12	7.7957E+11	3.647E+26	1.91E+13	1	3.83
SQMI	9.1142E+13	1.5746E+13	3.647E+26	1.91E+13	1	7.06
PJAA	7.7221E+11	2.102E+11	3.647E+26	1.91E+13	1	7.06
ENRG	2.673E+12	2.243E+12	3.647E+26	1.91E+13	1	7.09
BTEK	9.6825E+13	1.3301E+12	3.647E+26	1.91E+13	1	7.1
ADHI	1.8496E+12	1.5151E+12	3.647E+26	1.91E+13	1	7.32
MICE	2.1016E+11	5.1087E+10	3.647E+26	1.91E+13	1	9.09
EXCL	9.354E+12	5.7246E+12	3.647E+26	1.91E+13	1	6.95
APOL	2.6693E+12	1.5431E+12	3.647E+26	1.91E+13	1	4.59
MASA	1.0833E+12	5.2702E+11	3.647E+26	1.91E+13	1	4.59

Lampiran 2: Hasil Perhitungan d1

KODE	ln(V/D)...(a)	Varians/2...(b)	(b)+Rf...(c)	(c)*T...(d)	(a)+(d)...(e)	$\sigma^*\sqrt{t...}(f)$	(e) / (f)...(d1)	d1	N(d1)
LMAS	3.649190493	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
CLPI	1.620769537	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
ITTG	1.105605324	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
CNKO	2.752272981	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
IATG	1.544031398	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
CENT	2.25162434	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
RODA	1.524843873	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
PYFA	1.557935948	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
PANR	1.050129908	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
AIMS	1.623284519	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
KARK	2.447991198	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
BTON	0.924601557	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
LAMI	1.493861765	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
META	2.683739931	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
ARNA	0.361049136	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
LAPD	1.167333564	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
KAEF	0.961692833	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
WAPO	1.605377535	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9

DOID	1.59739864	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
INDX	2.967586821	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
INAF	0.99265931	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
TMPO	2.297320935	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
PTBA	1.149704104	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
GEMA	1.04622796	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
SCMA	1.005603004	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
APEX	0.826541288	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
SUGI	1.396795783	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
ATPK	3.247312879	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
JTPE	1.555765932	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
ABBA	1.832380794	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
FPNI	1.28124268	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
CITA	0.448361371	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
ANTA	0.51765266	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
FISH	0.645056565	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
FORU	1.505631679	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
PGAS	0.452351941	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
TMAS	1.032820821	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
ARTI	0.445297517	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9

MAPI	0.849644741	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
AKKU	2.324609159	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
IDKM	0.717746774	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
SQMI	1.755828909	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
PJAA	1.301216105	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
ENRG	0.175395053	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
BTEK	4.28766422	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
ADHI	0.199498165	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
MICE	1.414353358	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
EXCL	0.491019223	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
APOL	0.548023443	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9
MASA	0.720522308	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.82373E+26	1.91E+13	9.549E+12	9.5	0.9

Lampiran 2: Hasil Perhitungan d2

KODE	$d1 - \sigma\sqrt{t}$	d2	N(d2)
LMAS	-9.549E+12	-0.96	0.5
CLPI	-9.549E+12	-0.96	0.5
ITTG	-9.549E+12	-0.96	0.5
CNKO	-9.549E+12	-0.96	0.5
IATG	-9.549E+12	-0.96	0.5
CENT	-9.549E+12	-0.96	0.5
RODA	-9.549E+12	-0.96	0.5
PYFA	-9.549E+12	-0.96	0.5
PANR	-9.549E+12	-0.96	0.5
AIMS	-9.549E+12	-0.96	0.5
KARK	-9.549E+12	-0.96	0.5
BTON	-9.549E+12	-0.96	0.5
LAMI	-9.549E+12	-0.96	0.5
META	-9.549E+12	-0.96	0.5
ARNA	-9.549E+12	-0.96	0.5
LAPD	-9.549E+12	-0.96	0.5
KAEF	-9.549E+12	-0.96	0.5
WAPO	-9.549E+12	-0.96	0.5
DOID	-9.549E+12	-0.96	0.5
INDX	-9.549E+12	-0.96	0.5
INAF	-9.549E+12	-0.96	0.5
TMPO	-9.549E+12	-0.96	0.5
PTBA	-9.549E+12	-0.96	0.5
GEMA	-9.549E+12	-0.96	0.5
SCMA	-9.549E+12	-0.96	0.5

