

Main										
USD/TRY 4.85										
LOANS										
TRYm	Akbank	Garanti	Halkbank	Isbank	Vakifbank	Yapi Kredi	Total			
Stage 1	177483.751	179942.836	208018.025	225447.282	189194.53	189206.167				
SUM(C5:H5)=1169292.591										
Stage 2	18107.557+561.381+3109.4=21778.338000000003	29599.849+5463.71+2411.769=37475.328	4219.35+28.39+3620.128=7867.868	16743.129+3832.425+460.08=21035.634000000002	3835.687+108.017+2262.51=6206.214	5397.15+541.86+2728.63=8667.64	SUM(C6:H6)=103031.02200000001			
Stage 3	4046.342	5633.32	6264.786	5799.235	7945.146	8617.858	SUM(C7:H7)=38306.687000000005			
Total	SUM(C5:C7)=203308.430999999998			SUM(D5:D7)=223051.484000000003		SUM(E5:E7)=222150.678999999999			7	
	SUM(F5:F7)=252282.150999999998			SUM(G5:G7)=203345.89		SUM(H5:H7)=206491.664999999998			SUM(C8:H8)=1310630.30	
COVERAGE										
TRYm	Akbank	Garanti	Halkbank	Isbank	Vakifbank	Yapi Kredi	Average			
Stage 1	635.937	816.282	1003.91	1588.177	1541.675	1735.70	SUM(C12:H12)=7321.681			
Stage 2	2783.856	3620.075	784.616	1845.348	468.183	888.696	SUM(C13:H13)=10390.774000000001			
Stage 3	3130.372	3963.228	4978.164	4157.801	6201.91	7386.565	SUM(C14:H14)=29818.039999999997			
Total	SUM(C12:C14)=6550.165			SUM(D12:D14)=8399.585		SUM(E12:E14)=6766.69		SUM(F12:F14)=7591.326		
	SUM(G12:G14)=8211.768			SUM(H12:H14)=10010.961		SUM(I12:I14)=47530.494999999995				
% in Total loans										
TRYm	Akbank	Garanti	Halkbank	Isbank	Vakifbank	Yapi Kredi	Average			
Stage 1	C5/C8=0.8729778205803969			D5/D8=0.8067322968360076		E5/E8=0.936382575720149			F5/F8=0.8936315197344263	
	G5/G8=0.9304074451664599			H5/H8=0.9162896090745358			I5/I8=0.8921605055216563			
Stage 2	C6/C8=0.10711969933012766			D6/D8=0.16801200928122942		E6/E8=0.035416808246622564			F6/F8=0.08338138039737898	
	G6/G8=0.030520479169753565			H6/H8=0.041975737858474825			I6/I8=0.07861181143149217			
Stage 3	C7/C8=0.019902480089475486			D7/D8=0.025255693882762956		E7/E8=0.02820061603322851			F7/F8=0.022987099868194798	
	G7/G8=0.03907207566378646			H7/H8=0.04173465306698942			I7/I8=0.029227683046851582			
Total	C8/C8=1			D8/D8=1		E8/E8=1		F8/F8=1		
	G8/G8=1			H8/H8=1		I8/I8=1				
COVERAGE RATIO										
TRYm	Akbank	Garanti	Halkbank	Isbank	Vakifbank	Yapi Kredi	Average			
Stage 1	C12/C5=0.0035830716694735623			D12/D5=0.004536340640980005		E12/E5=0.004826072163698314			F12/F5=0.007044560421890559	
	G12/G5=0.008148623535786156			H12/H5=0.009173591048964065			I12/I5=0.0062616329363195285			
Stage 2	C13/C6=0.12782683416888835			D13/D6=0.09659888767351148		E13/E6=0.09972409298173278			F13/F6=0.08772485773426177	
	G13/G6=0.07543777897442788			H13/H6=0.10253033120895655			I13/I6=0.10085092623850708			
Stage 3	C14/C7=0.7736301083793707			D14/D7=0.7035332628006221		E14/E7=0.7946263447785766			F14/F7=0.7169568055096923	
	G14/G7=0.7805910678041662			H14/H7=0.85712308093264			I14/I7=0.7784029978891152			
Total	SUM(C26:C28)=0.9050400142177326			SUM(D26:D28)=0.8046684911151136		SUM(E26:E28)=0.8991765099240			078	
	SUM(F26:F28)=0.8117262236658447			SUM(G26:G28)=0.8641774703143803		SUM(H26:H28)=0.9688270031905			606	
	SUM(I26:I28)=0.8855155570639418									
Expected provision expenses										
TRYm	Akbank	Garanti	Halkbank	Isbank	Vakifbank	Yapi Kredi	Average			
Stage 1	53.916	379.957	96.532	7.40	167.354	153.12	SUM(C33:H33)=858.279			
Stage 2	246.51	748.876	19.004	588.762	78.11	70.684	SUM(C34:H34)=1751.946			
Stage 3	397.74	488.162	276.835	531.50	1037.65	589.523	SUM(C35:H35)=3321.4100000000003			
Total	SUM(C33:C35)=698.16599999999999			SUM(D33:D35)=1616.995		SUM(E33:E35)=392.371		SUM(F33:F35)=1127.66199999999998		
	SUM(G33:G35)=1283.114			SUM(H33:H35)=813.327			SUM(I33:I35)=5931.635			
Average gross loans 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[AKBANK MO										
DEL- Higher RFR and Lower NIM.xlsx]COR'!\$AH\$13/1000=199098.746 'R:\Bank models\Turkish Bank Model w										
ith 2020 Estimates\Higher RFR\[GARANTI MODEL- Higher RFR and Lower NIM.xlsx]COR'!\$AH\$13/1000=219928.										
43 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[HALKBANK MODEL- Higher RF										
R and Lower NIM.xlsx]COR'!\$AH\$13/1000=215448.166 'R:\Bank models\Turkish Bank Model with 2020										
Estimates\Higher RFR\[ISBANK MODEL- Higher RFR and Lower NIM.xlsx]COR'!\$AH\$13/1000=249443.2855 'R:\										
Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[VAKIFBANK MODEL- Higher RFR and Lower										
NIM.xlsx]COR'!\$AH\$13/1000=197091.47 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Highe										
r RFR\[YAPI KREDI MODEL- Higher RFR and Lower NIM.xlsx]COR'!\$AH\$13/1000=204895.8715 SUM(C37:H37)										
=1285905.969										
CoR (gross)										
TRYm	Akbank	Garanti	Halkbank	Isbank	Vakifbank	Yapi Kredi	Average			
Stage 1	C33/C37*4=0.0010832011970582677			D33/D37*4=0.006910557220819518		E33/E37*4=0.0017922			083402650082	
	F33/F37*4=1.1866424843093242E-4			G33/G37*4=0.0033964737286702467			H33/H37*4=0.0029892256760283235			
	I33/I37*4=0.002669803300368691			E34/E37*4=3.528273246011294			E-4			
Stage 2	C34/C37*4=0.004952517380496208			D34/D37*4=0.013620358222900059		E34/E37*4=3.528273246011294			E-4	
	F34/F37*4=0.009441216247931435			G34/G37*4=0.0015852537910443307			H34/H37*4=0.0013799			
	009122543496 I34/I37*4=0.005449686189301761									
Stage 3	C35/C37*4=0.007990808741708499			D35/D37*4=0.008878561084621938		E35/E37*4=0.005139704925592			172	
	F35/F37*4=0.008522979465005484			G35/G37*4=0.021059257409770195			H35/H37*4=0.011508733595932			
	899 I35/I37*4=0.010331735228145598									
Total	SUM(C41:C43)=0.014026527319262974				SUM(D41:D43)=0.029409476528341517			SUM(E41:E43)		

=0.0072847405904583095 SUM(F41:F43)=0.018082859961367853 SUM(G41:G43)=0.02604098492948477  
 SUM(H41:H43)=0.015877860184215574 SUM(I41:I43)=0.018451224717816052  
 Recoveries 253 860 188 432 446 330 SUM(C45:H45)=2509  
 CoR (net)  
 TRYm Akbank Garanti Halkbank Isbank Vakifbank Yapi Kredi Average  
 Stage 1  
 Stage 2  
 Stage 3 (C35-C45)/C37\*4=0.0029079037996552724 (D35-D45)/D37\*4=-0.006762891000495025 (E35-E45)/E3  
 7\*4=0.0016493062187403346 (F35-F45)/F37\*4=0.0015955530701186181 (G35-G45)/G37\*4=0.0120076226  
 53583133 (H35-H45)/H37\*4=0.005066436880354615 (I35-I45)/I37\*4=0.002527121016886734  
 Total (C36-C45)/C37\*4=0.008943622377209748 (D36-D45)/D37\*4=0.013768024443224555 (E36-E45)/E3  
 7\*4=0.0037943418836064724 (F36-F45)/F37\*4=0.011155433566480983 (G36-G45)/G37\*4=0.0169893501  
 7329771 (H36-H45)/H37\*4=0.009435563468637288 (I36-I45)/I37\*4=0.0106466610506557188

Sensit										
Coverage	0.25	0.30	0.30	0.25	0.30	0.35	USD/TRY 4.85			
OTAS exposure (USDm)	1500	950	160	500	180	200				
LOANS	OTAS exposure (TRYm)		M2*\$US1=7274.999999999999			N2*\$US1=4607.50		O2*\$US1=776		P2*\$
U\$1=2425	Q2*\$US1=872.99999999999999			R2*\$US1=969.99999999999999						
TRYm	Akbank	Garanti Halkbank	Isbank	Vakifbank	Yapi Kredi	Total	TRYm	Akba		
nk	Garanti Halkbank	Isbank	Vakifbank	Yapi Kredi	Total					
Stage 1	177483.751	179942.836	208018.025	225447.282	189194.53	189206.167				
SUM(C5:H5)=1169292.591	Stage 1 C5+M3=184758.751		D5+N3=184550.336		E5+O3=208794.025					
F5+P3=227872.282	G5+Q3=190067.53			H5+R3=190176.167		SUM(M5:R5)=1186219.091				
Stage 2	18107.557+561.381+3109.4=21778.338000000003				29599.849+5463.71+2411.769=37475.328		4219			
.35+28.39+3620.128=7867.868	16743.129+3832.425+460.08=21035.634000000002		3835.687+108.017+226							
2.51=6206.214	5397.15+541.86+2728.63=8667.64		SUM(C6:H6)=103031.022000000001		Stage 2 C6-M3=14503.					
338000000003	D6-N3=32867.828		E6-O3=7091.868		F6-P3=18610.634000000002		G6-Q3=5333.214		H6-R	
3=7697.639999999999	SUM(M6:R6)=86104.522000000001			Stage 2 loans adjusted for OTAS exposure						
Stage 3	4046.342	5633.32	6264.786	5799.235	7945.146	8617.858	SUM(			
C7:H7)=38306.687000000005	Stage 3 C7=4046.342		D7=5633.32		E7=6264.786		F7=5799.235			
G7=7945.146	H7=8617.858		SUM(M7:R7)=38306.687000000005							
Total	SUM(C5:C7)=203308.430999999998		SUM(D5:D7)=223051.484000000003		SUM(E5:E7)=222150.678999999999					
7	SUM(F5:F7)=252282.150999999998			SUM(G5:G7)=203345.89		SUM(H5:H7)=206491.664999999998		SUM(		
C8:H8)=1310630.30	Total		SUM(M5:M7)=203308.430999999998		SUM(N5:N7)=223051.484000000003		SUM(			
O5:O7)=222150.678999999997	SUM(P5:P7)=252282.150999999998			SUM(Q5:Q7)=203345.89		SUM(R5:R7)=2				
06491.664999999998	SUM(M8:R8)=1310630.30									
COVERAGE										
TRYm	Akbank	Garanti Halkbank	Isbank	Vakifbank	Yapi Kredi	Average	TRYm	Akba		
nk	Garanti Halkbank	Isbank	Vakifbank	Yapi Kredi	Average					
Stage 1	635.937	816.282	1003.91	1588.177	1541.675	1735.70	SUM(C12:H12)=7321.681		Stage	
e 1	C12+(M3*0.01)=708.687		D12+(N3*0.01)=862.35700000000001		E12+(O3*0.01)=1011.67		F12+(P3*0.01		)=1612.427	
	G12+(Q3*0.01)=1550.405		H12+(R3*0.01)=1745.40		SUM(M12:R12)=7490.946					
Stage 2	2783.856	3620.075	784.616	1845.348	468.183	888.696	SUM(C13:H13)=10390.7		74000000001	
F13-(P3*P1)=1239.098	Stage 2 C13-(M3*M1)=965.10600000000004		D13-(N3*N1)=2237.825		E13-(O3*O1)=551.816					
=5749.32400000000005	G13-(Q3*Q1)=206.283000000000002			H13-(R3*R1)=549.196000000000001		SUM(M13:R13)				
Stage 3	3130.372	3963.228	4978.164	4157.801	6201.91	7386.565	SUM(			
C14:H14)=29818.039999999997	Stage 3 C14=3130.372		D14=3963.228		E14=4978.164		F14=4157.801			
G14=6201.91	H14=7386.565		SUM(M14:R14)=29818.039999999997							
Total	SUM(C12:C14)=6550.165		SUM(D12:D14)=8399.585		SUM(E12:E14)=6766.69		SUM(F12:F14)=7591.32			
6	SUM(G12:G14)=8211.768			SUM(H12:H14)=10010.961		SUM(I12:I14)=47530.4949999999995		Total		
M12:M14)=4804.1650000000001	SUM(N12:N14)=7063.41		SUM(O12:O14)=6541.65		SUM(P12:P14)=7009.32					
6	SUM(Q12:Q14)=7958.598			SUM(R12:R14)=9681.161		SUM(M15:R15)=43058.31				
% in gross loans										
TRYm	Akbank	Garanti Halkbank	Isbank	Vakifbank	Yapi Kredi	Average	TRYm	Akba		
nk	Garanti Halkbank	Isbank	Vakifbank	Yapi Kredi	Average					
Stage 1	C5/C\$8=0.8729778205803969		D5/D\$8=0.8067322968360076		E5/E\$8=0.936382575720149					
F5/F\$8=0.8936315197344263	G5/G\$8=0.9304074451664599			H5/H\$8=0.9162896090745358		I5/I		=0.8921605055216563		
\$8=0.8921605055216563	Stage 1 M5/M\$8=0.9087608914752778		N5/N\$8=0.8273889628100389		O5/O					
\$8=0.9398757003123993	P5/P\$8=0.9032437732782769			Q5/Q\$8=0.934700622668105		R5/R\$8=0.920				
9871352434492	S5/S\$8=0.9050752840064814			D6/D\$8=0.16801200928122942		E6/E\$8=0.035416808246622564				
Stage 2	C6/C\$8=0.10711969933012766		G6/G\$8=0.030520479169753565		H6/H\$8=0.041975737858474825		I6/I		=0.08338138039737898	
F6/F\$8=0.08338138039737898	Stage 2 M6/M\$8=0.07133662843524677			N6/N\$8=0.14735534330719807		O6/O				
\$8=0.07861181143149217	P6/P\$8=0.07376912685352839		Q6/Q\$8=0.026227301668108462		R6/R\$8=0.037					
\$8=0.03192368365437227	S6/S\$8=0.06569703294666697			D7/D\$8=0.025255693882762956		E7/E\$8=0.02820061603322851				
27821168956142	Stage 3 C7/C\$8=0.019902480089475486		G7/G\$8=0.03907207566378646		H7/H\$8=0.04173465306698942		I7/I		=0.022987099868194798	
Stage 3	M7/M\$8=0.019902480089475486		N7/N\$8=0.025255693882762956		O7/O					
\$8=0.029227683046851582	P7/P\$8=0.022987099868194798			Q7/Q\$8=0.03907207566378646		R7/R\$8=0.041				
\$8=0.02820061603322851	Stage 3 M7/M\$8=0.019902480089475486		N7/N\$8=0.025255693882762956		O7/O					
\$8=0.02820061603322851	S7/S\$8=0.029227683046851582			D8/D\$8=1		E8/E\$8=1				
Total	C8/C\$8=1		D8/D\$8=1		E8/E\$8=1		F8/F\$8=1		G8/G\$8=1	
I8/I\$8=1	Total		M8/M\$8=1		N8/N\$8=1		O8/O\$8=1		P8/P\$8=1	
R8/R\$8=1	S8/S\$8=1		Q8/Q\$8=1							
COVERAGE RATIO										
Total	Earnings impact Akbank		Garanti Halkbank		Isbank		Vakifbank		Yapi Kredi	
TRYm	Akbank	Garanti Halkbank	Isbank	Vakifbank	Yapi Kredi	Average	Stage 2	prov		
isions (base)	14503.3380000000003	32867.828	7091.868	18610.634000000002	5333					
.214	7697.639999999999		S6=86104.522000000001							
Stage 1	C12/C5=0.0035830716694735623		D12/D5=0.004536340640980005		E12/E5=0.004826072163698314					
F12/F5=0.007044560421890559	G12/G5=0.008148623535786156			H12/H5=0.009173591048964065		I12/I		=0.0062616329363195285		
I5=0.0062616329363195285	Stage 3 provisions (base)		4046.342		5633.32		6264.786			
5799.235	7945.146		8617.858		38306.6870000000005					
Stage 2	C13/C6=0.12782683416888835		D13/D6=0.09659888767351148		E13/E6=0.09972409298173278					
F13/F6=0.08772485773426177	G13/G6=0.07543777897442788			H13/H6=0.10253033120895655		I13/I		=0.10085092623850708		
I6=0.10085092623850708	Amount of Stage 2 transferred to Stage 3		ST\$27*M25=0		ST\$27*N25=0					
ST\$27*O25=0	ST\$27*P25=0		ST\$27*Q25=0		ST\$27*R25=0		ST\$27*S25=0			
Stage 3	C14/C7=0.7736301083793707		D14/D7=0.7035332628006221		E14/E7=0.7946263447785766					
F14/F7=0.7169568055096923	G14/G7=0.7805910678041662			H14/H7=0.85712308093264		I14/I7=0.778		4029978891152		
P27*0.7=0	Coverage of new		Stage 3 loans (70%)		M27*0.7=0		N27*0.7=0		O27*0.7=0	
P27*0.7=0	Q27*0.7=0		R27*0.7=0		S27*0.7=0					
Total	SUM(C26:C28)=0.9050400142177326		SUM(D26:D28)=0.8046684911151136		SUM(E26:E28)=0.8991765099240					

078	SUM(F26:F28)=0.8117262236658447	SUM(G26:G28)=0.8641774703143803	SUM(H26:H28)=0.9688270031905
606	SUM(I26:I28)=0.8855155570639418	Stage 3 provisions (new)	M28+M26=4046.342
N26=5633.32	O28+O26=6264.786	P28+P26=5799.235	Q28+Q26=7945.146
.858	S28+S26=38306.687000000005		R28+R26=8617
Net profit (base)	6405.467516045113	7118.518599790241	3809.28613779219
.064735470831	3822.804240772133	3853.9025619301465	SUM(M30:R30)=31252.043791800654
Expected provision expenses	Net profit (new) - TRYmn	M30-(M28*0.8)+(M48-M46)*(0.8)*(0.04)	O30-(O28*0.8)
)=6405.467516045113	N30-(N28*0.8)+(N48-N46)*(0.8)*(0.04)=7118.518599790241	P30-(P28*0.8)+(P48-P46)*(0.8)*(0.04)=6242.06473547	R30-(R28*0.8)+(R48-R46)*(0.8)*(0.04)=3853.9025619301465
0831	Q30-(Q28*0.8)+(Q48-Q46)*(0.8)*(0.04)=3822.804240772133	S30-(S28*0.8)+(S48-S46)*(0.8)*(0.04)=31252.043791800654	
TRYm	Akbank	Garanti	Halkbank
t profit from base	M31/M30-1=0	N31/N30-1=0	O31/O30-1=0
R31/R30-1=0	S31/S30-1=0		P31/P30-1=0
ROE (base)	M30/M\$56=0.14227070975751668	N30/N\$56=0.15379565842592643	O30/O\$56=0.133239279
64267931	P30/P\$56=0.13031433781764779	Q30/Q\$56=0.14460043618259225	R30/R\$56=0.102203593
17283423	S30/S\$56=0.1347398172027409		
ROE (new)	M31/M\$56=0.14227070975751668	N31/N\$56=0.15379565842592643	O31/O\$56=0.133239279
64267931	P31/P\$56=0.13031433781764779	Q31/Q\$56=0.14460043618259225	R31/R\$56=0.102203593
17283423	S31/S\$56=0.1347398172027409		
Change in ROE from base (M34-M33)=0	(N34-N33)=0	(O34-O33)=0	(P34-P33)=0
(R34-R33)=0	(S34-S33)=0		(Q34-Q33)=0
Stage 1	53.916	379.957	96.532
nk	Garanti	Halkbank	Isbank
Stage 2	246.51	748.876	19.004
oans (base)	M20=0.07133662843524677	N20=0.14735534330719807	O20=0.03192368365437227
12685352839	Q20=0.026227301668108462	R20=0.03727821168956142	S20=0.06569703294666697
Stage 3	397.74	488.162	276.835
s % in loans (base)	M21=0.019902480089475486	N21=0.025255693882762956	O21=0.028200
61603322851	P21=0.022987099868194798	Q21=0.03907207566378646	R21=0.04173465306698942
0.029227683046851582			S21=
Total	SUM(C37:C39)=698.1659999999999	SUM(D37:D39)=1616.995	SUM(E37:E39)=392.371
=1127.6619999999999	SUM(G37:G39)=1283.114	SUM(H37:H39)=813.327	SUM(I37:I39)=5931.635
Stage 2 loans % in loans (new)	(M6-M27)/M\$8=0.07133662843524677	(N6-N27)/N\$8=0.1473553433071	(O6-O27)/O\$8=0.03192368365437227
9807	(P6-P27)/P\$8=0.07376912685352839	(Q6-Q27)/Q\$8=0.026227301668108462	(R6-R27)/R\$8=0.03727821168956142
=0.026227301668108462	(S6-S27)/S\$8=0.06569703294666697		
Average gross loans	'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[AKBANK MO		
DEL- Higher RFR and Lower NIM.xlsx]COR'!	\$AH\$13/1000=199098.746		
ith 2020 Estimates\Higher RFR\[GARANTI MODEL- Higher RFR and Lower NIM.xlsx]COR'!	\$AH\$13/1000=219928.43		
43	'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[HALKBANK MODEL- Higher RFR and Lower NIM.xlsx]COR'!		
R and Lower NIM.xlsx]COR'!	\$AH\$13/1000=215448.166		
Estimates\Higher RFR\[ISBANK MODEL- Higher RFR and Lower NIM.xlsx]COR'!	\$AH\$13/1000=249443.2855		
Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[VAKIFBANK MODEL- Higher RFR and Lower NIM.xlsx]COR'!	\$AH\$13/1000=197091.47		
r RFR\[YAPI KREDI MODEL- Higher RFR and Lower NIM.xlsx]COR'!	\$AH\$13/1000=204895.8715		
=1285905.969	Stage 3 loans % in loans (new)	(M7+M27)/M\$8=0.019902480089475486	(N7+N27)/N\$8=0.025255693882762956
=0.025255693882762956	(O7+O27)/O\$8=0.02820061603322851	(P7+P27)/P\$8=0.022987099868194798	(Q7+Q27)/Q\$8=0.03907207566378646
7683046851582	(R7+R27)/R\$8=0.04173465306698942	(S7+S27)/S\$8=0.029227683046851582	
Stage 1 credit impairments	C37=53.916	D37=379.957	E37=96.532
167.354	H37=153.12	I37=858.279	F37=7.40
CoR (gross)	Stage 2 credit impairments	C38=246.51	D38=748.876
588.762	G38=78.11	H38=70.684	E38=19.004
TRYm	Akbank	Garanti	Halkbank
it impairments (new)	M28+C39=397.74	N28+D39=488.162	O28+E39=276.835
.65	R28+H39=589.523	S28+I39=3321.4100000000003	P28+F39=531.50
Stage 1	C37/C\$41*4=0.0010832011970582677	D37/D\$41*4=0.006910557220819518	E37/E\$41*4=0.0017922
083402650082	F37/F\$41*4=1.1866424843093242E-4	G37/G\$41*4=0.0033964737286702467	H37/H\$41*4=0.0029892256760283235
188	I37/I\$41*4=0.002669803300368691	Recoveries	C49=253
F49=432	G49=446	H49=330	I49=2509
Stage 2	C38/C\$41*4=0.004952517380496208	D38/D\$41*4=0.013620358222900059	E38/E\$41*4=3.528273246011294
E-4	F38/F\$41*4=0.009441216247931435	G38/G\$41*4=0.0015852537910443307	H38/H\$41*4=0.0013799
009122543496	I38/I\$41*4=0.005449686189301761	Gross loans (base)	C41=199098.746
3	E41=215448.166	F41=249443.2855	G41=197091.47
Stage 3	C39/C\$41*4=0.007990808741708499	D39/D\$41*4=0.008878561084621938	E39/E\$41*4=0.005139704925592
172	F39/F\$41*4=0.008522979465005484	G39/G\$41*4=0.021059257409770195	H39/H\$41*4=0.011508733595932
899	I39/I\$41*4=0.010331735228145598	Change in loan growth	\$T\$46=0
6=0	\$T\$46=0	\$T\$46=0	\$T\$46=0
Total	SUM(C45:C47)=0.014026527319262974	SUM(D45:D47)=0.029409476528341517	SUM(E45:E47)=0.0072847405904583095
=0.0072847405904583095	SUM(F45:F47)=0.018082859961367853	SUM(G45:G47)=0.02604098492948477	SUM(H45:H47)=0.015877860184215574
M46*(1+M47)=199098.746	N46*(1+N47)=219928.43	O46*(1+O47)=215448.166	P46*(1+P47)=249443.2855
(1+Q47)=197091.47	R46*(1+R47)=204895.8715	S46*(1+S47)=1285905.969	
Recoveries	253	860	188
ase	C57=0.008943622377209748	D57=0.013768024443224555	E57=0.0037943418836064724
F57=0.011155433566480983	G57=0.01698935017329771	H57=0.009435563468637288	I57=0.010646
610506557188			
CoR (net), New	(M42+M43+M44-M45)/M48*4=0.008943622377209748	(N42+N43+N44-N45)/N48*4=0.0137680244	(P42+P43+P44-P45)/P48*4=0.0111554335
43224555	(O42+O43+O44-O45)/O48*4=0.0037943418836064724		

66480983	(Q42+Q43+Q44-Q45)/Q48*4=0.01698935017329771	(R42+R43+R44-R45)/R48*4=0.0094355634
68637288	(S42+S43+S44-S45)/S48*4=0.010646610506557188	
CoR (net)	Change in CoR from base (bps) (M50-M49)*100=0 (N50-N49)*100=0 (O50-O49)*100=0 (P50-P49)*100=0	(Q50-Q49)*100=0 (R50-R49)*100=0 (S50-S49)*100=0
TRYm Akbank	Garanti Halkbank	Isbank Vakifbank
impact Akbank	Garanti Halkbank	Isbank Vakifbank
Stage 1 Base Case (2018E)		Yapi Kredi Average Tier 1 & CAR Total
Stage 2 Total RWAs	'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[AKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'\!\$BK\$585=302875.679288 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[GARANTI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'\!\$BK\$585=291738.2124657 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[HALKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'\!\$BK\$585=234881.86808775 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[ISBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'\!\$BK\$585=344418.17760000005 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[VAKIFBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'\!\$BK\$585=218144.9068410002 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[YAPI KREDI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'\!\$BK\$590=282617.49027600006 SUM(M55:R55)=1674676.3345584502	
Stage 3 (C39-C49)/C41*4=0.0029079037996552724	(D39-D49)/D41*4=-0.006762891000495025	(E39-E49)/E41*4=0.0016493062187403346
53583133	(F39-F49)/F41*4=0.0015955530701186181	(G39-G49)/G41*4=0.0120076226
53583133	(H39-H49)/H41*4=0.005066436880354615	(I39-I49)/I41*4=0.002527121016886734
Shareholders equity	'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[AKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'\!\$BK\$112=45023.093839641784 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[GARANTI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'\!\$BK\$112=46285.562756758685 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[HALKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'\!\$BK\$112=28589.813364406662 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[ISBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'\!\$BK\$112=47900.06103707109 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[VAKIFBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'\!\$BK\$112=26437.017354117375 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[YAPI KREDI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'\!\$BK\$112=37708.092663756914 SUM(M56:R56)=231943.64101575254	
Total	(C40-C49)/C41*4=0.008943622377209748	(D40-D49)/D41*4=0.013768024443224555
7329771	(F40-F49)/F41*4=0.011155433566480983	(G40-G49)/G41*4=0.0169893501
7329771	(H40-H49)/H41*4=0.009435563468637288	(I40-I49)/I41*4=0.010646610506557188
Tier 1 Capital	'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[AKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'\!\$BK\$574=44122.63196284895 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[GARANTI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'\!\$BK\$574=45591.27931540731 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[HALKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'\!\$BK\$574=28018.01709711853 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[ISBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'\!\$BK\$574=46942.05981632967 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[VAKIFBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'\!\$BK\$574=25908.277007035027 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[YAPI KREDI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'\!\$BK\$557=33560.20247074365 SUM(M57:R57)=224142.46766948313	
Tier 2 Capital	'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[AKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'\!\$BK\$575=6078.117668351641 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[GARANTI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'\!\$BK\$575=7161.802715988953 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[HALKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'\!\$BK\$575=3144.879470084733 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[ISBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'\!\$BK\$575=8622.010986672796 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[VAKIFBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'\!\$BK\$575=6212.699078217583 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[YAPI KREDI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'\!\$BK\$565=9992.644555895582 SUM(M58:R58)=41212.15447521128	
Deductions	'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[AKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'\!\$BK\$577=7.262812189425495 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[GARANTI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'\!\$BK\$577=34.580451246550766 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[HALKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'\!\$BK\$577=20.012869355084664 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[ISBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'\!\$BK\$577=47.9000610370711 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[VAKIFBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'\!\$BK\$577=2.643701735411738 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[YAPI KREDI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'\!\$BK\$572=301.6647413100553 SUM(M59:R59)=414.06463687359906	
Capital base	M57+M58-M59=50193.48681901117	N57+N58-N59=52718.501580149714
3697848178	P57+P58-P59=55516.17074196539	Q57+Q58-Q59=32118.332383517198
2285329174	S57+S58-S59=264940.55750782083	R57+R58-R59=43251.18
Tier 1 capital ratio (base)	M57/M55=0.1456790194134188	N57/N55=0.15627462350605692
0.09125	P57/P55=0.13629379303797134	Q57/Q55=0.11876636214990284
0.09125	S57/S55=0.13384226136364502	R57/R55=0.11
CAR (base)	M60/M55=0.165723068081947	N60/N55=0.18070482140335967
6465483	P60/P55=0.16118827156225388	Q60/Q55=0.1472339320162418
S60/S55=0.15820403742534273		R60/R55=0.15303788255670486
Tier 1 capital threshold (2018)	0.09375	0.09375
0.09125	AVERAGE(M63:R63)=0.09166666666666667	0.08875000000000001
CAR threshold (2018)	0.12	0.12
0.09125	AVERAGE(M64:R64)=0.12	0.12
Tier 1 capital headroom	M61-M63=0.05192901941341879	N61-N63=0.06252462350605692
0.09125		O61-O63=0.03

05355682101916 P61-P63=0.042543793037971345 Q61-Q63=0.03001636214990283 R61-R63=0.0274977903  
01192093 S61-S63=0.04217559469697835  
CAR headroom M62-M64=0.04572306808194701 N62-N64=0.06070482140335967 O62-O64=0.0125895606  
6465483 P62-P64=0.04118827156225388 Q62-Q64=0.027233932016241802 R62-R64=0.03303788255670487  
S62-S64=0.03820403742534273  
Stage 1 Impact of weaker asset quality (2018E)  
Tier 1 capital (TRYm) M57-(M\$28\*0.8)=44122.63196284895 N57-(N\$28\*0.8)=45591.27931540731  
O57-(O\$28\*0.8)=28018.01709711853 P57-(P\$28\*0.8)=46942.05981632967 Q57-(Q\$28\*0.8)=25908  
.277007035027 R57-(R\$28\*0.8)=33560.20247074365 S57-(S\$28\*0.8)=224142.46766948313  
Capital base (TRYm) M60-(M\$28\*0.8)=50193.48681901117 N60-(N\$28\*0.8)=52718.501580149714  
O60-(O\$28\*0.8)=31142.883697848178 P60-(P\$28\*0.8)=55516.17074196539 Q60-(Q\$28\*0.8)=32118  
.332383517198 R60-(R\$28\*0.8)=43251.182285329174 S60-(S\$28\*0.8)=264940.55750782083  
Tier 1 capital ratio (new) M68/M55=0.1456790194134188 N68/N55=0.15627462350605692 O68/  
O55=0.11928556821019161 P68/P55=0.13629379303797134 Q68/Q55=0.11876636214990284 R68/R55=0.11  
874779030119209 S68/S55=0.13384226136364502  
CAR (new) M69/M55=0.165723068081947 N69/N55=0.18070482140335967 O69/O55=0.1325895606  
6465483 P69/P55=0.16118827156225388 Q69/Q55=0.1472339320162418 R69/R55=0.15303788255670486  
S69/S55=0.15820403742534273  
Tier 1 capital ratio - chg. from base (bps) (M70-M61)\*100=0 (N70-N61)\*100=0 (O70-O61)\*100=0 (P70-  
-P61)\*100=0 (Q70-Q61)\*100=0 (R70-R61)\*100=0 (S70-S61)\*100=0  
CoR (net) CAR - chg. from base (bps) (M71-M62)\*100=0 (N71-N62)\*100=0 (O71-O62)\*100=0 (P71-  
-P62)\*100=0 (Q71-Q62)\*100=0 (R71-R62)\*100=0 (S71-S62)\*100=0  
Tier 1 capital headroom M70-M63=0.05192901941341879 N70-N63=0.06252462350605692 O70-O63=0.03  
05355682101916 P70-P63=0.042543793037971345 Q70-Q63=0.03001636214990283 R70-R63=0.0274977903  
01192093 S70-S63=0.04217559469697835  
CAR headroom M71-M64=0.04572306808194701 N71-N64=0.06070482140335967 O71-O64=0.0125895606  
6465483 P71-P64=0.04118827156225388 Q71-Q64=0.027233932016241802 R71-R64=0.03303788255670487  
S71-S64=0.03820403742534273  
TRYm Akbank Garanti Halkbank Isbank Vakifbank Yapi Kredi Yapi Kredi Average Valuation  
Akbank Garanti Halkbank Isbank Vakifbank Yapi Kredi Total  
Net profit (base) M30=6405.467516045113 N30=7118.518599790241 O30=3809.28613779219 P30=  
6242.064735470831 Q30=3822.804240772133 R30=3853.9025619301465 S30=31252.043791800654  
Net profit (new) M31=6405.467516045113 N31=7118.518599790241 O31=3809.28613779219 P31=  
6242.064735470831 Q31=3822.804240772133 R31=3853.9025619301465 S31=31252.043791800654  
Book value (base) M56=45023.093839641784 N56=46285.562756758685 O56=28589.813364406662 P56=  
47900.06103707109 Q56=26437.017354117375 R56=37708.092663756914 S56=231943.64101575254  
Book value (new) M56-(M28\*0.8)=45023.093839641784 N56-(N28\*0.8)=46285.562756758685  
O56-(O28\*0.8)=28589.813364406662 P56-(P28\*0.8)=47900.06103707109 Q56-(Q28\*0.8)=26437.01735411  
7375 R56-(R28\*0.8)=37708.092663756914 S56-(S28\*0.8)=231943.64101575254  
Price (TRY/shr) 6.60 7 6.40 4.94 4.06 2.2  
Paid-in cap (TRYm) 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[AKBANK MO  
DEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$113=4000 'R:\Bank models\Turkish Bank Model w  
ith 2020 Estimates\Higher RFR\[GARANTI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$113=  
4200 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[HALKBANK MODEL- Higher RF  
R and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$113=1250 'R:\Bank models\Turkish Bank Model with 2020  
Estimates\Higher RFR\[ISBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$113=4500 'R:\  
Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[VAKIFBANK MODEL- Higher RFR and Lower  
NIM.xlsx]Forecast (TRY)'!\$BK\$113=2500 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Highe  
r RFR\[YAPI KREDI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$113=8447.051  
M.Cap (TRYm) M82\*M83=26400 N82\*N83=29400 O82\*O83=8000 P82\*P83=22230 Q82\*Q83=10149.999999  
999998 R82\*R83=18583.5122  
P/E (2018E), base (x) M\$84/M78=4.121479023017509 N\$84/N78=4.130072793638036 O\$84/O78=2.1  
00131024716534 P\$84/P78=3.5613216046410034 Q\$84/Q78=2.6551189547571217 R\$84/R78=4.821998455  
169255 AVERAGE (M86:R86)=3.565020309323243  
P/E (2018E), implied (x) M\$84/M79=4.121479023017509 N\$84/N79=4.130072793638036 O\$84  
/O79=2.100131024716534 P\$84/P79=3.5613216046410034 Q\$84/Q79=2.6551189547571217 R\$84/R79=4.8  
21998455169255 AVERAGE (M87:R87)=3.565020309323243  
Change from base M87/M86=1=0 N87/N86=1=0 O87/O86=1=0 P87/P86=1=0 Q87/Q86=1=0  
R87/R86=1=0 S87/S86=1=0  
P/BV (2018E), base (x) M\$84/M80=0.5863657458554173 N\$84/N80=0.6351872646445671 O\$84/O80=0.2  
7981994488847295 P\$84/P80=0.4640912666644752 Q\$84/Q80=0.38393135897454816 R\$84/R80=0.4  
928255683921537 AVERAGE (M90:R90)=0.47370352490327244  
P/BV (2018E), implied (x) M\$84/M81=0.5863657458554173 N\$84/N81=0.6351872646445671 O\$84  
/O81=0.27981994488847295 P\$84/P81=0.4640912666644752 Q\$84/Q81=0.38393135897454816 R\$84  
/R81=0.4928255683921537 AVERAGE (M91:R91)=0.47370352490327244  
Change from base M91/M90=1=0 N91/N90=1=0 O91/O90=1=0 P91/P90=1=0 Q91/Q90=1=0  
R91/R90=1=0 S91/S90=1=0  
Stage 1 Discount to MSCI EM Banks  
P/E (2018E), base (x) M86/\$M\$109-1=-0.45555098771235025 N86/\$M\$109-1=-0.4544157472076571  
O86/\$M\$109-1=-0.7225718593505239 P86/\$M\$109-1=-0.5295480046709375 Q86/\$M\$109-1=-0.6492  
577338497858 R86/\$M\$109-1=-0.36301209310842075 AVERAGE (M94:R94)=-0.5290594043166126  
P/E (2018E), implied (x) M87/\$M\$109-1=-0.45555098771235025 N87/\$M\$109-1=-0.454415747207  
6571 O87/\$M\$109-1=-0.7225718593505239 P87/\$M\$109-1=-0.5295480046709375 Q87/\$M\$109-1=  
-0.6492577338497858 R87/\$M\$109-1=-0.36301209310842075 AVERAGE (M95:R95)=-0.5290594043166126  
3Y average discount M121/\$M\$113-1=-0.11901840490797555 N121/\$M\$113-1=-0.14723926380368102  
O121/\$M\$113-1=-0.46871165644171786 P121/\$M\$113-1=-0.2601226993865031 Q121/\$M\$113-1=-0.354  
6012269938651 R121/\$M\$113-1=-0.2834355828220859 AVERAGE (M96:R96)=-0.2721881390593048  
P/BV (2018E), base (x) M90/\$M\$110-1=-0.4415564325186502 N90/\$M\$110-1=-0.39505974795755516  
O90/\$M\$110-1=-0.7335048143919305 P90/\$M\$110-1=-0.5580083174624046 Q90/\$M\$110-1=-0.6343

510866909066 R90/\$M\$110-1=-0.5306423158169965 AVERAGE (M98:R98)=-0.5488537858064072  
P/BV (2018E), implied (x) M91/\$M\$110-1=-0.4415564325186502 N91/\$M\$110-1=-0.395059747957  
55516 O91/\$M\$110-1=-0.7335048143919305 P91/\$M\$110-1=-0.5580083174624046 Q91/\$M\$110-1  
=-0.6343510866909066 R91/\$M\$110-1=-0.5306423158169965 AVERAGE (M99:R99)=-0.5488537858064072  
3Y average discount M122/\$M\$114-1=-0.010204081632653073 N122/\$M\$114-1=-0.010204081632653073  
O122/\$M\$114-1=-0.41836734693877553 P122/\$M\$114-1=-0.29591836734693877 Q122/\$M\$114-1=-0.357  
1428571428571 R122/\$M\$114-1=-0.3571428571428571 AVERAGE (M100:R100)=-0.2414965986394558  
Stage 1 Discount to own historical average  
P/E (2018E), base (x) M86/\$M\$117-1=-0.3426668224852458 N86/\$M\$117-1=-0.3412962051613977  
O86/\$M\$117-1=-0.6650508732509515 P86/\$M\$117-1=-0.43200612366172186 Q86/\$M\$117-1=-0.5765  
360518728673 R86/\$M\$117-1=-0.23094123522021448 AVERAGE (M102:R102)=-0.4314162186087331  
P/E (2018E), implied (x) M87/\$M\$117-1=-0.3426668224852458 N87/\$M\$117-1=-0.341296205161  
3977 O87/\$M\$117-1=-0.6650508732509515 P87/\$M\$117-1=-0.43200612366172186 Q87/\$M\$117-1  
=-0.5765360518728673 R87/\$M\$117-1=-0.23094123522021448 AVERAGE (M103:R103)=-0.43141621860873  
31  
P/BV (2018E), base (x) M90/\$M\$118-1=-0.2760916717834354 N90/\$M\$118-1=-0.21581819179683082  
O90/\$M\$118-1=-0.6545432779154655 P90/\$M\$118-1=-0.4270478189327467 Q90/\$M\$118-1=-0.5260  
106679326566 R90/\$M\$118-1=-0.3915733723553658 AVERAGE (M105:R105)=-0.4151808334527502  
P/BV (2018E), implied (x) M91/\$M\$118-1=-0.2760916717834354 N91/\$M\$118-1=-0.215818191796  
83082 O91/\$M\$118-1=-0.6545432779154655 P91/\$M\$118-1=-0.4270478189327467 Q91/\$M\$118-1  
=-0.5260106679326566 R91/\$M\$118-1=-0.3915733723553658 AVERAGE (M106:R106)=-0.41518083345275  
02  
MSCI EM Banks 2018E  
P/E (x) 7.57  
P/BV (x) 1.05  
MSCI EM Banks 3Y average  
P/E (x) 8.15  
P/BV (x) 0.98  
Turkish banks 3Y average  
P/E (x) 6.27  
P/BV (x) 0.81  
3Y Historical average Akbank Garanti Halkbank Isbank Vakifbank Yapi Kredi Tota  
1  
P/E (x) 7.18 6.95 4.33 6.03 5.26 5.84 AVERAGE (M121:R121)=5.9316666666666675  
P/BV (x) 0.97 0.97 0.57 0.69 0.63 0.63 AVERAGE (M122:R122)=0.7433333333333333  
3

Loan breakdown and Growth												
AKBANK	AKBANK	Share in total (%)					AKBANK	Cumulative change				
TRYmn	2011	2012	2013	2014	2015	2016	1Q17	1H17	9M17	2017	C3=2011	D3=2
012	E3=2013	F3=2014	G3=2015	H3=2016	I3=1Q17	J3=1H17	K3=9M17	L3=2017	TRYmn	2017/2016		2017
/2011	2017/2015											
Gross Loans	71568.61	200000001	88771.65	6999999999	112352.302	128308.139	1451					
36.806	166095.099	175757.808	9999999998	176346.731	182089.78	195041.678	Gros					
s Loans	C4/C4=1	D4/D4=1	E4/E4=1	F4/F4=1	G4/G4=1	H4/H4=1						
I4/I4=1	J4/J4=1	K4/K4=1	L4/L4=1	Gross Loans	L4/H4-1=0.1742771410							
7325976	L4/C4-1=1.7252404727368473	L4/G4-1=0.3438471148386715										
Corporate Loans	46427.465000000004	54943.065	71016.044	85724.976	105563.73000							
000001	126002.841999999998	135179.221999999998	136254.474000000002	139936.895	1514							
60.875	Corporate Loans	C5/C4=0.648712664708378	D5/D4=0.6189257569000881	E5/E4=0.632								
0835687016008	F5/F4=0.6681179905508566	G5/G4=0.7273394868562837	H5/H4=0.75861866339									
5962	I5/I4=0.7691221389770511	J5/J4=0.7726509770118734	K5/K4=0.7685049375093977									
L5/L4=0.7765564598967406	Corporate Loans	L5/H5-1=0.20204332375296774	L5/C5-1=2.2623119741									
730457	L5/G5-1=0.4347813875087587											
Credit Card Loans	9550.188	12884.495	13592.664999999999	11584.124	1089							
8.804999999998	10651.271	10604.635999999999	10660.59	11258.897	11455.619000							
000002	Credit Card Loans	C6/C4=0.1334410118223335	D6/D4=0.14514199053420848	E6/E								
S4=0.12098252334874278	F6/F4=0.09028362573320466	G6/G4=0.07509332264070906	H6/H4=0.064									
12754538892206	I6/I4=0.060336641998080434	J6/J4=0.06045243900778632	K6/K4=0.06183157011									
887214	L6/L4=0.05873421064394248	Credit Card Loans	L6/H6-1=0.07551662144358184	L6/C								
6-1=0.19951764300346775	L6/G6-1=0.05108945430255929											
Consumer Loans	15590.959	20944.096999999994	27743.593	30999.039	28674.271							
29440.985999999997	29973.951	29431.666999999998	30893.988	32125.183999999997								
Consumer Loans	C7/C4=0.21784632346928845	D7/D4=0.23593225256570344	E7/E4=0.24693390794									
965644	F7/F4=0.24159838371593872	G7/G4=0.1975671905030072	H7/H4=0.17725379121511586									
I7/I4=0.1705412190248685	J7/J4=0.1668965839803404	K7/K4=0.16966349237173003	L7/L									
S4=0.16470932945931688	Consumer Loans	L7/H7-1=0.09117215028056469	L7/C7-1=1.0605008325658476									
L7/G7-1=0.12034876143843376												
Mortgage Loans	7470.948	9753.833	12592.376	13056.473	13446.919	1356						
9.841	14043.416	13569.841	13364.862000000001	13232.484	Mortgage Loans	C8/C						
S4=0.10438861102965082	D8/D4=0.10987553155620382	E8/E4=0.11207937688717763	F8/F4=0.101									
758727869444	G8/G4=0.09264995813673893	H8/H4=0.08169922581520603	I8/I4=0.07990208844									
717676	J8/J4=0.0769497734551144	K8/K4=0.07339710114428169	L8/L4=0.06784439169970635									
Mortgage Loans	L8/H8-1=-0.02486079239985195	L8/C8-1=0.7711920896785789	L8/G8-1=-0.015946775									
614547826												
Personal Need Loans	6298.864	9101.052000000001	12851.278	15691.855000000001								
13924.483	14544.601	14600.825	14544.601	16203.264000000001	17574.93							
Personal Need Loans	C9/C4=0.0880115433844099	D9/D4=0.10252204709888431	E9/E4=0.114									
38375334757271	F9/F4=0.1222982043251364	G9/G4=0.0959403984679117	H9/H4=0.08756791192									
255468	I9/I4=0.08307354923842958	J9/J4=0.08247729298707557	K9/K4=0.08898502705643338									
L9/L4=0.0901085869451964	Personal Need Loans	L9/H9-1=0.20834734483262896	L9/C9-1=1.79									
01745457593625	L9/G9-1=0.26216032580886495											
Auto Loans	865.906	999.401	993.735	810.024	539.389	378.283	349.18199999999996	378.283	278.			
539	254.678	Auto Loans	C10/C4=0.012098963159995332	D10/D4=0.011258109105702511	E10/							
E4=0.008844812098287047	F10/F4=0.0063131147120760595	G10/G4=0.00371641773624259	H10/									
H54=0.002277508501319476	I10/I4=0.001986722535895973	J10/J4=0.002145109228024193	K10/									
K54=0.001529679480089437	L10/L4=0.001305761940788881	Auto Loans	L10/H10-1=-0.3267527									
2216832374	L10/C10-1=-0.705882624672886	L10/G10-1=-0.5278398335894874										
Other Cons. Loans	955.2410000000009	1089.8109999999924	1306.2040000000002	1440								
.6869999999976	763.4800000000006	948.2609999999962	980.5280000000009	938.941999999								
99967	1047.3229999999992	1063.091999999997	Other Cons. Loans	C11/C4=0.0133472058								
95232406	D11/D4=0.012276564804912817	E11/E4=0.011625965616619055	F11/F4=0.0112283368									
08781847	G11/G4=0.0052604161621139746	H11/H4=0.005709144976035664	I11/I4=0.0055788588									
033661764	J11/J4=0.005324408310126241	K11/K4=0.005751684690925538	L11/L4=0.0054505888									
73625241	Other Cons. Loans	L11/H11-1=0.12109640700187096	L11/C11-1=0.1129044921648001									
4	L11/G11-1=0.3924294022109238											
Retail Loans	25141.147	33828.592	41336.258	42583.163	39573.076	4009						
2.257	40578.587	40092.257	42152.885	43580.803	Retail Loans	C12/C4=0.35						
12873352916219	D12/D4=0.38107424309991195	E12/E4=0.36791643129839924	F12/F4=0.3318820094									
4914337	G12/G4=0.27266051314371625	H12/H4=0.2413813366040379	I12/I4=0.23087786102294894									
J12/J4=0.2273490229881267	K12/K4=0.23149506249060217	L12/L4=0.22344354010325934	Reta									
il Loans	L12/H12-1=0.08701296113112322	L12/C12-1=0.7334452958729369	L12/G12-1=0.10127408									
34197472												
SME loans	14736.44	17036.756	21374.081	19537.75	23389.014	2474						
8	26661.798	28694.351	29105.44	30427.856	SME loans	C13/C4=0.20						
590646637103985	D13/D4=0.1919166159081609	E13/E4=0.19024159380374778	F13/F4=0.1522721017									
721253	G13/G4=0.16115150005436937	H13/H4=0.14899897798910974	I13/I4=0.1516962355851853									
J13/J4=0.1627155254723718	K13/K4=0.15984115088721618	L13/L4=0.1560069432954735	SME									
loans	L13/H13-1=0.22950767738807176	L13/C13-1=1.0648037110726878	L13/G13-1=0.3009465042006474									
GARANTI	B17=GARANTI	Share in total (%)	N17=GARANTI	Cumulative change								
TRYmn	2011	2012	2013	2014	2015	2016	1Q17	1H17	9M17	2017	C18=2011	
D18=2012	E18=2013	F18=2014	G18=2015	H18=2016	I18=1Q17	J18=						
1H17	K18=9M17	L18=2017	TRYmn	2017/2016	2017/2011	2017/2015						
Gross Loans	66414.859	85065.01699999999	93535.686	120727.867	136731.75900							
000002	190315.719	200219.454	205751.289	206483.217	214039.114	Gross Loans						
C19/C4=1	D19/D4=1	E19/E4=1	F19/F4=1	G19/G4=1	H19/H4=1	I19/						

I\$19=1	J19/J\$19=1	K19/K\$19=1	L19/L\$19=1	Gross Loans	L19/H19-1=0.1246528406831175
5	L19/C19-1=2.222759443033674		L19/G19-1=0.5653942841472548		
Corporate Loans	44920.068	57360.27299999999	60406.494000000006	77720.973	8987
2.79500000001	131438.172	140170.89299999998	144042.35499999998	142126.484	1479
25.8	Corporate Loans C20/C\$19=0.6763556932342505		D20/D\$19=0.6743109567591105	E20/E\$19=0.6	
458122731895076	F20/F\$19=0.6437699508101141		G20/G\$19=0.6572927581513817	H20/H\$19=0.690632243	
5720613	I20/I\$19=0.7000862813260892		J20/J\$19=0.7000799640190832	K20/K\$19=0.6883197872687153	
L20/L\$19=0.6911157369115254	Corporate Loans	L20/H20-1=0.12544018034578275	L20/C20-1=2.29308940		
49403485	L20/G20-1=0.6459463623001818				
Credit Card Loans	7692.221	9450.505	11233.503	13783.260999999999	1342
8.9530000000001	16101.9090000000001	16177.3450000000001	16622.137	17593.1	17906.940000
000002	Credit Card Loans	C21/C\$19=0.11582078341836125	D21/D\$19=0.11109743268493087	E21/	
E\$19=0.12009857927379718	F21/F\$19=0.11416801557506187		G21/G\$19=0.09821385388598708	H21/	
H\$19=0.0846063009645567	I21/I\$19=0.08079806770425016		J21/J\$19=0.08078752303709748	K21/K\$19=0.0	
8520353496817128	L21/L\$19=0.08366199833923814		Credit Card Loans	L21/H21-1=0.11210043	
479937704	L21/C21-1=1.3279284357534715		L21/G21-1=0.3334576418578574		
Consumer Loans	13802.570000000002	18254.239	21895.689000000002	29223.633	3343
0.011	42775.638	43871.216	45086.797000000006	46763.633	48206.373999999996
Consumer Loans	C22/C\$19=0.2078235233473883		D22/D\$19=0.21459161055595866	E22/E\$19=0.234089147	
53669527	F22/F\$19=0.242062033614824		G22/G\$19=0.24449338796263123	H22/H\$19=0.224761455	
46338186	I22/I\$19=0.2191156509696605		J22/J\$19=0.2191325129438193	K22/K\$19=0.226476677	
7631133	L22/L\$19=0.22522226474923643	Consumer Loans	L22/H22-1=0.12695862069900632	L22/C22-1=2.	
492565080271282	L22/G22-1=0.4420089182740621				
Mortgage Loans	7861.1959999999999	9108.25	10559.493	13702.014	15574.572000000002
21644.375000000004	22245.6010000000002	22593.462	22971.3459999999998	23402.483	
Mortgage Loans	C23/C\$19=0.11836501828604348		D23/D\$19=0.10707398083515343	E23/E\$19=0.112892666	
44176855	F23/F\$19=0.11349503921907275		G23/G\$19=0.11390603115110952	H23/H\$19=0.113728782	
43441364	I23/I\$19=0.11110609161884939		J23/J\$19=0.1098095769402446	K23/K\$19=0.111250426	
71143581	L23/L\$19=0.10933741297396699	Mortgage Loans	L23/H23-1=0.08122701625711048	L23/	
C23-1=1.976962156903352	L23/G23-1=0.5026084183886399				
Personal Need Loans	530.576	677.689	1409.674	1995.759	2371.425
18905.908000000003	19573.432	20791.0679999999996	21454.427	Personal Need Loans	18388.573
C24/C\$19=0.007988814671728808	D24/D\$19=0.007966717975263557		E24/E\$19=0.015070975157011196	F24/	
F\$19=0.016531054922058717	G24/G\$19=0.017343629726872745		H24/H\$19=0.09662140939603628	I24/	
I\$19=0.09442592926060024	J24/J\$19=0.09513151579818294		K24/K\$19=0.10069132156150006	L24/	
L\$19=0.100236011068519	Personal Need Loans	L24/H24-1=0.16672604230899268	L24/C24-1=39.4361052		
8934592	L24/G24-1=8.047061155212582				
Auto Loans	786.905	1106.385	1298.28	1487.4070000000002	1368.963
000003	2154.6649999999995	2167.754	2187.122	2372.4829999999997	Auto Loans
C25/C\$19=0.011848327495508196	D25/D\$19=0.013006345487475776		E25/E\$19=0.013880050016418332	F25/	
F\$19=0.012320328661153271	G25/G\$19=0.010012033853817383		H25/H\$19=0.01162379551002826	I25/	
I\$19=0.010761516710559003	J25/J\$19=0.010535797906957464		K25/K\$19=0.010592250700937111	L25/	
L\$19=0.011084343210278845	Auto Loans	L25/H25-1=0.07245848120709253	L25/C25-1=2.01495479		
12390946	L25/G25-1=0.7330512219833552				
Other Cons. Loans	4623.8930000000003	7361.9150000000001	8628.242	12038.453000	
000001	14115.051	530.49899999999948	565.0419999999954	752.14900000000058	814.
0970000000084	976.98099999999966	Other Cons. Loans	C26/C\$19=0.06962136289410782	D26/	
D\$19=0.08654456625806589	E26/E\$19=0.09224545592149717		F26/F\$19=0.09971561081253925	G26/	
G\$19=0.1032316932308316	H26/H\$19=0.002787468122903683		I26/I\$19=0.002822113379651886	J26/J\$19=0.0	
036556222984343288	K26/K\$19=0.00394267878924033		L26/L\$19=0.004564497496471587	Other Cons.	
Loans	L26/H26-1=0.8416264686644201	L26/C26-1=-0.7887102923878221	L26/G26-1=-0.930784451292453		
9					
Retail Loans	21494.791	27704.744	33129.192	43006.894	46858.964
7.547	60048.561	61708.934000000001	64356.733	66113.314	Retail Loans
C\$19=0.32364430676574957	D27/D\$19=0.3256890432408895		E27/E\$19=0.35418772681049243	F27/	
F\$19=0.3562300491898859	G27/G\$19=0.3427072418486183		H27/H\$19=0.30936775642793857	I27/I\$19=0.2	
999137186739107	J27/J\$19=0.2999200359809168		K27/K\$19=0.3116802127312846	L27/L\$19=0.308884263	
08847455	Retail Loans	L27/H27-1=0.1228951844749917	L27/C27-1=2.0757830583232932	L27/	
G27-1=0.41090003611688886					
SME loans	14345.609544	18544.173705999998	20671.386606	25352.852069999997	3517
0	38724	41740	42662	39368	40182
D\$19=0.218	E28/E\$19=0.221	F28/F\$19=0.21	G28/G\$19=0.2572189537911232	H28/H\$19=0.203472420	
47831055	I28/I\$19=0.20847125075068879		J28/J\$19=0.20734742517214558	K28/K\$19=0.190659563	
38717835	L28/L\$19=0.18773204228457047	SME loans	L28/H28-1=0.03765106910443139	L28/	
C28-1=1.8009963520027612	L28/G28-1=0.1425078191640603				
TRY SME loans	27373	30810	34628	36279	34633
HALKBANK	B32=HALKBANK	Share in total (%)	N32=HALKBANK	Cumulative change	
TRYmn	2011	2012	2013	2014	2015
D33=2012	E33=2013	F33=2014	G33=2015	H33=2016	I33=I017
1H17	K33=9M17	L33=2017	TRYmn	2017/2016	2017/2015
Gross Loans	56493.362	66236.663999999999	85283.139000000001	103052.561999999999	
127690.830000000002	159530.370999999998	169763.306	181811.762	195591.903000000002	
204791.802	Gross Loans	C34/C\$34=1	D34/D\$34=1	E34/E\$34=1	F34/F\$34=1
G\$34=1	H34/H\$34=1	I34/I\$34=1	J34/J\$34=1	K34/K\$34=1	L34/L\$34=1
L34/H34-1=0.28371670369900914	L34/C34-1=2.6250595600948654		L34/G34-1=0.6038097802324565	Gross Loans	
Corporate Loans	41617.944	48715.384999999999	62230.107	78009.985999999999	1008
92.819000000002	127880.799999999997	136346.286000000002	145752.300999999998	155193.41900	
000002	163839.318	Corporate Loans	C35/C\$34=0.7366873297432714	D35/D\$34=0.7354746156901862	
E35/E\$34=0.729688279883788	F35/F\$34=0.7569922036484643		G35/G\$34=0.7901336297994148	H35/	

H\$34=0.8016078643733612	I35/I\$34=0.8031552236618201	J35/J\$34=0.8016659615234354	K35/K\$34=0.793455233164739	L35/L\$34=0.800028694507996	Corporate Loans	L35/H35-1=0.28118777799325656	L35/C35-1=2.936747043534875	L35/G35-1=0.6238947392281702	Credit Card Loans	876.907	1199.228	2231.581	2181.505	2275.9880000000003																	
2809.855	2735.568	2812.44	2986.165	2995.964	00000000004	Credit Card Loans	C36/C\$34=0.015522301540488953	D36/D\$34=0.018105199259431305	E36/E\$34=0.026166731503632856	F36/F\$34=0.021168857500117273	G36/G\$34=0.017824208676535346	H36/H\$34=0.017613291954295025	I36/I\$34=0.01611401229427047	J36/J\$34=0.015468966193727335	K36/K\$34=0.015267324230696808	L36/L\$34=0.014629316069986046	Credit Card Loans	L36/H36-1=0.06623437864231452	L36/C36-1=2.416512811506808	L36/G36-1=0.3163355870066098											
Consumer Loans	13998.511	16322.051	20821.451	22861.071	24522.0229999999997	28839.716	30681.4519999999997	33247.021	37412.3189999999996	37956.52	Cons	umer Loans	C37/C\$34=0.24779036871623963	D37/D\$34=0.2464201850503824	E37/E\$34=0.244144988	61257908	F37/F\$34=0.2218389388514184	G37/G\$34=0.19204216152404988	H37/H\$34=0.180778843	67234376	I37/I\$34=0.18073076404390945	J37/J\$34=0.18286507228283724	K37/K\$34=0.191277442	60456422	L37/L\$34=0.18534198942201796	Consumer Loans	L37/H37-1=0.31611975651910007	L37/C37-1=1.7114683840302725	L37/G37-1=0.5478543511683356		
Mortgage Loans	5383.382	6588.251	9098.227	10323.079	12239.154	1525	9.70	16172.396	17513.71	20383.72	20866.951	Mortgage Loans	C38/C\$34=0.09529229292460943	D38/D\$34=0.09946532029451244	E38/E\$34=0.10668259994510755	F38/F\$34=0.10017294863566809	G38/G\$34=0.09584990558836526	H38/H\$34=0.0956538864941272	I38/I\$34=0.09526437945311927	J38/J\$34=0.09632880627382072	K38/K\$34=0.10421556152045823	L38/L\$34=0.0189348790436446	Mortgage Loans	L38/H38-1=0.3674548647745368	L38/C38-1=2.8761787664334433	L38/G38-1=0.704934099203262					
Personal Need Loans	8314.168	9317.1379999999999	11174.117	11940.403	1165	7.744	12827.97	13524.796	14709.947	15844.0950000000001	15855.009	Pers	onal Need Loans	C39/C\$34=0.1471707065336278	D39/D\$34=0.14066436075343408	E39/E\$34=0.131023753	71056638	F39/F\$34=0.11586711449250531	G39/G\$34=0.09129664205330953	H39/H\$34=0.080410832	86893379	I39/I\$34=0.07966854745394744	J39/J\$34=0.08090756526522196	K39/K\$34=0.081005883	97056498	L39/L\$34=0.07742013520638878	Personal Need Loans	L39/H39-1=0.2359717866505768			
Auto Loans	51.122	98.442	155.561	112.928	177.637	196.836	186.793	228.59	255.253	280.561	Auto	Loans	C40/C\$34=9.049204754356803E-4	D40/D\$34=0.001486216153639622	E40/E\$34=0.00182405340403804	78	F40/F\$34=0.001095829136203329	G40/G\$34=0.001391149231311285	H40/H\$34=0.00123384656329796	93	I40/I\$34=0.00110031434001409	J40/J\$34=0.0012572893936311999	K40/K\$34=0.00130502846020164	74	L40/L\$34=0.001369981597212568	Auto Loans	L40/H40-1=0.42535410189193024	L40/C40-1=4.488067759477328	L40/G40-1=0.5794063173775732		
Other Cons. Loans	249.839000000000114	318.220000000000025	393.545999999999994	484.	660999999999994	447.4879999999999636	555.210000000000003	797.466999999999966	794.774000000	00014	929.25099999999936	953.99899999999959	Other Cons. Loans	C41/C\$34=0.004422448	782566722	D41/D\$34=0.004804287848796255	E41/E\$34=0.00461458155286709	F41/F\$34=0.004703046	5870416685	G41/G\$34=0.0035044646510637946	H41/H\$34=0.003480277745984809	I41/I\$34=0.004697522	796828641	J41/J\$34=0.004371411350163371	K41/K\$34=0.004750968653339364	L41/L\$34=0.004658384	714052157	Other Cons. Loans	L41/H41-1=0.7182669620503872	L41/C41-1=2.8184550850747545	L41/G41-1=1.1318985090103055
Retail Loans	14875.418	17521.279	23053.032	25042.576	26798.011	3164	9.571	33417.02	36059.461	40398.484	40952.484	Retail Loans	C42/C\$34=0.26331267025672855	D42/D\$34=0.2645253843098137	E42/E\$34=0.2703117201162119	F42/F\$34=0.24300779635153566	G42/G\$34=0.20986637020058524	H42/H\$34=0.1983921356266388	I42/I\$34=0.1968447763381799	J42/J\$34=0.1983340384765646	K42/K\$34=0.20654476683526102	L42/L\$34=0.199971305	492004	Retail Loans	L42/H42-1=0.2939348846150236	L42/C42-1=1.7530308055881183	L42/G42-1=0.5281911780691484				
SME loans	19902	24188	30662	39152	48290	57136	61048	64921	71726	75913	SME	loans	C43/C\$34=0.35228917691250167	D43/D\$34=0.3651753959106395	E43/E\$34=0.35953179443828864	F43/F\$34=0.3799226262807518	G43/G\$34=0.3781790751927918	H43/H\$34=0.3581512388007924	I43/I\$34=0.3596065689248535	J43/J\$34=0.3570781080709179	K43/K\$34=0.3667125218368574	L43/L\$34=0.37068378352371745	SME loans	L43/H43-1=0.3286369364323718	L43/C43-1=2.814340267309818	L43/G43-1=0.5720231932077036					
ISBANK	B47=ISBANK	Share in total (%)	N47=ISBANK	Cumulative change	TRYmn	2011	2012	2013	2014	2015	2016	1Q17	1H17	9M17	2017	C48=2011	D48=2012	E48=2013	F48=2014	G48=2015	H48=2016	I48=1Q17	J48=1H17	K48=9M17	L48=2017	TRYmn	2017/2016	2017/2011	2017/2015		
Gross Loans	93604.558	109167.42100000002	137518.813	158294.849	181537.445	209201.598	225794.745999999998	230118.442	235213.463	245569.299	Gross Loans	C49/C\$49=1	D49/D\$49=1	E49/E\$49=1	F49/F\$49=1	G49/G\$49=1	H49/H\$49=1	I49/I\$49=1	J49/J\$49=1	K49/K\$49=1	L49/L\$49=1	Gross Loans	L49/H49-1=0.1738404550810361	8	L49/C49-1=1.6234758674892733	L49/G49-1=0.3527198149120143	Corporate Loans	68147.987000000001	78676.28500000002	99031.420999999999	115880.02100
000001	134740.65300000002	158628.761	173655.62799999997	176788.331	179867.49000	000008	188639.34	Corporate Loans	C50/C\$49=0.7280413310642416	D50/D\$49=0.7206938139538902	E50/E\$49=0.7201299868695056	F50/F\$49=0.7320517485695319	G50/G\$49=0.7422196175560365	H50/H\$49=0.7582578838618623	I50/I\$49=0.7690862213419261	J50/J\$49=0.7682492957257202	K50/K\$49=0.7646989577293035	L50/L\$49=0.7681715131662284	Corporate Loans	L50/H50-1=0.1891875017544895	L50/C50-1=1.768083817354722	L50/G50-1=0.4000180034751648									
Credit Card Loans	6623.97	8112.645	10122.797	9098.61	10394.235	10678.146999	999999	10559.149000000001	10925.45	11786.735999999999	12047.541000000003	Cred	it Card Loans	C51/C\$49=0.07076546422023594	D51/D\$49=0.07431379184088263	E51/E\$49=0.073610270	3271588	F51/F\$49=0.05747887601825882	G51/G\$49=0.05725669985054599	H51/H\$49=0.0510423777929268	I51/I\$49=0.046764369796275074	J51/J\$49=0.04747750725689339	K51/K\$49=0.05011080509451961	L51/L\$49=0.046764369796275074							

L\$49=0.049059638354874334	Credit Card Loans	L51/H51-1=0.1282426623270876	L51/C51-1=0.
8187795234579871	L51/G51-1=0.15905990195526676		
Consumer Loans 18832.601	22378.490999999998	28364.595	33316.218
39894.69	41579.969	43559.236999999999	44882.418
umer Loans	C52/C\$49=0.2011932047155225	D52/D\$49=0.20499239420522716	E52/E\$49=0.206259742
8033356	F52/F\$49=0.21046937541220247	G52/G\$49=0.20052368259341757	H52/H\$49=0.19069973834521092
I52/I\$49=0.18414940886179876	J52/J\$49=0.18427319701738634	K52/K\$49=0.1851902371761769	L52/
L\$49=0.18276884847889718	Consumer Loans	L52/H52-1=0.12502235259880434	L52/C52-1=1.38322991
0727679	L52/G52-1=0.23294685040943675		
Mortgage Loans	7941.369	9539.339	11779.645999999999
6.2040000000002	17696.93	18773.1639999999997	19548.2120000000003
2.259	Mortgage Loans	C53/C\$49=0.08483955450118144	D53/D\$49=0.08738265420779702
856584327847565	F53/F\$49=0.08589890376028599	G53/G\$49=0.08662787999467549	H53/H\$49=0.084592709
46869153	I53/I\$49=0.08314260775580667	J53/J\$49=0.08494848057419058	K53/K\$49=0.085174712
12946685	L53/L\$49=0.08491394927995458	Mortgage Loans	L53/H53-1=0.17829810029197146
C53-1=1.6257763617330965	L53/G53-1=0.325956282902091		
Personal Need Loans	6900.455	3417.634	1648.4550000000002
3.225	20896.874	21401.6370000000002	21584
onal Need Loans	C54/C\$49=0.07371921995507953	D54/D\$49=0.031306354667845454	E54/E\$49=0.011987123
536326628	F54/F\$49=0.01167861122252942	G54/G\$49=0.10638700462045171	H54/H\$49=0.099888692
05482838	I54/I\$49=0.09478359164300486	J54/J\$49=0.09379517700715181	K54/K\$49=0.094257636
09458017	L54/L\$49=0.0922382565419955	Personal Need Loans	L54/H54-1=0.0839364777717470
6	L54/C54-1=2.282520355541772	L54/G54-1=0.1728172793513254	
Auto Loans	1148.741	1317.01	1302.705
524	666.925	660.747	676.02
378238025	E55/E\$49=0.009472922079395783	F55/F\$49=0.006011263196568071	G55/G\$49=0.004466274
1617851895	H55/H\$49=0.003303760901482217	I55/I\$49=0.0030404781872116725	J55/J\$49=0.002898181
4504028323	K55/K\$49=0.00280913767253195	L55/L\$49=0.0027528685497448927	Auto Loans
H55-1=-0.029710644161212607	L55/C55-1=-0.41151225559112103	L55/G55-1=-0.1662267697423272	L55/
Other Cons. Loans	2842.036	8104.5079999999998	13633.789
3320000000007	604.16600000000022	718.64399999999978	605.52399999999895
99078	703.25500000000015	Other Cons. Loans	C56/C\$49=0.030362153945537564
7423925495134667	E56/E\$49=0.09914126440285666	F56/F\$49=0.10688059723282596	G56/G\$49=0.0
030425238165051878	H56/H\$49=0.0028879607315427974	I56/I\$49=0.003182731275775557	J56/J\$49=0.0
02631357985641105	K56/K\$49=0.0029487512795979194	L56/L\$49=0.0028637741072022257	Other Cons.
Loans	L56/H56-1=0.16400956028640956	L56/C56-1=-0.7525523955361574	L56/G56-1=0.273246887741432
Retail Loans	25456.571	30491.136	38487.392
2.837	52139.118	53330.110999999999	55345.972999999999
C57/C\$49=0.27195866893575843	D57/D\$49=0.2793061860461098	E57/E\$49=0.27987001313049437	F57/
F\$49=0.26794825143046824	G57/G\$49=0.25778038244396356	H57/H\$49=0.24174211613813773	I57/
I\$49=0.23091377865807386	J57/J\$49=0.2317507042742797	K57/K\$49=0.2353010422706965	L57/
L\$49=0.23182848683377152	Retail Loans	L57/H57-1=0.1257023014152836	L57/C57-1=1.23635614
55311483	L57/G57-1=0.21653550525429188		
SME loans	19799	29987	36616
loans	C58/C\$49=0.21151747759975534	D58/D\$49=0.2746881782615346	E58/E\$49=0.2662617514012428
F58/F\$49=0.23310929087780993	G58/G\$49=0.23247545430641045	H58/H\$49=0.21181004554276875	I58/
I\$49=0.22140462028288294	J58/J\$49=0.232858346920322	K58/K\$49=0.2239029999741129	L58/
L\$49=0.22424627273949257	SME loans	L58/H58-1=0.2427613910767079	L58/C58-1=1.78135259
35653316	L58/G58-1=0.3048361490889273		
VAKIFBANK	B62=VAKIFBANK	Share in total (%)	N62=VAKIFBANK
TRYmn	2011	2012	2013
D63=2012	E63=2013	F63=2014	G63=2015
1H17	K63=9M17	L63=2017	TRYmn
Gross Loans	59466.111000000004	70858.002	90283.644
154125.878	160955.617	174158.477	182175.683999999998
C64/C\$64=1	D64/D\$64=1	E64/E\$64=1	F64/F\$64=1
I\$64=1	J64/J\$64=1	K64/K\$64=1	L64/L\$64=1
L64/C64-1=2.2221683540058637	L64/G64-1=0.48960997432762365		
Corporate Loans	38362.264	46597.085	59796.083000000006
0.098	113088.780999999999	119035.629000000002	130416.926
57.265	Corporate Loans	C65/C\$64=0.6451113643533878	D65/D\$64=0.6576121776620233
623135747600086	F65/F\$64=0.697391385394545	G65/G\$64=0.7153811589824793	H65/H\$64=0.733742979
8777853	I65/I\$64=0.7395556068105409	J65/J\$64=0.7488405287329195	K65/K\$64=0.7464433288473339
L65/L\$64=0.749738527233424	Corporate Loans	L65/H65-1=0.27030518615281585	L65/C65-1=2.74475461
09374565	L65/G65-1=0.5611509672593482		
Credit Card Loans	1849.761	2638.839	3277.616
.67	4485.587	4519.216	4730.511
Credit Card Loans	C66/C\$64=0.031106137073601464	D66/D\$64=0.03724122788559576	E66/E\$64=0.0
3630354131474799	F66/F\$64=0.02885416224602226	G66/G\$64=0.02982697791990299	H66/H\$64=0.0
29103399495313827	I66/I\$64=0.028077404717102853	J66/J\$64=0.027162105924938697	K66/K\$64=0.0
2842098839052527	L66/L\$64=0.02796747563372547	Credit Card Loans	L66/H66-1=0.19468042
867076218	L66/C66-1=1.8970461589362082	L66/G66-1=0.396743269554066	
Consumer Loans	19254.0860000000003	21622.078	27209.945
36551.51	37400.772	39011.04	41014.247
ns	C67/C\$64=0.3237824985730108	D67/D\$64=0.305146594452381	E67/E\$64=0.3013828839252434
F67/F\$64=0.2737544523594328	G67/G\$64=0.25479186309761764	H67/H\$64=0.23715362062690085	I67/
I\$64=0.23236698847235632	J67/J\$64=0.2239973653421418	K67/K\$64=0.2251356827621408	L67/
L\$64=0.2222939971328505	Consumer Loans	L67/H67-1=0.16530652222028563	L67/C67-1=1.2121908565278035
L67/G67-1=0.29961511068893487			

Mortgage Loans	8809.987	10283.389	13300.952	14315.888	15116.509	1698
3.119	16885.693	17471.074	18081.367	18966.522	Mortgage Loans	C68/C\$64=0.1
4815138995721444	D68/D\$64=0.14512671412891376		E68/E\$64=0.14732404908246724	F68/F\$64=0.1		
3187330619752	G68/G\$64=0.11751852001058595	H68/H\$64=0.11018992540629678	I68/I\$64=0.104909001			
09438243	J68/J\$64=0.10031710371468165	K68/K\$64=0.09925236235149802	L68/L\$64=0.098985124			
56728406	Mortgage Loans	L68/H68-1=0.11678673393267758	L68/C68-1=1.1528433583386675	L68/		
G68-1=0.25468929367223625						
Personal Need Loans	4575.224999999999	5459.406	9476.479000000001	11486.65		
15230.301	17002.017	17931.289	18912.088	20087.254999999997	20583.762000	
000002	Personal Need Loans	C69/C\$64=0.076938359059666676	D69/D\$64=0.07704713435188308	E69/		
E\$64=0.10496340843309339	F69/F\$64=0.10581128551953906	G69/G\$64=0.11840315993829972	H69/			
H\$64=0.1103125394685505	I69/I\$64=0.11140517699360564	J69/J\$64=0.10859125737531569	K69/K\$64=0.1			
1026309636361788	L69/L\$64=0.10742540174910974	Personal Need Loans	L69/H69-1=0.21066588			
746499915	L69/C69-1=3.4989616904086693	L69/G69-1=0.3515006696190708				
Auto Loans	369.697	493.103	586.132	435.42	466.932	412.37
Loans	C70/C\$64=0.006216935894798972	D70/D\$64=0.0069590305411095284	E70/E\$64=0.00649211722114362			
1	F70/F\$64=0.0040109474866745035	G70/G\$64=0.003630015209568752	H70/H\$64=0.00267554031387253			
5	I70/I\$64=0.002473973927856149	J70/J\$64=0.0023425618266057755	K70/K\$64=0.00223336062786513			
3	L70/L\$64=0.002242232730962156	Auto Loans	L70/H70-1=0.041860465116279055	L70/C70-1=0.		
162119249006619	L70/G70-1=-0.07988315215063435					
Other Cons. Loans	5499.1770000000004	5386.1800000000002	3846.3819999999999	3480		
.247999999999	1960.35600000000004	2154.00400000000035	2185.5899999999974	2219.9010000		
000007	2438.76100000000072	2613.79699999999927	Other Cons. Loans	C71/C\$64=0.092475813		
66133063	D71/D\$64=0.07601371543047464	E71/E\$64=0.04260330918853917	F71/F\$64=0.032058913			
15629923	G71/G\$64=0.015240167939163222	H71/H\$64=0.013975615438181014	I71/I\$64=0.013578836			
456512092	J71/J\$64=0.012746442425538669	K71/K\$64=0.013386863419159758	L71/L\$64=0.013641247			
543360487	Other Cons. Loans	L71/H71-1=0.2134596778836011	L71/C71-1=-0.524693058615863			
7	L71/G71-1=0.3333277221076132					
Retail Loans	21103.847	24260.917	30487.561	32850.553	36610.768	4103
7.097	41919.988	43741.551	46191.86	47952.556	Retail Loans	C72/C\$64=0.3
548886356466122	D72/D\$64=0.34238782233797677	E72/E\$64=0.33768642523999143	F72/F\$64=0.302608614			
6054551	G72/G\$64=0.2846188410175206	H72/H\$64=0.26625702012221464	I72/I\$64=0.26044439318945917			
J72/J\$64=0.2511594712670805	K72/K\$64=0.25355667115266606	L72/L\$64=0.25026147276657595	Reta			
il Loans	L72/H72-1=0.16851725647162596	L72/C72-1=1.27221870969781	L72/G72-1=0.30979377			
433437083						
SME loans	8645	16935.062477999996	22047	27682.262205000003	33035	36994
2	44672	46843	47815	SME loans	C73/C\$64=0.14537691896482013	D73/D\$64=0.238999999
99999996	E73/E\$64=0.24419705522741195	F73/F\$64=0.255	G73/G\$64=0.25682016321028267	H73/		
H\$64=0.2400245856182568	I73/I\$64=0.2332444229019979	J73/J\$64=0.25650201339323836	K73/K\$64=0.2			
57130913256239	L73/L\$64=0.24954357637023208	SME loans	L73/H73-1=0.29250689300967725	L73/		
C73-1=4.530942741469057	L73/G73-1=0.4474042682003936					
YAPI KREDI	B77=YAPI KREDI	Share in total (%)	N77=YAPI KREDI	Cumulative change		
TRYmn	2011	2012	2013	2014	2015	2016
D78=2012	E78=2013	F78=2014	G78=2015	H78=2016	I78=2017	J78=
1H17	K78=9M17	L78=2017	TRYmn	2017/2016	2017/2011	2017/2015
Gross Loans	69859.724	78295.221	99596.333	126327.177	154910.922	1813
30.36000000002	188059.741	189465.30599999998	194362.367	203984.84	Gross Loans	I79/
C79/C\$79=1	D79/D\$79=1	E79/E\$79=1	F79/F\$79=1	G79/G\$79=1	H79/H\$79=1	I79/
I\$79=1	J79/J\$79=1	K79/K\$79=1	L79/L\$79=1	Gross Loans	L79/H79-1=0.1249348426816114	
8	L79/C79-1=1.9199204966798895	L79/G79-1=0.31678797961063077				
Corporate Loans	46690.083000000006	50320.157000000001	66069.894999999999	89294.492999		
99999	111183.537	134406.62900000002	140764.699	141062.11299999998	143628.13400	
000002	152348.255	Corporate Loans	C80/C\$79=0.6683405018891859	D80/D\$79=0.6426976813821115		
E80/E\$79=0.6633767831592755	F80/F\$79=0.706851012747637	G80/G\$79=0.7177256165320609	H80/			
H\$79=0.7412251814864318	I80/I\$79=0.7485105437851262	J80/J\$79=0.744527407038838	K80/K\$79=0.7			
389709037655423	L80/L\$79=0.7468606735677025	Corporate Loans	L80/H80-1=0.13348765707084276	L80/		
C80-1=2.2629681767753547	L80/G80-1=0.37024112661571484					
Credit Card Loans	9769.185	12788.046	15300.706	13473.182	14541.850999	
999999	15926.712	15757.073	16058.101	17010.675	17174.8660348	Credit Card
Loans	C81/C\$79=0.13984001711773153	D81/D\$79=0.16333111825560848	E81/E\$79=0.15362720231878416			
F81/F\$79=0.10665307592522234	G81/G\$79=0.09387234168033678	H81/H\$79=0.08783257254879986	I81/			
I\$79=0.0837875927947811	J81/J\$79=0.08475483632871551	K81/K\$79=0.08752041489595565	L81/L\$79=0.0			
8419677675458628	Credit Card Loans	L81/H81-1=0.07836859452220901	L81/C81-1=0.75806538			
97740703	L81/G81-1=0.1810646412757222					
Consumer Loans	13400.456	15187.017999999998	18225.732000000004	23559.502	2918	
5.5340000000003	30997.019	31537.969	32345.091999999997	33723.558000000005	3446	
1.718965199994	Consumer Loans	C82/C\$79=0.19181948099308266	D82/D\$79=0.19397120036228005	E82/		
E\$79=0.1829960145219403	F82/F\$79=0.18649591132714063	G82/G\$79=0.18840204178760234	H82/H\$79=0.1			
7094224596476837	I82/I\$79=0.16770186342009266	J82/J\$79=0.17071775663244648	K82/K\$79=0.1			
7350868133850214	L82/L\$79=0.16894254967771133	Consumer Loans	L82/H82-1=0.1117752634600119			
9	L82/C82-1=1.5716825580562328	L82/G82-1=0.18078082673423035				
Mortgage Loans	6598.956	7230.831	8990.466	10928.456	12265.728000000001	
12570.497	13143.9620000000001	13358.066	13719.221	13897.583	Mortgage Loa	ns
ns	C83/C\$79=0.09446009262790675	D83/D\$79=0.09235341452066403	E83/E\$79=0.09026904635133505			
F83/F\$79=0.08650914442582691	G83/G\$79=0.07917923308209347	H83/H\$79=0.06932373045528613	I83/			
I\$79=0.06989248166623818	J83/J\$79=0.07050402145921113	K83/K\$79=0.07058578886312904	L83/			
L\$79=0.06813046989178216	Mortgage Loans	L83/H83-1=0.10557148217767365	L83/C83-1=1.10602752			
9203104	L83/G83-1=0.13304183820153193					
Personal Need Loans	48.449	54.382	58.912	100.33999999999999	15600.095000000001	1683