Lampiran 2: Hasil Perhitungan d2

APEX	-9.549E+12	-0.96	0.5
SUGI	-9.549E+12	-0.96	0.5
ATPK	-9.549E+12	-0.96	0.5
JTPE	-9.549E+12	-0.96	0.5
ABBA	-9.549E+12	-0.96	0.5
FPNI	-9.549E+12	-0.96	0.5
CITA	-9.549E+12	-0.96	0.5
ANTA	-9.549E+12	-0.96	0.5
FISH	-9.549E+12	-0.96	0.5
FORU	-9.549E+12	-0.96	0.5
PGAS	-9.549E+12	-0.96	0.5
TMAS	-9.549E+12	-0.96	0.5
ARTI	-9.549E+12	-0.96	0.5
MAPI	-9.549E+12	-0.96	0.5
AKKU	-9.549E+12	-0.96	0.5
IDKM	-9.549E+12	-0.96	0.5
SQMI	-9.549E+12	-0.96	0.5
PJAA	-9.549E+12	-0.96	0.5
ENRG	-9.549E+12	-0.96	0.5
BTEK	-9.549E+12	-0.96	0.5
ADHI	-9.549E+12	-0.96	0.5
MICE	-9.549E+12	-0.96	0.5
EXCL	-9.549E+12	-0.96	0.5
APOL	-9.549E+12	-0.96	0.5
MASA	-9.549E+12	-0.96	0.5

Lampiran 3 : Perhitungan Nilai *Equity*

KODE	$V \cdot N(d1) \dots (i)$	$Exp-rf^t \dots (j)$	$D^*(j) \dots (k)$	$(k) \cdot N(d2) \dots (l)$	$(i)-(l) \dots Equity$
LMAS	5.48E+10	1.97E-07	312.26439	156.1321968	5.484E+10
CLPI	4.4E+10	1.747E-07	1689.6795	844.8397512	4.4011E+10
ITTG	2.51E+10	1.747E-07	1610.1755	805.0877257	2.5055E+10
CNKO	2.26E+11	1.747E-07	2796.0963	1398.048159	2.2579E+11
IATG	1.14E+11	1.747E-07	4731.4521	2365.726038	1.1414E+11
CENT	6.09E+10	1.747E-07	1244.2821	622.1410412	6.0905E+10
RODA	8.56E+10	1.801E-07	3727.8717	1863.935841	8.5611E+10
PYFA	6.9E+10	1.801E-07	2906.818	1453.409014	6.9001E+10
PANR	1.71E+11	1.783E-07	11871.494	5935.746961	1.713E+11
AIMS	1.81E+10	1.951E-07	772.2106	386.1052978	1.8064E+10
KARK	4.67E+10	1.951E-07	875.00296	437.5014817	4.6693E+10
BTON	2.96E+10	1.951E-07	2547.5733	1273.786637	2.9632E+10
LAMI	1.82E+11	1.951E-07	8872.7173	4436.358649	1.8236E+11
META	1.84E+10	1.951E-07	272.87765	136.4388259	1.8433E+10
ARNA	1.99E+11	1.951E-07	30055.747	15027.87357	1.9899E+11
LAPD	2.96E+10	1.951E-07	1995.1862	997.5931021	2.9583E+10
KAEF	1.07E+12	1.951E-07	88586.15	44293.07522	1.0693E+12
WAPO	8.25E+10	5.63E-07	10364.687	5182.343529	8.2509E+10
DOID	3.57E+10	5.63E-07	4516.3237	2258.161857	3.5667E+10
INDX	3.15E+10	7.831E-07	1408.0215	704.0107264	3.1466E+10
INAF	7.3E+11	1.33E-06	400170.08	200085.0403	7.3046E+11
TMPO	1.03E+11	7.656E-06	87930.998	43965.49904	1.0282E+11
PTBA	1.79E+12	4.202E-06	2641866.9	1320933.441	1.7866E+12
GEMA	6.41E+10	2.129E-06	53221.709	26610.85457	6.406E+10
SCMA	1.64E+12	6.099E-07	407709.92	203854.9577	1.6447E+12

Lampiran 3 : Perhitungan Nilai *Equity*

APEX	1.71E+12	6.099E-07	507861.72	253930.8611	1.7128E+12
SUGI	5.22E+10	4.007E-07	5750.7494	2875.374721	5.2209E+10
ATPK	8.84E+10	2.092E-07	798.91491	399.4574553	8.8406E+10
JTPE	6.07E+10	2.092E-07	2975.1683	1487.584166	6.0655E+10
ABBA	5.72E+10	2.092E-07	2126.8835	1063.441725	5.7178E+10
FPNI	2.16E+11	1.855E-07	12380.655	6190.327742	2.1627E+11
CITA	4.73E+10	1.855E-07	6229.8476	3114.923789	4.7316E+10
ANTA	1.61E+11	1.73E-07	18455.165	9227.582317	1.6112E+11
FISH	1.04E+11	1.73E-07	10487.855	5243.927428	1.04E+11
FORU	6.98E+10	1.73E-07	2978.1183	1489.059145	6.9829E+10
PGAS	8.2E+12	0.0002639	1.53E+09	764798699.7	8.2001E+12
TMAS	2.5E+11	9.611E-05	9488815.1	4744407.537	2.4959E+11
ARTI	2.75E+11	1.201E-05	2348774	1174387.008	2.7481E+11
MAPI	1.59E+12	0.0010809	816124620	408062309.9	1.589E+12
AKKU	3.39E+13	0.0010809	3.979E+09	1989255595	3.3864E+13
IDKM	1.44E+12	0.0217096	1.692E+10	8462115093	1.4297E+12
SQMI	8.2E+13	0.0008588	1.352E+10	6761168092	8.2021E+13
PJAA	6.95E+11	0.0008588	180511720	90255860.12	6.949E+11
ENRG	2.41E+12	0.0008334	1.869E+09	934657229	2.4048E+12
BTEK	8.71E+13	0.0008251	1.097E+09	548729015.8	8.7142E+13
ADHI	1.66E+12	0.0006622	1.003E+09	501619658.8	1.6642E+12
MICE	1.89E+11	0.0001128	5762004.1	2881002.028	1.8914E+11
EXCL	8.42E+12	0.0009586	5.488E+09	2743920094	8.4158E+12
APOL	2.4E+12	0.0101529	1.567E+10	7833371884	2.3945E+12
MASA	9.75E+11	0.0101529	5.351E+09	2675374634	9.7229E+11

Lampiran 4 Perhitungan Harga Saham IPO *Real Option*

KODE	(i)-(l)...Equity	Jmlh Saham	Harga Saham	Harga saham IPO _{RO}
LMAS	54839699844	50000000	1096.793997	1096
CLPI	44010899155	50000000	880.2179831	880
ITTG	25055099195	70000000	357.9299885	357
CNKO	2.25795E+11	800000000	282.2433733	282
IATG	1.14136E+11	200000000	570.6809882	570
CENT	60904799378	100000000	609.0479938	609
RODA	85610698136	150000000	570.7379876	570
PYFA	69001198547	120000000	575.0099879	575
PANR	1.71297E+11	120000000	1427.474951	1427
AIMS	18063899614	40000000	451.5974903	451
KARK	46692899562	150000000	311.2859971	311
BTON	29632498726	65000000	455.8845958	455
LAMI	1.82358E+11	80000000	2279.474945	2279
META	18432899864	60000000	307.2149977	307
ARNA	1.98985E+11	125000000	1591.88388	1591
LAPD	29582999002	60000000	493.0499834	493
KAEF	1.06934E+12	500000001	2138.680707	2138
WAPO	82509294818	200000000	412.5464741	412
DOID	35666997742	72020000	495.2374027	495
INDX	31465799296	120000000	262.2149941	262
INAF	7.30462E+11	596875001	1223.811181	1223
TMPO	1.02822E+11	125000000	822.5780483	822
PTBA	1.78661E+12	2131500000	838.1922022	838
GEMA	64060173389	320000000	200.1880418	200
SCMA	1.64466E+12	1875000000	877.1509313	877