5.954999999998	16757.247	17321.735999999997	18177.137	18579.044	Personal Nee
d Loans C84/C\$79=6.935183425574369E-4	D84/D\$79=6.94576237290396E-4	E84/E\$79=5.915077214740426E-			
4 F84/F\$79=7.942867273920004E-4	G84/G\$79=0.10070364825535028	H84/H\$79=0.09284686248899521			
I84/I\$79=0.08910597723305383	J84/J\$79=0.09142431596421141	K84/K\$79=0.09352189562498998	L84/L\$79=0.09108051363032665	Personal Need Loans	L84/C84-1=38
2.47631530062546	L84/G84-1=0.19095710635095497				
Auto Loans	1270.7759999999998	1144.466	1119.3990000000001	676.153	431.341 359.
272 340.541	360.45300000000003	380.693	492.14500000000004	Auto Loans	C85/C\$79=0.0
18190395370013195	D85/D\$79=0.0146173161705489	E85/E\$79=0.011239359585658642	F85/F\$79=0.0		
05352395391531626	G85/G\$79=0.0027844453730641408	H85/H\$79=0.0019813118994524686	I85/I\$79=0.0		
018108128735538351	J85/J\$79=0.0019024749576051674	K85/K\$79=0.0019586764962581465	L85/L\$79=0.0		
02412654783561367	Auto Loans	L85/H85-1=0.36983956445255983	L85/C85-1=-0.612720888653861		
8 L85/G85-1=0.14096503694292917					
Other Cons. Loans	5482.2750000000001	6757.3389999999998	8056.9550000000003	1185	
4.553 888.3700000000003	1231.29500000000028	1296.21899999999985	1304.8370000000001		
1446.5070000000008	1492.9469651999939	Other Cons. Loans	C86/C\$79=0.07847547465260528		
D86/D\$79=0.08630589343377673	E86/E\$79=0.08089610086347258	F86/F\$79=0.0938400847823901	G86/G\$79=0.0057347150770944546	H86/H\$79=0.006790341121034573	I86/I\$79=0.00689259164724681
J86/J\$79=0.006886944251418785	K86/K\$79=0.007442320354124973	L86/L\$79=0.007318911372041147	Othe		
r Cons. Loans	L86/H86-1=0.2125014437644841	L86/C86-1=-0.7276774760113285	L86/G86-1=0.68054635		
47845931					
Retail Loans	23169.641	27975.064	33526.438	37032.684	43727.385 4692
3.731 47295.042	48403.193	50734.23300000001	51636.584999999999	Retail Loans	
C87/C\$79=0.3316594981108142	D87/D\$79=0.3573023186178885	E87/E\$79=0.3366232168407245	F87/F\$79=0.293148987252363	G87/G\$79=0.2822743834679391	H87/H\$79=0.25877481851356826
I87/I\$79=0.2	J87/J\$79=0.255472592961162	K87/K\$79=0.2610290962344578	L87/L\$79=0.2		
5148945621487373	L87/H87-1=0.1004364721125861	L87/C87-1=1.2286312075357575	L87/G87-1=0.1808752112663492		
SME loans	11061.62376	15087.307550000007	15550	20952	27051 24464 23588 2564
5 26295 27585	SME loans	C88/C\$79=0.15834050188918583	D88/D\$79=0.19269768138211152		
E88/E\$79=0.15613024628125616	F88/F\$79=0.16585504796010758	G88/G\$79=0.17462293588311353	H88/H\$79=0.13491397689829765	I88/I\$79=0.12542822761837155	J88/J\$79=0.135354596265767
K88/K\$79=0.1352885355630599	L88/L\$79=0.1352306377277841	SME loans	L88/H88-1=0.1275752125572269		
2 L88/C88-1=1.4937568478644403	L88/G88-1=0.019740490185205628				
LARGE BANKS AVERAGE	B92=LARGE BANKS AVERAGE	Share in total (%)	N92=LARGE BANKS AVERAGE	Cumu	
lative change					
TRYmn	2011	2012	2013	2014	2015
D93=2012	E93=2013	F93=2014	G93=2015	H93=2016	I93=2017
1H17	K93=9M17	L93=2017	TRYmn	2017/2016	2017/2015
Gross Loans	(C4+C19+C34+C49+C64+C79)/6=69567.871	(D4+D19+D34+D49+D64+D79)/6=83065.66366666667	(E4+E19+E34+E49+E64+E79)/6=103094.98616666667	(F4+F19+F34+F49+F64+F79)/6=124211.41416666667	(G4+G19+G34+G49+G64+G79)/6=145773.10466666668
(H4+H19+H34+H49+H64+H79)/6=176766.50416666668	(I4+I19+I34+I49+I64+I79)/6=186758.4455	(J4+J19+J34+J49+J64+J79)/6=192942.00116666667	(K4+K19+K34+K49+K64+K79)/6=199319.40233333336	(L4+L19+L34+L49+L64+L79)/6=209172.75900000005	Gross Loans
C94/C\$94=1	D94/D\$94=1	E94/E\$94=1	F94/F\$94=1	G94/G\$94=1	H94/H\$94=1
I94/I\$94=1	J94/J\$94=1	K94/K\$94=1	L94/L\$94=1	Gross Loans	L94/H94-1=0.1833280291767194
2 L94/C94-1=2.00674371650672	L94/G94-1=0.4349201073703324				
Corporate Loans	(C5+C20+C35+C50+C65+C80)/6=47694.30183333334	(D5+D20+D35+D50+D65+D80)/6=56102.041	(E5+E20+E35+E50+E65+E80)/6=69758.34066666667	(F5+F20+F35+F50+F65+F80)/6=87056.297	(G5+G20+G35+G50+G65+G80)/6=105712.27200000001
(H5+H20+H35+H50+H65+H80)/6=131907.66	(I5+I20+I35+I50+I65+I80)/6=140858.72616666667	(J5+J20+J35+J50+J65+J80)/6=145719.41	(K5+K20+K35+K50+K65+K80)/6=149456.041	(L5+L20+L35+L50+L65+L80)/6=157978.4755	Corp
orate Loans	C95/C\$94=0.6855794369980553	D95/D\$94=0.6753938894872129	E95/E\$94=0.676641447	F95/F\$94=0.7008719642827779	G95/G\$94=0.7251836492179259
H95/H\$94=0.7462254502826833	I95/I\$94=0.7542294849882261	J95/J\$94=0.7552498459927948	K95/K\$94=0.7498318741195903	L95/L\$94=0.7552535820402884	Corporate Loans
L95/H95-1=0.197644401468535	L95/C95-1=2.3123134090955397				
L95/G95-1=0.49441945113051755					
Credit Card Loans	(C6+C21+C36+C51+C66+C81)/6=6060.3719999999999	(D6+D21+D36+D51+D66+D81)/6=7	(E6+E21+E36+E51+E66+E81)/6=9293.1446666666665	(F6+F21+F36+F51+F66+F81)/6=8	(G6+G21+G36+G51+G66+G81)/6=9229.417
(H6+H21+H36+H51+H66+H81)/6=10108.913	(I6+I21+I36+I51+I66+I81)/6=10058.8311666666669	(J6+J21+J36+J51+J66+J81)/6=10301.5381666666666	(K6+K21+K36+K51+K66+K81)/6=10968.8643333333333	(L6+L21+L36+L51+L66+L81)/6=11156.62883913333	
5 Credit Card Loans	C96/C\$94=0.08711452446201781	D96/D\$94=0.09445089567714723	E96/E\$94=0.09014157731825162	F96/F\$94=0.07145482476694288	G96/G\$94=0.06331357914825594
H96/H\$94=0.05718794716033234	I96/I\$94=0.053860114008427364	J96/J\$94=0.05339189033168582	K96/K\$94=0.055031593537439305	L96/L\$94=0.05333691104171615	Credit Card Loans
L96/H96-1=0.10364272472341707	L96/C96-1=0.8409148545886846	L96/G96-1=0.20881187177189364			
Consumer Loans	(C7+C22+C37+C52+C67+C82)/6=15813.197166666667	(D7+D22+D37+D52+D67+D82)/6=19117.995	(E7+E22+E37+E52+E67+E82)/6=24043.500833333335	(F7+F22+F37+F52+F67+F82)/6=28279.611	(G7+G22+G37+G52+G67+G82)/6=30831.415666666668
(H7+H22+H37+H52+H67+H82)/6=34749.926	(I7+I22+I37+I52+I67+I82)/6=35840.8881666666664	(J7+J22+J37+J52+J67+J82)/6=36921.046333333334	(K7+K22+K37+K52+K67+K82)/6=38894.496999999998	(L7+L22+L37+L52+L67+L82)/6=40037.65466086666	Cons
umer Loans	C97/C\$94=0.227306038539927	D97/D\$94=0.23015521483563978	E97/E\$94=0.233216975	F97/F\$94=0.22767321095027923	G97/G\$94=0.21150277163381812
H97/H\$94=0.196586602	I97/I\$94=0.19191040100334666	J97/J\$94=0.1913582636755192	K97/K\$94=0.195136532	L97/L\$94=0.19140950691799524	Consumer Loans
L97/H97-1=0.15216516100736666	L97/G97-1=0.2985992953983396				
Mortgage Loans	(C8+C23+C38+C53+C68+C83)/6=7344.306333333333	(D8+D23+D38+D53+D68+D83)/6=8750.6488	(E8+E23+E38+E53+E68+E83)/6=11053.526666666667	(F8+F23+F38+F53+F68+F83)/6=12653.877	
33333331					

333333332 (G8+G23+G38+G53+G68+G83) /6=14061.5143333333334 (H8+H23+H38+H53+H68+H83) /6=16287.410  
333333333 (I8+I23+I38+I53+I68+I83) /6=16877.372 (J8+J23+J38+J53+J68+J83) /6=17342.394166666667  
(K8+K23+K38+K53+K68+K83) /6=18092.4591666666667 (L8+L23+L38+L53+L68+L83) /6=18536.380333333333 Mort  
gage Loans C98/C\$94=0.10557037649367383 D98/D\$94=0.10534616166372567 E98/E\$94=0.107216917  
88965547 F98/F\$94=0.10187370796981975 G98/G\$94=0.09646165090252565 H98/H\$94=0.092140818  
25127078 I98/I\$94=0.09037006039975846 J98/J\$94=0.08988397581554056 K98/K\$94=0.090771189  
13094874 L98/L\$94=0.08861756388332252 Mortgage Loans L98/H98-1=0.13808026899140136 L98/  
C98-1=1.5239116523779712 L98/G98-1=0.3182349990137381  
Personal Need Loans (C9+C24+C39+C54+C69+C84) /6=4444.6228333333334 (D9+D24+D39+D54+D69+D84) /6=4  
671.2168333333333 (E9+E24+E39+E54+E69+E84) /6=6103.1525 (F9+F24+F39+F54+F69+F84) /6=7177.2784  
999999999 (G9+G24+G39+G54+G69+G84) /6=13016.2121666666666 (H9+H24+H39+H54+H69+H84) /6=16749.331  
666666667 (I9+I24+I39+I54+I69+I84) /6=17186.9503333333338 (J9+J24+J39+J54+J69+J84) /6=17774.300  
666666666 (K9+K24+K39+K54+K69+K84) /6=18878.9139999999997 (L9+L24+L39+L54+L69+L84) /6=19449.676  
000000003 Personal Need Loans C99/C\$94=0.06388901614271528 D99/D\$94=0.05623523158833004  
E99/E\$94=0.05919931440830156 F99/F\$94=0.05778276133600362 G99/G\$94=0.08929090312256366 H99/  
H\$94=0.09475399055736451 I99/I\$94=0.09202770074102666 J99/J\$94=0.09212250603388793 K99/  
K\$94=0.09471689047325005 L99/L\$94=0.09298379049444004 Personal Need Loans L99/H99-1=0.  
16122101986357862 L99/C99-1=3.37600145824147 L99/G99-1=0.494265439972533  
Auto Loans (C10+C25+C40+C55+C70+C85) /6=748.85783333333334 (D10+D25+D40+D55+D70+D85) /6=859.8011  
666666667 (E10+E25+E40+E55+E70+E85) /6=909.302 (F10+F25+F40+F55+F70+F85) /6=745.5806666666666  
7 (G10+G25+G40+G55+G70+G85) /6=632.509666666666666 (H10+H25+H40+H55+H70+H85) /6=709.2786666666666  
7 (I10+I25+I40+I55+I70+I85) /6=685.984166666666665 (J10+J25+J40+J55+J70+J85) /6=701.6636666666666  
7 (K10+K25+K40+K55+K70+K85) /6=694.869666666666666 (L10+L25+L40+L55+L70+L85) /6=750.9198333333333  
4 Auto Loans C100/C\$94=0.01076442073860983 D100/D\$94=0.010350861339252688 E100/E\$94=0.  
008820040952622014 F100/F\$94=0.00600251330901239 G100/G\$94=0.004339001135449507 H100/H\$94=0.  
0040125173601776596 I100/I\$94=0.0036731092124380874 J100/J\$94=0.0036366558987877256 K100/K\$94=0.  
0034862118716601203 L100/L\$94=0.0035899504166951933 Auto Loans L100/H100-1=0.05870917683505  
672 L100/C100-1=0.002753526648471505 L100/G100-1=0.1872068885376721  
Other Cons. Loans (C11+C26+C41+C56+C71+C86) /6=3275.41016666666684 (D11+D26+D41+D56+D71+D86) /6=  
4836.3288333333332 (E11+E26+E41+E56+E71+E86) /6=5977.5196666666667 (F11+F26+F41+F56+F71+F86) /6=  
7702.875 (G11+G26+G41+G56+G71+G86) /6=3121.1795 (H11+H26+H41+H56+H71+H86) /6=1003.9058333333333  
34 (I11+I26+I41+I56+I71+I86) /6=1090.58166666666644 (J11+J26+J41+J56+J71+J86) /6=1102.6878333333333  
25 (K11+K26+K41+K56+K71+K86) /6=1228.2541666666654 (L11+L26+L41+L56+L71+L86) /6=1300.67849419999  
6 Other Cons. Loans C101/C\$94=0.04708222516492805 D101/D\$94=0.058222960244331344 E101  
/E\$94=0.05798070196161835 F101/F\$94=0.062014228335443435 G101/G\$94=0.021411216473279295 H101  
/H\$94=0.005679276388171298 I101/I\$94=0.005839530650123474 J101/J\$94=0.005715125927302948 K101  
/K\$94=0.006162240867111239 L101/L\$94=0.006218202123537491 Other Cons. Loans L101/H101-1=  
0.2956180261262844 L101/C101-1=-0.6028959953056274 L101/G101-1=-0.5832734085944125  
Retail Loans (C12+C27+C42+C57+C72+C87) /6=21873.5691666666668 (D12+D27+D42+D57+D72+D87) /6=26963.62  
2000000003 (E12+E27+E42+E57+E72+E87) /6=33336.6455 (F12+F27+F42+F57+F72+F87) /6=37155.11633333333  
4 (G12+G27+G42+G57+G72+G87) /6=40060.8326666666666 (H12+H27+H42+H57+H72+H87) /6=44858.84000000000  
04 (I12+I27+I42+I57+I72+I87) /6=45899.7193333333334 (J12+J27+J42+J57+J72+J87) /6=47222.5845 (K12  
+K27+K42+K57+K72+K87) /6=49863.3613333333333 (L12+L27+L42+L57+L72+L87) /6=51194.2835 Retail Loans  
C102/C\$94=0.3144205630019448 D102/D\$94=0.32460611051278704 E102/E\$94=0.32335855253044904 F102  
/F\$94=0.29912803571722213 G102/G\$94=0.274816350782074 H102/H\$94=0.2537745497173166 I102  
/I\$94=0.24577051501177408 J102/J\$94=0.24475015400720496 K102/K\$94=0.2501681258804095 L102  
/L\$94=0.24474641795971142 Retail Loans L102/H102-1=0.1412306582158609 L102/C102-1=1.340463  
1914399885 L102/G102-1=0.2779136151754811  
SME loans (C13+C28+C43+C58+C73+C88) /6=14748.278884000001 (D13+D28+D43+D58+D73+D88) /6=20296.38  
3289 (E13+E28+E43+E58+E73+E88) /6=24486.744601 (F13+F28+F43+F58+F73+F88) /6=28262.8107125  
(G13+G28+G43+G58+G73+G88) /6=34856.3356666666666 (H13+H28+H43+H58+H73+H88) /6=37729.50 (I13+I28+I43  
+I58+I73+I88) /6=40095.2996666666666 (J13+J28+J43+J58+J73+J88) /6=43363.2251666666666 (K13+K28+K43  
+K58+K73+K88) /6=44333.74 (L13+L28+L43+L58+L73+L88) /6=46165.1426666666674 SME loans C103  
/C\$94=0.21199842214518827 D103/D\$94=0.24434143294691707 E103/E\$94=0.23751634789895543 F103  
/F\$94=0.2275379513397779 G103/G\$94=0.2391136262506805 H103/H\$94=0.21344258731522026 I103  
/I\$94=0.2146906907439785 J103/J\$94=0.22474746247297778 K103/K\$94=0.2224256117618601 L103  
/L\$94=0.22070341705760388 SME loans L103/H103-1=0.22358214836312906 L103/C103-1=2.130205  
431411387 L103/G103-1=0.3244405008072806

By business segments																								
Akbank			Halkbank			Vakifbank			TRYbn			2015												
TRYbn	2015	2016	9M17	2015	2016	9M17	TRYbn	2015	2016	9M17	2015	2016												
9M17	TRYbn	2015	2016	9M17	2015	2016	9M17	2015	2016	9M17	2015	2016												
Corporate & Commercial	90544	114195	123158	C4/C\$11=0.5899938748647909	D4/D\$11=0.6383424728	74847	E4/E\$11=0.6300931136805484	Corporate & Commercial	L11-L10-L9-L8-L7-L6-L5=50147.977	M11-M10-M9-M8-M7-M6-M5=69604.33300000001	N11-N10-N9-N8-N7-N6-N5=82074.55000000002	L4/L\$11=0.39566046865904597	M4/M\$11=0.43954801666210175	N4/N\$11=0.4226887374142226	Corporate & Commercial	50803.29	66056.812	77798.603	U4/U\$11=0.4131205249868875	V4/V\$11=0.45053380260587256	W4/W\$11=0.44707303270254295			
SME loans	23389	24748	30150	C5/C\$11=0.15240509298476534	D5/D\$11=0.13833967790802323	E5/E\$11=0.1542515092602067	SME loans	49799	57100	71700	L5/L\$11=0.39290708932788715	M5/M\$11=0.3605837549137351	N5/N\$11=0.36925919755392816	SME loans	33035.155+1391.22+1132.243=35558.618	36994.655+1488.565+1041.146=39524.366	46843.167+1623.864+1560.163=50027.194	U5/U\$11=0.28915440192885516	V5/V\$11=0.2695719392205343	W5/W\$11=0.28748343127933107				
Mortgage loans	13446.919	13569.841	13364.862000000001	C6/C\$11=0.08762148619238137	D6/D\$11=0.07585451079695685	E6/E\$11=0.06837645554077561	Mortgage loans	12239	15260	20384	L6/L\$11=0.09656398454354527	M6/M\$11=0.09636616637449383	N6/N\$11=0.10497879334643336	Mortgage loans	15118.311	16983.836	18081.367	U6/U\$11=0.12293858482856201	V6/V\$11=0.11583653501041666	W6/W\$11=0.1039053565023228				
Personal need loans	13924.483	14544.601	16203.2640000000001	C7/C\$11=0.09073333415	D7/D\$11=0.08130335451918186	E7/E\$11=0.08289810702957127	Personal need loans	1165	12828	15844	L7/L\$11=0.09197997645303135	M7/M\$11=0.08100820329305418	N7/N\$11=0.08159752755989454	Personal need loans	15230.30	17002.017	20087.255	U7/U\$11=0.123849253300481	V7/V\$11=0.1159605366813598	W7/W\$11=0.11543227854000565				
Auto loans	539	378	279	C8/C\$11=0.0035121785933040542	D8/D\$11=0.002112994918750314	E8/E\$11=0.0014274020259899725	Auto loans	178	197	255	L8/L\$11=0.0014043949	M8/M\$11=0.0012440455292120108	N8/N\$11=0.001313264928539075	Auto loans	466.932	412.37	406.864	U8/U\$11=0.0037969823012087875	V8/V\$11=0.002812527861329179	W8/W\$11=0.002338061550764445				
Credit cards	10888	10566	11259	C9/C\$11=0.07094731080499915	D9/D\$11=0.05906323891935403	E9/E\$11=0.057602578532692114	Credit cards	2276	2810	2986	L9/L\$11=0.01795731912910442	M9/M\$11=0.017745014909064723	N9/N\$11=0.015378074810265404	Credit cards	3836.63	4485.587	5177.613	U9/U\$11=0.031198581819808172	V9/V\$11=0.030593492280999997	W9/W\$11=0.0297533767				
Other consumer loans	C11-(SUM(C4:C9))=734.59799999999981			D11-(SUM(D4:D9))=891.5579999999999	E11-(SUM(E4:E9))=1045.8740000000107	C10/C\$11=0.004786714972697523	D10/D\$11=0.00498375006288669	E10/E\$11=0.005350833930215956	Other consumer loans	447	555	929	L10/L\$11=0.0035267669818583817	M10/M\$11=0.003504798318338406	N10/N\$11=0.004784404386716866	Other consumer loans	1960.41899999999944	V11-(SUM(V4:V9))=2154.00399999999863	W11-(SUM(W4:W9))=2438.76399999999956	U10/U\$11=0.01594167083419729	V10/V\$11=0.014691166339487494	W10/W\$11=0.014014462670053117		
Total loans (net)	153466	178893	195460	C11/C\$11=1	D11/D\$11=1	E11/E\$11=1	Total loans (net)	122974.50	146618.992	174017.66	L11/L\$11=1	M11/M\$11=1	N11/N\$11=1	Total loans (net)	126744.977	158354.333	194172.55000000002	U11/U\$11=1	V11/V\$11=1	W11/W\$11=1				
Garanti Isbank	Yapi Kredi			TRYbn			2015			2016														
TRYbn	2015	2016	9M17	2015	2016	9M17	TRYbn	2015	2016	9M17	2015	2016												
9M17	TRYbn	2015	2016	9M17	2015	2016	9M17	2015	2016	9M17	2015	2016												
Corporate & Commercial	110116.096	C17-3500=71605.31294	131438	D17-4000=88367.87212	142126	E17-4000=97714.60	C16/C\$23=0.4499519139518498	D16/D\$23=0.4749729307822271	E16/E\$23=0.483599182	40892424	Corporate & Commercial	L23-L22-L21-L20-L19-L18-L17=90212.99212	M23-M22-M21-M20-M19-M18-M17=109156.16402599998	N23-N22-N21-N20-N19-N18-N17=119545.716	L16/L\$23=0.570032474332751	M16/M\$23=0.5344053528912068	N16/N\$23=0.5208555146001621	Corporate & Commercial	U23-U22-U21-U20-U19-U18-U17=109296.756	V23-V22-V21-V20-V19-V18-V17=134534.243	W23-W22-W21-W20-W19-W18-W17=154483	U16/U\$23=0.6142553187041137	V16/V\$23=0.6586510276161908	W16/W\$23=0.673075750050105
SME loans	C23*0.22=35010.78306	E17/E\$23=0.20	SME loans	L23*0.23=40924.76388	M23*0.218=44528.0789	74	N23*0.238=54625.284	L17/L\$23=0.23	M17/M\$23=0.218	N17/N\$23=0.238	SME loans	2500	0	22800	24300	U17/U\$23=0.14050172694606639	V17/V\$23=0.11162394863030635	W17/W\$23=0.1058740490941887						
Mortgage loans	18802.033	21644.375000000004	22971.3459999999998	C18/C\$23=0.118147807	57434448	D18/D\$23=0.11633744235392558	E18/E\$23=0.11368745453015731	Mortgage loans	1572	6	17697	L18/L\$23=0.08838120631815359	M18/M\$23=0.08664074644344437	N18/N\$23=0.08728727158654223	Mortgage loans	12266	12570	13719	U18/U\$23=0.06893576730881801	V18/V\$23=0.06154004536328732	W18/W\$23=0.059773089692311716			
Personal need loans	16746.536	18388.573	20791.0679999999996	C19/C\$23=0.105231520	06300769	D19/D\$23=0.09883766804809342	E19/E\$23=0.10289704390345296	Personal need loans	19313	20897	22171	L19/L\$23=0.1085403941003752	M19/M\$23=0.10230726554945227	N19/N\$23=0.09659808816737685	Personal need loans	15600	16836	18177	U19/U\$23=0.08767307761434542	V19/V\$23=0.08242547364648412	W19/W\$23=0.07919640289650486			
Auto loans	1567.244	2212.1910000000003	2187.122	C20/C\$23=0.00984821388910688	2	D20/D\$23=0.011890416929958614	E20/E\$23=0.01082428225698689	Auto loans	811	697	661	L20/L\$23=0.004557876022130394	M20/M\$23=0.0034123636927773475	N20/N\$23=0.00287994841363204	Auto loans	431	359	381	U20/U\$23=0.0024222497725501844	V20/V\$23=0.001757587	6122052623	W20/W\$23=0.001660005228348104		
Credit cards	14977.881	16101.9090000000001	17593.1	C21/C\$23=0.09411768409615227	D\$23=0.08654696243599805	E21/E\$23=0.08706998520219542	Credit cards	10394	10678	1178	7	L21/L\$23=0.05841499799509656	M21/M\$23=0.05227721594186014	N21/N\$23=0.05135544924581078										

6 Credit cards 14452 15927 17011 U21/U\$23=0.08122123831298206 V21/V\$23=0.077975203  
06293373 W21/W\$23=0.07411619132268493  
Other consumer loans C23-(SUM(C16:C21))=430.133000000000163 D23-(SUM(D16:D21))=263.1799999999993  
E23-(SUM(E16:E21))=388.36400000000014 C22/C\$23=0.002702860425538861 D22/D\$23=0.00141457944979724  
83 E22/E\$23=0.0019220516982831647 Other consumer loans 552 604 694 L22/L\$23=0.0  
031022781309691457 M22/M\$23=0.002957055481258993 N22/N\$23=0.0030237279864760063 Other consum  
er loans 888 1231 1447 U22/U\$23=0.004990621341124278 V22/V\$23=0.00602671406859241  
7 W22/W\$23=0.006304516421370002  
Total loans (net) 159139.923 186048.228 202057 C23/C\$23=1 D23/D\$23=1 E23/  
E\$23=1 Total loans (net) 177933.756 204257.243 229518 L23/L\$23=1 M23/M\$23=1  
N23/N\$23=1 Total loans (net) 177933.756 204257.243 229518 U23/U\$23=1 V23/  
V\$23=1 W23/W\$23=1  
Large Bank average Large Bank average  
TRYbn 2015 2016 9M17 TRYbn 2015 2016 9M17  
Corporate & Commercial C4+C16+L4+L16+U4+U16=462610.32805999997 D4+D16+M4+M16+V4+V16=581914.42414600  
01 E4+E16+N4+N16+W4+W16=654774.469 Corporate & Commercial C28/C\$35=0.5038269431337105 D28/  
D\$35=0.5395945427114932 E28/E\$35=0.5346218404427815  
SME loans\*\*\* C5+C17+L5+L17+U5+U17=209682.16494 D5+D17+M5+M17+V5+V17=227770.572854 E5+E  
17+N5+N17+W5+W17=271213.878 SME loans C29/C\$35=0.2283639551186433 D29/D\$35=0.211205897  
29780082 E29/E\$35=0.22144550448252742  
Mortgage loans C6+C18+L6+L18+U6+U18=87598.26299999999 D6+D18+M6+M18+V6+V18=97725.052 E6+E18+N6+N1  
8+W6+W18=108554.575 Mortgage loans C30/C\$35=0.09540289611819612 D30/D\$35=0.09061797157337119  
E30/E\$35=0.08863455956616408  
Personal need loans C7+C19+L7+L19+U7+U19=92472.319 D7+D19+M7+M19+V7+V19=100496.19099999999 E7+E  
19+N7+N19+W7+W19=113273.587 Personal need loans C31/C\$35=0.10071120980293519 D31/D\$35=0.0  
9318757875176245 E31/E\$35=0.09248762195627931  
Auto loans C8+C20+L8+L20+U8+U20=3993.1759999999995 D8+D20+M8+M20+V8+V20=4255.561 E8+E20+N8+N2  
0+W8+W20=4169.986 Auto loans C32/C\$35=0.004348951018693988 D32/D\$35=0.00394607419320428  
8 E32/E\$35=0.003404783930175861  
Credit cards C9+C21+L9+L21+U9+U21=56824.511 D9+D21+M9+M21+V9+V21=60568.496 E9+E21+N9+N21+W9+W21  
=65813.71299999999 Credit cards C33/C\$35=0.06188733354108052 D33/D\$35=0.05616363600164517  
E33/E\$35=0.05373674453765699  
Other consumer loans C10+C22+L10+L22+U10+U22=5012.1499999999994 D10+D22+M10+M22+V10+V22=5698  
.7419999999969 E10+E22+N10+N22+W10+W22=6943.0020000000008 Other consumer loans C34/C\$35=0.0  
05458711273519387 D34/D\$35=0.00528429947072296 E34/E\$35=0.0056689450844148856  
Total loans (net) C11+C23+L11+L23+U11+U23=918192.912 D11+D23+M11+M23+V11+V23=1078429.0389  
999999 E11+E23+N11+N23+W11+W23=1224743.21 Total loans (net) C35/C\$35=1 D35/D\$35=1  
E35/E\$35=1  
\*\*\* SME definition includes companies with number of employees < 250 and turnover or total assets <=  
TRY40m.  
Loan breakdown - 9M17\*\*\*  
TRYbn Akbank Garanti Halkbank Isbank Vakifbank Yapi Kredi  
Corporate & Commercial 0.6300931136805484 0.48359918240892424 0.4226887374142226 0.52  
08555146001621 0.44707303270254295 0.673075750050105  
SME loans 0.1542515092602067 0.20 0.36925919755392816 0.238 0.28748343127933107  
0.1058740490941887  
Mortgage loans 0.06837645554077561 0.11368745453015731 0.10497879334643336 0.0872872715  
8654223 0.1039053565023228 0.059773089692311716  
Personal need loans 0.08289810702957127 0.10289704390345296 0.08159752755989454 0.09  
659808816737685 0.11543227854000565 0.07919640289650486  
Auto loans 0.0014274020259899725 0.01082428225698689 0.001313264928539075 0.0028799484  
136320464 0.002338061550764445 0.001660005228348104  
Credit cards 0.057602578532692114 0.08706998520219542 0.015378074810265404 0.0513554492  
45810786 0.029753376754979927 0.07411619132268493  
Other consumer loans 0.005350833930215956 0.0019220516982831647 0.004784404386716866 0.00  
30237279864760063 0.014014462670053117 0.006304516421370002  
Total loans (net) 1 1 1 1 1  
\*\*\* SME definition includes companies with number of employees < 250 and turnover or total assets <=  
TRY40m.  
Chart 1  
Chart 2

By sector (breakdown)						
Loan breakdown (2017)						
2017	Akbank	Garanti Halkbank	Isbank	Vakifbank	Yapi Kredi	
Agricultural	0.001004057958048613	58774841	0.016093202315493667	0.011660180684776297	0.0030416435967680973	0.0092864108
Farming and raising livestock	0.012811437143149914	0.010296496923127122	5.249796351198863E-4	0.0026401724849578834	0.007279034504055943	
Forestry	4.7688253181865235E-4	0.010207887466648318	1.8718421809312623E-5	4.0078287806237853E-4	0.0019538805	
Fishing	2.1957911100743402E-6	5.327395369333305E-4	3.824886784097967E-4	0.0016065934766565195	5.61059647716034E-4	
Manufacturing	0.22085134000595696	729675	0.1861014981648438	0.2081433590784614	0.2592940076	
Mining	0.009800737337995304	0.006852502437064907	0.010937439373085648	0.005065330158526063	0.017063385481662096	
Production	0.12878094044409585	358547	0.05895102142522671	0.17075437698970924	0.1329929924	
Electricity, Gas, Water	0.08226966222386582	923762975545073	0.11621303736653146	0.03232365193022609	0.10	
Construction	0.11719605169790383	1058044	0.05548733802389363	0.045215726398059625	0.0931638821	
Services	0.3579296431168957	3719204	0.059861586075228276	0.26353408842609627	0.3503335227	
Wholesale and Retail Trade	0.1426960769402236	136469	na	0.11240474904955264	0.1420346261	
Hotel, Food beverage services	0.024048570206598216	0.02828765684495182	0.02652217211068505	0.030672153823230682		
Transportation and Telecommunication	0.04895150727080868	81632286	0.042853644176270564	0.036565870464032306	0.0526419839	
Financial institutions	0.1156112471958665	0775475582421803	0.04056293981816154	0.044338178270387205	0.02	
Real estate and lending services	0.00844801249297517	633376166706081	na	0.011777327011930317	0.06	
Self-employment service	0.003493386134913933	0.023210308252562532	na	0.003147663108567367	0.005829518402476771	
Education service	0.0023945504101620272	0.004715255442487287	na	0.0038241965823669366	0.005374959018811134	
Health and social services	0.01228629246534754	3459822	na	0.004727817740458005	0.0091675484	
Other	0.30301890722119496	311854	0.4800651938153973	0.2879221766204852	0.3882804964	
Total	1	1	1	1	1	

Detail sector breakdown (BRSA)									
Sectoral Loan Distribution (thousand TL)			Short-Term Loans		Medium-Long Term Loans		Loan		
% in total loans			Non-Performing Loans		% in total NPL stock		Total Loans		Non-
Cash Loans									
1	Agriculture, Hunting and Forestry (2+3+4)		25020121		69084794		94104915		
F3/F\$72=0.040254738959791536	2832595		H3/H\$72=0.041691428631311665		96937510		2250588		
2	Agriculture		67976001		92625226		F4/F\$72=0.03962178058097918		
2783278	H4/H\$72=0.040965558471331015		95408504		1944951				
3	Hunting		50842		F5/F\$72=2.1748401113732702E-5		2123		H5/H\$72=3.1247284904
57502E-5	16083 34759 52965 1758								
4	Lumber and Forest Products		354813 1074034 1428847		F6/F\$72=6.112099776986277E-4		4719		
4	H6/H\$72=6.946228750760779E-4		1476041 303879						
5	Fishing		831970 1488254 2320224		F7/F\$72=9.92509386446429E-4		61568		H7/H\$72=9.0618598069
00022E-4	2381792 248815								
6	Mining and Quarrying (7+8)		5041767 20912961		25954728		F8/F\$72=0.0111025104		
31175591	883272		H8/H\$72=0.013000401239865183		26838000		7628617		
7	Extracting of Mines Product Energy		1037685 10542247		11579932		F9/F\$72=0.00		
495348345867096	361592		H9/H\$72=0.005322076421674559		11941524		4425265		
8	Extracting of Mines Not Product Energy		4004082 10370714		14374796		F10/F\$72=0.0		
0614902697250463	521680		H10/H\$72=0.007678324818190624		14896476		3203352		
9	Manufacturing (10+...+22+25)		164849748		265623546		430473294		F11/F\$72=0.1
8414117986432055	13900030		H11/H\$72=0.20458699839479033		444373324		227953900		
10	Food, Beverage and Tobacco Ind.		27432816		36732250		64165066		F12/F\$72=0.0
27447535361652422	2291054		H12/H\$72=0.03372078053215554		66456120		27565587		
11	Textile and Textile Products Industry		27726268		48783987		76510255		F13/
F\$72=0.032728368574288444	2349417		H13/H\$72=0.03457979385711348		78859672		26211902		
12	Leather and Leather Products Industry		1442207 2579867		4022074		F14/F\$72=0.00172050034737255		
33	234679		H14/H\$72=0.0034541128469716253		4256753 738067				
13	Wood and Wood Products Industry		2097339 5122360		7219699		F15/F\$72=0.003088330706353308		1636
99	H15/H\$72=0.002409396745922763		7383398 3070048						
14	Paper Raw Materials and Paper Products Industry		5224466 10695273		15919739		F16/		
F\$72=0.006809898693952519	280235		H16/H\$72=0.004124626888946575		16199974		4049289		
15	Nuclear Fuel and Refined Petroleum and Coke Coal Ind.		2206367 5927121		8133488		F17/F\$72=0.0		
03479217172371889	271250		H17/H\$72=0.003992381549866215		8404738		10642164		
16	Chemical Products Industry		15547631		16964562		32512193		F18/F\$72=0.0
13907560962414788	509384		H18/H\$72=0.007497346666901573		33021577		18574188		
17	Rubber and Plastic Products Industry		11665465		18190862		29856327		F19/
F\$72=0.012771475854190783	1052594		H19/H\$72=0.015492559871335956		30908921		10072865		
18	Other Mines Excluding Metal Industry		8493075 22603175		31096250		F20/F\$72=0.0		
13301870857419271	1444081		H20/H\$72=0.021254644574792085		32540331		7322541		
19	Main Metal Industry		28984936		43431671		72416607		F21/F\$72=0.030977251
412838667	2298637		H21/H\$72=0.03383239059406387		74715244		48211281		
20	Machine and Equipment Industry		9585209 15666350		25251559		F22/F\$72=0.010801719		
717538395	712375		H22/H\$72=0.010485061038104865		25963934		16054096		
21	Electrical and Optical Devices Industry		8225834 12151889		20377723		F23/F\$72=0.0		
08716865850842543	716139		H23/H\$72=0.010540461311482547		21093862		21475823		
22	Transportation Vehicles Industry		9125083 16206132		25331215		F24/F\$72=0.0		
10835793724051032	845782		H24/H\$72=0.01244860627468736		26176997		27981332		
23	a) Building and Repairing Ships and Boats		606964 4581684		5188648		F25/F\$72=0.002219519		
25459201	579482		H25/H\$72=0.00852908108858829		5768130 3664553				
24	b) Manufacture and Repair of Motor and Other Vehicles		8518119		11624448		20142567		
F26/F\$72=0.008616274469459022	266300		H26/H\$72=0.00391952518609907		20408867		24316779		
25	Manufacturing Industry Not Classified In Another Places		7093052		10568047		F27/F\$72=0.007554790629033939		17661099
F27/F\$72=0.007554790629033939	730704		H27/H\$72=0.01075483564244587		18391803		5984717		
26	Electric, Gas and Water Resources		9474147 151671624		161145771		F28/F\$72=0.0		
6893243510266542	650702		H28/H\$72=0.00957732961939556		161796473		38026525		
27	Construction		44950931 159974614		204925545		F29/F\$72=0.08765986686421229		
6280476	H29/H\$72=0.09243891799733664		211206021		139359231				
28	Wholesale and Retail Trade, Sale and Repair of Motor Vehicles and Personal Products (29+30+31)		127541832 216878924		344420756		F30/F\$72=0.14733096167308643		14506699
H30/H\$72=0.21351623018271948	358927455		125780461						
29	Retail Sell of Motor Vehicles and Its Fuel Oil		18616216		29186453		47802669		
F31/F\$72=0.020448283303548163	1173697		H31/H\$72=0.01727500920897079		48976366		14565538		
30	Wholesale Trade and Brokerage		79709321		123657531		203366852		F32/F\$72=0.0
8699311338132083	9581388		H32/H\$72=0.14102325040851446		212948240		92261071		
31	Retail Trade and Personnel Products		29216295		64034940		93251235		F33/
F\$72=0.03988956498821742	3751614		H33/H\$72=0.05521797056523424		97002849		18953852		
32	Hotels and Restaurants (Tourism) (33+34+35)		9617728 63728852		73346580		F34/		
F\$72=0.03137506081901744	2299216		H34/H\$72=0.03384091258085603		75645796		7659505		
33	Hotels		6375757 49847691		56223448		F35/F\$72=0.024050393357875236		1400169
H\$72=0.020608327676662222	57623617		4532010						H35/
34	Restaurants		1635775 7173861		8809636		F36/F\$72=0.0037684492623024216		346179
0509522083888981984	9155815 1043908								H36/H\$72=0.0
35	Other Tourism		1606196 6707300		8313496		F37/F\$72=0.0035562181988397857		552868
0813736406529561	8866364 2083587								H37/H\$72=0.0
36	Transportation, Storage and Communication (37+38+...+43)		19612226		110328878		F38/F\$72=0.05558418730485144		132237444
129941104	28337959		2296340		H38/H\$72=0.03379858229758445				
37	Railroad Transportation		193290 1108996		1302286		F39/F\$72=5.570716787852269E-4		10028
									H39/

H\$72=1.4759669007210468E-4	1312314	262656							
38 Road Transportation	1786512	14206955	15993467	F40/F\$72=0.00684143691269515					
8 345784 H40/H\$72=0.005089407048254153	16339251		1187059						
39 Road Haulage	3312153	13746418	17058571	F41/F\$72=0.007297050559283435	4761				
11 H41/H\$72=0.0070076194362704266	17534682		2637850						
40 Maritime Transportation	1975064	14187293	16162357	F42/F\$72=0.00691368205380090					
4 924314 H42/H\$72=0.013604476165467429	17086671		1883299						
41 Air Transportation	5124566	9433248	14557814	F43/F\$72=0.006227315570023082	1605				
9 H43/H\$72=2.363637062094066E-4	14573873		7901136						
42 Other Transportation Activities	2736803	33311834		36048637			F44/F\$72=0.015420326		
050889933 283838 H44/H\$72=0.00417765749069466	36332475		7496626						
43 Communication	4483838	24334134	28817972	F45/F\$72=0.012327304479373705	2402				
06 H45/H\$72=0.0035354617606162724	29058178		6969333						
44 Financial Intermediation (45+47+48+49)	17242220		42731136	59973356	F46/				
F\$72=0.02565447076088053	225304	H46/H\$72=0.003316127309533853	60198660	47049607					
45 Financial Institutions	15035423	29609848	44645271	F47/F\$72=0.019097660					
62584671 80949 H47/H\$72=0.001191444402138692	44726220		27168979						
46 Loans Extended to Banks*	19438095		9935518	29373613	F48/F\$72=0.012564987				
95648388 41875 H48/H\$72=6.163354005553833E-4	29415488		24246929						
47 Other Financial Instruments	1586945	10626333	12213278	F49/F\$72=0.005224406					
37381549 76665 H49/H\$72=0.0011283905309511274	12289943		14280387						
48 Insurance and Pension Excluding Compulsory Social Sec. Institutions	119757	369571	4893						
28 F50/F\$72=2.0931713190237592E-4	21871	H50/H\$72=3.219073801921621E-4	511199	1738216					
49 Other Financial Intermediation	500095	2125384	2625479	F51/F\$72=0.0011230866293159558	4581				
9 H51/H\$72=6.743849962518712E-4	2671298	3862025							
50 Real Estate Brokerage, Renting and Business Activities (51+52+53+54)	17803113				1138				
99719 131702832 F52/F\$72=0.05633779194662978	1847753	H52/H\$72=0.027196073680773997	1335						
50585 26757991									
51 Real Estate Brokerage	1341132	28905978	30247110	F53/F\$72=0.01293863893653270					
1 693348 H53/H\$72=0.010205012950549824	30940458		1754681						
52 Rent (Vehicle, Machine, Device)	2397573	17539528	19937101	F54/F\$72=0.0					
08528383415148921	134226	H54/H\$72=0.00197559965313306	20071327	1201974					
53 Computer and Related Activities	1085474	2287826	3373300	F55/F\$72=0.0014429778820061077	2603				
71 H55/H\$72=0.0038322594526090915	3633671	4586924							
54 Research, Consulting, Advertising and Other Activities	12978934		65166387		7814				
5321 F56/F\$72=0.03342779171294205	759808	H56/H\$72=0.011183201624482022	78905129		1921				
4412									
55 Defense and Public Administration And Social Security Institutions	828515	45218467							
46046982 F57/F\$72=0.019697262786924782	38660	H57/H\$72=5.690155602500566E-4	46085642						
9472038									
56 Education	1751931	7802304	9554235	F58/F\$72=0.00408696225787467	267630	H58/H\$72=0.0			
03939100734343576	9821865	983897							
57 Health and Social Services	2287392	16370188	18657580	F59/F\$72=0.007981049					
794491896 435627 H59/H\$72=0.006411757409856477	19093207		4480745						
58 Other Services (59+60+61+62)	6081089	29243937	35325026	F60/F\$72=0.015110790					
975985144 920330 H60/H\$72=0.013545837831477872	36245356		7389880						
59 Arranging of Drainage and Waste	426787	970531	1397318	F61/F\$72=5.977229917674119E-4	2138				
7 H61/H\$72=3.1478364684604137E-4	1418705	591710							
60 Organizational Activities	631150	3394527	4025677	F62/F\$72=0.001722041582753002	1812				
2 H62/H\$72=2.6672788367437984E-4	4043799	563841							
61 Cultural, Entertainment and Sportive Activities	2017071	6892622	8909693	F63/F\$72=0.003811250					
091739437 220170 H63/H\$72=0.003240562749618597	9129863	1929509							
62 Other Personal Services	3006081	17987207	20992338	F64/F\$72=0.00897977630972529					
2 660651 H64/H\$72=0.009723763551338855	21652989		4304820						
63 Private Person Employing Worker	172630	351808	524438	F65/F\$72=2.2433594239573094E-4	4026				
8 H65/H\$72=5.926828396313833E-4	564706	653438							
64 International Organizations and Institutions	919	2268	3187	F66/F\$72=1.363285361					
501635E-6 431 H66/H\$72=6.343655107805856E-6	3618	85164							
65 Individual Housing Credit	146701	196212065	196358766	F67/F\$72=0.083995303					
19746626 808990 H67/H\$72=0.011907084792723571	197167756		0						
66 Individual Automobile Credit	260818	7117663	7378481	F68/F\$72=0.003156252004210212	2024				
28 H68/H\$72=0.0029794278797283615	7580909	0							
67 Individual Credit-Other	19839837		192132809	211972646	F69/F\$72=0.090674366				
2788102 10132984 H69/H\$72=0.1491418925960905	222105630		0						
68 Credit Cards**	118660222	4072152	122732374	F70/F\$72=0.052500548746954465	6940				
512 H70/H\$72=0.10215362969741958	129672886		203068401						
69 Other	5723673	25148577	30872250	F71/F\$72=0.01320605161644771	2370088	H71/			
H\$72=0.03488403908851361	33242338		50277673						
70 TOTAL	5.9773953E8	1.73999554E9	2.33773507E9	F72/F\$72=1	67941903	H72/			
H\$72=1	2.405676973E9	9.27464435E8							

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FX loans
1Q18
TRYm Akbank Garanti Halkbank Isbank Vakifbank Yapi Kredi
TRL Loans 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\AKBANK MODEL- Hig
her RFR and Lower NIM.xlsx]Loans'!$BH$9=134151.96 'R:\Bank models\Turkish Bank Model with 2020
Estimates\Higher RFR\GARANTI MODEL- Higher RFR and Lower NIM.xlsx]Loans'!$BH$9=147845.886 'R:\
Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\HALKBANK MODEL- Higher RFR and Lower
NIM.xlsx]Loans'!$BH$9=148284.093 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Highe
r RFR\ISBANK MODEL- Higher RFR and Lower NIM.xlsx]Loans'!$BH$9=148967.893 'R:\Bank models\Turk
ish Bank Model with 2020 Estimates\Higher RFR\VAKIFBANK MODEL- Higher RFR and Lower NIM.xlsx]Loans'
!$BH$9=137593.37 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\YAPI KRED
I MODEL- Higher RFR and Lower NIM.xlsx]Loans'!$BH$9=122529.949
FX Loans 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\AKBANK MODEL- Hig
her RFR and Lower NIM.xlsx]Loans'!$BH$10=62606.30800000002 'R:\Bank models\Turkish Bank Model w
ith 2020 Estimates\Higher RFR\GARANTI MODEL- Higher RFR and Lower NIM.xlsx]Loans'!$BH$10=66836.007
'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\HALKBANK MODEL- Higher RFR and Lo
wer NIM.xlsx]Loans'!$BH$10=67099.896 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Highe
r RFR\ISBANK MODEL- Higher RFR and Lower NIM.xlsx]Loans'!$BH$10=95722.932 'R:\Bank models\Turk
ish Bank Model with 2020 Estimates\Higher RFR\VAKIFBANK MODEL- Higher RFR and Lower NIM.xlsx]Loans'
!$BH$10=57540.748 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\YAPI KRED
I MODEL- Higher RFR and Lower NIM.xlsx]Loans'!$BH$10=73950.749
Total Loans 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\AKBANK MODEL- Hig
her RFR and Lower NIM.xlsx]Loans'!$BH$8=196758.268 'R:\Bank models\Turkish Bank Model with 2020
Estimates\Higher RFR\GARANTI MODEL- Higher RFR and Lower NIM.xlsx]Loans'!$BH$8=214681.89299999998
'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\HALKBANK MODEL- Higher RFR and Lo
wer NIM.xlsx]Loans'!$BH$8=215383.989 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Highe
r RFR\ISBANK MODEL- Higher RFR and Lower NIM.xlsx]Loans'!$BH$8=244690.825 'R:\Bank models\Turk
ish Bank Model with 2020 Estimates\Higher RFR\VAKIFBANK MODEL- Higher RFR and Lower NIM.xlsx]Loans'
!$BH$8=195134.118 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\YAPI KRED
I MODEL- Higher RFR and Lower NIM.xlsx]Loans'!$BH$8=196480.69799999997
1Q18 Breakdown
% Akbank Garanti Halkbank Isbank Vakifbank Yapi Kredi
TRL Loans C4/C$6=0.6818110433864969 D4/D$6=0.6886742236803363 E4/E$6=0.68846386255
75831 F4/F$6=0.6088004852654365 G4/G$6=0.705122053540632 H4/H$6=0.6236233393266957
AVERAGE(C11:H11)=0.6660825012928634
FX Loans C5/C$6=0.3181889566135031 D5/D$6=0.31132577631966385 E5/E$6=0.31153613744
24168 F5/F$6=0.3911995147345635 G5/G$6=0.29487794645936805 H5/H$6=0.37637666067330444
AVERAGE(C12:H12)=0.33391749870713666
Total Loans C6/C$6=1 D6/D$6=1 E6/E$6=1 F6/F$6=1 G6/G$6=1 H6/H
$6=1 AVERAGE(C13:H13)=1
USDmn Akbank Garanti Halkbank Isbank Vakifbank Yapi Kredi
FX loans USD mn C5/Main!$I$2=12908.517113402067 D5/Main!$I$2=13780.62 E5/Main!$I$2=13835.030103092
784 F5/Main!$I$2=19736.68701030928 G5/Main!$I$2=11864.07175257732 H5/Main!$I$2=15247.577113402
062
USDmn FX loans USD mn
Isbank 19736.68701030928
Yapi Kredi 15247.577113402062
Halkbank 13835.030103092784
Garanti 13780.62
Akbank 12908.517113402067
Vakifbank 11864.07175257732
Chart 1
Chart 2
Chart 3

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Sensit CoR									
Coverage	0.25	0.30	0.30	0.25	0.30	0.35	USD/TRY 4.85		
OTAS exposure (USDm)	1500	950	160	500	180	200			
LOANS	OTAS exposure (TRYm)		M2*\$U\$1=7274.999999999999			N2*\$U\$1=4607.50		O2*\$U\$1=776	P2*\$
U\$1=2425	Q2*\$U\$1=872.99999999999999			R2*\$U\$1=969.99999999999999					
TRYm	Akbank	Garanti Halkbank	Isbank	Vakifbank	Yapi Kredi	Total	TRYm	Akba	
nk	Garanti Halkbank	Isbank	Vakifbank	Yapi Kredi	Total				
Stage 1	177483.751	179942.836	208018.025	225447.282	189194.53	189206.167			
SUM(C5:H5)=1169292.591	Stage 1	C5+M3=184758.751	D5+N3=184550.336	E5+O3=208794.025					
F5+P3=227872.282	G5+Q3=190067.53	H5+R3=190176.167	SUM(M5:R5)=1186219.091						
Stage 2	18107.557+561.381+3109.4=21778.338000000003	29599.849+5463.71+2411.769=37475.328			4219				
.35+28.39+3620.128=7867.868	16743.129+3832.425+460.08=21035.634000000002	3835.687+108.017+226							
2.51=6206.214	5397.15+541.86+2728.63=8667.64	SUM(C6:H6)=103031.022000000001		Stage 2	C6-M3=14503.				
338000000003	D6-N3=32867.828	E6-O3=7091.868	F6-P3=18610.634000000002	G6-Q3=5333.214	H6-R				
3=7697.639999999999	SUM(M6:R6)=86104.522000000001								
Stage 3	4046.342	5633.32	6264.786	5799.235	7945.146	8617.858	SUM(		
C7:H7)=38306.687000000005	Stage 3	C7=4046.342	D7=5633.32	E7=6264.786	F7=5799.235				
G7=7945.146	H7=8617.858	SUM(M7:R7)=38306.687000000005							
Total	SUM(C5:C7)=203308.430999999998	SUM(D5:D7)=223051.484000000003	SUM(E5:E7)=222150.678999999999						
7	SUM(F5:F7)=252282.150999999998	SUM(G5:G7)=203345.89	SUM(H5:H7)=206491.664999999998	SUM(I					
C8:H8)=1310630.30	Total	SUM(M5:M7)=203308.430999999998	SUM(N5:N7)=223051.484000000003	SUM(O					
O5:O7)=222150.678999999997	SUM(P5:P7)=252282.150999999998	SUM(Q5:Q7)=203345.89	SUM(R5:R7)=2						
06491.664999999998	SUM(M8:R8)=1310630.30								
COVERAGE									
TRYm	Akbank	Garanti Halkbank	Isbank	Vakifbank	Yapi Kredi	Average	TRYm	Akba	
nk	Garanti Halkbank	Isbank	Vakifbank	Yapi Kredi	Average				
Stage 1	635.937	816.282	1003.91	1588.177	1541.675	1735.70	SUM(C12:H12)=7321.681	Stage	
e 1	C12+(M3*0.01)=708.687	D12+(N3*0.01)=862.35700000000001	E12+(O3*0.01)=1011.67	F12+(P3*0.01					
)=1612.427	G12+(Q3*0.01)=1550.405	H12+(R3*0.01)=1745.40	SUM(M12:R12)=7490.946						
Stage 2	2783.856	3620.075	784.616	1845.348	468.183	888.696	SUM(C13:H13)=10390.7		
740000000001	Stage 2	C13-(M3*M1)=965.10600000000004	D13-(N3*N1)=2237.825	E13-(O3*O1)=551.816					
F13-(P3*P1)=1239.098	G13-(Q3*Q1)=206.283000000000002	H13-(R3*R1)=549.196000000000001	SUM(M13:R13)						
=5749.32400000000005									
Stage 3	3130.372	3963.228	4978.164	4157.801	6201.91	7386.565	SUM(		
C14:H14)=29818.039999999997	Stage 3	C14=3130.372	D14=3963.228	E14=4978.164	F14=4157.801				
G14=6201.91	H14=7386.565	SUM(M14:R14)=29818.039999999997							
Total	SUM(C12:C14)=6550.165	SUM(D12:D14)=8399.585	SUM(E12:E14)=6766.69	SUM(F12:F14)=7591.32					
6	SUM(G12:G14)=8211.768	SUM(H12:H14)=10010.961	SUM(I12:I14)=47530.4949999999995	Total	SUM(				
M12:M14)=4804.1650000000001	SUM(N12:N14)=7063.41	SUM(O12:O14)=6541.65	SUM(P12:P14)=7009.32						
6	SUM(Q12:Q14)=7958.598	SUM(R12:R14)=9681.161	SUM(M15:R15)=43058.31						
% in gross loans									
TRYm	Akbank	Garanti Halkbank	Isbank	Vakifbank	Yapi Kredi	Average	TRYm	Akba	
nk	Garanti Halkbank	Isbank	Vakifbank	Yapi Kredi	Average				
Stage 1	C5/C\$8=0.8729778205803969	D5/D\$8=0.8067322968360076	E5/E\$8=0.936382575720149						
F5/F\$8=0.8936315197344263	G5/G\$8=0.9304074451664599	H5/H\$8=0.9162896090745358	I5/I						
\$8=0.8921605055216563	Stage 1	M5/M\$8=0.9087608914752778	N5/N\$8=0.8273889628100389	O5/O					
\$8=0.9398757003123993	P5/P\$8=0.9032437732782769	Q5/Q\$8=0.934700622668105	R5/R\$8=0.920						
9871352434492	S5/S\$8=0.9050752840064814								
Stage 2	C6/C\$8=0.10711969933012766	D6/D\$8=0.16801200928122942	E6/E\$8=0.035416808246622564						
F6/F\$8=0.08338138039737898	G6/G\$8=0.030520479169753565	H6/H\$8=0.041975737858474825	I6/I						
\$8=0.07861181143149217	Stage 2	M6/M\$8=0.07133662843524677	N6/N\$8=0.14735534330719807	O6/O					
\$8=0.03192368365437227	P6/P\$8=0.07376912685352839	Q6/Q\$8=0.026227301668108462	R6/R\$8=0.037						
27821168956142	S6/S\$8=0.06569703294666697								
Stage 3	C7/C\$8=0.019902480089475486	D7/D\$8=0.025255693882762956	E7/E\$8=0.02820061603322851						
F7/F\$8=0.0222987099868194798	G7/G\$8=0.03907207566378646	H7/H\$8=0.04173465306698942	I7/I						
\$8=0.029227683046851582	Stage 3	M7/M\$8=0.019902480089475486	N7/N\$8=0.025255693882762956	O7/O					
\$8=0.02820061603322851	P7/P\$8=0.022987099868194798	Q7/Q\$8=0.03907207566378646	R7/R\$8=0.041						
73465306698942	S7/S\$8=0.029227683046851582								
Total	C8/C\$8=1	D8/D\$8=1	E8/E\$8=1	F8/F\$8=1	G8/G\$8=1	H8/H\$8=1			
I8/I\$8=1	Total	M8/M\$8=1	N8/N\$8=1	O8/O\$8=1	P8/P\$8=1	Q8/Q\$8=1			
R8/R\$8=1	S8/S\$8=1								
COVERAGE RATIO									
Total	Earnings impact	Akbank	Garanti Halkbank	Isbank	Vakifbank	Yapi Kredi			
TRYm	Akbank	Garanti Halkbank	Isbank	Vakifbank	Yapi Kredi	Average	Stage 2	prov	
isions (base)	14503.3380000000003	32867.828	7091.868	18610.6340000000002	5333				
.214	7697.6399999999999	S6=86104.522000000001	AKBANK	AKBANK					
Stage 1	C12/C5=0.0035830716694735623	D12/D5=0.004536340640980005	E12/E5=0.004826072163698314						
F12/F5=0.007044560421890559	G12/G5=0.008148623535786156	H12/H5=0.009173591048964065	I12/I						
I5=0.0062616329363195285	Stage 3	provisions (base)	4046.342	5633.32	6264.786				
5799.235	7945.146	8617.858	38306.6870000000005	CoR (net)	% of Stage 2				
loans transferred to Stage 3 loans	CoR: change from base (bps)	% of Stage 2 loans transferr							
ed to Stage 3 loans									
Stage 2	C13/C6=0.12782683416888835	D13/D6=0.09659888767351148	E13/E6=0.09972409298173278						
F13/F6=0.08772485773426177	G13/G6=0.07543777897442788	H13/H6=0.10253033120895655	I13/I						
I6=0.10085092623850708	Amount of Stage 2 transferred to Stage 3	\$T\$27*M25=0	\$T\$27*N25=0						
\$T\$27*O25=0	\$T\$27*P25=0	\$T\$27*Q25=0	\$T\$27*R25=0	\$T\$27*S25=0	0	Loan growth			
(ppt change from base)	\$M\$50=0.008943622377209748	AA27-0.05=-0.150000000000000002	AB27-0.05=-0						
.10	-0.05	0	0.05	AD27+0.05=0.10	0.20	0.30	0.40	0.50	0.60
43622377209748	AO27-0.05=-0.15000000000000002	AP27-0.05=-0.10	-0.05	0	0.05	0.05	AR27+0.05=0.		

Table with multiple columns containing financial data and formulas. Includes rows for Stage 3, Total, Net profit, Expected provision expenses, and TRYm Akbank Garanti Halkbank Isbank Vakifbank Yapi Kredi Average Change in net profit.

ROE (new) M31/M\$56=0.14227070975751668 N31/N\$56=0.15379565842592643 O31/O\$56=0.133239279  
64267931 P31/P\$56=0.13031433781764779 Q31/Q\$56=0.14460043618259225 R31/R\$56=0.102203593  
17283423 S31/S\$56=0.1347398172027409 -0.10 (=TABLE(T27,T46))=-0.024056951340338664 (=TA  
BLE(T27,T46))=-0.012725514827925864 (=TABLE(T27,T46))=-0.0013940783155130718 (=TABLE(T27,  
T46))=0.009937358196899719 (=TABLE(T27,T46))=0.021268794709312512 (=TABLE(T27,T46))=0.03260023  
1221725305 (=TABLE(T27,T46))=0.05526310424655089 (=TABLE(T27,T46))=0.07792597727137647 (=TA  
BLE(T27,T46))=0.10058885029620207 (=TABLE(T27,T46))=0.12325172332102766 (=TABLE(T27,T46))=0.  
14591459634585324 -0.10 (Z34-\$AC\$32)\*10000=-330.00573717548417 (AA34-\$AC\$32)\*10000=-216.691  
37205135613 (AB34-\$AC\$32)\*10000=-103.3770069272282 (AC34-\$AC\$32)\*10000=9.937358196899712 (AD3  
4-\$AC\$32)\*10000=123.25172332102764 (AE34-\$AC\$32)\*10000=236.56608844515557 (AF34-\$AC\$32)\*10000=  
463.19481869341143 (AG34-\$AC\$32)\*10000=689.8235489416672 (AH34-\$AC\$32)\*10000=916.452279189923  
3 (AI34-\$AC\$32)\*10000=1143.081009438179 (AJ34-\$AC\$32)\*10000=1369.709739686435  
Change in ROE from base (M34-M33)=0 (N34-N33)=0 (O34-O33)=0 (P34-P33)=0 (Q34-Q33)=0  
(R34-R33)=0 (S34-S33)=0 -0.15 (=TABLE(T27,T46))=-0.025472066125064464 (=TABLE(T27,T46))=-0.  
013474074523686206 (=TABLE(T27,T46))=-0.0014760829223079582 (=TABLE(T27,T46))=0.01052190  
8679070291 (=TABLE(T27,T46))=0.022519900280448542 (=TABLE(T27,T46))=0.03451789188182679 (=TA  
BLE(T27,T46))=0.05851387508458329 (=TABLE(T27,T46))=0.08250985828733978 (=TABLE(T27,T46))=0.  
10650584149009631 (=TABLE(T27,T46))=0.1305018246928528 (=TABLE(T27,T46))=0.1544978078956093  
-0.15 (Z35-\$AC\$32)\*10000=-344.1568850227421 (AA35-\$AC\$32)\*10000=-224.17696900895956 (AB35-\$AC\$32  
)\*10000=-104.19705299517706 (AC35-\$AC\$32)\*10000=15.782863018605434 (AD35-\$AC\$32)\*10000=135.7627  
7903238795 (AE35-\$AC\$32)\*10000=255.74269504617038 (AF35-\$AC\$32)\*10000=495.70252707373544 (AG3  
5-\$AC\$32)\*10000=735.6623591013004 (AH35-\$AC\$32)\*10000=975.6221911288657 (AI35-\$AC\$32)\*10000=  
1215.5820231564305 (AJ35-\$AC\$32)\*10000=1455.5418551839955  
-0.20 (=TABLE(T27,T46))=-0.02706407025788099 (=TABLE(T27,T46))=-0.014316204181416594 (=TABLE(T27,  
T46))=-0.0015683381049522054 (=TABLE(T27,T46))=0.011179527971512183 (=TABLE(T27,T46))=0.02392739  
4047976575 (=TABLE(T27,T46))=0.03667526012444096 (=TABLE(T27,T46))=0.06217099227736975 (=TA  
BLE(T27,T46))=0.08766672443029852 (=TABLE(T27,T46))=0.11316245658322732 (=TABLE(T27,T46))=0.  
1386581887361561 (=TABLE(T27,T46))=0.16415392088908487 -0.20 (Z36-\$AC\$32)\*10000=-360.0769  
263509074 (AA36-\$AC\$32)\*10000=-232.59826558626344 (AB36-\$AC\$32)\*10000=-105.11960482161953 (AC3  
6-\$AC\$32)\*10000=22.35905594302435 (AD36-\$AC\$32)\*10000=149.83771670766828 (AE36-\$AC\$32)\*10000=  
277.3163774723121 (AF36-\$AC\$32)\*10000=532.2736990016 (AG36-\$AC\$32)\*10000=787.231020530887  
7 (AH36-\$AC\$32)\*10000=1042.1883420601757 (AI36-\$AC\$32)\*10000=1297.1456635894635 (AJ36-\$AC\$32  
)\*10000=1552.1029851187511  
Stage 1 53.916 379.957 96.532 7.40 167.354 153.12 SUM(C37:H37)=858.279 COR impact Akba  
nk Garanti Halkbank Isbank Vakifbank Yapi Kredi Total -0.25 (=TABLE(T27,  
T46))=-0.028868341608406393 (=TABLE(T27,T46))=-0.015270617793511035 (=TABLE(T27,T46))=-0.0016728  
93978615686 (=TABLE(T27,T46))=0.011924829836279663 (=TABLE(T27,T46))=0.025522553651175017 (=TA  
BLE(T27,T46))=0.039120277466070365 (=TABLE(T27,T46))=0.06631572509586106 (=TABLE(T27,T46))=0.  
09351117272565176 (=TABLE(T27,T46))=0.1207066203554425 (=TABLE(T27,T46))=0.1479020679852331  
7 (=TABLE(T27,T46))=0.17509751561502387 -0.25 (Z37-\$AC\$32)\*10000=-378.1196398561614 (AA3  
7-\$AC\$32)\*10000=-242.14240170720782 (AB37-\$AC\$32)\*10000=-106.16516355825435 (AC37-\$AC\$32)\*10000=  
29.812074590699154 (AD37-\$AC\$32)\*10000=165.7893127396527 (AE37-\$AC\$32)\*10000=301.766550888606  
16 (AF37-\$AC\$32)\*10000=573.7210271865131 (AG37-\$AC\$32)\*10000=845.6755034844201 (AH37-\$AC\$32  
)\*10000=1117.6299797823274 (AI37-\$AC\$32)\*10000=1389.5844560802343 (AJ37-\$AC\$32)\*10000=1661.538  
9323781412  
Stage 2 246.51 748.876 19.004 588.762 78.11 70.684 SUM(C38:H38)=1751.946 Stage 2 loans % in 1  
oans (base) M20=0.07133662843524677 N20=0.14735534330719807 O20=0.03192368365437227 P20=0.073769  
12685352839 Q20=0.026227301668108462 R20=0.03727821168956142 S20=0.06569703294666697  
Stage 3 397.74 488.162 276.835 531.50 1037.65 589.523 SUM(C39:H39)=3321.4100000000003 Stage 3 loan  
s % in loans (base) M21=0.019902480089475486 N21=0.025255693882762956 O21=0.028200  
61603322851 P21=0.022987099868194798 Q21=0.03907207566378646 R21=0.04173465306698942 S21=  
0.029227683046851582  
Total SUM(C37:C39)=698.1659999999999999 SUM(D37:D39)=1616.995 SUM(E37:E39)=392.371 SUM(F37:F39)  
=1127.66199999999998 SUM(G37:G39)=1283.114 SUM(H37:H39)=813.327 SUM(C40:H40)=5931.635 Stag  
e 2 loans % in loans (new) (M6-M27)/M\$8=0.07133662843524677 (N6-N27)/N\$8=0.1473553433071  
9807 (O6-O27)/O\$8=0.03192368365437227 (P6-P27)/P\$8=0.07376912685352839 (Q6-Q27)/Q\$8  
=0.026227301668108462 (R6-R27)/R\$8=0.03727821168956142 (S6-S27)/S\$8=0.06569703294666697  
Average gross loans 'R:\Bank models\Turkish Bank Model with 200 Estimates\Higher RFR\AKBANK MO  
DEL- Higher RFR and Lower NIM.xlsx\COR'!\$AH\$13/1000=199098.746 'R:\Bank models\Turkish Bank Model w  
ith 200 Estimates\Higher RFR\GARANTI MODEL- Higher RFR and Lower NIM.xlsx\COR'!\$AH\$13/1000=219928.  
43 'R:\Bank models\Turkish Bank Model with 200 Estimates\Higher RFR\HALKBANK MODEL- Higher RF  
R and Lower NIM.xlsx\COR'!\$AH\$13/1000=215448.166 'R:\Bank models\Turkish Bank Model with 200  
Estimates\Higher RFR\ISBANK MODEL- Higher RFR and Lower NIM.xlsx\COR'!\$AH\$13/1000=249443.2855 'R:\  
Bank models\Turkish Bank Model with 200 Estimates\Higher RFR\VAKIFBANK MODEL- Higher RFR and Lower  
NIM.xlsx\COR'!\$AH\$13/1000=197091.47 'R:\Bank models\Turkish Bank Model with 200 Estimates\Highe  
r RFR\YAPI KREDI MODEL- Higher RFR and Lower NIM.xlsx\COR'!\$AH\$13/1000=204895.8715 SUM(C41:H41)  
=1285905.969 Stage 3 loans % in loans (new) (M7+M27)/M\$8=0.019902480089475486 (N7+N27)/N\$8  
=0.025255693882762956 (O7+O27)/O\$8=0.02820061603322851 (P7+P27)/P\$8=0.022987099868194798  
(Q7+Q27)/Q\$8=0.03907207566378646 (R7+R27)/R\$8=0.04173465306698942 (S7+S27)/S\$8=0.02922  
7683046851582 GARANTI GARANTI  
Stage 1 credit impairments C37=53.916 D37=379.957 E37=96.532 F37=7.40 G37=  
167.354 H37=153.12 I37=858.279 CoR (net) % of Stage 2 loans transferred to Stage 3 lo  
ans CoR: change from base (bps) % of Stage 2 loans transferred to Stage 3 loans  
CoR (gross) Stage 2 credit impairments C38=246.51 D38=748.876 E38=19.004 F38=  
588.762 G38=78.11 H38=70.684 I38=1751.946 Loan growth (ppt change from base) \$N\$5  
0=0.013768024443224555 AA43-0.05=-0.15000000000000002 AB43-0.05=-0.10 -0.05 0 0.05 AD43  
+0.05=0.10 0.20 0.30 0.40 0.50 0.60 \$N\$50=0.013768024443224555 AO43-0.05=-0  
.15000000000000002 AP43-0.05=-0.10 -0.05 0 0.05 AR43+0.05=0.10 0.20 0.30 0.40  
0.50 0.60

TRYm Akbank Garanti Halkbank Isbank Vakifbank Yapi Kredi Average Stage 3 cred  
it impairments (new) M28+C39=397.74 N28+D39=488.162 O28+E39=276.835 P28+F39=531.50 Q28+G39=1037  
.65 R28+H39=589.523 S28+I39=3321.4100000000003 0.20 (=TABLE(T27,T46))=-0.040833388995380  
62 (=TABLE(T27,T46))=-0.023397808096024694 (=TABLE(T27,T46))=-0.0059622271966687825 (=TA  
BLE(T27,T46))=0.01147335370268713 (=TABLE(T27,T46))=0.02890893460204304 (=TABLE(T27,T46))=0.  
04634451550139895 (=TABLE(T27,T46))=0.08121567730011078 (=TABLE(T27,T46))=0.1160868390988226  
1 (=TABLE(T27,T46))=0.15095800089753444 (=TABLE(T27,T46))=0.18582916269624625 (=TABLE(T27,  
T46))=0.22070032449495808 0.20 (Z44-\$AC\$48)\*10000=-546.0141343860519 (AA44-\$AC\$48)\*10000=-  
-371.65832539249254 (AB44-\$AC\$48)\*10000=-197.30251639893336 (AC44-\$AC\$48)\*10000=-22.946707405374  
25 (AD44-\$AC\$48)\*10000=151.40910158818485 (AE44-\$AC\$48)\*10000=325.76491058174395 (AF44-\$AC\$48  
)\*10000=674.4765285688622 (AG44-\$AC\$48)\*10000=1023.1881465559806 (AH44-\$AC\$48)\*10000=1371.899  
7645430989 (AI44-\$AC\$48)\*10000=1720.6113825302168 (AJ44-\$AC\$48)\*10000=2069.323000517335  
Stage 1 C37/C\$41\*4=0.0010832011970582677 D37/D\$41\*4=0.006910557220819518 E37/E\$41\*4=0.0017922  
083402650082 F37/F\$41\*4=1.1866424843093242E-4 G37/G\$41\*4=0.0033964737286702467 H37/  
H\$41\*4=0.0029892256760283235 I37/I\$41\*4=0.002669803300368691 Recoveries C49=253 D49=860 E49=  
188 F49=432 G49=446 H49=330 I49=2509 0.15 (=TABLE(T27,T46))=-0.042608753734310216 (=TA  
BLE(T27,T46))=-0.024415104100199682 (=TABLE(T27,T46))=-0.006221454466089164 (=TABLE(T27,T46))=0.  
011972195168021353 (=TABLE(T27,T46))=0.03016584480213187 (=TABLE(T27,T46))=0.0483594944362423  
85 (=TABLE(T27,T46))=0.08474679370446342 (=TABLE(T27,T46))=0.12113409297268446 (=TABLE(T27,  
T46))=0.1575213922409055 (=TABLE(T27,T46))=0.1939086915091265 (=TABLE(T27,T46))=0.23029599  
077734755 0.15 (Z45-\$AC\$48)\*10000=-563.7677817753477 (AA45-\$AC\$48)\*10000=-381.83128543424  
23 (AB45-\$AC\$48)\*10000=-199.8947890931372 (AC45-\$AC\$48)\*10000=-17.958292752032012 (AD45-\$AC\$48  
)\*10000=163.97820358907313 (AE45-\$AC\$48)\*10000=345.91469993017836 (AF45-\$AC\$48)\*10000=709.7876  
926123886 (AG45-\$AC\$48)\*10000=1073.660685294599 (AH45-\$AC\$48)\*10000=1437.5336779768095 (AI4  
5-\$AC\$48)\*10000=1801.4066706590195 (AJ45-\$AC\$48)\*10000=2165.27966334123  
Stage 2 C38/C\$41\*4=0.004952517380496208 D38/D\$41\*4=0.013620358222900059 E38/E\$41\*4=3.528273246011294  
E-4 F38/F\$41\*4=0.009441216247931435 G38/G\$41\*4=0.0015852537910443307 H38/H\$41\*4=0.0013799  
009122543496 I38/I\$41\*4=0.005449686189301761 Gross loans (base) C41=199098.746 D41=219928.4  
3 E41=215448.166 F41=249443.2855 G41=197091.47 H41=204895.8715 I41=1285905.969 0 0.10  
(=TABLE(T27,T46))=-0.04454551526768794 (=TABLE(T27,T46))=-0.025524881559299665 (=TABLE(T27,T46))=-0.  
006504247850911398 (=TABLE(T27,T46))=0.012516385857476867 (=TABLE(T27,T46))=0.0315370195658651  
3 (=TABLE(T27,T46))=0.05055765327425339 (=TABLE(T27,T46))=0.08859892069102993 (=TABLE(T27,  
T46))=0.12664018810780647 (=TABLE(T27,T46))=0.164681455524583 (=TABLE(T27,T46))=0.20272272  
29413595 (=TABLE(T27,T46))=0.24076399035813606 0.10 (Z46-\$AC\$48)\*10000=-583.135397109124  
9 (AA46-\$AC\$48)\*10000=-392.9296002524217 (AB46-\$AC\$48)\*10000=-202.72272294135954 (AC46-\$AC\$48  
)\*10000=-12.516385857476875 (AD46-\$AC\$48)\*10000=177.68995122640578 (AE46-\$AC\$48)\*10000=367.8962  
8831028836 (AF46-\$AC\$48)\*10000=748.3089624780537 (AG46-\$AC\$48)\*10000=1128.7216366458192 (AH4  
6-\$AC\$48)\*10000=1509.1343108135843 (AI46-\$AC\$48)\*10000=1889.5469849813496 (AJ46-\$AC\$48)\*10000=  
2269.959659149115  
Stage 3 C39/C\$41\*4=0.007990808741708499 D39/D\$41\*4=0.008878561084621938 E39/E\$41\*4=0.005139704925592  
172 F39/F\$41\*4=0.008522979465005484 G39/G\$41\*4=0.021059257409770195 H39/H\$41\*4=0.011508733595932  
899 I39/I\$41\*4=0.010331735228145598 Change in loan growth \$T\$46=0 \$T\$46=0 \$T\$46=0 \$T\$46=0 \$T\$4  
6=0 \$T\$46=0 \$T\$46=0 0.05 (=TABLE(T27,T46))=-0.046666730280435 (=TABLE(T27,T46))=-0.0267403  
5210974251 (=TABLE(T27,T46))=-0.0068139739390500375 (=TABLE(T27,T46))=0.0131124042316424  
34 (=TABLE(T27,T46))=0.033038782402334904 (=TABLE(T27,T46))=0.05296516057302737 (=TABLE(T27,  
T46))=0.09281791691441231 (=TABLE(T27,T46))=0.13267067325579726 (=TABLE(T27,T46))=0.17252342  
959718223 (=TABLE(T27,T46))=0.21237618593856714 (=TABLE(T27,T46))=0.2522289422799521 0.05  
(Z47-\$AC\$48)\*10000=-604.3475472365956 (AA47-\$AC\$48)\*10000=-405.0837655296706 (AB47-\$AC\$48)\*10000=  
-205.8199838227459 (AC47-\$AC\$48)\*10000=-6.556202115821208 (AD47-\$AC\$48)\*10000=192.707579591103  
5 (AE47-\$AC\$48)\*10000=391.97136129802817 (AF47-\$AC\$48)\*10000=790.4989247118775 (AG47-\$AC\$48  
)\*10000=1189.026488125727 (AH47-\$AC\$48)\*10000=1587.5540515395767 (AI47-\$AC\$48)\*10000=1986.081  
6149534257 (AJ47-\$AC\$48)\*10000=2384.609178367275  
Total SUM(C45:C47)=0.014026527319262974 SUM(D45:D47)=0.029409476528341517 SUM(E45:E47)  
=0.0072847405904583095 SUM(F45:F47)=0.018082859961367853 SUM(G45:G47)=0.02604098492948477  
SUM(H45:H47)=0.015877860184215574 SUM(I45:I47)=0.018451224717816052 Gross loans (new)  
M46\*(1+M47)=199098.746 N46\*(1+N47)=219928.43 O46\*(1+O47)=215448.166 P46\*(1+P47)=249443.2855 Q46\*(  
1+Q47)=197091.47 R46\*(1+R47)=204895.8715 S46\*(1+S47)=1285905.969 0 (=TABLE(T27,T46))=-0.  
.049000066794456745 (=TABLE(T27,T46))=-0.028077369715229634 (=TABLE(T27,T46))=-0.007154672636002  
539 (=TABLE(T27,T46))=0.013768024443224555 (=TABLE(T27,T46))=0.03469072152245165 (=TABLE(T27,  
T46))=0.05561341860167874 (=TABLE(T27,T46))=0.09745881276013293 (=TABLE(T27,T46))=0.13930420  
691858714 (=TABLE(T27,T46))=0.1811496010770413 (=TABLE(T27,T46))=0.22299499523549549 (=TA  
BLE(T27,T46))=0.26484038939394966 0 (Z48-\$AC\$48)\*10000=-627.680912376813 (AA48-\$AC\$48  
)\*10000=-418.4539415845419 (AB48-\$AC\$48)\*10000=-209.22697079227095 (AC48-\$AC\$48)\*10000=0 (AD4  
8-\$AC\$48)\*10000=209.22697079227098 (AE48-\$AC\$48)\*10000=418.4539415845419 (AF48-\$AC\$48)\*10000=  
836.9078831690838 (AG48-\$AC\$48)\*10000=1255.3618247536258 (AH48-\$AC\$48)\*10000=1673.81576633816  
76 (AI48-\$AC\$48)\*10000=2092.269707922709 (AJ48-\$AC\$48)\*10000=2510.723649507251  
Recoveries 253 860 188 432 446 330 SUM(C49:H49)=2509 CoR (net), B  
ase C57=0.008943622377209748 D57=0.013768024443224555 E57=0.0037943418836064724  
F57=0.011155433566480983 G57=0.01698935017329771 H57=0.009435563468637288 I57=0.010646  
610506557188 -0.05 (=TABLE(T27,T46))=-0.05157901767837552 (=TABLE(T27,T46))=-0.02955126016031  
19 (=TABLE(T27,T46))=-0.007531234353686883 (=TABLE(T27,T46))=0.014492657308657427 (=TABLE(T27,  
T46))=0.03651654897100173 (=TABLE(T27,T46))=0.05854044063334604 (=TABLE(T27,T46))=0.10258822  
395803466 (=TABLE(T27,T46))=0.14663600728272327 (=TABLE(T27,T46))=0.19068379060741192 (=TA  
BLE(T27,T46))=0.2347315739321005 (=TABLE(T27,T46))=0.27877935725678915 -0.05 (Z49-\$AC\$48)  
\*10000=-653.4704212160007 (AA49-\$AC\$48)\*10000=-433.2315045925575 (AB49-\$AC\$48)\*10000=-212.992  
58796911437 (AC49-\$AC\$48)\*10000=7.246328654328723 (AD49-\$AC\$48)\*10000=227.48524527777178 (AE4  
9-\$AC\$48)\*10000=447.7241619012148 (AF49-\$AC\$48)\*10000=888.201995148101 (AG49-\$AC\$48)\*10000=  
1328.6798283949872 (AH49-\$AC\$48)\*10000=1769.1576616418736 (AI49-\$AC\$48)\*10000=2209.63549488875  
97 (AJ49-\$AC\$48)\*10000=2650.113328135646