Lampiran 4 Perhitungan Harga Saham IPO *Real Option*

APEX	1.71279E+12	1745000000	981.5419175	981
SUGI	52208997125	100000000	522.0899712	522
ATPK	88406099601	275000000	321.4767258	321
JTPE	60654598512	100000000	606.5459851	606
ABBA	57177898937	400000000	142.9447473	142
FPNI	2.16265E+11	410200000	527.2196339	527
CITA	47315696885	600000000	788.5949481	788
ANTA	1.61116E+11	490000000	328.8085526	328
FISH	1.04001E+11	400000000	260.0032369	260
FORU	69829198511	250000000	279.316794	279
PGAS	8.20011E+12	4320987000	1897.739799	1897
TMAS	2.49585E+11	451000000	553.4036709	553
ARTI	2.74808E+11	196000000	1402.079212	1402
MAPI	1.58897E+12	1660000000	957.2088781	957
AKKU	3.38637E+13	23000000000	1472.332802	1472
IDKM	1.42972E+12	1437454419	994.6167795	994
SQMI	8.20209E+13	3.012E+11	272.3135934	272
PJAA	6.94899E+11	799999998	868.6234323	868
ENRG	2.40479E+12	9491445177	253.363908	253
BTEK	8.7142E+13	92000000000	947.1954453	947
ADHI	1.66415E+12	1315868000	1264.679269	1264
MICE	1.89144E+11	100000000	1891.43819	1891
EXCL	8.41581E+12	7090000000	1186.997331	1186
APOL	2.39452E+12	1499302000	1597.088331	1597
MASA	9.72287E+11	1000000000	972.2865254	972

Lampiran 5: Perhitungan Standar Deviasi

KODE	Hrg IPOro	Hrg IPO	Akt hr ke 1	Akt Hr ke 30
LMAS	1096	350	510	400
CLPI	880	200	410	350
ITTG	357	150	105	100
CNKO	282	105	220	105
IATG	570	200	440	240
CENT	609	125	380	625
RODA	570	120	445	400
PYFA	575	105	200	280
PANR	1427	500	625	575
AIMS	451	250	730	775
KARK	311	100	110	50
BTON	455	120	315	225
LAMI	2279	125	240	240
META	307	200	235	180
ARNA	1591	120	140	115
LAPD	493	200	450	330
KAEF	2138	200	210	225
WAPO	412	175	505	850
DOID	495	150	150	140
INDX	262	125	115	130
INAF	1223	250	230	215
TMPO	822	300	675	300
PTBA	838	575	600	600
GEMA	200	225	170	170
SCMA	877	1100	1150	1100

Lampiran 5 : Perhitungan Standar Deviasi

APEX	981	550	550	625
SUGI	522	120	200	380
ATPK	321	300	300	215
JTPE	606	225	365	355
ABBA	142	105	175	390
FPNI	527	450	495	460
CITA	788	200	340	700
ANTA	328	125	210	440
FISH	260	125	160	140
FORU	279	130	220	495
PGAS	1897	1500	1550	1550
TMAS	553	525	525	525
ARTI	1402	650	775	750
MAPI	957	625	700	725
AKKU	1472	175	225	160
IDKM	994	625	750	625
SQMI	272	245	265	250
PJAA	868	950	1025	925
ENRG	253	220	240	335
BTEK	947	160	210	225
ADHI	1264	165	185	395
MICE	1891	500	650	660
EXCL	1186	2025	2300	2400
APOL	1597	650	700	700
MASA	972	500	180	185

Lampiran 5: Perhitungan Standar Deviasi (Akt 2)

IPO- Akt1...(X)	IPORO- Akt1...(X)	μ IPO	μ IPORO	X-μ IPO	X-μ IPORO	(X-μ)² IPO	(X-μ)² IPORO
-160	586	-94.8	362.88	-65.2	223.12	4251.04	49782.534
-210	470	-94.8	362.88	-115.2	107.12	13271.04	11474.694
45	252	-94.8	362.88	139.8	-110.88	19544.04	12294.374
-115	62	-94.8	362.88	-20.2	-300.88	408.04	90528.774
-240	130	-94.8	362.88	-145.2	-232.88	21083.04	54233.094
-255	229	-94.8	362.88	-160.2	-133.88	25664.04	17923.854
-325	125	-94.8	362.88	-230.2	-237.88	52992.04	56586.894
-95	375	-94.8	362.88	-0.2	12.12	0.04	146.894
-125	802	-94.8	362.88	-30.2	439.12	912.04	192826.374
-480	-279	-94.8	362.88	-385.2	-641.88	148379.04	412009.934
-10	201	-94.8	362.88	84.8	-161.88	7191.04	26205.134
-195	140	-94.8	362.88	-100.2	-222.88	10040.04	49675.494
-115	2039	-94.8	362.88	-20.2	1676.12	408.04	2809378.25
-35	72	-94.8	362.88	59.8	-290.88	3576.04	84611.174
-20	1451	-94.8	362.88	74.8	1088.12	5595.04	1184005.13
-250	43	-94.8	362.88	-155.2	-319.88	24087.04	102323.214
-10	1928	-94.8	362.88	84.8	1565.12	7191.04	2449600.61
-330	-93	-94.8	362.88	-235.2	-455.88	55319.04	207826.574
0	345	-94.8	362.88	94.8	-17.88	8987.04	319.694
10	147	-94.8	362.88	104.8	-215.88	10983.04	46604.174
20	993	-94.8	362.88	114.8	630.12	13179.04	397051.214
-375	147	-94.8	362.88	-280.2	-215.88	78512.04	46604.174
-25	238	-94.8	362.88	69.8	-124.88	4872.04	15595.014
55	30	-94.8	362.88	149.8	-332.88	22440.04	110809.094
-50	-273	-94.8	362.88	44.8	-635.88	2007.04	404343.374