CoR (net), New (M42+M43+M44-M45)/M48\*4=0.008943622377209748 (N42+N43+N44-N45)/N48\*4=0.0137680244  
43224555 (O42+O43+O44-O45)/O48\*4=0.0037943418836064724 (P42+P43+P44-P45)/P48\*4=0.0111554335  
66480983 (Q42+Q43+Q44-Q45)/Q48\*4=0.01698935017329771 (R42+R43+R44-R45)/R48\*4=0.0094355634  
68637288 (S42+S43+S44-S45)/S48\*4=0.010646610506557188 -0.10 (=TABLE(T27,T46))=-0.0544445  
1866050749 (=TABLE(T27,T46))=-0.031197077461366258 (=TABLE(T27,T46))=-0.007949636262225043 (=TA  
BLE(T27,T46))=0.015297804936916171 (=TABLE(T27,T46))=0.038545246136057386 (=TABLE(T27,T46))=0.  
0617926873351986 (=TABLE(T27,T46))=0.10828756973348103 (=TABLE(T27,T46))=0.1547824521317634  
8 (=TABLE(T27,T46))=0.2012773345300459 (=TABLE(T27,T46))=0.24777221692832832 (=TABLE(T27,  
T46))=0.29426709932661077 -0.10 (Z50-\$AC\$48)\*10000=-682.1254310373205 (AA50-\$AC\$48)\*10000=  
-449.65101904590813 (AB50-\$AC\$48)\*10000=-217.17660705449597 (AC50-\$AC\$48)\*10000=15.2978049369161  
67 (AD50-\$AC\$48)\*10000=247.7722169283283 (AE50-\$AC\$48)\*10000=480.2466289197405 (AF50-\$AC\$48  
)\*10000=945.1954529025646 (AG50-\$AC\$48)\*10000=1410.1442768853892 (AH50-\$AC\$48)\*10000=1875.093  
1008682135 (AI50-\$AC\$48)\*10000=2340.0419248510375 (AJ50-\$AC\$48)\*10000=2804.990748833862  
CoR (net) Change in CoR from base (bps) (M50-M49)\*100=0 (N50-N49)\*100=0 (O50-O49)\*100=0 (P50  
-P49)\*100=0 (Q50-Q49)\*100=0 (R50-R49)\*100=0 (S50-S49)\*100=0 -0.15 (=TABLE(T27,T46))=-0.0576471  
3740524323 (=TABLE(T27,T46))=-0.03303219966497604 (=TABLE(T27,T46))=-0.008417261924708869 (=TA  
BLE(T27,T46))=0.0161976758155583 (=TABLE(T27,T46))=0.04081261355582547 (=TABLE(T27,T46))=0.  
06542755129609264 (=TABLE(T27,T46))=0.11465742677662696 (=TABLE(T27,T46))=0.1638873022571613  
(=TABLE(T27,T46))=0.2131171773769567 (=TABLE(T27,T46))=0.26234705321823 (=TABLE(T27,T46))=0.  
3115769286987643 -0.15 (Z51-\$AC\$48)\*10000=-714.1516184846779 (AA51-\$AC\$48)\*10000=-468.002  
24108200587 (AB51-\$AC\$48)\*10000=-221.85286367933426 (AC51-\$AC\$48)\*10000=24.29651372333745 (AD5  
1-\$AC\$48)\*10000=270.44589112600914 (AE51-\$AC\$48)\*10000=516.5952685286808 (AF51-\$AC\$48)\*10000=  
1008.894023334024 (AG51-\$AC\$48)\*10000=1501.1927781393674 (AH51-\$AC\$48)\*10000=1993.49153294471  
13 (AI51-\$AC\$48)\*10000=2485.790287750054 (AJ51-\$AC\$48)\*10000=2978.0890425553976  
-0.20 (=TABLE(T27,T46))=-0.06125008349307093 (=TABLE(T27,T46))=-0.03509671214403704 (=TABLE(T27,  
T46))=-0.008943340795003174 (=TABLE(T27,T46))=0.017210030554030694 (=TABLE(T27,T46))=0.04336340  
1903064556 (=TABLE(T27,T46))=0.06951677325209842 (=TABLE(T27,T46))=0.12182351595016615 (=TA  
BLE(T27,T46))=0.1741302586482339 (=TABLE(T27,T46))=0.22643700134630163 (=TABLE(T27,T46))=0.  
27874374404436936 (=TABLE(T27,T46))=0.3310504867424371 -0.20 (Z52-\$AC\$48)\*10000=-750.1810  
793629548 (AA52-\$AC\$48)\*10000=-488.6473658726159 (AB52-\$AC\$48)\*10000=-227.11365238227725 (AC5  
2-\$AC\$48)\*10000=34.4200611080614 (AD52-\$AC\$48)\*10000=295.9537745984 (AE52-\$AC\$48)\*10000=  
557.4874880887386 (AF52-\$AC\$48)\*10000=1080.554915069416 (AG52-\$AC\$48)\*10000=1603.62234205009  
33 (AH52-\$AC\$48)\*10000=2126.6897690307705 (AI52-\$AC\$48)\*10000=2649.757196011448 (AJ52-\$AC\$48  
)\*10000=3172.824622992125  
TRYm Akbank Garanti Halkbank Isbank Vakifbank Yapi Kredi Average Tier 1 & CAR  
impact Akbank Garanti Halkbank Isbank Vakifbank Yapi Kredi Total -0.25 (=TA  
BLE(T27,T46))=-0.06533342239260899 (=TABLE(T27,T46))=-0.03743649295363951 (=TABLE(T27,T46))=-0.  
.00953956351467005 (=TABLE(T27,T46))=0.018357365924299405 (=TABLE(T27,T46))=0.0462542953632688  
6 (=TABLE(T27,T46))=0.07415122480223832 (=TABLE(T27,T46))=0.12994508368017724 (=TABLE(T27,  
T46))=0.18573894255811615 (=TABLE(T27,T46))=0.24153280143605507 (=TABLE(T27,T46))=0.29732666  
031399396 (=TABLE(T27,T46))=0.3531205191919329 -0.25 (Z53-\$AC\$48)\*10000=-791.014468358335  
4 (AA53-\$AC\$48)\*10000=-512.0451739686406 (AB53-\$AC\$48)\*10000=-233.07587957894606 (AC53-\$AC\$48  
)\*10000=45.8934148107485 (AD53-\$AC\$48)\*10000=324.862709200443 (AE53-\$AC\$48)\*10000=603.8320  
035901376 (AF53-\$AC\$48)\*10000=1161.7705923695269 (AG53-\$AC\$48)\*10000=1719.709181148916 (AH5  
3-\$AC\$48)\*10000=2277.647769928305 (AI53-\$AC\$48)\*10000=2835.586358707694 (AJ53-\$AC\$48)\*10000=  
3393.5249474870834  
SUM(M55:R55)=1674676.3345584  
502  
Stage 1 Base Case (2018E)  
Stage 2 Total RWAs 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[AKBANK MO  
DEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$585=302875.679288 'R:\Bank models\Turk  
ish Bank Model with 2020 Estimates\Higher RFR\[GARANTI MODEL- Higher RFR and Lower NIM.xlsx]Forecast  
(TRY)'!\$BK\$585=291738.2124657 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[H  
ALKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$585=234881.86808775 'R:\Bank mod  
els\Turkish Bank Model with 2020 Estimates\Higher RFR\[ISBANK MODEL- Higher RFR and Lower NIM.xlsx]F  
orecast (TRY)'!\$BK\$585=344418.17760000005 'R:\Bank models\Turkish Bank Model with 2020 Estim  
ates\Higher RFR\[VAKIFBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$585=218144.9068410  
0002 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[YAPI KREDI MODEL- Higher  
RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$590=282617.49027600006 SUM(M55:R55)=1674676.3345584  
502  
Stage 3 (C39-C49)/C41\*4=0.0029079037996552724 (D39-D49)/D41\*4=-0.006762891000495025 (E39-E49)/E4  
1\*4=0.0016493062187403346 (F39-F49)/F41\*4=0.0015955530701186181 (G39-G49)/G41\*4=0.0120076226  
53583133 (H39-H49)/H41\*4=0.005066436880354615 (I39-I49)/I41\*4=0.002527121016886734 Shar  
eholders equity 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[AKBANK MODEL- Hig  
her RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$112=45023.093839641784 'R:\Bank models\Turkish Bank  
Model with 2020 Estimates\Higher RFR\[GARANTI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!  
\$BK\$112=46285.562756758685 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[H  
ALKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$112=28589.813364406662 'R:\Bank mod  
els\Turkish Bank Model with 2020 Estimates\Higher RFR\[ISBANK MODEL- Higher RFR and Lower NIM.xlsx]F  
orecast (TRY)'!\$BK\$112=47900.06103707109 'R:\Bank models\Turkish Bank Model with 2020 Estim  
ates\Higher RFR\[VAKIFBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$112=26437.01735411  
7375 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[YAPI KREDI MODEL- Higher  
RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$112=37708.092663756914 SUM(M56:R56)=231943.64101575  
254  
Total (C40-C49)/C41\*4=0.008943622377209748 (D40-D49)/D41\*4=0.013768024443224555 (E40-E49)/E4  
1\*4=0.0037943418836064724 (F40-F49)/F41\*4=0.011155433566480983 (G40-G49)/G41\*4=0.0169893501  
7329771 (H40-H49)/H41\*4=0.009435563468637288 (I40-I49)/I41\*4=0.010646610506557188 Tier 1 Capit  
al 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[AKBANK MODEL- Higher RFR  
and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$574=44122.63196284895 'R:\Bank models\Turkish Bank Model w  
ith 2020 Estimates\Higher RFR\[GARANTI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$574=  
45591.27931540731 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[HALKBANK

MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)!\$BK\$574=28018.01709711853 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[ISBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)!\$BK\$574=46942.05981632967 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[VAKIFBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)!\$BK\$574=25908.277007035027 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[YAPI KREDI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)!\$BK\$557=33560.20247074365 SUM(M57:R57)=224142.46766948313 HALK BANK HALKBANK

Tier 2 Capital 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[AKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)!\$BK\$575=6078.117668351641 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[GARANTI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)!\$BK\$575=7161.802715988953 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[HALKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)!\$BK\$575=3144.879470084733 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[ISBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)!\$BK\$575=8622.010986672796 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[VAKIFBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)!\$BK\$575=6212.699078217583 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[YAPI KREDI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)!\$BK\$565=9992.644555895582 SUM(M58:R58)=41212.15447521128 CoR (net) % of Stage 2 loans transferred to Stage 3 loans CoR: change from base (bps) % of Stage 2 loans transferred to Stage 3 loans

Deductions 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[AKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)!\$BK\$577=7.262812189425495 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[GARANTI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)!\$BK\$577=34.58045124650766 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[HALKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)!\$BK\$577=20.012869355084664 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[ISBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)!\$BK\$577=47.9000610370711 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[VAKIFBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)!\$BK\$577=2.643701735411738 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[YAPI KREDI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)!\$BK\$572=301.6647413100553 SUM(M59:R59)=414.06463687359906 Loan growth (ppt change from base) \$O\$50=0.0037943418836064724 AA59-0.05=-0.15000000000000002 AB59-0.05=-0.10 -0.05 0 0.05 AD59+0.05=0.10 0.20 0.30 0.40 0.50 0.60 \$O\$50=0.0037943418836064724 AO59-0.05=-0.15000000000000002 AP59-0.05=-0.10 -0.05 0 0.05 AR59+0.05=0.10 0.20 0.30 0.40 0.50 0.60

Capital base M57+M58-M59=50193.48681901117 N57+N58-N59=52718.501580149714 O57+O58-O59=31142.88 3697848178 P57+P58-P59=55516.17074196539 Q57+Q58-Q59=32118.332383517198 R57+R58-R59=43251.18 2285329174 S57+S58-S59=264940.55750782083 0.20 (=TABLE(T27,T46))=-0.008358934618795194 (=TABLE(T27,T46))=-0.004518639222639442 (=TABLE(T27,T46))=-6.783438264836909E-4 (=TABLE(T27,T46))=0.0031619515696720605 (=TABLE(T27,T46))=0.007002246965827811 (=TABLE(T27,T46))=0.010842542361983565 (=TABLE(T27,T46))=0.018523133154295067 (=TABLE(T27,T46))=0.02620372394660657 (=TABLE(T27,T46))=0.03388431473891807 (=TABLE(T27,T46))=0.04156490553122957 (=TABLE(T27,T46))=0.049245496323541076 0.20 (Z60-\$AC\$64)\*10000=-121.53276502401667 (AA60-\$AC\$64)\*10000=-83.12981106245915 (AB60-\$AC\$64)\*10000=-44.72685710090163 (AC60-\$AC\$64)\*10000=-6.323903139344119 (AD60-\$AC\$64)\*10000=32.07905082221339 (AE60-\$AC\$64)\*10000=70.48200478377092 (AF60-\$AC\$64)\*10000=147.28791270688595 (AG60-\$AC\$64)\*10000=224.09382063000098 (AH60-\$AC\$64)\*10000=300.899728553116 (AI60-\$AC\$64)\*10000=377.705636476231 (AJ60-\$AC\$64)\*10000=454.511544399346

Tier 1 capital ratio (base) M57/M55=0.1456790194134188 N57/N55=0.15627462350605692 O57/O55=0.11928556821019161 P57/P55=0.13629379303797134 Q57/Q55=0.11876636214990284 R57/R55=0.11874779030119209 S57/S55=0.13384226136364502 0.15 (=TABLE(T27,T46))=-0.008722366558742811 (=TABLE(T27,T46))=-0.004715101797536809 (=TABLE(T27,T46))=-7.078370363308079E-4 (=TABLE(T27,T46))=0.003299427724875194 (=TABLE(T27,T46))=0.007306692486081195 (=TABLE(T27,T46))=0.011313957247287197 (=TABLE(T27,T46))=0.0193284867696992 (=TABLE(T27,T46))=0.027343016292111205 (=TABLE(T27,T46))=0.0353575458145232 (=TABLE(T27,T46))=0.043372075333693521 (=TABLE(T27,T46))=0.05138660485934721 0.15 (Z61-\$AC\$64)\*10000=-125.16708442349284 (AA61-\$AC\$64)\*10000=-85.09443681143283 (AB61-\$AC\$64)\*10000=-45.0217891993728 (AC61-\$AC\$64)\*10000=-4.949141587312785 (AD61-\$AC\$64)\*10000=35.12350602474723 (AE61-\$AC\$64)\*10000=75.19615363680725 (AF61-\$AC\$64)\*10000=155.3414886092727 (AG61-\$AC\$64)\*10000=235.48674408504732 (AH61-\$AC\$64)\*10000=315.6320393091673 (AI61-\$AC\$64)\*10000=395.7773345332874 (AJ61-\$AC\$64)\*10000=475.9226297574073

CAR (base) M60/M55=0.165723068081947 N60/N55=0.18070482140335967 O60/O55=0.13258956066465483 P60/P55=0.16118827156225388 Q60/Q55=0.1472339320162418 R60/R55=0.15303788255670486 S60/S55=0.15820403742534273 0.10 (=TABLE(T27,T46))=-0.009118837765958392 (=TABLE(T27,T46))=-0.004929424606515754 (=TABLE(T27,T46))=-7.400114470731173E-4 (=TABLE(T27,T46))=0.00344940171236952 (=TABLE(T27,T46))=0.007638814871812157 (=TABLE(T27,T46))=0.011828228031254795 (=TABLE(T27,T46))=0.02020705435014007 (=TABLE(T27,T46))=0.028585880669025343 (=TABLE(T27,T46))=0.036964706987910614 (=TABLE(T27,T46))=0.04534353330679589 (=TABLE(T27,T46))=0.053722359625681164 0.10 (Z62-\$AC\$64)\*10000=-129.13179649564864 (AA62-\$AC\$64)\*10000=-87.23766490122226 (AB62-\$AC\$64)\*10000=-45.3435330679589 (AC62-\$AC\$64)\*10000=-3.4494017123695233 (AD62-\$AC\$64)\*10000=38.44472988205685 (AE62-\$AC\$64)\*10000=80.33886147648323 (AF62-\$AC\$64)\*10000=164.12712466533597 (AG62-\$AC\$64)\*10000=247.9153878541887 (AH62-\$AC\$64)\*10000=331.7036510430414 (AI62-\$AC\$64)\*10000=415.4919142318942 (AJ62-\$AC\$64)\*10000=499.2801774207469

Tier 1 capital threshold (2018) 0.09375 0.09375 0.08875000000000001 0.09375 0.08875000000000001 0.09125 AVERAGE(M63:R63)=0.09166666666666667 0.05 (=TABLE(T27,T46))=-0.009553068135765935 (=TABLE(T27,T46))=-0.005164159111587934 (=TABLE(T27,T46))=-7.752500874099324E-4 (=TABLE(T27,T46))=0.0036136589367680686 (=TABLE(T27,T46))=0.00800256796094607 (=TABLE(T27,T46))=0.012391476985124073 (=TABLE(T27,T46))=0.021169295033480074 (=TABLE(T27,T46))=0.029947113081836074 (=TABLE(T27,T46))=0.038724931130192077 (=TABLE(T27,T46))=0.04750274917854808 (=TABLE(T27,T46))=0.056280567226904075 0.05 (Z63-\$AC\$64)\*10000=-133.47410019372407 (AA63-\$AC\$64)\*10000=-89.58500995194407 (AB63-\$AC\$64)\*10000=-45.69591971016405 (AC63-\$AC\$64)\*10000=-1.8068294683840385 (AD63-\$AC\$64)\*10000=42.08226077339597 (AE63-\$AC\$64)\*10000=85.971351015176 (AF63-\$AC\$64)\*10000=173.74953149873602 (AG63-\$AC\$64)\*10000=261.527711982296 (AH63-\$AC\$64)\*10000=349.30589246585606 (AI63-\$AC\$64)\*10000=439.30589246585606

3-\$AC\$64)\*10000=437.0840729494161 (AJ63-\$AC\$64)\*10000=524.862253432976  
 CAR threshold (2018) 0.12 0.12 0.12 0.12 0.12 0.12 0.12 AVERAGE(M64:R64)=0.12 0  
 (=TABLE(T27,T46))=-0.010030721542554232 (=TABLE(T27,T46))=-0.005422367067167331 (=TABLE(T27,T46))=-8  
 .14012591780429E-4 (=TABLE(T27,T46))=0.0037943418836064724 (=TABLE(T27,T46))=0.0084026963589933  
 73 (=TABLE(T27,T46))=0.013011050834380276 (=TABLE(T27,T46))=0.022227759785154077 (=TABLE(T27,T46))=0.03144446873592788  
 (=TABLE(T27,T46))=0.04066117768670168 (=TABLE(T27,T46))=0.04987788  
 6637475485 (=TABLE(T27,T46))=0.05909459558824928 0 (Z64-\$AC\$64)\*10000=-138.250634261607  
 05 (AA64-\$AC\$64)\*10000=-92.16708950773804 (AB64-\$AC\$64)\*10000=-46.08354475386901 (AC64-\$AC\$64  
 )\*10000=0 (AD64-\$AC\$64)\*10000=46.083544753869 (AE64-\$AC\$64)\*10000=92.16708950773804 (AF6  
 4-\$AC\$64)\*10000=184.33417901547605 (AG64-\$AC\$64)\*10000=276.50126852321404 (AH64-\$AC\$64)\*10000=368.6683580309521  
 (AI64-\$AC\$64)\*10000=460.8354475386901 (AJ64-\$AC\$64)\*10000=553.002537046428  
 1  
 Tier 1 capital headroom M61-M63=0.05192901941341879 N61-N63=0.06252462350605692 O61-O63=0.03  
 05355682101916 P61-P63=0.042543793037971345 Q61-Q63=0.03001636214990283 R61-R63=0.0274977903  
 01192093 S61-S63=0.04217559469697835 -0.05 (=TABLE(T27,T46))=-0.010558654255320245 (=TA  
 BLE(T27,T46))=-0.005707754807544559 (=TABLE(T27,T46))=-8.568553597688728E-4 (=TABLE(T27,T46))=0.  
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 T46))=0.0428012396702123 (=TABLE(T27,T46))=0.052503038565763674 (=TABLE(T27,T46))=0.06220483  
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 3 (AB65-\$AC\$64)\*10000=-46.51197243375345 (AC65-\$AC\$64)\*10000=1.9970220440034079 (AD65-\$AC\$64  
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 9995503085 (AG65-\$AC\$64)\*10000=293.05098891054456 (AH65-\$AC\$64)\*10000=390.0689778660583 (AI6  
 5-\$AC\$64)\*10000=487.086966821572 (AJ65-\$AC\$64)\*10000=584.1049557770857  
 CAR headroom M62-M64=0.04572306808194701 N62-N64=0.06070482140335967 O62-O64=0.0125895606  
 6465483 P62-P64=0.04118827156225388 Q62-Q64=0.027233932016241802 R62-R64=0.03303788255670487  
 S62-S64=0.03820403742534273 -0.10 (=TABLE(T27,T46))=-0.011145246158393591 (=TABLE(T27,T46))=-0  
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 6318557424 (=TABLE(T27,T46))=0.05541987404163943 (=TABLE(T27,T46))=0.06566066176472142 -0.1  
 0 (Z66-\$AC\$64)\*10000=-149.39588042000062 (AA66-\$AC\$64)\*10000=-98.19194180459061 (AB66-\$AC\$64  
 )\*10000=-46.988003189180596 (AC66-\$AC\$64)\*10000=4.21593542622941 (AD66-\$AC\$64)\*10000=55.41987  
 404163942 (AE66-\$AC\$64)\*10000=106.62381265704944 (AF66-\$AC\$64)\*10000=209.03168988786948 (AG6  
 6-\$AC\$64)\*10000=311.43956711868947 (AH66-\$AC\$64)\*10000=413.8474443495095 (AI66-\$AC\$64)\*10000=516.2553215803296  
 (AJ66-\$AC\$64)\*10000=618.663198811495  
 Stage 1 Impact of weaker asset quality (2018E) -0.15 (=TABLE(T27,T46))=-0.011800848873593214 (=TA  
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 79 (=TABLE(T27,T46))=0.026150305629593033 (=TABLE(T27,T46))=0.03699349263050339 (=TABLE(T27,  
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 507 (AB67-\$AC\$64)\*10000=-47.5200375628933 (AC67-\$AC\$64)\*10000=6.695897441658478 (AD67-\$AC\$64  
 )\*10000=60.91183244621025 (AE67-\$AC\$64)\*10000=115.12776745076206 (AF67-\$AC\$64)\*10000=223.5596  
 374598656 (AG67-\$AC\$64)\*10000=331.99150746896913 (AH67-\$AC\$64)\*10000=440.42337747807267 (AI6  
 7-\$AC\$64)\*10000=548.8552474871764 (AJ67-\$AC\$64)\*10000=657.2871174962798  
 Tier 1 capital (TRYm) M57-(M\$28\*0.8)=44122.63196284895 N57-(N\$28\*0.8)=45591.27931540731  
 O57-(O\$28\*0.8)=28018.01709711853 P57-(P\$28\*0.8)=46942.05981632967 Q57-(Q\$28\*0.8)=25908  
 .277007035027 R57-(R\$28\*0.8)=33560.20247074365 S57-(S\$28\*0.8)=224142.46766948313 -0.2  
 0 (=TABLE(T27,T46))=-0.01253840192819279 (=TABLE(T27,T46))=-0.006777958833959163 (=TABLE(T27,  
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 8-\$AC\$64)\*10000=9.485854709016172 (AD68-\$AC\$64)\*10000=67.09028565135243 (AE68-\$AC\$64)\*10000=124.69471659368871  
 (AF68-\$AC\$64)\*10000=239.9035784783612 (AG68-\$AC\$64)\*10000=355.112440363033  
 7 (AH68-\$AC\$64)\*10000=470.3213022477062 (AI68-\$AC\$64)\*10000=585.5301641323788 (AJ68-\$AC\$64  
 )\*10000=700.7390260170513  
 Capital base (TRYm) M60-(M\$28\*0.8)=50193.48681901117 N60-(N\$28\*0.8)=52718.501580149714  
 O60-(O\$28\*0.8)=31142.883697848178 P60-(P\$28\*0.8)=55516.17074196539 Q60-(Q\$28\*0.8)=32118  
 .332383517198 R60-(R\$28\*0.8)=43251.182285329174 S60-(S\$28\*0.8)=264940.55750782083 -0.2  
 5 (=TABLE(T27,T46))=-0.013374295390072309 (=TABLE(T27,T46))=-0.007229822756223107 (=TABLE(T27,  
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 727367878 (AA69-\$AC\$64)\*10000=-110.2416463982958 (AB69-\$AC\$64)\*10000=-48.796920059803774 (AC6  
 9-\$AC\$64)\*10000=12.647806278688238 (AD69-\$AC\$64)\*10000=74.09253261718025 (AE69-\$AC\$64)\*10000=135.53725895567226  
 (AF69-\$AC\$64)\*10000=258.4267116326563 (AG69-\$AC\$64)\*10000=381.316164309640  
 3 (AH69-\$AC\$64)\*10000=504.20561698662436 (AI69-\$AC\$64)\*10000=627.0950696636083 (AJ69-\$AC\$64  
 )\*10000=749.9845223405923  
 Tier 1 capital ratio (new) M68/M55=0.1456790194134188 N68/N55=0.15627462350605692 O68/  
 O55=0.11928556821019161 P68/P55=0.13629379303797134 Q68/Q55=0.11876636214990284 R68/R55=0.11  
 874779030119209 S68/S55=0.13384226136364502  
 CAR (new) M69/M55=0.165723068081947 N69/N55=0.18070482140335967 O69/O55=0.1325895606  
 6465483 P69/P55=0.16118827156225388 Q69/Q55=0.1472339320162418 R69/R55=0.15303788255670486  
 S69/S55=0.15820403742534273  
 Tier 1 capital ratio -chg. from base (bps) (M70-M61)\*100=0 (N70-N61)\*100=0 (O70-O61)\*100=0 (P70

-P61)\*100=0 (Q70-Q61)\*100=0 (R70-R61)\*100=0 (S70-S61)\*100=0  
 CoR (net) CAR - chg. from base (bps) (M71-M62)\*100=0 (N71-N62)\*100=0 (O71-O62)\*100=0 (P71  
 -P62)\*100=0 (Q71-Q62)\*100=0 (R71-R62)\*100=0 (S71-S62)\*100=0 ISBANK ISBANK  
 Tier 1 capital headroom M70-M63=0.05192901941341879 N70-N63=0.06252462350605692 O70-O63=0.03  
 05355682101916 P70-P63=0.042543793037971345 Q70-Q63=0.03001636214990283 R70-R63=0.0274977903  
 01192093 S70-S63=0.04217559469697835 CoR (net) % of Stage 2 loans transferred to St  
 age 3 loans CoR: change from base (bps) % of Stage 2 loans transferred to Stage 3 loans  
 CAR headroom M71-M64=0.04572306808194701 N71-N64=0.06070482140335967 O71-O64=0.0125895606  
 6465483 P71-P64=0.04118827156225388 Q71-Q64=0.027233932016241802 R71-R64=0.03303788255670487  
 S71-S64=0.03820403742534273 Loan growth (ppt change from base) SP\$50=0.01155433566480983  
 AA75-0.05=-0.15000000000000002 AB75-0.05=-0.10 -0.05 0 0.05 AD75+0.05=0.10 0.20 0.30  
 0.40 0.50 0.60 SP\$50=0.01155433566480983 AO75-0.05=-0.15000000000000002 AP75-0.05=-0  
 .10 -0.05 0 0.05 AR75+0.05=0.10 0.20 0.30 0.40 0.50 0.60  
 0.20 (=TABLE(T27,T46))=-0.01681684298800927 (=TABLE(T27,T46))=-0.008112497112428122 (=TABLE(T27,  
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 155.49452823415444 (AF76-\$AC\$80)\*10000=329.5814457457773 (AG76-\$AC\$80)\*10000=503.6683632574  
 (AH76-\$AC\$80)\*10000=677.7552807690229 (AI76-\$AC\$80)\*10000=851.8421982806457 (AJ76-\$AC\$80)\*10000=  
 1025.9291157922685  
 TRYm Akbank Garanti Halkbank Isbank Vakifbank Yapi Kredi Average Valuation  
 Akbank Garanti Halkbank Isbank Vakifbank Yapi Kredi Total 0.15 (=TABLE(T27,  
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 (=TABLE(T27,T46))=0.11869392536943427 0.15 (Z77-\$AC\$80)\*10000=-287.0344364092544 (AA77-\$AC\$80  
 )\*10000=-196.2064794466685 (AB77-\$AC\$80)\*10000=-105.3785224840827 (AC77-\$AC\$80)\*10000=-14.5505  
 6552149692 (AD77-\$AC\$80)\*10000=76.2773914410889 (AE77-\$AC\$80)\*10000=167.1053484036747 (AF7  
 7-\$AC\$80)\*10000=348.7612623288463 (AG77-\$AC\$80)\*10000=530.417176254018 (AH77-\$AC\$80)\*10000=  
 712.0730901791896 (AI77-\$AC\$80)\*10000=893.7290041043613 (AJ77-\$AC\$80)\*10000=1075.38491802953  
 29  
 Net profit (base) M30=6405.467516045113 N30=7118.518599790241 O30=3809.28613779219 P30=  
 6242.064735470831 Q30=3822.804240772133 R30=3853.9025619301465 S30=31252.043791800654 0.10  
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 5 (=TABLE(T27,T46))=0.029132603334432468 (=TABLE(T27,T46))=0.04812390342660949 (=TABLE(T27,  
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 370314059 (=TABLE(T27,T46))=0.12408910379531761 0.10 (Z78-\$AC\$80)\*10000=-295.010804624910  
 9 (AA78-\$AC\$80)\*10000=-200.0543041640257 (AB78-\$AC\$80)\*10000=-105.09780370314057 (AC78-\$AC\$80  
 )\*10000=-10.14130324255443 (AD78-\$AC\$80)\*10000=84.81519721862969 (AE78-\$AC\$80)\*10000=179.7716  
 9767951486 (AF78-\$AC\$80)\*10000=369.68469860128516 (AG78-\$AC\$80)\*10000=559.5976995230554 (AH7  
 8-\$AC\$80)\*10000=749.5107004448258 (AI78-\$AC\$80)\*10000=939.4237013665961 (AJ78-\$AC\$80)\*10000=  
 1129.33670228836663  
 Net profit (new) M31=6405.467516045113 N31=7118.518599790241 O31=3809.28613779219 P31=  
 6242.064735470831 Q31=3822.804240772133 R31=3853.9025619301465 S31=31252.043791800654 0.05  
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 102233776 (=TABLE(T27,T46))=0.12999810873795178 0.05 (Z79-\$AC\$80)\*10000=-303.746826956344  
 3 (AA79-\$AC\$80)\*10000=-204.2685883782741 (AB79-\$AC\$80)\*10000=-104.79034980020393 (AC79-\$AC\$80  
 )\*10000=-5.312111222133802 (AD79-\$AC\$80)\*10000=94.16612735593635 (AE79-\$AC\$80)\*10000=193.6443  
 6593400652 (AF79-\$AC\$80)\*10000=392.6008430901468 (AG79-\$AC\$80)\*10000=591.5573202462872 (AH7  
 9-\$AC\$80)\*10000=790.5137974024275 (AI79-\$AC\$80)\*10000=989.4702745585678 (AJ79-\$AC\$80)\*10000=  
 1188.426751714708  
 Book value (base) M56=45023.093839641784 N56=46285.562756758685 O56=28589.813364406662 P56=  
 47900.06103707109 Q56=26437.017354117375 R56=37708.092663756914 S56=231943.64101575254 0  
 (=TABLE(T27,T46))=-0.020180211585611122 (=TABLE(T27,T46))=-0.009734996534913748 (=TABLE(T27,T46))=7.  
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 407345466 (=TABLE(T27,T46))=0.13649801417484939 0 (Z80-\$AC\$80)\*10000=-313.356451520921  
 04 (AA80-\$AC\$80)\*10000=-208.9043010139473 (AB80-\$AC\$80)\*10000=-104.45215050697364 (AC80-\$AC\$80  
 )\*10000=0 (AD80-\$AC\$80)\*10000=104.45215050697367 (AE80-\$AC\$80)\*10000=208.9043010139473 (AF8  
 0-\$AC\$80)\*10000=417.80860202789466 (AG80-\$AC\$80)\*10000=626.7129030418421 (AH80-\$AC\$80)\*10000=  
 835.6172040557896 (AI80-\$AC\$80)\*10000=1044.5215050697368 (AJ80-\$AC\$80)\*10000=1253.42580608368  
 4  
 Book value (new) M56-(M28\*0.8)=45023.093839641784 N56-(N28\*0.8)=46285.562756758685  
 O56-(O28\*0.8)=28589.813364406662 P56-(P28\*0.8)=47900.06103707109 Q56-(Q28\*0.8)=26437.01735411  
 7375 R56-(R28\*0.8)=37708.092663756914 S56-(S28\*0.8)=231943.64101575254 -0.05 (=TA  
 BLE(T27,T46))=-0.021242327984853815 (=TABLE(T27,T46))=-0.010247364773593419 (=TABLE(T27,T46))=7.  
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 376153123 (=TABLE(T27,T46))=0.143682120184052 -0.05 (Z81-\$AC\$80)\*10000=-323.977615513247

9 (AA81-\$ACS80)\*10000=-214.027983400744 (AB81-\$ACS80)\*10000=-104.07835128814015 (AC81-\$ACS80)\*10000=5.8712808244636845 (AD81-\$ACS80)\*10000=115.82091293706756 (AE81-\$ACS80)\*10000=225.7705450496714 (AF81-\$ACS80)\*10000=445.6698092748791 (AG81-\$ACS80)\*10000=665.569073500087 (AH81-\$ACS80)\*10000=885.4683377252948 (AI81-\$ACS80)\*10000=1105.3676019505026 (AJ81-\$ACS80)\*10000=1325.26686617571

Price (TRY/shr) 6.60 7 6.40 4.94 4.06 2.2 -0.10 (=TABLE(T27,T46))=-0.0224224  
57317345695 (=TABLE(T27,T46))=-0.010816662816570831 (=TABLE(T27,T46))=7.89131684204021E-4 (=TABLE(T27,T46))=0.012394926184978871 (=TABLE(T27,T46))=0.024000720685753724 (=TABLE(T27,T46))=0.035606515186528576 (=TABLE(T27,T46))=0.05881810418807828 (=TABLE(T27,T46))=0.082029693189628 (=TABLE(T27,T46))=0.10524128219117769 (=TABLE(T27,T46))=0.1284528711927274 (=TABLE(T27,T46))=0.1516644601942771 -0.10 (Z82-\$ACS80)\*10000=-335.7789088382668 (AA82-\$ACS80)\*10000=-219.72096383051817 (AB82-\$ACS80)\*10000=-103.66301882276962 (AC82-\$ACS80)\*10000=12.394926184978884 (AD82-\$ACS80)\*10000=128.4528711927274 (AE82-\$ACS80)\*10000=244.51081620047592 (AF82-\$ACS80)\*10000=476.62670621597294 (AG82-\$ACS80)\*10000=708.7425962314702 (AH82-\$ACS80)\*10000=940.8584862469671 (AI82-\$ACS80)\*10000=1172.9743762624644 (AJ82-\$ACS80)\*10000=1405.090266277961

Paid-in cap (TRYm) 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[AKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$113=4000 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[GARANTI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$113=4200 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[HALKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$113=1250 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[ISBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$113=4500 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[VAKIFBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$113=2500 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[YAPI KREDI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$113=8447.051 -0.15 (=TABLE(T27,T46))=-0.023741425394836615 (=TABLE(T27,T46))=-0.011452937099898527 (=TABLE(T27,T46))=8.355511950395516E-4 (=TABLE(T27,T46))=0.013124039489977627 (=TABLE(T27,T46))=0.025412527784915706 (=TABLE(T27,T46))=0.03770101607985378 (=TABLE(T27,T46))=0.06227799266972994 (=TABLE(T27,T46))=0.0868549692596061 (=TABLE(T27,T46))=0.11143194584948227 (=TABLE(T27,T46))=0.13600892243935842 (=TABLE(T27,T46))=0.16058589902923456 -0.15 (Z83-\$ACS80)\*10000=-348.968589613176 (AA83-\$ACS80)\*10000=-226.08370666379508 (AB83-\$ACS80)\*10000=-103.19882371441432 (AC83-\$ACS80)\*10000=19.686059234966436 (AD83-\$ACS80)\*10000=142.57094218434722 (AE83-\$ACS80)\*10000=265.45582513372796 (AF83-\$ACS80)\*10000=511.2255910324896 (AG83-\$ACS80)\*10000=756.9953569312512 (AH83-\$ACS80)\*10000=1002.7651228300128 (AI83-\$ACS80)\*10000=1248.5348887287744 (AJ83-\$ACS80)\*10000=1494.3046546275357

M.Cap (TRYm) M82\*M83=26400 N82\*N83=29400 O82\*O83=8000 P82\*P83=22230 Q82\*Q83=10149.99999999998 R82\*R83=18583.5122 -0.20 (=TABLE(T27,T46))=-0.0252252644820139 (=TABLE(T27,T46))=-0.012168745668642183 (=TABLE(T27,T46))=8.877731447295235E-4 (=TABLE(T27,T46))=0.013944291958101228 (=TABLE(T27,T46))=0.027000810771472934 (=TABLE(T27,T46))=0.04005732958484464 (=TABLE(T27,T46))=0.06617036721158806 (=TABLE(T27,T46))=0.09228340483833149 (=TABLE(T27,T46))=0.1183964424650749 (=TABLE(T27,T46))=0.1445094800918183 (=TABLE(T27,T46))=0.1706225177185617 -0.20 (Z84-\$ACS80)\*10000=-363.80698048494884 (AA84-\$ACS80)\*10000=-233.24179235123165 (AB84-\$ACS80)\*10000=-102.6766042175146 (AC84-\$ACS80)\*10000=27.88858391620245 (AD84-\$ACS80)\*10000=158.4537720499195 (AE84-\$ACS80)\*10000=289.0189601836366 (AF84-\$ACS80)\*10000=550.1493364510708 (AG84-\$ACS80)\*10000=811.279712718505 (AH84-\$ACS80)\*10000=1072.4100889859392 (AI84-\$ACS80)\*10000=1333.540465253373 (AJ84-\$ACS80)\*10000=1594.6708415208072 -0.25 (=TABLE(T27,T46))=-0.026906948780814833 (=TABLE(T27,T46))=-0.012979995379884998 (=TABLE(T27,T46))=9.469580210448252E-4 (=TABLE(T27,T46))=0.014873911421974645 (=TABLE(T27,T46))=0.0288000864822904466 (=TABLE(T27,T46))=0.04272781822383429 (=TABLE(T27,T46))=0.07058172502569393 (=TABLE(T27,T46))=0.09843563182755359 (=TABLE(T27,T46))=0.12628953862941322 (=TABLE(T27,T46))=0.15414344543127287 (=TABLE(T27,T46))=0.18199735223313251 -0.25 (Z85-\$ACS80)\*10000=-380.6238234729582 (AA85-\$ACS80)\*10000=-241.3542894636598 (AB85-\$ACS80)\*10000=-102.08475545436158 (AC85-\$ACS80)\*10000=37.184778554936614 (AD85-\$ACS80)\*10000=176.45431256423484 (AE85-\$ACS80)\*10000=315.7238465735331 (AF85-\$ACS80)\*10000=594.2629145921295 (AG85-\$ACS80)\*10000=872.8019826107261 (AH85-\$ACS80)\*10000=1151.3410506293224 (AI85-\$ACS80)\*10000=1429.8801186479188 (AJ85-\$ACS80)\*10000=1708.4191866665153

P/E (2018E), base (x) M\$84/M78=4.121479023017509 N\$84/N78=4.130072793638036 O\$84/O78=2.100131024716534 P\$84/P78=3.5613216046410034 Q\$84/Q78=2.6551189547571217 R\$84/R78=4.821998455169255 AVERAGE (M86:R86)=3.565020309323243

P/E (2018E), implied (x) M\$84/M79=4.121479023017509 N\$84/N79=4.130072793638036 O\$84/O79=2.100131024716534 P\$84/P79=3.5613216046410034 Q\$84/Q79=2.6551189547571217 R\$84/R79=4.821998455169255 AVERAGE (M87:R87)=3.565020309323243

Change from base M87/M86-1=0 N87/N86-1=0 O87/O86-1=0 P87/P86-1=0 Q87/Q86-1=0 R87/R86-1=0 S87/S86-1=0

VAKIFBANK VAKIFBANK

P/BV (2018E), base (x) M\$84/M80=0.5863657458554173 N\$84/N80=0.6351872646445671 O\$84/O80=0.27981994488847295 P\$84/P80=0.4640912666644752 Q\$84/Q80=0.38393135897454816 R\$84/R80=0.4928255683921537 AVERAGE (M90:R90)=0.47370352490327244 CoR (net) % of Stage 2 loans transferred to Stage 3 loans

ed to Stage 3 loans CoR: change from base (bps) % of Stage 2 loans transferred to Stage 3 loans

P/BV (2018E), implied (x) M\$84/M81=0.5863657458554173 N\$84/N81=0.6351872646445671 O\$84/O81=0.27981994488847295 P\$84/P81=0.4640912666644752 Q\$84/Q81=0.38393135897454816 R\$84/R81=0.4928255683921537 AVERAGE (M91:R91)=0.47370352490327244 Loan growth (ppt change from base)

SQ\$50=0.01698935017329771 AA91-0.05=-0.1500000000000000 AB91-0.05=-0.10 -0.05 0 0.05 AD91+0.05=0.10 0.20 0.30 0.40 0.50 0.60 SQ\$50=0.01698935017329771 AO91-0.05=-0.1500000000000000 AP91-0.05=-0.10 -0.05 0 0.05 AR91+0.05=0.10 0.20 0.30 0.40 0.50 0.60

Change from base M91/M90-1=0 N91/N90-1=0 O91/O90-1=0 P91/P90-1=0 Q91/Q90-1=0 R91/R90-1=0 S91/S90-1=0 (=TABLE(T27,T46))=0.004686935969375032 (=TABLE(T27,T46))=0.007843887916610498 (=TABLE(T27,T46))=0.011000839863845962 (=TABLE(T27,T46))=0.0141577918110814

24 (=TABLE(T27,T46))=0.017314743758316885 (=TABLE(T27,T46))=0.02047169570555235 (=TABLE(T27,T46))=0.026785599600023278 (=TABLE(T27,T46))=0.0330995034944942 (=TABLE(T27,T46))=0.039413407388965135 (=TABLE(T27,T46))=0.04572731128343606 (=TABLE(T27,T46))=0.05204121517790698 0.20  
 (Z92-\$AC\$96)\*10000=-123.02414203922679 (AA92-\$AC\$96)\*10000=-91.45462256687212 (AB92-\$AC\$96)\*10000=-59.88510309451748 (AC92-\$AC\$96)\*10000=-28.315583622162862 (AD92-\$AC\$96)\*10000=3.25393585019175  
 7 (AE92-\$AC\$96)\*10000=34.82345532254641 (AF92-\$AC\$96)\*10000=97.96249426725568 (AG92-\$AC\$96)\*10000=161.1015332119649 (AH92-\$AC\$96)\*10000=224.24057215667426 (AI92-\$AC\$96)\*10000=287.3796111013835 (AJ92-\$AC\$96)\*10000=350.5186500460927  
 Stage 1 Discount to MSCI EM Banks 0.15 (=TABLE(T27,T46))=0.004890715794130468 (=TABLE(T27,T46))=0.00818492652168052 (=TABLE(T27,T46))=0.011479137249230569 (=TABLE(T27,T46))=0.014773347976780616 (=TABLE(T27,T46))=0.018067558704330664 (=TABLE(T27,T46))=0.02136176943188071 (=TABLE(T27,T46))=0.02795019088698081 (=TABLE(T27,T46))=0.0345386123420809 (=TABLE(T27,T46))=0.04112703379718101 (=TABLE(T27,T46))=0.0477154552522811 (=TABLE(T27,T46))=0.0543038767073812  
 0.15 (Z93-\$AC\$96)\*10000=-120.98634379167241 (AA93-\$AC\$96)\*10000=-88.04423651617189 (AB93-\$AC\$96)\*10000=-55.10212924067141 (AC93-\$AC\$96)\*10000=-22.16002196517094 (AD93-\$AC\$96)\*10000=10.782085310329544 (AE93-\$AC\$96)\*10000=43.72419258583001 (AF93-\$AC\$96)\*10000=109.60840713683102 (AG93-\$AC\$96)\*10000=175.49262168783193 (AH93-\$AC\$96)\*10000=241.376836238833 (AI93-\$AC\$96)\*10000=307.2610507898339 (AJ93-\$AC\$96)\*10000=373.14526534083495  
 P/E (2018E), base (x) M86/\$M\$109-1=-0.45555098771235025 N86/\$M\$109-1=-0.4544157472076571  
 O86/\$M\$109-1=-0.7225718593505239 P86/\$M\$109-1=-0.5295480046709375 Q86/\$M\$109-1=-0.6492577338497858 R86/\$M\$109-1=-0.36301209310842075 AVERAGE(M94:R94)=-0.5290594043166126 0.10  
 (=TABLE(T27,T46))=0.005113021057500034 (=TABLE(T27,T46))=0.008556968636302361 (=TABLE(T27,T46))=0.012000916215104683 (=TABLE(T27,T46))=0.015444863793907006 (=TABLE(T27,T46))=0.0188888113727093  
 27 (=TABLE(T27,T46))=0.022332758951511652 (=TABLE(T27,T46))=0.0292206541091163 (=TABLE(T27,T46))=0.03610854926672094 (=TABLE(T27,T46))=0.0429964444243256 (=TABLE(T27,T46))=0.04988433958193024 (=TABLE(T27,T46))=0.05677223473953488 0.10 (Z94-\$AC\$96)\*10000=-118.763291157976  
 75 (AA94-\$AC\$96)\*10000=-84.32381536995348 (AB94-\$AC\$96)\*10000=-49.88433958193027 (AC94-\$AC\$96)\*10000=-15.444863793907041 (AD94-\$AC\$96)\*10000=18.994611994116173 (AE94-\$AC\$96)\*10000=53.43408778213942 (AF94-\$AC\$96)\*10000=122.31303935818592 (AG94-\$AC\$96)\*10000=191.1919909342323 (AH94-\$AC\$96)\*10000=260.0709425102789 (AI94-\$AC\$96)\*10000=328.9498940863253 (AJ94-\$AC\$96)\*10000=397.82884566237175  
 P/E (2018E), implied (x) M87/\$M\$109-1=-0.45555098771235025 N87/\$M\$109-1=-0.4544157472076571  
 O87/\$M\$109-1=-0.7225718593505239 P87/\$M\$109-1=-0.5295480046709375 Q87/\$M\$109-1=-0.6492577338497858 R87/\$M\$109-1=-0.36301209310842075 AVERAGE(M95:R95)=-0.5290594043166126  
 0.05 (=TABLE(T27,T46))=0.005356498250714322 (=TABLE(T27,T46))=0.00896444333326914 (=TABLE(T27,T46))=0.012572388415823955 (=TABLE(T27,T46))=0.01618033349837877 (=TABLE(T27,T46))=0.019788278580933585 (=TABLE(T27,T46))=0.0233962236634884 (=TABLE(T27,T46))=0.030612113828598034 (=TABLE(T27,T46))=0.03782800399370766 (=TABLE(T27,T46))=0.045043894158817294 (=TABLE(T27,T46))=0.052259784323926924 (=TABLE(T27,T46))=0.059475674489036554 0.05 (Z95-\$AC\$96)\*10000=-116.32851922583387 (AA95-\$AC\$96)\*10000=-80.2490684002857 (AB95-\$AC\$96)\*10000=-44.16961757473754 (AC95-\$AC\$96)\*10000=-8.090166749189393 (AD95-\$AC\$96)\*10000=27.989284076358757 (AE95-\$AC\$96)\*10000=64.06873490190691 (AF95-\$AC\$96)\*10000=136.22763655300324 (AG95-\$AC\$96)\*10000=208.38653820409948 (AH95-\$AC\$96)\*10000=280.54543985519587 (AI95-\$AC\$96)\*10000=352.7043415062921 (AJ95-\$AC\$96)\*10000=424.8632431573884  
 3Y average discount M121/\$M\$113-1=-0.11901840490797555 N121/\$M\$113-1=-0.14723926380368102  
 O121/\$M\$113-1=-0.46871165644171786 P121/\$M\$113-1=-0.2601226993865031 Q121/\$M\$113-1=-0.3546012269938651 R121/\$M\$113-1=-0.2834355828220859 AVERAGE(M96:R96)=-0.2721881390593048 0  
 (=TABLE(T27,T46))=0.005624323163250038 (=TABLE(T27,T46))=0.009412665499932598 (=TABLE(T27,T46))=0.013201007836615153 (=TABLE(T27,T46))=0.01698935017329771 (=TABLE(T27,T46))=0.0207776925099802  
 63 (=TABLE(T27,T46))=0.02456603484666282 (=TABLE(T27,T46))=0.03214271952002793 (=TABLE(T27,T46))=0.03971940419339304 (=TABLE(T27,T46))=0.04729608886675816 (=TABLE(T27,T46))=0.05487277354012327 (=TABLE(T27,T46))=0.06244945821348838 0 (Z96-\$AC\$96)\*10000=-113.650270100476  
 7 (AA96-\$AC\$96)\*10000=-75.76684673365112 (AB96-\$AC\$96)\*10000=-37.88342336682557 (AC96-\$AC\$96)\*10000=0 (AD96-\$AC\$96)\*10000=37.88342336682553 (AE96-\$AC\$96)\*10000=75.76684673365111 (AF96-\$AC\$96)\*10000=151.53369346730221 (AG96-\$AC\$96)\*10000=227.30054020095326 (AH96-\$AC\$96)\*10000=303.0673869346045 (AI96-\$AC\$96)\*10000=378.83423366825565 (AJ96-\$AC\$96)\*10000=454.6010804019067  
 -0.05 (=TABLE(T27,T46))=0.005920340171842145 (=TABLE(T27,T46))=0.009908068947297472 (=TABLE(T27,T46))=0.013895797722752793 (=TABLE(T27,T46))=0.017883526498208114 (=TABLE(T27,T46))=0.021871255273663435 (=TABLE(T27,T46))=0.025858984049118756 (=TABLE(T27,T46))=0.0338344416000294 (=TABLE(T27,T46))=0.04180989915094004 (=TABLE(T27,T46))=0.04978535670185069 (=TABLE(T27,T46))=0.05776081425276133 (=TABLE(T27,T46))=0.06573627180367198 -0.05 (Z97-\$AC\$96)\*10000=-110.69010001455565 (AA97-\$AC\$96)\*10000=-70.81281226000237 (AB97-\$AC\$96)\*10000=-30.935524505449166 (AC97-\$AC\$96)\*10000=8.941763249104042 (AD97-\$AC\$96)\*10000=48.81905100365725 (AE97-\$AC\$96)\*10000=88.69633875821046 (AF97-\$AC\$96)\*10000=168.4509142673169 (AG97-\$AC\$96)\*10000=248.20548977642332 (AH97-\$AC\$96)\*10000=327.960652855298 (AI97-\$AC\$96)\*10000=407.71464079463624 (AJ97-\$AC\$96)\*10000=487.46921630374266  
 P/BV (2018E), base (x) M90/\$M\$110-1=-0.4415564325186502 N90/\$M\$110-1=-0.39505974795755516  
 O90/\$M\$110-1=-0.7335048143919305 P90/\$M\$110-1=-0.5580083174624046 Q90/\$M\$110-1=-0.6343510866909066 R90/\$M\$110-1=-0.5306423158169965 AVERAGE(M98:R98)=-0.5488537858064072 -0.1  
 0 (=TABLE(T27,T46))=0.006249247959166709 (=TABLE(T27,T46))=0.01045851722214733 (=TABLE(T27,T46))=0.014667786485127949 (=TABLE(T27,T46))=0.018877055748108565 (=TABLE(T27,T46))=0.023086325011089183 (=TABLE(T27,T46))=0.027295594274069798 (=TABLE(T27,T46))=0.03571413280003104 (=TABLE(T27,T46))=0.044132671325992266 (=TABLE(T27,T46))=0.05255120985195351 (=TABLE(T27,T46))=0.060969748377914745 (=TABLE(T27,T46))=0.06938828690387598 -0.10 (Z98-\$AC\$96)\*10000=-107.40102214131001 (AA98-\$AC\$96)\*10000=-65.30832951150379 (AB98-\$AC\$96)\*10000=-23.215636881697613 (AC98-\$AC\$96)\*10000=18.87705574810855 (AD98-\$AC\$96)\*10000=60.96974837791473 (AE98-\$AC\$96)\*10000=103.06244100772088 (AF98-\$AC\$96)\*10000=187.24782626733327 (AG98-\$AC\$96)\*10000=271.43321152694557 (AH98-\$AC\$96)\*10000=355.618596786558 (AI98-\$AC\$96)\*10000=439.80398204617035 (AJ98-\$AC\$96)

)\*10000=523.9893673057827  
 P/BV (2018E), implied (x) M91/\$M\$110-1=-0.4415564325186502 N91/\$M\$110-1=-0.395059747957  
 55516 O91/\$M\$110-1=-0.7335048143919305 P91/\$M\$110-1=-0.5580083174624046 Q91/\$M\$110-1  
 =-0.6343510866909066 R91/\$M\$110-1=-0.5306423158169965 AVERAGE (M99:R99)=-0.5488537858064072  
 -0.15 (=TABLE (T27, T46))=0.006616850780294162 (=TABLE (T27, T46))=0.011073724117567763 (=TABLE (T27, T46))=0.015530597454841356  
 (=TABLE (T27, T46))=0.01998747079211495 (=TABLE (T27, T46))=0.02444434  
 4129388545 (=TABLE (T27, T46))=0.02890121746666214 (=TABLE (T27, T46))=0.037814964141209335 (=TA  
 BLE (T27, T46))=0.04672871081575652 (=TABLE (T27, T46))=0.055642457490303714 (=TABLE (T27, T46))=0.  
 0645562041648509 (=TABLE (T27, T46))=0.0734699508393981 -0.15 (Z99-\$AC\$96)\*10000=-103.7249  
 9393003547 (AA99-\$AC\$96)\*10000=-59.15626055729947 (AB99-\$AC\$96)\*10000=-14.587527184563541 (AC9  
 9-\$AC\$96)\*10000=29.981206188172404 (AD99-\$AC\$96)\*10000=74.54993956090836 (AE99-\$AC\$96)\*10000=  
 119.11867293364429 (AF99-\$AC\$96)\*10000=208.25613967911625 (AG99-\$AC\$96)\*10000=297.393606424588  
 1 (AH99-\$AC\$96)\*10000=386.53107317006004 (AI99-\$AC\$96)\*10000=475.66853991553194 (AJ99-\$AC\$96  
 )\*10000=564.8060066610038  
 3Y average discount M122/\$M\$114-1=-0.010204081632653073 N122/\$M\$114-1=-0.010204081632653073  
 O122/\$M\$114-1=-0.41836734693877553 P122/\$M\$114-1=-0.29591836734693877 Q122/\$M\$114-1=-0.357  
 1428571428571 R122/\$M\$114-1=-0.3571428571428571 AVERAGE (M100:R100)=-0.2414965986394558 -0.2  
 0 (=TABLE (T27, T46))=0.007030403954062548 (=TABLE (T27, T46))=0.011765831874915747 (=TABLE (T27, T46))=0.01650125979576894  
 (=TABLE (T27, T46))=0.021236687716622134 (=TABLE (T27, T46))=0.025972211  
 563747533 (=TABLE (T27, T46))=0.030707543558328523 (=TABLE (T27, T46))=0.04017839940003492 (=TA  
 BLE (T27, T46))=0.0496492552417413 (=TABLE (T27, T46))=0.059120111083447696 (=TABLE (T27, T46))=0.  
 06859096692515408 (=TABLE (T27, T46))=0.07806182276686047 -0.20 (Z100-\$AC\$96)\*10000=-99.5894  
 621923516 (AA100-\$AC\$96)\*10000=-52.235182983819634 (AB100-\$AC\$96)\*10000=-4.880903775287  
 687 (AC100-\$AC\$96)\*10000=42.47337543324424 (AD100-\$AC\$96)\*10000=89.8276546417762 (AE100-\$AC\$9  
 6)\*10000=137.18193385030813 (AF100-\$AC\$96)\*10000=231.89049226737208 (AG100-\$AC\$96)\*10000=326.599  
 0506844359 (AH100-\$AC\$96)\*10000=421.30760910149985 (AI100-\$AC\$96)\*10000=516.0161675185637 (AJ1  
 00-\$AC\$96)\*10000=610.7247259356276  
 Stage 1 Discount to own historical average -0.25 (=TABLE (T27, T46))=0.007499097551000051 (=TA  
 BLE (T27, T46))=0.012550220666576796 (=TABLE (T27, T46))=0.01760134378215354 (=TABLE (T27, T46))=0.  
 02265246689773028 (=TABLE (T27, T46))=0.027703590013307015 (=TABLE (T27, T46))=0.0327547131288837  
 56 (=TABLE (T27, T46))=0.04285695936003724 (=TABLE (T27, T46))=0.05295920559119072 (=TABLE (T27, T46))=0.06306145182234421  
 (=TABLE (T27, T46))=0.07316369805349769 (=TABLE (T27, T46))=0.08326594  
 428465117 -0.25 (Z101-\$AC\$96)\*10000=-94.90252622297659 (AA101-\$AC\$96)\*10000=-44.39129506720  
 9136 (AB101-\$AC\$96)\*10000=6.119936088558285 (AC101-\$AC\$96)\*10000=56.63116724432569 (AD101-\$AC\$9  
 6)\*10000=107.14239840009306 (AE101-\$AC\$96)\*10000=157.65362955586045 (AF101-\$AC\$96)\*10000=258.676  
 0918673953 (AG101-\$AC\$96)\*10000=359.69855417893007 (AH101-\$AC\$96)\*10000=460.721016490465 (AI1  
 01-\$AC\$96)\*10000=561.7434788019998 (AJ101-\$AC\$96)\*10000=662.7659411135346  
 P/E (2018E), base (x) M86/\$M\$117-1=-0.3426668224852458 N86/\$M\$117-1=-0.3412962051613977  
 O86/\$M\$117-1=-0.6650508732509515 P86/\$M\$117-1=-0.43200612366172186 Q86/\$M\$117-1=-0.5765  
 360518728673 R86/\$M\$117-1=-0.23094123522021448 AVERAGE (M102:R102)=-0.4314162186087331  
 P/E (2018E), implied (x) M87/\$M\$117-1=-0.3426668224852458 N87/\$M\$117-1=-0.341296205161  
 3977 O87/\$M\$117-1=-0.6650508732509515 P87/\$M\$117-1=-0.43200612366172186 Q87/\$M\$117-1  
 =-0.5765360518728673 R87/\$M\$117-1=-0.23094123522021448 AVERAGE (M103:R103)=-0.43141621860873  
 31  
 P/BV (2018E), base (x) M90/\$M\$118-1=-0.2760916717834354 N90/\$M\$118-1=-0.21581819179683082  
 O90/\$M\$118-1=-0.6545432779154655 P90/\$M\$118-1=-0.4270478189327467 Q90/\$M\$118-1=-0.5260  
 106679326566 R90/\$M\$118-1=-0.3915733723553658 AVERAGE (M105:R105)=-0.4151808334527502 YAPI  
 KREDI YAPI KREDI  
 P/BV (2018E), implied (x) M91/\$M\$118-1=-0.2760916717834354 N91/\$M\$118-1=-0.215818191796  
 83082 O91/\$M\$118-1=-0.6545432779154655 P91/\$M\$118-1=-0.4270478189327467 Q91/\$M\$118-1  
 =-0.5260106679326566 R91/\$M\$118-1=-0.3915733723553658 AVERAGE (M106:R106)=-0.41518083345275  
 02 CoR (net) % of Stage 2 loans transferred to Stage 3 loans CoR: change from base (bps)  
 % of Stage 2 loans transferred to Stage 3 loans  
 Loan growth (ppt change from base) \$R\$50=0.009435563468637288 AA107-0.05=-0.1500000000000000  
 002 AB107-0.05=-0.10 -0.05 0 0.05 AD107+0.05=0.10 0.20 0.30 0.40 0.50  
 0.60 \$R\$50=0.009435563468637288 AO107-0.05=-0.150000000000000002 AP107-0.05=-0.10 -0.0  
 5 0 0.05 AR107+0.05=0.10 0.20 0.30 0.40 0.50 0.60  
 MSCI EM Banks 2018E 0.20 (=TABLE (T27, T46))=-0.00528602158779954 (=TABLE (T27, T46))=-9.0302453  
 94671114E-4 (=TABLE (T27, T46))=0.0034799725088653153 (=TABLE (T27, T46))=0.00786296955719774 (=TA  
 BLE (T27, T46))=0.012245966605530166 (=TABLE (T27, T46))=0.016628963653862593 (=TABLE (T27, T46))=0.  
 02539495775052744 (=TABLE (T27, T46))=0.0341609518471923 (=TABLE (T27, T46))=0.0429269459438571  
 46 (=TABLE (T27, T46))=0.051692940040521995 (=TABLE (T27, T46))=0.06045893413718685 0.20 (Z10  
 8-\$AC\$112)\*10000=-147.21585056436828 (AA108-\$AC\$112)\*10000=-103.38588008104401 (AB108-\$AC\$1  
 12)\*10000=-59.55590959771972 (AC108-\$AC\$112)\*10000=-15.725939114395477 (AD108-\$AC\$112)\*1000  
 0=28.104031368928784 (AE108-\$AC\$112)\*10000=71.93400185225305 (AF108-\$AC\$112)\*10000=159.5939428189  
 0152 (AG108-\$AC\$112)\*10000=247.25388378555007 (AH108-\$AC\$112)\*10000=334.9138247521986 (AI1  
 08-\$AC\$112)\*10000=422.573765718847 (AJ108-\$AC\$112)\*10000=510.23370668549563  
 P/E (x) 7.57 0.15 (=TABLE (T27, T46))=-0.005515848613356042 (=TABLE (T27, T46))=-9.422864759656813  
 E-4 (=TABLE (T27, T46))=0.0036312756614246765 (=TABLE (T27, T46))=0.008204837798815033 (=TABLE (T27, T46))=0.01277839993620539  
 (=TABLE (T27, T46))=0.01735196207359575 (=TABLE (T27, T46))=0.02649908  
 634837646 (=TABLE (T27, T46))=0.035646210623157176 (=TABLE (T27, T46))=0.044793334897937895 (=TA  
 BLE (T27, T46))=0.0539404591727186 (=TABLE (T27, T46))=0.06308758344749932 0.15 (Z109-\$AC\$11  
 2)\*10000=-149.51412081993328 (AA109-\$AC\$112)\*10000=-103.77849944602968 (AB109-\$AC\$112)\*1000  
 0=-58.04287807212611 (AC109-\$AC\$112)\*10000=-12.307256698222552 (AD109-\$AC\$112)\*10000=33.428  
 364675681024 (AE109-\$AC\$112)\*10000=79.16398604958462 (AF109-\$AC\$112)\*10000=170.63522879739176  
 (AG109-\$AC\$112)\*10000=262.1064715451989 (AH109-\$AC\$112)\*10000=353.57771429300607 (AI109-\$AC\$1  
 12)\*10000=445.0489570408131 (AJ109-\$AC\$112)\*10000=536.5201997886203  
 P/BV (x) 1.05 0.10 (=TABLE (T27, T46))=-0.005766569004872225 (=TABLE (T27, T46))=-9.8511767  
 94186667E-4 (=TABLE (T27, T46))=0.003796333646034889 (=TABLE (T27, T46))=0.008577784971488443 (=TA

BLE(T27,T46)=0.013359236296941999 (=TABLE(T27,T46))=0.018140687622395554 (=TABLE(T27,T46))=0.027703590273302662  
 (=TABLE(T27,T46))=0.037266492924209776 (=TABLE(T27,T46))=0.0468293955751168  
 9 (=TABLE(T27,T46))=0.05639229822602399 (=TABLE(T27,T46))=0.0659552008769311 0.10 (Z11  
 0-\$AC\$112)\*10000=-152.02132473509513 (AA110-\$AC\$112)\*10000=-104.20681148055954 (AB110-\$AC\$1  
 12)\*10000=-56.39229822602398 (AC110-\$AC\$112)\*10000=-8.577784971488446 (AD110-\$AC\$112)\*1000  
 =39.23672828304711 (AE110-\$AC\$112)\*10000=87.05124153758267 (AF110-\$AC\$112)\*10000=182.6802680466  
 5377 (AG110-\$AC\$112)\*10000=278.3092945557249 (AH110-\$AC\$112)\*10000=373.93832106479596 (AI1  
 10-\$AC\$112)\*10000=469.56734757386704 (AJ110-\$AC\$112)\*10000=565.1963740829382  
 0.05 (=TABLE(T27,T46))=-0.006041167528913759 (=TABLE(T27,T46))=-0.00103202804510527 (=TABLE(T27,  
 T46))=0.003977111438703217 (=TABLE(T27,T46))=0.008986250922511702 (=TABLE(T27,T46))=0.01399539  
 0406320187 (=TABLE(T27,T46))=0.019004529890128675 (=TABLE(T27,T46))=0.029022808857745646 (=TA  
 BLE(T27,T46))=0.03904108782536262 (=TABLE(T27,T46))=0.04905936679297959 (=TABLE(T27,T46))=0.05  
 059077645760596556 (=TABLE(T27,T46))=0.06909592472821353 0.05 (Z111-\$AC\$112)\*10000=-154.76  
 730997551047 (AA111-\$AC\$112)\*10000=-104.67591513742558 (AB111-\$AC\$112)\*10000=-54.5845202993  
 4071 (AC111-\$AC\$112)\*10000=-4.49312546125586 (AD111-\$AC\$112)\*10000=45.598269376828995 (AE1  
 11-\$AC\$112)\*10000=95.68966421491388 (AF111-\$AC\$112)\*10000=195.8724538910836 (AG111-\$AC\$112)\*1000  
 0=296.0552435672533 (AH111-\$AC\$112)\*10000=396.23803324342305 (AI111-\$AC\$112)\*10000=496.42  
 082291959264 (AJ111-\$AC\$112)\*10000=596.6036125957625  
 MSCI EM Banks 3Y average 0 (=TABLE(T27,T46))=-0.006343225905359447 (=TABLE(T27,T46))=-0  
 .0010836294473605336 (=TABLE(T27,T46))=0.004175967010638378 (=TABLE(T27,T46))=0.0094355634686372  
 88 (=TABLE(T27,T46))=0.0146951599266362 (=TABLE(T27,T46))=0.01995475638463511 (=TABLE(T27,  
 T46))=0.03047394930063293 (=TABLE(T27,T46))=0.04099314221663075 (=TABLE(T27,T46))=0.05151233  
 5132628574 (=TABLE(T27,T46))=0.06203152804862639 (=TABLE(T27,T46))=0.07255072096462421 0  
 (Z112-\$AC\$112)\*10000=-157.78789373996733 (AA112-\$AC\$112)\*10000=-105.19192915997822 (AB1  
 12-\$AC\$112)\*10000=-52.595964579989094 (AC112-\$AC\$112)\*10000=0 (AD112-\$AC\$112)\*10000=52.59596457998  
 9115 (AE112-\$AC\$112)\*10000=105.19192915997822 (AF112-\$AC\$112)\*10000=210.38385831995637  
 (AG112-\$AC\$112)\*10000=315.5757874799346 (AH112-\$AC\$112)\*10000=420.76771663991286 (AI112-\$AC\$1  
 12)\*10000=525.959645799891 (AJ112-\$AC\$112)\*10000=631.1515749598692  
 P/E (x) 8.15 -0.05 (=TABLE(T27,T46))=-0.006677079900378366 (=TABLE(T27,T46))=-0.001140662576168  
 9827 (=TABLE(T27,T46))=0.004395754748040399 (=TABLE(T27,T46))=0.009932172072249777 (=TABLE(T27,  
 T46))=0.015468589396459159 (=TABLE(T27,T46))=0.02100500672066854 (=TABLE(T27,T46))=0.03207784  
 13690873 (=TABLE(T27,T46))=0.04315067601750606 (=TABLE(T27,T46))=0.05422351066592482 (=TA  
 BLE(T27,T46))=0.06529634531434357 (=TABLE(T27,T46))=0.07636917996276234 -0.05 (Z113-\$AC\$11  
 2)\*10000=-161.126433369015655 (AA113-\$AC\$112)\*10000=-105.7622604480627 (AB113-\$AC\$112)\*1000  
 0=-50.39808720596889 (AC113-\$AC\$112)\*10000=4.9660860361248895 (AD113-\$AC\$112)\*10000=60.330  
 259278218705 (AE113-\$AC\$112)\*10000=115.6944325203125 (AF113-\$AC\$112)\*10000=226.4227790045001 (AG1  
 13-\$AC\$112)\*10000=337.1511254886877 (AH113-\$AC\$112)\*10000=447.8794719728753 (AI113-\$AC\$112)\*1000  
 0=558.6078184570628 (AJ113-\$AC\$112)\*10000=669.3361649412504  
 P/BV (x) 0.98 -0.10 (=TABLE(T27,T46))=-0.00704802878373272 (=TABLE(T27,T46))=-0.0012040  
 327192894818 (=TABLE(T27,T46))=0.004639963345153753 (=TABLE(T27,T46))=0.010483959409596986 (=TA  
 BLE(T27,T46))=0.016327955474040222 (=TABLE(T27,T46))=0.022171951538483458 (=TABLE(T27,T46))=0.  
 03385994366736992 (=TABLE(T27,T46))=0.04554793579625639 (=TABLE(T27,T46))=0.0572359279251428  
 64 (=TABLE(T27,T46))=0.06892392005402932 (=TABLE(T27,T46))=0.08061191218291579 -0.10 (Z11  
 4-\$AC\$112)\*10000=-164.83592252370008 (AA114-\$AC\$112)\*10000=-106.39596187926769 (AB114-\$AC\$1  
 12)\*10000=-47.95600123483535 (AC114-\$AC\$112)\*10000=10.483959409596979 (AD114-\$AC\$112)\*1000  
 0=68.92392005402934 (AE114-\$AC\$112)\*10000=127.3638806984617 (AF114-\$AC\$112)\*10000=244.2438019873  
 263 (AG114-\$AC\$112)\*10000=361.123723276191 (AH114-\$AC\$112)\*10000=478.00364456505577 (AI1  
 14-\$AC\$112)\*10000=594.8835658539203 (AJ114-\$AC\$112)\*10000=711.7634871427849  
 -0.15 (=TABLE(T27,T46))=-0.007462618712187585 (=TABLE(T27,T46))=-0.0012748581733653336 (=TA  
 BLE(T27,T46))=0.004912902365456915 (=TABLE(T27,T46))=0.011100662904279161 (=TABLE(T27,T46))=0.  
 01728842344310141 (=TABLE(T27,T46))=0.023476183981923658 (=TABLE(T27,T46))=0.0358517050595681  
 54 (=TABLE(T27,T46))=0.04822722613721265 (=TABLE(T27,T46))=0.060602747214857144 (=TABLE(T27,  
 T46))=0.07297826829250163 (=TABLE(T27,T46))=0.08535378937014614 -0.15 (Z115-\$AC\$112)\*10000  
 =-168.98182180824872 (AA115-\$AC\$112)\*10000=-107.10421642002622 (AB115-\$AC\$112)\*10000=-45.22  
 661103180373 (AC115-\$AC\$112)\*10000=16.65099435641873 (AD115-\$AC\$112)\*10000=78.52859974464123 (AE1  
 15-\$AC\$112)\*10000=140.4062051328637 (AF115-\$AC\$112)\*10000=264.16141590930863 (AG115-\$AC\$1  
 12)\*10000=387.9166266857536 (AH115-\$AC\$112)\*10000=511.67183746219854 (AI115-\$AC\$112)\*1000  
 0=635.4270482386435 (AJ115-\$AC\$112)\*10000=759.1822590150884  
 Turkish banks 3Y average -0.20 (=TABLE(T27,T46))=-0.007929032381699308 (=TABLE(T27,T46))=-0  
 .0013545368092006667 (=TABLE(T27,T46))=0.005219958763297972 (=TABLE(T27,T46))=0.0117944543357966  
 09 (=TABLE(T27,T46))=0.018368949908295247 (=TABLE(T27,T46))=0.024943445480793885 (=TABLE(T27,  
 T46))=0.038092436625791155 (=TABLE(T27,T46))=0.05124142777078843 (=TABLE(T27,T46))=0.06439041  
 891578572 (=TABLE(T27,T46))=0.07753941006078298 (=TABLE(T27,T46))=0.09068840120578026 -0.2  
 0 (Z116-\$AC\$112)\*10000=-173.64595850336596 (AA116-\$AC\$112)\*10000=-107.90100277837955  
 (AB116-\$AC\$112)\*10000=-42.15604705339316 (AC116-\$AC\$112)\*10000=23.588908671593206 (AD1  
 16-\$AC\$112)\*10000=89.33386439657959 (AE116-\$AC\$112)\*10000=155.07882012156597 (AF116-\$AC\$1  
 12)\*10000=286.56873157153865 (AG116-\$AC\$112)\*10000=418.05864302151144 (AH116-\$AC\$112)\*1000  
 0=549.5485544714843 (AI116-\$AC\$112)\*10000=681.0384659214569 (AJ116-\$AC\$112)\*10000=812.5283773714  
 297  
 P/E (x) 6.27 -0.25 (=TABLE(T27,T46))=-0.008457634540479262 (=TABLE(T27,T46))=-0.001444839263147  
 378 (=TABLE(T27,T46))=0.005567956014184504 (=TABLE(T27,T46))=0.012580751291516383 (=TABLE(T27,  
 T46))=0.019593546568848264 (=TABLE(T27,T46))=0.02660634184618015 (=TABLE(T27,T46))=0.04063193  
 24008439 (=TABLE(T27,T46))=0.05465752295550767 (=TABLE(T27,T46))=0.06868311351017144 (=TA  
 BLE(T27,T46))=0.08270870406483519 (=TABLE(T27,T46))=0.09673429461949895 -0.25 (Z117-\$AC\$11  
 2)\*10000=-178.9319800911655 (AA117-\$AC\$112)\*10000=-108.80402731784666 (AB117-\$AC\$112)\*1000  
 0=-38.676074544527836 (AC117-\$AC\$112)\*10000=31.451878228790953 (AD117-\$AC\$112)\*10000=101.57  
 983100210976 (AE117-\$AC\$112)\*10000=171.70778377542862 (AF117-\$AC\$112)\*10000=311.9636893220  
 661 (AG117-\$AC\$112)\*10000=452.21959486870384 (AH117-\$AC\$112)\*10000=592.4755004153415 (AI1  
 17-\$AC\$112)\*10000=732.731405961979 (AJ117-\$AC\$112)\*10000=872.9873115086166

P/BV (x)	0.81																							
3Y Historical average		Akbank	Garanti	Halkbank		Isbank	Vakifbank	Yapi Kredi	Tota															
P/E (x)	7.18	6.95	4.33	6.03	5.26	5.84	AVERAGE (M121:R121)=5.9316666666666675										Aver							
Age																								
P/BV (x)	0.97	0.97	0.57	0.69	0.63	0.63	AVERAGE (M122:R122)=0.7433333333333333										3							
CoR (net)	% of Stage 2 loans transferred to Stage 3 loans CoR: change from base (bps)																							
% of Stage 2 loans transferred to Stage 3 loans																								
Loan growth (ppt change from base)				AA123-0.05=-0.15	0000000000000000	0000000000	AB123-0.05=-0.10																	
0	0.05	AD123+0.05=0.10	0.20	0.30	0.40	0.50	0.60	AO123-0.05=-0.15	0000															
000000000002	AP123-0.05=-0.10		-0.05	0	0.05	AR123+0.05=0.10	0.20	0.30	0.40															
0.50	0.60																							
0.20	(Z28+Z44+Z60+Z76+Z92+Z108) / 6=-0.01410849428764393																							
0.006438702862482212	(AB28+AB44+AB60+AB76+AB92+AB108) / 6=0.0012310885626795026			(AC28+AC44+AC60+AC76+AC92+AC108) / 6=0.008900879987841217															(AD28+AD44+AD60+AD76+AD92+AD108) / 6=0.016570671413002					
93	(AE28+AE44+AE60+AE76+AE92+AE108) / 6=0.024240462838164643			(AF28+AF44+AF60+AF76+AF92+AF108) / 6=0.03958004568848807			(AG28+AG44+AG60+AG76+AG92+AG108) / 6=0.0549196285388115			(AH28+AH44+AH60+AH76+AH92+AH108) / 6=0.07025921138913493			(AI28+AI44+AI60+AI76+AI92+AI108) / 6=0.08559879423945836			(AJ28+AJ44+AJ60+AJ76+AJ92+AJ108) / 6=0.10093837708978178			(AK28+AK44+AK60+AK76+AK92+AK108) / 6=0.120928500270871209					
247.89550273053393	(AO28+AO44+AO60+AO76+AO92+AO108) / 6=-171.1975884789167			(AP28+AP44+AP60+AP76+AP92+AP108) / 6=-94.49967422729956			(AQ28+AQ44+AQ60+AQ76+AQ92+AQ108) / 6=-17.801759975682433			(AR28+AR44+AR60+AR76+AR92+AR108) / 6=58.8961542759347			(AS28+AS44+AS60+AS76+AS92+AS108) / 6=135.5940685275518			(AT28+AT44+AT60+AT76+AT92+AT108) / 6=288.98989703078615			(AU28+AU44+AU60+AU76+AU92+AU108) / 6=442.3857255340204					
42.3857255340204	(AV28+AV44+AV60+AV76+AV92+AV108) / 6=595.7815540372548			(AW28+AW44+AW60+AW76+AW92+AW108) / 6=749.177382540489			(AX28+AX44+AX60+AX76+AX92+AX108) / 6=902.5732110437231			(AY28+AY44+AY60+AY76+AY92+AY108) / 6=0.01544553261350621			(AZ28+AZ44+AZ60+AZ76+AZ92+AZ108) / 6=0.024240462838164643			(BA28+BA44+BA60+BA76+BA92+BA108) / 6=0.03958004568848807			(BB28+BB44+BB60+BB76+BB92+BB108) / 6=0.0549196285388115					
0.15	(Z29+Z45+Z61+Z77+Z93+Z109) / 6=-0.014721907082758882			(AA29+AA45+AA61+AA77+AA93+AA109) / 6=-0.00671864646519883			(AB29+AB45+AB61+AB77+AB93+AB109) / 6=0.0012846141523612199			(AC29+AC45+AC61+AC77+AC93+AC109) / 6=0.009287874769921269			(AD29+AD45+AD61+AD77+AD93+AD109) / 6=0.017291135387481			(AE29+AE45+AE61+AE77+AE93+AE109) / 6=0.025294396005041367			(AF29+AF45+AF61+AF77+AF93+AF109) / 6=0.041300917240161474					
.041300917240161474	(AG29+AG45+AG61+AG77+AG93+AG109) / 6=0.05730743847528156			(AH29+AH45+AH61+AH77+AH93+AH109) / 6=0.07331395971040168			(AI29+AI45+AI61+AI77+AI93+AI109) / 6=0.08932048094552175			(AJ29+AJ45+AJ61+AJ77+AJ93+AJ109) / 6=0.10532700218064188			(AK29+AK45+AK61+AK77+AK93+AK109) / 6=0.120928500270871209			(AL29+AL45+AL61+AL77+AL93+AL109) / 6=-254.02963068168347			(AM29+AM45+AM61+AM77+AM93+AM109) / 6=-93.96441833048239					
+AP93+AP109) / 6=-93.96441833048239	(AQ29+AQ45+AQ61+AQ77+AQ93+AQ109) / 6=-13.931812154881902			(AR29+AR45+AR61+AR77+AR93+AR109) / 6=66.10079402071858			(AS29+AS45+AS61+AS77+AS93+AS109) / 6=146.1334019631912			(AT29+AT45+AT61+AT77+AT93+AT109) / 6=306.1986125475201			(AU29+AU45+AU61+AU77+AU93+AU109) / 6=466.26382489872117			(AV29+AV45+AV61+AV77+AV93+AV109) / 6=626.3290372499221			(AW29+AW45+AW61+AW77+AW93+AW109) / 6=786.3942496011232					
W61+AW77+AW93+AW109) / 6=786.3942496011232	(AX29+AX45+AX61+AX77+AX93+AX109) / 6=946.4594619523241			(AY29+AY45+AY61+AY77+AY93+AY109) / 6=-0.0107204039486344231			(AZ29+AZ45+AZ61+AZ77+AZ93+AZ109) / 6=0.0013430057047412753			(BA30+BA46+BA62+BA78+BA94+BA110) / 6=0.018077096086912			(BB30+BB46+BB62+BB78+BB94+BB110) / 6=0.026444141277997796			(BC30+BC46+BC62+BC78+BC94+BC110) / 6=0.035294396005041367			(BD30+BD46+BD62+BD78+BD94+BD110) / 6=0.044130917240161474					
.044130917240161474	(BE30+BE46+BE62+BE78+BE94+BE110) / 6=0.059912322042339816			(BF30+BF46+BF62+BF78+BF94+BF110) / 6=0.07331395971040168			(BG30+BG46+BG62+BG78+BG94+BG110) / 6=0.08932048094552175			(BH30+BH46+BH62+BH78+BH94+BH110) / 6=0.10532700218064188			(BI30+BI46+BI62+BI78+BI94+BI110) / 6=0.120928500270871209			(BJ30+BJ46+BJ62+BJ78+BJ94+BJ110) / 6=-260.72140662839195			(BK30+BK46+BK62+BK78+BK94+BK110) / 6=-93.38050280668183					
+AP94+AP110) / 6=-93.38050280668183	(AL30+AL46+AL62+AL78+AL94+AL110) / 6=-177.05095471753688			(AM30+AM46+AM62+AM78+AM94+AM110) / 6=-177.05095471753688			(AN30+AN46+AN62+AN78+AN94+AN110) / 6=-260.72140662839195			(AO30+AO46+AO62+AO78+AO94+AO110) / 6=-177.05095471753688			(AP30+AP46+AP62+AP78+AP94+AP110) / 6=-93.38050280668183			(AQ30+AQ46+AQ62+AQ78+AQ94+AQ110) / 6=-9.710050895826791			(AR30+AR46+AR62+AR78+AR94+AR110) / 6=73.96040101502825					
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0.05	(Z31+Z47+Z63+Z79+Z95+Z111) / 6=-0.016123993471593063			(AA31+AA47+AA63+AA79+AA95+AA111) / 6=-0.007358517557122528			(AB31+AB47+AB63+AB79+AB95+AB111) / 6=0.0014069583573480028			(AC31+AC47+AC63+AC79+AC95+AC111) / 6=0.01017243427181853			(AD31+AD47+AD63+AD79+AD95+AD111) / 6=0.018937910186289			(AE31+AE47+AE63+AE79+AE95+AE111) / 6=0.027703386100759595			(AF31+AF47+AF63+AF79+AF95+AF111) / 6=0.045234337929700656					
.045234337929700656	(AG31+AG47+AG63+AG79+AG95+AG111) / 6=0.06276528975864172			(AH31+AH47+AH63+AH79+AH95+AH111) / 6=0.08029624158758279			(AI31+AI47+AI63+AI79+AI95+AI111) / 6=0.09782719341652385			(AJ31+AJ47+AJ63+AJ79+AJ95+AJ111) / 6=0.1153581452454649			(AK31+AK47+AK63+AK79+AK95+AK111) / 6=-268.0504945700252			(AL31+AL47+AL63+AL79+AL95+AL111) / 6=-180.39573542531988			(AM31+AM47+AM63+AM79+AM95+AM111) / 6=-92.74097628061457					
+AP95+AP111) / 6=-92.74097628061457	(AN31+AN47+AN63+AN79+AN95+AN111) / 6=-180.39573542531988			(AO31+AO47+AO63+AO79+AO95+AO111) / 6=-180.39573542531988			(AP31+AP47+AP63+AP79+AP95+AP111) / 6=-92.74097628061457			(AQ31+AQ47+AQ63+AQ79+AQ95+AQ111) / 6=-5.086217135909272			(AR31+AR47+AR63+AR79+AR95+AR111) / 6=82.56854200879603			(AS31+AS47+AS63+AS79+AS95+AS111) / 6=170.22330115350132			(AT31+AT47+AT63+AT79+AT95+AT111) / 6=345.5328194429119					
115350132	(AU31+AU47+AU63+AU79+AU95+AU111) / 6=520.8423377323226			(AV31+AV47+AV63+AV79+AV95+AV111) / 6=696.1518560217332			(AW31+AW47+AW63+AW79+AW95+AW111) / 6=871.4613743111437			(AX31+AX47+AX63+AX79+AX95+AX111) / 6=1046.770892600554			(AY31+AY47+AY63+AY79+AY95+AY111) / 6=-0.007726443434978654			(AZ31+AZ47+AZ63+AZ79+AZ95+AZ111) / 6=0.010681055985409459			(BA32+BA48+BA64+BA80+BA96+BA112) / 6=-0.0014773062752154028					
0	(Z32+Z48+Z64+Z80+Z96+Z112) / 6=-0.016930193145172717			(AA32+AA48+AA64+AA80+AA96+AA112) / 6=-0.007726443434978654			(AB32+AB48+AB64+AB80+AB96+AB112) / 6=0.0014773062752154028			(AC32+AC48+AC64+AC80+AC96+AC112) / 6=0.010681055985409459			(AD32+AD48+AD64+AD80+AD96+AD112) / 6=0.019884805695603			(AE32+AE48+AE64+AE80+AE96+AE112) / 6=0.029088555405797568			(AF32+AF48+AF64+AF80+AF96+AF112) / 6=0.047496054826185685			(AG32+AG48+AG64+AG80+AG96+AG112) / 6=0.0659035542465738		
.047496054826185685	(AH32+AH48+AH64+AH80+AH96+AH112) / 6=0.08431105366696191			(AI32+AI48+AI64+AI80+AI96+AI112) / 6=0.10271855308735005			(AJ32+AJ48+AJ64+AJ80+AJ96+AJ112) / 6=0.12112605250773813			(AK32+AK48+AK64+AK80+AK96+AK112) / 6=-276.1124913058217			(AL32+AL48+AL64+AL80+AL96+AL112) / 6=-184.07499420388115			(AM32+AM48+AM64+AM80+AM96+AM112) / 6=-92.03749710194057			(AN32+AN48+AN64+AN80+AN96+AN112) / 6=-184.07499420388115					
+AP96+AP112) / 6=-92.03749710194057	(AO32+AO48+AO64+AO80+AO96+AO112) / 6=-184.07499420388115			(AP32+AP48+AP64+AP80+AP96+AP112) / 6=-92.03749710194057			(AQ32+AQ48+AQ64+AQ80+AQ96+AQ112) / 6=0			(AR32+AR48+AR64+AR80+AR96+AR112) / 6=92.03749710194057			(AS32+AS48+AS64+AS80+AS96+AS112) / 6=184.07499420388115			(AT32+AT48+AT64+AT80+AT96+AT112) / 6=368.1499884077623			(AU32+AU48+AU64+AU80+AU96+AU112) / 6=552.2249826116434					
26116434	(AV32+AV48+AV64+AV80+AV96+AV112) / 6=736.2999768155246			(AW32+AW48+AW64+AW80+AW96+AW112) / 6=920.3749710194055			(AX32+AX48+AX64+AX80+AX96+AX112) / 6=1104.4499652232869			(AY32+AY48+AY64+AY80+AY96+AY112) / 6=-0.05			(AZ32+AZ48+AZ64+AZ80+AZ96+AZ112) / 6=-0.017821255942287072			(BA33+BA49+BA65+BA81+BA97+BA113) / 6=-								