Lampiran 5: Perhitungan Standar Deviasi (Akt 1)

0	431	-94.8	362.88	94.8	68.12	8987.04	4640.334
-80	322	-94.8	362.88	14.8	-40.88	219.04	1671.174
0	21	-94.8	362.88	94.8	-341.88	8987.04	116881.934
-140	241	-94.8	362.88	-45.2	-121.88	2043.04	14854.734
-70	-33	-94.8	362.88	24.8	-395.88	615.04	156720.974
-45	32	-94.8	362.88	49.8	-330.88	2480.04	109481.574
-140	448	-94.8	362.88	-45.2	85.12	2043.04	7245.414
-85	118	-94.8	362.88	9.8	-244.88	96.04	59966.214
-35	100	-94.8	362.88	59.8	-262.88	3576.04	69105.894
-90	59	-94.8	362.88	4.8	-303.88	23.04	92343.054
-50	347	-94.8	362.88	44.8	-15.88	2007.04	252.174
0	28	-94.8	362.88	94.8	-334.88	8987.04	112144.614
-125	627	-94.8	362.88	-30.2	264.12	912.04	69759.374
-75	257	-94.8	362.88	19.8	-105.88	392.04	11210.574
-50	1247	-94.8	362.88	44.8	884.12	2007.04	781668.174
-125	244	-94.8	362.88	-30.2	-118.88	912.04	14132.454
-20	7	-94.8	362.88	74.8	-355.88	5595.04	126650.574
-75	-157	-94.8	362.88	19.8	-519.88	392.04	270275.214
-20	13	-94.8	362.88	74.8	-349.88	5595.04	122416.014
-50	737	-94.8	362.88	44.8	374.12	2007.04	139965.774
-20	1079	-94.8	362.88	74.8	716.12	5595.04	512827.854
-150	1241	-94.8	362.88	-55.2	878.12	3047.04	771094.734
-275	-1114	-94.8	362.88	-180.2	-1476.8	32472.04	2181174.53
-50	897	-94.8	362.88	44.8	534.12	2007.04	285284.174
320	792	-94.8	362.88	414.8	429.12	172059.04	184143.974

Lampiran 5: Perhitungan Standar Deviasi (Akt 2)

IPO- Akt2...(X)	IPORO- Akt2...(X)	μ IPO	μ IPORO	$X-\mu$ IPO	$X-\mu$ IPORO	$(X-\mu)^2$ IPO	$(X-\mu)^2$ IPORO
-50	696	-108.3	349.38	58.3	346.62	3398.89	120145.424
-150	530	-108.3	349.38	-41.7	180.62	1738.89	32623.584
50	257	-108.3	349.38	158.3	-92.38	25058.89	8534.064
0	177	-108.3	349.38	108.3	-172.38	11728.89	29714.864
-40	330	-108.3	349.38	68.3	-19.38	4664.89	375.584
-500	-16	-108.3	349.38	-391.7	-365.38	153428.89	133502.544
-280	170	-108.3	349.38	-171.7	-179.38	29480.89	32177.184
-175	295	-108.3	349.38	-66.7	-54.38	4448.89	2957.184
-75	852	-108.3	349.38	33.3	502.62	1108.89	252626.864
-525	-324	-108.3	349.38	-416.7	-673.38	173638.89	453440.624
50	261	-108.3	349.38	158.3	-88.38	25058.89	7811.024
-105	230	-108.3	349.38	3.3	-119.38	10.89	14251.584
-115	2039	-108.3	349.38	-6.7	1689.62	44.89	2854815.74
20	127	-108.3	349.38	128.3	-222.38	16460.89	49452.864
5	1476	-108.3	349.38	113.3	1126.62	12836.89	1269272.62
-130	163	-108.3	349.38	-21.7	-186.38	470.89	34737.504
-25	1913	-108.3	349.38	83.3	1563.62	6938.89	2444907.50
-675	-438	-108.3	349.38	-566.7	-787.38	321148.89	619967.264
10	355	-108.3	349.38	118.3	5.62	13994.89	31.584
-5	132	-108.3	349.38	103.3	-217.38	10670.89	47254.064
35	1008	-108.3	349.38	143.3	658.62	20534.89	433780.304
0	522	-108.3	349.38	108.3	172.62	11728.89	29797.664
-25	238	-108.3	349.38	83.3	-111.38	6938.89	12405.504
55	30	-108.3	349.38	163.3	-319.38	26666.89	102003.584
0	-223	-108.3	349.38	108.3	-572.38	11728.89	327618.864