0.00813309835260911 (AB33+AB49+AB65+AB81+AB97+AB113)/6=0.0015550592370688454 (AC33+AC49+A  
C65+AC81+AC97+AC113)/6=0.011243216826746798 (AD33+AD49+AD65+AD81+AD97+AD113)/6=0.020931374416424  
755 (AE33+AE49+AE65+AE81+AE97+AE113)/6=0.03061953200610271 (AF33+AF49+AF65+AF81+AF97+AF113)/6=0  
.049995847185458624 (AG33+AG49+AG65+AG81+AG97+AG113)/6=0.06937216236481451 (AH33+AH49+AH65+AH81  
+AH97+AH113)/6=0.08874847754417044 (AI33+AI49+AI65+AI81+AI97+AI113)/6=0.10812479272352636 (AJ3  
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+AP97+AP113)/6=-91.25996748340613 (AQ33+AQ49+AQ65+AQ81+AQ97+AQ113)/6=5.6216084133734014 (AR3  
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02069325 (AT33+AT49+AT65+AT81+AT97+AT113)/6=393.14791200049166 (AU33+AU49+AU65+AU81+AU97+AU  
113)/6=586.9110637940507 (AV33+AV49+AV65+AV81+AV97+AV113)/6=780.67421558761 (AW33+AW49+A  
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8  
-0.10 (Z34+Z50+Z66+Z82+Z98+Z114)/6=-0.018811325716858576 (AA34+AA50+AA66+AA82+AA98+AA114)/6=-  
0.008584937149976282 (AB34+AB50+AB66+AB82+AB98+AB114)/6=0.0016414514169060034 (AC34+AC50+A  
C66+AC82+AC98+AC114)/6=0.011867839983788287 (AD34+AD50+AD66+AD82+AD98+AD114)/6=0.022094228550670  
572 (AE34+AE50+AE66+AE82+AE98+AE114)/6=0.03232061711755286 (AF34+AF50+AF66+AF82+AF98+AF114)/6=0  
.05277339425131743 (AG34+AG50+AG66+AG82+AG98+AG114)/6=0.073226171385082 (AH34+AH50+AH66+AH82  
+AH98+AH114)/6=0.09367894851884657 (AI34+AI50+AI66+AI82+AI98+AI114)/6=0.11413172565261115 (AJ3  
4+AJ50+AJ66+AJ82+AJ98+AJ114)/6=0.1345845027863757 -0.10 (AN34+AN50+AN66+AN82+AN98+AN114)/6=-  
294.92381702268034 (AO34+AO50+AO66+AO82+AO98+AO114)/6=-192.6599313538574 (AP34+AP50+AP66+AP82  
+AP98+AP114)/6=-90.39604568503455 (AQ34+AQ50+AQ66+AQ82+AQ98+AQ114)/6=11.867839983788285 (AR3  
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W66+AW82+AW98+AW114)/6=1034.5066966720167 (AX34+AX50+AX66+AX82+AX98+AX114)/6=1239.034468009662  
5  
-0.15 (Z35+Z51+Z67+Z83+Z99+Z115)/6=-0.019917874288438494 (AA35+AA51+AA67+AA83+AA99+AA115)/6=-  
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+AC99+AC115)/6=0.012565948218128778 (AD35+AD51+AD67+AD83+AD99+AD115)/6=0.023393889053651192 (AE3  
5+AE51+AE67+AE83+AE99+AE115)/6=0.03422182988917361 (AF35+AF51+AF67+AF83+AF99+AF115)/6=0.0558777  
1156021845 (AG35+AG51+AG67+AG83+AG99+AG115)/6=0.07753359323126328 (AH35+AH51+AH67+AH83+AH99+AH  
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J67+AJ83+AJ99+AJ115)/6=0.1425012382443978 -0.15 (AN35+AN51+AN67+AN83+AN99+AN115)/6=-305.9893  
0273847947 (AO35+AO51+AO67+AO83+AO99+AO115)/6=-197.7098943832552 (AP35+AP51+AP67+AP83+AP99+AP  
115)/6=-89.43048602803104 (AQ35+AQ51+AQ67+AQ83+AQ99+AQ115)/6=18.848922327193158 (AR35+AR51+A  
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6 (AT35+AT51+AT67+AT83+AT99+AT115)/6=451.9665557480899 (AU35+AU51+AU67+AU83+AU99+AU115)/6=6  
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-0.20 (Z36+Z52+Z68+Z84+Z100+Z116)/6=-0.0211627414314659 (AA36+AA52+AA68+AA84+AA100+AA116)/6=  
-0.009658054293723317 (AB36+AB52+AB68+AB84+AB100+AB116)/6=0.0018466328440192535 (AC36+AC52+A  
C68+AC84+AC100+AC116)/6=0.013351319981761823 (AD36+AD52+AD68+AD84+AD100+AD116)/6=0.02485600711950  
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116)/6=0.0593700685327321 (AG36+AG52+AG68+AG84+AG100+AG116)/6=0.08237944280821724 (AH36+AH52+A  
H68+AH84+AH100+AH116)/6=0.10538881708370239 (AI36+AI52+AI68+AI84+AI100+AI116)/6=0.12839819135918  
754 (AJ36+AJ52+AJ68+AJ84+AJ100+AJ116)/6=0.15140756563467267 -0.20 (AN36+AN52+AN68+AN84+AN100+A  
N116)/6=-318.43797416875356 (AO36+AO52+AO68+AO84+AO100+AO116)/6=-203.39110279132774 (AP36+AP52+A  
P68+AP84+AP100+AP116)/6=-88.34423141390204 (AQ36+AQ52+AQ68+AQ84+AQ100+AQ116)/6=26.7026399635236  
34 (AR36+AR52+AR68+AR84+AR100+AR116)/6=141.74951134094934 (AS36+AS52+AS68+AS84+AS100+AS116)/6=  
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+AU100+AU116)/6=716.9838682280779 (AV36+AV52+AV68+AV84+AV100+AV116)/6=947.0776109829294 (AW3  
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0964926322  
-0.25 (Z37+Z53+Z69+Z85+Z101+Z117)/6=-0.02257359086023029 (AA37+AA53+AA69+AA85+AA101+AA117)/6=  
-0.010301924579971538 (AB37+AB53+AB69+AB85+AB101+AB117)/6=0.001969741700287204 (AC37+AC53+A  
C69+AC85+AC101+AC117)/6=0.014241407980545946 (AD37+AD53+AD69+AD85+AD101+AD117)/6=0.02651307426080  
4684 (AE37+AE53+AE69+AE85+AE101+AE117)/6=0.03878474054106343 (AF37+AF53+AF69+AF85+AF101+AF117)/6=  
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+AH101+AH117)/6=0.11241473822261588 (AI37+AI53+AI69+AI85+AI101+AI117)/6=0.13695807078313335 (AJ3  
7+AJ53+AJ69+AJ85+AJ101+AJ117)/6=0.16150140334365085 -0.25 (AN37+AN53+AN69+AN85+AN101+AN117)/6=  
-332.54646845639746 (AO37+AO53+AO69+AO85+AO101+AO117)/6=-209.82980565380993 (AP37+AP53+AP69+AP85  
+AP101+AP117)/6=-87.11314285122255 (AQ37+AQ53+AQ69+AQ85+AQ101+AQ117)/6=35.60351995136486 (AR3  
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U117)/6=771.9034967668895 (AV37+AV53+AV69+AV85+AV101+AV117)/6=1017.3368223720641 (AW37+AW53+A  
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38

Sensit EPS															
Coverage	0.25	0.30	0.30	0.25	0.30	0.35	USD/TRY 4.85								
OTAS exposure (USDm)	1500	950	160	500	180	200									
LOANS	OTAS exposure (TRYm)			M2*\$U\$1=7274.999999999999			N2*\$U\$1=4607.50			O2*\$U\$1=776		P2*\$			
U\$1=2425	Q2*\$U\$1=872.99999999999999			R2*\$U\$1=969.99999999999999											
TRYm	Akbank	Garanti	Halkbank	Isbank	Vakifbank	Yapi Kredi	Total		TRYm	Akba					
nk	Garanti Halkbank			Isbank Vakifbank		Yapi Kredi			Total						
Stage 1	177483.751	179942.836	208018.025	225447.282	189194.53				189206.167						
SUM(C5:H5)=1169292.591	Stage 1 C5+M3=184758.751			D5+N3=184550.336			E5+O3=208794.025								
F5+P3=227872.282	G5+Q3=190067.53			H5+R3=190176.167			SUM(M5:R5)=1186219.091								
Stage 2 18107.557+561.381+3109.4=21778.338000000003															
.35+28.39+3620.128=7867.868							16743.129+3832.425+460.08=21035.634000000002								
2.51+6206.214							5397.15+541.86+2728.63=8667.64								
SUM(C6:H6)=103031.022000000001															
Stage 2 C6-M3=14503.338000000003															
D6-N3=32867.828			E6-O3=7091.868			F6-P3=18610.634000000002			G6-Q3=5333.214					H6-R	
3=7697.639999999999			SUM(M6:R6)=86104.522000000001												
Stage 3 4046.342															
5633.32			6264.786		5799.235		7945.146		8617.858		SUM(C				
C7:H7)=38306.687000000005			Stage 3 C7=4046.342		D7=5633.32		E7=6264.786		F7=5799.235						
G7=7945.146			H7=8617.858		SUM(M7:R7)=38306.687000000005										
Total SUM(C5:C7)=203308.430999999998															
SUM(D5:D7)=223051.484000000003				SUM(E5:E7)=222150.678999999999				SUM(F5:F7)=252282.150999999998				SUM(G5:G7)=203345.89			
SUM(H5:H7)=206491.664999999998				SUM(I5:I7)=203308.430999999998				SUM(J5:J7)=223051.484000000003				SUM(K5:K7)=222150.678999999997			
SUM(L5:L7)=1310630.30			Total			SUM(M5:M7)=203308.430999999998			SUM(N5:N7)=223051.484000000003			SUM(O5:O7)=222150.678999999997			
06491.664999999998			SUM(M8:R8)=1310630.30			SUM(P5:P7)=252282.150999999998			SUM(Q5:Q7)=203345.89			SUM(R5:R7)=2			
COVERAGE															
TRYm	Akbank	Garanti	Halkbank	Isbank	Vakifbank	Yapi Kredi	Average		TRYm	Akba					
nk	Garanti Halkbank			Isbank Vakifbank		Yapi Kredi			Average						
Stage 1 635.937 816.282 1003.91 1588.177 1541.675 1735.70															
SUM(C12:H12)=7321.681															
C12+(M3*0.01)=708.687				D12+(N3*0.01)=862.35700000000001				E12+(O3*0.01)=1011.67				F12+(P3*0.01)			
)=1612.427				G12+(Q3*0.01)=1550.405				H12+(R3*0.01)=1745.40				SUM(M12:R12)=7490.946			
Stage 2 2783.856															
3620.075			784.616		1845.348		468.183		888.696		SUM(C13:H13)=10390.7				
74000000001			Stage 2 C13-(M3*M1)=965.1060000000004			D13-(N3*N1)=2237.825			E13-(O3*O1)=551.816						
F13-(P3*P1)=1239.098			G13-(Q3*Q1)=206.28300000000002			H13-(R3*R1)=549.19600000000001			SUM(M13:R13)						
=5749.32400000000005															
Stage 3 3130.372															
3963.228			4978.164		4157.801		6201.91		7386.565		SUM(C14:H14)=29818.039999999997				
G14=6201.91			H14=7386.565			SUM(M14:R14)=29818.039999999997									
Total SUM(C12:C14)=6550.165															
SUM(D12:D14)=8399.585				SUM(E12:E14)=6766.69				SUM(F12:F14)=7591.32							
SUM(G12:G14)=8211.768				SUM(H12:H14)=10010.961				SUM(I12:I14)=47530.494999999995				Total			
SUM(J12:J14)=4804.1650000000001			SUM(K12:K14)=7063.41			SUM(L12:L14)=6541.65			SUM(M12:M14)=7009.32						
SUM(N12:N14)=9681.161			SUM(O12:O14)=9681.161			SUM(P12:P14)=43058.31									
% in gross loans															
TRYm	Akbank	Garanti	Halkbank	Isbank	Vakifbank	Yapi Kredi	Average		TRYm	Akba					
nk	Garanti Halkbank			Isbank Vakifbank		Yapi Kredi			Average						
Stage 1 C5/C\$8=0.8729778205803969															
D5/D\$8=0.8067322968360076				E5/E\$8=0.936382575720149				F5/F\$8=0.8936315197344263				G5/G\$8=0.9304074451664599			
H5/H\$8=0.9162896090745358				I5/I\$8=0.8921605055216563				J5/J\$8=0.9087608914752778				K5/K\$8=0.8273889628100389			
L5/L\$8=0.9398757003123993				M5/M\$8=0.9032437732782769				N5/N\$8=0.934700622668105				O5/O\$8=0.9209871352434492			
P5/P\$8=0.9050752840064814				D6/D\$8=0.16801200928122942				E6/E\$8=0.035416808246622564				F6/F\$8=0.08338138039737898			
G6/G\$8=0.030520479169753565				H6/H\$8=0.041975737858474825				I6/I\$8=0.07861181143149217				J6/J\$8=0.07133662843524677			
K6/K\$8=0.14735534330719807				L6/L\$8=0.03192368365437227				M6/M\$8=0.07376912685352839				N6/N\$8=0.026227301668108462			
O6/O\$8=0.0372821168956142				P6/P\$8=0.06569703294666697				Q6/Q\$8=0.026227301668108462				R6/R\$8=0.0372821168956142			
S6/S\$8=0.06569703294666697				D7/D\$8=0.025255693882762956				E7/E\$8=0.02820061603322851				F7/F\$8=0.022987099868194798			
G7/G\$8=0.03907207566378646				H7/H\$8=0.04173465306698942				I7/I\$8=0.029227683046851582				J7/J\$8=0.029227683046851582			
K7/K\$8=0.019902480089475486				L7/L\$8=0.025255693882762956				M7/M\$8=0.019902480089475486				N7/N\$8=0.025255693882762956			
O7/O\$8=0.03907207566378646				P7/P\$8=0.022987099868194798				Q7/Q\$8=0.03907207566378646				R7/R\$8=0.04173465306698942			
S7/S\$8=0.029227683046851582				Total				C8/C\$8=1		D8/D\$8=1		E8/E\$8=1		F8/F\$8=1	
G8/G\$8=1				Total				H8/H\$8=1		I8/I\$8=1		J8/J\$8=1		K8/K\$8=1	
L8/L\$8=1				Total				M8/M\$8=1		N8/N\$8=1		O8/O\$8=1		P8/P\$8=1	
Q8/Q\$8=1				R8/R\$8=1				S8/S\$8=1							
COVERAGE RATIO															
Earnings impact Akbank			Garanti Halkbank			Isbank Vakifbank			Yapi Kredi						
Total															
TRYm	Akbank	Garanti	Halkbank	Isbank	Vakifbank	Yapi Kredi	Average		Stage 2	prov					
isions (base)	14503.3380000000003			32867.828		7091.868			18610.634000000002		5333				
.214	7697.63999999999999			S6=86104.522000000001		AKBANK			AKBANK						
Stage 1 C12/C5=0.0035830716694735623															
D12/D5=0.004536340640980005				E12/E5=0.004826072163698314				F12/F5=0.007044560421890559				G12/G5=0.008148623535786156			
H12/H5=0.009173591048964065				I12/I5=0.0062616329363195285				J12/J5=5799.235				K12/K5=7945.146			
L12/L5=8617.858				M12/M5=38306.6870000000005				N12/N5=4046.342				O12/O5=5633.32			
P12/P5=6264.786				Q12/Q5=6264.786				R12/R5=8617.858				S12/S5=7945.146			
T12/T5=7945.146				U12/U5=8617.858				V12/V5=7945.146				W12/W5=8617.858			
X12/X5=7945.146				Y12/Y5=8617.858				Z12/Z5=7945.146				AA12/AA5=8617.858			
AB12/AB5=7945.146				AC12/AC5=8617.858				AD12/AD5=7945.146				AE12/AE5=8617.858			
AF12/AF5=7945.146				AG12/AG5=8617.858				AH12/AH5=7945.146				AI12/AI5=8617.858			
AJ12/AJ5=7945.146				AK12/AK5=8617.858				AL12/AL5=7945.146				AM12/AM5=8617.858			
AN12/AN5=7945.146				AO12/AO5=8617.858				AP12/AP5=7945.146				AQ12/AQ5=8617.858			
AR12/AR5=7945.146				AS12/AS5=8617.858				AT12/AT5=7945.146				AU12/AU5=8617.858			
AV12/AV5=7945.146				AW12/AW5=8617.858				AX12/AX5=7945.146				AY12/AY5=8617.858			
AZ12/AZ5=7945.146				BA12/BA5=8617.858				BB12/BB5=7945.146				BC12/BC5=8617.858			
BD12/BD5=7945.146				BE12/BE5=8617.858				BF12/BF5=7945.146				BG12/BG5=8617.858			
BH12/BH5=7945.146				BI12/BI5=8617.858				BJ12/BJ5=7945.146				BK12/BK5=8617.858			
BL12/BL5=7945.146				BM12/BM5=8617.858				BN12/BN5=7945.146				BO12/BO5=8617.858			
BP12/BP5=7945.146				BQ12/BQ5=8617.858				BR12/BR5=7945.146				BS12/BS5=8617.858			
BT12/BT5=7945.146				BU12/BU5=8617.858				BV12/BV5=7945.146				BW12/BW5=8617.858			
BX12/BX5=7945.146				BY12/BY5=8617.858				BZ12/BZ5=7945.146				CA12/CA5=8617.858			
CB12/CB5=7945.146				CC12/CC5=8617.858				CD12/CD5=7945.146				CE12/CE5=8617.858			
CF12/CF5=7945.146				CG12/CG5=8617.858				CH12/CH5=7945.146				CI12/CI5=8617.858			
CJ12/CJ5=7945.146				CK12/CK5=8617.858				CL12/CL5=7945.146				CM12/CM5=8617.858			
CN12/CN5=7945.146				CO12/CO5=8617.858				CP12/CP5=7945.146				CQ12/CQ5=8617.858			
CR12/CR5=7945.146				CS12/CS5=8617.858				CT12/CT5=7945.146				CU12/CU5=8617.858			
CV12/CV5=7945.146				CW12/CW5=8617.858				CX12/CX5=7945.146				CY12/CY5=8617.858			
CZ12/CZ5=7945.146				CA12/CA5=8617.858				CB12/CB5=7945.146				CC12/CC5=8617.858			
CA12/CA5=7945.146				CB12/CB5=8617.858				CC12/CC5=7945.146				CD12/CD5=8617.858			
CE12/CE5=7945.146				CF12/CF5=8617.858				CG12/CG5=7945.146				CH12/CH5=8617.858			
CG12/CG5=7945.146				CH12/CH5=8617.858				CI12/CI5=7945.146				CJ12/CJ5=8617.858			
CH12/CH5=7945.146				CK12/CK5=8617.858				CL12/CL5=7945.146				CM12/CM5=8617.858			
CK12/CK5=7945.146				CL12/CL5=8617.858				CM12/CM5=7945.146				CN12/CN5=8617.858			
CN12/CN5=7945.146				CO12/CO5=8617.858				CP12/CP5=7945.146				CQ12/CQ5=8617.858			
CO12/CO5=7945.146				CP12/CP5=8617.858				CQ12/CQ5=7945.146				CR12/CR5=8617.858			
CQ12/CQ5=7945.146				CR12/CR5=8617.858				CS12/CS5=7945.146				CT12/CT5=8617.858			
CR12/CR5=7945.146				CS12/CS5=8617.858				CT12/CT5=7945.146				CU12/CU5=8617.858			
CT12/CT5=7945.146				CV12/CV5=8617.858				CW12/CW5=7945.146				CX12/CX5=8617.858			
CV12/CV5=7945.146				CW12/CW5=8617.858				CX12/CX5=7945.146				CY12/CY5=8617.858			
CX12/CX5=7945.146				CY12/CY5=8617.858				CZ12/CZ5=7945.146				CA12/CA5=8617.858			
CY12/CY5=7945.146				CZ12/CZ5=8617.858				CA12/CA5=7945.146				CB12/CB5=8617.858			
CZ12/CZ5=7945.146				CA12/CA5=8617.858				CB12/CB5=7945.146				CC12/CC5=8617.858			
CA12/CA5=7945.146				CB12/CB5=8617.858				CC12/CC5=7945.146				CD12/CD5=8617.858			
CB12/CB5=7945.146				CC12/CC5=8617.858				CD12/CD5=7945.146				CE12/CE5=8617.858			
CC12/CC5=7945.146				CD12/CD5=8617.858				CE12/CE5=7945.146				CF12/CF5=8617.858			
CD12/CD5=7945.146				CE12/CE5=8617.858				CF12/CF5=7945.146				CG12/CG5=8617.858			
CE12/CE5=7945.146				CF12/CF5=8617.858				CG12/CG5=7945.146				CH12/CH5=8617.858			
CF12/CF5=7945.146				CG12/CG5=8617.858				CH12/CH5=7945.146				CI12/CI5=8617.858			
CG12/CG5=7945.146				CH12/CH5=8617.858				CI12/CI5=7945.146				CJ12/CJ5=8617.858			
CH12/CH5=7945.146				CI12/CI5=8617.858				CJ12/CJ5=7945.146				CK12/CK5=8617.858			
CI12/CI5=7945.146				CJ12/CJ5=8617.858				CK12/CK5=7945.146				CL12/CL5=8617.858			
CJ12/CJ5=7945.146				CK12/CK5=8617.858				CL12/CL5=7945.146				CM12/CM5=8617.858			
CK12/CK5=7945.146				CL12/CL5=8617.858				CM12/CM5=7945.146				CN12/CN5=8617.858			
CL12/CL5=7945.146				CM12/CM5=8617.858				CN12/CN5=7945.146				CO12/CO5=8617.858			
CM12/CM5=7945.146				CN12/CN5=8617.858				CO12/CO5=7945.146				CP12/CP5=8617.858			
CN12/CN5=7945.146				CO12/CO5=8617.858				CP12/CP5=7945.146				CQ12/CQ5=8617.858			
CO12/CO5=7945.146				CP12/CP5=8617.858				CQ12/CQ5=7945.146				CR12/CR5=8617.858			
CQ12/CQ5=7945.146				CR12/CR5=8617.858				CS12/CS5=7945.146				CT12/CT5=8617.858			
CR12/CR5=7945.146				CS12/CS5=8617.858				CT12/CT5=7945.146				CU12/CU5=8617.858			
CT12/CT5=7945.146				CU12/CU5=8617.858				CV12/CV5=7945.146				CX12/CX5=8617.858			
CU12/CU5=7945.146				CV12/CV5=8617.858				CX12/CX5=7945.146				CY12/CY5=8617.858			
CV12/CV5=7945.146				CX12/CX5=8617.858				CY12/CY5=7945.146				CZ12/CZ5=8617.858			
CX12/CX5=7945.146				CY12/CY5=8617.858				CZ12/CZ5=7945.146				CA12/CA5=8617.858			
CY12/CY5=7945.146				CZ12/CZ5=8617.858				CA12/CA5=7945.146				CB12/CB5=8617.858			
CZ12/CZ5=7945.146				CA12/CA5=8617.858				CB12/CB5=7945.146				CC12/CC5=8617.85			

0.30	0.40	0.50	0.60						
Stage 3 C14/C7=0.7736301083793707				D14/D7=0.7035332628006221				E14/E7=0.7946263447785766	
F14/F7=0.7169568055096923				G14/G7=0.7805910678041662				H14/H7=0.85712308093264	I14/I7=0.778
4029978891152	Coverage of new Stage 3 loans (70%)			M27*0.7=0				N27*0.7=0	O27*0.7=0
P27*0.7=0	Q27*0.7=0	R27*0.7=0	S27*0.7=0	0.20				(=TABLE(T27,T46))=8897.97988	
2445114	(=TABLE(T27,T46))=8491.886418445112			(=TABLE(T27,T46))=8085.7929544451135				(=TABLE(T27,T46))=8897.97988	
(=TABLE(T27,T46))=7679.699490445113	(=TABLE(T27,T46))=7273.606026445113			(=TABLE(T27,T46))=6867.512562445113					
(=TABLE(T27,T46))=6055.325634445113	(=TABLE(T27,T46))=5243.138706445112			(=TABLE(T27,T46))=44					
30.951778445113	(=TABLE(T27,T46))=3618.7648504451117			(=TABLE(T27,T46))=2806.5779224451117					0.20
(Z28/\$AC\$32)-1=0.38912263002762626	(AA28/\$AC\$32)-1=0.32572468710109126			(AB28/\$AC\$32)-1=0.26					
23267441745567	(AC28/\$AC\$32)-1=0.19892880124802192			(AD28/\$AC\$32)-1=0.13553085832148737					(AE2
8/\$AC\$32)-1=0.07213291539495259	(AF28/\$AC\$32)-1=-0.054662970458116744			(AG28/\$AC\$32)-1=-0.181458856					
3111863	(AH28/\$AC\$32)-1=-0.3082547421642555			(AI28/\$AC\$32)-1=-0.4350506280173251					(AJ28/\$AC\$32
-1=-0.5618465138703944									
Total	SUM(C26:C28)=0.9050400142177326			SUM(D26:D28)=0.8046684911151136				SUM(E26:E28)=0.8991765099240	
078	SUM(F26:F28)=0.8117262236658447			SUM(G26:G28)=0.8641774703143803				SUM(H26:H28)=0.9688270031905	
606	SUM(I26:I28)=0.8855155570639418	Stage 3 provisions (new)		M28+M26=4046.342				N28+	
N26=5633.32	O28+O26=6264.786			P28+P26=5799.235				Q28+Q26=7945.146	R28+R26=8617
.858	S28+S26=38306.687000000005			0.15				(=TABLE(T27,T46))=8579.421888845112	(=TABLE(T27,T46))=8617
(=TABLE(T27,T46))=8173.328424845113	(=TABLE(T27,T46))=7767.234960845113			(=TABLE(T27,T46))=7361.141496845113					
(=TABLE(T27,T46))=6955.048032845112	(=TABLE(T27,T46))=6548.954568845113			(=TABLE(T27,T46))=57					
36.7676408451125	(=TABLE(T27,T46))=4924.5807128451115			(=TABLE(T27,T46))=4112.393784845111					
(=TABLE(T27,T46))=3300.2068568451114	(=TABLE(T27,T46))=2488.0199288451113			0.15				(Z29/\$AC\$32)	
-1=0.3393904297156205	(AA29/\$AC\$32)-1=0.2759924867890857			(AB29/\$AC\$32)-1=0.21259454386255117					
(AC29/\$AC\$32)-1=0.1491966009360164	(AD29/\$AC\$32)-1=0.08579865800948161			(AE29/\$AC\$32)-1=0.02					
2400715082947054	(AF29/\$AC\$32)-1=-0.10439517077012228			(AG29/\$AC\$32)-1=-0.23119105662319184					
(AH29/\$AC\$32)-1=-0.3579869424762613	(AI29/\$AC\$32)-1=-0.4847828283293306			(AJ29/\$AC\$32)-1=-0.6					
115787141824001									
Net profit (base)	6405.467516045113			7118.518599790241				3809.28613779219	6242
.064735470831	3822.804240772133			3853.9025619301465				SUM(M30:R30)=31252.043791800654	0.10
(=TABLE(T27,T46))=8260.863895245115	(=TABLE(T27,T46))=7854.770431245114			(=TABLE(T27,T46))=74					
48.676967245115	(=TABLE(T27,T46))=7042.583503245114			(=TABLE(T27,T46))=6636.490039245114					(=TA
BLE(T27,T46))=6230.396575245114	(=TABLE(T27,T46))=5418.209647245114			(=TABLE(T27,T46))=4606.02271					
9245113	(=TABLE(T27,T46))=3793.835791245113			(=TABLE(T27,T46))=2981.6488632451124					(=TABLE(T27,
(=TABLE(T27,T46))=2169.4619352451123	0.10			(Z30/\$AC\$32)-1=0.2896582294036154					(AA30/\$AC\$32)-1=0.22
626028647708063	(AB30/\$AC\$32)-1=0.16286234355054585			(AC30/\$AC\$32)-1=0.09946440062401107					(AD3
0/\$AC\$32)-1=0.036066457697476295	(AE30/\$AC\$32)-1=-0.02733148522905826			(AF30/\$AC\$32)-1=-0.1					
541273710821276	(AG30/\$AC\$32)-1=-0.28092325693519715			(AH30/\$AC\$32)-1=-0.4077191427882665					(AI3
0/\$AC\$32)-1=-0.534515028641336	(AJ30/\$AC\$32)-1=-0.6613109144944054								
Expected provision expenses	Net profit (new) - TRYm			M30-(M28*0.8)+(M48-M46)*(0.8)*(0.04)					
)=6405.467516045113	N30-(N28*0.8)+(N48-N46)*(0.8)*(0.04)=7118.518599790241			O30-(O28*0.8)					
+((O48-O46)*(0.8)*(0.04))=3809.28613779219	P30-(P28*0.8)+(P48-P46)*(0.8)*(0.04)=6242.06473547								
0831	Q30-(Q28*0.8)+(Q48-Q46)*(0.8)*(0.04)=3822.804240772133			R30-(R28*0.8)+(R48-R46)*(0.05)					
* (0.04))=3853.9025619301465	S30-(S28*0.8)+(S48-S46)* (0.8)* (0.04))=31252.043791800654			0.05					
(=TABLE(T27,T46))=7942.305901645114	(=TABLE(T27,T46))=7536.212437645114			(=TABLE(T27,T46))=71					
30.118973645114	(=TABLE(T27,T46))=6724.025509645114			(=TABLE(T27,T46))=6317.932045645113					(=TA
BLE(T27,T46))=5911.838581645114	(=TABLE(T27,T46))=5099.651653645114			(=TABLE(T27,T46))=4287.46472					
56451135	(=TABLE(T27,T46))=3475.277976451134			(=TABLE(T27,T46))=2663.090869645113					(=TA
BLE(T27,T46))=1850.9039416451126	0.05			(Z31/\$AC\$32)-1=0.23992602909160965					(AA31/\$AC\$32
-1=0.17652808616507487	(AB31/\$AC\$32)-1=0.11313014323854031			(AC31/\$AC\$32)-1=0.04973220031200554					
(AD31/\$AC\$32)-1=-0.013665742614529242	(AE31/\$AC\$32)-1=-0.0770636855410638			(AF31/\$AC\$32)-1=-0.2					
0385957139413324	(AG31/\$AC\$32)-1=-0.3306554572472026			(AH31/\$AC\$32)-1=-0.4574513431002719					
(AI31/\$AC\$32)-1=-0.5842472289533414	(AJ31/\$AC\$32)-1=-0.7110431148064109								
TRYm	Akbank	Garanti	Halkbank	Isbank	Vakifbank	Yapi Kredi		Average	Change in ne
t profit from base	M31/M30=1=0	N31/N30=1=0	O31/O30=1=0	P31/P30=1=0	Q31/Q30=1=0				
R31/R30=1=0	S31/S30=1=0	0		(=TABLE(T27,T46))=7623.747908045114					(=TABLE(T27,T46))=72
17.654444045113	(=TABLE(T27,T46))=6811.560980045114			(=TABLE(T27,T46))=6405.467516045113					(=TA
BLE(T27,T46))=5999.374052045113	(=TABLE(T27,T46))=5593.280588045113			(=TABLE(T27,T46))=4781.09366					
0045113	(=TABLE(T27,T46))=3968.9067320451127			(=TABLE(T27,T46))=3156.7198040451126					(=TABLE(T27,
(=TABLE(T27,T46))=2344.532876045112	(=TABLE(T27,T46))=1532.345948045112			0					(Z32/\$AC\$32)-1=0.19019382877
96041	(AA32/\$AC\$32)-1=0.12679588585306933			(AB32/\$AC\$32)-1=0.06339794292653478					(AC32/\$AC\$32
-1=0	(AD32/\$AC\$32)-1=-0.06339794292653478			(AE32/\$AC\$32)-1=-0.12679588585306933					(AF32/\$AC\$32
-1=-0.2535917717061388	(AG32/\$AC\$32)-1=-0.3803876575592082			(AH32/\$AC\$32)-1=-0.5071835434122776					
(AI32/\$AC\$32)-1=-0.6339794292653471	(AJ32/\$AC\$32)-1=-0.7607753151184165								
ROE (base)	M30/M\$56=0.14227070975751668			N30/N\$56=0.15379565842592643				O30/O\$56=0.133239279	
64267931	P30/P\$56=0.13031433781764779			Q30/Q\$56=0.14460043618259225				R30/R\$56=0.102203593	
17283423	S30/S\$56=0.1347398172027409			-0.05				(=TABLE(T27,T46))=7305.189914445114	(=TA
BLE(T27,T46))=6899.096450445113	(=TABLE(T27,T46))=6493.0029864451135			(=TABLE(T27,T46))=6086.90952					
2445113	(=TABLE(T27,T46))=5680.8160584451125			(=TABLE(T27,T46))=5274.722594445113					(=TABLE(T27,
(=TABLE(T27,T46))=4462.535666445113	(=TABLE(T27,T46))=3650.348738445112			(=TABLE(T27,T46))=2838.1618104451118					
(=TABLE(T27,T46))=2025.9748824451115	(=TABLE(T27,T46))=1213.7879544451114			-0.05					(Z33/\$AC\$32)
-1=0.14046162846759858	(AA33/\$AC\$32)-1=0.0770636855410638			(AB33/\$AC\$32)-1=0.013665742614529242					
(AC33/\$AC\$32)-1=-0.04973220031200554	(AD33/\$AC\$32)-1=-0.11313014323854031			(AE33/\$AC\$32)-1=-0.1					
7652808616507498	(AF33/\$AC\$32)-1=-0.3033239720181443			(AG33/\$AC\$32)-1=-0.4301198578712139					
(AH33/\$AC\$32)-1=-0.5569157437242833	(AI33/\$AC\$32)-1=-0.6837116295773527			(AJ33/\$AC\$32)-1=-0.8					
105075154304221									
ROE (new)	M31/M\$56=0.14227070975751668			N31/N\$56=0.15379565842592643				O31/O\$56=0.133239279	
64267931	P31/P\$56=0.13031433781764779			Q31/Q\$56=0.14460043618259225				R31/R\$56=0.102203593	
17283423	S31/S\$56=0.1347398172027409			-0.10				(=TABLE(T27,T46))=6986.631920845113	(=TA

BLE(T27,T46)=6580.538456845113 (=TABLE(T27,T46))=6174.444992845113 (=TABLE(T27,T46))=5768.35152  
 8845113 (=TABLE(T27,T46))=5362.258064845112 (=TABLE(T27,T46))=4956.164600845113 (=TABLE(T27,  
 T46))=4143.9776728451125 (=TABLE(T27,T46))=3331.7907448451124 (=TABLE(T27,T46))=2519.60381  
 68451123 (=TABLE(T27,T46))=1707.4168888451118 (=TABLE(T27,T46))=895.2299608451116 -0.1  
 0 (Z34/\$ACS32)-1=-0.09072942815559304 (AA34/\$ACS32)-1=-0.02733148522905826 (AB34/\$ACS32  
 )-1=-0.036066457697476406 (AC34/\$ACS32)-1=-0.09946440062401118 (AD34/\$ACS32)-1=-0.162862343  
 55054596 (AE34/\$ACS32)-1=-0.22626028647708052 (AF34/\$ACS32)-1=-0.35305617233014996 (AG3  
 4/\$ACS32)-1=-0.4798520581832193 (AH34/\$ACS32)-1=-0.6066479440362886 (AI34/\$ACS32)-1=-0.733443829  
 8893582 (AJ34/\$ACS32)-1=-0.8602397157424275  
 Change in ROE from base (M34-M33)=0 (N34-N33)=0 (O34-O33)=0 (P34-P33)=0 (Q34-Q33)=0  
 (R34-R33)=0 (S34-S33)=0 -0.15 (=TABLE(T27,T46))=6668.073927245114 (=TABLE(T27,T46))=62  
 61.980463245113 (=TABLE(T27,T46))=5855.886999245114 (=TABLE(T27,T46))=5449.793535245113 (=TA  
 BLE(T27,T46))=5043.700071245113 (=TABLE(T27,T46))=4637.606607245113 (=TABLE(T27,T46))=3825.41967  
 9245113 (=TABLE(T27,T46))=3013.2327512451125 (=TABLE(T27,T46))=2201.0458232451124 (=TABLE(T27,  
 T46))=1388.8588952451119 (=TABLE(T27,T46))=576.6719672451118 -0.15 (Z35/\$ACS32)-1=0.040  
 9972278435875 (AA35/\$ACS32)-1=-0.022400715082947165 (AB35/\$ACS32)-1=-0.08579865800948183 (AC3  
 5/\$ACS32)-1=-0.1491966009360166 (AD35/\$ACS32)-1=-0.2125945438625514 (AE35/\$ACS32)-1=-0.275992486  
 78908594 (AF35/\$ACS32)-1=-0.4027883726421554 (AG35/\$ACS32)-1=-0.5295842584952248 (AH3  
 5/\$ACS32)-1=-0.6563801443482942 (AI35/\$ACS32)-1=-0.7831760302013636 (AJ35/\$ACS32)-1=-0.909971916  
 0544331  
 -0.20 (=TABLE(T27,T46))=6349.515933645114 (=TABLE(T27,T46))=5943.422469645114 (=TABLE(T27,  
 T46))=5537.329005645114 (=TABLE(T27,T46))=5131.235541645114 (=TABLE(T27,T46))=4725.142077645113  
 (=TABLE(T27,T46))=4319.048613645114 (=TABLE(T27,T46))=3506.8616856451135 (=TABLE(T27,T46))=26  
 94.674757645113 (=TABLE(T27,T46))=1882.487829645113 (=TABLE(T27,T46))=1070.3009016451124 (=TA  
 BLE(T27,T46))=258.1139736451123 -0.20 (Z36/\$ACS32)-1=-0.008734972468417923 (AA36/\$ACS32)-1=-0.0  
 7213291539495259 (AB36/\$ACS32)-1=-0.13553085832148726 (AC36/\$ACS32)-1=-0.19892880124802204  
 (AD36/\$ACS32)-1=-0.2623267441745568 (AE36/\$ACS32)-1=-0.32572468710109137 (AF36/\$ACS32)-1=-0.4  
 525205729541608 (AG36/\$ACS32)-1=-0.5793164588072303 (AH36/\$ACS32)-1=-0.7061123446602997 (AI3  
 6/\$ACS32)-1=-0.832908230513369 (AJ36/\$ACS32)-1=-0.9597041163664385  
 Stage 1 53.916 379.957 96.532 7.40 167.354 153.12 SUM(C37:H37)=858.279 COR impact Akba  
 nk Garanti Halkbank Isbank Vakifbank Yapi Kredi Total -0.25 (=TABLE(T27,  
 T46))=6030.957940045113 (=TABLE(T27,T46))=5624.864476045113 (=TABLE(T27,T46))=5218.771012045114  
 (=TABLE(T27,T46))=4812.677548045112 (=TABLE(T27,T46))=4406.584084045113 (=TABLE(T27,T46))=40  
 00.490620045113 (=TABLE(T27,T46))=3188.3036920451127 (=TABLE(T27,T46))=2376.116764045112 (=TA  
 BLE(T27,T46))=1563.929836045112 (=TABLE(T27,T46))=751.7429080451116 (=TABLE(T27,T46))=-60.444019  
 95488852 -0.25 (Z37/\$ACS32)-1=-0.05846717278042357 (AA37/\$ACS32)-1=-0.12186511570695824  
 (AB37/\$ACS32)-1=-0.1852630586334928 (AC37/\$ACS32)-1=-0.2486610015600278 (AD37/\$ACS32)-1=-0.3  
 1205894448656235 (AE37/\$ACS32)-1=-0.375456887413097 (AF37/\$ACS32)-1=-0.5022527732661665  
 (AG37/\$ACS32)-1=-0.6290486591192359 (AH37/\$ACS32)-1=-0.7558445449723052 (AI37/\$ACS32)-1=-0.8  
 826404308253747 (AJ37/\$ACS32)-1=-1.0094363166784441  
 Stage 2 246.51 748.876 19.004 588.762 78.11 70.684 SUM(C38:H38)=1751.946 Stage 2 loans % in 1  
 oans (base) M20=0.07133662843524677 N20=0.14735534330719807 O20=0.03192368365437227 P20=0.073769  
 12685352839 Q20=0.026227301668108462 R20=0.03727821168956142 S20=0.06569703294666697  
 Stage 3 397.74 488.162 276.835 531.50 1037.65 589.523 SUM(C39:H39)=3321.410000000003 Stage 3 loan  
 s % in loans (base) M21=0.019902480089475486 N21=0.025255693882762956 O21=0.028200  
 61603322851 P21=0.022987099868194798 Q21=0.03907207566378646 R21=0.04173465306698942 S21=  
 0.029227683046851582  
 Total SUM(C37:C39)=698.1659999999999 SUM(D37:D39)=1616.995 SUM(E37:E39)=392.371 SUM(F37:F39)  
 =1127.6619999999998 SUM(G37:G39)=1283.114 SUM(H37:H39)=813.327 SUM(C40:H40)=5931.635 Stag  
 e 2 loans % in loans (new) (M6-M27)/M\$8=0.07133662843524677 (N6-N27)/N\$8=0.1473553433071  
 9807 (O6-O27)/O\$8=0.03192368365437227 (P6-P27)/P\$8=0.07376912685352839 (Q6-Q27)/Q\$8  
 =0.026227301668108462 (R6-R27)/R\$8=0.03727821168956142 (S6-S27)/S\$8=0.06569703294666697  
 Average gross loans 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\AKBANK MO  
 DEL- Higher RFR and Lower NIM.xlsx\COR'!\$AH\$13/1000=199098.746 'R:\Bank models\Turkish Bank Model w  
 ith 2020 Estimates\Higher RFR\GARANTI MODEL- Higher RFR and Lower NIM.xlsx\COR'!\$AH\$13/1000=219928.  
 43 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\HALKBANK MODEL- Higher RF  
 R and Lower NIM.xlsx\COR'!\$AH\$13/1000=215448.166 'R:\Bank models\Turkish Bank Model with 2020  
 Estimates\Higher RFR\ISBANK MODEL- Higher RFR and Lower NIM.xlsx\COR'!\$AH\$13/1000=249443.2855 'R:\  
 Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\VAKIFBANK MODEL- Higher RFR and Lower  
 NIM.xlsx\COR'!\$AH\$13/1000=197091.47 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Highe  
 r RFR\YAPI KREDI MODEL- Higher RFR and Lower NIM.xlsx\COR'!\$AH\$13/1000=204895.8715 SUM(C41:H41)  
 =1285905.969 Stage 3 loans % in loans (new) (M7+M27)/M\$8=0.019902480089475486 (N7+N27)/N\$8  
 =0.025255693882762956 (O7+O27)/O\$8=0.02820061603322851 (P7+P27)/P\$8=0.022987099868194798  
 (Q7+Q27)/Q\$8=0.03907207566378646 (R7+R27)/R\$8=0.04173465306698942 (S7+S27)/S\$8=0.02922  
 7683046851582 GARANTI GARANTI  
 Stage 1 credit impairments C37=53.916 D37=379.957 E37=96.532 F37=7.40 G37=  
 167.354 H37=153.12 I37=858.279 Net profit % of Stage 2 loans transferred to Stage 3 lo  
 ans Net profit: change from base % of Stage 2 loans transferred to Stage 3 loans  
 CoR (gross) Stage 2 credit impairments C38=246.51 D38=748.876 E38=19.004 F38=  
 588.762 G38=78.11 H38=70.684 I38=1751.946 Loan growth (ppt change from base) S\$53  
 1=7118.518599790241 AA43-0.05=-0.15000000000000002 AB43-0.05=-0.10 -0.05 0 0.05 AD43  
 +0.05=0.10 0.20 0.30 0.40 0.50 0.60 Y43=7118.518599790241 AO43-0.05=-0.1500000  
 0000000002 AP43-0.05=-0.10 -0.05 0 0.05 AR43+0.05=0.10 0.20 0.30 0.40 0.50  
 0.60  
 TRYm Akbank Garanti Halkbank Isbank Vakifbank Yapi Kredi Average Stage 3 cred  
 it impairments (new) M28+C39=397.74 N28+D39=488.162 O28+E39=276.835 P28+F39=531.50 Q28+G39=1037  
 .65 R28+H39=589.523 S28+I39=3321.4100000000003 0.20 (=TABLE(T27,T46))=11286.95810379024  
 (=TABLE(T27,T46))=10366.658919790241 (=TABLE(T27,T46))=9446.35973579024 (=TABLE(T27,T46))=85  
 26.06055179024 (=TABLE(T27,T46))=7605.76136779024 (=TABLE(T27,T46))=6685.4621837902405 (=TA

BLE (T27, T46) =4844.863815790241 (=TABLE (T27, T46) )=3004.2654477902397 (=TABLE (T27, T46) )=1163.66707  
 97902398 (=TABLE (T27, T46) )=-676.9312882097602 (=TABLE (T27, T46) )=-2517.529656209761 0.20  
 (Z44/\$AC\$48) -1=0.5855768227005589 (AA44/\$AC\$48) -1=0.4562944205969641 (AB44/\$AC\$48) -1=0.32  
 701201849336914 (AC44/\$AC\$48) -1=0.1977296163897746 (AD44/\$AC\$48) -1=0.06844721428617984 (AE4  
 4/\$AC\$48) -1=-0.060835187817414815 (AF44/\$AC\$48) -1=-0.31939999202460434 (AG44/\$AC\$48) -1=-0.5  
 779647962317939 (AH44/\$AC\$48) -1=-0.8365296004389833 (AI44/\$AC\$48) -1=-1.0950944046461728 (AJ4  
 4/\$AC\$48) -1=-1.3536592088533623  
 Stage 1 C37/C\$41\*4=0.0010832011970582677 D37/D\$41\*4=0.006910557220819518 E37/E\$41\*4=0.0017922  
 083402650082 F37/F\$41\*4=1.1866424843093242E-4 G37/G\$41\*4=0.0033964737286702467 H37/  
 H\$41\*4=0.0029892256760283235 I37/I\$41\*4=0.002669803300368691 Recoveries C49=253 D49=860 E49=  
 188 F49=432 G49=446 H49=330 I49=2509 0.15 (=TABLE (T27, T46) )=10935.07261579024 (=TA  
 BLE (T27, T46) )=10014.773431790241 (=TABLE (T27, T46) )=9094.47424779024 (=TABLE (T27, T46) )=81  
 74.1750637902405 (=TABLE (T27, T46) )=7253.87587979024 (=TABLE (T27, T46) )=6333.576695790241  
 (=TABLE (T27, T46) )=4492.978327790241 (=TABLE (T27, T46) )=2652.37995979024 (=TABLE (T27, T46) )=81  
 1.7815917902399 (=TABLE (T27, T46) )=-1028.81677620976 (=TABLE (T27, T46) )=-2869.415144209761 0.15  
 (Z45/\$AC\$48) -1=0.5361444186031152 (AA45/\$AC\$48) -1=0.4068620164995205 (AB45/\$AC\$48) -1=0.27  
 75796143959255 (AC45/\$AC\$48) -1=0.14829721229233095 (AD45/\$AC\$48) -1=0.019014810188736186 (AE4  
 5/\$AC\$48) -1=-0.11026759191485846 (AF45/\$AC\$48) -1=-0.368832396122048 (AG45/\$AC\$48) -1=-0.6  
 273972003292375 (AH45/\$AC\$48) -1=-0.8859620045364269 (AI45/\$AC\$48) -1=-1.1445268087436165 (AJ4  
 5/\$AC\$48) -1=-1.403091612950806  
 Stage 2 C38/C\$41\*4=0.004952517380496208 D38/D\$41\*4=0.013620358222900059 E38/E\$41\*4=3.528273246011294  
 E-4 F38/F\$41\*4=0.009441216247931435 G38/G\$41\*4=0.0015852537910443307 H38/H\$41\*4=0.0013799  
 009122543496 I38/I\$41\*4=0.005449686189301761 Gross loans (base) C41=199098.746 D41=219928.4  
 3 E41=215448.166 F41=249443.2855 G41=197091.47 H41=204895.8715 I41=1285905.969 0 0.10  
 (=TABLE (T27, T46) )=10583.187127790243 (=TABLE (T27, T46) )=9662.887943790243 (=TABLE (T27, T46) )=87  
 42.588759790242 (=TABLE (T27, T46) )=7822.2895757902415 (=TABLE (T27, T46) )=6901.990391790241 (=TA  
 BLE (T27, T46) )=5981.691207790242 (=TABLE (T27, T46) )=4141.092839790242 (=TABLE (T27, T46) )=2300.49447  
 1790241 (=TABLE (T27, T46) )=459.896103790241 (=TABLE (T27, T46) )=-1380.702264209759 (=TABLE (T27,  
 T46) )=-3221.30063220976 0.10 (Z46/\$AC\$48) -1=0.4867120145056718 (AA46/\$AC\$48) -1=0.3574296124  
 0207705 (AB46/\$AC\$48) -1=0.22814721029848228 (AC46/\$AC\$48) -1=0.09886480819488752 (AD46/\$AC\$48  
 ) -1=-0.030417593908707352 (AE46/\$AC\$48) -1=-0.159699996012302 (AF46/\$AC\$48) -1=-0.418264800  
 2194914 (AG46/\$AC\$48) -1=-0.676829604426681 (AH46/\$AC\$48) -1=-0.9353944086338705 (AI46/\$AC\$48  
 ) -1=-1.1939592128410599 (AJ46/\$AC\$48) -1=-1.4525240170482494  
 Stage 3 C39/C\$41\*4=0.007990808741708499 D39/D\$41\*4=0.008878561084621938 E39/E\$41\*4=0.005139704925592  
 172 F39/F\$41\*4=0.008522979465005484 G39/G\$41\*4=0.021059257409770195 H39/H\$41\*4=0.011508733595932  
 899 I39/I\$41\*4=0.010331735228145598 Change in loan growth \$T\$46=0 \$T\$46=0 \$T\$46=0 \$T\$46=0 \$T\$4  
 6=0 \$T\$46=0 \$T\$46=0 0.05 (=TABLE (T27, T46) )=10231.301639790241 (=TABLE (T27, T46) )=9311.00245  
 5790242 (=TABLE (T27, T46) )=8390.70327179024 (=TABLE (T27, T46) )=7470.404087790241 (=TABLE (T27,  
 T46) )=6550.10490379024 (=TABLE (T27, T46) )=5629.805719790241 (=TABLE (T27, T46) )=3789.2073517902404  
 (=TABLE (T27, T46) )=1948.60898379024 (=TABLE (T27, T46) )=108.01061579024008 (=TABLE (T27, T46) )=-1  
 732.5877522097599 (=TABLE (T27, T46) )=-3573.1861202097607 0.05 (Z47/\$AC\$48) -1=0.43727961040  
 822794 (AA47/\$AC\$48) -1=0.3079972083046332 (AB47/\$AC\$48) -1=0.1787148062010382 (AC47/\$AC\$48  
 ) -1=0.04943240409744365 (AD47/\$AC\$48) -1=-0.07984999800615111 (AE47/\$AC\$48) -1=-0.20913240010974576  
 (AF47/\$AC\$48) -1=-0.4676972043169353 (AG47/\$AC\$48) -1=-0.7262620085241248 (AH47/\$AC\$48) -1=-0.9  
 848268127313142 (AI47/\$AC\$48) -1=-1.2433916169385038 (AJ47/\$AC\$48) -1=-1.5019564211456933  
 Total SUM (C45:C47) =0.014026527319262974 SUM (D45:D47) =0.029409476528341517 SUM (E45:E47)  
 =0.0072847405904583095 SUM (F45:F47) =0.018082859961367853 SUM (G45:G47) =0.02604098492948477  
 SUM (H45:H47) =0.015877860184215574 SUM (I45:I47) =0.018451224717816052 Gross loans (new)  
 M46\*(1+M47) =199098.746 N46\*(1+N47) =219928.43 O46\*(1+O47) =215448.166 P46\*(1+P47) =249443.2855 Q46\*  
 (1+Q47) =197091.47 R46\*(1+R47) =204895.8715 S46\*(1+S47) =1285905.969 0 (=TABLE (T27, T46) )=98  
 79.416151790241 (=TABLE (T27, T46) )=8959.116967790242 (=TABLE (T27, T46) )=8038.817783790241 (=TA  
 BLE (T27, T46) )=7118.518599790241 (=TABLE (T27, T46) )=6198.21941579024 (=TABLE (T27, T46) )=5277.92023  
 1790241 (=TABLE (T27, T46) )=3437.3218637902405 (=TABLE (T27, T46) )=1596.7234957902401 (=TABLE (T27,  
 T46) )=-243.87487220975981 (=TABLE (T27, T46) )=-2084.4732402097598 (=TABLE (T27, T46) )=-3925.0716  
 082097606 0 (Z48/\$AC\$48) -1=0.3878472063107843 (AA48/\$AC\$48) -1=0.2585648042071895  
 (AB48/\$AC\$48) -1=0.12928240210359476 (AC48/\$AC\$48) -1=0 (AD48/\$AC\$48) -1=-0.12928240210359476  
 (AE48/\$AC\$48) -1=-0.2585648042071894 (AF48/\$AC\$48) -1=-0.5171296084143789 (AG48/\$AC\$48) -1=-0.7  
 756944126215685 (AH48/\$AC\$48) -1=-1.0342592168287579 (AI48/\$AC\$48) -1=-1.2928240210359474 (AJ4  
 8/\$AC\$48) -1=-1.551388825243137  
 Recoveries 253 860 188 432 446 330 SUM (C49:H49) =2509 CoR (net), B  
 ase C57=0.008943622377209748 D57=0.013768024443224555 E57=0.0037943418836064724  
 F57=0.011155433566480983 G57=0.01698935017329771 H57=0.009435563468637288 I57=0.010646  
 610506557188 -0.05 (=TABLE (T27, T46) )=9527.530663790241 (=TABLE (T27, T46) )=8607.231479790242  
 (=TABLE (T27, T46) )=7686.932295790241 (=TABLE (T27, T46) )=6766.633111790241 (=TABLE (T27, T46) )=58  
 46.3339277902405 (=TABLE (T27, T46) )=4926.034743790241 (=TABLE (T27, T46) )=3085.4363757902406  
 (=TABLE (T27, T46) )=1244.8380077902402 (=TABLE (T27, T46) )=-595.7603602097597 (=TABLE (T27, T46) )=-2  
 436.3587282097596 (=TABLE (T27, T46) )=-4276.9570962097605 -0.05 (Z49/\$AC\$48) -1=0.33841480221  
 334064 (AA49/\$AC\$48) -1=0.20913240010974588 (AB49/\$AC\$48) -1=0.07984999800615111 (AC49/\$AC\$48  
 ) -1=-0.04943240409744365 (AD49/\$AC\$48) -1=-0.1787148062010384 (AE49/\$AC\$48) -1=-0.307997208  
 30463306 (AF49/\$AC\$48) -1=-0.5665620125118226 (AG49/\$AC\$48) -1=-0.8251268167190121 (AH4  
 9/\$AC\$48) -1=-1.0836916209262015 (AI49/\$AC\$48) -1=-1.342256425133391 (AJ49/\$AC\$48) -1=-1.600821229  
 3405806  
 CoR (net), New (M42+M43+M44-M45) /M48\*4=0.008943622377209748 (N42+N43+N44-N45) /N48\*4=0.0137680244  
 43224555 (O42+O43+O44-O45) /O48\*4=0.0037943418836064724 (P42+P43+P44-P45) /P48\*4=0.0111554335  
 66480983 (Q42+Q43+Q44-Q45) /Q48\*4=0.01698935017329771 (R42+R43+R44-R45) /R48\*4=0.0094355634  
 68637288 (S42+S43+S44-S45) /S48\*4=0.010646610506557188 -0.10 (=TABLE (T27, T46) )=9175.64517  
 5790241 (=TABLE (T27, T46) )=8255.345991790242 (=TABLE (T27, T46) )=7335.0468077902415 (=TABLE (T27,  
 T46) )=6414.747623790241 (=TABLE (T27, T46) )=5494.448439790241 (=TABLE (T27, T46) )=4574.149255790241  
 (=TABLE (T27, T46) )=2733.5508877902407 (=TABLE (T27, T46) )=892.9525197902403 (=TABLE (T27, T46) )=-9

47.6458482097596 (=TABLE(T27,T46))=-2788.2442162097595 (=TABLE(T27,T46))=-4628.84258420976  
-0.10 (Z50/\$AC\$48)-1=0.288982398115897 (AA50/\$AC\$48)-1=0.15969999601230223 (AB50/\$AC\$48  
)-1=0.030417593908707463 (AC50/\$AC\$48)-1=-0.0988648081948873 (AD50/\$AC\$48)-1=-0.228147210  
29848206 (AE50/\$AC\$48)-1=-0.3574296124020767 (AF50/\$AC\$48)-1=-0.6159944166092662 (AG5  
0/\$AC\$48)-1=-0.8745592208164558 (AH50/\$AC\$48)-1=-1.1331240250236452 (AI50/\$AC\$48)-1=-1.391688829  
2308345 (AJ50/\$AC\$48)-1=-1.6502536334380242  
CoR (net) Change in CoR from base (bps) (M50-M49)\*100=0 (N50-N49)\*100=0 (O50-O49)\*100=0 (P50  
-P49)\*100=0 (Q50-Q49)\*100=0 (R50-R49)\*100=0 (S50-S49)\*100=0 -0.15 (=TABLE(T27,T46))=8823.75968  
7790242 (=TABLE(T27,T46))=7903.460503790242 (=TABLE(T27,T46))=6983.161319790242 (=TABLE(T27,  
T46))=6062.862135790241 (=TABLE(T27,T46))=5142.562951790241 (=TABLE(T27,T46))=4222.263767790241  
(=TABLE(T27,T46))=2381.665399790241 (=TABLE(T27,T46))=541.0670317902404 (=TABLE(T27,T46))=-1  
299.5313362097595 (=TABLE(T27,T46))=-3140.1297042097594 (=TABLE(T27,T46))=-4980.72807220976  
-0.15 (Z51/\$AC\$48)-1=0.23954999401845334 (AA51/\$AC\$48)-1=0.11026759191485858 (AB51/\$AC\$48  
)-1=-0.019014810188736186 (AC51/\$AC\$48)-1=-0.14829721229233095 (AD51/\$AC\$48)-1=-0.277579614  
3959257 (AE51/\$AC\$48)-1=-0.40686201649952036 (AF51/\$AC\$48)-1=-0.6654268207067099 (AG51/\$AC\$48  
)-1=-0.9239916249138994 (AH51/\$AC\$48)-1=-1.1825564291210888 (AI51/\$AC\$48)-1=-1.4411212333282784  
(AJ51/\$AC\$48)-1=-1.6996860375354679  
-0.20 (=TABLE(T27,T46))=8471.874199790242 (=TABLE(T27,T46))=7551.575015790242 (=TABLE(T27,  
T46))=6631.275831790242 (=TABLE(T27,T46))=5710.976647790241 (=TABLE(T27,T46))=4790.677463790241  
(=TABLE(T27,T46))=3870.3782797902413 (=TABLE(T27,T46))=2029.779911790241 (=TABLE(T27,T46))=18  
9.18154379024054 (=TABLE(T27,T46))=-1651.4168242097594 (=TABLE(T27,T46))=-3492.015192209759  
3 (=TABLE(T27,T46))=-5332.61356020976 -0.20 (Z52/\$AC\$48)-1=0.1901175899210097 (AA5  
2/\$AC\$48)-1=0.060835187817414926 (AB52/\$AC\$48)-1=-0.06844721428617984 (AC52/\$AC\$48)-1=-0.1  
977296163897746 (AD52/\$AC\$48)-1=-0.32701201849336936 (AE52/\$AC\$48)-1=-0.456294420596964 (AF5  
2/\$AC\$48)-1=-0.7148592248041535 (AG52/\$AC\$48)-1=-0.9734240290113431 (AH52/\$AC\$48)-1=-1.231988833  
2185325 (AI52/\$AC\$48)-1=-1.4905536374257218 (AJ52/\$AC\$48)-1=-1.7491184416329113  
TRYm Akbank Garanti Halkbank Isbank Vakifbank Yapi Kredi Average Tier 1 & CAR  
impact Akbank Garanti Halkbank Isbank Vakifbank Yapi Kredi Total -0.25 (=TA  
BLE(T27,T46))=8119.988711790242 (=TABLE(T27,T46))=7199.689527790242 (=TABLE(T27,T46))=6279.39034  
3790242 (=TABLE(T27,T46))=5359.091159790241 (=TABLE(T27,T46))=4438.791975790241 (=TABLE(T27,  
T46))=3518.4927917902414 (=TABLE(T27,T46))=1677.894423790241 (=TABLE(T27,T46))=-162.70394  
420975936 (=TABLE(T27,T46))=-2003.3023122097593 (=TABLE(T27,T46))=-3843.9006802097592 (=TA  
BLE(T27,T46))=-5684.49904820976 -0.25 (Z53/\$AC\$48)-1=0.14068518582356604 (AA53/\$AC\$48)-1=0.01  
1402783719971277 (AB53/\$AC\$48)-1=-0.11787961838362349 (AC53/\$AC\$48)-1=-0.24716202048721825  
(AD53/\$AC\$48)-1=-0.376444422590813 (AE53/\$AC\$48)-1=-0.5057268246944077 (AF53/\$AC\$48)-1=-0.7  
642916289015972 (AG53/\$AC\$48)-1=-1.0228564331087866 (AH53/\$AC\$48)-1=-1.2814212373159761 (AI5  
3/\$AC\$48)-1=-1.5399860415231656 (AJ53/\$AC\$48)-1=-1.7985508457303552  
Stage 1 Base Case (2018E)  
Stage 2 Total RWAs 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[AKBANK MO  
DEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$585=302875.679288 'R:\Bank models\Turk  
ish Bank Model with 2020 Estimates\Higher RFR\[GARANTI MODEL- Higher RFR and Lower NIM.xlsx]Forecast  
(TRY)'!\$BK\$585=291738.2124657 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[H  
ALKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$585=234881.86808775 'R:\Bank mod  
els\Turkish Bank Model with 2020 Estimates\Higher RFR\[ISBANK MODEL- Higher RFR and Lower NIM.xlsx]F  
orecast (TRY)'!\$BK\$585=344418.17760000005 'R:\Bank models\Turkish Bank Model with 2020 Estim  
es\Higher RFR\[VAKIFBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$585=218144.9068410  
0002 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[YAPI KREDI MODEL- Highe  
RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$590=282617.49027600006 SUM(M55:R55)=1674676.3345584  
502  
Stage 3 (C39-C49)/C41\*4=0.0029079037996552724 (D39-D49)/D41\*4=-0.006762891000495025 (E39-E49)/E4  
1\*4=0.0016493062187403346 (F39-F49)/F41\*4=0.0015955530701186181 (G39-G49)/G41\*4=0.0120076226  
53583133 (H39-H49)/H41\*4=0.005066436880354615 (I39-I49)/I41\*4=0.002527121016886734 Shar  
eholders equity 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[AKBANK MODEL- Hig  
her RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$112=45023.093839641784 'R:\Bank models\Turkish Bank  
Model with 2020 Estimates\Higher RFR\[GARANTI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!  
\$BK\$112=46285.562756758685 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[H  
ALKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$112=28589.813364406662 'R:\Bank mod  
els\Turkish Bank Model with 2020 Estimates\Higher RFR\[ISBANK MODEL- Higher RFR and Lower NIM.xlsx]F  
orecast (TRY)'!\$BK\$112=47900.06103707109 'R:\Bank models\Turkish Bank Model with 2020 Estim  
es\Higher RFR\[VAKIFBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$112=26437.01735411  
7375 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[YAPI KREDI MODEL- Highe  
RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$112=37708.092663756914 SUM(M56:R56)=231943.64101575  
254  
Total (C40-C49)/C41\*4=0.008943622377209748 (D40-D49)/D41\*4=0.013768024443224555 (E40-E49)/E4  
1\*4=0.003794341883604724 (F40-F49)/F41\*4=0.011155433566480983 (G40-G49)/G41\*4=0.0169893501  
7329771 (H40-H49)/H41\*4=0.009435563468637288 (I40-I49)/I41\*4=0.010646610506557188 Tier 1 Capit  
al 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[AKBANK MODEL- Higher RFR  
and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$574=44122.63196284895 'R:\Bank models\Turkish Bank Model w  
ith 2020 Estimates\Higher RFR\[GARANTI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$574=  
45591.27931540731 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[HALKBANK  
MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$574=28018.01709711853 'R:\Bank models\Turk  
ish Bank Model with 2020 Estimates\Higher RFR\[ISBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast  
(TRY)'!\$BK\$574=46942.05981632967 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Highe  
r RFR\[VAKIFBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$574=25908.277007035027  
'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[YAPI KREDI MODEL- Higher RFR and  
Lower NIM.xlsx]Forecast (TRY)'!\$BK\$557=33560.20247074365 SUM(M57:R57)=224142.46766948313 HALK  
BANK HALKBANK  
Tier 2 Capital 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[AKBANK MODEL- Hig  
her RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$575=6078.117668351641 'R:\Bank models\Turkish Bank

Model with 2020 Estimates\Higher RFR\[GARANTI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!  
 \$BK\$575=7161.802715988953 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[H  
 ALKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$575=3144.879470084733 'R:\Bank mod  
 els\Turkish Bank Model with 2020 Estimates\Higher RFR\[ISBANK MODEL- Higher RFR and Lower NIM.xlsx]F  
 orecast (TRY)'!\$BK\$575=8622.010986672796 'R:\Bank models\Turkish Bank Model with 2020 Estim  
 ates\Higher RFR\[VAKIFBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$575=6212.699078217  
 583 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[YAPI KREDI MODEL- Higher  
 RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$565=9992.644555895582 SUM(M58:R58)=41212.154475211  
 28 Net profit % of Stage 2 loans transferred to Stage 3 loans Net profit: change from base  
 % of Stage 2 loans transferred to Stage 3 loans  
 Deductions 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[AKBANK MODEL- Hig  
 her RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$577=7.262812189425495 'R:\Bank models\Turkish Bank  
 Model with 2020 Estimates\Higher RFR\[GARANTI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!  
 \$BK\$577=34.580451246550766 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[H  
 ALKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$577=20.012869355084664 'R:\Bank mod  
 els\Turkish Bank Model with 2020 Estimates\Higher RFR\[ISBANK MODEL- Higher RFR and Lower NIM.xlsx]F  
 orecast (TRY)'!\$BK\$577=47.9000610370711 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Highe  
 r RFR\[VAKIFBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$577=2.643701735411738 'R:\  
 Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[YAPI KREDI MODEL- Higher RFR and Low  
 er NIM.xlsx]Forecast (TRY)'!\$BK\$572=301.6647413100553 SUM(M59:R59)=414.06463687359906 Loan growth  
 (ppt change from base) \$O\$31=3809.28613779219 AA59-0.05=-0.15000000000000002 AB59-0.05=-0.10 -0.0  
 5 0 0.05 AD59+0.05=0.10 0.20 0.30 0.40 0.50 0.60 Y59=3809.28613779219  
 AO59-0.05=-0.15000000000000002 AP59-0.05=-0.10 -0.05 0 0.05 AR59+0.05=0.10 0.20 0.30  
 0.40 0.50 0.60  
 Capital base M57+M58-M59=50193.48681901117 N57+N58-N59=52718.501580149714 O57+O58-O59=31142.88  
 3697848178 P57+P58-P59=55516.17074196539 Q57+Q58-Q59=32118.332383517198 R57+R58-R59=43251.18  
 2285329174 S57+S58-S59=264940.55750782083 0.08 (=TABLE(T27,T46))=4956.55035475219 (=TA  
 BLE(T27,T46))=4757.97805075219 (=TABLE(T27,T46))=4559.405746752191 (=TABLE(T27,T46))=4360.83344  
 275219 (=TABLE(T27,T46))=4162.26113875219 (=TABLE(T27,T46))=3963.6888347521904 (=TABLE(T27,  
 T46))=3566.5442267521903 (=TABLE(T27,T46))=3169.3996187521907 (=TABLE(T27,T46))=2772.25501  
 075219 (=TABLE(T27,T46))=2375.11040275219 (=TABLE(T27,T46))=1977.9657947521905 0.08 (Z6  
 /\$AC\$64)-1=0.30117564694810217 (AA60/\$AC\$64)-1=0.24904716491312162 (AB60/\$AC\$64)-1=0.1969186828  
 7814152 (AC60/\$AC\$64)-1=0.14479020084316097 (AD60/\$AC\$64)-1=0.09266171880818064 (AE60/\$AC\$64  
 )-1=0.04053323677320031 (AF60/\$AC\$64)-1=-0.06372372729676057 (AG60/\$AC\$64)-1=-0.16798069136672122  
 (AH60/\$AC\$64)-1=-0.2722376554366821 (AI60/\$AC\$64)-1=-0.37649461950664287 (AJ60/\$AC\$64)-1=-0.4  
 807515835766035  
 Tier 1 capital ratio (base) M57/M55=0.1456790194134188 N57/N55=0.15627462350605692 O57/  
 O55=0.11928556821019161 P57/P55=0.13629379303797134 Q57/Q55=0.11876636214990284 R57/R55=0.11  
 874779030119209 S57/S55=0.13384226136364502 0.06 (=TABLE(T27,T46))=4818.66352851219 (=TA  
 BLE(T27,T46))=4620.09122451219 (=TABLE(T27,T46))=4421.518920512191 (=TABLE(T27,T46))=4222.94661  
 651219 (=TABLE(T27,T46))=4024.3743125121896 (=TABLE(T27,T46))=3825.80200851219 (=TABLE(T27,  
 T46))=3428.6574005121897 (=TABLE(T27,T46))=3031.51279251219 (=TABLE(T27,T46))=2634.36818  
 45121896 (=TABLE(T27,T46))=2237.22357651219 (=TABLE(T27,T46))=1840.07896851219 0.06  
 (Z61/\$AC\$64)-1=0.2649780967373119 (AA61/\$AC\$64)-1=0.21284961470233155 (AB61/\$AC\$64)-1=0.16  
 072113266735122 (AC61/\$AC\$64)-1=0.10859265063237089 (AD61/\$AC\$64)-1=0.05646416859739012 (AE6  
 1/\$AC\$64)-1=0.004335686562409791 (AF61/\$AC\$64)-1=-0.09992127750755087 (AG61/\$AC\$64)-1=-0.2  
 0417824157751163 (AH61/\$AC\$64)-1=-0.3084352056474725 (AI61/\$AC\$64)-1=-0.41269216971743317  
 (AJ61/\$AC\$64)-1=-0.5169491337873939  
 CAR (base) M60/M55=0.165723068081947 N60/N55=0.18070482140335967 O60/O55=0.1325895606  
 6465483 P60/P55=0.16118827156225388 Q60/Q55=0.1472339320162418 R60/R55=0.15303788255670486  
 S60/S55=0.15820403742534273 0.04 (=TABLE(T27,T46))=4680.77670227219 (=TABLE(T27,T46))=44  
 82.20439827219 (=TABLE(T27,T46))=4283.63209427219 (=TABLE(T27,T46))=4085.0597902721906 (=TA  
 BLE(T27,T46))=3886.4874862721904 (=TABLE(T27,T46))=3687.9151822721906 (=TABLE(T27,T46))=32  
 90.7705742721905 (=TABLE(T27,T46))=2893.625966272191 (=TABLE(T27,T46))=2496.4813582721904  
 (=TABLE(T27,T46))=2099.3367502721903 (=TABLE(T27,T46))=1702.1921422721907 0.04 (Z62/\$AC\$64)  
 -1=0.22878054652652158 (AA62/\$AC\$64)-1=0.17665206449154125 (AB62/\$AC\$64)-1=0.12452358245656092  
 (AC62/\$AC\$64)-1=0.0723951004215806 (AD62/\$AC\$64)-1=0.020266618386600266 (AE62/\$AC\$64)-1=-0.0  
 3186186364838017 (AF62/\$AC\$64)-1=-0.13611882771834094 (AG62/\$AC\$64)-1=-0.2403757917883016  
 (AH62/\$AC\$64)-1=-0.3446327558582625 (AI62/\$AC\$64)-1=-0.44888971992822335 (AJ62/\$AC\$64)-1=-0.5  
 53146683998184  
 Tier 1 capital threshold (2018) 0.09375 0.09375 0.08875000000000001 0.09375 0.08875000000000001  
 0.09125 AVERAGE(M63:R63)=0.09166666666666667 0.02 (=TABLE(T27,T46))=4542.88987603219 (=TA  
 BLE(T27,T46))=4344.31757203219 (=TABLE(T27,T46))=4145.74526803219 (=TABLE(T27,T46))=3947.17296  
 403219 (=TABLE(T27,T46))=3748.60066003219 (=TABLE(T27,T46))=3550.02835603219 (=TABLE(T27,  
 T46))=3152.88374803219 (=TABLE(T27,T46))=2755.7391400321903 (=TABLE(T27,T46))=2358.59453203219  
 (=TABLE(T27,T46))=1961.4499240321902 (=TABLE(T27,T46))=1564.3053160321904 0.02 (Z63/\$AC\$64)  
 -1=0.1925829963157315 (AA63/\$AC\$64)-1=0.14045451428075095 (AB63/\$AC\$64)-1=0.08832603224577062  
 (AC63/\$AC\$64)-1=0.0361975502107903 (AD63/\$AC\$64)-1=-0.015930931824190142 (AE63/\$AC\$64)-1=-0.0  
 6805941385917058 (AF63/\$AC\$64)-1=-0.17231637792913135 (AG63/\$AC\$64)-1=-0.276573341999092  
 (AH63/\$AC\$64)-1=-0.3808303060690529 (AI63/\$AC\$64)-1=-0.48508727013901354 (AJ63/\$AC\$64)-1=-0.5  
 893442342089743  
 CAR threshold (2018) 0.12 0.12 0.12 0.12 0.12 0.12 0.12 AVERAGE(M64:R64)=0.12 0  
 (=TABLE(T27,T46))=4405.00304979219 (=TABLE(T27,T46))=4206.43074579219 (=TABLE(T27,T46))=40  
 07.85844179219 (=TABLE(T27,T46))=3809.28613779219 (=TABLE(T27,T46))=3610.7138337921897 (=TA  
 BLE(T27,T46))=3412.14152979219 (=TABLE(T27,T46))=3014.99692179219 (=TABLE(T27,T46))=2617.85231  
 379219 (=TABLE(T27,T46))=2220.7077057921897 (=TABLE(T27,T46))=1823.5630977921899 (=TABLE(T27,  
 T46))=1426.41848979219 0 (Z64/\$AC\$64)-1=0.1563854461049412 (AA64/\$AC\$64)-1=0.1042569640  
 6996066 (AB64/\$AC\$64)-1=0.05212848203498055 (AC64/\$AC\$64)-1=0 (AD64/\$AC\$64)-1=-0.052128482  
 03498044 (AE64/\$AC\$64)-1=-0.10425696406996077 (AF64/\$AC\$64)-1=-0.20851392813992153 (AG64

4/\$ACS64)-1=-0.3127708922098823 (AH64/\$ACS64)-1=-0.4170278562798432 (AI64/\$ACS64)-1=-0.521284820  
349804 (AJ64/\$ACS64)-1=-0.6255417844197646  
Tier 1 capital headroom M61-M63=0.05192901941341879 N61-N63=0.06252462350605692 O61-O63=0.03  
05355682101916 P61-P63=0.042543793037971345 Q61-Q63=0.03001636214990283 R61-R63=0.0274977903  
01192093 S61-S63=0.04217559469697835 -0.02 (=TABLE (T27, T46))=4267.11622355219 (=TA  
BLE (T27, T46))=4068.5439195521894 (=TABLE (T27, T46))=3869.97161555219 (=TABLE (T27, T46))=36  
71.39931155219 (=TABLE (T27, T46))=3472.8270075521896 (=TABLE (T27, T46))=3274.2547035521898 (=TA  
BLE (T27, T46))=2877.1100955521897 (=TABLE (T27, T46))=2479.96548755219 (=TABLE (T27, T46))=20  
82.8208795521896 (=TABLE (T27, T46))=1685.6762715521895 (=TABLE (T27, T46))=1288.5316635521897  
-0.02 (Z65/\$ACS64)-1=0.12018789589415091 (AA65/\$ACS64)-1=0.06805941385917036 (AB65/\$ACS64  
)-1=0.015930931824190253 (AC65/\$ACS64)-1=-0.0361975502107903 (AD65/\$ACS64)-1=-0.088326032  
24577074 (AE65/\$ACS64)-1=-0.14045451428075106 (AF65/\$ACS64)-1=-0.24471147835071183 (AG6  
5/\$ACS64)-1=-0.3489684424206725 (AH65/\$ACS64)-1=-0.4532254064906335 (AI65/\$ACS64)-1=-0.557482370  
5605942 (AJ65/\$ACS64)-1=-0.6617393346305549  
CAR headroom M62-M64=0.04572306808194701 N62-N64=0.06070482140335967 O62-O64=0.0125895606  
6465483 P62-P64=0.04118827156225388 Q62-Q64=0.027233932016241802 R62-R64=0.03303788255670487  
S62-S64=0.03820403742534273 -0.04 (=TABLE (T27, T46))=4129.22939731219 (=TABLE (T27, T46))=39  
30.657093312189 (=TABLE (T27, T46))=3732.0847893121895 (=TABLE (T27, T46))=3533.5124853121893 (=TA  
BLE (T27, T46))=3334.940181312189 (=TABLE (T27, T46))=3136.367877312189 (=TABLE (T27, T46))=2739.22326  
9312189 (=TABLE (T27, T46))=2342.0786613121895 (=TABLE (T27, T46))=1944.934053312189 (=TABLE (T27,  
T46))=1547.7894453121892 (=TABLE (T27, T46))=1150.6448373121893 -0.04 (Z66/\$ACS64)-1=0.083  
99034568336061 (AA66/\$ACS64)-1=0.03186186364838006 (AB66/\$ACS64)-1=-0.020266618386600155 (AC6  
6/\$ACS64)-1=-0.0723951004215806 (AD66/\$ACS64)-1=-0.12452358245656114 (AE66/\$ACS64)-1=-0.176652064  
49154147 (AF66/\$ACS64)-1=-0.28090902856150224 (AG66/\$ACS64)-1=-0.3851659926314629 (AH6  
6/\$ACS64)-1=-0.4894229567014238 (AI66/\$ACS64)-1=-0.5936799207713845 (AJ66/\$ACS64)-1=-0.697936884  
8413453  
Stage 1 Impact of weaker asset quality (2018E) -0.06 (=TABLE (T27, T46))=3991.34257107219 (=TA  
BLE (T27, T46))=3792.7702670721897 (=TABLE (T27, T46))=3594.1979630721903 (=TABLE (T27, T46))=33  
95.62565907219 (=TABLE (T27, T46))=3197.05335507219 (=TABLE (T27, T46))=2998.48105107219 (=TA  
BLE (T27, T46))=2601.33644307219 (=TABLE (T27, T46))=2204.1918350721903 (=TABLE (T27, T46))=1807.04722  
70721898 (=TABLE (T27, T46))=1409.9026190721897 (=TABLE (T27, T46))=1012.75801107219 -0.0  
6 (Z67/\$ACS64)-1=0.04779279547257054 (AA67/\$ACS64)-1=-0.004335686562410013 (AB67/\$ACS64  
)-1=-0.05646416859739023 (AC67/\$ACS64)-1=-0.10859265063237067 (AD67/\$ACS64)-1=-0.160721132  
6673511 (AE67/\$ACS64)-1=-0.21284961470233144 (AF67/\$ACS64)-1=-0.3171065787722923 (AG67/\$ACS64  
)-1=-0.42136354284225297 (AH67/\$ACS64)-1=-0.5256205069122138 (AI67/\$ACS64)-1=-0.629877470  
9821746 (AJ67/\$ACS64)-1=-0.7341344350521353  
Tier 1 capital (TRYm) M57-(M\$28\*0.8)=44122.63196284895 N57-(N\$28\*0.8)=45591.27931540731  
O57-(O\$28\*0.8)=28018.01709711853 P57-(P\$28\*0.8)=46942.05981632967 Q57-(Q\$28\*0.8)=25908  
.277007035027 R57-(R\$28\*0.8)=33560.20247074365 S57-(S\$28\*0.8)=224142.46766948313 -0.0  
8 (=TABLE (T27, T46))=3853.4557448321902 (=TABLE (T27, T46))=3654.88344083219 (=TABLE (T27,  
T46))=3456.3111368321906 (=TABLE (T27, T46))=3257.7388328321904 (=TABLE (T27, T46))=3059.16652  
883219 (=TABLE (T27, T46))=2860.5942248321903 (=TABLE (T27, T46))=2463.4496168321903 (=TABLE (T27,  
T46))=2066.3050088321907 (=TABLE (T27, T46))=1669.1604008321901 (=TABLE (T27, T46))=1272.01579  
28321905 (=TABLE (T27, T46))=874.8711848321906 -0.08 (Z68/\$ACS64)-1=0.01159524526178024  
(AA68/\$ACS64)-1=-0.0405332367732002 (AB68/\$ACS64)-1=-0.09266171880818042 (AC68/\$ACS64)-1=-0.1  
4479020084316085 (AD68/\$ACS64)-1=-0.1969186828781413 (AE68/\$ACS64)-1=-0.24904716491312162  
(AF68/\$ACS64)-1=-0.3533041289830824 (AG68/\$ACS64)-1=-0.45756109305304304 (AH68/\$ACS64)-1=-0.5  
61818057123004 (AI68/\$ACS64)-1=-0.6660750211929647 (AJ68/\$ACS64)-1=-0.7703319852629255  
Capital base (TRYm) M60-(M\$28\*0.8)=50193.48681901117 N60-(N\$28\*0.8)=52718.501580149714  
O60-(O\$28\*0.8)=31142.883697848178 P60-(P\$28\*0.8)=55516.17074196539 Q60-(Q\$28\*0.8)=32118  
.332383517198 R60-(R\$28\*0.8)=43251.182285329174 S60-(S\$28\*0.8)=264940.55750782083 -0.1  
0 (=TABLE (T27, T46))=3715.56891859219 (=TABLE (T27, T46))=3516.99661459219 (=TABLE (T27,  
T46))=3318.4243105921905 (=TABLE (T27, T46))=3119.8520065921903 (=TABLE (T27, T46))=2921.27970  
259219 (=TABLE (T27, T46))=2722.70739859219 (=TABLE (T27, T46))=2325.56279059219 (=TABLE (T27,  
T46))=1928.4181825921905 (=TABLE (T27, T46))=1531.27357459219 (=TABLE (T27, T46))=1134.12896  
65921902 (=TABLE (T27, T46))=736.9843585921903 -0.10 (Z69/\$ACS64)-1=-0.024602304949009945  
(AA69/\$ACS64)-1=-0.07673078698399038 (AB69/\$ACS64)-1=-0.1288592690189706 (AC69/\$ACS64)-1=-0.1  
8098775105395104 (AD69/\$ACS64)-1=-0.2331162330889316 (AE69/\$ACS64)-1=-0.2852447151239119  
(AF69/\$ACS64)-1=-0.3895016791938727 (AG69/\$ACS64)-1=-0.49375864326383334 (AH69/\$ACS64)-1=-0.5  
980156073337943 (AI69/\$ACS64)-1=-0.702272571403755 (AJ69/\$ACS64)-1=-0.8065295354737158  
Tier 1 capital ratio (new) M68/M55=0.1456790194134188 N68/N55=0.15627462350605692 O68/  
O55=0.11928556821019161 P68/P55=0.13629379303797134 Q68/Q55=0.11876636214990284 R68/R55=0.11  
874779030119209 S68/S55=0.13384226136364502  
CAR (new) M69/M55=0.165723068081947 N69/N55=0.18070482140335967 O69/O55=0.1325895606  
6465483 P69/P55=0.16118827156225388 Q69/Q55=0.1472339320162418 R69/R55=0.15303788255670486  
S69/S55=0.15820403742534273  
Tier 1 capital ratio - chg. from base (bps) (M70-M61)\*100=0 (N70-N61)\*100=0 (O70-O61)\*100=0 (P70  
-P61)\*100=0 (Q70-Q61)\*100=0 (R70-R61)\*100=0 (S70-S61)\*100=0  
CoR (net) CAR - chg. from base (bps) (M71-M62)\*100=0 (N71-N62)\*100=0 (O71-O62)\*100=0 (P71  
-P62)\*100=0 (Q71-Q62)\*100=0 (R71-R62)\*100=0 (S71-S62)\*100=0 ISBANK ISBANK  
Tier 1 capital headroom M70-M63=0.05192901941341879 N70-N63=0.06252462350605692 O70-O63=0.03  
05355682101916 P70-P63=0.042543793037971345 Q70-Q63=0.03001636214990283 R70-R63=0.0274977903  
01192093 S70-S63=0.04217559469697835  
Net profit % of Stage 2 loans transferred to Stage 3 loans  
age 3 loans Net profit: change from base % of Stage 2 loans transferred to Stage 3 loans  
CAR headroom M71-M64=0.04572306808194701 N71-N64=0.06070482140335967 O71-O64=0.0125895606  
6465483 P71-P64=0.04118827156225388 Q71-Q64=0.027233932016241802 R71-R64=0.03303788255670487  
S71-S64=0.03820403742534273 Loan growth (ppt change from base) P31=6242.064735470831 AA75  
-0.05=-0.15000000000000002 AB75-0.05=-0.10 -0.05 0 0.05 AD75+0.05=0.10 0.20 0.30  
0.40 0.50 0.60 Y75=6242.064735470831 AO75-0.05=-0.15000000000000002 AP75-0.05=-0.10 -0.0