Lampiran 5: Perhitungan Standar Deviasi (Akt 2)

-75	356	-108.3	349.38	33.3	6.62	1108.89	43.8244
-260	142	-108.3	349.38	-151.7	-207.38	23012.89	43006.4644
85	106	-108.3	349.38	193.3	-243.38	37364.89	59233.8244
-130	251	-108.3	349.38	-21.7	-98.38	470.89	9678.6244
-285	-248	-108.3	349.38	-176.7	-597.38	31222.89	356862.8644
-10	67	-108.3	349.38	98.3	-282.38	9662.89	79738.4644
-500	88	-108.3	349.38	-391.7	-261.38	153428.89	68319.5044
-315	-112	-108.3	349.38	-206.7	-461.38	42724.89	212871.5044
-15	120	-108.3	349.38	93.3	-229.38	8704.89	52615.1844
-365	-216	-108.3	349.38	-256.7	-565.38	65894.89	319654.5444
-50	347	-108.3	349.38	58.3	-2.38	3398.89	5.6644
0	28	-108.3	349.38	108.3	-321.38	11728.89	103285.1044
-100	652	-108.3	349.38	8.3	302.62	68.89	91578.8644
-100	232	-108.3	349.38	8.3	-117.38	68.89	13778.0644
15	1312	-108.3	349.38	123.3	962.62	15202.89	926637.2644
0	369	-108.3	349.38	108.3	19.62	11728.89	384.9444
-5	22	-108.3	349.38	103.3	-327.38	10670.89	107177.6644
25	-57	-108.3	349.38	133.3	-406.38	17768.89	165144.7044
-115	-82	-108.3	349.38	-6.7	-431.38	44.89	186088.7044
-65	722	-108.3	349.38	43.3	372.62	1874.89	138845.6644
-230	869	-108.3	349.38	-121.7	519.62	14810.89	270004.9444
-160	1231	-108.3	349.38	-51.7	881.62	2672.89	777253.8244
-375	-1214	-108.3	349.38	-266.7	-1563.3	71128.89	2444157.024
-50	897	-108.3	349.38	58.3	547.62	3398.89	299887.6644
315	787	-108.3	349.38	423.3	437.62	179182.89	191511.2644

Lampiran 5: Perhitungan Standar Deviasi

Standar Deviasi Selish IPO - Aktual 1

Perhitungan Standar Deviasi IPO

$$\Sigma (X-\mu)^2 \text{ IPO} = 813948$$

$$813948 / 50 = 16278.96$$

$$\sqrt{16278.96} = 127.5$$

Perhitungan Standar Deviasi IPO_{RO}

$$\Sigma (X-\mu)^2 \text{ IPORO} = 150498671.28$$

$$150498671.28 / 50 = 300973.42$$

$$\sqrt{300973.42} = 548.6$$

Standar Deviasi Selish IPO - Aktual 2

Perhitungan Standar Deviasi IPO

$$\Sigma (X-\mu)^2 \text{ IPO} = 1611281$$

$$1611281 / 50 = 32225.61$$

$$\sqrt{32225.61} = 179.5$$

Perhitungan Standar Deviasi IPORO

$$\Sigma (X-\mu)^2 \text{ IPORO} = 16231972$$

$$16231972 / 50 = 324639.4$$

$$\sqrt{324639.72} = 569.7$$

Keterangan

X = Nilai Observasi, (Harga IPO-
Harga Akt)

μ = Nilai Rata-rata
Observasi

N = Jumlah Observasi (50
perusahaan)