5 0 0.05 AR75+0.05=0.10 0.20 0.30 0.40 0.50 0.60

0.20 (=TABLE(T27,T46))=9401.795018670833 (=TABLE(T27,T46))=8880.697266670832 (=TABLE(T27,T46))=8359.59951467083 (=TABLE(T27,T46))=7838.501762670831 (=TABLE(T27,T46))=7317.404010670832  
(=TABLE(T27,T46))=6796.306258670831 (=TABLE(T27,T46))=5754.110754670831 (=TABLE(T27,T46))=4711.9152506708315  
(=TABLE(T27,T46))=3669.7197466708312 (=TABLE(T27,T46))=2627.524242670831 (=TABLE(T27,T46))=1585.3287386708316  
0.20 (Z76/\$AC\$80)-1=0.5061995376697528 (AA76/\$AC\$80)-1=0.42271790553626354 (AB76/\$AC\$80)-1=0.3392362734027743 (AC76/\$AC\$80)-1=0.2557546412692857  
(AD76/\$AC\$80)-1=0.17227300913579668 (AE76/\$AC\$80)-1=0.08879137700230766 (AF76/\$AC\$80)-1=-0.07817188726467028  
(AG76/\$AC\$80)-1=-0.2451351515316481 (AH76/\$AC\$80)-1=-0.41209841579862616 (AI76/\$AC\$80)-1=-0.5790616800656041  
(AJ76/\$AC\$80)-1=-0.7460249443325819

TRYm Akbank Garanti Halkbank Isbank Vakifbank Yapi Kredi Average Valuation  
Akbank Garanti Halkbank Isbank Vakifbank Yapi Kredi Total 0.15 (=TABLE(T27,T46))=9002.68576187083 (=TABLE(T27,T46))=8481.58800987083 (=TABLE(T27,T46))=7960.49025787083  
(=TABLE(T27,T46))=7439.39250587083 (=TABLE(T27,T46))=6918.29475387083 (=TABLE(T27,T46))=6397.19700187083  
(=TABLE(T27,T46))=5355.00149787083 (=TABLE(T27,T46))=4312.80599387083 (=TABLE(T27,T46))=3270.61048987083  
(=TABLE(T27,T46))=2228.4149858708297 (=TABLE(T27,T46))=1186.2194818708301  
0.15 (Z77/\$AC\$80)-1=0.442260877352431 (AA77/\$AC\$80)-1=0.3587792452189418 (AB77/\$AC\$80)-1=0.275297613085453  
(AC77/\$AC\$80)-1=0.19181598095196395 (AD77/\$AC\$80)-1=0.10833434881847515 (AE77/\$AC\$80)-1=0.02485271668498612 (AF77/\$AC\$80)-1=-0.14211054758199193  
(AG77/\$AC\$80)-1=-0.30907381184896976 (AH77/\$AC\$80)-1=-0.4760370761159477 (AI77/\$AC\$80)-1=-0.6430003403829256  
(AJ77/\$AC\$80)-1=-0.8099636046499035

Net profit (base) M30=6405.467516045113 N30=7118.518599790241 O30=3809.28613779219 P30=6242.064735470831  
Q30=3822.804240772133 R30=3853.9025619301465 S30=31252.043791800654 0.10 (=TABLE(T27,T46))=8603.576505070832  
(=TABLE(T27,T46))=8082.478753070833 (=TABLE(T27,T46))=7561.381001070831  
(=TABLE(T27,T46))=7040.2832490708315 (=TABLE(T27,T46))=6519.185497070832 (=TABLE(T27,T46))=5998.087745070832  
(=TABLE(T27,T46))=4955.892241070831 (=TABLE(T27,T46))=3913.696737070832  
(=TABLE(T27,T46))=2871.501233070832 (=TABLE(T27,T46))=1829.3057290708316 (=TABLE(T27,T46))=787.1102250708323  
0.10 (Z78/\$AC\$80)-1=0.37832221703510993 (AA78/\$AC\$80)-1=0.2948405849016209 (AB78/\$AC\$80)-1=0.21135895276813188  
(AC78/\$AC\$80)-1=0.12787732063464285 (AD78/\$AC\$80)-1=0.04439568850115405 (AE78/\$AC\$80)-1=-0.039085943632334974  
(AF78/\$AC\$80)-1=-0.20604920789931302 (AG78/\$AC\$80)-1=-0.37301247216629085  
(AH78/\$AC\$80)-1=-0.5399757364332688 (AI78/\$AC\$80)-1=-0.7069390007002467 (AJ78/\$AC\$80)-1=-0.8739022649672246

Net profit (new) M31=6405.467516045113 N31=7118.518599790241 O31=3809.28613779219 P31=6242.064735470831  
Q31=3822.804240772133 R31=3853.9025619301465 S31=31252.043791800654 0.05 (=TABLE(T27,T46))=8204.467248270832  
(=TABLE(T27,T46))=7683.369496270831 (=TABLE(T27,T46))=7162.271744270831  
(=TABLE(T27,T46))=6641.173992270831 (=TABLE(T27,T46))=6120.0762402708315 (=TABLE(T27,T46))=5598.978488270831  
(=TABLE(T27,T46))=4556.782984270831 (=TABLE(T27,T46))=3514.5874802708313  
(=TABLE(T27,T46))=2472.391976270831 (=TABLE(T27,T46))=1430.196472270831 (=TABLE(T27,T46))=388.00096827083166  
0.05 (Z79/\$AC\$80)-1=0.3143835567177884 (AA79/\$AC\$80)-1=0.23090192458429937  
(AB79/\$AC\$80)-1=0.14742029245081034 (AC79/\$AC\$80)-1=0.06393866031732154 (AD79/\$AC\$80)-1=-0.019542971816167487  
(AE79/\$AC\$80)-1=-0.10302460394965651 (AF79/\$AC\$80)-1=-0.26998786821663445 (AG79/\$AC\$80)-1=-0.4369511324836123  
(AH79/\$AC\$80)-1=-0.6039143967505902 (AI79/\$AC\$80)-1=-0.7708776610175683  
(AJ79/\$AC\$80)-1=-0.9378409252845461

Book value (base) M56=45023.093839641784 N56=46285.562756758685 O56=28589.813364406662 P56=47900.06103707109  
Q56=26437.017354117375 R56=37708.092663756914 S56=231943.64101575254 0 (=TABLE(T27,T46))=7805.357991470832  
(=TABLE(T27,T46))=7284.260239470831 (=TABLE(T27,T46))=6763.1624874708305  
(=TABLE(T27,T46))=6242.064735470831 (=TABLE(T27,T46))=5720.966983470831 (=TABLE(T27,T46))=5199.8692314708305  
(=TABLE(T27,T46))=4157.67372747083 (=TABLE(T27,T46))=3115.478223470831  
(=TABLE(T27,T46))=2073.2827194708307 (=TABLE(T27,T46))=1031.0872154708304 (=TABLE(T27,T46))=-11.10828852916893  
0 (Z80/\$AC\$80)-1=0.2504448964004671 (AA80/\$AC\$80)-1=0.16696326426697805 (AB80/\$AC\$80)-1=0.0834816321334888  
(AC80/\$AC\$80)-1=0 (AD80/\$AC\$80)-1=-0.08348163213348891 (AE80/\$AC\$80)-1=-0.16696326426697794  
(AF80/\$AC\$80)-1=-0.333926528533956 (AG80/\$AC\$80)-1=-0.5008897928009337 (AH80/\$AC\$80)-1=-0.6678530570679118  
(AI80/\$AC\$80)-1=-0.8348163213348897 (AJ80/\$AC\$80)-1=-1.0017795856018674

Book value (new) M56-(M28\*0.8)=45023.093839641784 N56-(N28\*0.8)=46285.562756758685 O56-(O28\*0.8)=28589.813364406662  
P56-(P28\*0.8)=47900.06103707109 Q56-(Q28\*0.8)=26437.017354117375 R56-(R28\*0.8)=37708.092663756914  
S56-(S28\*0.8)=231943.64101575254 -0.05 (=TABLE(T27,T46))=7406.248734670831  
(=TABLE(T27,T46))=6885.150982670831 (=TABLE(T27,T46))=6364.05323067083 (=TABLE(T27,T46))=5842.95547867083  
(=TABLE(T27,T46))=5321.857726670831 (=TABLE(T27,T46))=4800.75997467083 (=TABLE(T27,T46))=3758.56447067083  
(=TABLE(T27,T46))=2716.3689666708306 (=TABLE(T27,T46))=1674.17346267083  
(=TABLE(T27,T46))=631.9779586708298 (=TABLE(T27,T46))=-410.2175453291695  
-0.05 (Z81/\$AC\$80)-1=0.18650623608314554 (AA81/\$AC\$80)-1=0.10302460394965651 (AB81/\$AC\$80)-1=0.019542971816167487  
(AC81/\$AC\$80)-1=-0.06393866031732143 (AD81/\$AC\$80)-1=-0.14742029245081034 (AE81/\$AC\$80)-1=-0.23090192458429937  
(AF81/\$AC\$80)-1=-0.3978651888512774 (AG81/\$AC\$80)-1=-0.5648284531182552 (AH81/\$AC\$80)-1=-0.731791713852332 (AI81/\$AC\$80)-1=-0.8987549816522111  
(AJ81/\$AC\$80)-1=-1.065718245919189

Price (TRY/shr) 6.60 7 6.40 4.94 4.06 2.2 -0.10 (=TABLE(T27,T46))=7007.139477870831  
(=TABLE(T27,T46))=6486.041725870831 (=TABLE(T27,T46))=5964.94397387083 (=TABLE(T27,T46))=5443.84622187083  
(=TABLE(T27,T46))=4922.74846987083 (=TABLE(T27,T46))=4401.650717870831 (=TABLE(T27,T46))=3359.45521387083  
(=TABLE(T27,T46))=2317.2597098708306 (=TABLE(T27,T46))=1275.0642058708304  
(=TABLE(T27,T46))=232.86870187083014 (=TABLE(T27,T46))=-809.3268021291692 -0.10 (Z82/\$AC\$80)-1=0.12256757576582422  
(AA82/\$AC\$80)-1=0.039085943632335196 (AB82/\$AC\$80)-1=-0.04439568850115394 (AC82/\$AC\$80)-1=-0.12787732063464285  
(AD82/\$AC\$80)-1=-0.21135895276813177 (AE82/\$AC\$80)-1=-0.2948405849016207 (AF82/\$AC\$80)-1=-0.46180384916859873  
(AG82/\$AC\$80)-1=-0.6287671134355766 (AH82/\$AC\$80)-1=-0.7957303777025545 (AI82/\$AC\$80)-1=-0.9626936419695326  
(AJ82/\$AC\$80)-1=-1.1296569062365103

Paid-in cap (TRYm) 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[AKBANK MO DEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'\!\$BK\$113=4000 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[GARANTI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'\!\$BK\$113=

4200 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[HALKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$113=1250 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[ISBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$113=4500 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[VAKIFBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$113=2500 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[YAPI KREDI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$113=8447.051 -0.15 (=TABLE(T27,T46))=6608.030221070831 (=TABLE(T27,T46))=6086.932469070831 (=TABLE(T27,T46))=5565.83471707083 (=TABLE(T27,T46))=5044.736965070831 (=TABLE(T27,T46))=4523.639213070831 (=TABLE(T27,T46))=4002.5414610708303 (=TABLE(T27,T46))=2960.34595707083 (=TABLE(T27,T46))=1918.150453070831 (=TABLE(T27,T46))=875.9549490708307 (=TABLE(T27,T46))=-166.24055492916955 (=TABLE(T27,T46))=-1208.436058929169 -0.15 (Z83/\$AC\$80)-1=0.058628915448502905 (AA83/\$AC\$80)-1=-0.02485271668498623 (AB83/\$AC\$80)-1=-0.10833434881847526 (AC83/\$AC\$80)-1=-0.19181598095196417 (AD83/\$AC\$80)-1=-0.2752976130854531 (AE83/\$AC\$80)-1=-0.3587792452189421 (AF83/\$AC\$80)-1=-0.52574250948592 (AG83/\$AC\$80)-1=-0.6927057737528979 (AH83/\$AC\$80)-1=-0.8596690380198759 (AI83/\$AC\$80)-1=-1.0266323022868538 (AJ83/\$AC\$80)-1=-1.1935955665538316 M.Cap (TRYm) M82\*M83=26400 N82\*N83=29400 O82\*O83=8000 P82\*P83=22230 Q82\*Q83=10149.999999 999999 R82\*R83=18583.5122 -0.20 (=TABLE(T27,T46))=6208.920964270832 (=TABLE(T27,T46))=5687.823212270831 (=TABLE(T27,T46))=5166.725460270831 (=TABLE(T27,T46))=4645.627708270831 (=TABLE(T27,T46))=4124.5299562708315 (=TABLE(T27,T46))=3603.432204270831 (=TABLE(T27,T46))=2561.2367002708306 (=TABLE(T27,T46))=1519.0411962708315 (=TABLE(T27,T46))=476.84569227083125 (=TABLE(T27,T46))=-565.349811729169 (=TABLE(T27,T46))=-1607.5453157291684 -0.20 (Z84/\$AC\$80)-1=-0.005309744868818411 (AA84/\$AC\$80)-1=-0.08879137700230755 (AB84/\$AC\$80)-1=-0.17227300913579657 (AC84/\$AC\$80)-1=-0.2557546412692855 (AD84/\$AC\$80)-1=-0.3392362734027744 (AE84/\$AC\$80)-1=-0.4227179055362634 (AF84/\$AC\$80)-1=-0.5896811698032414 (AG84/\$AC\$80)-1=-0.7566444340702192 (AH84/\$AC\$80)-1=-0.9236076983371971 (AI84/\$AC\$80)-1=-1.090570962604175 (AJ84/\$AC\$80)-1=-1.257534226871153 -0.25 (=TABLE(T27,T46))=5809.811707470832 (=TABLE(T27,T46))=5288.713955470831 (=TABLE(T27,T46))=4767.61620347083 (=TABLE(T27,T46))=4246.518451470831 (=TABLE(T27,T46))=3725.420699470831 (=TABLE(T27,T46))=3204.3229474708305 (=TABLE(T27,T46))=2162.1274434708303 (=TABLE(T27,T46))=1119.9319394708307 (=TABLE(T27,T46))=77.73643547083043 (=TABLE(T27,T46))=-964.4590685291698 (=TABLE(T27,T46))=-2006.6545725291692 -0.25 (Z85/\$AC\$80)-1=-0.06924840518613984 (AA85/\$AC\$80)-1=-0.15273003731962898 (AB85/\$AC\$80)-1=-0.236211669453118 (AC85/\$AC\$80)-1=-0.3196933015866069 (AD85/\$AC\$80)-1=-0.40317493372009583 (AE85/\$AC\$80)-1=-0.48665656585358485 (AF85/\$AC\$80)-1=-0.6536198301205629 (AG85/\$AC\$80)-1=-0.8205830943875407 (AH85/\$AC\$80)-1=-0.9875463586545187 (AI85/\$AC\$80)-1=-1.1545096229214966 (AJ85/\$AC\$80)-1=-1.3214728871884744 P/E (2018E), base (x) M\$84/M78=4.121479023017509 N\$84/N78=4.130072793638036 O\$84/O78=2.100131024716534 P\$84/P78=3.5613216046410034 Q\$84/Q78=2.6551189547571217 R\$84/R78=4.821998455169255 AVERAGE(M86:R86)=3.565020309323243 P/E (2018E), implied (x) M\$84/M79=4.121479023017509 N\$84/N79=4.130072793638036 O\$84/O79=2.100131024716534 P\$84/P79=3.5613216046410034 Q\$84/Q79=2.6551189547571217 R\$84/R79=4.821998455169255 AVERAGE(M87:R87)=3.565020309323243 Change from base M87/M86-1=0 N87/N86-1=0 O87/O86-1=0 P87/P86-1=0 Q87/Q86-1=0 R87/R86-1=0 S87/S86-1=0 VAKIFBANK VAKIFBANK P/BV (2018E), base (x) M\$84/M80=0.5863657458554173 N\$84/N80=0.6351872646445671 O\$84/O80=0.27981994488847295 P\$84/P80=0.4640912666644752 Q\$84/Q80=0.38393135897454816 R\$84/R80=0.4928255683921537 AVERAGE(M90:R90)=0.47370352490327244 Net profit % of Stage 2 loans transferred to Stage 3 loans Net profit: change from base % of Stage 2 loans transferred to Stage 3 loans P/BV (2018E), implied (x) M\$84/M81=0.5863657458554173 N\$84/N81=0.6351872646445671 O\$84/O81=0.27981994488847295 P\$84/P81=0.4640912666644752 Q\$84/Q81=0.38393135897454816 R\$84/R81=0.4928255683921537 AVERAGE(M91:R91)=0.47370352490327244 Loan growth (ppt change from base) Q31=3822.804240772133 AA91-0.05=-0.1500000000000002 AB91-0.05=-0.10 -0.05 0 0.05 AD91+0.05=0.10 0.20 0.30 0.40 0.50 0.60 Y91=3822.804240772133 AO91-0.05=-0.1500000000000002 AP91-0.05=-0.10 -0.05 0 0.05 AR91+0.05=0.10 0.20 0.30 0.40 0.50 0.60 Change from base M91/M90-1=0 N91/N90-1=0 O91/O90-1=0 P91/P90-1=0 Q91/Q90-1=0 R91/R90-1=0 S91/S90-1=0 0.20 (=TABLE(T27,T46))=5532.179624772133 (=TABLE(T27,T46))=5382.849632772133 (=TABLE(T27,T46))=5233.519640772133 (=TABLE(T27,T46))=5084.189648772133 (=TABLE(T27,T46))=4934.859656772133 (=TABLE(T27,T46))=4785.529664772133 (=TABLE(T27,T46))=4486.8696807721335 (=TABLE(T27,T46))=4188.209696772134 (=TABLE(T27,T46))=3889.549712772133 (=TABLE(T27,T46))=3590.889728772133 (=TABLE(T27,T46))=3292.229744772133 0.20 (Z92/\$AC\$96)-1=0.44715221505947134 (AA92/\$AC\$96)-1=0.40808927000795125 (AB92/\$AC\$96)-1=0.3690263249564312 (AC92/\$AC\$96)-1=0.32996337990491087 (AD92/\$AC\$96)-1=0.2909004348533908 (AE92/\$AC\$96)-1=0.2518374898018707 (AF92/\$AC\$96)-1=0.17371159969883054 (AG92/\$AC\$96)-1=0.09558570959579016 (AH92/\$AC\$96)-1=0.017459819492749773 (AI92/\$AC\$96)-1=-0.0606660706102905 (AJ92/\$AC\$96)-1=-0.13879196071333078 Stage 1 Discount to MSCI EM Banks 0.15 (=TABLE(T27,T46))=5216.833272772133 (=TABLE(T27,T46))=5067.503280772133 (=TABLE(T27,T46))=4918.173288772133 (=TABLE(T27,T46))=4768.843296772133 (=TABLE(T27,T46))=4619.513304772133 (=TABLE(T27,T46))=4470.183312772133 (=TABLE(T27,T46))=4171.523328772133 (=TABLE(T27,T46))=3872.8633447721336 (=TABLE(T27,T46))=3574.2033607721332 (=TABLE(T27,T46))=3275.5433767721333 (=TABLE(T27,T46))=2976.8833927721334 0.15 (Z93/\$AC\$96)-1=0.3646613700832435 (AA93/\$AC\$96)-1=0.3255984250317234 (AB93/\$AC\$96)-1=0.2865354799802031 (AC93/\$AC\$96)-1=0.24747253492868304 (AD93/\$AC\$96)-1=0.20840958987716296 (AE93/\$AC\$96)-1=0.16934664482564288 (AF93/\$AC\$96)-1=0.09122075472260249 (AG93/\$AC\$96)-1=0.013094864619562552 (AH93/\$AC\$96)-1=-0.06503102548347794 (AI93/\$AC\$96)-1=-0.1431569155865181 (AJ93/\$AC\$96)-1=-0.22128280568955838 P/E (2018E), base (x) M86/\$M\$109-1=-0.4555098771235025 N86/\$M\$109-1=-0.4544157472076571 O86/\$M\$109-1=-0.7225718593505239 P86/\$M\$109-1=-0.5295480046709375 Q86/\$M\$109-1=-0.6492

577338497858 R86/\$M\$109-1=-0.36301209310842075 AVERAGE (M94:R94)=-0.5290594043166126 0.10  
(=TABLE (T27, T46) )=4901.486920772134 (=TABLE (T27, T46) )=4752.156928772134 (=TABLE (T27, T46) )=46  
02.826936772134 (=TABLE (T27, T46) )=4453.496944772134 (=TABLE (T27, T46) )=4304.166952772134 (=TA  
BLE (T27, T46) )=4154.836960772134 (=TABLE (T27, T46) )=3856.1769767721344 (=TABLE (T27, T46) )=3557.51699  
27721345 (=TABLE (T27, T46) )=3258.857008772134 (=TABLE (T27, T46) )=2960.1970247721342 (=TA  
BLE (T27, T46) )=2661.5370407721343 0.10 (Z94/\$AC\$96) -1=0.2821705251070161 (AA94/\$AC\$96  
) -1=0.24310758005549604 (AB94/\$AC\$96) -1=0.20404463500397574 (AC94/\$AC\$96) -1=0.16498168995245566  
(AD94/\$AC\$96) -1=0.12591874490093558 (AE94/\$AC\$96) -1=0.0868557998494155 (AF94/\$AC\$96) -1=0.00  
872990974637533 (AG94/\$AC\$96) -1=-0.06939598035666505 (AH94/\$AC\$96) -1=-0.14752187045970544 (AI9  
4/\$AC\$96) -1=-0.2256477605627456 (AJ94/\$AC\$96) -1=-0.3037736506657859  
P/E (2018E), implied (x) M87/\$M\$109-1=-0.45555098771235025 N87/\$M\$109-1=-0.454415747207  
6571 O87/\$M\$109-1=-0.7225718593505239 P87/\$M\$109-1=-0.5295480046709375 Q87/\$M\$109-1  
=-0.6492577338497858 R87/\$M\$109-1=-0.36301209310842075 AVERAGE (M95:R95)=-0.5290594043166126  
0.05 (=TABLE (T27, T46) )=4586.140568772133 (=TABLE (T27, T46) )=4436.810576772133 (=TABLE (T27,  
T46) )=4287.480584772133 (=TABLE (T27, T46) )=4138.150592772133 (=TABLE (T27, T46) )=3988.8206007721333  
(=TABLE (T27, T46) )=3839.4906087721333 (=TABLE (T27, T46) )=3540.8306247721334 (=TABLE (T27, T46) )=32  
42.1706407721335 (=TABLE (T27, T46) )=2943.510656772133 (=TABLE (T27, T46) )=2644.8506727721333  
(=TABLE (T27, T46) )=2346.1906887721334 0.05 (Z95/\$AC\$96) -1=0.19967968013078807 (AA95/\$AC\$96  
) -1=0.16061673507926777 (AB95/\$AC\$96) -1=0.12155379002774769 (AC95/\$AC\$96) -1=0.0824908449762276  
(AD95/\$AC\$96) -1=0.043427899924707525 (AE95/\$AC\$96) -1=0.004364954873187443 (AF95/\$AC\$96) -1=-0.0  
7376093522985272 (AG95/\$AC\$96) -1=-0.151886825332893 (AH95/\$AC\$96) -1=-0.23001271543593338  
(AI95/\$AC\$96) -1=-0.30813860553897365 (AJ95/\$AC\$96) -1=-0.3862644956420139  
3Y average discount M121/\$M\$113-1=-0.11901840490797555 N121/\$M\$113-1=-0.14723926380368102  
O121/\$M\$113-1=-0.46871165644171786 P121/\$M\$113-1=-0.2601226993865031 Q121/\$M\$113-1=-0.354  
6012269938651 R121/\$M\$113-1=-0.2834355828220859 AVERAGE (M96:R96)=-0.2721881390593048 0  
(=TABLE (T27, T46) )=4270.794216772133 (=TABLE (T27, T46) )=4121.464224772133 (=TABLE (T27, T46) )=39  
72.134232772133 (=TABLE (T27, T46) )=3822.804240772133 (=TABLE (T27, T46) )=3673.4742487721333 (=TA  
BLE (T27, T46) )=3524.1442567721333 (=TABLE (T27, T46) )=3225.4842727721334 (=TABLE (T27, T46) )=29  
26.8242887721335 (=TABLE (T27, T46) )=2628.164304772133 (=TABLE (T27, T46) )=2329.5043207721333  
(=TABLE (T27, T46) )=2030.8443367721334 0 (Z96/\$AC\$96) -1=0.11718883515456047 (AA96/\$AC\$96  
) -1=0.07812589010304016 (AB96/\$AC\$96) -1=0.03906294505152008 (AC96/\$AC\$96) -1=0 (AD96/\$AC\$96  
) -1=-0.03906294505152008 (AE96/\$AC\$96) -1=-0.07812589010304027 (AF96/\$AC\$96) -1=-0.156251780  
20608055 (AG96/\$AC\$96) -1=-0.2343776703091207 (AH96/\$AC\$96) -1=-0.3125035604121611 (AI9  
6/\$AC\$96) -1=-0.39062945051520137 (AJ96/\$AC\$96) -1=-0.46875534061824164  
-0.05 (=TABLE (T27, T46) )=3955.447864772133 (=TABLE (T27, T46) )=3806.117872772133 (=TABLE (T27,  
T46) )=3656.787880772133 (=TABLE (T27, T46) )=3507.457888772133 (=TABLE (T27, T46) )=3358.127896772133  
(=TABLE (T27, T46) )=3208.7979047721333 (=TABLE (T27, T46) )=2910.1379207721334 (=TABLE (T27, T46) )=26  
11.4779367721335 (=TABLE (T27, T46) )=2312.817952772133 (=TABLE (T27, T46) )=2014.1579687721332  
(=TABLE (T27, T46) )=1715.4979847721333 -0.05 (Z97/\$AC\$96) -1=0.03469799017833264 (AA97/\$AC\$96  
) -1=-0.004364954873187443 (AB97/\$AC\$96) -1=-0.043427899924707636 (AC97/\$AC\$96) -1=-0.082490844  
97622772 (AD97/\$AC\$96) -1=-0.12155379002774791 (AE97/\$AC\$96) -1=-0.160616735079268 (AF9  
7/\$AC\$96) -1=-0.23874262518230827 (AG97/\$AC\$96) -1=-0.31686851528534854 (AH97/\$AC\$96) -1=-0.3  
949944053883888 (AI97/\$AC\$96) -1=-0.4731202954914291 (AJ97/\$AC\$96) -1=-0.5512461855944694  
P/BV (2018E), base (x) M90/\$M\$110-1=-0.4415564325186502 N90/\$M\$110-1=-0.39505974795755516  
O90/\$M\$110-1=-0.7335048143919305 P90/\$M\$110-1=-0.5580083174624046 Q90/\$M\$110-1=-0.6343  
510866909066 R90/\$M\$110-1=-0.5306423158169965 AVERAGE (M98:R98)=-0.5488537858064072 -0.1  
0 (=TABLE (T27, T46) )=3640.101512772133 (=TABLE (T27, T46) )=3490.771520772133 (=TABLE (T27,  
T46) )=3341.441528772133 (=TABLE (T27, T46) )=3192.111536772133 (=TABLE (T27, T46) )=3042.781544772133  
(=TABLE (T27, T46) )=2893.4515527721333 (=TABLE (T27, T46) )=2594.7915687721334 (=TABLE (T27, T46) )=22  
96.1315847721335 (=TABLE (T27, T46) )=1997.4716007721331 (=TABLE (T27, T46) )=1698.8116167721332  
(=TABLE (T27, T46) )=1400.1516327721333 -0.10 (Z98/\$AC\$96) -1=-0.04779285479789508 (AA98/\$AC\$96  
) -1=-0.08685579984941527 (AB98/\$AC\$96) -1=-0.12591874490093535 (AC98/\$AC\$96) -1=-0.164981689  
95245543 (AD98/\$AC\$96) -1=-0.20404463500397563 (AE98/\$AC\$96) -1=-0.2431075800554957 (AF9  
8/\$AC\$96) -1=-0.321233470158536 (AG98/\$AC\$96) -1=-0.39935936026157626 (AH98/\$AC\$96) -1=-0.477485250  
36461664 (AI98/\$AC\$96) -1=-0.5556111404676569 (AJ98/\$AC\$96) -1=-0.6337370305706971  
P/BV (2018E), implied (x) M91/\$M\$110-1=-0.4415564325186502 N91/\$M\$110-1=-0.395059747957  
55516 O91/\$M\$110-1=-0.7335048143919305 P91/\$M\$110-1=-0.5580083174624046 Q91/\$M\$110-1  
=-0.6343510866909066 R91/\$M\$110-1=-0.5306423158169965 AVERAGE (M99:R99)=-0.5488537858064072  
-0.15 (=TABLE (T27, T46) )=3324.755160772133 (=TABLE (T27, T46) )=3175.425168772133 (=TABLE (T27,  
T46) )=3026.095176772133 (=TABLE (T27, T46) )=2876.765184772133 (=TABLE (T27, T46) )=2727.435192772133  
(=TABLE (T27, T46) )=2578.1052007721332 (=TABLE (T27, T46) )=2279.4452167721333 (=TABLE (T27, T46) )=19  
80.7852327721334 (=TABLE (T27, T46) )=1682.125248772133 (=TABLE (T27, T46) )=1383.4652647721332  
(=TABLE (T27, T46) )=1084.8052807721333 -0.15 (Z99/\$AC\$96) -1=-0.1302836997741228 (AA99/\$AC\$96  
) -1=-0.169346644825643 (AB99/\$AC\$96) -1=-0.20840958987716307 (AC99/\$AC\$96) -1=-0.24747253492868326  
(AD99/\$AC\$96) -1=-0.28653547998020334 (AE99/\$AC\$96) -1=-0.3255984250317234 (AF99/\$AC\$96) -1=-0.4  
037243151347637 (AG99/\$AC\$96) -1=-0.481850205237804 (AH99/\$AC\$96) -1=-0.5599760953408444 (AI9  
9/\$AC\$96) -1=-0.6381019854438845 (AJ99/\$AC\$96) -1=-0.7162278755469249  
3Y average discount M122/\$M\$114-1=-0.010204081632653073 N122/\$M\$114-1=-0.010204081632653073  
O122/\$M\$114-1=-0.41836734693877553 P122/\$M\$114-1=-0.29591836734693877 Q122/\$M\$114-1=-0.357  
1428571428571 R122/\$M\$114-1=-0.3571428571428571 AVERAGE (M100:R100)=-0.2414965986394558 -0.2  
0 (=TABLE (T27, T46) )=3009.408808772133 (=TABLE (T27, T46) )=2860.078816772133 (=TABLE (T27,  
T46) )=2710.748824772133 (=TABLE (T27, T46) )=2561.418832772133 (=TABLE (T27, T46) )=2412.088840772133  
(=TABLE (T27, T46) )=2262.758848772133 (=TABLE (T27, T46) )=1964.0988647721335 (=TABLE (T27, T46) )=16  
65.4388807721336 (=TABLE (T27, T46) )=1366.7788967721333 (=TABLE (T27, T46) )=1068.1189127721334  
(=TABLE (T27, T46) )=769.4589287721335 -0.20 (Z100/\$AC\$96) -1=-0.21277454475035062 (AA100/\$AC\$9  
6) -1=-0.2518374898018707 (AB100/\$AC\$96) -1=-0.2909004348533908 (AC100/\$AC\$96) -1=-0.32996337  
9904911 (AD100/\$AC\$96) -1=-0.36902632495643106 (AE100/\$AC\$96) -1=-0.40808927000795125 (AF100/\$AC\$9  
6) -1=-0.4862151601109914 (AG100/\$AC\$96) -1=-0.5643410502140316 (AH100/\$AC\$96) -1=-0.64246694  
0317072 (AI100/\$AC\$96) -1=-0.7205928304201122 (AJ100/\$AC\$96) -1=-0.7987187205231525

Stage 1 Discount to own historical average -0.25 (=TABLE(T27,T46))=2694.0624567721334 (=TABLE(T27,T46))=2544.7324647721334 (=TABLE(T27,T46))=2395.4024727721335 (=TABLE(T27,T46))=2246.0724807721335 (=TABLE(T27,T46))=2096.7424887721336 (=TABLE(T27,T46))=1947.4124967721334 (=TABLE(T27,T46))=1648.7525127721335 (=TABLE(T27,T46))=1350.0925287721336 (=TABLE(T27,T46))=1051.4325447721333 (=TABLE(T27,T46))=752.7725607721334 (=TABLE(T27,T46))=454.1125767721335

-0.25 (Z101/\$AC\$96)-1=-0.29526538972657823 (AA101/\$AC\$96)-1=-0.3343283347780983 (AB101/\$AC\$96)-1=-0.3733912798296185 (AC101/\$AC\$96)-1=-0.4124542248811386 (AD101/\$AC\$96)-1=-0.45151716993265867 (AE101/\$AC\$96)-1=-0.49058011498417886 (AF101/\$AC\$96)-1=-0.5687060050872191 (AG101/\$AC\$96)-1=-0.6468318951902594 (AH101/\$AC\$96)-1=-0.7249577852932998 (AI101/\$AC\$96)-1=-0.80308367539634 (AJ101/\$AC\$96)-1=-0.8812095654993802

P/E (2018E), base (x) M86/\$M\$117-1=-0.3426668224852458 N86/\$M\$117-1=-0.3412962051613977 O86/\$M\$117-1=-0.6650508732509515 P86/\$M\$117-1=-0.43200612366172186 Q86/\$M\$117-1=-0.5765360518728673 R86/\$M\$117-1=-0.23094123522021448 AVERAGE(M102:R102)=-0.4314162186087331

P/E (2018E), implied (x) M87/\$M\$117-1=-0.3426668224852458 N87/\$M\$117-1=-0.3412962051613977 O87/\$M\$117-1=-0.6650508732509515 P87/\$M\$117-1=-0.43200612366172186 Q87/\$M\$117-1=-0.5765360518728673 R87/\$M\$117-1=-0.23094123522021448 AVERAGE(M103:R103)=-0.4314162186087331

P/BV (2018E), base (x) M90/\$M\$118-1=-0.2760916717834354 N90/\$M\$118-1=-0.21581819179683082 O90/\$M\$118-1=-0.6545432779154655 P90/\$M\$118-1=-0.4270478189327467 Q90/\$M\$118-1=-0.5260106679326566 R90/\$M\$118-1=-0.3915733723553658 AVERAGE(M105:R105)=-0.4151808334527502 YAPI KREDI YAPI KREDI

P/BV (2018E), implied (x) M91/\$M\$118-1=-0.2760916717834354 N91/\$M\$118-1=-0.21581819179683082 O91/\$M\$118-1=-0.6545432779154655 P91/\$M\$118-1=-0.4270478189327467 Q91/\$M\$118-1=-0.5260106679326566 R91/\$M\$118-1=-0.3915733723553658 AVERAGE(M106:R106)=-0.4151808334527502

02 Net profit % of Stage 2 loans transferred to Stage 3 loans Net profit: change from base % of Stage 2 loans transferred to Stage 3 loans

Loan growth (ppt change from base) R31=3853.9025619301465 AA107-0.05=-0.15000000000000002 AB107-0.05=-0.10 -0.05 0 0.05 AD107+0.05=0.10 0.20 0.30 0.40 0.50 0.60 Y107=3853.9025619301465 AO107-0.05=-0.15000000000000002 AP107-0.05=-0.10 -0.05 0 0.05 AR107+0.05=0.10 0.20 0.30 0.40 0.50 0.60

MSCI EM Banks 2018E 0.20 (=TABLE(T27,T46))=5811.837899530146 (=TABLE(T27,T46))=5596.303979530146 (=TABLE(T27,T46))=5380.770059530146 (=TABLE(T27,T46))=5165.236139530146 (=TABLE(T27,T46))=4949.702219530146 (=TABLE(T27,T46))=4734.168299530146 (=TABLE(T27,T46))=4303.100459530146 (=TABLE(T27,T46))=3872.032619530146 (=TABLE(T27,T46))=3440.964779530146 (=TABLE(T27,T46))=3009.896939530146 (=TABLE(T27,T46))=2578.829099530146 0.20 (Z108/\$AC\$112)-1=0.508039657499646 (AA108/\$AC\$112)-1=0.4521135108115846 (AB108/\$AC\$112)-1=0.3961873641235236 (AC108/\$AC\$112)-1=0.34026121743546245 (AD108/\$AC\$112)-1=0.2843350707474013 (AE108/\$AC\$112)-1=0.22840892405934032 (AF108/\$AC\$112)-1=0.11655663068321798 (AG108/\$AC\$112)-1=0.00470433730709563 (AH108/\$AC\$112)-1=-0.1071479560690266 (AI108/\$AC\$112)-1=-0.21900024944514873 (AJ108/\$AC\$112)-1=-0.3308525428212712

P/E (x) 7.57 0.15 (=TABLE(T27,T46))=5484.004505130147 (=TABLE(T27,T46))=5268.470585130146 (=TABLE(T27,T46))=5052.936665130146 (=TABLE(T27,T46))=4837.402745130146 (=TABLE(T27,T46))=4621.868825130146 (=TABLE(T27,T46))=4406.334905130147 (=TABLE(T27,T46))=3975.267065130146 (=TABLE(T27,T46))=3544.1992251301463 (=TABLE(T27,T46))=3113.1313851301466 (=TABLE(T27,T46))=2682.0635451301464 (=TABLE(T27,T46))=2250.9957051301462 0.15 (Z109/\$AC\$112)-1=0.42297435314078036 (AA109/\$AC\$112)-1=0.3670482064527192 (AB109/\$AC\$112)-1=0.311122059764658 (AC109/\$AC\$112)-1=0.25519591307659684 (AD109/\$AC\$112)-1=0.19926976638853588 (AE109/\$AC\$112)-1=0.1433436197004747 (AF109/\$AC\$112)-1=0.031491326324352364 (AG109/\$AC\$112)-1=-0.08036096705176998 (AH109/\$AC\$112)-1=-0.1922132604278921 (AI109/\$AC\$112)-1=-0.30406555380401445 (AJ109/\$AC\$112)-1=-0.4159178471801368

P/BV (x) 1.05 0.10 (=TABLE(T27,T46))=5156.171110730147 (=TABLE(T27,T46))=4940.637190730146 (=TABLE(T27,T46))=4725.1032707301465 (=TABLE(T27,T46))=4509.569350730147 (=TABLE(T27,T46))=4294.035430730147 (=TABLE(T27,T46))=4078.5015107301465 (=TABLE(T27,T46))=3647.433670730147 (=TABLE(T27,T46))=3216.3658307301466 (=TABLE(T27,T46))=2785.297990730147 (=TABLE(T27,T46))=2354.2301507301468 (=TABLE(T27,T46))=1923.1623107301466 0.10 (Z110/\$AC\$112)-1=0.33790904878191497 (AA110/\$AC\$112)-1=0.28198290209385357 (AB110/\$AC\$112)-1=0.2260567554057924 (AC110/\$AC\$112)-1=0.17013060871773145 (AD110/\$AC\$112)-1=0.11420446202967027 (AE110/\$AC\$112)-1=0.0582783153416091 (AF110/\$AC\$112)-1=-0.05357397803451314 (AG110/\$AC\$112)-1=-0.16542627141063548 (AH110/\$AC\$112)-1=-0.2772785647867577 (AI110/\$AC\$112)-1=-0.38913085816287996 (AJ110/\$AC\$112)-1=-0.5009831515390023

0.05 (=TABLE(T27,T46))=4828.3377163301475 (=TABLE(T27,T46))=4612.803796330147 (=TABLE(T27,T46))=4397.269876330147 (=TABLE(T27,T46))=4181.735956330147 (=TABLE(T27,T46))=3966.202036330147 (=TABLE(T27,T46))=3750.668116330147 (=TABLE(T27,T46))=3319.600276330147 (=TABLE(T27,T46))=2888.532436330147 (=TABLE(T27,T46))=2457.4645963301473 (=TABLE(T27,T46))=2026.3967563301471 (=TABLE(T27,T46))=1595.328916330147 0.05 (Z111/\$AC\$112)-1=0.25284374442304935 (AA111/\$AC\$112)-1=0.19691759773498796 (AB111/\$AC\$112)-1=0.14099145104692679 (AC111/\$AC\$112)-1=0.08506530435886583 (AD111/\$AC\$112)-1=0.02913915767080466 (AE111/\$AC\$112)-1=-0.026786989017256513 (AF111/\$AC\$112)-1=-0.13863928239337875 (AG111/\$AC\$112)-1=-0.2504915757695011 (AH111/\$AC\$112)-1=-0.3623438691456232 (AI111/\$AC\$112)-1=-0.47419616252174557 (AJ111/\$AC\$112)-1=-0.5860484558978678

MSCI EM Banks 3Y average 0 (=TABLE(T27,T46))=4500.504321930147 (=TABLE(T27,T46))=4284.970401930146 (=TABLE(T27,T46))=4069.4364819301463 (=TABLE(T27,T46))=3853.9025619301465 (=TABLE(T27,T46))=3638.3686419301466 (=TABLE(T27,T46))=3422.8347219301463 (=TABLE(T27,T46))=2991.7668819301466 (=TABLE(T27,T46))=2560.6990419301464 (=TABLE(T27,T46))=2129.6312019301467 (=TABLE(T27,T46))=1698.5633619301466 (=TABLE(T27,T46))=1267.4955219301464 0 (Z112/\$AC\$112)-1=0.16777844006418352 (AA112/\$AC\$112)-1=0.11185229337612212 (AB112/\$AC\$112)-1=0.055926146688061174 (AC112/\$AC\$112)-1=0 (AD112/\$AC\$112)-1=-0.05592614668806106 (AE112/\$AC\$112)-1=-0.11185229337612235 (AF112/\$AC\$112)-1=-0.22370458675224447 (AG112/\$AC\$112)-1=-0.3355568801283668 (AH112/\$AC\$112)-1=-0.44740917350448905 (AI112/\$AC\$112)-1=-0.5592614668806113 (AJ112/\$AC\$112)-1=-0.6711137602567336

P/E (x) 8.15 -0.05 (=TABLE(T27,T46))=4172.670927530146 (=TABLE(T27,T46))=3957.1370075301456  
(=TABLE(T27,T46))=3741.603087530146 (=TABLE(T27,T46))=3526.069167530146 (=TABLE(T27,T46))=33  
10.535247530146 (=TABLE(T27,T46))=3095.0013275301458 (=TABLE(T27,T46))=2663.933487530146 (=TA  
BLE(T27,T46))=2232.865647530146 (=TABLE(T27,T46))=1801.7978075301462 (=TABLE(T27,T46))=1370.72996  
7530146 (=TABLE(T27,T46))=939.6621275301459 -0.05 (Z113/\$AC\$112)-1=-0.08271313570531769 (AA1  
13/\$AC\$112)-1=-0.026786989017256513 (AB113/\$AC\$112)-1=-0.02913915767080466 (AC113/\$AC\$112)-1=-0  
.08506530435886583 (AD113/\$AC\$112)-1=-0.1409914510469269 (AE113/\$AC\$112)-1=-0.196917597734988  
07 (AF113/\$AC\$112)-1=-0.3087698911111103 (AG113/\$AC\$112)-1=-0.42062218448723265 (AH113/\$AC\$1  
12)-1=-0.5324744778633548 (AI113/\$AC\$112)-1=-0.6443267712394771 (AJ113/\$AC\$112)-1=-0.7561790  
646155995

P/BV (x) 0.98 -0.10 (=TABLE(T27,T46))=3844.8375331301468 (=TABLE(T27,T46))=3629.30361  
3130146 (=TABLE(T27,T46))=3413.769693130146 (=TABLE(T27,T46))=3198.2357731301463 (=TABLE(T27,  
T46))=2982.7018531301464 (=TABLE(T27,T46))=2767.167933130146 (=TABLE(T27,T46))=2336.10009  
31301464 (=TABLE(T27,T46))=1905.0322531301463 (=TABLE(T27,T46))=1473.9644131301466 (=TA  
BLE(T27,T46))=1042.8965731301464 (=TABLE(T27,T46))=611.8287331301462 -0.10 (Z114/\$AC\$11  
2)-1=-0.002352168653547815 (AA114/\$AC\$112)-1=-0.0582783153416091 (AB114/\$AC\$112)-1=-0.1142044  
6202967027 (AC114/\$AC\$112)-1=-0.17013060871773134 (AD114/\$AC\$112)-1=-0.2260567554057925 (AE1  
14/\$AC\$112)-1=-0.2819829020938537 (AF114/\$AC\$112)-1=-0.3938351954699759 (AG114/\$AC\$112)-1=-0  
.5056874888460983 (AH114/\$AC\$112)-1=-0.6175397822222204 (AI114/\$AC\$112)-1=-0.729392075598342  
7 (AJ114/\$AC\$112)-1=-0.8412443689744651  
-0.15 (=TABLE(T27,T46))=3517.004138730147 (=TABLE(T27,T46))=3301.4702187301464 (=TABLE(T27,  
T46))=3085.9362987301465 (=TABLE(T27,T46))=2870.4023787301467 (=TABLE(T27,T46))=2654.86845  
8730147 (=TABLE(T27,T46))=2439.3345387301465 (=TABLE(T27,T46))=2008.2666987301468 (=TABLE(T27,  
T46))=1577.1988587301466 (=TABLE(T27,T46))=1146.131018730147 (=TABLE(T27,T46))=715.063178  
7301467 (=TABLE(T27,T46))=283.9953387301465 -0.15 (Z115/\$AC\$112)-1=-0.08741747301241343 (AA1  
15/\$AC\$112)-1=-0.1433436197004747 (AB115/\$AC\$112)-1=-0.19926976638853577 (AC115/\$AC\$112)-1=-0  
.25519591307659695 (AD115/\$AC\$112)-1=-0.31122059764658 (AE115/\$AC\$112)-1=-0.367048206452719  
2 (AF115/\$AC\$112)-1=-0.4789004998288414 (AG115/\$AC\$112)-1=-0.5907527932049638 (AH115/\$AC\$1  
12)-1=-0.702605086581086 (AI115/\$AC\$112)-1=-0.8144573799572083 (AJ115/\$AC\$112)-1=-0.9263096  
733333306

Turkish banks 3Y average -0.20 (=TABLE(T27,T46))=3189.1707443301475 (=TABLE(T27,T46))=29  
73.6368243301467 (=TABLE(T27,T46))=2758.102904330147 (=TABLE(T27,T46))=2542.568984330147  
(=TABLE(T27,T46))=2327.035064330147 (=TABLE(T27,T46))=2111.5011443301464 (=TABLE(T27,T46))=16  
80.433304330147 (=TABLE(T27,T46))=1249.3654643301468 (=TABLE(T27,T46))=818.2976243301471 (=TA  
BLE(T27,T46))=387.2297843301469 (=TABLE(T27,T46))=-43.83805566985325 -0.20 (Z116/\$AC\$112)-1=-0.  
1724827737127893 (AA116/\$AC\$112)-1=-0.22840892405934032 (AB116/\$AC\$112)-1=-0.284335070747401  
4 (AC116/\$AC\$112)-1=-0.34026121743546245 (AD116/\$AC\$112)-1=-0.3961873641235236 (AE116/\$AC\$1  
12)-1=-0.4521135108115849 (AF116/\$AC\$112)-1=-0.563965804187707 (AG116/\$AC\$112)-1=-0.6758180  
975638294 (AH116/\$AC\$112)-1=-0.7876703909399516 (AI116/\$AC\$112)-1=-0.8995226843160739 (AJ1  
16/\$AC\$112)-1=-1.0113749776921963

P/E (x) 6.27 -0.25 (=TABLE(T27,T46))=2861.337349930147 (=TABLE(T27,T46))=2645.803429930146  
(=TABLE(T27,T46))=2430.2695099301463 (=TABLE(T27,T46))=2214.7355899301465 (=TABLE(T27,T46))=19  
99.2016699301464 (=TABLE(T27,T46))=1783.667749930146 (=TABLE(T27,T46))=1352.5999099301464  
(=TABLE(T27,T46))=921.5320699301462 (=TABLE(T27,T46))=490.46422993014653 (=TABLE(T27,T46))=59  
.39638993014637 (=TABLE(T27,T46))=-371.6714500698538 -0.25 (Z117/\$AC\$112)-1=-0.2575480817301447  
6 (AA117/\$AC\$112)-1=-0.31347422841820605 (AB117/\$AC\$112)-1=-0.3694003751062672 (AC117/\$AC\$1  
12)-1=-0.4253265217943283 (AD117/\$AC\$112)-1=-0.48125266848238946 (AE117/\$AC\$112)-1=-0.5371788  
151704506 (AF117/\$AC\$112)-1=-0.6490311085465729 (AG117/\$AC\$112)-1=-0.7608834019226951 (AH1  
17/\$AC\$112)-1=-0.8727356952988173 (AI117/\$AC\$112)-1=-0.9845879886749397 (AJ117/\$AC\$112)-1=-1  
.096440282051062

P/BV (x) 0.81  
3Y Historical average Akbank Garanti Halkbank Isbank Vakifbank Yapi Kredi Tota  
l

P/E (x) 7.18 6.95 4.33 6.03 5.26 5.84 AVERAGE(M121:R121)=5.9316666666666675 Aver  
age Average

P/BV (x) 0.97 0.97 0.57 0.69 0.63 0.63 AVERAGE(M122:R122)=0.7433333333333333  
3 Net profit % of Stage 2 loans transferred to Stage 3 loans Net profit: change from base  
% of Stage 2 loans transferred to Stage 3 loans

Loan growth (ppt change from base) AA123-0.05=-0.15000000000000002 AB123-0.05=-0.10 -0.0  
5 0 0.05 AD123+0.05=0.10 0.20 0.30 0.40 0.50 0.60 AO123-0.05=-0.150000  
0000000002 AP123-0.05=-0.10 -0.05 0 0.05 AR123+0.05=0.10 0.20 0.30 0.40  
0.50 0.60  
0.20 (Z28+Z44+Z60+Z76+Z92+Z108)/6=7647.883480660111 (AA28+AA44+AA60+AA76+AA92+AA108)/6=7246.0623  
77993442 (AB28+AB44+AB60+AB76+AB92+AB108)/6=6844.2412753267745 (AC28+AC44+AC60+AC76+AC92+AC  
108)/6=6442.4201726601095 (AD28+AD44+AD60+AD76+AD92+AD108)/6=6040.599069993442 (AE28+AE44+AE  
60+AE76+AE92+AE108)/6=5638.777967326776 (AF28+AF44+AF60+AF76+AF92+AF108)/6=4835.135761993441  
5 (AG28+AG44+AG60+AG76+AG92+AG108)/6=4031.493556660109 (AH28+AH44+AH60+AH76+AH92+AH108)/6=3  
227.8513513267753 (AI28+AI44+AI60+AI76+AI92+AI108)/6=2424.2091459934422 (AJ28+AJ44+AJ60+AJ76  
+AJ92+AJ108)/6=1620.566940660109 0.20 (AN28+AN44+AN60+AN76+AN92+AN108)/6=0.456211084984192  
9 (AO28+AO44+AO60+AO76+AO92+AO108)/6=0.38566449316116275 (AP28+AP44+AP60+AP76+AP92+AP108)/6=0  
.3151179013381327 (AQ28+AQ44+AQ60+AQ76+AQ92+AQ108)/6=0.24457130951510275 (AR28+AR44+AR60+AR76  
+AR92+AR108)/6=0.17402471769207276 (AS28+AS44+AS60+AS76+AS92+AS108)/6=0.1034781258690428 (AT2  
8+AT44+AT60+AT76+AT92+AT108)/6=-0.03761505777017236 (AU28+AU44+AU60+AU76+AU92+AU108)/6=-0.178708  
24142307729 (AV28+AV44+AV60+AV76+AV92+AV108)/6=-0.3198014250691373 (AW28+AW44+AW60+AW76+AW92+AW  
108)/6=-0.46089460871519733 (AX28+AX44+AX60+AX76+AX92+AX108)/6=-0.6019877923612574  
0.15 (Z29+Z45+Z61+Z77+Z93+Z109)/6=7339.44692882011 (AA29+AA45+AA61+AA77+AA93+AA109)/6=6937.6258  
26153442 (AB29+AB45+AB61+AB77+AB93+AB109)/6=6535.8047234867745 (AC29+AC45+AC61+AC77+AC93+AC  
109)/6=6133.983620820109 (AD29+AD45+AD61+AD77+AD93+AD109)/6=5732.162518153443 (AE29+AE45+A  
E61+AE77+AE93+AE109)/6=5330.341415486775 (AF29+AF45+AF61+AF77+AF93+AF109)/6=4526.699210153441

5 (AG29+AG45+AG61+AG77+AG93+AG109) / 6=3723.0570048201084 (AH29+AH45+AH61+AH77+AH93+AH109) / 6=2  
919.414799486775 (AI29+AI45+AI61+AI77+AI93+AI109) / 6=2115.772594153442 (AJ29+AJ45+AJ61+AJ77  
+AJ93+AJ109) / 6=1312.1303888201085 0.15 (AN29+AN45+AN61+AN77+AN93+AN109) / 6=0.395068257605417  
03 (AO29+AO45+AO61+AO77+AO93+AO109) / 6=0.324521665782387 (AP29+AP45+AP61+AP77+AP93+AP109) / 6=0.  
.253975073959357 (AQ29+AQ45+AQ61+AQ77+AQ93+AQ109) / 6=0.183428482136327 (AR29+AR45+AR61+AR77  
+AR93+AR109) / 6=0.11288189031329698 (AS29+AS45+AS61+AS77+AS93+AS109) / 6=0.042335298490267015 (AT  
9+AT45+AT61+AT77+AT93+AT109) / 6=-0.09875788515579303 (AU29+AU45+AU61+AU77+AU93+AU109) / 6=-0.239851  
06880185303 (AV29+AV45+AV61+AV77+AV93+AV109) / 6=-0.380944252447913 (AW29+AW45+AW61+AW77+AW93+AW  
109) / 6=-0.522037436093973 (AX29+AX45+AX61+AX77+AX93+AX109) / 6=-0.6631306197400332  
0.10 (Z30+Z46+Z62+Z78+Z94+Z110) / 6=7031.01037698011 (AA30+AA46+AA62+AA78+AA94+AA110) / 6=6629.1892  
74313444 (AB30+AB46+AB62+AB78+AB94+AB110) / 6=6227.368171646776 (AC30+AC46+AC62+AC78+AC94+AC  
110) / 6=5825.547068980109 (AD30+AD46+AD62+AD78+AD94+AD110) / 6=5423.725966313444 (AE30+AE46+A  
E62+AE78+AE94+AE110) / 6=5021.904863646777 (AF30+AF46+AF62+AF78+AF94+AF110) / 6=4218.262658313443  
(AG30+AG46+AG62+AG78+AG94+AG110) / 6=3414.6204529801093 (AH30+AH46+AH62+AH78+AH94+AH110) / 6=2610.9782  
476467763 (AI30+AI46+AI62+AI78+AI94+AI110) / 6=1807.3360423134427 (AJ30+AJ46+AJ62+AJ78+AJ94+AJ  
110) / 6=1003.6938369801093 0.10 (AN30+AN46+AN62+AN78+AN94+AN110) / 6=0.3339254302266417 (AO3  
0+AO46+AO62+AO78+AO94+AO110) / 6=0.2633788384036116 (AP30+AP46+AP62+AP78+AP94+AP110) / 6=0.1928322  
465805815 (AQ30+AQ46+AQ62+AQ78+AQ94+AQ110) / 6=0.12228565475755153 (AR30+AR46+AR62+AR78+AR94+AR  
110) / 6=0.05173906293452152 (AS30+AS46+AS62+AS78+AS94+AS110) / 6=-0.01880752888850847 (AT30+AT46+A  
T62+AT78+AT94+AT110) / 6=-0.15990071253456847 (AU30+AU46+AU62+AU78+AU94+AU110) / 6=-0.30099389618062  
85 (AV30+AV46+AV62+AV78+AV94+AV110) / 6=-0.44208707982668854 (AW30+AW46+AW62+AW78+AW94+AW110) / 6=-  
0.5831802634727487 (AX30+AX46+AX62+AX78+AX94+AX110) / 6=-0.7242734471188085  
0.05 (Z31+Z47+Z63+Z79+Z95+Z111) / 6=6722.57382514011 (AA31+AA47+AA63+AA79+AA95+AA111) / 6=6320.7527  
22473443 (AB31+AB47+AB63+AB79+AB95+AB111) / 6=5918.931619806775 (AC31+AC47+AC63+AC79+AC95+AC  
111) / 6=5517.11051714011 (AD31+AD47+AD63+AD79+AD95+AD111) / 6=5115.289414473443 (AE31+AE47+AE63+AE79  
+AE95+AE111) / 6=4713.468311806776 (AF31+AF47+AF63+AF79+AF95+AF111) / 6=3909.826106473443 (AG3  
1+AG47+AG63+AG79+AG95+AG111) / 6=3106.1839011401094 (AH31+AH47+AH63+AH79+AH95+AH111) / 6=2302.5416  
958067763 (AI31+AI47+AI63+AI79+AI95+AI111) / 6=1498.8994904734425 (AJ31+AJ47+AJ63+AJ79+AJ95+AJ  
111) / 6=695.257285140109 0.05 (AN31+AN47+AN63+AN79+AN95+AN111) / 6=0.2727826028478658 (AO31+AO47+A  
O63+AO79+AO95+AO111) / 6=0.20223601102483568 (AP31+AP47+AP63+AP79+AP95+AP111) / 6=0.131689419201805  
66 (AQ31+AQ47+AQ63+AQ79+AQ95+AQ111) / 6=0.061142827378775744 (AR31+AR47+AR63+AR79+AR95+AR111) / 6=-  
0.0094037644442543 (AS31+AS47+AS63+AS79+AS95+AS111) / 6=-0.07995035626728429 (AT31+AT47+AT63+AT79  
+AT95+AT111) / 6=-0.22104353991334427 (AU31+AU47+AU63+AU79+AU95+AU111) / 6=-0.36213672355940424 (AV3  
1+AV47+AV63+AV79+AV95+AV111) / 6=-0.5032299072054643 (AW31+AW47+AW63+AW79+AW95+AW111) / 6=-0.644323  
0908515244 (AX31+AX47+AX63+AX79+AX95+AX111) / 6=-0.7854162744975844  
0 (Z32+Z48+Z64+Z80+Z96+Z112) / 6=6414.137273300109 (AA32+AA48+AA64+AA80+AA96+AA112) / 6=6012.3161  
70633443 (AB32+AB48+AB64+AB80+AB96+AB112) / 6=5610.495067966775 (AC32+AC48+AC64+AC80+AC96+AC  
112) / 6=5208.673965300109 (AD32+AD48+AD64+AD80+AD96+AD112) / 6=4806.852862633442 (AE32+AE48+A  
E64+AE80+AE96+AE112) / 6=4405.031759966775 (AF32+AF48+AF64+AF80+AF96+AF112) / 6=3601.389554633442  
5 (AG32+AG48+AG64+AG80+AG96+AG112) / 6=2797.747349300109 (AH32+AH48+AH64+AH80+AH96+AH112) / 6=1  
994.1051439667754 (AI32+AI48+AI64+AI80+AI96+AI112) / 6=1190.462938633442 (AJ32+AJ48+AJ64+AJ80  
+AJ96+AJ112) / 6=386.8207333001087 0 (AN32+AN48+AN64+AN80+AN96+AN112) / 6=0.211639775469090  
1 (AO32+AO48+AO64+AO80+AO96+AO112) / 6=0.14109318364605997 (AP32+AP48+AP64+AP80+AP96+AP112) / 6=0  
.07054659182303002 (AQ32+AQ48+AQ64+AQ80+AQ96+AQ112) / 6=0 (AR32+AR48+AR64+AR80+AR96+AR112) / 6=-  
0.07054659182303001 (AS32+AS48+AS64+AS80+AS96+AS112) / 6=-0.14109318364606002 (AT32+AT48+AT64+AT80  
+AT96+AT112) / 6=-0.28218636729212004 (AU32+AU48+AU64+AU80+AU96+AU112) / 6=-0.4232795509381801 (AV3  
2+AV48+AV64+AV80+AV96+AV112) / 6=-0.5643727345842401 (AW32+AW48+AW64+AW80+AW96+AW112) / 6=-0.705465  
9182303 (AX32+AX48+AX64+AX80+AX96+AX112) / 6=-0.8465591018763602  
-0.05 (Z33+Z49+Z65+Z81+Z97+Z113) / 6=6105.70072146011 (AA33+AA49+AA65+AA81+AA97+AA113) / 6=5703.8796  
18793442 (AB33+AB49+AB65+AB81+AB97+AB113) / 6=5302.0585161267745 (AC33+AC49+AC65+AC81+AC97+AC  
113) / 6=4900.237413460109 (AD33+AD49+AD65+AD81+AD97+AD113) / 6=4498.416310793443 (AE33+AE49+A  
E65+AE81+AE97+AE113) / 6=4096.595208126776 (AF33+AF49+AF65+AF81+AF97+AF113) / 6=3292.953002793442  
(AG33+AG49+AG65+AG81+AG97+AG113) / 6=2489.3107974601085 (AH33+AH49+AH65+AH81+AH97+AH113) / 6=1685.6685  
921267751 (AI33+AI49+AI65+AI81+AI97+AI113) / 6=882.0263867934418 (AJ33+AJ49+AJ65+AJ81+AJ97+AJ  
113) / 6=78.38418146010842 -0.05 (AN33+AN49+AN65+AN81+AN97+AN113) / 6=0.15049694809031433 (AO3  
3+AO49+AO65+AO81+AO97+AO113) / 6=0.07995035626728426 (AP33+AP49+AP65+AP81+AP97+AP113) / 6=0.0094037  
644442543 (AQ33+AQ49+AQ65+AQ81+AQ97+AQ113) / 6=-0.061142827378775744 (AR33+AR49+AR65+AR81  
+AR97+AR113) / 6=-0.13168941920180577 (AS33+AS49+AS65+AS81+AS97+AS113) / 6=-0.2022360110248358 (AT3  
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3783169559 (AV33+AV49+AV65+AV81+AV97+AV113) / 6=-0.6255155619630158 (AW33+AW49+AW65+AW81+AW97+AW  
113) / 6=-0.766608745609076 (AX33+AX49+AX65+AX81+AX97+AX113) / 6=-0.9077019292551358  
-0.10 (Z34+Z50+Z66+Z82+Z98+Z114) / 6=5797.26416962011 (AA34+AA50+AA66+AA82+AA98+AA114) / 6=5395.4430  
66953442 (AB34+AB50+AB66+AB82+AB98+AB114) / 6=4993.621964286776 (AC34+AC50+AC66+AC82+AC98+AC  
114) / 6=4591.800861620109 (AD34+AD50+AD66+AD82+AD98+AD114) / 6=4189.979758953442 (AE34+AE50+A  
E66+AE82+AE98+AE114) / 6=3788.1586562867756 (AF34+AF50+AF66+AF82+AF98+AF114) / 6=2984.516450953442  
(AG34+AG50+AG66+AG82+AG98+AG114) / 6=2180.874245620109 (AH34+AH50+AH66+AH82+AH98+AH114) / 6=1377.2320  
402867754 (AI34+AI50+AI66+AI82+AI98+AI114) / 6=573.5898349534419 (AJ34+AJ50+AJ66+AJ82+AJ98+AJ  
114) / 6=-230.0523703798915 -0.10 (AN34+AN50+AN66+AN82+AN98+AN114) / 6=0.08935412071153866 (AO3  
4+AO50+AO66+AO82+AO98+AO114) / 6=0.018807528888508562 (AP34+AP50+AP66+AP82+AP98+AP114) / 6=-0.051739  
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114) / 6=-0.1928322465805815 (AS34+AS50+AS66+AS82+AS98+AS114) / 6=-0.2633788384036115 (AT34+AT50+A  
T66+AT82+AT98+AT114) / 6=-0.40447202204967153 (AU34+AU50+AU66+AU82+AU98+AU114) / 6=-0.54556520569573  
15 (AV34+AV50+AV66+AV82+AV98+AV114) / 6=-0.6866583893417916 (AW34+AW50+AW66+AW82+AW98+AW114) / 6=-  
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-0.15 (Z35+Z51+Z67+Z83+Z99+Z115) / 6=5488.82761778011 (AA35+AA51+AA67+AA83+AA99+AA115) / 6=5087.0065  
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115) / 6=4283.36430978011 (AD35+AD51+AD67+AD83+AD99+AD115) / 6=3881.5432071134423 (AE35+AE51+AE67+AE83  
+AE99+AE115) / 6=3479.722104446775 (AF35+AF51+AF67+AF83+AF99+AF115) / 6=2676.079899113443 (AG3  
5+AG51+AG67+AG83+AG99+AG115) / 6=1872.43769370801092 (AH35+AH51+AH67+AH83+AH99+AH115) / 6=1068.7954

884467756 (AI35+AI51+AI67+AI83+AI99+AI115) /6=265.15328311344206 (AJ35+AJ51+AJ67+AJ83+AJ99+AJ115) /6=-538.4889222198913 -0.15 (AN35+AN51+AN67+AN83+AN99+AN115) /6=0.02821129333276301 (AO35+AO51+AO67+AO83+AO99+AO115) /6=-0.04233529849026709 (AP35+AP51+AP67+AP83+AP99+AP115) /6=-0.11288189031329705 (AQ35+AQ51+AQ67+AQ83+AQ99+AQ115) /6=-0.1834284821363271 (AR35+AR51+AR67+AR83+AR99+AR115) /6=-0.2539750739593571 (AS35+AS51+AS67+AS83+AS99+AS115) /6=-0.3245216657823871 (AT35+AT51+AT67+AT83+AT99+AT115) /6=-0.4656148494284471 (AU35+AU51+AU67+AU83+AU99+AU115) /6=-0.6067080330745072 (AV35+AV51+AV67+AV83+AV99+AV115) /6=-0.7478012167205672 (AW35+AW51+AW67+AW83+AW99+AW115) /6=-0.8888944003666271 (AX35+AX51+AX67+AX83+AX99+AX115) /6=-1.029987584012687  
-0.20 (Z36+Z52+Z68+Z84+Z100+Z116) /6=5180.391065940109 (AA36+AA52+AA68+AA84+AA100+AA116) /6=4778.569963273443 (AB36+AB52+AB68+AB84+AB100+AB116) /6=4376.748860606776 (AC36+AC52+AC68+AC84+AC100+AC116) /6=3974.92775794011 (AD36+AD52+AD68+AD84+AD100+AD116) /6=3573.1066552734424 (AE36+AE52+AE68+AE84+AE100+AE116) /6=3171.285552606776 (AF36+AF52+AF68+AF84+AF100+AF116) /6=2367.6433472734425 (AG36+AG52+AG68+AG84+AG100+AG116) /6=1564.0011419401092 (AH36+AH52+AH68+AH84+AH100+AH116) /6=760.358936606776 (AI36+AI52+AI68+AI84+AI100+AI116) /6=-43.283268726557516 (AJ36+AJ52+AJ68+AJ84+AJ100+AJ116) /6=-846.9254740598908 -0.20 (AN36+AN52+AN68+AN84+AN100+AN116) /6=-0.03293153404601266 (AO36+AO52+AO68+AO84+AO100+AO116) /6=-0.10347812586904274 (AP36+AP52+AP68+AP84+AP100+AP116) /6=-0.1740247176920727 (AQ36+AQ52+AQ68+AQ84+AQ100+AQ116) /6=-0.24457130951510275 (AR36+AR52+AR68+AR84+AR100+AR116) /6=-0.3151179013381327 (AS36+AS52+AS68+AS84+AS100+AS116) /6=-0.3856644931611628 (AT36+AT52+AT68+AT84+AT100+AT116) /6=-0.5267576768072227 (AU36+AU52+AU68+AU84+AU100+AU116) /6=-0.6678508604532828 (AV36+AV52+AV68+AV84+AV100+AV116) /6=-0.8089440440993427 (AW36+AW52+AW68+AW84+AW100+AW116) /6=-0.9500372277454027 (AX36+AX52+AX68+AX84+AX100+AX116) /6=-1.0911304113914628  
-0.25 (Z37+Z53+Z69+Z85+Z101+Z117) /6=4871.95451410011 (AA37+AA53+AA69+AA85+AA101+AA117) /6=4470.133411433443 (AB37+AB53+AB69+AB85+AB101+AB117) /6=4068.312308766776 (AC37+AC53+AC69+AC85+AC101+AC117) /6=3666.491206100109 (AD37+AD53+AD69+AD85+AD101+AD117) /6=3264.6701034334424 (AE37+AE53+AE69+AE85+AE101+AE117) /6=2862.8490007667756 (AF37+AF53+AF69+AF85+AF101+AF117) /6=2059.206795433442 (AG37+AG53+AG69+AG85+AG101+AG117) /6=1255.5645901001092 (AH37+AH53+AH69+AH85+AH101+AH117) /6=451.92238476677556 (AI37+AI53+AI69+AI85+AI101+AI117) /6=-351.719820566558 (AJ37+AJ53+AJ69+AJ85+AJ101+AJ117) /6=-1155.3620258998913 -0.25 (AN37+AN53+AN69+AN85+AN101+AN117) /6=-0.09407436142478838 (AO37+AO53+AO69+AO85+AO101+AO117) /6=-0.16462095324781845 (AP37+AP53+AP69+AP85+AP101+AP117) /6=-0.23516754507084844 (AQ37+AQ53+AQ69+AQ85+AQ101+AQ117) /6=-0.3057141368938785 (AR37+AR53+AR69+AR85+AR101+AR117) /6=-0.37626072871690847 (AS37+AS53+AS69+AS85+AS101+AS117) /6=-0.44680732053993855 (AT37+AT53+AT69+AT85+AT101+AT117) /6=-0.5879005041859986 (AU37+AU53+AU69+AU85+AU101+AU117) /6=-0.7289936878320584 (AV37+AV53+AV69+AV85+AV101+AV117) /6=-0.8700868714781186 (AW37+AW53+AW69+AW85+AW101+AW117) /6=-1.0111800551241785 (AX37+AX53+AX69+AX85+AX101+AX117) /6=-1.1522732387702386

Sensit ROE									
Coverage	0.25	0.30	0.30	0.25	0.30	0.35	USD/TRY	4.85	
OTAS exposure (USDm)	1500	950	160	500	180	200			
LOANS	OTAS exposure (TRYm)	M2*\$U\$1=7274.999999999999			R2*\$U\$1=969.999999999999		N2*\$U\$1=4607.50	O2*\$U\$1=776	P2*\$U\$1=2425
Q2*\$U\$1=872.999999999999					R2*\$U\$1=969.999999999999				
TRYm	Akbank	Garanti Halkbank	Isbank	Vakifbank	Yapi Kredi	Total	TRYm	Akba	
nk	Garanti Halkbank	Isbank	Vakifbank	Yapi Kredi	Total				
Stage 1	177483.751	179942.836	208018.025	225447.282	189194.53	189206.167			
SUM(C5:H5)=1169292.591	Stage 1	C5+M3=184758.751		D5+N3=184550.336		E5+O3=208794.025			
F5+P3=227872.282	G5+Q3=190067.53	H5+R3=190176.167		SUM(M5:R5)=1186219.091					
Stage 2	18107.557+561.381+3109.4=21778.338000000003			29599.849+5463.71+2411.769=37475.328		4219			
.35+28.39+3620.128=7867.868	16743.129+3832.425+460.08=21035.634000000002			3835.687+108.017+226					
2.51=6206.214	5397.15+541.86+2728.63=8667.64	SUM(C6:H6)=103031.022000000001		Stage 2	C6-M3=14503.				
338000000003	D6-N3=32867.828	E6-O3=7091.868		F6-P3=18610.634000000002		G6-Q3=5333.214		H6-R	
3=7697.639999999999	SUM(M6:R6)=86104.522000000001								
Stage 3	4046.342	5633.32	6264.786	5799.235	7945.146	8617.858	SUM(C7:H7)=38306.687000000005	Stage 3	C7=4046.342
								D7=5633.32	E7=6264.786
								F7=5799.235	
G7=7945.146	H7=8617.858	SUM(M7:R7)=38306.687000000005							
Total	SUM(C5:C7)=203308.430999999998	SUM(D5:D7)=223051.484000000003		SUM(E5:E7)=222150.678999999999					
7	SUM(F5:F7)=252282.150999999998	SUM(G5:G7)=203345.89		SUM(H5:H7)=206491.664999999998		SUM(I5:I7)=222150.678999999997			
C8:H8)=1310630.30	Total	SUM(M5:M7)=203308.430999999998		SUM(N5:N7)=223051.484000000003		SUM(O5:O7)=222150.678999999997			
O5:O7)=222150.678999999997	SUM(P5:P7)=252282.150999999998			SUM(Q5:Q7)=203345.89		SUM(R5:R7)=206491.664999999998			
06491.664999999998	SUM(M8:R8)=1310630.30								
COVERAGE	COVERAGE								
TRYm	Akbank	Garanti Halkbank	Isbank	Vakifbank	Yapi Kredi	Average	TRYm	Akba	
nk	Garanti Halkbank	Isbank	Vakifbank	Yapi Kredi	Average				
Stage 1	635.937	816.282	1003.91	1588.177	1541.675	1735.70	SUM(C12:H12)=7321.681	Stage	
e 1	C12+(M3*0.01)=708.687	D12+(N3*0.01)=862.35700000000001		E12+(O3*0.01)=1011.67		F12+(P3*0.01)=1612.427		G12+(Q3*0.01)=1550.405	
		H12+(R3*0.01)=1745.40		SUM(M12:R12)=7490.946					
Stage 2	2783.856	3620.075	784.616	1845.348	468.183	888.696	SUM(C13:H13)=10390.7		
740000000001	Stage 2	C13-(M3*M1)=965.10600000000004		D13-(N3*N1)=2237.825		E13-(O3*O1)=551.816		F13-(P3*P1)=1239.098	
		G13-(Q3*Q1)=206.283000000000002		H13-(R3*R1)=549.196000000000001		SUM(M13:R13)=5749.32400000000005			
Stage 3	3130.372	3963.228	4978.164	4157.801	6201.91	7386.565	SUM(C14:H14)=29818.039999999997	Stage 3	C14=3130.372
								D14=3963.228	E14=4978.164
								F14=4157.801	
G14=6201.91	H14=7386.565	SUM(M14:R14)=29818.039999999997							
Total	SUM(C12:C14)=6550.165	SUM(D12:D14)=8399.585		SUM(E12:E14)=6766.69		SUM(F12:F14)=7591.32			
6	SUM(G12:G14)=8211.768	SUM(H12:H14)=10010.961		SUM(I12:I14)=47530.4949999999995		SUM(J12:J14)=7009.32			
M12:M14)=4804.1650000000001	SUM(N12:N14)=7063.41	SUM(O12:O14)=6541.65		SUM(P12:P14)=7009.32					
	SUM(Q12:Q14)=7958.598	SUM(R12:R14)=9681.161		SUM(M15:R15)=43058.31					
% in gross loans	% in gross loans								
TRYm	Akbank	Garanti Halkbank	Isbank	Vakifbank	Yapi Kredi	Average	TRYm	Akba	
nk	Garanti Halkbank	Isbank	Vakifbank	Yapi Kredi	Average				
Stage 1	C5/C\$8=0.8729778205803969	D5/D\$8=0.8067322968360076		E5/E\$8=0.936382575720149					
F5/F\$8=0.8936315197344263	G5/G\$8=0.9304074451664599			H5/H\$8=0.9162896090745358		I5/I\$8=0.8921605055216563		J5/J\$8=0.9398757003123993	
	Stage 1	M5/M\$8=0.9087608914752778		N5/N\$8=0.8273889628100389		O5/O\$8=0.9398757003123993		P5/P\$8=0.9032437732782769	
		Q5/Q\$8=0.934700622668105		R5/R\$8=0.9209871352434492					
	S5/S\$8=0.9050752840064814								
Stage 2	C6/C\$8=0.10711969933012766	D6/D\$8=0.16801200928122942		E6/E\$8=0.035416808246622564					
F6/F\$8=0.08338138039737898	G6/G\$8=0.030520479169753565			H6/H\$8=0.041975737858474825		I6/I\$8=0.07861181143149217		J6/J\$8=0.03192368365437227	
	Stage 2	M6/M\$8=0.07133662843524677		N6/N\$8=0.14735534330719807		O6/O\$8=27821168956142		P6/P\$8=0.07376912685352839	
		Q6/Q\$8=0.026227301668108462		R6/R\$8=0.0372821168956142		S6/S\$8=0.06569703294666697			
Stage 3	C7/C\$8=0.019902480089475486	D7/D\$8=0.025255693882762956		E7/E\$8=0.02820061603322851					
F7/F\$8=0.022987099868194798	G7/G\$8=0.03907207566378646			H7/H\$8=0.04173465306698942		I7/I\$8=0.029227683046851582		J7/J\$8=0.02820061603322851	
	Stage 3	M7/M\$8=0.019902480089475486		N7/N\$8=0.025255693882762956		O7/O\$8=0.02820061603322851		P7/P\$8=0.022987099868194798	
		Q7/Q\$8=0.03907207566378646		R7/R\$8=0.04173465306698942					
	S7/S\$8=0.029227683046851582								
Total	C8/C\$8=1	D8/D\$8=1		E8/E\$8=1		F8/F\$8=1		G8/G\$8=1	
I8/I\$8=1	Total	M8/M\$8=1		N8/N\$8=1		O8/O\$8=1		P8/P\$8=1	
R8/R\$8=1	S8/S\$8=1								
COVERAGE RATIO	Earnings impact	Akbank	Garanti Halkbank	Isbank	Vakifbank	Yapi Kredi			
Total									
TRYm	Akbank	Garanti Halkbank	Isbank	Vakifbank	Yapi Kredi	Average	Stage 2	prov	
isions (base)	14503.33800000000003		32867.828	7091.868	18610.634000000002	5333			
.214	7697.6399999999999	S6=86104.522000000001	AKBANK	AKBANK					
Stage 1	C12/C5=0.0035830716694735623	D12/D5=0.004536340640980005		E12/E5=0.004826072163698314					
F12/F5=0.007044560421890559	G12/G5=0.008148623535786156			H12/H5=0.009173591048964065		I12/I5=0.0062616329363195285		J12/J5=5799.235	
	Stage 3	provisions (base)		4046.342		5633.32		6264.786	
		ROE: change from base (bps)							
		% of Stage 2 loans transferred to Stage 3 loans							
Stage 2	C13/C6=0.12782683416888835	D13/D6=0.09659888767351148		E13/E6=0.09972409298173278					
F13/F6=0.08772485773426177	G13/G6=0.07543777897442788			H13/H6=0.10253033120895655		I13/I6=0.10085092623850708		J13/J6=Amount of Stage 2 transferred to Stage 3	
		\$T\$27*O25=0		\$T\$27*M25=0		\$T\$27*N25=0		Loan growth	
		\$T\$27*P25=0		\$T\$27*Q25=0		\$T\$27*R25=0			
(ppt change from base)	\$M\$34=0.14227070975751668	AA27-0.05=-0.150000000000000002		AB27-0.05=-0.10		AC27-0.05=-0.10		AD27-0.05=0.20	
.10	-0.05	0		AE27-0.05=0.30		AF27-0.05=0.40		AG27-0.05=0.50	
70975751668	AO27-0.05=-0.150000000000000002	AP27-0.05=-0.10		-0.05		0		0.05	

10 0.20 0.30 0.40 0.50 0.60

Stage 3 C14/C7=0.7736301083793707 D14/D7=0.7035332628006221 E14/E7=0.7946263447785766  
F14/F7=0.7169568055096923 G14/G7=0.7805910678041662 H14/H7=0.85712308093264 I14/I7=0.778  
4029978891152 Coverage of new Stage 3 loans (70%) M27\*0.7=0 N27\*0.7=0 O27\*0.7=0  
P27\*0.7=0 Q27\*0.7=0 R27\*0.7=0 S27\*0.7=0 0.20 (=TABLE(T27,T46))=0.19763146  
251425862 (=TABLE(T27,T46))=0.18861179217693397 (=TABLE(T27,T46))=0.17959212183960938 (=TA  
BLE(T27,T46))=0.17057245150228473 (=TABLE(T27,T46))=0.1615527811649601 (=TABLE(T27,T46))=0.  
1525331108276355 (=TABLE(T27,T46))=0.13449377015298625 (=TABLE(T27,T46))=0.1164544294783369  
7 (=TABLE(T27,T46))=0.09841508880368774 (=TABLE(T27,T46))=0.08037574812903847 (=TABLE(T27,  
T46))=0.062336407454389224 0.20 (Z28-\$AC\$32)\*10000=553.6075275674193 (A028-\$AC\$32)\*10000=  
463.41082419417285 (AB28-\$AC\$32)\*10000=373.2141208209269 (AC28-\$AC\$32)\*10000=283.017417447680  
43 (AD28-\$AC\$32)\*10000=192.82071407443425 (AE28-\$AC\$32)\*10000=102.62401070118804 (AF28-\$AC\$32  
)\*10000=-77.76939604530436 (AG28-\$AC\$32)\*10000=-258.16280279179716 (AH28-\$AC\$32)\*10000=-438.556  
20953828947 (AI28-\$AC\$32)\*10000=-618.9496162847821 (AJ28-\$AC\$32)\*10000=-799.3430230312745  
Total SUM(C26:C28)=0.9050400142177326 SUM(D26:D28)=0.8046684911151136 SUM(E26:E28)=0.8991765099240  
078 SUM(F26:F28)=0.8117262236658447 SUM(G26:G28)=0.8641774703143803 SUM(H26:H28)=0.9688270031905  
606 SUM(I26:I28)=0.8855155570639418 Stage 3 provisions (new) M28+M26=4046.342 N28+  
N26=5633.32 O28+O26=6264.786 P28+P26=5799.235 Q28+Q26=7945.146 R28+R26=8617  
.858 S28+S26=38306.6870000000005 0.15 (=TABLE(T27,T46))=0.19055602707806657 (=TABLE(T27,  
T46))=0.18153635674074195 (=TABLE(T27,T46))=0.17251668640341736 (=TABLE(T27,T46))=0.16349701  
60660927 (=TABLE(T27,T46))=0.1544773457287681 (=TABLE(T27,T46))=0.14545767539144347 (=TA  
BLE(T27,T46))=0.1274183347167942 (=TABLE(T27,T46))=0.10937899404214495 (=TABLE(T27,T46))=0.  
0913396533674957 (=TABLE(T27,T46))=0.07330031269284645 (=TABLE(T27,T46))=0.0552609720181972  
0.15 (Z29-\$AC\$32)\*10000=482.8531732054989 (AA29-\$AC\$32)\*10000=392.65646983225264 (AB29-\$AC\$32  
)\*10000=302.45976645900674 (AC29-\$AC\$32)\*10000=212.26306308576025 (AD29-\$AC\$32)\*10000=122.0663  
5971251406 (AE29-\$AC\$32)\*10000=31.86965633926786 (AF29-\$AC\$32)\*10000=-148.5237504072248 (AG2  
9-\$AC\$32)\*10000=-328.91715715371737 (AH29-\$AC\$32)\*10000=-509.3105639002099 (AI29-\$AC\$32)\*10000=  
-689.7039706467023 (AJ29-\$AC\$32)\*10000=-870.0973773931948  
Net profit (base) 6405.467516045113 7118.518599790241 3809.28613779219 6242  
.064735470831 3822.804240772133 3853.9025619301465 SUM(M30:R30)=31252.043791800654 0.10  
(=TABLE(T27,T46))=0.1834805916418746 (=TABLE(T27,T46))=0.17446092130455 (=TABLE(T27,T46))=0.16  
544125096722537 (=TABLE(T27,T46))=0.15642158062990072 (=TABLE(T27,T46))=0.1474019102925761  
(=TABLE(T27,T46))=0.13838223995525148 (=TABLE(T27,T46))=0.12034289928060223 (=TABLE(T27,T46))=0.  
10230355860595296 (=TABLE(T27,T46))=0.08426421793130372 (=TABLE(T27,T46))=0.0662248772566544  
5 (=TABLE(T27,T46))=0.0481855365820052 0.10 (Z30-\$AC\$32)\*10000=412.09881884357924 (AA3  
0-\$AC\$32)\*10000=321.90211547033306 (AB30-\$AC\$32)\*10000=231.70541209708685 (AC30-\$AC\$32)\*10000=  
141.50870872384036 (AD30-\$AC\$32)\*10000=51.312005350594156 (AE30-\$AC\$32)\*10000=-38.884698022652  
046 (AF30-\$AC\$32)\*10000=-219.2781047691446 (AG30-\$AC\$32)\*10000=-399.67151151563723 (AH30-\$AC\$32  
)\*10000=-580.0649182621297 (AI30-\$AC\$32)\*10000=-760.4583250086223 (AJ30-\$AC\$32)\*10000=-940.851  
7317551149  
Expected provision expenses Net profit (new) - TRYm M30-(M28\*0.8)+(M48-M46)\*(0.8)\*(0.04  
))=6405.467516045113 N30-(N28\*0.8)+(N48-N46)\*(0.8)\*(0.04))=7118.518599790241 O30-(O28\*0.8  
)+(O48-O46)\*(0.8)\*(0.04))=3809.28613779219 P30-(P28\*0.8)+(P48-P46)\*(0.8)\*(0.04))=6242.06473547  
0831 Q30-(Q28\*0.8)+(Q48-Q46)\*(0.8)\*(0.04))=3822.804240772133 R30-(R28\*0.8)+(R48-R46)\*(0.8  
)\*(0.04))=3853.9025619301465 S30-(S28\*0.8)+(S48-S46)\*(0.8)\*(0.04))=31252.043791800654 0.05  
(=TABLE(T27,T46))=0.1764051562056826 (=TABLE(T27,T46))=0.16738548586835794 (=TABLE(T27,T46))=0.  
15836581553103335 (=TABLE(T27,T46))=0.1493461451937087 (=TABLE(T27,T46))=0.1403264748563840  
8 (=TABLE(T27,T46))=0.13130680451905946 (=TABLE(T27,T46))=0.11326746384441021 (=TABLE(T27,  
T46))=0.09522812316976095 (=TABLE(T27,T46))=0.0771887824951117 (=TABLE(T27,T46))=0.05914944  
1820462445 (=TABLE(T27,T46))=0.04111010114581319 0.05 (Z31-\$AC\$32)\*10000=341.3444644816591  
(AA31-\$AC\$32)\*10000=251.1477611084126 (AB31-\$AC\$32)\*10000=160.95105773516667 (AC31-\$AC\$32)\*10000=  
70.75435436192018 (AD31-\$AC\$32)\*10000=-19.442349011326023 (AE31-\$AC\$32)\*10000=-109.63905238457  
222 (AF31-\$AC\$32)\*10000=-290.03245913106474 (AG31-\$AC\$32)\*10000=-470.4258658775573 (AH31-\$AC\$32  
)\*10000=-650.8192726240499 (AI31-\$AC\$32)\*10000=-831.2126793705423 (AJ31-\$AC\$32)\*10000=-1011.60  
60861170349  
TRYm Akbank Garanti Halkbank Isbank Vakifbank Yapi Kredi Average Change in ne  
t profit from base M31/M30-1=0 N31/N30-1=0 O31/O30-1=0 P31/P30-1=0 Q31/Q30-1=0  
R31/R30-1=0 S31/S30-1=0 0 (=TABLE(T27,T46))=0.16932972076949057 (=TABLE(T27,T46))=0.  
16031005043216592 (=TABLE(T27,T46))=0.1512903800948413 (=TABLE(T27,T46))=0.1422707097575166  
8 (=TABLE(T27,T46))=0.13325103942019204 (=TABLE(T27,T46))=0.12423136908286743 (=TABLE(T27,  
T46))=0.10619202840821818 (=TABLE(T27,T46))=0.08815268773356892 (=TABLE(T27,T46))=0.07011334  
705891967 (=TABLE(T27,T46))=0.05207400638427041 (=TABLE(T27,T46))=0.03403466570962116 0  
(Z32-\$AC\$32)\*10000=270.5901101197389 (AA32-\$AC\$32)\*10000=180.3934067464924 (AB32-\$AC\$32)\*10000=  
90.1967033732462 (AC32-\$AC\$32)\*10000=0 (AD32-\$AC\$32)\*10000=-90.19670337324648 (AE32-\$AC\$32  
)\*10000=-180.39340674649253 (AF32-\$AC\$32)\*10000=-360.78681349298506 (AG32-\$AC\$32)\*10000=-541.180  
2202394776 (AH32-\$AC\$32)\*10000=-721.5736269859701 (AI32-\$AC\$32)\*10000=-901.9670337324627 (AJ3  
2-\$AC\$32)\*10000=-1082.3604404789553  
ROE (base) M30/M\$56=0.14227070975751668 N30/N\$56=0.15379565842592643 O30/O\$56=0.133239279  
64267931 P30/P\$56=0.13031433781764779 Q30/Q\$56=0.14460043618259225 R30/R\$56=0.102203593  
17283423 S30/S\$56=0.1347398172027409 -0.05 (=TABLE(T27,T46))=0.1622542853329853 (=TA  
BLE(T27,T46))=0.1532346149959739 (=TABLE(T27,T46))=0.14421494465864929 (=TABLE(T27,T46))=0.  
13519527432132464 (=TABLE(T27,T46))=0.12617560398400002 (=TABLE(T27,T46))=0.1171559336466754  
(=TABLE(T27,T46))=0.09911659297202616 (=TABLE(T27,T46))=0.08107725229737689 (=TABLE(T27,T46))=0.  
06303791162272764 (=TABLE(T27,T46))=0.04499857094807838 (=TABLE(T27,T46))=0.0269592302734291  
3 -0.05 (Z33-\$AC\$32)\*10000=199.83575575781842 (AA33-\$AC\$32)\*10000=109.63905238457222 (AB3  
3-\$AC\$32)\*10000=19.442349011326023 (AC33-\$AC\$32)\*10000=-70.75435436192046 (AD33-\$AC\$32)\*10000=  
-160.95105773516667 (AE33-\$AC\$32)\*10000=-251.14776110841285 (AF33-\$AC\$32)\*10000=-431.54116785490  
527 (AG33-\$AC\$32)\*10000=-611.9345746013979 (AH33-\$AC\$32)\*10000=-792.3279813478905 (AI33-\$AC\$32  
)\*10000=-972.721388094383 (AJ33-\$AC\$32)\*10000=-1153.1147948408757

ROE (new) M31/M\$56=0.14227070975751668 N31/N\$56=0.15379565842592643 O31/O\$56=0.133239279  
64267931 P31/P\$56=0.13031433781764779 Q31/Q\$56=0.14460043618259225 R31/R\$56=0.102203593  
17283423 S31/S\$56=0.1347398172027409 -0.10 (=TABLE(T27,T46))=0.1551788498971065 (=TA  
BLE(T27,T46))=0.1461591795597819 (=TABLE(T27,T46))=0.13713950922245727 (=TABLE(T27,T46))=0.  
12811983888513262 (=TABLE(T27,T46))=0.11910016854780799 (=TABLE(T27,T46))=0.1100804982104833  
8 (=TABLE(T27,T46))=0.09204115753583413 (=TABLE(T27,T46))=0.07400181686118487 (=TABLE(T27,  
T46))=0.05596247618653563 (=TABLE(T27,T46))=0.03792313551188637 (=TABLE(T27,T46))=0.01988379  
4837237116 -0.10 (Z34-\$AC\$32)\*10000=129.08140139589824 (AA34-\$AC\$32)\*10000=38.8846980226520  
46 (AB34-\$AC\$32)\*10000=-51.312005350594156 (AC34-\$AC\$32)\*10000=-141.50870872384064 (AD34-\$AC\$32  
)\*10000=-231.70541209708696 (AE34-\$AC\$32)\*10000=-321.90211547033306 (AF34-\$AC\$32)\*10000=-502.295  
5222168256 (AG34-\$AC\$32)\*10000=-682.6889289633182 (AH34-\$AC\$32)\*10000=-863.0823357098105 (AI3  
4-\$AC\$32)\*10000=-1043.4757424563031 (AJ34-\$AC\$32)\*10000=-1223.8691492027956  
Change in ROE from base (M34-M33)=0 (N34-N33)=0 (O34-O33)=0 (P34-P33)=0 (Q34-Q33)=0  
(R34-R33)=0 (S34-S33)=0 -0.15 (=TABLE(T27,T46))=0.14810341446091452 (=TABLE(T27,T46))=0.  
13908374412358987 (=TABLE(T27,T46))=0.13006407378626525 (=TABLE(T27,T46))=0.1210444034489406  
2 (=TABLE(T27,T46))=0.11202473311161598 (=TABLE(T27,T46))=0.10300506277429138 (=TABLE(T27,  
T46))=0.08496572209964212 (=TABLE(T27,T46))=0.06692638142499287 (=TABLE(T27,T46))=0.04888704  
075034361 (=TABLE(T27,T46))=0.030847700075694352 (=TABLE(T27,T46))=0.012808359401045105 -0.1  
5 (Z35-\$AC\$32)\*10000=58.32704703397834 (AA35-\$AC\$32)\*10000=-31.869656339268136 (AB35-\$AC\$32  
)\*10000=-122.06635971251434 (AC35-\$AC\$32)\*10000=-212.26306308576068 (AD35-\$AC\$32)\*10000=-302.459  
766459007 (AE35-\$AC\$32)\*10000=-392.6564698322531 (AF35-\$AC\$32)\*10000=-573.0498765787456 (AG3  
5-\$AC\$32)\*10000=-753.4432833252382 (AH35-\$AC\$32)\*10000=-933.8366900717307 (AI35-\$AC\$32)\*10000=  
-1114.2300968182233 (AJ35-\$AC\$32)\*10000=-1294.6235035647157  
-0.20 (=TABLE(T27,T46))=0.1410279790247225 (=TABLE(T27,T46))=0.13200830868739785 (=TABLE(T27,  
T46))=0.12298863835007325 (=TABLE(T27,T46))=0.11396896801274861 (=TABLE(T27,T46))=0.10494929  
767542398 (=TABLE(T27,T46))=0.09592962733809937 (=TABLE(T27,T46))=0.07789028666345012 (=TA  
BLE(T27,T46))=0.059850945988800856 (=TABLE(T27,T46))=0.04181160531415161 (=TABLE(T27,T46))=0.  
023772264639502348 (=TABLE(T27,T46))=0.005732923964853099 -0.20 (Z36-\$AC\$32)\*10000=-12.42730  
732794184 (AA36-\$AC\$32)\*10000=-102.62401070118831 (AB36-\$AC\$32)\*10000=-192.8207140744344 (AC3  
6-\$AC\$32)\*10000=-283.0174174476807 (AD36-\$AC\$32)\*10000=-373.21412082092706 (AE36-\$AC\$32)\*10000=  
-463.41082419417313 (AF36-\$AC\$32)\*10000=-643.8042309406657 (AG36-\$AC\$32)\*10000=-824.19763768715  
82 (AH36-\$AC\$32)\*10000=-1004.5910444336507 (AI36-\$AC\$32)\*10000=-1184.9844511801432 (AJ36-\$AC\$32  
)\*10000=-1365.377857926636  
Stage 1 53.916 379.957 96.532 7.40 167.354 153.12 SUM(C37:H37)=858.279 COR impact Akba  
nk Garanti Halkbank Isbank Vakifbank Yapi Kredi Total -0.25 (=TABLE(T27,  
T46))=0.13395254358853045 (=TABLE(T27,T46))=0.12493287325120583 (=TABLE(T27,T46))=0.11591320  
291388123 (=TABLE(T27,T46))=0.10689353257655657 (=TABLE(T27,T46))=0.09787386223923196 (=TA  
BLE(T27,T46))=0.08885419190190733 (=TABLE(T27,T46))=0.07081485122725809 (=TABLE(T27,T46))=0.  
05277551055260882 (=TABLE(T27,T46))=0.03473616987795957 (=TABLE(T27,T46))=0.0166968292033103  
13 (=TABLE(T27,T46))=-0.0013425114713389369 -0.25 (Z37-\$AC\$32)\*10000=-83.1816616898623  
(AA37-\$AC\$32)\*10000=-173.3783650631085 (AB37-\$AC\$32)\*10000=-263.57506843635457 (AC37-\$AC\$32)\*10000=  
-353.7717718096012 (AD37-\$AC\$32)\*10000=-443.9684751828472 (AE37-\$AC\$32)\*10000=-534.16517855609  
36 (AF37-\$AC\$32)\*10000=-714.5585853025859 (AG37-\$AC\$32)\*10000=-894.9519920490786 (AH37-\$AC\$32  
)\*10000=-1075.345398795571 (AI37-\$AC\$32)\*10000=-1255.7388055420638 (AJ37-\$AC\$32)\*10000=-1436.13  
2212288556  
Stage 2 246.51 748.876 19.004 588.762 78.11 70.684 SUM(C38:H38)=1751.946 Stage 2 loans % in 1  
oans (base) M20=0.07133662843524677 N20=0.14735534330719807 O20=0.03192368365437227 P20=0.073769  
12685352839 Q20=0.026227301668108462 R20=0.03727821168956142 S20=0.06569703294666697  
Stage 3 397.74 488.162 276.835 531.50 1037.65 589.523 SUM(C39:H39)=3321.4100000000003 Stage 3 loan  
s % in loans (base) M21=0.019902480089475486 N21=0.025255693882762956 O21=0.028200  
61603322851 P21=0.022987099868194798 Q21=0.03907207566378646 R21=0.04173465306698942 S21=  
0.029227683046851582  
Total SUM(C37:C39)=698.1659999999999999 SUM(D37:D39)=1616.995 SUM(E37:E39)=392.371 SUM(F37:F39)  
=1127.661999999999998 SUM(G37:G39)=1283.114 SUM(H37:H39)=813.327 SUM(C40:H40)=5931.635 Stag  
e 2 loans % in loans (new) (M6-M27)/M\$8=0.07133662843524677 (N6-N27)/N\$8=0.1473553433071  
9807 (O6-O27)/O\$8=0.03192368365437227 (P6-P27)/P\$8=0.07376912685352839 (Q6-Q27)/Q\$8  
=0.026227301668108462 (R6-R27)/R\$8=0.03727821168956142 (S6-S27)/S\$8=0.06569703294666697  
Average gross loans 'R:\Bank models\Turkish Bank Model with 200 Estimates\Higher RFR\AKBANK MO  
DEL- Higher RFR and Lower NIM.xlsx\COR'!\$AH\$13/1000=199098.746 'R:\Bank models\Turkish Bank Model w  
ith 200 Estimates\Higher RFR\GARANTI MODEL- Higher RFR and Lower NIM.xlsx\COR'!\$AH\$13/1000=219928.  
43 'R:\Bank models\Turkish Bank Model with 200 Estimates\Higher RFR\HALKBANK MODEL- Higher RF  
R and Lower NIM.xlsx\COR'!\$AH\$13/1000=215448.166 'R:\Bank models\Turkish Bank Model with 200  
Estimates\Higher RFR\ISBANK MODEL- Higher RFR and Lower NIM.xlsx\COR'!\$AH\$13/1000=249443.2855 'R:\  
Bank models\Turkish Bank Model with 200 Estimates\Higher RFR\VAKIFBANK MODEL- Higher RFR and Lower  
NIM.xlsx\COR'!\$AH\$13/1000=197091.47 'R:\Bank models\Turkish Bank Model with 200 Estimates\Highe  
r RFR\YAPI KREDI MODEL- Higher RFR and Lower NIM.xlsx\COR'!\$AH\$13/1000=204895.8715 SUM(C41:H41)  
=1285905.969 Stage 3 loans % in loans (new) (M7+M27)/M\$8=0.019902480089475486 (N7+N27)/N\$8  
=0.025255693882762956 (O7+O27)/O\$8=0.02820061603322851 (P7+P27)/P\$8=0.022987099868194798  
(Q7+Q27)/Q\$8=0.03907207566378646 (R7+R27)/R\$8=0.04173465306698942 (S7+S27)/S\$8=0.02922  
7683046851582 GARANTI GARANTI  
Stage 1 credit impairments C37=53.916 D37=379.957 E37=96.532 F37=7.40 G37=  
167.354 H37=153.12 I37=858.279 Y26=ROE % of Stage 2 loans transferred to Stage 3 loans ROE:  
change from base (bps) % of Stage 2 loans transferred to Stage 3 loans  
CoR (gross) Stage 2 credit impairments C38=246.51 D38=748.876 E38=19.004 F38=  
588.762 G38=78.11 H38=70.684 I38=1751.946 Loan growth (ppt change from base) N\$3  
4=0.15379565842592643 AA43-0.05=-0.15000000000000002 AB43-0.05=-0.10 -0.05 0 0.05 AD43  
+0.05=0.10 0.20 0.30 0.40 0.50 0.60 Y43=0.15379565842592643 AO43-0.05=-0.1500000  
000000002 AP43-0.05=-0.10 -0.05 0 0.05 AR43+0.05=0.10 0.20 0.30 0.40 0.50  
0.60

TRYm Akbank Garanti Halkbank Isbank Vakifbank Yapi Kredi Average Stage 3 cred  
it impairments (new) M28+C39=397.74 N28+D39=488.162 O28+E39=276.835 P28+F39=531.50 Q28+G39=1037  
.65 R28+H39=589.523 S28+I39=3321.4100000000003 0.20 (=TABLE(T27,T46))=0.2438548314321208  
6 (=TABLE(T27,T46))=0.22397175927771315 (=TABLE(T27,T46))=0.20408868712330538 (=TABLE(T27,  
T46))=0.18420561496889767 (=TABLE(T27,T46))=0.16432254281448994 (=TABLE(T27,T46))=0.14443947  
066008223 (=TABLE(T27,T46))=0.10467332635126676 (=TABLE(T27,T46))=0.06490718204245129 (=TA  
BLE(T27,T46))=0.025141037733635838 (=TABLE(T27,T46))=-0.014625106575179615 (=TABLE(T27,T46))=-0  
.05439125088399509 0.20 (Z44-\$AC\$48)\*10000=900.5917300619443 (AA44-\$AC\$48)\*10000=701.7610  
085178671 (AB44-\$AC\$48)\*10000=502.9302869737895 (AC44-\$AC\$48)\*10000=304.0995654297124 (AD4  
4-\$AC\$48)\*10000=105.26884388563501 (AE44-\$AC\$48)\*10000=-93.5618776584421 (AF44-\$AC\$48)\*10000=  
-491.2233207465967 (AG44-\$AC\$48)\*10000=-888.8847638347515 (AH44-\$AC\$48)\*10000=-1286.5462069229  
06 (AI44-\$AC\$48)\*10000=-1684.2076500110607 (AJ44-\$AC\$48)\*10000=-2081.869093099215  
Stage 1 C37/C\$41\*4=0.0010832011970582677 D37/D\$41\*4=0.006910557220819518 E37/E\$41\*4=0.0017922  
083402650082 F37/F\$41\*4=1.1866424843093242E-4 G37/G\$41\*4=0.0033964737286702467 H37/  
H\$41\*4=0.0029892256760283235 I37/I\$41\*4=0.002669803300368691 Recoveries C49=253 D49=860 E49=  
188 F49=432 G49=446 H49=330 I49=2509 0.15 (=TABLE(T27,T46))=0.23625234229637807 (=TA  
BLE(T27,T46))=0.21636927014197033 (=TABLE(T27,T46))=0.1964861979875626 (=TABLE(T27,T46))=0.  
17660312583315488 (=TABLE(T27,T46))=0.15672005367874714 (=TABLE(T27,T46))=0.1368369815243394  
(=TABLE(T27,T46))=0.09707083721552395 (=TABLE(T27,T46))=0.05730469290670848 (=TABLE(T27,T46))=0.  
01753854859789303 (=TABLE(T27,T46))=-0.022227595710922424 (=TABLE(T27,T46))=-0.061993740019737  
9 0.15 (Z45-\$AC\$48)\*10000=824.5668387045163 (AA45-\$AC\$48)\*10000=625.7361171604389 (AB4  
5-\$AC\$48)\*10000=426.90539561636155 (AC45-\$AC\$48)\*10000=228.07467407228444 (AD45-\$AC\$48)\*10000=  
29.24395252820705 (AE45-\$AC\$48)\*10000=-169.58676901587035 (AF45-\$AC\$48)\*10000=-567.24821210402  
48 (AG45-\$AC\$48)\*10000=-964.9096551921796 (AH45-\$AC\$48)\*10000=-1362.5710982803341 (AI45-\$AC\$48  
) \*10000=-1760.2325413684885 (AJ45-\$AC\$48)\*10000=-2157.8939844566435  
Stage 2 C38/C\$41\*4=0.004952517380496208 D38/D\$41\*4=0.013620358222900059 E38/E\$41\*4=3.528273246011294  
E-4 F38/F\$41\*4=0.009441216247931435 G38/G\$41\*4=0.0015852537910443307 H38/H\$41\*4=0.0013799  
009122543496 I38/I\$41\*4=0.005449686189301761 Gross loans (base) C41=199098.746 D41=219928.4  
3 E41=215448.166 F41=249443.2855 G41=197091.47 H41=204895.8715 I41=1285905.969 0 0.10  
(=TABLE(T27,T46))=0.2286498531606353 (=TABLE(T27,T46))=0.20876678100622756 (=TABLE(T27,T46))=0.  
18888370885181982 (=TABLE(T27,T46))=0.16900063669741208 (=TABLE(T27,T46))=0.1491175645430043  
4 (=TABLE(T27,T46))=0.12923449238859663 (=TABLE(T27,T46))=0.08946834807978117 (=TABLE(T27,  
T46))=0.049702203770965694 (=TABLE(T27,T46))=0.009936059462150242 (=TABLE(T27,T46))=-0.0298300  
84846665213 (=TABLE(T27,T46))=-0.0695962291554807 0.10 (Z46-\$AC\$48)\*10000=748.5419473470886  
(AA46-\$AC\$48)\*10000=549.7112258030112 (AB46-\$AC\$48)\*10000=350.88050425893385 (AC46-\$AC\$48)\*10000=  
152.04978271485646 (AD46-\$AC\$48)\*10000=-46.78093882922091 (AE46-\$AC\$48)\*10000=-245.61166037329  
8 (AF46-\$AC\$48)\*10000=-643.2731034614526 (AG46-\$AC\$48)\*10000=-1040.9345465496074 (AH46-\$AC\$48  
) \*10000=-1438.595989637762 (AI46-\$AC\$48)\*10000=-1836.2574327259165 (AJ46-\$AC\$48)\*10000=-2233.91  
88758140713  
Stage 3 C39/C\$41\*4=0.007990808741708499 D39/D\$41\*4=0.008878561084621938 E39/E\$41\*4=0.005139704925592  
172 F39/F\$41\*4=0.008522979465005484 G39/G\$41\*4=0.021059257409770195 H39/H\$41\*4=0.011508733595932  
899 I39/I\$41\*4=0.010331735228145598 Change in loan growth \$T\$46=0 \$T\$46=0 \$T\$46=0 \$T\$46=0 \$T\$4  
6=0 \$T\$46=0 \$T\$46=0 0.05 (=TABLE(T27,T46))=0.22104736402489245 (=TABLE(T27,T46))=0.20116429  
187048473 (=TABLE(T27,T46))=0.18128121971607697 (=TABLE(T27,T46))=0.16139814756166926 (=TA  
BLE(T27,T46))=0.14151507540726152 (=TABLE(T27,T46))=0.1216320032528538 (=TABLE(T27,T46))=0.  
08186585894403833 (=TABLE(T27,T46))=0.042099714635222864 (=TABLE(T27,T46))=0.0023335703264074  
11 (=TABLE(T27,T46))=-0.03743257398240804 (=TABLE(T27,T46))=-0.07719871829122352 0.05 (Z47  
-\$AC\$48)\*10000=672.5170559896601 (AA47-\$AC\$48)\*10000=473.686334445583 (AB47-\$AC\$48)\*10000=  
274.85561290150537 (AC47-\$AC\$48)\*10000=76.02489135742823 (AD47-\$AC\$48)\*10000=-122.80583018664  
915 (AE47-\$AC\$48)\*10000=-321.6365517307264 (AF47-\$AC\$48)\*10000=-719.297994818881 (AG47-\$AC\$48  
) \*10000=-1116.9594379070359 (AH47-\$AC\$48)\*10000=-1514.6208809951902 (AI47-\$AC\$48)\*10000=-1912.28  
23240833447 (AJ47-\$AC\$48)\*10000=-2309.9437671714995  
Total SUM(C45:C47)=0.014026527319262974 SUM(D45:D47)=0.029409476528341517 SUM(E45:E47)  
=0.0072847405904583095 SUM(F45:F47)=0.018082859961367853 SUM(G45:G47)=0.02604098492948477  
SUM(H45:H47)=0.015877860184215574 SUM(I45:I47)=0.018451224717816052 Gross loans (new)  
M46\*(1+M47)=199098.746 N46\*(1+N47)=219928.43 O46\*(1+O47)=215448.166 P46\*(1+P47)=249443.2855 Q46\*  
(1+Q47)=197091.47 R46\*(1+R47)=204895.8715 S46\*(1+S47)=1285905.969 0 (=TABLE(T27,T46))=0.  
21344487488914962 (=TABLE(T27,T46))=0.1935618027347419 (=TABLE(T27,T46))=0.1736787305803341  
7 (=TABLE(T27,T46))=0.15379565842592643 (=TABLE(T27,T46))=0.1339125862715187 (=TABLE(T27,  
T46))=0.11402951411711099 (=TABLE(T27,T46))=0.07426336980829552 (=TABLE(T27,T46))=0.03449722  
5499480054 (=TABLE(T27,T46))=-0.005268918809335398 (=TABLE(T27,T46))=-0.04503506311815085 (=TA  
BLE(T27,T46))=-0.08480120742696633 0 (Z48-\$AC\$48)\*10000=596.4921646322318 (AA48-\$AC\$48  
) \*10000=397.6614430881548 (AB48-\$AC\$48)\*10000=198.8307215440774 (AC48-\$AC\$48)\*10000=0 (AD4  
8-\$AC\$48)\*10000=-198.8307215440774 (AE48-\$AC\$48)\*10000=-397.6614430881545 (AF48-\$AC\$48)\*10000=  
-795.3228861763091 (AG48-\$AC\$48)\*10000=-1192.9843292644637 (AH48-\$AC\$48)\*10000=-1590.6457723526  
182 (AI48-\$AC\$48)\*10000=-1988.3072154407728 (AJ48-\$AC\$48)\*10000=-2385.9686585289273  
Recoveries 253 860 188 432 446 330 SUM(C49:H49)=2509 CoR (net), B  
ase C57=0.008943622377209748 D57=0.013768024443224555 E57=0.0037943418836064724  
F57=0.011155433566480983 G57=0.01698935017329771 H57=0.009435563468637288 I57=0.010646  
610506557188 -0.05 (=TABLE(T27,T46))=0.20584238575340683 (=TABLE(T27,T46))=0.1859593135989991  
2 (=TABLE(T27,T46))=0.16607624144459138 (=TABLE(T27,T46))=0.14619316929018364 (=TABLE(T27,  
T46))=0.1263100971357759 (=TABLE(T27,T46))=0.10642702498136818 (=TABLE(T27,T46))=0.06666088  
067255271 (=TABLE(T27,T46))=0.026894736363737248 (=TABLE(T27,T46))=-0.012871407945078208 (=TA  
BLE(T27,T46))=-0.05263755225389366 (=TABLE(T27,T46))=-0.09240369656270914 -0.05 (Z49-\$AC\$48  
) \*10000=520.4672732748039 (AA49-\$AC\$48)\*10000=321.6365517307268 (AB49-\$AC\$48)\*10000=122.8058  
3018664942 (AC49-\$AC\$48)\*10000=-76.02489135742796 (AD49-\$AC\$48)\*10000=-274.85561290150537 (AE4  
9-\$AC\$48)\*10000=-473.6863344455826 (AF49-\$AC\$48)\*10000=-871.347775337373 (AG49-\$AC\$48)\*10000=  
-1269.009220621892 (AH49-\$AC\$48)\*10000=-1666.6706637100465 (AI49-\$AC\$48)\*10000=-2064.3321067982  
01 (AJ49-\$AC\$48)\*10000=-2461.9935498863556

CoR (net), New (M42+M43+M44-M45)/M48\*4=0.008943622377209748 (N42+N43+N44-N45)/N48\*4=0.0137680244  
43224555 (O42+O43+O44-O45)/O48\*4=0.0037943418836064724 (P42+P43+P44-P45)/P48\*4=0.0111554335  
66480983 (Q42+Q43+Q44-Q45)/Q48\*4=0.01698935017329771 (R42+R43+R44-R45)/R48\*4=0.0094355634  
68637288 (S42+S43+S44-S45)/S48\*4=0.010646610506557188 -0.10 (=TABLE(T27, T46))=0.19823989  
6617664 (=TABLE(T27, T46))=0.1783568244632563 (=TABLE(T27, T46))=0.15847375230884855 (=TABLE(T27, T46))=0.13859068015444082 (=TABLE(T27, T46))=0.11870760800003308 (=TABLE(T27, T46))=0.09882453  
584562537 (=TABLE(T27, T46))=0.059058391536809904 (=TABLE(T27, T46))=0.019292247227994438 (=TABLE(T27, T46))=-0.020473897080821018 (=TABLE(T27, T46))=-0.06024004138963647 (=TABLE(T27, T46))=-0.10000618569845195 -0.10 (Z50-\$AC\$48)\*10000=444.44238191737566 (AA50-\$AC\$48)\*10000=245.6116  
6037329858 (AB50-\$AC\$48)\*10000=46.780938829221185 (AC50-\$AC\$48)\*10000=-152.0497827148562 (AD50-\$AC\$48)\*10000=-350.88050425893357 (AE50-\$AC\$48)\*10000=-549.7112258030107 (AF50-\$AC\$48)\*10000=-947.3726688911653 (AG50-\$AC\$48)\*10000=-1345.03411197932 (AH50-\$AC\$48)\*10000=-1742.6955550674  
745 (AI50-\$AC\$48)\*10000=-2140.3569981556293 (AJ50-\$AC\$48)\*10000=-2538.018441243784  
CoR (net) Change in CoR from base (bps) (M50-M49)\*100=0 (N50-N49)\*100=0 (O50-O49)\*100=0 (P50-P49)\*100=0  
(Q50-Q49)\*100=0 (R50-R49)\*100=0 (S50-S49)\*100=0 -0.15 (=TABLE(T27, T46))=0.19063740  
74819212 (=TABLE(T27, T46))=0.1707543353275135 (=TABLE(T27, T46))=0.15087126317310576 (=TABLE(T27, T46))=0.13098819101869802 (=TABLE(T27, T46))=0.11110511886429027 (=TABLE(T27, T46))=0.09122204670988256 (=TABLE(T27, T46))=0.051455902401067094 (=TABLE(T27, T46))=0.0116897580922516  
28 (=TABLE(T27, T46))=-0.028076386216563824 (=TABLE(T27, T46))=-0.06784253052537928 (=TABLE(T27, T46))=-0.10760867483419476 -0.15 (Z51-\$AC\$48)\*10000=368.41749055994774 (AA51-\$AC\$48)\*10000=169.5867690158706 (AB51-\$AC\$48)\*10000=-29.243952528206773 (AC51-\$AC\$48)\*10000=-228.07467407228  
415 (AD51-\$AC\$48)\*10000=-426.90539561636166 (AE51-\$AC\$48)\*10000=-625.7361171604388 (AF51-\$AC\$48)\*10000=-1023.3975602485934 (AG51-\$AC\$48)\*10000=-1421.0590033367482 (AH51-\$AC\$48)\*10000=-1818.72  
04464249025 (AI51-\$AC\$48)\*10000=-2216.381889513057 (AJ51-\$AC\$48)\*10000=-2614.043332601212  
-0.20 (=TABLE(T27, T46))=0.18303491834617838 (=TABLE(T27, T46))=0.16315184619177067 (=TABLE(T27, T46))=0.14326877403736293 (=TABLE(T27, T46))=0.1233857018829552 (=TABLE(T27, T46))=0.10350262  
972854747 (=TABLE(T27, T46))=0.08361955757413975 (=TABLE(T27, T46))=0.043853413265324284 (=TABLE(T27, T46))=0.004087268956508819 (=TABLE(T27, T46))=-0.035678875352306634 (=TABLE(T27, T46))=-0.07544501966112209 (=TABLE(T27, T46))=-0.11521116396993757 -0.20 (Z52-\$AC\$48)\*10000=292.39259  
92025195 (AA52-\$AC\$48)\*10000=93.56187765844237 (AB52-\$AC\$48)\*10000=-105.26884388563501 (AC52-\$AC\$48)\*10000=-304.0995654297124 (AD52-\$AC\$48)\*10000=-502.93028697378963 (AE52-\$AC\$48)\*10000=-701.7610085178669 (AF52-\$AC\$48)\*10000=-1099.4224516060215 (AG52-\$AC\$48)\*10000=-1497.0838946941  
76 (AH52-\$AC\$48)\*10000=-1894.7453377823306 (AI52-\$AC\$48)\*10000=-2292.406780870485 (AJ52-\$AC\$48)\*10000=-2690.06822395864  
TRYm Akbank Garanti Halkbank Isbank Vakifbank Yapi Kredi Average Tier 1 & CAR  
impact Akbank Garanti Halkbank Isbank Vakifbank Yapi Kredi Total -0.25 (=TABLE(T27, T46))=0.1754324292104356 (=TABLE(T27, T46))=0.15554935705602788 (=TABLE(T27, T46))=0.13566628490162014 (=TABLE(T27, T46))=0.11578321274721239 (=TABLE(T27, T46))=0.0959001405928046  
6 (=TABLE(T27, T46))=0.07601706843839694 (=TABLE(T27, T46))=0.036250924129581474 (=TABLE(T27, T46))=-0.00351522017923399 (=TABLE(T27, T46))=-0.043281364488049444 (=TABLE(T27, T46))=-0.0830475  
087968649 (=TABLE(T27, T46))=-0.12281365310568038 -0.25 (Z53-\$AC\$48)\*10000=216.3677078450915  
3 (AA53-\$AC\$48)\*10000=17.536986301014412 (AB53-\$AC\$48)\*10000=-181.29373524306297 (AC53-\$AC\$48)\*10000=-380.1244567871405 (AD53-\$AC\$48)\*10000=-578.9551783312178 (AE53-\$AC\$48)\*10000=-777.785  
899875295 (AF53-\$AC\$48)\*10000=-1175.4473429634495 (AG53-\$AC\$48)\*10000=-1573.1087860516043 (AH53-\$AC\$48)\*10000=-1970.7702291397588 (AI53-\$AC\$48)\*10000=-2368.431672227913 (AJ53-\$AC\$48)\*10000=-2766.093115316068  
SUM(M55:R55)=1674676.3345584502  
Stage 1 Base Case (2018E)  
Stage 2 Total RWAs 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\AKBANK MO  
DEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$585=302875.679288 'R:\Bank models\Turk  
ish Bank Model with 2020 Estimates\Higher RFR\GARANTI MODEL- Higher RFR and Lower NIM.xlsx]Forecast  
(TRY)'!\$BK\$585=291738.2124657 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\H  
ALKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$585=234881.86808775 'R:\Bank mod  
els\Turkish Bank Model with 2020 Estimates\Higher RFR\ISBANK MODEL- Higher RFR and Lower NIM.xlsx]F  
orecast (TRY)'!\$BK\$585=344418.17760000005 'R:\Bank models\Turkish Bank Model with 2020 Estim  
ates\Higher RFR\VAKIFBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$585=218144.9068410  
0002 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\YAPI KREDI MODEL- Higher  
RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$590=282617.49027600006 SUM(M55:R55)=1674676.3345584  
502  
Stage 3 (C39-C49)/C41\*4=0.0029079037996552724 (D39-D49)/D41\*4=-0.006762891000495025 (E39-E49)/E4  
1\*4=0.0016493062187403346 (F39-F49)/F41\*4=0.0015955530701186181 (G39-G49)/G41\*4=0.0120076226  
53583133 (H39-H49)/H41\*4=0.005066436880354615 (I39-I49)/I41\*4=0.002527121016886734 Shar  
eholders equity 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\AKBANK MODEL- Hig  
her RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$112=45023.093839641784 'R:\Bank models\Turkish Bank  
Model with 2020 Estimates\Higher RFR\GARANTI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!  
\$BK\$112=46285.562756758685 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\H  
ALKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$112=28589.813364406662 'R:\Bank mod  
els\Turkish Bank Model with 2020 Estimates\Higher RFR\ISBANK MODEL- Higher RFR and Lower NIM.xlsx]F  
orecast (TRY)'!\$BK\$112=47900.06103707109 'R:\Bank models\Turkish Bank Model with 2020 Estim  
ates\Higher RFR\VAKIFBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$112=26437.01735411  
7375 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\YAPI KREDI MODEL- Hig  
her RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$112=37708.092663756914 SUM(M56:R56)=231943.64101575  
254  
Total (C40-C49)/C41\*4=0.008943622377209748 (D40-D49)/D41\*4=0.013768024443224555 (E40-E49)/E4  
1\*4=0.0037943418836064724 (F40-F49)/F41\*4=0.011155433566480983 (G40-G49)/G41\*4=0.0169893501  
7329771 (H40-H49)/H41\*4=0.009435563468637288 (I40-I49)/I41\*4=0.010646610506557188 Tier 1 Capit  
al 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\AKBANK MODEL- Higher RFR  
and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$574=44122.63196284895 'R:\Bank models\Turkish Bank Model w  
ith 2020 Estimates\Higher RFR\GARANTI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$574=  
45591.27931540731 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\HALKBANK

MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)!\$BK\$574=28018.01709711853 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[ISBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)!\$BK\$574=46942.05981632967 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[VAKIFBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)!\$BK\$574=25908.277007035027 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[YAPI KREDI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)!\$BK\$557=33560.20247074365 SUM(M57:R57)=224142.46766948313 HALK BANK HALKBANK

Tier 2 Capital 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[AKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)!\$BK\$575=6078.117668351641 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[GARANTI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)!\$BK\$575=7161.802715988953 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[HALKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)!\$BK\$575=3144.879470084733 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[ISBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)!\$BK\$575=8622.010986672796 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[VAKIFBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)!\$BK\$575=6212.699078217583 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[YAPI KREDI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)!\$BK\$565=9992.644555895582 SUM(M58:R58)=41212.15447521128 Y42=ROE % of Stage 2 loans transferred to Stage 3 loans ROE: change from base (bps) % of Stage 2 loans transferred to Stage 3 loans

Deductions 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[AKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)!\$BK\$577=7.262812189425495 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[GARANTI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)!\$BK\$577=34.580451246550766 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[HALKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)!\$BK\$577=20.012869355084664 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[ISBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)!\$BK\$577=47.9000610370711 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[VAKIFBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)!\$BK\$577=2.643701735411738 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[YAPI KREDI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)!\$BK\$572=301.6647413100553 SUM(M59:R59)=414.06463687359906 Loan growth (ppt change from base) \$O\$34=0.13323927964267931 -0.05 -0.03 -0.01 0 0.05 AD59 +0.05=0.10 0.20 0.30 0.40 0.50 0.60 Y59=0.13323927964267931 -0.05 -0.03 -0.01 0 0.05 AD59 1 0 0.05 AR59+0.05=0.10 0.20 0.30 0.40 0.50 0.60

Capital base M57+M58-M59=50193.48681901117 N57+N58-N59=52718.501580149714 O57+O58-O59=31142.883697848178 P57+P58-P59=55516.17074196539 Q57+Q58-Q59=32118.332383517198 R57+R58-R59=43251.182285329174 S57+S58-S59=264940.55750782083 0.20 (=TABLE(T27, T46))=0.1884141961870405 (=TABLE(T27, T46))=0.18563597162895767 (=TABLE(T27, T46))=0.1828577470708748 (=TABLE(T27, T46))=0.18146863479183337 (=TABLE(T27, T46))=0.17452307339662623 (=TABLE(T27, T46))=0.1675775120014191 (=TABLE(T27, T46))=0.1536863892110048 (=TABLE(T27, T46))=0.13979526642059056 (=TABLE(T27, T46))=0.12590414363017627 (=TABLE(T27, T46))=0.112013020839762 (=TABLE(T27, T46))=0.0981218980493477 2 0.20 (Z60-\$AC\$64)\*10000=551.7491654436119 (AA60-\$AC\$64)\*10000=523.9669198627836 (AB60-\$AC\$64)\*10000=496.1846742819548 (AC60-\$AC\$64)\*10000=482.29355149154054 (AD60-\$AC\$64)\*10000=412.8379375394692 (AE60-\$AC\$64)\*10000=343.3823235873978 (AF60-\$AC\$64)\*10000=204.4710956832549 (AG60-\$AC\$64)\*10000=65.5598677791125 (AH60-\$AC\$64)\*10000=-73.35136012503047 (AI60-\$AC\$64)\*10000=-212.26258802917314 (AJ60-\$AC\$64)\*10000=-351.17381593331595

Tier 1 capital ratio (base) M57/M55=0.1456790194134188 N57/N55=0.15627462350605692 O57/O55=0.11928556821019161 P57/P55=0.13629379303797134 Q57/Q55=0.11876636214990284 R57/R55=0.11874779030119209 S57/S55=0.13384226136364502 0.15 (=TABLE(T27, T46))=0.17635685739975202 (=TABLE(T27, T46))=0.17357863284166913 (=TABLE(T27, T46))=0.17080040828358625 (=TABLE(T27, T46))=0.16941129600454483 (=TABLE(T27, T46))=0.16246573460933772 (=TABLE(T27, T46))=0.1555201732141305 6 (=TABLE(T27, T46))=0.1416290504237163 (=TABLE(T27, T46))=0.12773792763330202 (=TABLE(T27, T46))=0.11384680484288773 (=TABLE(T27, T46))=0.09995568205247346 (=TABLE(T27, T46))=0.08606455926205919 0.15 (Z61-\$AC\$64)\*10000=431.17577570727 (AA61-\$AC\$64)\*10000=403.393531989898 2 (AB61-\$AC\$64)\*10000=375.61128640906935 (AC61-\$AC\$64)\*10000=361.72016361865514 (AD61-\$AC\$64)\*10000=292.26454966658406 (AE61-\$AC\$64)\*10000=222.80893571451244 (AF61-\$AC\$64)\*10000=83.89770781036975 (AG61-\$AC\$64)\*10000=-55.01352009377292 (AH61-\$AC\$64)\*10000=-193.92474799791586 (AI61-\$AC\$64)\*10000=-332.8359759020585 (AJ61-\$AC\$64)\*10000=-471.74720380620124

CAR (base) M60/M55=0.165723068081947 N60/N55=0.18070482140335967 O60/O55=0.13258956066465483 P60/P55=0.16118827156225388 Q60/Q55=0.1472339320162418 R60/R55=0.15303788255670486 S60/S55=0.15820403742534273 0.10 (=TABLE(T27, T46))=0.16429951861246353 (=TABLE(T27, T46))=0.16152129405438068 (=TABLE(T27, T46))=0.1587430694962978 (=TABLE(T27, T46))=0.1573539572172563 7 (=TABLE(T27, T46))=0.15040839582204923 (=TABLE(T27, T46))=0.14346283442684213 (=TABLE(T27, T46))=0.12957171163642783 (=TABLE(T27, T46))=0.11568058884601357 (=TABLE(T27, T46))=0.10178946605559927 (=TABLE(T27, T46))=0.087898343265185 (=TABLE(T27, T46))=0.07400722047477074 0.10 (Z62-\$AC\$64)\*10000=310.60238969784217 (AA62-\$AC\$64)\*10000=282.8201441170136 (AB62-\$AC\$64)\*10000=255.0378985361848 (AC62-\$AC\$64)\*10000=241.14677574577053 (AD62-\$AC\$64)\*10000=171.691161793699 2 (AE62-\$AC\$64)\*10000=102.2354784162813 (AF62-\$AC\$64)\*10000=-36.675680062514814 (AG62-\$AC\$64)\*10000=-175.5869079666575 (AH62-\$AC\$64)\*10000=-314.49813587080047 (AI62-\$AC\$64)\*10000=-453.40936377494313 (AJ62-\$AC\$64)\*10000=-592.3205916790859

Tier 1 capital threshold (2018) 0.09375 0.09375 0.08875000000000001 0.09375 0.08875000000000001 0.09125 AVERAGE (M63:R63)=0.09166666666666667 0.05 (=TABLE(T27, T46))=0.15224217982517502 (=TABLE(T27, T46))=0.14946395526709214 (=TABLE(T27, T46))=0.14668573070900928 (=TABLE(T27, T46))=0.14529661842996786 (=TABLE(T27, T46))=0.1383510570347607 (=TABLE(T27, T46))=0.1314054956395536 (=TABLE(T27, T46))=0.11751437284913929 (=TABLE(T27, T46))=0.10362325005872504 (=TABLE(T27, T46))=0.08973212726831074 (=TABLE(T27, T46))=0.07584100447789649 (=TABLE(T27, T46))=0.0619498816874822 1 0.05 (Z63-\$AC\$64)\*10000=190.02900182495702 (AA63-\$AC\$64)\*10000=162.24675624412822 (AB63-\$AC\$64)\*10000=134.46451066329968 (AC63-\$AC\$64)\*10000=120.5733878728854 (AD63-\$AC\$64)\*10000=51.11777392081379 (AE63-\$AC\$64)\*10000=-18.33784003125727 (AF63-\$AC\$64)\*10000=-157.24906793540 023 (AG63-\$AC\$64)\*10000=-296.16029583954275 (AH63-\$AC\$64)\*10000=-435.0715237436857 (AI63-\$AC\$64)\*10000=-573.9827516478282 (AJ63-\$AC\$64)\*10000=-712.893979551971

CAR threshold (2018)	0.12	0.12	0.12	0.12	0.12	0.12	AVERAGE (M64:R64)=0.12	0
(=TABLE(T27, T46))=0.14018484103788648	(=TABLE(T27, T46))=0.13740661647980362	(=TABLE(T27, T46))=0.13462839192172074	(=TABLE(T27, T46))=0.13323927964267931	(=TABLE(T27, T46))=0.1262937182474721	(=TABLE(T27, T46))=0.11934815685226505	(=TABLE(T27, T46))=0.10545703406185078	(=TABLE(T27, T46))=0.09156591127143651	(=TABLE(T27, T46))=0.06378366
569060795	(=TABLE(T27, T46))=0.04989254290019368	0	(Z64-\$AC\$64)*10000=69.45561395207162	(AA64-\$AC\$64)*10000=41.67336837124308	(AB64-\$AC\$64)*10000=13.891122790414268	(AC64-\$AC\$64)*10000=0	(AD64-\$AC\$64)*10000=-69.45561395207133	(AE64-\$AC\$64)*10000=-138.91122790414266
911616571	(AI64-\$AC\$64)*10000=-694.5561395207136	(AJ64-\$AC\$64)*10000=-833.4673674248563	Tier 1 capital headroom M61-M63=0.05192901941341879	N61-N63=0.06252462350605692	O61-O63=0.0305355682101916	P61-P63=0.042543793037971345	Q61-Q63=0.03001636214990283	R61-R63=0.0274977903
01192093	S61-S63=0.04217559469697835	-0.05	(=TABLE(T27, T46))=0.12812750225059794	(=TABLE(T27, T46))=0.1211819408553908	(=TABLE(T27, T46))=0.11423637946018365	(=TABLE(T27, T46))=0.1072908180649765	(=TABLE(T27, T46))=0.09339969527456225	(=TABLE(T27, T46))=0.07950857248414799
2	(=TABLE(T27, T46))=0.06561744969373369	(=TABLE(T27, T46))=0.05172632690331942	(=TABLE(T27, T46))=0.03783520	4112905155	(Z65-\$AC\$64)*10000=-51.1177392081379	(AA65-\$AC\$64)*10000=-78.900019501642	(AB65-\$AC\$64)*10000=-106.68226508247086	(AC65-\$AC\$64)*10000=-120.57338787288514
33	(AE65-\$AC\$64)*10000=-259.48461577702795	(AF65-\$AC\$64)*10000=-398.395	8436811706	(AG65-\$AC\$64)*10000=-537.3070715853133	(AH65-\$AC\$64)*10000=-676.2182994894563	(AI65-\$AC\$64)*10000=-815.1295273935989	(AJ65-\$AC\$64)*10000=-954.0407552977416	CAR headroom M62-M64=0.04572306808194701
6465483	P62-P64=0.04118827156225388	Q62-Q64=0.027233932016241802	R62-R64=0.03303788255670487	S62-S64=0.03820403742534273	-0.10	(=TABLE(T27, T46))=0.11607016346330945	(=TABLE(T27, T46))=0.1132919389052266	(=TABLE(T27, T46))=0.1091246020681023
1132919389052266	(=TABLE(T27, T46))=0.10217904067289517	(=TABLE(T27, T46))=0.09523347927768804	(=TABLE(T27, T46))=0.08134235648727375	(=TABLE(T27, T46))=0.0674512336968595	(=TABLE(T27, T46))=0.0535601109064452	(=TABLE(T27, T46))=0.03966898811603093	(=TABLE(T27, T46))=0.025777865325616663	-0.10 (Z66-\$AC\$64)
*10000=-171.69116179369865	(AA66-\$AC\$64)*10000=-199.47340737452717	(AB66-\$AC\$64)*10000=-227.255	65295535586	(AC66-\$AC\$64)*10000=-241.1467754577013	(AD66-\$AC\$64)*10000=-310.60238969784143	(AE66-\$AC\$64)*10000=-380.0580036499128	(AF66-\$AC\$64)*10000=-518.9692315540556	(AG66-\$AC\$64)*10000=-657.8804594581982
(AH66-\$AC\$64)*10000=-796.7916873623412	(AI66-\$AC\$64)*10000=-935.70291526648	(AJ66-\$AC\$64)*10000=-1074.6141431706267	4	Stage 1 Impact of weaker asset quality (2018E)	-0.15	(=TABLE(T27, T46))=0.10401282467602092	(=TABLE(T27, T46))=0.10123460011793807	(=TABLE(T27, T46))=0.0984563755598552
09706726328081379	(=TABLE(T27, T46))=0.09012170188560664	(=TABLE(T27, T46))=0.0831761404903995	1	(=TABLE(T27, T46))=0.06928501769998523	(=TABLE(T27, T46))=0.055393894909570966	(=TABLE(T27, T46))=0.04150277211915668	(=TABLE(T27, T46))=0.027611649328742407	(=TABLE(T27, T46))=0.01372052
6538328138	(Z67-\$AC\$64)*10000=-292.2645496665839	(AA67-\$AC\$64)*10000=-320.04679524741	243	(AB67-\$AC\$64)*10000=-347.82904082824115	(AC67-\$AC\$64)*10000=-361.72016361865525	(AD67-\$AC\$64)*10000=-431.1757775707267	(AE67-\$AC\$64)*10000=-500.6313915227981	(AF67-\$AC\$64)*10000=-639.542
6194269409	(AG67-\$AC\$64)*10000=-778.4538473310835	(AH67-\$AC\$64)*10000=-917.3650752352264	(AI67-\$AC\$64)*10000=-1056.276303139369	(AJ67-\$AC\$64)*10000=-1195.1875310435116	Tier 1 capital (TRYm)	M57-(M\$28*0.8)=44122.63196284895	N57-(N\$28*0.8)=45591.27931540731	O57-(O\$28*0.8)=28018.01709711853
277007035027	R57-(R\$28*0.8)=33560.20247074365	S57-(S\$28*0.8)=224142.46766948313	-0.2	(=TABLE(T27, T46))=0.09195548588873244	(=TABLE(T27, T46))=0.08917726133064957	(=TABLE(T27, T46))=0.08639903677256672	(=TABLE(T27, T46))=0.08500992449352529	(=TABLE(T27, T46))=0.07806436
309831814	(=TABLE(T27, T46))=0.07111880170311101	(=TABLE(T27, T46))=0.057227678912696735	(=TABLE(T27, T46))=0.043336556122282474	(=TABLE(T27, T46))=0.029445433331868182	(=TABLE(T27, T46))=0.015554310541453913	(=TABLE(T27, T46))=0.0016631877510396437	-0.20	(Z68-\$AC\$64)*10000=-412.8379
375394688	(AA68-\$AC\$64)*10000=-440.62018312029744	(AB68-\$AC\$64)*10000=-468.402428701126	(AC68-\$AC\$64)*10000=-482.29355149154026	(AD68-\$AC\$64)*10000=-551.7491654436117	(AE68-\$AC\$64)*10000=-621.2047793956831	(AF68-\$AC\$64)*10000=-760.1160072998259	(AG68-\$AC\$64)*10000=-899.02723520396	84
(AH68-\$AC\$64)*10000=-1037.9384631081114	(AI68-\$AC\$64)*10000=-1176.849691012254	(AJ68-\$AC\$64)*10000=-1315.7609189163966	Capital base (TRYm)	M60-(M\$28*0.8)=50193.48681901117	N60-(N\$28*0.8)=52718.501580149714	O60-(O\$28*0.8)=31142.883697848178	P60-(P\$28*0.8)=55516.17074196539	Q60-(Q\$28*0.8)=32118
.332383517198	R60-(R\$28*0.8)=43251.182285329174	S60-(S\$28*0.8)=264940.55750782083	-0.2	(=TABLE(T27, T46))=0.0798981471014439	(=TABLE(T27, T46))=0.07711992254336104	(=TABLE(T27, T46))=0.07434169798527818	(=TABLE(T27, T46))=0.07295258570623675	(=TABLE(T27, T46))=0.06600702
431102962	(=TABLE(T27, T46))=0.05906146291582248	(=TABLE(T27, T46))=0.0451703401254082	(=TABLE(T27, T46))=0.03127921733499394	(=TABLE(T27, T46))=0.01738809454457965	(=TABLE(T27, T46))=0.0034969717541653796	(=TABLE(T27, T46))=-0.01039415103624889	-0.25	(Z69-\$AC\$64)*10000=-533.4113
254123541	(AA69-\$AC\$64)*10000=-561.1935709931827	(AB69-\$AC\$64)*10000=-588.9758165740113	(AC69-\$AC\$64)*10000=-602.8669393644257	(AD69-\$AC\$64)*10000=-672.322553316497	(AE69-\$AC\$64)*10000=-741.7781672685683	(AF69-\$AC\$64)*10000=-880.6893951727111	(AG69-\$AC\$64)*10000=-1019.6006230768	537
(AH69-\$AC\$64)*10000=-1158.5118509809965	(AI69-\$AC\$64)*10000=-1297.4230788851394	(AJ69-\$AC\$64)*10000=-1436.334306789282	Tier 1 capital ratio (new)	M68/M55=0.1456790194134188	N68/N55=0.15627462350605692	O68/O55=0.11928556821019161	P68/P55=0.13629379303797134	Q68/Q55=0.11876636214990284
874779030119209	S68/S55=0.13384226136364502	CAR (new)	M69/M55=0.165723068081947	N69/N55=0.18070482140335967	O69/O55=0.1325895606	6465483	P69/P55=0.16118827156225388	Q69/Q55=0.1472339320162418
S69/S55=0.15820403742534273	Tier 1 capital ratio - chg. from base (bps)	(M70-M61)*100=0	(N70-N61)*100=0	(O70-O61)*100=0	(P70-P61)*100=0	CAR - net)	CAR - chg. from base (bps)	(M71-M62)*100=0
(N71-N62)*100=0	(O71-O62)*100=0	(P71						

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-P62)*100=0      (Q71-Q62)*100=0 (R71-R62)*100=0 (S71-S62)*100=0 ISBANK ISBANK
Tier 1 capital headroom M70-M63=0.05192901941341879      N70-N63=0.06252462350605692      O70-O63=0.03
05355682101916 P70-P63=0.042543793037971345      Q70-Q63=0.03001636214990283      R70-R63=0.0274977903
01192093      S70-S63=0.04217559469697835      Y58=ROE % of Stage 2 loans transferred to Stage 3 lo
ans      ROE: change from base (bps)      % of Stage 2 loans transferred to Stage 3 loans
CAR headroom      M71-M64=0.04572306808194701      N71-N64=0.06070482140335967      O71-O64=0.0125895606
6465483 P71-P64=0.04118827156225388      Q71-Q64=0.027233932016241802      R71-R64=0.03303788255670487
S71-S64=0.03820403742534273      Loan growth (ppt change from base)      SP$34=0.13031433781764779
AA75-0.05=-0.15000000000000002      AB75-0.05=-0.10      -0.05      0      0.05      AD75+0.05=0.10      0.20      0.30
0.40      0.50      0.60      Y75=0.13031433781764779      AO75-0.05=-0.15000000000000002      AP75-0.05=-0.10      -0.0
5      0      0.05      AR75+0.05=0.10      0.20      0.30      0.40      0.50      0.60
0.20      (=TABLE(T27,T46))=0.19627939537268108      (=TABLE(T27,T46))=0.18540054176126897      (=TABLE(T27,
T46))=0.17452168814985686      (=TABLE(T27,T46))=0.1636428345384448      (=TABLE(T27,T46))=0.15276398
092703272      (=TABLE(T27,T46))=0.14188512731562064      (=TABLE(T27,T46))=0.12012742009279646      (=TA
BLE(T27,T46))=0.09836971286997231      (=TABLE(T27,T46))=0.07661200564714814      (=TABLE(T27,T46))=0.
054854298424323975      (=TABLE(T27,T46))=0.033096591201499825      0.20      (Z76-$AC$80)*10000=659.65057
55503329      (AA76-$AC$80)*10000=550.8620394362118      (AB76-$AC$80)*10000=442.07350332209074      (AC7
6-$AC$80)*10000=333.28496720797017      (AD76-$AC$80)*10000=224.49643109384937      (AE76-$AC$80)*10000=
115.70789497972855      (AF76-$AC$80)*10000=-101.86917724851321      (AG76-$AC$80)*10000=-319.44624947675
47      (AH76-$AC$80)*10000=-537.0233217049964      (AI76-$AC$80)*10000=-754.6003939332381      (AJ76-$AC$80
)*10000=-972.1774661614796
TRYm      Akbank      Garanti      Halkbank      Isbank      Vakifbank      Yapi Kredi      Average Valuation
Akbank      Garanti      Halkbank      Isbank      Vakifbank      Yapi Kredi      Total      0.15      (=TABLE(T27,
T46))=0.18794727119248178      (=TABLE(T27,T46))=0.17706841758106967      (=TABLE(T27,T46))=0.16618956
39696576      (=TABLE(T27,T46))=0.1553107103582455      (=TABLE(T27,T46))=0.14443185674683345      (=TA
BLE(T27,T46))=0.13355300313542134      (=TABLE(T27,T46))=0.11179529591259718      (=TABLE(T27,T46))=0.
09003758868977303      (=TABLE(T27,T46))=0.06827988146694887      (=TABLE(T27,T46))=0.0465221742441247
(=TABLE(T27,T46))=0.024764467021300543      0.15      (Z77-$AC$80)*10000=576.32933374834      (AA77-$AC$80
)*10000=467.54079763421885      (AB77-$AC$80)*10000=358.75226152009805      (AC77-$AC$80)*10000=249.9637
2540597721      (AD77-$AC$80)*10000=141.1751892918567      (AE77-$AC$80)*10000=32.38665317773559      (AF7
7-$AC$80)*10000=-185.19041905050605      (AG77-$AC$80)*10000=-402.7674912787475      (AH77-$AC$80)*10000=
-620.3445635069892      (AI77-$AC$80)*10000=-837.9216357352309      (AJ77-$AC$80)*10000=-1055.4987079634
725
Net profit (base)      M30=6405.467516045113      N30=7118.518599790241      O30=3809.28613779219      P30=
6242.064735470831      Q30=3822.804240772133      R30=3853.9025619301465      S30=31252.043791800654      0.10
(=TABLE(T27,T46))=0.17961514701228257      (=TABLE(T27,T46))=0.16873629340087049      (=TABLE(T27,T46))=0.
15785743978945838      (=TABLE(T27,T46))=0.1469785861780463      (=TABLE(T27,T46))=0.1360997325666342
(=TABLE(T27,T46))=0.12522087895522216      (=TABLE(T27,T46))=0.10346317173239797      (=TABLE(T27,T46))=0.
08170546450957382      (=TABLE(T27,T46))=0.059947757286749656      (=TABLE(T27,T46))=0.0381900500639254
86      (=TABLE(T27,T46))=0.016432342841101337      0.10      (Z78-$AC$80)*10000=493.0080919463478      (AA7
8-$AC$80)*10000=384.219555832227      (AB78-$AC$80)*10000=275.4310197181059      (AC78-$AC$80)*10000=
166.64248360398508      (AD78-$AC$80)*10000=57.853947489864275      (AE78-$AC$80)*10000=-50.934588624256
264      (AF78-$AC$80)*10000=-268.51166085249815      (AG78-$AC$80)*10000=-486.08873308073964      (AH78-$AC$80
)*10000=-703.6658053089812      (AI78-$AC$80)*10000=-921.2428775372231      (AJ78-$AC$80)*10000=-1138.81
99497654643
Net profit (new)      M31=6405.467516045113      N31=7118.518599790241      O31=3809.28613779219      P31=
6242.064735470831      Q31=3822.804240772133      R31=3853.9025619301465      S31=31252.043791800654      0.05
(=TABLE(T27,T46))=0.1712830228320833      (=TABLE(T27,T46))=0.16040416922067122      (=TABLE(T27,T46))=0.
1495253156092591      (=TABLE(T27,T46))=0.13864646199784705      (=TABLE(T27,T46))=0.1277676083864349
7      (=TABLE(T27,T46))=0.11688875477502288      (=TABLE(T27,T46))=0.09513104755219871      (=TABLE(T27,
T46))=0.07337334032937455      (=TABLE(T27,T46))=0.05161563310655039      (=TABLE(T27,T46))=0.02985792
5883726225      (=TABLE(T27,T46))=0.008100218660902075      0.05      (Z79-$AC$80)*10000=409.6868501443551
(AA79-$AC$80)*10000=300.8983140302343      (AB79-$AC$80)*10000=192.10977791611322      (AC79-$AC$80)*10000=
83.32124180199268      (AD79-$AC$80)*10000=-25.467294312128132      (AE79-$AC$80)*10000=-134.25583042624
908      (AF79-$AC$80)*10000=-351.83290265449074      (AG79-$AC$80)*10000=-569.4099748827324      (AH79-$AC$80
)*10000=-786.987047110974      (AI79-$AC$80)*10000=-1004.5641193392156      (AJ79-$AC$80)*10000=-1222.14
1191567457
Book value (base)      M56=45023.093839641784      N56=46285.562756758685      O56=28589.813364406662      P56=
47900.06103707109      Q56=26437.017354117375      R56=37708.092663756914      S56=231943.64101575254      0
(=TABLE(T27,T46))=0.16295089865188406      (=TABLE(T27,T46))=0.152072045040407195      (=TABLE(T27,T46))=0.
14119319142905987      (=TABLE(T27,T46))=0.13031433781764779      (=TABLE(T27,T46))=0.1194354842062357
2      (=TABLE(T27,T46))=0.10855663059482362      (=TABLE(T27,T46))=0.08679892337199945      (=TABLE(T27,
T46))=0.0650412161491753      (=TABLE(T27,T46))=0.04328350892635113      (=TABLE(T27,T46))=0.02152580
1703526963      (=TABLE(T27,T46))=-2.3190551929718712E-4      0      (Z80-$AC$80)*10000=326.365660
834236275      (AA80-$AC$80)*10000=217.57707222824163      (AB80-$AC$80)*10000=108.78853611412082      (AC8
0-$AC$80)*10000=0      (AD80-$AC$80)*10000=-108.78853611412067      (AE80-$AC$80)*10000=-217.57707222824
163      (AF80-$AC$80)*10000=-435.1541444564834      (AG80-$AC$80)*10000=-652.7312166847249      (AH80-$AC$80
)*10000=-870.3082889129665      (AI80-$AC$80)*10000=-1087.8853611412083      (AJ80-$AC$80)*10000=-1305.46
24333694499
Book value (new)      M56-(M28*0.8)=45023.093839641784      N56-(N28*0.8)=46285.562756758685
O56-(O28*0.8)=28589.813364406662      P56-(P28*0.8)=47900.06103707109      Q56-(Q28*0.8)=26437.01735411
7375      R56-(R28*0.8)=37708.092663756914      S56-(S28*0.8)=231943.64101575254      -0.05      (=TA
BLE(T27,T46))=0.1546187744716848      (=TABLE(T27,T46))=0.1437399208602727      (=TABLE(T27,T46))=0.
1328610672488606      (=TABLE(T27,T46))=0.12198221363744853      (=TABLE(T27,T46))=0.1111033600260364
5      (=TABLE(T27,T46))=0.10022450641462437      (=TABLE(T27,T46))=0.07846679919180019      (=TABLE(T27,
T46))=0.05670909196897604      (=TABLE(T27,T46))=0.03495138474615187      (=TABLE(T27,T46))=0.01319367
75233277      (=TABLE(T27,T46))=-0.00856402969949645      -0.05      (Z81-$AC$80)*10000=243.0443665403700
5      (AA81-$AC$80)*10000=134.25583042624922      (AB81-$AC$80)*10000=25.467294312128132      (AC81-$AC$80
)*10000=-83.32124180199254      (AD81-$AC$80)*10000=-192.10977791611336      (AE81-$AC$80)*10000=-300.898

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3140302342 (AF81-\$AC\$80)\*10000=-518.475386258476 (AG81-\$AC\$80)\*10000=-736.0524584867175 (AH81-\$AC\$80)\*10000=-953.6295307149592 (AI81-\$AC\$80)\*10000=-1171.2066029432008 (AJ81-\$AC\$80)\*10000=-1388.7836751714424

Price (TRY/shr) 6.60 7 6.40 4.94 4.06 2.2 -0.10 (=TABLE(T27,T46))=0.14628665

029148555 (=TABLE(T27,T46))=0.13540779668007347 (=TABLE(T27,T46))=0.12452894306866134 (=TABLE(T27,T46))=0.11365008945724928 (=TABLE(T27,T46))=0.1027712358458372 (=TABLE(T27,T46))=0.09189238223442513 (=TABLE(T27,T46))=0.07013467501160095 (=TABLE(T27,T46))=0.048376967788776794 (=TABLE(T27,T46))=0.026619260565952627 (=TABLE(T27,T46))=0.004861553343128457 (=TABLE(T27,T46))=-0.016896153879695692 -0.10 (Z82-\$AC\$80)\*10000=159.72312473837763 (AA82-\$AC\$80)\*10000=50.93458862425682 (AB82-\$AC\$80)\*10000=-57.85394748986442 (AC82-\$AC\$80)\*10000=-166.64248360398508 (AD82-\$AC\$80)\*10000=-275.4310197181059 (AE82-\$AC\$80)\*10000=-384.2195558322266 (AF82-\$AC\$80)\*10000=-601.7966280604684 (AG82-\$AC\$80)\*10000=-819.37370028871 (AH82-\$AC\$80)\*10000=-1036.9507725169517 (AI82-\$AC\$80)\*10000=-1254.5278447451933 (AJ82-\$AC\$80)\*10000=-1472.104916973435

Paid-in cap (TRYm) 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[AKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$113=4000 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[GARANTI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$113=4200 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[HALKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$113=1250 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[ISBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$113=4500 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[VAKIFBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$113=2500 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[YAPI KREDI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$113=8447.051 -0.15 (=TABLE(T27,T46))=0.1379545261112863 (=TABLE(T27,T46))=0.1270756724998742 (=TABLE(T27,T46))=0.1161968188884621 (=TABLE(T27,T46))=0.10531796527705004 (=TABLE(T27,T46))=0.09443911166563795 (=TABLE(T27,T46))=0.08356025805422586 (=TABLE(T27,T46))=0.061802550831401695 (=TABLE(T27,T46))=0.04004484360857755 (=TABLE(T27,T46))=0.018287136385753383 (=TABLE(T27,T46))=-0.0034705708370707856 (=TABLE(T27,T46))=-0.025228278059894936 -0.15 (Z83-\$AC\$80)\*10000=76.40188293638522 (AA83-\$AC\$80)\*10000=-32.386653177735866 (AB83-\$AC\$80)\*10000=-141.1751892918568 (AC83-\$AC\$80)\*10000=-249.9637254059775 (AD83-\$AC\$80)\*10000=-358.75226152009833 (AE83-\$AC\$80)\*10000=-467.54079763421925 (AF83-\$AC\$80)\*10000=-685.1178698624609 (AG83-\$AC\$80)\*10000=-902.6949420907024 (AH83-\$AC\$80)\*10000=-1120.272014318944 (AI83-\$AC\$80)\*10000=-1337.8490865471856 (AJ83-\$AC\$80)\*10000=-1555.4261587754272

M.Cap (TRYm) M82\*M83=26400 N82\*N83=29400 O82\*O83=8000 P82\*P83=22230 Q82\*Q83=10149.999999999998 R82\*R83=18583.5122 -0.20 (=TABLE(T27,T46))=0.12962240193108707 (=TABLE(T27,T46))=0.11874354831967496 (=TABLE(T27,T46))=0.10786469470826288 (=TABLE(T27,T46))=0.0969858410968508 (=TABLE(T27,T46))=0.08610698748543873 (=TABLE(T27,T46))=0.07522813387402663 (=TABLE(T27,T46))=0.05347042665120246 (=TABLE(T27,T46))=0.03171271942837831 (=TABLE(T27,T46))=0.009955012205554144 (=TABLE(T27,T46))=-0.011802695017270024 (=TABLE(T27,T46))=-0.03356040224009418 -0.20 (Z84-\$AC\$80)\*10000=-6.919358865607183 (AA84-\$AC\$80)\*10000=-115.70789497972828 (AB84-\$AC\$80)\*10000=-224.49643109384908 (AC84-\$AC\$80)\*10000=-333.2849672079699 (AD84-\$AC\$80)\*10000=-442.0735033220906 (AE84-\$AC\$80)\*10000=-550.8620394362115 (AF84-\$AC\$80)\*10000=-768.4391116644532 (AG84-\$AC\$80)\*10000=-986.0161838926948 (AH84-\$AC\$80)\*10000=-1203.5932561209365 (AI84-\$AC\$80)\*10000=-1421.1703283491781 (AJ84-\$AC\$80)\*10000=-1638.7474005774197

-0.25 (=TABLE(T27,T46))=0.1212902777508878 (=TABLE(T27,T46))=0.1104114241394757 (=TABLE(T27,T46))=0.09953257052806361 (=TABLE(T27,T46))=0.08865371691665154 (=TABLE(T27,T46))=0.07777486330523946 (=TABLE(T27,T46))=0.06689600969382736 (=TABLE(T27,T46))=0.0451383024710032 (=TABLE(T27,T46))=0.023380595248179047 (=TABLE(T27,T46))=0.0016228880253548778 (=TABLE(T27,T46))=-0.02013481919746929 (=TABLE(T27,T46))=-0.04189252642029344 -0.25 (Z85-\$AC\$80)\*10000=-90.2406066759986 (AA85-\$AC\$80)\*10000=-199.0291367817208 (AB85-\$AC\$80)\*10000=-307.8176728958418 (AC85-\$AC\$80)\*10000=-416.60620900996247 (AD85-\$AC\$80)\*10000=-525.3947451240832 (AE85-\$AC\$80)\*10000=-634.1832812382042 (AF85-\$AC\$80)\*10000=-851.7603534664458 (AG85-\$AC\$80)\*10000=-1069.3374256946875 (AH85-\$AC\$80)\*10000=-1286.914497922929 (AI85-\$AC\$80)\*10000=-1504.4915701511707 (AJ85-\$AC\$80)\*10000=-1722.0686423794123

P/E (2018E), base (x) M\$84/M78=4.121479023017509 N\$84/N78=4.130072793638036 O\$84/O78=2.100131024716534 P\$84/P78=3.5613216046410034 Q\$84/Q78=2.6551189547571217 R\$84/R78=4.821998455169255 AVERAGE (M86:R86)=3.565020309323243

P/E (2018E), implied (x) M\$84/M79=4.121479023017509 N\$84/N79=4.130072793638036 O\$84/O79=2.100131024716534 P\$84/P79=3.5613216046410034 Q\$84/Q79=2.6551189547571217 R\$84/R79=4.821998455169255 AVERAGE (M87:R87)=3.565020309323243

Change from base M87/M86-1=0 N87/N86-1=0 O87/O86-1=0 P87/P86-1=0 Q87/Q86-1=0

R87/R86-1=0 S87/S86-1=0

VAKIFBANK VAKIFBANK

P/BV (2018E), base (x) M\$84/M80=0.5863657458554173 N\$84/N80=0.6351872646445671 O\$84/O80=0.27981994488847295 P\$84/P80=0.4640912666644752 Q\$84/Q80=0.38393135897454816 R\$84/R80=0.4928255683921537 AVERAGE (M90:R90)=0.47370352490327244 Y74=ROE % of Stage 2 loans transferred to Stage 3 loans

P/BV (2018E), implied (x) M\$84/M81=0.5863657458554173 N\$84/N81=0.6351872646445671 O\$84/O81=0.27981994488847295 P\$84/P81=0.4640912666644752 Q\$84/Q81=0.38393135897454816 R\$84/R81=0.4928255683921537 AVERAGE (M91:R91)=0.47370352490327244 Loan growth (ppt change from base)

\$Q\$34=0.14460043618259225 AA91-0.05=-0.15000000000000002 AB91-0.05=-0.10 -0.05 0 0.05 AD91+0.05=0.10 0.20 0.30 0.40 0.50 0.60 Y91=0.14460043618259225 AO91-0.05=-0.15000000000000002 AP91-0.05=-0.10 -0.05 0 0.05 AR91+0.05=0.10 0.20 0.30 0.40 0.50 0.60

Change from base M91/M90-1=0 N91/N90-1=0 O91/O90-1=0 P91/P90-1=0 Q91/Q90-1=0 R91/R90-1=0 S91/S90-1=0 0.20 (=TABLE(T27,T46))=0.2092588415202041 (=TABLE(T27,T46))=0.20361032262717765 (=TABLE(T27,T46))=0.1979618037341512 (=TABLE(T27,T46))=0.19231328484112475 (=TABLE(T27,T46))=0.1866647659480983 (=TABLE(T27,T46))=0.18101624705507188 (=TABLE(T27,T46))=0.16971920926901898 (=TABLE(T27,T46))=0.1584221714829661 (=TABLE(T27,T46))=0.14712513369691319 (=TABLE(T27,T46))=0.13582809591086029 (=TABLE(T27,T46))=0.12453105812480741 0.20

(Z92-\$AC\$96)\*10000=646.5840533761186 (AA92-\$AC\$96)\*10000=590.0988644458541 (AB92-\$AC\$96)\*10000=533.6136755155895 (AC92-\$AC\$96)\*10000=477.1284865853251 (AD92-\$AC\$96)\*10000=420.643297655060 56 (AE92-\$AC\$96)\*10000=364.15810872479636 (AF92-\$AC\$96)\*10000=251.18773086426737 (AG92-\$AC\$96)\*10000=138.21735300373865 (AH92-\$AC\$96)\*10000=25.246975143209394 (AI92-\$AC\$96)\*10000=-87.7234 027173196 (AJ92-\$AC\$96)\*10000=-200.69378057784832 Stage 1 Discount to MSCI EM Banks 0.15 (=TABLE(T27,T46))=0.19733062935557094 (=TABLE(T27,T46))=0.1916821104625445 (=TABLE(T27,T46))=0.18603359156951807 (=TABLE(T27,T46))=0.18038507 267649162 (=TABLE(T27,T46))=0.17473655378346517 (=TABLE(T27,T46))=0.16908803489043872 (=TABLE(T27,T46))=0.15779099710438585 (=TABLE(T27,T46))=0.14649395931833298 (=TABLE(T27,T46))=0.13519692153228008 (=TABLE(T27,T46))=0.12389988374622718 (=TABLE(T27,T46))=0.1126028459601743 0.15 (Z93-\$AC\$96)\*10000=527.3019317297869 (AA93-\$AC\$96)\*10000=470.81674279952244 (AB93-\$AC\$96)\*10000=414.33155386925824 (AC93-\$AC\$96)\*10000=357.84636493899376 (AD93-\$AC\$96)\*10000=301.3611 760087293 (AE93-\$AC\$96)\*10000=244.87598707846476 (AF93-\$AC\$96)\*10000=131.90560921793605 (AG93-\$AC\$96)\*10000=18.93523135740732 (AH93-\$AC\$96)\*10000=-94.03514650312167 (AI93-\$AC\$96)\*10000=-207.00552436365066 (AJ93-\$AC\$96)\*10000=-319.9759022241795 P/E (2018E), base (x) M86/\$M\$109-1=-0.45555098771235025 N86/\$M\$109-1=-0.4544157472076571 086/\$M\$109-1=-0.7225718593505239 P86/\$M\$109-1=-0.5295480046709375 Q86/\$M\$109-1=-0.6492 577338497858 R86/\$M\$109-1=-0.36301209310842075 AVERAGE(M94:R94)=-0.5290594043166126 0.10 (=TABLE(T27,T46))=0.18540241719093786 (=TABLE(T27,T46))=0.1797538982979114 (=TABLE(T27,T46))=0.174105379404885 (=TABLE(T27,T46))=0.16845686051185854 (=TABLE(T27,T46))=0.1628083416188321 (=TABLE(T27,T46))=0.15715982272580564 (=TABLE(T27,T46))=0.14586278493975277 (=TABLE(T27,T46))=0.13456574715369987 (=TABLE(T27,T46))=0.12326870936764697 (=TABLE(T27,T46))=0.1191716715815940 9 (=TABLE(T27,T46))=0.1006746337955412 0.10 (Z94-\$AC\$96)\*10000=408.01981008345615 (AA94-\$AC\$96)\*10000=351.53462115319167 (AB94-\$AC\$96)\*10000=295.04943222292746 (AC94-\$AC\$96)\*10000=238.564243292662295 (AD94-\$AC\$96)\*10000=182.07905436239847 (AE94-\$AC\$96)\*10000=125.593865432133 97 (AF94-\$AC\$96)\*10000=12.623487571605253 (AG94-\$AC\$96)\*10000=-100.34689028892375 (AH94-\$AC\$96)\*10000=-213.31726814945273 (AI94-\$AC\$96)\*10000=-326.2876460099816 (AJ94-\$AC\$96)\*10000=-439.258 02387051044 P/E (2018E), implied (x) M87/\$M\$109-1=-0.45555098771235025 N87/\$M\$109-1=-0.454415747207 6571 087/\$M\$109-1=-0.7225718593505239 P87/\$M\$109-1=-0.5295480046709375 Q87/\$M\$109-1=-0.6492577338497858 R87/\$M\$109-1=-0.36301209310842075 AVERAGE(M95:R95)=-0.5290594043166126 0.05 (=TABLE(T27,T46))=0.17347420502630467 (=TABLE(T27,T46))=0.16782568613327825 (=TABLE(T27,T46))=0.1621771672402518 (=TABLE(T27,T46))=0.15652864834722535 (=TABLE(T27,T46))=0.15088012 945419893 (=TABLE(T27,T46))=0.14523161056117248 (=TABLE(T27,T46))=0.1339345727751196 (=TABLE(T27,T46))=0.12263753498906671 (=TABLE(T27,T46))=0.11134049720301381 (=TABLE(T27,T46))=0.10004345941696093 (=TABLE(T27,T46))=0.08874642163090804 0.05 (Z95-\$AC\$96)\*10000=288.73768 84371243 (AA95-\$AC\$96)\*10000=232.25249950686006 (AB95-\$AC\$96)\*10000=175.76731057659555 (AC95-\$AC\$96)\*10000=119.28212164633106 (AD95-\$AC\$96)\*10000=62.79693271606684 (AE95-\$AC\$96)\*10000=6.311743785802348 (AF95-\$AC\$96)\*10000=-106.65863407472636 (AG95-\$AC\$96)\*10000=-219.62901193525 536 (AH95-\$AC\$96)\*10000=-332.59938979578436 (AI95-\$AC\$96)\*10000=-445.5697676563132 (AJ95-\$AC\$96)\*10000=-558.540145516842 3Y average discount M121/\$M\$113-1=-0.11901840490797555 N121/\$M\$113-1=-0.14723926380368102 0121/\$M\$113-1=-0.46871165644171786 P121/\$M\$113-1=-0.2601226993865031 Q121/\$M\$113-1=-0.354 6012269938651 R121/\$M\$113-1=-0.2834355828220859 AVERAGE(M96:R96)=-0.2721881390593048 0 (=TABLE(T27,T46))=0.16154599286167157 (=TABLE(T27,T46))=0.15589747396864512 (=TABLE(T27,T46))=0.1502489550756187 (=TABLE(T27,T46))=0.14460043618259225 (=TABLE(T27,T46))=0.1389519172895658 (=TABLE(T27,T46))=0.13330339839653935 (=TABLE(T27,T46))=0.12200636061048648 (=TABLE(T27,T46))=0.11070932282443359 (=TABLE(T27,T46))=0.09941228503838068 (=TABLE(T27,T46))=0.0881152472523277 9 (=TABLE(T27,T46))=0.0768182094662749 0 (Z96-\$AC\$96)\*10000=169.4555667907932 (AA96-\$AC\$96)\*10000=112.97037786052871 (AB96-\$AC\$96)\*10000=56.4851889302645 (AC96-\$AC\$96)\*10000=0 (AD96-\$AC\$96)\*10000=-56.4851889302645 (AE96-\$AC\$96)\*10000=-112.970377860529 (AF96-\$AC\$96)\*10000=-225.9407557210577 (AG96-\$AC\$96)\*10000=-338.9113358158657 (AH96-\$AC\$96)\*10000=-451.881 5114421157 (AI96-\$AC\$96)\*10000=-564.8518893026445 (AJ96-\$AC\$96)\*10000=-677.8222671631734 -0.05 (=TABLE(T27,T46))=0.14961778069703843 (=TABLE(T27,T46))=0.143969261804012 (=TABLE(T27,T46))=0.13832074291098556 (=TABLE(T27,T46))=0.1326722240179591 (=TABLE(T27,T46))=0.12702370 512493266 (=TABLE(T27,T46))=0.12137518623190623 (=TABLE(T27,T46))=0.11007814844585334 (=TABLE(T27,T46))=0.09878111065980046 (=TABLE(T27,T46))=0.08748407287374756 (=TABLE(T27,T46))=0.07618703508769467 (=TABLE(T27,T46))=0.06488999730164177 -0.05 (Z97-\$AC\$96)\*10000=50.173445 14446187 (AA97-\$AC\$96)\*10000=-6.311743785802348 (AB97-\$AC\$96)\*10000=-62.79693271606684 (AC97-\$AC\$96)\*10000=-119.28212164633135 (AD97-\$AC\$96)\*10000=-175.76731057659583 (AE97-\$AC\$96)\*10000=-232.2524995068602 (AF97-\$AC\$96)\*10000=-345.22287736738906 (AG97-\$AC\$96)\*10000=-458.19325522791 79 (AH97-\$AC\$96)\*10000=-571.1636330884469 (AI97-\$AC\$96)\*10000=-684.1340109489757 (AJ97-\$AC\$96)\*10000=-797.1043888095047 P/BV (2018E), base (x) M90/\$M\$110-1=-0.4415564325186502 N90/\$M\$110-1=-0.39505974795755516 090/\$M\$110-1=-0.7335048143919305 P90/\$M\$110-1=-0.5580083174624046 Q90/\$M\$110-1=-0.6343 510866909066 R90/\$M\$110-1=-0.5306423158169965 AVERAGE(M98:R98)=-0.5488537858064072 -0.1 0 (=TABLE(T27,T46))=0.13768956853240533 (=TABLE(T27,T46))=0.13204104963937888 (=TABLE(T27,T46))=0.12639253074635243 (=TABLE(T27,T46))=0.12074401185332599 (=TABLE(T27,T46))=0.11509549 296029954 (=TABLE(T27,T46))=0.10944697406727309 (=TABLE(T27,T46))=0.09814993628122021 (=TABLE(T27,T46))=0.08685289849516732 (=TABLE(T27,T46))=0.07555586070911442 (=TABLE(T27,T46))=0.06425882292306154 (=TABLE(T27,T46))=0.05296178513700865 -0.10 (Z98-\$AC\$96)\*10000=-69.10867 65018692 (AA98-\$AC\$96)\*10000=-125.59386543213368 (AB98-\$AC\$96)\*10000=-182.07905436239818 (AC98-\$AC\$96)\*10000=-238.56424329266255 (AD98-\$AC\$96)\*10000=-295.0494322292707 (AE98-\$AC\$96)\*10000=-351.53462115319155 (AF98-\$AC\$96)\*10000=-464.5049990137204 (AG98-\$AC\$96)\*10000=-577.47537687424 93 (AH98-\$AC\$96)\*10000=-690.4457547347782 (AI98-\$AC\$96)\*10000=-803.4161325953071 (AJ98-\$AC\$96)\*10000=-916.386510455836 P/BV (2018E), implied (x) M91/\$M\$110-1=-0.4415564325186502 N91/\$M\$110-1=-0.395059747957 55516 091/\$M\$110-1=-0.7335048143919305 P91/\$M\$110-1=-0.5580083174624046 Q91/\$M\$110-1=-0.6343510866909066 R91/\$M\$110-1=-0.5306423158169965 AVERAGE(M99:R99)=-0.5488537858064072

-0.15 (=TABLE(T27,T46))=0.1257613563677722 (=TABLE(T27,T46))=0.12011283747474574 (=TABLE(T27, T46))=0.1144643185817193 (=TABLE(T27,T46))=0.10881579968869286 (=TABLE(T27,T46))=0.10316728 079566641 (=TABLE(T27,T46))=0.09751876190263997 (=TABLE(T27,T46))=0.08622172411658709 (=TA BLE(T27,T46))=0.0749246863305342 (=TABLE(T27,T46))=0.06362764854448129 (=TABLE(T27,T46))=0. 052306107584284 (=TABLE(T27,T46))=0.04103357297237552 -0.15 (Z99-\$AC\$96)\*10000=-188.3907 9814820053 (AA99-\$AC\$96)\*10000=-244.87598707846502 (AB99-\$AC\$96)\*10000=-301.3611760087295 (AC9 9-\$AC\$96)\*10000=-357.8463649389939 (AD99-\$AC\$96)\*10000=-414.33155386925836 (AE99-\$AC\$96)\*10000= -470.81674279952273 (AF99-\$AC\$96)\*10000=-583.7871206600516 (AG99-\$AC\$96)\*10000=-696.75749852058 05 (AH99-\$AC\$96)\*10000=-809.7278763811096 (AI99-\$AC\$96)\*10000=-922.6982542416384 (AJ99-\$AC\$96 )\*10000=-1035.6686321021673

3Y average discount M122/\$M\$114-1=-0.010204081632653073 N122/\$M\$114-1=-0.010204081632653073 O122/\$M\$114-1=-0.41836734693877553 P122/\$M\$114-1=-0.29591836734693877 Q122/\$M\$114-1=-0.357 1428571428571 R122/\$M\$114-1=-0.3571428571428571 AVERAGE(M100:R100)=-0.2414965986394558 -0.2 0 (=TABLE(T27,T46))=0.11383314420313906 (=TABLE(T27,T46))=0.10818462531011261 (=TABLE(T27, T46))=0.10253610641708617 (=TABLE(T27,T46))=0.09688758752405972 (=TABLE(T27,T46))=0.09123906 863103329 (=TABLE(T27,T46))=0.08559054973800684 (=TABLE(T27,T46))=0.07429351195195397 (=TA BLE(T27,T46))=0.06299647416590108 (=TABLE(T27,T46))=0.051699436379848175 (=TABLE(T27,T46))=0. 04040239859379528 (=TABLE(T27,T46))=0.029105360807742398 -0.20 (Z100-\$AC\$96)\*10000=-307.672 9197945319 (AA100-\$AC\$96)\*10000=-364.15810872479636 (AB100-\$AC\$96)\*10000=-420.6432976550 6073 (AC100-\$AC\$96)\*10000=-477.1284865853252 (AD100-\$AC\$96)\*10000=-533.6136755155895 (AE100-\$AC\$9 6)\*10000=-590.0988644458541 (AF100-\$AC\$96)\*10000=-703.0692423063828 (AG100-\$AC\$96)\*10000=-816.03 96201669116 (AH100-\$AC\$96)\*10000=-929.0099980274408 (AI100-\$AC\$96)\*10000=-1041.9803758879696 (AJ100-\$AC\$96)\*10000=-1154.9507537484985

Stage 1 Discount to own historical average -0.25 (=TABLE(T27,T46))=0.10190493203850594 (=TA BLE(T27,T46))=0.0962564131454795 (=TABLE(T27,T46))=0.09060789425245305 (=TABLE(T27,T46))=0. 08495937535942662 (=TABLE(T27,T46))=0.07931085646640017 (=TABLE(T27,T46))=0.0736623375733737 2 (=TABLE(T27,T46))=0.06236529978732083 (=TABLE(T27,T46))=0.05106826200126795 (=TABLE(T27, T46))=0.03977122421521504 (=TABLE(T27,T46))=0.028474186429162156 (=TABLE(T27,T46))=0.01717714 864310927 -0.25 (Z101-\$AC\$96)\*10000=-426.95504144086306 (AA101-\$AC\$96)\*10000=-483.4402303711 274 (AB101-\$AC\$96)\*10000=-539.9254193013919 (AC101-\$AC\$96)\*10000=-596.4106082316563 (AD101-\$AC\$9 6)\*10000=-652.8957971619208 (AE101-\$AC\$96)\*10000=-709.3809860921853 (AF101-\$AC\$96)\*10000=-822.35 13639527141 (AG101-\$AC\$96)\*10000=-935.321741813243 (AH101-\$AC\$96)\*10000=-1048.292119673772 (AI1 01-\$AC\$96)\*10000=-1161.2624975343008 (AJ101-\$AC\$96)\*10000=-1274.2328753948298

P/E (2018E), base (x) M86/\$M\$117-1=-0.3426668224852458 N86/\$M\$117-1=-0.341296205161397 086/\$M\$117-1=-0.6650508732509515 P86/\$M\$117-1=-0.43200612366172186 Q86/\$M\$117-1=-0.5765 360518728673 R86/\$M\$117-1=-0.23094123522021448 AVERAGE(M102:R102)=-0.4314162186087331

P/E (2018E), implied (x) M87/\$M\$117-1=-0.3426668224852458 N87/\$M\$117-1=-0.341296205161 3977 O87/\$M\$117-1=-0.6650508732509515 P87/\$M\$117-1=-0.43200612366172186 Q87/\$M\$117-1 =-0.5765360518728673 R87/\$M\$117-1=-0.23094123522021448 AVERAGE(M103:R103)=-0.43141621860873 31

P/BV (2018E), base (x) M90/\$M\$118-1=-0.2760916717834354 N90/\$M\$118-1=-0.21581819179683082 O90/\$M\$118-1=-0.6545432779154655 P90/\$M\$118-1=-0.4270478189327467 Q90/\$M\$118-1=-0.5260 106679326566 R90/\$M\$118-1=-0.3915733723553658 AVERAGE(M105:R105)=-0.4151808334527502 YAPI

KREDI YAPI KREDI

P/BV (2018E), implied (x) M91/\$M\$118-1=-0.2760916717834354 N91/\$M\$118-1=-0.215818191796 83082 O91/\$M\$118-1=-0.6545432779154655 P91/\$M\$118-1=-0.4270478189327467 Q91/\$M\$118-1 =-0.5260106679326566 R91/\$M\$118-1=-0.3915733723553658 AVERAGE(M106:R106)=-0.41518083345275 02

Y90=ROE % of Stage 2 loans transferred to Stage 3 loans ROE: change from base (bps) % of

Stage 2 loans transferred to Stage 3 loans

Loan growth (ppt change from base) \$R\$34=0.10220359317283423 AA107-0.05=-0.150000000000000 002 AB107-0.05=-0.10 -0.05 0 0.05 AD107+0.05=0.10 0.20 0.30 0.40 0.50 0.60 Y107=0.10220359317283423 AO107-0.05=-0.150000000000000002 AP107-0.05=-0.10 -0.0 5 0 0.05 AR107+0.05=0.10 0.20 0.30 0.40 0.50 0.60

MSCI EM Banks 2018E 0.20 (=TABLE(T27,T46))=0.1541270716435941 (=TABLE(T27,T46))=0.14841121 849976321 (=TABLE(T27,T46))=0.14269536535593236 (=TABLE(T27,T46))=0.13697951221210153 (=TA BLE(T27,T46))=0.13126365906827067 (=TABLE(T27,T46))=0.12554780592443981 (=TABLE(T27,T46))=0. 11411609963677813 (=TABLE(T27,T46))=0.10268439334911642 (=TABLE(T27,T46))=0.0912526870614547 2 (=TABLE(T27,T46))=0.07982098077379303 (=TABLE(T27,T46))=0.0683892744861313 0.20 (Z10 8-\$AC\$112)\*10000=519.2347847075987 (AA108-\$AC\$112)\*10000=462.07625326928985 (AB108-\$AC\$1 12)\*10000=404.9177218309813 (AC108-\$AC\$112)\*10000=347.759190392673 (AD108-\$AC\$112)\*10000=290.60 06589543644 (AE108-\$AC\$112)\*10000=233.44212751605588 (AF108-\$AC\$112)\*10000=119.1250646394 39 (AG108-\$AC\$112)\*10000=4.808001762821867 (AH108-\$AC\$112)\*10000=-109.50906111379513 (AI1 08-\$AC\$112)\*10000=-223.826123990412 (AJ108-\$AC\$112)\*10000=-338.14318686702927

P/E (x) 7.57 0.15 (=TABLE(T27,T46))=0.14543309188377726 (=TABLE(T27,T46))=0.1397172387399464 (=TABLE(T27,T46))=0.13400138559611555 (=TABLE(T27,T46))=0.1282855324522847 (=TABLE(T27,T46))=0. 12256967930845386 (=TABLE(T27,T46))=0.116853826164623 (=TABLE(T27,T46))=0.1054221198769613 (=TABLE(T27,T46))=0.09399041358929959 (=TABLE(T27,T46))=0.0825587073016379 (=TABLE(T27,T46))=0. 07112700101397619 (=TABLE(T27,T46))=0.05969529472631449 0.15 (Z109-\$AC\$112)\*10000=432.294 98710943034 (AA109-\$AC\$112)\*10000=375.1364556711217 (AB109-\$AC\$112)\*10000=317.97792423281317 (AC109-\$AC\$112)\*10000=260.8193927945046 (AD109-\$AC\$112)\*10000=203.66086135619634 (AE109-\$AC\$1 12)\*10000=146.50232991788775 (AF109-\$AC\$112)\*10000=32.185267041270755 (AG109-\$AC\$112)\*1000 0=-82.13179583534638 (AH109-\$AC\$112)\*10000=-196.44885871196325 (AI109-\$AC\$112)\*10000=-310.7 659215885804 (AJ109-\$AC\$112)\*10000=-425.0829844651974

P/BV (x) 1.05 0.10 (=TABLE(T27,T46))=0.13673911212396045 (=TABLE(T27,T46))=0.13102325 89801296 (=TABLE(T27,T46))=0.12530740583629874 (=TABLE(T27,T46))=0.11959155269246789 (=TA BLE(T27,T46))=0.11387569954863704 (=TABLE(T27,T46))=0.10815984640480618 (=TABLE(T27,T46))=0. 09672814011714448 (=TABLE(T27,T46))=0.08529643382948278 (=TABLE(T27,T46))=0.0738647275418210 8 (=TABLE(T27,T46))=0.06243302125415938 (=TABLE(T27,T46))=0.05100131496649767 0.10 (Z11 0-\$AC\$112)\*10000=345.3551895112622 (AA110-\$AC\$112)\*10000=288.19665807295365 (AB110-\$AC\$11

12)*10000=231.03812663464507	(AC110-\$AC\$112)*10000=173.87959519633665	(AD110-\$AC\$112)*10000=116.72106375802807	(AE110-\$AC\$112)*10000=59.5625323197195	(AF110-\$AC\$112)*10000=-54.7545305568	(AG110-\$AC\$112)*10000=-169.0715934335145	(AH110-\$AC\$112)*10000=-283.38865631013147	(AI110-\$AC\$112)*10000=-397.70571918674847	(AJ110-\$AC\$112)*10000=-512.0227820633655	(AK110-\$AC\$112)*10000=-0.05	(AL110-\$AC\$112)*10000=-0.12804513236414364	(AM110-\$AC\$112)*10000=-0.12232927922031277	(AN110-\$AC\$112)*10000=-0.11661342607648191	(AO110-\$AC\$112)*10000=-0.11089757293265107	(AP110-\$AC\$112)*10000=-0.10518171	(AQ110-\$AC\$112)*10000=-0.09946586664498937	(AR110-\$AC\$112)*10000=-0.08803416035732767	(AS110-\$AC\$112)*10000=-0.07660245406966597	(AT110-\$AC\$112)*10000=-0.06517074778200427	(AU110-\$AC\$112)*10000=-0.05373904149434256	(AV110-\$AC\$112)*10000=-0.042307335206680854	(AW110-\$AC\$112)*10000=0.05	(AX110-\$AC\$112)*10000=3919130941	(AY110-\$AC\$112)*10000=201.25686047478538	(AZ110-\$AC\$112)*10000=7683	(BA110-\$AC\$112)*10000=86.93979759816838	(BB110-\$AC\$112)*10000=29.78126615985996	(BC110-\$AC\$112)*10000=-27.377265278448608	(BD110-\$AC\$112)*10000=-141.69432815506562	(BE110-\$AC\$112)*10000=0	(BF110-\$AC\$112)*10000=-256.0113910316826	(BG110-\$AC\$112)*10000=-370.3284539082996	(BH110-\$AC\$112)*10000=-4551678491665	(BI110-\$AC\$112)*10000=-598.9625796615337	(BJ110-\$AC\$112)*10000=0	(BK110-\$AC\$112)*10000=0.11935115260432679	(BL110-\$AC\$112)*10000=0.11363529946049591	(BM110-\$AC\$112)*10000=0.10791944631666507	(BN110-\$AC\$112)*10000=0.1022035931728342	(BO110-\$AC\$112)*10000=0.09648774002900339	(BP110-\$AC\$112)*10000=0.09077188688517251	(BQ110-\$AC\$112)*10000=0.07934018059751083	(BR110-\$AC\$112)*10000=0.06790847430984912	(BS110-\$AC\$112)*10000=0.05647676	(BT110-\$AC\$112)*10000=802218743	(BU110-\$AC\$112)*10000=0.04504506173452572	(BV110-\$AC\$112)*10000=0.033613355446864016	(BW110-\$AC\$112)*10000=0	(BX110-\$AC\$112)*10000=171.47559431492556	(BY110-\$AC\$112)*10000=114.31706287661686	(CZ110-\$AC\$112)*10000=57.15853143830843	(DA110-\$AC\$112)*10000=0	(DB110-\$AC\$112)*10000=-57.15853143830843	(DC110-\$AC\$112)*10000=-114.31706287661714	(DD110-\$AC\$112)*10000=-228.634125753234	(DE110-\$AC\$112)*10000=-342.9511886298511	(DF110-\$AC\$112)*10000=-457.268251506468	(DG110-\$AC\$112)*10000=-571.5	(DH110-\$AC\$112)*10000=85314383085	(DI110-\$AC\$112)*10000=-685.9023772597021	(DJ110-\$AC\$112)*10000=0	(DK110-\$AC\$112)*10000=0.11065717284450995	(DL110-\$AC\$112)*10000=0.1049413197006790	(DM110-\$AC\$112)*10000=0.09922546655684823	(DN110-\$AC\$112)*10000=0.09350961341301739	(DO110-\$AC\$112)*10000=0.08779376026918653	(DP110-\$AC\$112)*10000=0.08207790712535568	(DQ110-\$AC\$112)*10000=0.07064620	(DR110-\$AC\$112)*10000=0.059214494550032276	(DS110-\$AC\$112)*10000=0.04778278826237058	(DT110-\$AC\$112)*10000=0.036351081974708876	(DU110-\$AC\$112)*10000=0.024919375687047173	(DV110-\$AC\$112)*10000=-0.05	(DW110-\$AC\$112)*10000=84.53579671675718	(DX110-\$AC\$112)*10000=27.37726527844847	(DY110-\$AC\$112)*10000=-29.78	(EZ110-\$AC\$112)*10000=126615985996	(FA110-\$AC\$112)*10000=-86.93979759816838	(FB110-\$AC\$112)*10000=-144.098329036	(FC110-\$AC\$112)*10000=-201.25686047478553	(FD110-\$AC\$112)*10000=-315.5739233514024	(FE110-\$AC\$112)*10000=-429.89098622801953	(FF110-\$AC\$112)*10000=-544.2080491046364	(FG110-\$AC\$112)*10000=-658.5251119812535	(FH110-\$AC\$112)*10000=-772.8421748578705	(FI110-\$AC\$112)*10000=0.98	(FJ110-\$AC\$112)*10000=0.10196319308469314	(FK110-\$AC\$112)*10000=0.09624733	(FL110-\$AC\$112)*10000=-0.09053148679703141	(FM110-\$AC\$112)*10000=0.08481563365320056	(FN110-\$AC\$112)*10000=0.07909978050936972	(FO110-\$AC\$112)*10000=0.07338392736553886	(FP110-\$AC\$112)*10000=0.061952221077877165	(FQ110-\$AC\$112)*10000=0.05052051479021546	(FR110-\$AC\$112)*10000=0.0390888085025537	(FS110-\$AC\$112)*10000=0.027657102214892062	(FT110-\$AC\$112)*10000=0.016225395927230355	(FU110-\$AC\$112)*10000=-0.10	(FV110-\$AC\$112)*10000=-2.4040008814109335	(FW110-\$AC\$112)*10000=-59.562532319719644	(FX110-\$AC\$112)*10000=-116.72106375802821	(FY110-\$AC\$112)*10000=-173.87959519633665	(FZ110-\$AC\$112)*10000=-231.03812663464507	(GA110-\$AC\$112)*10000=-288.19665807295365	(GB110-\$AC\$112)*10000=-402.5	(GC110-\$AC\$112)*10000=-516.8307838261877	(GD110-\$AC\$112)*10000=-631.147846702	(GE110-\$AC\$112)*10000=-745.4649095794216	(GF110-\$AC\$112)*10000=-859.7819724560387	(GG110-\$AC\$112)*10000=-0.15	(GH110-\$AC\$112)*10000=0.09326921332487631	(GI110-\$AC\$112)*10000=0.08755336018104544	(GJ110-\$AC\$112)*10000=0.0818375070372146	(GK110-\$AC\$112)*10000=0.07612165389338375	(GL110-\$AC\$112)*10000=0.07040580	(GM110-\$AC\$112)*10000=0.06468994760572204	(GN110-\$AC\$112)*10000=0.05325824131806035	(GO110-\$AC\$112)*10000=0.04182653503039864	(GP110-\$AC\$112)*10000=0.03039482874273695	(GQ110-\$AC\$112)*10000=0.01896312245507524	(GR110-\$AC\$112)*10000=0.007531416167413534	(GS110-\$AC\$112)*10000=-0.15	(GT110-\$AC\$112)*10000=79847957918	(GU110-\$AC\$112)*10000=-146.5023299178879	(GV110-\$AC\$112)*10000=-203.660861356	(GW110-\$AC\$112)*10000=-260.8193927945048	(GX110-\$AC\$112)*10000=-317.97792423281334	(GY110-\$AC\$112)*10000=-375.1364556711219	(GZ110-\$AC\$112)*10000=-489.45351854773884	(HA110-\$AC\$112)*10000=-603.7705814243559	(HB110-\$AC\$112)*10000=-718.0876443009728	(HC110-\$AC\$112)*10000=-832.4047071775899	(HD110-\$AC\$112)*10000=-946.7217700542069	(HE110-\$AC\$112)*10000=-0.20	(HF110-\$AC\$112)*10000=0.0845752335650595	(HG110-\$AC\$112)*10000=0.07885938042122863	(HH110-\$AC\$112)*10000=0.0731435272739779	(HI110-\$AC\$112)*10000=0.0674276741335669	(HJ110-\$AC\$112)*10000=0.061711820989736085	(HK110-\$AC\$112)*10000=0.055995967845905215	(HL110-\$AC\$112)*10000=0.04456426155824353	(HM110-\$AC\$112)*10000=0.03313255527058182	(HN110-\$AC\$112)*10000=0.02170084	(HO110-\$AC\$112)*10000=0.01026914269525842	(HP110-\$AC\$112)*10000=-0.0011625635924032865	(HQ110-\$AC\$112)*10000=-0.20	(HR110-\$AC\$112)*10000=-176.2835960777473	(HS110-\$AC\$112)*10000=-233.442127516056	(HT110-\$AC\$112)*10000=-290.6006589543644	(HU110-\$AC\$112)*10000=-347.759190392673	(HV110-\$AC\$112)*10000=-404.9	(HW110-\$AC\$112)*10000=-462.07625326929013	(HX110-\$AC\$112)*10000=-576.393316145	(HY110-\$AC\$112)*10000=-690.7103790225241	(HZ110-\$AC\$112)*10000=-805.027441899141	(IA110-\$AC\$112)*10000=-919.3445047757581	(IB110-\$AC\$112)*10000=-1033.6615676523752	(IC110-\$AC\$112)*10000=6.27	(ID110-\$AC\$112)*10000=0.07588125380524266	(IE110-\$AC\$112)*10000=0.0701654006614117	(IF110-\$AC\$112)*10000=0.06444954751758093	(IG110-\$AC\$112)*10000=0.05873369437375009	(IH110-\$AC\$112)*10000=0.05301784122991924	(II110-\$AC\$112)*10000=0.047301988086088376	(IJ110-\$AC\$112)*10000=0.03587028	(IK110-\$AC\$112)*10000=0.02443857551076498	(IL110-\$AC\$112)*10000=0.013006869223103283	(IM110-\$AC\$112)*10000=0.0015751629354415779	(IN110-\$AC\$112)*10000=-0.009856543352220129	(IO110-\$AC\$112)*10000=-0.25	(IP110-\$AC\$112)*10000=-263.2233936759157	(IQ110-\$AC\$112)*10000=-320.3819251142244	(IR110-\$AC\$112)*10000=0	(IS110-\$AC\$112)*10000=-377.540456552533	(IT110-\$AC\$112)*10000=-434.6989879908414	(IU110-\$AC\$112)*10000=-491.8	(IV110-\$AC\$112)*10000=-549.0160508674585	(IW110-\$AC\$112)*10000=-663.333113744	(IX110-\$AC\$112)*10000=-777.6501766206925	(IY110-\$AC\$112)*10000=-891.9672394973094	(IZ110-\$AC\$112)*10000=-1006.2843023739265	(JA110-\$AC\$112)*10000=-1120.6013652505435	(KBANK	GARANTI	HALKBANK	ISBANK	VAKIFBANK	YAPI KREDI	TOTAL
P/E (x)	7.18	6.95	4.33	6.03	5.26	5.84	AVERAGE (M121:R121)=5.931666666666667	5																																																																																																																																																																																				
3Y Historical average								Average																																																																																																																																																																																				

P/BV (x)	0.97	0.97	0.57	0.69	0.63	0.63	AVERAGE(M122:R122)=0.743333333333333			
3	Y106=ROE		% of Stage 2 loans transferred to Stage 3 loans							ROE: change from base (bps)
% of Stage 2 loans transferred to Stage 3 loans										
Loan growth (ppt change from base)	AA123-0.05=-0.150000000000000002			AB123-0.05=-0.10			-0.0			
5	0	0.05	AD123+0.05=0.10	0.20	0.30	0.40	0.50	0.60	AO123-0.05=-0.150000	
00000000002	AP123-0.05=-0.10		-0.05	0	0.05	AR123+0.05=0.10		0.20	0.30	0.40
0.50	0.60									
0.20	(Z28+Z44+Z60+Z76+Z92+Z108)/6=0.19826096644498323				(AA28+AA44+AA60+AA76+AA92+AA108)/6=0					
.18927360099530244	(AB28+AB44+AB60+AB76+AB92+AB108)/6=0.18028623554562165				(AC28+AC44+AC60+AC76+AC92+AC108)/6=0.17153038880911445					
8+AE44+AE60+AE76+AE92+AE108)/6=0.15216654563071152					(AF28+AF44+AF60+AF76+AF92+AF108)/6=0.1328027					
0245230855	(AG28+AG44+AG60+AG76+AG92+AG108)/6=0.11343885927390561				(AH28+AH44+AH60+AH76+AH92+AH108)/6=0.09407501609550266					
J60+AJ76+AJ92+AJ108)/6=0.055347329738696736	0.20				(AN28+AN44+AN60+AN76+AN92+AN108)/6=638.56963					
9451171	(AO28+AO44+AO60+AO76+AO92+AO108)/6=548.6959849543632				(AP28+AP44+AP60+AP76+AP92+AP108)/6=64					
58.82233045755555	(AQ28+AQ44+AQ60+AQ76+AQ92+AQ108)/6=371.26386309248363				(AR28+AR44+AR60+AR76+AR92+AR108)/6=274.4446472004688					
8+AT44+AT60+AT76+AT92+AT108)/6=-16.013000475575502					(AU28+AU44+AU60+AU76+AU92+AU108)/6=-209.6514					
3225960506	(AV28+AV44+AV60+AV76+AV92+AV108)/6=-403.2898640436347				(AW28+AW44+AW60+AW76+AW92+AW108)/6=-596.9282958276642					
0.15	(ZX28+ZX44+ZX60+ZX76+ZX92+ZX108)/6=0.18897936986767108				(AA29+AA45+AA61+AA77+AA93+AA109)/6=0					
.17999200441799035	(AB29+AB45+AB61+AB77+AB93+AB109)/6=0.17100463896830956				(AC29+AC45+AC61+AC77+AC93+AC109)/6=0.16224879223180236					
9+AE45+AE61+AE77+AE93+AE109)/6=0.1428849490533994					(AF29+AF45+AF61+AF77+AF93+AF109)/6=0.1235211					
0587499644	(AG29+AG45+AG61+AG77+AG93+AG109)/6=0.10415726269659352				(AH29+AH45+AH61+AH77+AH93+AH109)/6=0.08479341951819054					
J61+AJ77+AJ93+AJ109)/6=0.046065733161384646	0.15				(AN29+AN45+AN61+AN77+AN93+AN109)/6=545.75367					
367805	(AO29+AO45+AO61+AO77+AO93+AO109)/6=455.88001918124223				(AP29+AP45+AP61+AP77+AP93+AP109)/6=3					
66.00636468443446	(AQ29+AQ45+AQ61+AQ77+AQ93+AQ109)/6=278.44789731936254				(AR29+AR45+AR61+AR77+AR93+AR109)/6=181.6286814273479					
9+AT45+AT61+AT77+AT93+AT109)/6=-108.82896624869653					(AU29+AU45+AU61+AU77+AU93+AU109)/6=-302.4673					
9803272607	(AV29+AV45+AV61+AV77+AV93+AV109)/6=-496.10582981675566				(AW29+AW45+AW61+AW77+AW93+AW109)/6=-689.7442616007852					
0.10	(ZX29+ZX45+ZX61+ZX77+ZX93+ZX109)/6=0.17969777329035905				(AA30+AA46+AA62+AA78+AA94+AA110)/6=0					
.17071040784067829	(AB30+AB46+AB62+AB78+AB94+AB110)/6=0.1617230423909752				(AC30+AC46+AC62+AC78+AC94+AC110)/6=0.15296719565449032					
0+AE46+AE62+AE78+AE94+AE110)/6=0.13360335247608737					(AF30+AF46+AF62+AF78+AF94+AF110)/6=0.1142395					
0929768441	(AG30+AG46+AG62+AG78+AG94+AG110)/6=0.09487566611928146				(AH30+AH46+AH62+AH78+AH94+AH110)/6=0.07551182294087849					
J62+AJ78+AJ94+AJ110)/6=0.03678413658407258	0.10				(AN30+AN46+AN62+AN78+AN94+AN110)/6=452.93770					
790492937	(AO30+AO46+AO62+AO78+AO94+AO110)/6=363.0640534081217				(AP30+AP46+AP62+AP78+AP94+AP110)/6=273.190398911314					
T62+AT78+AT94+AT110)/6=-201.64493202181708					(AU30+AU46+AU62+AU78+AU94+AU110)/6=-395.283363805846					
65	(AV30+AV46+AV62+AV78+AV94+AV110)/6=-588.9217955898763				(AW30+AW46+AW62+AW78+AW94+AW110)/6=-782.560227373906					
0.05	(ZX30+ZX46+ZX62+ZX78+ZX94+ZX110)/6=-976.1986591579354				(AA31+AA47+AA63+AA79+AA95+AA111)/6=0					
.16142881126336617	(AB31+AB47+AB63+AB79+AB95+AB111)/6=0.1524414458136854				(AC31+AC47+AC63+AC79+AC95+AC111)/6=0.14368559907717823					
1+AE47+AE63+AE79+AE95+AE111)/6=0.12432175589877527					(AF31+AF47+AF63+AF79+AF95+AF111)/6=0.1049579					
127203723	(AG31+AG47+AG63+AG79+AG95+AG111)/6=0.08559406954196934				(AH31+AH47+AH63+AH79+AH95+AH111)/6=0.06623022636356639					
J63+AJ79+AJ95+AJ111)/6=0.027502540006760473	0.05				(AN31+AN47+AN63+AN79+AN95+AN111)/6=360.12174					
21318083	(AO31+AO47+AO63+AO79+AO95+AO111)/6=270.24808763500056				(AP31+AP47+AP63+AP79+AP95+AP111)/6=180.37443313819287					
R63+AR79+AR95+AR111)/6=-4.003250118893784					(AU31+AU47+AU63+AU79+AU95+AU111)/6=-100.822466010908					
51	(AV31+AV47+AV63+AV79+AV95+AV111)/6=-294.4608977949381				(AW31+AW47+AW63+AW79+AW95+AW111)/6=-488.0993295789677					
+AW95+AW111)/6=-875.3761931470267					(AX31+AX47+AX63+AX79+AX95+AX111)/6=-1069.0146249310565					
0	(Z32+Z48+Z64+Z80+Z96+Z112)/6=0.16113458013573487				(AA32+AA48+AA64+AA80+AA96+AA112)/6=0					
.15214721468605408	(AB32+AB48+AB64+AB80+AB96+AB112)/6=0.1431598492363733				(AC32+AC48+AC64+AC80+AC96+AC112)/6=0.13440400249986612					
2+AE48+AE64+AE80+AE96+AE112)/6=0.11504015932146316					(AF32+AF48+AF64+AF80+AF96+AF112)/6=0.0956763					
1614306021	(AG32+AG48+AG64+AG80+AG96+AG112)/6=0.07631247296465725				(AH32+AH48+AH64+AH80+AH96+AH112)/6=0.056948629786254285					
J64+AJ80+AJ96+AJ112)/6=0.018220943429448373	0				(AN32+AN48+AN64+AN80+AN96+AN112)/6=267.30577					
63586873	(AO32+AO48+AO64+AO80+AO96+AO112)/6=177.43212186187955				(AP32+AP48+AP64+AP80+AP96+AP112)/6=87.55846736507192					
112)/6=-96.81921589201478					(AR32+AR48+AR64+AR80+AR96+AR112)/6=-96.81921589201478					
T64+AT80+AT96+AT112)/6=-387.27686356805907					(AU32+AU48+AU64+AU80+AU96+AU112)/6=-580.915295352088					
7	(AV32+AV48+AV64+AV80+AV96+AV112)/6=-774.5537271361181				(AW32+AW48+AW64+AW80+AW96+AW112)/6=-968.1921589201478					
-0.05	(ZX32+ZX48+ZX64+ZX80+ZX96+ZX112)/6=-1161.8305907041774				(AA33+AA49+AA65+AA81+AA97+AA113)/6=0					
.142865618108742	(AB33+AB49+AB65+AB81+AB97+AB113)/6=0.13387825265906123				(AC33+AC49+AC65+AC81+AC97+AC113)/6=0.125122405922554					
3+AE49+AE65+AE81+AE97+AE113)/6=0.10575856274415106					(AF33+AF49+AF65+AF81+AF97+AF113)/6=0.0863947					
1956574811	(AG33+AG49+AG65+AG81+AG97+AG113)/6=0.06703087638734516				(AH33+AH49+AH65+AH81+AH97+AH113)/6=0.0476670320894219					
J65+AJ81+AJ97+AJ113)/6=0.008939346852136274	-0.05				(AN33+AN49+AN65+AN81+AN97+AN113)/6=174.48981					

058556626 (AO33+AO49+AO65+AO81+AO97+AO113) /6=84.61615608875867 (AP33+AP49+AP65+AP81+AP97+AP113) /6=-5.257498408049014 (AQ33+AQ49+AQ65+AQ81+AQ97+AQ113) /6=-92.81596577312096 (AR33+AR49+AR65+AR81+AR97+AR113) /6=-189.63518166513578 (AS33+AS49+AS65+AS81+AS97+AS113) /6=-286.45439755715057 (AT33+AT49+AT65+AT81+AT97+AT113) /6=-480.09282934118005 (AU33+AU49+AU65+AU81+AU97+AU113) /6=-673.7312611252097 (AV33+AV49+AV65+AV81+AV97+AV113) /6=-867.3696929092393 (AW33+AW49+AW65+AW81+AW97+AW113) /6=-1061.0081246932689 (AX33+AX49+AX65+AX81+AX97+AX113) /6=-1254.6465564772982  
-0.10 (Z34+Z50+Z66+Z82+Z98+Z114) /6=0.14257138698111066 (AA34+AA50+AA66+AA82+AA98+AA114) /6=0.1335840215314299 (AB34+AB50+AB66+AB82+AB98+AB114) /6=0.12459665608174914 (AC34+AC50+AC66+AC82+AC98+AC114) /6=0.11584080934524192 (AD34+AD50+AD66+AD82+AD98+AD114) /6=0.10615888775604045 (AE34+AE50+AE66+AE82+AE98+AE114) /6=0.09647696616683898 (AF34+AF50+AF66+AF82+AF98+AF114) /6=0.07711312298843602 (AG34+AG50+AG66+AG82+AG98+AG114) /6=0.05774927981003306 (AH34+AH50+AH66+AH82+AH98+AH114) /6=0.038385436631630104 (AI34+AI50+AI66+AI82+AI98+AI114) /6=0.01902159345322715 (AJ34+AJ50+AJ66+AJ82+AJ98+AJ114) /6=-3.422497251758105E-4 -0.10 (AN34+AN50+AN66+AN82+AN98+AN114) /6=81.67384481244547 (AO34+AO50+AO66+AO82+AO98+AO114) /6=-8.199809684362181 (AP34+AP50+AP66+AP82+AP98+AP114) /6=-98.07346418116994 (AQ34+AQ50+AQ66+AQ82+AQ98+AQ114) /6=-185.63193154624187 (AR34+AR50+AR66+AR82+AR98+AR114) /6=-282.45114743825667 (AS34+AS50+AS66+AS82+AS98+AS114) /6=-379.27036333027144 (AT34+AT50+AT66+AT82+AT98+AT114) /6=-572.9087951143009 (AU34+AU50+AU66+AU82+AU98+AU114) /6=-766.5472268983307 (AV34+AV50+AV66+AV82+AV98+AV114) /6=-960.1856586823601 (AW34+AW50+AW66+AW82+AW98+AW114) /6=-1153.8240904663899 (AX34+AX50+AX66+AX82+AX98+AX114) /6=-1347.4625222504194  
-0.15 (Z35+Z51+Z67+Z83+Z99+Z115) /6=0.1332897904037986 (AA35+AA51+AA67+AA83+AA99+AA115) /6=0.12430242495411781 (AB35+AB51+AB67+AB83+AB99+AB115) /6=0.11531505950443703 (AC35+AC51+AC67+AC83+AC99+AC115) /6=0.10655921276792985 (AD35+AD51+AD67+AD83+AD99+AD115) /6=0.09687729117872836 (AE35+AE51+AE67+AE83+AE99+AE115) /6=0.08719536958952688 (AF35+AF51+AF67+AF83+AF99+AF115) /6=0.0678315264112393 (AG35+AG51+AG67+AG83+AG99+AG115) /6=0.04846768323272097 (AH35+AH51+AH67+AH83+AH99+AH115) /6=0.02910384005431801 (AI35+AI51+AI67+AI83+AI99+AI115) /6=0.009739996875915057 (AJ35+AJ51+AJ67+AJ83+AJ99+AJ115) /6=-0.0096238463024879 -0.15 (AN35+AN51+AN67+AN83+AN99+AN115) /6=-11.142120960675387 (AO35+AO51+AO67+AO83+AO99+AO115) /6=-101.01577545748313 (AP35+AP51+AP67+AP83+AP99+AP115) /6=-190.88942995429082 (AQ35+AQ51+AQ67+AQ83+AQ99+AQ115) /6=-278.4478973193627 (AR35+AR51+AR67+AR83+AR99+AR115) /6=-375.2671132113776 (AS35+AS51+AS67+AS83+AS99+AS115) /6=-472.0863291033923 (AT35+AT51+AT67+AT83+AT99+AT115) /6=-665.7247608874219 (AU35+AU51+AU67+AU83+AU99+AU115) /6=-859.3631926714515 (AV35+AV51+AV67+AV83+AV99+AV115) /6=-1053.001624455481 (AW35+AW51+AW67+AW83+AW99+AW115) /6=-1246.6400562395104 (AX35+AX51+AX67+AX83+AX99+AX115) /6=-1440.2784880235401  
-0.20 (Z36+Z52+Z68+Z84+Z100+Z116) /6=0.12400819382648648 (AA36+AA52+AA68+AA84+AA100+AA116) /6=0.11502082837680572 (AB36+AB52+AB68+AB84+AB100+AB116) /6=0.10603346292712496 (AC36+AC52+AC68+AC84+AC100+AC116) /6=0.09727761619061774 (AD36+AD52+AD68+AD84+AD100+AD116) /6=0.08759569460141627 (AE36+AE52+AE68+AE84+AE100+AE116) /6=0.0779137730122148 (AF36+AF52+AF68+AF84+AF100+AF116) /6=0.05854992983381185 (AG36+AG52+AG68+AG84+AG100+AG116) /6=0.03918608665540889 (AH36+AH52+AH68+AH84+AH100+AH116) /6=0.019822243477005935 (AI36+AI52+AI68+AI84+AI100+AI116) /6=4.5840029860297424E-4 (AJ36+AJ52+AJ68+AJ84+AJ100+AJ116) /6=-0.01890544287979998 -0.20 (AN36+AN52+AN68+AN84+AN100+AN116) /6=-103.95808673379626 (AO36+AO52+AO68+AO84+AO100+AO116) /6=-193.83174123060402 (AP36+AP52+AP68+AP84+AP100+AP116) /6=-283.7053957274116 (AQ36+AQ52+AQ68+AQ84+AQ100+AQ116) /6=-371.26386309248363 (AR36+AR52+AR68+AR84+AR100+AR116) /6=-468.08307898449834 (AS36+AS52+AS68+AS84+AS100+AS116) /6=-564.9022948765131 (AT36+AT52+AT68+AT84+AT100+AT116) /6=-758.5407266605426 (AU36+AU52+AU68+AU84+AU100+AU116) /6=-952.1791584445722 (AV36+AV52+AV68+AV84+AV100+AV116) /6=-1145.8175902286018 (AW36+AW52+AW68+AW84+AW100+AW116) /6=-1339.4560220126311 (AX36+AX52+AX68+AX84+AX100+AX116) /6=-1533.0944537966614  
-0.25 (Z37+Z53+Z69+Z85+Z101+Z117) /6=0.11472659724917439 (AA37+AA53+AA69+AA85+AA101+AA117) /6=0.10573923179949361 (AB37+AB53+AB69+AB85+AB101+AB117) /6=0.09675186634981287 (AC37+AC53+AC69+AC85+AC101+AC117) /6=0.08799601961330565 (AD37+AD53+AD69+AD85+AD101+AD117) /6=0.07831409802410419 (AE37+AE53+AE69+AE85+AE101+AE117) /6=0.0686321764349027 (AF37+AF53+AF69+AF85+AF101+AF117) /6=0.04926833325649974 (AG37+AG53+AG69+AG85+AG101+AG117) /6=0.02990449007809679 (AH37+AH53+AH69+AH85+AH101+AH117) /6=0.010540646899693829 (AI37+AI53+AI69+AI85+AI101+AI117) /6=-0.008823196278709127 (AJ37+AJ53+AJ69+AJ85+AJ101+AJ117) /6=-0.028187039457112085 -0.25 (AN37+AN53+AN69+AN85+AN101+AN117) /6=-196.77405250691723 (AO37+AO53+AO69+AO85+AO101+AO117) /6=-286.6477070037249 (AP37+AP53+AP69+AP85+AP101+AP117) /6=-376.5213615005326 (AQ37+AQ53+AQ69+AQ85+AQ101+AQ117) /6=-464.0798288656046 (AR37+AR53+AR69+AR85+AR101+AR117) /6=-560.8990447576192 (AS37+AS53+AS69+AS85+AS101+AS117) /6=-657.7182606496341 (AT37+AT53+AT69+AT85+AT101+AT117) /6=-851.3566924336636 (AU37+AU53+AU69+AU85+AU101+AU117) /6=-1044.995124217693 (AV37+AV53+AV69+AV85+AV101+AV117) /6=-1238.6335560017226 (AW37+AW53+AW69+AW85+AW101+AW117) /6=-1432.2719877857523 (AX37+AX53+AX69+AX85+AX101+AX117) /6=-1625.9104195697819

Sensit CAR																															
Coverage	0.25	0.30	0.30	0.25	0.30	0.35	USD/TRY 4.85																								
OTAS exposure (USDm)	1500	950	160	500	180	200																									
LOANS OTAS exposure (TRYm)	M2*\$U\$1=7274.9999999999999			R2*\$U\$1=969.9999999999999			N2*\$U\$1=4607.50 O2*\$U\$1=776 P2*\$U\$1=2425																								
Q2*\$U\$1=872.9999999999999	R2*\$U\$1=969.9999999999999																														
TRYm	Akbank	Garanti Halkbank	Isbank	Vakifbank	Yapi Kredi	Total	TRYm	Akbank																							
nk	Garanti Halkbank	Isbank	Vakifbank	Yapi Kredi	Total																										
Stage 1	177483.751	179942.836	208018.025	225447.282	189194.53	189206.167																									
SUM(C5:H5)=1169292.591	Stage 1	C5+M3=184758.751	D5+N3=184550.336	E5+O3=208794.025																											
F5+P3=227872.282	G5+Q3=190067.53	H5+R3=190176.167	SUM(M5:R5)=1186219.091																												
Stage 2	18107.557+561.381+3109.4=21778.338000000003	29599.849+5463.71+2411.769=37475.328	4219																												
.35+28.39+3620.128=7867.868	16743.129+3832.425+460.08=21035.634000000002	3835.687+108.017+226																													
2.51=6206.214	5397.15+541.86+2728.63=8667.64	SUM(C6:H6)=103031.022000000001	Stage 2	C6-M3=14503.338000000003	D6-N3=32867.828	E6-O3=7091.868	F6-P3=18610.634000000002	G6-Q3=5333.214	H6-R3=7697.6399999999999																						
3=7697.6399999999999	SUM(M6:R6)=86104.522000000001																														
Stage 3	4046.342	5633.32	6264.786	5799.235	7945.146	8617.858	SUM(C7:H7)=38306.687000000005																								
C7:H7)=38306.687000000005	Stage 3	C7=4046.342	D7=5633.32	E7=6264.786	F7=5799.235																										
G7=7945.146	H7=8617.858	SUM(M7:R7)=38306.687000000005																													
Total	SUM(C5:C7)=203308.430999999998	SUM(D5:D7)=223051.484000000003	SUM(E5:E7)=222150.678999999999	7	SUM(F5:F7)=252282.150999999998	SUM(G5:G7)=203345.89	SUM(H5:H7)=206491.664999999998	SUM(C8:H8)=1310630.30																							
C8:H8)=1310630.30	Total	SUM(M5:M7)=203308.430999999998	SUM(N5:N7)=223051.484000000003	SUM(O5:O7)=222150.678999999997																											
O5:O7)=222150.67899999997	SUM(P5:P7)=252282.150999999998	SUM(Q5:Q7)=203345.89	SUM(R5:R7)=206491.664999999998	SUM(M8:R8)=1310630.30																											
06491.664999999998	COVERAGE																														
TRYm	Akbank	Garanti Halkbank	Isbank	Vakifbank	Yapi Kredi	Average	TRYm	Akbank																							
nk	Garanti Halkbank	Isbank	Vakifbank	Yapi Kredi	Average																										
Stage 1	635.937	816.282	1003.91	1588.177	1541.675	1735.70	SUM(C12:H12)=7321.681	Stage 1	C12+(M3*0.01)=708.687																						
C12+(M3*0.01)=708.687	D12+(N3*0.01)=862.35700000000001	E12+(O3*0.01)=1011.67	F12+(P3*0.01)=1612.427	G12+(Q3*0.01)=1550.405	H12+(R3*0.01)=1745.40	SUM(M12:R12)=7490.946	Stage 2	C13-(M3*M1)=965.1060000000004																							
Stage 2	2783.856	3620.075	784.616	1845.348	468.183	888.696	SUM(C13:H13)=10390.7	D13-(N3*N1)=2237.825	E13-(O3*O1)=551.816																						
74000000001	Stage 2	C13-(M3*M1)=965.1060000000004	D13-(N3*N1)=2237.825	E13-(O3*O1)=551.816	F13-(P3*P1)=1239.098	G13-(Q3*Q1)=206.28300000000002	H13-(R3*R1)=549.19600000000001	SUM(M13:R13)=5749.32400000000005	Stage 3	C14=3130.372																					
3130.372	3963.228	4978.164	4157.801	6201.91	7386.565	SUM(C14:H14)=29818.039999999997																									
C14:H14)=29818.039999999997	Stage 3	C14=3130.372	D14=3963.228	E14=4978.164	F14=4157.801	G14=6201.91	H14=7386.565	SUM(M14:R14)=29818.039999999997	Total	SUM(C12:C14)=6550.165																					
SUM(C12:C14)=6550.165	SUM(D12:D14)=8399.585	SUM(E12:E14)=6766.69	SUM(F12:F14)=7591.32	6	SUM(G12:G14)=8211.768	SUM(H12:H14)=10010.961	SUM(C15:H15)=47530.494999999995	Total	SUM(M12:M14)=4804.1650000000001																						
M12:M14)=4804.1650000000001	SUM(N12:N14)=7063.41	SUM(O12:O14)=6541.65	SUM(P12:P14)=7009.32	6	SUM(Q12:Q14)=7958.598	SUM(R12:R14)=9681.161	SUM(M15:R15)=43058.31	% in gross loans	% in gross loans																						
SUM(Q12:Q14)=7958.598	SUM(R12:R14)=9681.161																														
TRYm	Akbank	Garanti Halkbank	Isbank	Vakifbank	Yapi Kredi	Average	TRYm	Akbank																							
nk	Garanti Halkbank	Isbank	Vakifbank	Yapi Kredi	Average																										
Stage 1	C5/C\$8=0.8729778205803969	D5/D\$8=0.8067322968360076	E5/E\$8=0.936382575720149	F5/F\$8=0.8936315197344263	G5/G\$8=0.9304074451664599	H5/H\$8=0.9162896090745358	I5/I\$8=0.8921605055216563	Stage 1	M5/M\$8=0.9087608914752778																						
M5/M\$8=0.9087608914752778	N5/N\$8=0.8273889628100389	O5/O\$8=0.9398757003123993	P5/P\$8=0.9032437732782769	Q5/Q\$8=0.934700622668105	R5/R\$8=0.9209871352434492	S5/S\$8=0.9050752840064814	D6/D\$8=0.16801200928122942	E6/E\$8=0.035416808246622564	F6/F\$8=0.08338138039737898																						
D6/D\$8=0.16801200928122942	G6/G\$8=0.030520479169753565	H6/H\$8=0.041975737858474825	I6/I\$8=0.07861181143149217	Stage 2	M6/M\$8=0.07133662843524677	N6/N\$8=0.14735534330719807	O6/O\$8=0.03192368365437227	P6/P\$8=0.07376912685352839	Q6/Q\$8=0.026227301668108462																						
P6/P\$8=0.07376912685352839	Q6/Q\$8=0.026227301668108462	R6/R\$8=0.0372821168956142	S6/S\$8=0.06569703294666697	Stage 3	C7/C\$8=0.019902480089475486	D7/D\$8=0.025255693882762956	E7/E\$8=0.02820061603322851	F7/F\$8=0.0222987099868194798	G7/G\$8=0.03907207566378646																						
G7/G\$8=0.03907207566378646	H7/H\$8=0.04173465306698942	I7/I\$8=0.029227683046851582	Stage 3	M7/M\$8=0.019902480089475486	N7/N\$8=0.025255693882762956	R7/R\$8=0.04173465306698942	O7/O\$8=0.02820061603322851	P7/P\$8=0.022987099868194798	Q7/Q\$8=0.03907207566378646																						
P7/P\$8=0.022987099868194798	Q7/Q\$8=0.03907207566378646	Total	C8/C\$8=1	D8/D\$8=1	E8/E\$8=1	F8/F\$8=1	G8/G\$8=1	H8/H\$8=1	I8/I\$8=1																						
C8/C\$8=1	D8/D\$8=1	E8/E\$8=1	F8/F\$8=1	G8/G\$8=1	H8/H\$8=1	I8/I\$8=1	Total	M8/M\$8=1	N8/N\$8=1																						
M8/M\$8=1	N8/N\$8=1	O8/O\$8=1	P8/P\$8=1	Q8/Q\$8=1	COVERAGE RATIO																										
O8/O\$8=1	P8/P\$8=1	Q8/Q\$8=1	Earnings impact Akbank							Garanti Halkbank	Isbank	Vakifbank	Yapi Kredi																		
Total	TRYm	Akbank	Garanti Halkbank	Isbank	Vakifbank	Yapi Kredi	Average	Stage 2	provisions (base)	14503.3380000000003	32867.828	7091.868	18610.634000000002	5333																	
14503.3380000000003	S6=86104.522000000001	AKBANK	AKBANK	AKBANK	Stage 1	C12/C5=0.0035830716694735623	D12/D5=0.004536340640980005	E12/E5=0.004826072163698314	F12/F5=0.0070445560421890559	G12/G5=0.008148623535786156	H12/H5=0.009173591048964065	I12/I5=0.0062616329363195285	Stage 3	provisions (base)	4046.342	5633.32	6264.786														
4046.342	5633.32	6264.786	5799.235	7945.146	8617.858	38306.6870000000005	CAR	% of Stage 2 loans transferred to Stage 3 loans	Headroom above threshold	% of Stage 2 loans transferred to Stage 3 loans	Stage 2	C13/C6=0.12782683416888835	D13/D6=0.09659888767351148	E13/E6=0.09972409298173278	F13/F6=0.08772485773426177	G13/G6=0.0754377897442788	H13/H6=0.10253033120895655	I13/I6=0.10085092623850708	Amount of Stage 2 transferred to Stage 3	\$T\$27*O25=0	\$T\$27*P25=0	\$T\$27*Q25=0	\$T\$27*R25=0	\$T\$27*S25=0	0	Loan growth	(ppt change from base)	\$M\$72=0.165723068081947	AA27-0.05=-0.1500000000000002	AB27-0.05=-0.10	-0.0
\$M\$72=0.165723068081947	AA27-0.05=-0.1500000000000002	AB27-0.05=-0.10	-0.0	5	0	0.05	AD27+0.05=0.10	0.20	0.30	0.40	0.50	0.60	Y27=0.16572306808194	7	AO27-0.05=-0.1500000000000002	AP27-0.05=-0.10	-0.05	0	0.05												

0.30	0.40	0.50	0.60	AM27=0.165723068081947	-0.05	-0.03	-0.01	0	0.05	BF27
+0.05=0.10	0.20	0.30	0.40	0.50	0.60					
Stage 3 C14/C7=0.7736301083793707				D14/D7=0.7035332628006221				E14/E7=0.7946263447785766		
F14/F7=0.7169568055096923				G14/G7=0.7805910678041662				H14/H7=0.85712308093264	I14/I7=0.778	
4029978891152				Coverage of new Stage 3 loans (70%)	M27*0.7=0			N27*0.7=0	O27*0.7=0	
P27*0.7=0	Q27*0.7=0			R27*0.7=0	S27*0.7=0	0.20		(=TABLE(T27,T46))=0.14145453		
818948073				(=TABLE(T27,T46))=0.14033721103797245				(=TABLE(T27,T46))=0.13921988388646414	(=TA	
BLE(T27,T46))=0.13810255673495583				(=TABLE(T27,T46))=0.13698522958344755				(=TABLE(T27,T46))=0.01		
13586790243193925				(=TABLE(T27,T46))=0.1336332481289227				(=TABLE(T27,T46))=0.1313985938259061		
(=TABLE(T27,T46))=0.1291639395228895				(=TABLE(T27,T46))=0.12692928521987293				(=TABLE(T27,T46))=0.		
12469463091685634	0.20			(Z28-\$AC\$32)*10000=-242.6852989246628	(AA28-\$AC\$32)*10000=-253.858					
5704397456	(AB28-\$AC\$32)*10000=-265.0318419548287			(AC28-\$AC\$32)*10000=-276.20511346991174	(AD2					
8-\$AC\$32)*10000=-287.3783849849945				(AE28-\$AC\$32)*10000=-298.55165650007757	(AF28-\$AC\$32)*10000=-					
-320.8981995302432	(AG28-\$AC\$32)*10000=-343.24474256040907			(AH28-\$AC\$32)*10000=-365.59128559057						
52	(AI28-\$AC\$32)*10000=-387.9378286207408			(AJ28-\$AC\$32)*10000=-410.2843716509066	0.20	Z28-				
\$M\$64=0.021454538189480732				AA28-\$M\$64=0.020337211037972452	AB28-\$M\$64=0.019219883886464145	AC28				
-\$M\$64=0.018102556734955838				AD28-\$M\$64=0.01698522958344756	AE28-\$M\$64=0.01586790243193925	AF28				
-\$M\$64=0.013633248128922693				AG28-\$M\$64=0.011398593825906106	AH28-\$M\$64=0.009163939522889492	AI28				
-\$M\$64=0.006929285219872933				AJ28-\$M\$64=0.004694630916856346						
Total	SUM(C26:C28)=0.9050400142177326			SUM(D26:D28)=0.8046684911151136	SUM(E26:E28)=0.8991765099240					
078	SUM(F26:F28)=0.8117262236658447			SUM(G26:G28)=0.8641774703143803	SUM(H26:H28)=0.9688270031905					
606	SUM(I26:I28)=0.8855155570639418			Stage 3 provisions (new)	M28+M26=4046.342	N28+				
N26=5633.32	O28+O26=6264.786			P28+P26=5799.235	Q28+Q26=7945.146	R28+R26=8617				
.858	S28+S26=38306.6870000000005			0.15	(=TABLE(T27,T46))=0.14760473550206685	(=TABLE(T27,				
T46))=0.14643882890918863				(=TABLE(T27,T46))=0.1452729223163104	(=TABLE(T27,T46))=0.14410701					
572343218	(=TABLE(T27,T46))=0.14294110913055397			(=TABLE(T27,T46))=0.14177520253767575	(=TA					
BLE(T27,T46))=0.13944338935191933				(=TABLE(T27,T46))=0.13711157616616287	(=TABLE(T27,T46))=0.1					
13477976298040645	(=TABLE(T27,T46))=0.13244794979465002			(=TABLE(T27,T46))=0.1301161366088935						
7	0.15			(Z29-\$AC\$32)*10000=-181.18332579880158	(AA29-\$AC\$32)*10000=-192.84239172758373	(AB2				
9-\$AC\$32)*10000=-204.5014576563661				(AC29-\$AC\$32)*10000=-216.16052358514827	(AD29-\$AC\$32)*10000=-					
-227.8195895139304	(AE29-\$AC\$32)*10000=-239.47865544271252			(AF29-\$AC\$32)*10000=-262.79678730027						
68	(AG29-\$AC\$32)*10000=-286.1149191578413			(AH29-\$AC\$32)*10000=-309.43305101540557	(AI29-\$AC\$32					
)*10000=-332.7511828729698				(AJ29-\$AC\$32)*10000=-356.06931473053436	0.15	Z29-\$M\$64=0.02760473				
550206685	AA29-\$M\$64=0.02643882890918864			AB29-\$M\$64=0.025272922316310398	AC29-\$M\$64=0.0241070					
15723432185	AD29-\$M\$64=0.02294110913055397			AE29-\$M\$64=0.02177520253767576	AF29-\$M\$64=0.0194433					
89351919332	AG29-\$M\$64=0.01711157616616288			AH29-\$M\$64=0.014779762980406452	AI29-\$M\$64=0.0124479					
49794650026	AJ29-\$M\$64=0.010116136608893572									
Net profit (base)	6405.467516045113			7118.518599790241	3809.28613779219	6242				
.064735470831	3822.804240772133			3853.9025619301465	SUM(M30:R30)=31252.043791800654	0.10				
(=TABLE(T27,T46))=0.15431404166125168	(=TABLE(T27,T46))=0.15309513931415172			(=TABLE(T27,T46))=0.1494384322728518						
15187623696705177	(=TABLE(T27,T46))=0.1482195299257519			(=TABLE(T27,T46))=0.145781725231552	(=TABLE(T27,					
6	(=TABLE(T27,T46))=0.1433439205373521			(=TABLE(T27,T46))=0.14090611584315216	(=TABLE(T27,T46))=0.13846831					
T46))=0.1433439205373521	(=TABLE(T27,T46))=0.13603050645475234			0.10	(Z30-\$AC\$32)*10000=-114.090264206953					
114895228	(AA30-\$AC\$32)*10000=-126.27928767795282			(AB30-\$AC\$32)*10000=-138.46831114895235	(AC30-\$AC\$32					
28	)*10000=-150.6573346199519			(AD30-\$AC\$32)*10000=-162.84635809095144	(AE30-\$AC\$32)*10000=-175.035					
38156195097	(AF30-\$AC\$32)*10000=-199.41342850395006			(AG30-\$AC\$32)*10000=-223.79147544549412	(AH3					
0-\$AC\$32)*10000=-248.1695223879485				(AI30-\$AC\$32)*10000=-272.5475693299473	(AJ30-\$AC\$32)*10000=					
-296.92561627194664	0.10			Z30-\$M\$64=0.03431404166125168	AA30-\$M\$64=0.03309513931415173	AB30				
-\$M\$64=0.031876236967051774				AC30-\$M\$64=0.03065733461995182	AD30-\$M\$64=0.029438432272851867	AE30				
-\$M\$64=0.028219529925751913				AG30-\$M\$64=0.025781725231552005	AG30-\$M\$64=0.023343920537352097	AH30				
-\$M\$64=0.020906115843152162				AI30-\$M\$64=0.018468311148952282	AJ30-\$M\$64=0.016030506454752347					
Expected provision expenses				Net profit (new) - TRYm	M30-(M28*0.8)+(M48-M46)*(0.8)*(0.04					
)=6405.467516045113	N30-(N28*0.8)+(N48-N46)*(0.8)*(0.04)=7118.518599790241				O30-(O28*0.8					
)+(O48-O46)*(0.8)*(0.04)=3809.28613779219	P30-(P28*0.8)+(P48-P46)*(0.8)*(0.04)=6242.06473547									
0831	Q30-(Q28*0.8)+(Q48-Q46)*(0.8)*(0.04)=3822.804240772133				R30-(R28*0.8)+(R48-R46)*(0.					
8)*(0.04)=3853.9025619301465	S30-(S28*0.8)+(S48-S46)*(0.8)*(0.04)=31252.043791800654									
(=TABLE(T27,T46))=0.16166232935940653	(=TABLE(T27,T46))=0.16038538404339706			(=TABLE(T27,T46))=0.						
15910843872738756	(=TABLE(T27,T46))=0.1578314934113781			(=TABLE(T27,T46))=0.1565545480953686						
2	(=TABLE(T27,T46))=0.15527760277935912			(=TABLE(T27,T46))=0.15272371214734018	(=TABLE(T27,					
T46))=0.15016982151532124	(=TABLE(T27,T46))=0.14761593088330227			(=TABLE(T27,T46))=0.14506204						
025128333	(=TABLE(T27,T46))=0.14250814961926436			0.05	(Z31-\$AC\$32)*10000=-40.6073872254048					
(AA31-\$AC\$32)*10000=-53.376840385499506	(AB31-\$AC\$32)*10000=-66.14629354559447			(AC31-\$AC\$32)*10000=-						
-78.91574670568919	(AD31-\$AC\$32)*10000=-91.68519986578389			(AE31-\$AC\$32)*10000=-104.45465302587						
887	(AF31-\$AC\$32)*10000=-129.99355934606825			(AG31-\$AC\$32)*10000=-155.53246566625768	(AH31-\$AC\$32					
)*10000=-181.07137198644736	(AI31-\$AC\$32)*10000=-206.61027830663676			(AJ31-\$AC\$32)*10000=-232.149						
18462682644	0.05			Z31-\$M\$64=0.04166232935940653	AA31-\$M\$64=0.04038538404339706	AB31-\$M\$64=0				
.03910843872738756				AC31-\$M\$64=0.03783149341137809	AD31-\$M\$64=0.03655454809536862	AE31-\$M\$64=0				
.035277602779359124				AG31-\$M\$64=0.032723712147340184	AG31-\$M\$64=0.030169821515321243	AH31-\$M\$64=0				
.027615930883302275				AI31-\$M\$64=0.025062040251283335	AJ31-\$M\$64=0.022508149619264367					
TRYm	Akbank	Garanti	Halkbank	Isbank	Vakifbank	Yapi Kredi		Average	Change in ne	
t profit from base	M31/M30-1=0			N31/N30-1=0		O31/O30-1=0		P31/P30-1=0	Q31/Q30-1=0	
R31/R30-1=0	S31/S30-1=0			0	(=TABLE(T27,T46))=0.16974544582737686	(=TABLE(T27,T46))=0.				
16840465324556692	(=TABLE(T27,T46))=0.16706386066375695			(=TABLE(T27,T46))=0.165723068081947						
(=TABLE(T27,T46))=0.16438227550013707	(=TABLE(T27,T46))=0.1630414829183271			(=TABLE(T27,T46))=0.						
16035989775470721	(=TABLE(T27,T46))=0.1576783125910873			(=TABLE(T27,T46))=0.1549967274274674						
(=TABLE(T27,T46))=0.15231514226384749	(=TABLE(T27,T46))=0.14963355710022758			0	(Z32-\$AC\$32)					
*10000=40.22377745429851	(AA32-\$AC\$32)*10000=26.815851636199096			(AB32-\$AC\$32)*10000=13.40792	(AC32-\$AC\$32)*10000=					
581809941	(AC32-\$AC\$32)*10000=0			(AD32-\$AC\$32)*10000=-13.40792581809941	(AE32-\$AC\$32)*10000=					

-26.815851636199096 (AF32-\$AC\$32)\*10000=-53.631703272397914 (AG32-\$AC\$32)\*10000=-80.447554908597  
01 (AH32-\$AC\$32)\*10000=-107.2634065447961 (AI32-\$AC\$32)\*10000=-134.0792581809952 (AJ32-\$AC\$32  
)\*10000=-160.89510981719428 0 Z32-\$M\$64=0.04974544582737686 AA32-\$M\$64=0.048404653245566  
92 AB32-\$M\$64=0.04706386066375695 AC32-\$M\$64=0.04572306808194701 AD32-\$M\$64=0.044382275500137  
07 AE32-\$M\$64=0.0430414829183271 AF32-\$M\$64=0.0403598977547072 AG32-\$M\$64=0.037678312591087  
31 AH32-\$M\$64=0.0349967274274674 AI32-\$M\$64=0.03231514226384749 AJ32-\$M\$64=0.029633557100227  
58  
ROE (base) M30/M\$56=0.14227070975751668 N30/N\$56=0.15379565842592643 O30/O\$56=0.133239279  
64267931 P30/P\$56=0.13031433781764779 Q30/Q\$56=0.14460043618259225 R30/R\$56=0.102203593  
17283423 S30/S\$56=0.1347398172027409 -0.05 (=TABLE (T27, T46))=0.1786794166603967 (=TA  
BLE (T27, T46))=0.17726805604796517 (=TABLE (T27, T46))=0.17585669543553362 (=TABLE (T27, T46))=0.  
17444533482310212 (=TABLE (T27, T46))=0.1730339742106706 (=TABLE (T27, T46))=0.1716226135982390  
5 (=TABLE (T27, T46))=0.168799892373376 (=TABLE (T27, T46))=0.16597717114851296 (=TABLE (T27, T46))=0.16315444992364989  
(=TABLE (T27, T46))=0.16033172869878684 (=TABLE (T27, T46))=0.15750900  
747392377 -0.05 (Z33-\$AC\$32)\*10000=129.56348578449683 (AA33-\$AC\$32)\*10000=115.449879660181  
61 (AB33-\$AC\$32)\*10000=101.33627353586611 (AC33-\$AC\$32)\*10000=87.22266741155116 (AD33-\$AC\$32  
)\*10000=73.10906128723593 (AE33-\$AC\$32)\*10000=58.99545516292043 (AF33-\$AC\$32)\*10000=30.76824  
2914289978 (AG33-\$AC\$32)\*10000=2.541030665659527 (AH33-\$AC\$32)\*10000=-25.6861815829712 (AI3  
3-\$AC\$32)\*10000=-53.91339383160165 (AJ33-\$AC\$32)\*10000=-82.14060608023239 -0.05 Z33-\$M\$64=0.  
058679416660396694 AA33-\$M\$64=0.05726805604796517 AB33-\$M\$64=0.05585669543553362 AC33-\$M\$64=0  
.054445334823102126 AD33-\$M\$64=0.053033974210670604 AE33-\$M\$64=0.05162261359823905 AF33-\$M\$64=0  
.04879989237337601 AG33-\$M\$64=0.04597717114851296 AH33-\$M\$64=0.04315444992364989 AI33-\$M\$64=0  
.040331728698786845 AJ33-\$M\$64=0.03750900747392377  
ROE (new) M31/M\$56=0.14227070975751668 N31/N\$56=0.15379565842592643 O31/O\$56=0.133239279  
64267931 P31/P\$56=0.13031433781764779 Q31/Q\$56=0.14460043618259225 R31/R\$56=0.102203593  
17283423 S31/S\$56=0.1347398172027409 -0.10 (=TABLE (T27, T46))=0.18860605091930763 (=TA  
BLE (T27, T46))=0.18711628138396325 (=TABLE (T27, T46))=0.18562651184861884 (=TABLE (T27, T46))=0.  
18413674231327445 (=TABLE (T27, T46))=0.18264697277793007 (=TABLE (T27, T46))=0.1811572032425856  
6 (=TABLE (T27, T46))=0.1781776641718969 (=TABLE (T27, T46))=0.1751981251012081 (=TABLE (T27,  
T46))=0.17221858603051932 (=TABLE (T27, T46))=0.16923904695983055 (=TABLE (T27, T46))=0.16625950  
788914176 -0.10 (Z34-\$AC\$32)\*10000=228.8298283736062 (AA34-\$AC\$32)\*10000=213.932133020162  
38 (AB34-\$AC\$32)\*10000=199.0344376667183 (AC34-\$AC\$32)\*10000=184.13674231327448 (AD34-\$AC\$32  
)\*10000=169.23904695983066 (AE34-\$AC\$32)\*10000=154.34135160638658 (AF34-\$AC\$32)\*10000=124.5459  
6089949894 (AG34-\$AC\$32)\*10000=94.75057019261102 (AH34-\$AC\$32)\*10000=64.95517948572311 (AI3  
4-\$AC\$32)\*10000=35.15978877883546 (AJ34-\$AC\$32)\*10000=5.3643980719475515 -0.10 Z34-\$M\$64=0.  
06860605091930763 AA34-\$M\$64=0.06711628138396325 AB34-\$M\$64=0.06562651184861884 AC34-\$M\$64=0  
.06413674231327446 AD34-\$M\$64=0.06264697277793008 AE34-\$M\$64=0.06115720324258567 AF34-\$M\$64=0  
.0581776641718969 AG34-\$M\$64=0.05519812510120811 AH34-\$M\$64=0.05221858603051932 AI34-\$M\$64=0  
.04923904695983056 AJ34-\$M\$64=0.046259507889141765  
Change in ROE from base (M34-M33)=0 (N34-N33)=0 (O34-O33)=0 (P34-P33)=0 (Q34-Q33)=0  
(R34-R33)=0 (S34-S33)=0 -0.15 (=TABLE (T27, T46))=0.19970052450279632 (=TABLE (T27, T46))=0.  
19812312146537284 (=TABLE (T27, T46))=0.19654571842794935 (=TABLE (T27, T46))=0.1949683153905259  
(=TABLE (T27, T46))=0.19339091235310243 (=TABLE (T27, T46))=0.19181350931567895 (=TABLE (T27, T46))=0.  
18865870324083203 (=TABLE (T27, T46))=0.18550389716598506 (=TABLE (T27, T46))=0.1823490910911381  
2 (=TABLE (T27, T46))=0.1791942850162912 (=TABLE (T27, T46))=0.17603947894144423 -0.15 (Z35  
-\$AC\$32)\*10000=339.7745642084932 (AA35-\$AC\$32)\*10000=324.0005338342583 (AB35-\$AC\$32)\*10000=  
308.2265034600234 (AC35-\$AC\$32)\*10000=292.4524730857889 (AD35-\$AC\$32)\*10000=276.678442711554  
3 (AE35-\$AC\$32)\*10000=260.9044123373194 (AF35-\$AC\$32)\*10000=229.35635158885026 (AG35-\$AC\$32  
)\*10000=197.80829084038055 (AH35-\$AC\$32)\*10000=166.2602300919111 (AI35-\$AC\$32)\*10000=134.7121  
6934344193 (AJ35-\$AC\$32)\*10000=103.16410859497222 -0.15 Z35-\$M\$64=0.07970052450279633 AA35  
-\$M\$64=0.07812312146537284 AB35-\$M\$64=0.07654571842794936 AC35-\$M\$64=0.0749683153905259 AD35  
-\$M\$64=0.07339091235310244 AE35-\$M\$64=0.07181350931567895 AF35-\$M\$64=0.06865870324083204 AG35  
-\$M\$64=0.06550389716598506 AH35-\$M\$64=0.06234909109113812 AI35-\$M\$64=0.059194285016291204 AJ35  
-\$M\$64=0.05603947894144423  
-0.20 (=TABLE (T27, T46))=0.21218180728422106 (=TABLE (T27, T46))=0.21050581655695863 (=TABLE (T27,  
T46))=0.20882982582969617 (=TABLE (T27, T46))=0.20715383510243374 (=TABLE (T27, T46))=0.20547784  
43751713 (=TABLE (T27, T46))=0.20380185364790887 (=TABLE (T27, T46))=0.200449872193384 (=TA  
BLE (T27, T46))=0.1970978907388591 (=TABLE (T27, T46))=0.19374590928433422 (=TABLE (T27, T46))=0.  
19039392782980938 (=TABLE (T27, T46))=0.18704194637528448 -0.20 (Z36-\$AC\$32)\*10000=464.58739  
20227406 (AA36-\$AC\$32)\*10000=447.82748475011624 (AB36-\$AC\$32)\*10000=431.0675774774916 (AC3  
6-\$AC\$32)\*10000=414.3076702048673 (AD36-\$AC\$32)\*10000=397.54776293224296 (AE36-\$AC\$32)\*10000=  
380.78785565961863 (AF36-\$AC\$32)\*10000=347.26804111436996 (AG36-\$AC\$32)\*10000=313.748226569121  
1 (AH36-\$AC\$32)\*10000=280.2284120238721 (AI36-\$AC\$32)\*10000=246.70859747862372 (AJ36-\$AC\$32  
)\*10000=213.1887829333748 -0.20 Z36-\$M\$64=0.09218180728422107 AA36-\$M\$64=0.090505816556958  
63 AB36-\$M\$64=0.08882982582969617 AC36-\$M\$64=0.08715383510243374 AD36-\$M\$64=0.085477844375171  
31 AE36-\$M\$64=0.08380185364790887 AF36-\$M\$64=0.08044987219338401 AG36-\$M\$64=0.077097890738859  
12 AH36-\$M\$64=0.07374590928433422 AI36-\$M\$64=0.07039392782980938 AJ36-\$M\$64=0.067041946375284  
49  
Stage 1 53.916 379.957 96.532 7.40 167.354 153.12 SUM(C37:H37)=858.279 COR impact Akba  
nk Garanti Halkbank Isbank Vakifbank Yapi Kredi Total -0.25 (=TABLE (T27,  
T46))=0.22632726110316914 (=TABLE (T27, T46))=0.22453953766075588 (=TABLE (T27, T46))=0.22275181  
42183426 (=TABLE (T27, T46))=0.22096409077592932 (=TABLE (T27, T46))=0.2191763673335161 (=TA  
BLE (T27, T46))=0.2173886438911028 (=TABLE (T27, T46))=0.21381319700627627 (=TABLE (T27, T46))=0.  
21023775012144974 (=TABLE (T27, T46))=0.20666230323662318 (=TABLE (T27, T46))=0.2030868563517966  
6 (=TABLE (T27, T46))=0.19951140946697013 -0.25 (Z37-\$AC\$32)\*10000=606.0419302122214 (AA3  
7-\$AC\$32)\*10000=588.1646957880887 (AB37-\$AC\$32)\*10000=570.2874613639558 (AC37-\$AC\$32)\*10000=  
552.4102269398231 (AD37-\$AC\$32)\*10000=534.5329925156908 (AE37-\$AC\$32)\*10000=516.655758091557  
9 (AF37-\$AC\$32)\*10000=480.90128924329264 (AG37-\$AC\$32)\*10000=445.14682039502736 (AH37-\$AC\$32  
)\*10000=409.3923515467618 (AI37-\$AC\$32)\*10000=373.6378826984965 (AJ37-\$AC\$32)\*10000=337.8834

1385023125 -0.25 Z37-\$M\$64=0.10632726110316915 AA37-\$M\$64=0.10453953766075588 AB37-\$M\$64=0  
.10275181421834259 AC37-\$M\$64=0.10096409077592933 AD37-\$M\$64=0.09917636733351609 AE37-\$M\$64=0  
.0973886438911028 AF37-\$M\$64=0.09381319700627627 AG37-\$M\$64=0.09023775012144974 AH37-\$M\$64=0  
.08666230323662319 AI37-\$M\$64=0.08308685635179666 AJ37-\$M\$64=0.07951140946697013  
Stage 2 246.51 748.876 19.004 588.762 78.11 70.684 SUM(C38:H38)=1751.946 Stage 2 loans % in 1  
oans (base) M20=0.07133662843524677 N20=0.14735534330719807 O20=0.03192368365437227 P20=0.073769  
12685352839 Q20=0.026227301668108462 R20=0.03727821168956142 S20=0.06569703294666697  
Stage 3 397.74 488.162 276.835 531.50 1037.65 589.523 SUM(C39:H39)=3321.4100000000003 Stage 3 loan  
s % in loans (base) M21=0.019902480089475486 N21=0.025255693882762956 O21=0.028200  
61603322851 P21=0.022987099868194798 Q21=0.03907207566378646 R21=0.04173465306698942 S21=  
0.029227683046851582  
Total SUM(C37:C39)=698.16599999999999 SUM(D37:D39)=1616.995 SUM(E37:E39)=392.371 SUM(F37:F39)  
=1127.66199999999998 SUM(G37:G39)=1283.114 SUM(H37:H39)=813.327 SUM(I37:I39)=5931.635 Stag  
e 2 loans % in loans (new) (M6-M27)/M\$8=0.07133662843524677 (N6-N27)/N\$8=0.1473553433071  
9807 (O6-O27)/O\$8=0.03192368365437227 (P6-P27)/P\$8=0.07376912685352839 (Q6-Q27)/Q\$8  
=0.026227301668108462 (R6-R27)/R\$8=0.03727821168956142 (S6-S27)/S\$8=0.06569703294666697  
Average gross loans 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[AKBANK MO  
DEL- Higher RFR and Lower NIM.xlsx]COR'!\$AH\$13/1000=199098.746 'R:\Bank models\Turkish Bank Model w  
ith 2020 Estimates\Higher RFR\[GARANTI MODEL- Higher RFR and Lower NIM.xlsx]COR'!\$AH\$13/1000=219928.  
43 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[HALKBANK MODEL- Higher RF  
R and Lower NIM.xlsx]COR'!\$AH\$13/1000=215448.166 'R:\Bank models\Turkish Bank Model with 2020  
Estimates\Higher RFR\[ISBANK MODEL- Higher RFR and Lower NIM.xlsx]COR'!\$AH\$13/1000=249443.2855 'R:\  
Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[VAKIFBANK MODEL- Higher RFR and Lower  
NIM.xlsx]COR'!\$AH\$13/1000=197091.47 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Highe  
r RFR\[YAPI KREDI MODEL- Higher RFR and Lower NIM.xlsx]COR'!\$AH\$13/1000=204895.8715 SUM(C41:H41)  
=1285905.969 Stage 3 loans % in loans (new) (M7+M27)/M\$8=0.019902480089475486 (N7+N27)/N\$8  
=0.025255693882762956 (O7+O27)/O\$8=0.02820061603322851 (P7+P27)/P\$8=0.022987099868194798  
(Q7+Q27)/Q\$8=0.03907207566378646 (R7+R27)/R\$8=0.04173465306698942 (S7+S27)/S\$8=0.02922  
7683046851582 GARANTI GARANTI GARANTI  
Stage 1 credit impairments C37=53.916 D37=379.957 E37=96.532 F37=7.40 G37=  
167.354 H37=153.12 I37=858.279 Y26=CAR % of Stage 2 loans transferred to Stage 3 loans AM26  
=CAR: change from base (bps) % of Stage 2 loans transferred to Stage 3 loans BA26=Headroom above  
threshold % of Stage 2 loans transferred to Stage 3 loans  
CoR (gross) Stage 2 credit impairments C38=246.51 D38=748.876 E38=19.004 F38=  
588.762 G38=78.11 H38=70.684 I38=1751.946 Loan growth (ppt change from base) \$N\$7  
2=-0.18070482140335967 AA43-0.05=-0.1500000000000002 AB43-0.05=-0.10 -0.05 0 0.05 AD43  
+0.05=0.10 0.20 0.30 0.40 0.50 0.60 Y43=0.18070482140335967 AO43-0.05=-0.1500000  
0000000002 AP43-0.05=-0.10 -0.05 0 0.05 AR43+0.05=0.10 0.20 0.30 0.40 0.50  
0.60 AM43=0.18070482140335967 -0.05 -0.03 -0.01 0 0.05 BF43+0.05=0.10 0.20  
0.30 0.40 0.50 0.60  
TRYm Akbank Garanti Halkbank Isbank Vakifbank Yapi Kredi Average Stage 3 cred  
it impairments (new) M28+C39=397.74 N28+D39=488.162 O28+E39=276.835 P28+F39=531.50 Q28+G39=1037  
.65 R28+H39=589.523 S28+I39=3321.4100000000003 0.20 (=TABLE(T27,T46))=0.1584736953701614  
(=TABLE(T27,T46))=0.15584491396992972 (=TABLE(T27,T46))=0.15321613256969807 (=TABLE(T27,T46))=0.  
1505873511694664 (=TABLE(T27,T46))=0.14795856976923472 (=TABLE(T27,T46))=0.1453297883690030  
4 (=TABLE(T27,T46))=0.1400722255685397 (=TABLE(T27,T46))=0.13481466276807638 (=TABLE(T27,  
T46))=0.12955709996761303 (=TABLE(T27,T46))=0.1242995371671497 (=TABLE(T27,T46))=0.11904197  
436668637 0.20 (Z44-\$AC\$48)\*10000=-222.31126033198268 (AA44-\$AC\$48)\*10000=-248.59907433429  
944 (AB44-\$AC\$48)\*10000=-274.8868883366159 (AC44-\$AC\$48)\*10000=-301.1747023389327 (AD44-\$AC\$48  
)\*10000=-327.4625163412495 (AE44-\$AC\$48)\*10000=-353.7503303435663 (AF44-\$AC\$48)\*10000=-406.325  
95834819955 (AG44-\$AC\$48)\*10000=-458.90158635283285 (AH44-\$AC\$48)\*10000=-511.4772143574664 (AI4  
4-\$AC\$48)\*10000=-564.0528423620997 (AJ44-\$AC\$48)\*10000=-616.6284703667329 0.20 Z44-\$N\$64=0.  
038473695370161404 AA44-\$N\$64=0.035844913969929726 AB44-\$N\$64=0.033216132569698076 AC44-\$N\$64=0  
.030587351169466398 AD44-\$N\$64=0.02795856976923472 AE44-\$N\$64=0.025329788369003042 AF44-\$N\$64=0  
.020072225568539714 AG44-\$N\$64=0.014814662768076386 AH44-\$N\$64=0.00955709996761303 AI44-\$N\$64=0  
.004299537167149703 AJ44-\$N\$64=-0.58025633313625E-4  
Stage 1 C37/C\$41\*4=0.0010832011970582677 D37/D\$41\*4=0.006910557220819518 E37/E\$41\*4=0.0017922  
083402650082 F37/F\$41\*4=1.1866424843093242E-4 G37/G\$41\*4=0.0033964737286702467 H37/  
H\$41\*4=0.0029892256760283235 I37/I\$41\*4=0.002669803300368691 Recoveries C49=253 D49=860 E49=  
188 F49=432 G49=446 H49=330 I49=2509 0.15 (=TABLE(T27,T46))=0.1653638560384293 (=TA  
BLE(T27,T46))=0.1626207797947093 (=TABLE(T27,T46))=0.1598777035509893 (=TABLE(T27,T46))=0.  
1571346273072693 (=TABLE(T27,T46))=0.1543915510635493 (=TABLE(T27,T46))=0.1516484748198293  
(=TABLE(T27,T46))=0.1461623223323893 (=TABLE(T27,T46))=0.1406761698449493 (=TABLE(T27,T46))=0.  
13519001735750927 (=TABLE(T27,T46))=0.12970386487006927 (=TABLE(T27,T46))=0.1242177123826292  
7 0.15 (Z45-\$AC\$48)\*10000=-153.40965364930375 (AA45-\$AC\$48)\*10000=-180.84041608650375 (AB4  
5-\$AC\$48)\*10000=-208.27117852370375 (AC45-\$AC\$48)\*10000=-235.70194096090376 (AD45-\$AC\$48)\*10000=  
-263.13270339810373 (AE45-\$AC\$48)\*10000=-290.56346583530376 (AF45-\$AC\$48)\*10000=-345.42499070970  
37 (AG45-\$AC\$48)\*10000=-400.2865155841037 (AH45-\$AC\$48)\*10000=-455.148040458504 (AI45-\$AC\$48  
)\*10000=-510.009565332904 (AJ45-\$AC\$48)\*10000=-564.871090207304 0.15 Z45-\$N\$64=0.04536385  
6038429295 AA45-\$N\$64=0.042620779794709296 AB45-\$N\$64=0.039877703550989296 AC45-\$N\$64=0.0371346  
273072693 AD45-\$N\$64=0.0343915510635493 AE45-\$N\$64=0.0316484748198293 AF45-\$N\$64=0.0261623  
223323893 AG45-\$N\$64=0.0206761698449493 AH45-\$N\$64=0.015190017357509272 AI45-\$N\$64=0.0097038  
64870069273 AJ45-\$N\$64=0.004217712382629274  
Stage 2 C38/C\$41\*4=0.004952517380496208 D38/D\$41\*4=0.013620358222900059 E38/E\$41\*4=3.528273246011294  
E-4 F38/F\$41\*4=0.009441216247931435 G38/G\$41\*4=0.0015852537910443307 H38/H\$41\*4=0.0013799  
009122543496 I38/I\$41\*4=0.005449686189301761 Gross loans (base) C41=199098.746 D41=219928.4  
3 E41=215448.166 F41=249443.2855 G41=197091.47 H41=204895.8715 I41=1285905.969 0 0.10  
(=TABLE(T27,T46))=0.17288039494926696 (=TABLE(T27,T46))=0.1700126334217415 (=TABLE(T27,T46))=0.  
16714487189421606 (=TABLE(T27,T46))=0.16427711036666906 (=TABLE(T27,T46))=0.1614093488391651

3 (=TABLE(T27,T46))=0.15854158731163967 (=TABLE(T27,T46))=0.15280606425658877 (=TABLE(T27,T46))=0.14707054120153787 (=TABLE(T27,T46))=0.14133501814648694 (=TABLE(T27,T46))=0.13559949

5091436 (=TABLE(T27,T46))=0.1298639720363851 0.10 (Z46-\$AC\$48)\*10000=-78.24426454092703 (AA46-\$AC\$48)\*10000=-106.92187981618167 (AB46-\$AC\$48)\*10000=-135.59949509143604 (AC46-\$AC\$48)\*10000=-164.2771103666907 (AD46-\$AC\$48)\*10000=-192.95472564194532 (AE46-\$AC\$48)\*10000=-221.6323409171997 (AF46-\$AC\$48)\*10000=-278.98757146770896 (AG46-\$AC\$48)\*10000=-336.342802018218 (AH46-\$AC\$48)\*10000=-393.6980325687273 (AI46-\$AC\$48)\*10000=-451.05326311923653 (AJ46-\$AC\$48)\*10000=-508.40849366974555 0.10 Z46-\$N\$64=0.05288039494926697 AA46-\$N\$64=0.050012633421741504 AB46-\$N\$64=0.04714487189421607 AC46-\$N\$64=0.0442771103666906 AD46-\$N\$64=0.04140934883916514 AE46-\$N\$64=0.038541587311639675 AF46-\$N\$64=0.032806064256588774 AG46-\$N\$64=0.027070541201537873 AH46-\$N\$64=0.021335018146486945 AI46-\$N\$64=0.015599495091436016 AJ46-\$N\$64=0.009863972036385116

Stage 3 C39/C\$41\*4=0.007990808741708499 D39/D\$41\*4=0.008878561084621938 E39/E\$41\*4=0.005139704925592 172 F39/F\$41\*4=0.008522979465005484 G39/G\$41\*4=0.021059257409770195 H39/H\$41\*4=0.011508733595932 899 I39/I\$41\*4=0.010331735228145598 Change in loan growth \$T\$46=0 \$T\$46=0 \$T\$46=0 \$T\$46=0 \$T\$46=0 \$T\$46=0 \$T\$46=0 0.05 (=TABLE(T27,T46))=0.18111279470875588 (=TABLE(T27,T46))=0.17810847310849112 (=TABLE(T27,T46))=0.17510415150822636 (=TABLE(T27,T46))=0.1720998299079616 (=TABLE(T27,T46))=0.16909550830769682 (=TABLE(T27,T46))=0.16609118670743206 (=TABLE(T27,T46))=0.16008254350690254 (=TABLE(T27,T46))=0.15407390030637302 (=TABLE(T27,T46))=0.14806525710584348 (=TABLE(T27,T46))=0.14205661390531396 (=TABLE(T27,T46))=0.13604797070478442 0.05 (Z47-\$AC\$48)\*10000=4.079733053962142 (AA47-\$AC\$48)\*10000=-25.963482948685446 (AB47-\$AC\$48)\*10000=-56.006698951333036 (AC47-\$AC\$48)\*10000=-86.04991495398062 (AD47-\$AC\$48)\*10000=-116.09313095662849 (AE47-\$AC\$48)\*10000=-146.13634695927607 (AF47-\$AC\$48)\*10000=-206.22277896457126 (AG47-\$AC\$48)\*10000=-266.30921096986646 (AH47-\$AC\$48)\*10000=-326.3956429751619 (AI47-\$AC\$48)\*10000=-386.48207498045707 (AJ47-\$AC\$48)\*10000=-446.5685069857525 0.05 Z47-\$N\$64=0.061112794708755885 AA47-\$N\$64=0.05810847310849113 AB47-\$N\$64=0.05510415150822637 AC47-\$N\$64=0.05209982990796161 AD47-\$N\$64=0.04909550830769682 AE47-\$N\$64=0.046091186707432064 AF47-\$N\$64=0.040082543506902546 AG47-\$N\$64=0.03407390030637303 AH47-\$N\$64=0.028065257105843483 AI47-\$N\$64=0.022056613905313965 AJ47-\$N\$64=0.01604797070478442

Total SUM(C45:C47)=0.014026527319262974 SUM(D45:D47)=0.029409476528341517 SUM(E45:E47)=0.0072847405904583095 SUM(F45:F47)=0.018082859961367853 SUM(G45:G47)=0.02604098492948477 SUM(H45:H47)=0.015877860184215574 SUM(I45:I47)=0.018451224717816052 Gross loans (new) M46\*(1+M47)=199098.746 N46\*(1+N47)=219928.43 O46\*(1+O47)=215448.166 P46\*(1+P47)=249443.2855 Q46\*(1+Q47)=197091.47 R46\*(1+R47)=204895.8715 S46\*(1+S47)=1285905.969 0 (=TABLE(T27,T46))=0.19016843444419368 (=TABLE(T27,T46))=0.18701389676391567 (=TABLE(T27,T46))=0.18385935908363768 (=TABLE(T27,T46))=0.18070482140335967 (=TABLE(T27,T46))=0.17755028372308165 (=TABLE(T27,T46))=0.17439574604280367 (=TABLE(T27,T46))=0.16808667068224767 (=TABLE(T27,T46))=0.16177759532169167 (=TABLE(T27,T46))=0.15546851996113564 (=TABLE(T27,T46))=0.14915944460057964 (=TABLE(T27,T46))=0.14285036924002364 0 (Z48-\$AC\$48)\*10000=94.63613040834012 (AA48-\$AC\$48)\*10000=63.09075360555999 (AB48-\$AC\$48)\*10000=31.545376802780133 (AC48-\$AC\$48)\*10000=0 (AD48-\$AC\$48)\*10000=-31.545376802780133 (AE48-\$AC\$48)\*10000=-63.09075360555999 (AF48-\$AC\$48)\*10000=-126.18150721111998 (AG48-\$AC\$48)\*10000=-189.27226081667996 (AH48-\$AC\$48)\*10000=-252.36301442224024 (AI48-\$AC\$48)\*10000=-315.4537680278002 (AJ48-\$AC\$48)\*10000=-378.5445216333602 0 Z48-\$N\$64=0.07016843444419368 AA48-\$N\$64=0.06701389676391567 AB48-\$N\$64=0.06385935908363768 AC48-\$N\$64=0.06070482140335967 AD48-\$N\$64=0.05755028372308166 AE48-\$N\$64=0.05439574604280367 AF48-\$N\$64=0.04808667068224767 AG48-\$N\$64=0.04177595321691674 AH48-\$N\$64=0.03546851996113565 AI48-\$N\$64=0.029159444600579648 AJ48-\$N\$64=0.02285036924002365

Recoveries 253 860 188 432 446 330 SUM(C49:H49)=2509 CoR (net), B ase C57=0.008943622377209748 D57=0.013768024443224555 E57=0.0037943418836064724 F57=0.011155433566480983 G57=0.01698935017329771 H57=0.009435563468637288 I57=0.010646610506557188 -0.05 (=TABLE(T27,T46))=0.2001772994149407 (=TABLE(T27,T46))=0.1968567334357007 (=TABLE(T27,T46))=0.1935361674564607 (=TABLE(T27,T46))=0.1902156014772207 (=TABLE(T27,T46))=0.18689503549798067 (=TABLE(T27,T46))=0.18357446951874068 (=TABLE(T27,T46))=0.1769333375602607 (=TABLE(T27,T46))=0.17029220560178068 (=TABLE(T27,T46))=0.16365107364330067 (=TABLE(T27,T46))=0.15700994168482066 (=TABLE(T27,T46))=0.15036880972634067 -0.05 (Z49-\$AC\$48)\*10000=194.7247801158103 (AA49-\$AC\$48)\*10000=161.51912032341036 (AB49-\$AC\$48)\*10000=128.31346053101043 (AC49-\$AC\$48)\*10000=95.10780073861025 (AD49-\$AC\$48)\*10000=61.90214094621005 (AE49-\$AC\$48)\*10000=28.696481153810126 (AF49-\$AC\$48)\*10000=-37.714838430989715 (AG49-\$AC\$48)\*10000=-104.12615801578984 (AH49-\$AC\$48)\*10000=-170.53747760058997 (AI49-\$AC\$48)\*10000=-236.94879718539008 (AJ49-\$AC\$48)\*10000=-303.3601167701899 -0.05 Z49-\$N\$64=0.0801772994149407 AA49-\$N\$64=0.0768567334357007 AB49-\$N\$64=0.07353616745646072 AC49-\$N\$64=0.0702156014772207 AD49-\$N\$64=0.06689503549798068 AE49-\$N\$64=0.06357446951874068 AF49-\$N\$64=0.0569333375602607 AG49-\$N\$64=0.05029220560178069 AH49-\$N\$64=0.043651073643300675 AI49-\$N\$64=0.03700994168482066 AJ49-\$N\$64=0.03036880972634068

CoR (net), New (M42+M43+M44-M45)/M48\*4=0.008943622377209748 (N42+N43+N44-N45)/N48\*4=0.01376802443224555 (O42+O43+O44-O45)/O48\*4=0.0037943418836064724 (P42+P43+P44-P45)/P48\*4=0.011155433566480983 (Q42+Q43+Q44-Q45)/Q48\*4=0.01698935017329771 (R42+R43+R44-R45)/R48\*4=0.009435563468637288 (S42+S43+S44-S45)/S48\*4=0.010646610506557188 -0.10 (=TABLE(T27,T46))=0.21129826049354852 (=TABLE(T27,T46))=0.20779321862657293 (=TABLE(T27,T46))=0.2042881767595974 (=TABLE(T27,T46))=0.20078313489262184 (=TABLE(T27,T46))=0.19727809302564625 (=TABLE(T27,T46))=0.19377305115867072 (=TABLE(T27,T46))=0.18676296742471962 (=TABLE(T27,T46))=0.1797528836907685 (=TABLE(T27,T46))=0.17274279995681738 (=TABLE(T27,T46))=0.16573271622286626 (=TABLE(T27,T46))=0.15872263248891513 -0.10 (Z50-\$AC\$48)\*10000=305.93439090188855 (AA50-\$AC\$48)\*10000=270.8839722321327 (AB50-\$AC\$48)\*10000=235.83355356237735 (AC50-\$AC\$48)\*10000=200.78313489262172 (AD50-\$AC\$48)\*10000=165.73271622286583 (AE50-\$AC\$48)\*10000=130.68229755311052 (AF50-\$AC\$48)\*10000=60.581460213599556 (AG50-\$AC\$48)\*10000=-9.519377125911666 (AH50-\$AC\$48)\*10000=-79.62021446542289 (AI50-\$AC\$48)\*10000=-149.72105180493412 (AJ50-\$AC\$48)\*10000=-219.82188914444535 -0.10 Z50-\$N\$64=0.09129826049354853 AA50-\$N\$64=0.08779321862657294 AB50-\$N\$64=0.0842881767595974 AC50-\$N\$64=0.08078313489262184 AD50-\$N\$64=0.07727809302564626 AE50-\$N\$64=0.07377305115867072 AF50-\$N\$64=0.06676296742471963 AG50-\$N\$64=0.059752883690768505 AH50-\$N\$64=0.05274279995681738 AI50-\$N\$64=0.04729826049354853

-\$N\$64=0.04573271622286626 AJ50-\$N\$64=0.03872263248891514  
CoR (net) Change in CoR from base (bps) (M50-M49)\*100=0 (N50-N49)\*100=0 (O50-O49)\*100=0 (P50  
-P49)\*100=0 (Q50-Q49)\*100=0 (R50-R49)\*100=0 (S50-S49)\*100=0 -0.15 (=TABLE(T27,T46))=0.22372756  
99343455 (=TABLE(T27,T46))=0.22001634913401844 (=TABLE(T27,T46))=0.2163051283336914 (=TA  
BLE(T27,T46))=0.2125939075333643 (=TABLE(T27,T46))=0.20888268673303723 (=TABLE(T27,T46))=0.  
20517146593271018 (=TABLE(T27,T46))=0.19774902433205607 (=TABLE(T27,T46))=0.1903265827314019  
6 (=TABLE(T27,T46))=0.18290414113074782 (=TABLE(T27,T46))=0.17548169953009368 (=TABLE(T27,  
T46))=0.16805925792943957 -0.15 (Z51-\$AC\$48)\*10000=430.22748530985837 (AA51-\$AC\$48)\*10000=0.  
393.1152773065877 (AB51-\$AC\$48)\*10000=356.00306930331726 (AC51-\$AC\$48)\*10000=318.890861300046  
3 (AD51-\$AC\$48)\*10000=281.7786532967756 (AE51-\$AC\$48)\*10000=244.66644529350518 (AF51-\$AC\$48  
) \*10000=170.44202928696407 (AG51-\$AC\$48)\*10000=96.21761328042294 (AH51-\$AC\$48)\*10000=21.99319  
727388155 (AI51-\$AC\$48)\*10000=-52.23121873265985 (AJ51-\$AC\$48)\*10000=-126.45563473920096 -0.1  
5 Z51-\$N\$64=0.10372756993434551 AA51-\$N\$64=0.10001634913401844 AB51-\$N\$64=0.096305128333691  
4 AC51-\$N\$64=0.0925939075333643 AD51-\$N\$64=0.0888268673303723 AE51-\$N\$64=0.085171465932710  
19 AF51-\$N\$64=0.07774902433205608 AG51-\$N\$64=0.07032658273140197 AH51-\$N\$64=0.062904141130747  
83 AI51-\$N\$64=0.05548169953009369 AJ51-\$N\$64=0.048059257929439575  
-0.20 (=TABLE(T27,T46))=0.23771054305524209 (=TABLE(T27,T46))=0.23376737095489455 (=TABLE(T27,  
T46))=0.22982419885454708 (=TABLE(T27,T46))=0.22588102675419958 (=TABLE(T27,T46))=0.22193785  
465385205 (=TABLE(T27,T46))=0.21799468255350457 (=TABLE(T27,T46))=0.21010833835280956 (=TA  
BLE(T27,T46))=0.20222199415211456 (=TABLE(T27,T46))=0.19433564995141953 (=TABLE(T27,T46))=0.  
18644930575072455 (=TABLE(T27,T46))=0.17856296155002954 -0.20 (Z52-\$AC\$48)\*10000=570.05721  
65188241 (AA52-\$AC\$48)\*10000=530.6254955153489 (AB52-\$AC\$48)\*10000=491.19377451187415 (AC5  
2-\$AC\$48)\*10000=451.7620535083991 (AD52-\$AC\$48)\*10000=412.3303325049238 (AE52-\$AC\$48)\*10000=  
372.89861150144907 (AF52-\$AC\$48)\*10000=294.035169494499 (AG52-\$AC\$48)\*10000=215.171727487548  
94 (AH52-\$AC\$48)\*10000=136.30828548059858 (AI52-\$AC\$48)\*10000=57.44484347364881 (AJ52-\$AC\$48  
) \*10000=-21.418598533301246 -0.20 Z52-\$N\$64=0.11771054305524209 AA52-\$N\$64=0.113767370954894  
56 AB52-\$N\$64=0.10982419885454708 AC52-\$N\$64=0.10588102675419958 AD52-\$N\$64=0.101937854653852  
05 AE52-\$N\$64=0.09799468255350458 AF52-\$N\$64=0.09010833835280957 AG52-\$N\$64=0.082221994152114  
56 AH52-\$N\$64=0.07433564995141953 AI52-\$N\$64=0.06644930575072455 AJ52-\$N\$64=0.058562961550029  
546  
TRYm Akbank Garanti Halkbank Isbank Vakifbank Yapi Kredi Average Tier 1 & CAR  
impact Akbank Garanti Halkbank Isbank Vakifbank Yapi Kredi Total -0.25 (=TA  
BLE(T27,T46))=0.25355791259225824 (=TABLE(T27,T46))=0.24935186235188755 (=TABLE(T27,T46))=0.  
2451458121115169 (=TABLE(T27,T46))=0.2409397618711462 (=TABLE(T27,T46))=0.2367337116307755  
3 (=TABLE(T27,T46))=0.2325276613904049 (=TABLE(T27,T46))=0.22411556090966356 (=TABLE(T27,  
T46))=0.21570346042892222 (=TABLE(T27,T46))=0.20729135994818085 (=TABLE(T27,T46))=0.19887925  
946743953 (=TABLE(T27,T46))=0.1904671589866982 -0.25 (Z53-\$AC\$48)\*10000=728.5309118889858  
(AA53-\$AC\$48)\*10000=686.4704094852789 (AB53-\$AC\$48)\*10000=644.4099070815723 (AC53-\$AC\$48)\*10000=  
602.3494046778654 (AD53-\$AC\$48)\*10000=560.2889022741587 (AE53-\$AC\$48)\*10000=518.228399870452  
3 (AF53-\$AC\$48)\*10000=434.1073950630389 (AG53-\$AC\$48)\*10000=349.9863902556255 (AH53-\$AC\$48  
) \*10000=265.8653854482118 (AI53-\$AC\$48)\*10000=181.74438064079868 (AJ53-\$AC\$48)\*10000=97.62337  
583338527 -0.25 Z53-\$N\$64=0.13355791259225824 AA53-\$N\$64=0.12935186235188756 AB53-\$N\$64=0  
.1251458121115169 AC53-\$N\$64=0.12093976187114622 AD53-\$N\$64=0.11673371163077553 AE53-\$N\$64=0  
.1125276613904049 AF53-\$N\$64=0.10411556090966356 AG53-\$N\$64=0.0957034604289222 AH53-\$N\$64=0  
.08729135994818085 AI53-\$N\$64=0.07887925946743954 AJ53-\$N\$64=0.0704671589866982  
Stage 1 Base Case (2018E)  
Stage 2 Total RWAs 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[AKBANK MO  
DEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$585=302875.679288 'R:\Bank models\Turk  
ish Bank Model with 2020 Estimates\Higher RFR\[GARANTI MODEL- Higher RFR and Lower NIM.xlsx]Forecast  
(TRY)'!\$BK\$585=291738.2124657 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[H  
ALKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$585=234881.86808775 'R:\Bank mod  
els\Turkish Bank Model with 2020 Estimates\Higher RFR\[ISBANK MODEL- Higher RFR and Lower NIM.xlsx]F  
orecast (TRY)'!\$BK\$585=344418.17760000005 'R:\Bank models\Turkish Bank Model with 2020 Estim  
es\Higher RFR\[VAKIFBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$585=218144.9068410  
0002 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[YAPI KREDI MODEL- High  
er RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$590=282617.49027600006 SUM(M55:R55)=1674676.3345584  
502  
Stage 3 (C39-C49)/C41\*4=0.0029079037996552724 (D39-D49)/D41\*4=-0.006762891000495025 (E39-E49)/E4  
1\*4=0.0016493062187403346 (F39-F49)/F41\*4=0.0015955530701186181 (G39-G49)/G41\*4=0.0120076226  
53583133 (H39-H49)/H41\*4=0.005066436880354615 (I39-I49)/I41\*4=0.002527121016886734 Shar  
eholders equity 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[AKBANK MODEL- High  
er RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$112=45023.093839641784 'R:\Bank models\Turkish Bank  
Model with 2020 Estimates\Higher RFR\[GARANTI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!  
\$BK\$112=46285.562756758685 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[H  
ALKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$112=28589.813364406662 'R:\Bank mod  
els\Turkish Bank Model with 2020 Estimates\Higher RFR\[ISBANK MODEL- Higher RFR and Lower NIM.xlsx]F  
orecast (TRY)'!\$BK\$112=47900.06103707109 'R:\Bank models\Turkish Bank Model with 2020 Estim  
es\Higher RFR\[VAKIFBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$112=26437.01735411  
7375 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[YAPI KREDI MODEL- High  
er RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$112=37708.092663756914 SUM(M56:R56)=231943.64101575  
254  
Total (C40-C49)/C41\*4=0.008943622377209748 (D40-D49)/D41\*4=0.013768024443224555 (E40-E49)/E4  
1\*4=0.0037943418836064724 (F40-F49)/F41\*4=0.011155433566480983 (G40-G49)/G41\*4=0.0169893501  
7329771 (H40-H49)/H41\*4=0.009435563468637288 (I40-I49)/I41\*4=0.010646610506557188 Tier 1 Capit  
al 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[AKBANK MODEL- Higher RFR  
and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$574=44122.63196284895 'R:\Bank models\Turkish Bank Model w  
ith 2020 Estimates\Higher RFR\[GARANTI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$574=  
45591.27931540731 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[HALKBANK  
MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$574=28018.01709711853 'R:\Bank models\Turk

ish Bank Model with 2020 Estimates\Higher RFR\[ISBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast  
(TRY)!\$BK\$574=46942.05981632967 'R:\Bank models\Turkish Bank Model with 2020 Estimates\High  
r RFR\[VAKIFBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)!\$BK\$574=25908.277007035027  
'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[YAPI KREDI MODEL- Higher RFR and  
Lower NIM.xlsx]Forecast (TRY)!\$BK\$557=33560.20247074365 SUM(M57:R57)=224142.46766948313 HALK  
BANK HALKBANK HALKBANK  
Tier 2 Capital 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[AKBANK MODEL- Hig  
her RFR and Lower NIM.xlsx]Forecast (TRY)!\$BK\$575=6078.117668351641 'R:\Bank models\Turkish Bank  
Model with 2020 Estimates\Higher RFR\[GARANTI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)!  
\$BK\$575=7161.802715988953 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[H  
ALKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)!\$BK\$575=3144.879470084733 'R:\Bank mod  
els\Turkish Bank Model with 2020 Estimates\Higher RFR\[ISBANK MODEL- Higher RFR and Lower NIM.xlsx]F  
orecast (TRY)!\$BK\$575=8622.010986672796 'R:\Bank models\Turkish Bank Model with 2020 Estim  
es\Higher RFR\[VAKIFBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)!\$BK\$575=6212.699078217  
583 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[YAPI KREDI MODEL- Hig  
her RFR and Lower NIM.xlsx]Forecast (TRY)!\$BK\$565=9992.644555895582 SUM(M58:R58)=41212.154475211  
28 Y42=CAR % of Stage 2 loans transferred to Stage 3 loans AM42=CAR: change from base (bps)  
% of Stage 2 loans transferred to Stage 3 loans BA42=Headroom above threshold % of Stage 2 loans t  
ransferred to Stage 3 loans  
Deductions 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[AKBANK MODEL- Hig  
her RFR and Lower NIM.xlsx]Forecast (TRY)!\$BK\$577=7.262812189425495 'R:\Bank models\Turkish Bank  
Model with 2020 Estimates\Higher RFR\[GARANTI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)!  
\$BK\$577=34.580451246550766 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[H  
ALKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)!\$BK\$577=20.012869355084664 'R:\Bank mod  
els\Turkish Bank Model with 2020 Estimates\Higher RFR\[ISBANK MODEL- Higher RFR and Lower NIM.xlsx]F  
orecast (TRY)!\$BK\$577=47.9000610370711 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Hig  
her RFR\[VAKIFBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)!\$BK\$577=2.643701735411738 'R:  
Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[YAPI KREDI MODEL- Higher RFR and Lowe  
r NIM.xlsx]Forecast (TRY)!\$BK\$572=301.6647413100553 SUM(M59:R59)=414.06463687359906 Loan growth  
(ppt change from base) \$Q572=0.13258956066465483 AA59-0.05=-0.15000000000000002 AB59-0.05=-0  
.10 -0.05 0 \$O57 AD59+0.05=0.10 0.20 0.30 0.40 0.50 0.60 Y59=0.132589  
56066465483 AO59-0.05=-0.15000000000000002 AP59-0.05=-0.10 -0.05 0 0.05 AR59+0.05=0.  
10 0.20 0.30 0.40 0.50 0.60 AM59=0.13258956066465483 -0.05 -0.03 -0.0  
1 0 0.05 BF59+0.05=0.10 0.20 0.30 0.40 0.50 0.60  
Capital base M57+M58-M59=50193.48681901117 N57+N58-N59=52718.501580149714 O57+O58-O59=31142.88  
3697848178 P57+P58-P59=55516.17074196539 Q57+Q58-Q59=32118.332383517198 R57+R58-R59=43251.18  
2285329174 S57+S58-S59=264940.55750782083 0.20 (=TABLE(T27,T46))=0.11260483432318016 (=TA  
BLE(T27,T46))=0.11190032306674645 (=TABLE(T27,T46))=0.11119581181031274 (=TABLE(T27,T46))=0.  
11049130055387901 (=TABLE(T27,T46))=0.10978678929744529 (=TABLE(T27,T46))=0.1090822780410115  
7 (=TABLE(T27,T46))=0.10767325552814414 (=TABLE(T27,T46))=0.1062642330152767 (=TABLE(T27,  
T46))=0.10485521050240924 (=TABLE(T27,T46))=0.1034461879895418 (=TABLE(T27,T46))=0.10203716  
547667438 0.20 (Z60-\$AC\$64)\*10000=-199.84726341474664 (AA60-\$AC\$64)\*10000=-206.89237597908  
374 (AB60-\$AC\$64)\*10000=-213.93748854342087 (AC60-\$AC\$64)\*10000=-220.98260110775814 (AD60-\$AC\$64  
)\*10000=-228.0277136720954 (AE60-\$AC\$64)\*10000=-235.07282623643252 (AF60-\$AC\$64)\*10000=-249.163  
05136510692 (AG60-\$AC\$64)\*10000=-263.2532764937813 (AH60-\$AC\$64)\*10000=-277.34350162245585 (AI6  
0-\$AC\$64)\*10000=-291.4337267511302 (AJ60-\$AC\$64)\*10000=-305.5239518798045 0.20 Z60-\$O\$64=-0  
.0073951656768198315 AA60-\$O\$64=-0.008099676933253544 AB60-\$O\$64=-0.008804188189687256  
AC60-\$O\$64=-0.009508699446120983 AD60-\$O\$64=-0.01021321070255471 AE60-\$O\$64=-0.01091772195898  
8422 AF60-\$O\$64=-0.01232674447185586 AG60-\$O\$64=-0.0137357669847233 AH60-\$O\$64=-0.01514478949759  
0752 AI60-\$O\$64=-0.01655381201045819 AJ60-\$O\$64=-0.017962834523325616  
Tier 1 capital ratio (base) M57/M55=0.1456790194134188 N57/N55=0.15627462350605692 O57/  
O55=0.11928556821019161 P57/P55=0.13629379303797134 Q57/Q55=0.11876636214990284 R57/R55=0.11  
874779030119209 S57/S55=0.13384226136364502 0.15 (=TABLE(T27,T46))=0.11750069668505758 (=TA  
BLE(T27,T46))=0.11676555450443109 (=TABLE(T27,T46))=0.11603041232380461 (=TABLE(T27,T46))=0.  
11529527014317811 (=TABLE(T27,T46))=0.11456012796255162 (=TABLE(T27,T46))=0.1138249857819251  
4 (=TABLE(T27,T46))=0.11235470142067215 (=TABLE(T27,T46))=0.11088441705941918 (=TABLE(T27,  
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738 (AB61-\$AC\$64)\*10000=-165.5914834085022 (AC61-\$AC\$64)\*10000=-172.94290521476714 (AD61-\$AC\$64  
)\*10000=-180.29432702103207 (AE61-\$AC\$64)\*10000=-187.64574882729687 (AF61-\$AC\$64)\*10000=-202.348  
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1-\$AC\$64)\*10000=-246.45712327741626 (AJ61-\$AC\$64)\*10000=-261.159966889946 0.15 Z61-\$O\$64=-0  
.0024993033149424138 AA61-\$O\$64=-0.003234445495568908 AB61-\$O\$64=-0.003969587676195388  
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-\$O\$64=-0.01058586730183382 AI61-\$O\$64=-0.012056151663086795 AJ61-\$O\$64=-0.01352643602433  
9769  
CAR (base) M60/M55=0.165723068081947 N60/N55=0.18070482140335967 O60/O55=0.1325895606  
6465483 P60/P55=0.16118827156225388 Q60/Q55=0.1472339320162418 R60/R55=0.15303788255670486  
S60/S55=0.15820403742534273 0.10 (=TABLE(T27,T46))=0.12284163744346926 (=TABLE(T27,T46))=0.  
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236626462 (=TABLE(T27,T46))=0.11285038689768197 (=TABLE(T27,T46))=0.1113132714290993 0.10  
(Z62-\$AC\$64)\*10000=-97.47923221185562 (AA62-\$AC\$64)\*10000=-105.16480955476901 (AB62-\$AC\$64)\*10000=  
-112.85038689768211 (AC62-\$AC\$64)\*10000=-120.5359642405955 (AD62-\$AC\$64)\*10000=-128.22154158350  
89 (AE62-\$AC\$64)\*10000=-135.90711892642216 (AF62-\$AC\$64)\*10000=-151.2782736122488 (AG62-\$AC\$64  
)\*10000=-166.6494282980753 (AH62-\$AC\$64)\*10000=-182.02058298390207 (AI62-\$AC\$64)\*10000=-197.391  
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-\$OS64=0.00207307970917793 AB62-\$OS64=0.0013045219748866188 AC62-\$OS64=5.359642405952797  
 E-4 AD62-\$OS64=-2.3259349369605942E-4 AE62-\$OS64=-0.0010011512279873847 AF62-\$OS64=-  
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 AI62-\$OS64=-0.007149613102318028 AJ62-\$OS64=-0.008686728570900693  
 Tier 1 capital threshold (2018) 0.09375 0.09375 0.0887500000000001 0.09375 0.0887500000000001  
 0.09125 AVERAGE (M63:R63)=0.09166666666666667 0.05 (=TABLE (T27, T46))=0.12869123922649162 (=TA  
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 T46))=0.11983452628846772 (=TABLE (T27, T46))=0.11822421484519065 (=TABLE (T27, T46))=0.11661390  
 340191358 0.05 (Z63-\$AC\$64)\*10000=-38.9832143816321 (AA63-\$AC\$64)\*10000=-47.034771598017  
 386 (AB63-\$AC\$64)\*10000=-55.08632881440268 (AC63-\$AC\$64)\*10000=-63.13788603078796 (AD63-\$AC\$64  
 )\*10000=-71.18944324717353 (AE63-\$AC\$64)\*10000=-79.2410004635588 (AF63-\$AC\$64)\*10000=-95.3441  
 1489632966 (AG63-\$AC\$64)\*10000=-111.44722932910037 (AH63-\$AC\$64)\*10000=-127.55034376187108 (AI6  
 3-\$AC\$64)\*10000=-143.6534581946418 (AJ63-\$AC\$64)\*10000=-159.7565726274125 0.05 Z63-\$OS64=0.  
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 86E-4 AI63-\$OS64=-0.0017757851548093478 AJ63-\$OS64=-0.003386096598086419  
 CAR threshold (2018) 0.12 0.12 0.12 0.12 0.12 0.12 0.12 AVERAGE (M64:R64)=0.12 0  
 (=TABLE (T27, T46))=0.1351258011878162 (=TABLE (T27, T46))=0.13428038768009573 (=TABLE (T27, T46))=0.  
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 6 (=TABLE (T27, T46))=0.1308987336492139 (=TABLE (T27, T46))=0.12920790663377296 (=TABLE (T27,  
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 558745018 (=TABLE (T27, T46))=0.12244459857200926 0 (Z64-\$AC\$64)\*10000=25.36240523161370  
 7 (AA64-\$AC\$64)\*10000=16.908270154409045 (AB64-\$AC\$64)\*10000=8.454135077204661 (AC64-\$AC\$64  
 )\*10000=0 (AD64-\$AC\$64)\*10000=-8.454135077204661 (AE64-\$AC\$64)\*10000=-16.908270154409323 (AF6  
 4-\$AC\$64)\*10000=-33.816540308818645 (AG64-\$AC\$64)\*10000=-50.72481046322797 (AH64-\$AC\$64)\*10000=  
 -67.63308061763729 (AI64-\$AC\$64)\*10000=-84.54135077204647 (AJ64-\$AC\$64)\*10000=-101.44962092645  
 565 0 Z64-\$OS64=0.015125801187816201 AA64-\$OS64=0.014280387680095735 AB64-\$OS64=0.0134349  
 74172375297 AC64-\$OS64=0.01258956066465483 AD64-\$OS64=0.011744147156934365 AE64-\$OS64=0.0108987  
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 Tier 1 capital headroom M61-M63=0.05192901941341879 N61-N63=0.06252462350605692 O61-O63=0.03  
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 01192093 S61-S63=0.04217559469697835 -0.05 (=TABLE (T27, T46))=0.14223768546085916 (=TA  
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 7 (AB65-\$AC\$64)\*10000=78.68306885213894 (AC65-\$AC\$64)\*10000=69.7839792971866 (AD65-\$AC\$64  
 )\*10000=60.88488974223427 (AE65-\$AC\$64)\*10000=51.985800187282216 (AF65-\$AC\$64)\*10000=34.18762  
 107737755 (AG65-\$AC\$64)\*10000=16.38944196747316 (AH65-\$AC\$64)\*10000=-1.4087371424315043 (AI6  
 5-\$AC\$64)\*10000=-19.206916252335894 (AJ65-\$AC\$64)\*10000=-37.00509536224028 -0.05 Z65-\$OS64=0.  
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 .01956795859437349 AD65-\$OS64=0.018678049638878258 AE65-\$OS64=0.017788140683383052 AF65-\$OS64=0  
 .016008322772392586 AG65-\$OS64=0.014228504861402147 AH65-\$OS64=0.01244868695041168 AI65-\$OS64=0  
 .010668869039421242 AJ65-\$OS64=0.008889051128430803  
 CAR headroom M62-M64=0.04572306808194701 N62-N64=0.06070482140335967 O62-O64=0.0125895606  
 6465483 P62-P64=0.04118827156225388 Q62-Q64=0.027233932016241802 R62-R64=0.03303788255670487  
 S62-S64=0.03820403742534273 -0.10 (=TABLE (T27, T46))=0.15013977909757356 (=TABLE (T27, T46))=0.  
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 T46))=0.1435643407041922 (=TABLE (T27, T46))=0.14168564402036893 (=TABLE (T27, T46))=0.13980694  
 733654567 (=TABLE (T27, T46))=0.13792825065272243 (=TABLE (T27, T46))=0.13604955396889917 -0.1  
 0 (Z66-\$AC\$64)\*10000=175.50218432918734 (AA66-\$AC\$64)\*10000=166.10870091007118 (AB66-\$AC\$64  
 )\*10000=156.715217490955 (AC66-\$AC\$64)\*10000=147.32173407183856 (AD66-\$AC\$64)\*10000=137.9282  
 506527224 (AE66-\$AC\$64)\*10000=128.53476723360623 (AF66-\$AC\$64)\*10000=109.74780039537363 (AG6  
 6-\$AC\$64)\*10000=90.96083355714102 (AH66-\$AC\$64)\*10000=72.17386671890841 (AI66-\$AC\$64)\*10000=  
 53.386899880676076 (AJ66-\$AC\$64)\*10000=34.59993304244347 -0.10 Z66-\$OS64=0.0301397790975735  
 66 AA66-\$OS64=0.02920043075566195 AB66-\$OS64=0.028261082413750332 AC66-\$OS64=0.027321734071838  
 688 AD66-\$OS64=0.02638238572992707 AE66-\$OS64=0.025443037388015455 AF66-\$OS64=0.023564340704192  
 194 AG66-\$OS64=0.021685644020368933 AH66-\$OS64=0.01980694733654567 AI66-\$OS64=0.017928250652722  
 44 AJ66-\$OS64=0.016049553968899177  
 Stage 1 Impact of weaker asset quality (2018E) -0.15 (=TABLE (T27, T46))=0.15897153080919554 (=TA  
 BLE (T27, T46))=0.15797692668246557 (=TABLE (T27, T46))=0.15698232255573563 (=TABLE (T27, T46))=0.  
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 8 (=TABLE (T27, T46))=0.15200930192208584 (=TABLE (T27, T46))=0.15002009366862593 (=TABLE (T27,  
 T46))=0.148030885415166 (=TABLE (T27, T46))=0.1460416771617061 (=TABLE (T27, T46))=0.1440524689082462  
 -0.15 (Z67-\$AC\$64)\*10000=263.8197014454072 (AA67-\$AC\$64)\*10000=253.87366017810749 (AB67-\$AC\$64  
 )\*10000=243.92761891080806 (AC67-\$AC\$64)\*10000=233.98157764350864 (AD67-\$AC\$64)\*10000=224.0355  
 3637620894 (AE67-\$AC\$64)\*10000=214.08949510890952 (AF67-\$AC\$64)\*10000=194.1974125743101 (AG6  
 7-\$AC\$64)\*10000=174.30533003971098 (AH67-\$AC\$64)\*10000=154.41324750511188 (AI67-\$AC\$64)\*10000=  
 134.52116497051276 (AJ67-\$AC\$64)\*10000=114.62908243591363 -0.15 Z67-\$OS64=0.0389715308091955  
 5 AA67-\$OS64=0.03797692668246558 AB67-\$OS64=0.036982322555735636 AC67-\$OS64=0.035987718429005  
 694 AD67-\$OS64=0.034993114302275724 AE67-\$OS64=0.03399851017554578 AF67-\$OS64=0.032009301922085  
 84 AG67-\$OS64=0.03002009366862593 AH67-\$OS64=0.028030885415166018 AI67-\$OS64=0.026041677161706  
 106 AJ67-\$OS64=0.024052468908246194

Total RWAs (new) M55\*(1+\$T\$46)=302875.679288 N55\*(1+\$T\$46)=291738.2124657 O55\*(1+\$T\$46)=234881.86808775  
 P55\*(1+\$T\$46)=344418.17760000005 Q55\*(1+\$T\$46)=218144.90684100002  
 R55\*(1+\$T\$46)=282617.49027600006 SUM(M68:R68)=1674676.3345584502 -0.20 (=TABLE(T27,T46))=0.16890725148477026  
 (=TABLE(T27,T46))=0.16785048460011967 (=TABLE(T27,T46))=0.1667937177154690  
 8 (=TABLE(T27,T46))=0.16573695083081852 (=TABLE(T27,T46))=0.16468018394616793 (=TABLE(T27,T46))=0.16362341706151737  
 (=TABLE(T27,T46))=0.1615098832922162 (=TABLE(T27,T46))=0.15939634  
 952291504 (=TABLE(T27,T46))=0.15728281575361386 (=TABLE(T27,T46))=0.1551692819843127 (=TABLE(T27,T46))=0.15305574821501156  
 -0.20 (Z68-\$AC\$64)\*10000=363.17690820115433 (AA68-\$AC\$64)\*10000=352.6092393546484 (AB68-\$AC\$64)\*10000=342.04157050814257  
 (AC68-\$AC\$64)\*10000=331.47390166163694 (AD68-\$AC\$64)\*10000=320.90623281513103 (AE68-\$AC\$64)\*10000=310.3385639686254 (AF68-\$AC\$64)\*10000=289.20322627561364  
 (AG68-\$AC\$64)\*10000=268.0678885826021 (AH68-\$AC\$64)\*10000=246.93255088959032 (AI68-\$AC\$64)\*10000=225.7972131965788  
 (AJ68-\$AC\$64)\*10000=204.6618755035673 -0.20 Z68-\$O\$64=0.048907251484770264 AA68-\$O\$64=0.047850484600119675 AB68-\$O\$64=0.046793717715469085  
 AC68-\$O\$64=0.045736950830818524 AD68-\$O\$64=0.044680183946167934 AE68-\$O\$64=0.04362341706151737 AF68-\$O\$64=0.04150988329221619  
 AG68-\$O\$64=0.03939634952291504 AH68-\$O\$64=0.03728281575361386 AI68-\$O\$64=0.03516928198431271  
 AJ68-\$O\$64=0.03305574821501156 Tier 1 capital (TRYm) M57-(M\$28\*0.8)=44122.63196284895 N57-(N\$28\*0.8)=45591.27931540731  
 O57-(O\$28\*0.8)=28018.01709711853 P57-(P\$28\*0.8)=46942.05981632967 Q57-(Q\$28\*0.8)=25908.277007035027  
 R57-(R\$28\*0.8)=33560.20247074365 S57-(S\$28\*0.8)=224142.46766948313 -0.25 (=TABLE(T27,T46))=0.18016773491708826  
 (=TABLE(T27,T46))=0.17904051690679432 (=TABLE(T27,T46))=0.17791329889650037 (=TABLE(T27,T46))=0.1767860808862064  
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 (=TABLE(T27,T46))=0.16776833680385478 (=TABLE(T27,T46))=0.1655139007832669 (=TABLE(T27,T46))=0.163259464762679  
 -0.25 (Z69-\$AC\$64)\*10000=475.78174252433433 (AA69-\$AC\$64)\*10000=464.5095624213949 (AB69-\$AC\$64)\*10000=453.23738231845545 (AC69-\$AC\$64)\*10000=441.9652022155157  
 (AD69-\$AC\$64)\*10000=430.6930221125763 (AE69-\$AC\$64)\*10000=419.42084200963683 (AF69-\$AC\$64)\*10000=396.8764818037576  
 (AG69-\$AC\$64)\*10000=374.332121597877 (AH69-\$AC\$64)\*10000=351.78776139199954 (AI69-\$AC\$64)\*10000=329.2434011861206  
 (AJ69-\$AC\$64)\*10000=306.6990409802417 -0.25 Z69-\$O\$64=0.06016773491708827 AA69-\$O\$64=0.05904051690679432  
 AB69-\$O\$64=0.057913298896500376 AC69-\$O\$64=0.0567860808862064 AD69-\$O\$64=0.05565886287591245 AE69-\$O\$64=0.05453164486561851  
 AF69-\$O\$64=0.05227720884503059 AG69-\$O\$64=0.050022772824427 AH69-\$O\$64=0.04776833680385478 AI69-\$O\$64=0.04551390078326689  
 AJ69-\$O\$64=0.043259464762679 Capital base (TRYm) M60-(M\$28\*0.8)=50193.48681901117 N60-(N\$28\*0.8)=52718.501580149714  
 O60-(O\$28\*0.8)=31142.883697848178 P60-(P\$28\*0.8)=55516.17074196539 Q60-(Q\$28\*0.8)=32118.332383517198  
 R60-(R\$28\*0.8)=43251.182285329174 S60-(S\$28\*0.8)=264940.55750782083 Tier 1 capital ratio (new) M69/(M68\*(1+\$T\$46))=0.1456790194134188  
 N69/(N68\*(1+\$T\$46))=0.15627462350605692 O69/(O68\*(1+\$T\$46))=0.11928556821019161  
 P69/(P68\*(1+\$T\$46))=0.13629379303797134 Q69/(Q68\*(1+\$T\$46))=0.11876636214990284 R69/(R68\*(1+\$T\$46))=0.11874779030119209  
 S69/S55=0.13384226136364502 CAR (new) M70/M68=0.165723068081947 N70/N68=0.18070482140335967 O70/O68=0.1325895606  
 6465483 P70/P68=0.16118827156225388 Q70/Q68=0.1472339320162418 R70/R68=0.15303788255670486 S70/S55=0.15820403742534273  
 CoR (net) Tier 1 capital ratio - chg. from base (bps) (M71-M61)\*100=0 (N71-N61)\*100=0 (O71-O61)\*100=0  
 (P71-P61)\*100=0 (Q71-Q61)\*100=0 (R71-R61)\*100=0 (S71-S61)\*100=0 ISBANK ISBANK ISBANK CAR - chg. from base (bps) (M72-M62)\*100=0  
 (N72-N62)\*100=0 (O72-O62)\*100=0 (P72-P62)\*100=0 (Q72-Q62)\*100=0 (R72-R62)\*100=0 (S72-S62)\*100=0 Y58=CAR % of Stage 2 loans transferred to Stage 3 loans  
 AM58=CAR: change from base (bps) % of Stage 2 loans transferred to Stage 3 loans =Headroom above threshold % of Stage 2 loans transferred to Stage 3 loans  
 Tier 1 capital headroom M71-M63=0.05192901941341879 N71-N63=0.06252462350605692 O71-O63=0.0305355682101916  
 P71-P63=0.042543793037971345 Q71-Q63=0.03001636214990283 R71-R63=0.027497790301192093 S71-S63=0.04217559469697835  
 Loan growth (ppt change from base) \$P\$72=0.16118827156225388 AA75-0.05=-0.1500000000000002 AB75-0.05=-0.10 0 0.05 AD75+0.05=0.10  
 0.20 0.30 0.40 0.50 0.60 Y75=0.16118827156225388 AO75-0.05=-0.1500000000000000 02 AP75-0.05=-0.10 -0.05 0 0.05 AR75+0.05=0.10 0.20 0.30 0.40 0.50 0.60  
 AM75=0.16118827156225388 -0.05 -0.03 -0.01 0 0.05 BF75+0.05=0.10 0.20 0.30 0.40 0.50 0.60 CAR headroom M72-M64=0.04572306808194701  
 N72-N64=0.06070482140335967 O72-O64=0.01258956066465483 P72-P64=0.04118827156225388 Q72-Q64=0.027233932016241802  
 R72-R64=0.03303788255670487 S72-S64=0.03820403742534273 0.20 (=TABLE(T27,T46))=0.1381060091826712 (=TABLE(T27,T46))=0.13684519266685133  
 (=TABLE(T27,T46))=0.13558437615103144 (=TABLE(T27,T46))=0.13432355963521156 (=TABLE(T27,T46))=0.13306274311939167  
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 (=TABLE(T27,T46))=0.12423702750865248 (=TABLE(T27,T46))=0.1217153944770127 (=TABLE(T27,T46))=0.11919376144537294 0.20  
 (Z76-\$AC\$80)\*10000=-230.82262379582664 (AA76-\$AC\$80)\*10000=-243.43078895402547 (AB76-\$AC\$80)\*10000=-256.0389541122243  
 (AC76-\$AC\$80)\*10000=-268.64711927042316 (AD76-\$AC\$80)\*10000=-281.255284428622 (AE76-\$AC\$80)\*10000=-293.8634495868209  
 (AF76-\$AC\$80)\*10000=-319.07977990321854 (AG76-\$AC\$80)\*10000=-344.29611021961625 (AH76-\$AC\$80)\*10000=-369.51244053601397  
 (AI76-\$AC\$80)\*10000=-394.7287708524118 (AJ76-\$AC\$80)\*10000=-419.94510116880934 0.20 Z76-\$P\$64=0.018106009182671218 AA76-\$P\$64=0.016845192666851333  
 AB76-\$P\$64=0.01584376151031448 AC76-\$P\$64=0.014323559635211564 AD76-\$P\$64=0.013062743119391679 AE76-\$P\$64=0.011801926603571794  
 AF76-\$P\$64=0.009280293571932025 AG76-\$P\$64=0.006758660540292255 AH76-\$P\$64=0.0042370275086524856 AI76-\$P\$64=0.001715394477012  
 7022 AJ76-\$P\$64=-8.062385546270534E-4 TRYm Akbank Garanti Halkbank Isbank Vakifbank Yapi Kredi Average 0.15 (=TABLE(T27,T46))=0.14411061827756996  
 (=TABLE(T27,T46))=0.14279498365236662 (=TABLE(T27,T46))=0.14147934902716328 (=TABLE(T27,T46))=0.1401637144019599  
 (=TABLE(T27,T46))=0.13884807977675653 (=TABLE(T27,T46))=0.1375324451515532 (=TABLE(T27,T46))=0.13490117590114648  
 (=TABLE(T27,T46))=0.13226990665073973 (=TABLE(T27,T46))=0.12963863740033305 (=TABLE(T27,T46))=0.1270073681499263  
 (=TABLE(T27,T46))=0.1243760988995196 0.15 (Z77-\$AC\$80)\*10000=-170.776532846839

13 (AA77-\$ACS80)\*10000=-183.93287909887258 (AB77-\$ACS80)\*10000=-197.08922535090602 (AC77-\$ACS80)  
)\*10000=-210.24557160293972 (AD77-\$ACS80)\*10000=-223.40191785497342 (AE77-\$ACS80)\*10000=-236.558  
26410700686 (AF77-\$ACS80)\*10000=-262.870956611074 (AG77-\$ACS80)\*10000=-289.18364911514146 (AH7  
7-\$ACS80)\*10000=-315.4963416192083 (AI77-\$ACS80)\*10000=-341.80903412327575 (AJ77-\$ACS80)\*10000=  
-368.12172662734275 0.15 Z77-\$P\$64=0.02411061827756967 AA77-\$P\$64=0.022794983652366624 AB77  
-\$P\$64=0.02147934902716328 AC77-\$P\$64=0.02016371440195991 AD77-\$P\$64=0.018848079776756538 AE77  
-\$P\$64=0.017532445151553194 AF77-\$P\$64=0.01490117590114648 AG77-\$P\$64=0.012269906650739737 AH77  
-\$P\$64=0.00963863740033305 AI77-\$P\$64=0.007007368149926307 AJ77-\$P\$64=0.0043760988995196065  
Valuation Akbank Garanti Halkbank Isbank Vakifbank Yapi Kredi Total 0.10  
(=TABLE(T27, T46))=0.15066110092655038 (=TABLE(T27, T46))=0.14928566472747415 (=TABLE(T27, T46))=0.  
1479102285283979 (=TABLE(T27, T46))=0.14653479232932168 (=TABLE(T27, T46))=0.1451593561302454  
4 (=TABLE(T27, T46))=0.14378391993116918 (=TABLE(T27, T46))=0.14103304753301674 (=TABLE(T27, T46))=0.13282217513486424  
T46))=0.13828217513486424 (=TABLE(T27, T46))=0.13553130273671177 (=TABLE(T27, T46))=0.13278043  
03385593 (=TABLE(T27, T46))=0.13002955794040683 0.10 (Z78-\$ACS80)\*10000=-105.271706357034  
92 (AA78-\$ACS80)\*10000=-119.02606834779728 (AB78-\$ACS80)\*10000=-132.78043033855963 (AC78-\$ACS80)  
)\*10000=-146.534792329322 (AD78-\$ACS80)\*10000=-160.28915432008435 (AE78-\$ACS80)\*10000=-174.043  
51631084697 (AF78-\$ACS80)\*10000=-201.5522402923714 (AG78-\$ACS80)\*10000=-229.0609642738964 (AH7  
8-\$ACS80)\*10000=-256.5696882554211 (AI78-\$ACS80)\*10000=-284.0784122369458 (AJ78-\$ACS80)\*10000=  
-311.5871362184705 0.10 Z78-\$P\$64=0.03066110092655039 AA78-\$P\$64=0.029285664727474153 AB78  
-\$P\$64=0.027910228528397918 AC78-\$P\$64=0.026534792329321683 AD78-\$P\$64=0.025159356130245447 AE78  
-\$P\$64=0.023783919931169184 AF78-\$P\$64=0.02103304753301674 AG78-\$P\$64=0.018282175134864243 AH78  
-\$P\$64=0.015531302736711772 AI78-\$P\$64=0.012780430338559301 AJ78-\$P\$64=0.01002955794040683  
Net profit (base) M30=6405.467516045113 N30=7118.518599790241 O30=3809.28613779219 P30=  
6242.064735470831 Q30=3822.804240772133 R30=3853.9025619301465 S30=31252.043791800654 0.05  
(=TABLE(T27, T46))=0.15783543906590994 (=TABLE(T27, T46))=0.15639450590497295 (=TABLE(T27, T46))=0.  
15495357274403593 (=TABLE(T27, T46))=0.1535126395830989 (=TABLE(T27, T46))=0.1520717064221619  
2 (=TABLE(T27, T46))=0.1506307732612249 (=TABLE(T27, T46))=0.1477489069393509 (=TABLE(T27, T46))=0.14486704061747685  
T46))=0.14486704061747685 (=TABLE(T27, T46))=0.14198517429560284 (=TABLE(T27, T46))=0.13910330  
79737288 (=TABLE(T27, T46))=0.1362214416518548 0.05 (Z79-\$ACS80)\*10000=-33.5283249634393  
8 (AA79-\$ACS80)\*10000=-47.937656572809296 (AB79-\$ACS80)\*10000=-62.34698818217949 (AC79-\$ACS80)  
)\*10000=-76.75631979154967 (AD79-\$ACS80)\*10000=-91.16565140091959 (AE79-\$ACS80)\*10000=-105.574  
98301028978 (AF79-\$ACS80)\*10000=-134.39364622902988 (AG79-\$ACS80)\*10000=-163.21230944777025 (AH7  
9-\$ACS80)\*10000=-192.03097266651037 (AI79-\$ACS80)\*10000=-220.84963588525076 (AJ79-\$ACS80)\*10000=  
-249.66829910399085 0.05 Z79-\$P\$64=0.03783543906590994 AA79-\$P\$64=0.03639450590497295 AB79  
-\$P\$64=0.03495357274403593 AC79-\$P\$64=0.03351263958309891 AD79-\$P\$64=0.03207170642216192 AE79  
-\$P\$64=0.030630773261224903 AF79-\$P\$64=0.027748906939350892 AG79-\$P\$64=0.024867040617476854 AH79  
-\$P\$64=0.021985174295602844 AI79-\$P\$64=0.019103307973728806 AJ79-\$P\$64=0.016221441651854795  
Net profit (new) M31=6405.467516045113 N31=7118.518599790241 O31=3809.28613779219 P31=  
6242.064735470831 Q31=3822.804240772133 R31=3853.9025619301465 S31=31252.043791800654 0  
(=TABLE(T27, T46))=0.16572721101920546 (=TABLE(T27, T46))=0.1642142312002216 (=TABLE(T27, T46))=0.  
16270125138123773 (=TABLE(T27, T46))=0.16118827156225388 (=TABLE(T27, T46))=0.15967529174327  
(=TABLE(T27, T46))=0.15816231192428612 (=TABLE(T27, T46))=0.15513635228631842 (=TABLE(T27, T46))=0.  
1521103926483507 (=TABLE(T27, T46))=0.14908443301038296 (=TABLE(T27, T46))=0.1460584733724152  
3 (=TABLE(T27, T46))=0.14303251373444753 0 (Z80-\$ACS80)\*10000=45.389394569515794 (AA8  
0-\$ACS80)\*10000=30.25959637967729 (AB80-\$ACS80)\*10000=15.129798189838507 (AC80-\$ACS80)\*10000=  
0 (AD80-\$ACS80)\*10000=-15.129798189838784 (AE80-\$ACS80)\*10000=-30.259596379677568 (AF80-\$ACS80)  
)\*10000=-60.51919275935458 (AG80-\$ACS80)\*10000=-90.77878913903187 (AH80-\$ACS80)\*10000=-121.038  
38551870916 (AI80-\$ACS80)\*10000=-151.29798189838644 (AJ80-\$ACS80)\*10000=-181.55757827806346 0  
Z80-\$P\$64=0.04572721101920546 AA80-\$P\$64=0.04421423120022161 AA80-\$P\$64=0.04270125138123773 AC80  
-\$P\$64=0.04118827156225388 AD80-\$P\$64=0.03967529174327 AE80-\$P\$64=0.038162311924286124 AF80  
-\$P\$64=0.03513635228631842 AG80-\$P\$64=0.032110392648350694 AH80-\$P\$64=0.029084433010382965 AI80  
-\$P\$64=0.026058473372415236 AJ80-\$P\$64=0.023032513734447535  
Book value (base) M56=45023.093839641784 N56=46285.562756758685 O56=28589.813364406662 P56=  
47900.06103707109 Q56=26437.017354117375 R56=37708.092663756914 S56=231943.64101575254 -0.0  
5 (=TABLE(T27, T46))=0.17444969580968994 (=TABLE(T27, T46))=0.17285708547391748 (=TABLE(T27, T46))=0.171264475138145  
T46))=0.171264475138145 (=TABLE(T27, T46))=0.16967186480237248 (=TABLE(T27, T46))=0.1680792544666  
(=TABLE(T27, T46))=0.1664866441308275 (=TABLE(T27, T46))=0.16330142345928256 (=TABLE(T27, T46))=0.  
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(=TABLE(T27, T46))=0.15056054077310266 -0.05 (Z81-\$ACS80)\*10000=132.61424247436065 (AA81-\$ACS80)  
)\*10000=116.68813911663605 (AB81-\$ACS80)\*10000=100.76203575891118 (AC81-\$ACS80)\*10000=84.83593  
240118603 (AD81-\$ACS80)\*10000=68.90982904346116 (AE81-\$ACS80)\*10000=52.98372568573628 (AF8  
1-\$ACS80)\*10000=21.131518970286812 (AG81-\$ACS80)\*10000=-10.720687745163215 (AH81-\$ACS80)\*10000=  
-42.57289446061269 (AI81-\$ACS80)\*10000=-74.42510117606271 (AJ81-\$ACS80)\*10000=-106.27730789151  
218 -0.05 Z81-\$P\$64=0.05444969580968994 AA81-\$P\$64=0.05285708547391749 AB81-\$P\$64=0.0512644  
75138145 AC81-\$P\$64=0.049671864802372484 AD81-\$P\$64=0.0480792544666 AE81-\$P\$64=0.0464866  
4413082751 AF81-\$P\$64=0.04330142345928256 AG81-\$P\$64=0.04011620278773756 AH81-\$P\$64=0.0369309  
8211619261 AI81-\$P\$64=0.03374576144464761 AJ81-\$P\$64=0.030560540773102662  
Book value (new) M56-(M28\*0.8)=45023.093839641784 N56-(N28\*0.8)=46285.562756758685  
O56-(O28\*0.8)=28589.813364406662 P56-(P28\*0.8)=47900.06103707109 Q56-(Q28\*0.8)=26437.01735411  
7375 R56-(R28\*0.8)=37708.092663756914 S56-(S28\*0.8)=231943.64101575254 -0.10 (=TA  
BLE(T27, T46))=0.18414134557689493 (=TABLE(T27, T46))=0.18246025688913511 (=TABLE(T27, T46))=0.  
18077916820137527 (=TABLE(T27, T46))=0.1790980795136154 (=TABLE(T27, T46))=0.1774169908258555  
5 (=TABLE(T27, T46))=0.1757359021380957 (=TABLE(T27, T46))=0.172373724762576 (=TABLE(T27, T46))=0.16901154738705632  
T46))=0.16901154738705632 (=TABLE(T27, T46))=0.16564937001153662 (=TABLE(T27, T46))=0.16228719  
263601693 (=TABLE(T27, T46))=0.15892501526049724 -0.10 (Z82-\$ACS80)\*10000=229.5307401464105  
5 (AA82-\$ACS80)\*10000=212.7198532688124 (AB82-\$ACS80)\*10000=195.9089663912139 (AC82-\$ACS80)  
)\*10000=179.09807951361518 (AD82-\$ACS80)\*10000=162.2871926360167 (AE82-\$ACS80)\*10000=145.4763  
0575841825 (AF82-\$ACS80)\*10000=111.85453200322132 (AG82-\$ACS80)\*10000=78.2327582480244 (AH8  
2-\$ACS80)\*10000=44.61098449282746 (AI82-\$ACS80)\*10000=10.98921073763054 (AJ82-\$ACS80)\*10000=

```

-22.632563017566387 -0.10 Z82-$P$64=0.06414134557689494 AA82-$P$64=0.06246025688913512 AB82
-$P$64=0.06077916820137527 AC82-$P$64=0.0590980795136154 AD82-$P$64=0.05741699082585555 AE82
-$P$64=0.055735902138095705 AF82-$P$64=0.05237372476257601 AG82-$P$64=0.04901154738705632 AH82
-$P$64=0.04564937001153663 AI82-$P$64=0.042287192636016935 AJ82-$P$64=0.03892501526049724
Price (TRY/shr) 6.60 7 6.40 4.94 4.06 2.2 -0.15 (=TABLE(T27,T46))=0.19497318
943435935 (=TABLE(T27,T46))=0.1931932131767313 (=TABLE(T27,T46))=0.19141323691910322 (=TA
BLE(T27,T46))=0.18963326066147515 (=TABLE(T27,T46))=0.18785328440384705 (=TABLE(T27,T46))=0.
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8 (=TABLE(T27,T46))=0.17539345060045056 (=TABLE(T27,T46))=0.1718334980851944 (=TABLE(T27,
T46))=0.16827354556993826 -0.15 (Z83-$AC$80)*10000=337.84917872105467 (AA83-$AC$80)*10000=
320.0494161447742 (AB83-$AC$80)*10000=302.2496535684935 (AC83-$AC$80)*10000=284.449890992212
7 (AD83-$AC$80)*10000=266.6501284159317 (AE83-$AC$80)*10000=248.85036583965098 (AF83-$AC$80
)*10000=213.25084068708978 (AG83-$AC$80)*10000=177.651315534528 (AH83-$AC$80)*10000=142.0517
903819668 (AI83-$AC$80)*10000=106.45226522940531 (AJ83-$AC$80)*10000=70.85274007684383 -0.1
5 Z83-$P$64=0.07497318943435935 AA83-$P$64=0.0731932131767313 AB83-$P$64=0.071413236919103
23 AC83-$P$64=0.06963326066147515 AD83-$P$64=0.06785328440384705 AE83-$P$64=0.066073308146218
98 AF83-$P$64=0.06251335563096286 AG83-$P$64=0.05895340311570668 AH83-$P$64=0.055393450600450
56 AI83-$P$64=0.05183349808519441 AJ83-$P$64=0.048273545569938264
Paid-in cap (TRYm) 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[AKBANK MO
DEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!$BK$113=4000 'R:\Bank models\Turkish Bank Model w
ith 2020 Estimates\Higher RFR\[GARANTI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!$BK$113=
4200 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[HALKBANK MODEL- Higher RF
R and Lower NIM.xlsx]Forecast (TRY)'!$BK$113=1250 'R:\Bank models\Turkish Bank Model with 2020
Estimates\Higher RFR\[ISBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!$BK$113=4500 'R:\
Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[VAKIFBANK MODEL- Higher RFR and Lower
NIM.xlsx]Forecast (TRY)'!$BK$113=2500 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Highe
r RFR\[YAPI KREDI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!$BK$113=8447.051 -0.20 (=TA
BLE(T27,T46))=0.2071590137740068 (=TABLE(T27,T46))=0.205267789000277 (=TABLE(T27,T46))=0.
20337656422654718 (=TABLE(T27,T46))=0.20148533945281732 (=TABLE(T27,T46))=0.1995941146790875
(=TABLE(T27,T46))=0.19770288990535767 (=TABLE(T27,T46))=0.19392044035789802 (=TABLE(T27,T46))=0.
19013799081043836 (=TABLE(T27,T46))=0.1863555412629787 (=TABLE(T27,T46))=0.1825730917155190
5 (=TABLE(T27,T46))=0.1787906421680594 -0.20 (Z84-$AC$80)*10000=459.7074221175293 (AA8
4-$AC$80)*10000=440.7951743802313 (AB84-$AC$80)*10000=421.88292664293306 (AC84-$AC$80)*10000=
402.9706789056345 (AD84-$AC$80)*10000=384.0584311683362 (AE84-$AC$80)*10000=365.146183431037
97 (AF84-$AC$80)*10000=327.3216879564414 (AG84-$AC$80)*10000=289.4971924818449 (AH84-$AC$80
)*10000=251.6726970072483 (AI84-$AC$80)*10000=213.84820153265179 (AJ84-$AC$80)*10000=176.0237
0605805524 -0.20 Z84-$P$64=0.08715901377400681 AA84-$P$64=0.08526778900027701 AB84-$P$64=0
.08337656422654718 AC84-$P$64=0.08148533945281733 AD84-$P$64=0.0795941146790875 AE84-$P$64=0
.07770288990535767 AF84-$P$64=0.07392044035789802 AG84-$P$64=0.07013799081043837 AH84-$P$64=0
.06635554126297871 AI84-$P$64=0.06257309171551906 AJ84-$P$64=0.058790642168059404
M.Cap (TRYm) M83*M84=26400 N83*N84=29400 O83*O84=8000 P83*P84=22230 Q83*Q84=10149.999999
999998 R83*R84=18583.5122 -0.25 (=TABLE(T27,T46))=0.22096961469227394 (=TABLE(T27,T46))=0.
21895230826696213 (=TABLE(T27,T46))=0.21693500184165032 (=TABLE(T27,T46))=0.2149176954163384
8 (=TABLE(T27,T46))=0.21290038899102667 (=TABLE(T27,T46))=0.21088308256571484 (=TABLE(T27,
T46))=0.20684846971509122 (=TABLE(T27,T46))=0.20281385686446757 (=TABLE(T27,T46))=0.19877924
401384398 (=TABLE(T27,T46))=0.19474463116322033 (=TABLE(T27,T46))=0.1907100183125967 -0.2
5 (Z85-$AC$80)*10000=597.8134313002007 (AA85-$AC$80)*10000=577.6403670470826 (AB85-$AC$80
)*10000=557.4673027939644 (AC85-$AC$80)*10000=537.2942385408461 (AD85-$AC$80)*10000=517.1211
74287728 (AE85-$AC$80)*10000=496.9481100346096 (AF85-$AC$80)*10000=456.6019815283734 (AG8
5-$AC$80)*10000=416.25585302213693 (AH85-$AC$80)*10000=375.90972451590096 (AI85-$AC$80)*10000=
335.56359600966454 (AJ85-$AC$80)*10000=295.21746750342834 -0.25 Z85-$P$64=0.1009696146922739
5 AA85-$P$64=0.09895230826696214 AB85-$P$64=0.09693500184165033 AC85-$P$64=0.094917695416338
49 AD85-$P$64=0.09290038899102668 AE85-$P$64=0.09088308256571484 AF85-$P$64=0.086848469715091
22 AG85-$P$64=0.08281385686446757 AH85-$P$64=0.07877924401384398 AI85-$P$64=0.074744631163220
33 AJ85-$P$64=0.07071001831259671
P/E (2018E), base (x) M$85/M79=4.121479023017509 N$85/N79=4.130072793638036 O$85/O79=2.1
00131024716534 P$85/P79=3.5613216046410034 Q$85/Q79=2.6551189547571217 R$85/R79=4.821998455
169255 AVERAGE (M87:R87)=3.565020309323243
P/E (2018E), implied (x) M$85/M80=4.121479023017509 N$85/N80=4.130072793638036 O$85
/O80=2.100131024716534 P$85/P80=3.5613216046410034 Q$85/Q80=2.6551189547571217 R$85/R80=4.8
21998455169255 AVERAGE (M88:R88)=3.565020309323243
Change from base M88/M87-1=0 N88/N87-1=0 O88/O87-1=0 P88/P87-1=0 Q88/Q87-1=0
R88/R87-1=0 S88/S87-1=0 VAKIFBANK VAKIFBANK VAKIFBANK
Y74=CAR % of Stage 2 loans transferred to Stage 3 loans AM74=CAR: change from base (bps) % of
Stage 2 loans transferred to Stage 3 loans BA74=Headroom above threshold % of Stage 2 loans t
ransferred to Stage 3 loans
P/BV (2018E), base (x) M$85/M81=0.5863657458554173 N$85/N81=0.6351872646445671 O$85/O81=0.2
7981994488847295 P$85/P81=0.4640912666644752 Q$85/Q81=0.38393135897454816 R$85/R81=0.4
928255683921537 AVERAGE (M91:R91)=0.47370352490327244 Loan growth (ppt change from base) $Q$7
2=0.1472339320162418 AA91-0.05=-0.1500000000000002 AB91-0.05=-0.10 0 0.05 AD91
+0.05=0.10 0.20 0.30 0.40 0.50 0.60 Y91=0.1472339320162418 AO91-0.05=-0.1500000
000000002 AP91-0.05=-0.10 -0.05 0 0.05 AR91+0.05=0.10 0.20 0.30 0.40 0.50
0.60 AM91=0.1472339320162418 -0.05 -0.03 -0.01 0 0.05 BF91+0.05=0.10 0.20 0.30
0.40 0.50 0.60
P/BV (2018E), implied (x) M$85/M82=0.5863657458554173 N$85/N82=0.6351872646445671 O$85
/O82=0.27981994488847295 P$85/P82=0.4640912666644752 Q$85/Q82=0.38393135897454816 R$85
/R82=0.4928255683921537 AVERAGE (M92:R92)=0.47370352490327244 0.20 (=TABLE(T27,T46))=0.12440630
569497978 (=TABLE(T27,T46))=0.12383585157894259 (=TABLE(T27,T46))=0.12326539746290538 (=TA
BLE(T27,T46))=0.12269494334686817 (=TABLE(T27,T46))=0.12212448923083098 (=TABLE(T27,T46))=0.

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12155403511479378 (=TABLE(T27,T46))=0.12041312688271938 (=TABLE(T27,T46))=0.1192722186506449  
7 (=TABLE(T27,T46))=0.11813131041857058 (=TABLE(T27,T46))=0.11699040218649617 (=TABLE(T27,  
T46))=0.11584949395442178 0.20 (Z92-\$AC\$96)\*10000=-228.2762632126202 (AA92-\$AC\$96)\*10000=  
-233.9808043729921 (AB92-\$AC\$96)\*10000=-239.68534553336417 (AC92-\$AC\$96)\*10000=-245.38988669373  
623 (AD92-\$AC\$96)\*10000=-251.09442785410815 (AE92-\$AC\$96)\*10000=-256.79896901448024 (AF92-\$AC\$96  
)\*10000=-268.2080513352242 (AG92-\$AC\$96)\*10000=-279.6171336559683 (AH92-\$AC\$96)\*10000=-291.026  
21597671214 (AI92-\$AC\$96)\*10000=-302.43529829745626 (AJ92-\$AC\$96)\*10000=-313.8443806182002 0.20  
Z92-\$Q\$64=0.004406305694979781 AA92-\$Q\$64=0.0038358515789425895 AB92-\$Q\$64=0.003265397462905  
384 AC92-\$Q\$64=0.0026949433468681783 AD92-\$Q\$64=0.0021244892308309865 AE92-\$Q\$64=0  
.0015540351147937809 AF92-\$Q\$64=4.1312688271938347E-4 AG92-\$Q\$64=-7.277813493550278E-4  
AH92-\$Q\$64=-0.0018686895814294113 AI92-\$Q\$64=-0.0030095978135038226 AJ92-\$Q\$64=-0.004150  
50604557822  
Stage 1 Change from base M92/M91-1=0 N92/N91-1=0 O92/O91-1=0 P92/P91-1=0 Q92/  
Q91-1=0 R92/R91-1=0 S92/S91-1=0 0.15 (=TABLE(T27,T46))=0.129815275507805 (=TABLE(T27,  
T46))=0.12922001903889663 (=TABLE(T27,T46))=0.12862476256998823 (=TABLE(T27,T46))=0.12802950  
610107985 (=TABLE(T27,T46))=0.12743424963217145 (=TABLE(T27,T46))=0.12683899316326308 (=TA  
BLE(T27,T46))=0.1256484802254463 (=TABLE(T27,T46))=0.12445796728762955 (=TABLE(T27,T46))=0.  
12326745434981279 (=TABLE(T27,T46))=0.12207694141199602 (=TABLE(T27,T46))=0.1208864284741792  
6 0.15 (Z93-\$AC\$96)\*10000=-174.18656508436797 (AA93-\$AC\$96)\*10000=-180.1391297734517 (AB9  
3-\$AC\$96)\*10000=-186.0916944625357 (AC93-\$AC\$96)\*10000=-192.04425915161943 (AD93-\$AC\$96)\*10000=  
-197.99682384070343 (AE93-\$AC\$96)\*10000=-203.94938852978717 (AF93-\$AC\$96)\*10000=-215.85451790795  
491 (AG93-\$AC\$96)\*10000=-227.7596472861225 (AH93-\$AC\$96)\*10000=-239.6647766642901 (AI93-\$AC\$96  
)\*10000=-251.56990604245783 (AJ93-\$AC\$96)\*10000=-263.47503542062543 0.15 Z93-\$Q\$64=0.00981527  
5507805005 AA93-\$Q\$64=0.009220019038896632 AB93-\$Q\$64=0.008624762569988231 AC93-\$Q\$64=0.0080295  
06101079859 AD93-\$Q\$64=0.007434249632171458 AE93-\$Q\$64=0.006838993163263085 AF93-\$Q\$64=0.0056484  
80225446312 AG93-\$Q\$64=0.004457967287629552 AH93-\$Q\$64=0.003267454349812793 AI93-\$Q\$64=0.0020769  
414119960194 AJ93-\$Q\$64=8.8642847417926E-4  
Discount to MSCI EM Banks 0.10 (=TABLE(T27,T46))=0.13571596984906883 (=TABLE(T27,T46))=0.  
13509365626793735 (=TABLE(T27,T46))=0.13447134268680583 (=TABLE(T27,T46))=0.1338490291056743  
7 (=TABLE(T27,T46))=0.13322671552454288 (=TABLE(T27,T46))=0.13260440194341136 (=TABLE(T27,  
T46))=0.13135977478114838 (=TABLE(T27,T46))=0.1301151476188854 (=TABLE(T27,T46))=0.12887052  
045662242 (=TABLE(T27,T46))=0.12762589329435944 (=TABLE(T27,T46))=0.12638126613209646 0.10  
(Z94-\$AC\$96)\*10000=-115.17962167172962 (AA94-\$AC\$96)\*10000=-121.40275748304452 (AB94-\$AC\$96)\*10000=  
-127.6258932943597 (AC94-\$AC\$96)\*10000=-133.8490291056743 (AD94-\$AC\$96)\*10000=-140.07216491698  
92 (AE94-\$AC\$96)\*10000=-146.29530072830437 (AF94-\$AC\$96)\*10000=-158.74157235093418 (AG94-\$AC\$96  
)\*10000=-171.18784397356396 (AH94-\$AC\$96)\*10000=-183.63411559619374 (AI94-\$AC\$96)\*10000=-196.080  
38721882355 (AJ94-\$AC\$96)\*10000=-208.52665884145333 0.10 Z94-\$Q\$64=0.01571596984906884 AA94  
-\$Q\$64=0.01509365626793735 AB94-\$Q\$64=0.014471342686805833 AC94-\$Q\$64=0.01384902910567437 AD94  
-\$Q\$64=0.013226715524542881 AE94-\$Q\$64=0.012604401943411364 AF94-\$Q\$64=0.011359774781148385 AG94  
-\$Q\$64=0.010115147618885406 AH94-\$Q\$64=0.008870520456622427 AI94-\$Q\$64=0.007625893294359448 AJ94  
-\$Q\$64=0.006381266132096469  
P/E (2018E), base (x) M87/\$M\$110-1=-0.45555098771235025 N87/\$M\$110-1=-0.4544157472076571  
O87/\$M\$110-1=-0.7225718593505239 P87/\$M\$110-1=-0.5295480046709375 Q87/\$M\$110-1=-0.6492  
577338497858 R87/\$M\$110-1=-0.36301209310842075 AVERAGE(M95:R95)=-0.5290594043166126 0.05  
(=TABLE(T27,T46))=0.14217863507997688 (=TABLE(T27,T46))=0.14152668751879152 (=TABLE(T27,T46))=0.  
14087473995760613 (=TABLE(T27,T46))=0.14022279239642077 (=TABLE(T27,T46))=0.1395708448352353  
8 (=TABLE(T27,T46))=0.13891889727405002 (=TABLE(T27,T46))=0.13761500215167927 (=TABLE(T27,  
T46))=0.13631110702930851 (=TABLE(T27,T46))=0.1350072119069378 (=TABLE(T27,T46))=0.13370331  
678456704 (=TABLE(T27,T46))=0.13239942166219631 0.05 (Z95-\$AC\$96)\*10000=-50.5529693626491  
4 (AA95-\$AC\$96)\*10000=-57.07244497450276 (AB95-\$AC\$96)\*10000=-63.59192058635665 (AC95-\$AC\$96  
)\*10000=-70.11139619821027 (AD95-\$AC\$96)\*10000=-76.63087181006418 (AE95-\$AC\$96)\*10000=-83.1503  
4742191779 (AF95-\$AC\$96)\*10000=-96.18929864562531 (AG95-\$AC\$96)\*10000=-109.22824986933283 (AH9  
5-\$AC\$96)\*10000=-122.26720109304007 (AI95-\$AC\$96)\*10000=-135.30615231674759 (AJ95-\$AC\$96)\*10000=  
-148.34510354045483 0.05 Z95-\$Q\$64=0.02217863507997689 AA95-\$Q\$64=0.021526687518791526 AB95  
-\$Q\$64=0.020874739957606137 AC95-\$Q\$64=0.020222792396420775 AD95-\$Q\$64=0.019570844835235385 AE95  
-\$Q\$64=0.018918897274050023 AF95-\$Q\$64=0.01761500215167927 AG95-\$Q\$64=0.01631110702930852 AH95  
-\$Q\$64=0.015007211906937795 AI95-\$Q\$64=0.013703316784567043 AJ95-\$Q\$64=0.01239942166219632  
P/E (2018E), implied (x) M88/\$M\$110-1=-0.45555098771235025 N88/\$M\$110-1=-0.454415747207  
6571 O88/\$M\$110-1=-0.7225718593505239 P88/\$M\$110-1=-0.5295480046709375 Q88/\$M\$110-1  
=-0.6492577338497858 R88/\$M\$110-1=-0.36301209310842075 AVERAGE(M96:R96)=-0.5290594043166126  
0 (=TABLE(T27,T46))=0.14928756683397573 (=TABLE(T27,T46))=0.1486030218947311 (=TABLE(T27,  
T46))=0.14791847695548643 (=TABLE(T27,T46))=0.1472339320162418 (=TABLE(T27,T46))=0.14654938  
707699716 (=TABLE(T27,T46))=0.14586484213775253 (=TABLE(T27,T46))=0.14449575225926325 (=TA  
BLE(T27,T46))=0.14312666238077396 (=TABLE(T27,T46))=0.14175757250228468 (=TABLE(T27,T46))=0.  
14038848262379539 (=TABLE(T27,T46))=0.13901939274530611 0 (Z96-\$AC\$96)\*10000=20.536348  
17733935 (AA96-\$AC\$96)\*10000=13.69089878489299 (AB96-\$AC\$96)\*10000=6.845449392446357 (AC9  
6-\$AC\$96)\*10000=0 (AD96-\$AC\$96)\*10000=-6.845449392446357 (AE96-\$AC\$96)\*10000=-13.690898784892  
713 (AF96-\$AC\$96)\*10000=-27.381797569785427 (AG96-\$AC\$96)\*10000=-41.07269635467842 (AH96-\$AC\$96  
)\*10000=-54.76359513957113 (AI96-\$AC\$96)\*10000=-68.45449392446412 (AJ96-\$AC\$96)\*10000=-82.1453  
9270935684 0 Z96-\$Q\$64=0.029287566833975737 AA96-\$Q\$64=0.0286030218947311 AB96-\$Q\$64=0  
.027918476955486438 AC96-\$Q\$64=0.027233932016241802 AD96-\$Q\$64=0.026549387076997166 AE96-\$Q\$64=0  
.02586484213775253 AF96-\$Q\$64=0.02449575225926326 AG96-\$Q\$64=0.02312666238077396 AH96-\$Q\$64=0  
.02175757250228469 AI96-\$Q\$64=0.02038848262379539 AJ96-\$Q\$64=0.01901939274530612  
3Y average discount M122/\$M\$114-1=-0.11901840490797555 N122/\$M\$114-1=-0.14723926380368102  
O122/\$M\$114-1=-0.46871165644171786 P122/\$M\$114-1=-0.2601226993865031 Q122/\$M\$114-1=-0.354  
6012269938651 R122/\$M\$114-1=-0.2834355828220859 AVERAGE(M97:R97)=-0.2721881390593048 -0.0  
5 (=TABLE(T27,T46))=0.15714480719365867 (=TABLE(T27,T46))=0.15642423357340116 (=TABLE(T27,  
T46))=0.1557036599531436 (=TABLE(T27,T46))=0.1549830863328861 (=TABLE(T27,T46))=0.15426251  
27126286 (=TABLE(T27,T46))=0.15354193909237107 (=TABLE(T27,T46))=0.15210079185185604 (=TA

BLE (T27, T46) = 0.15065964461134101 (=TABLE (T27, T46) ) = 0.149218497370826 (=TABLE (T27, T46) ) = 0.14777735013031096  
 (=TABLE (T27, T46) ) = 0.14633620288979593 - 0.05 (Z97-\$AC\$96) \* 10000 = 99.108751  
 77416872 (AA97-\$AC\$96) \* 10000 = 91.90301557159358 (AB97-\$AC\$96) \* 10000 = 84.69727936901816 (AC9  
 7-\$AC\$96) \* 10000 = 77.49154316644302 (AD97-\$AC\$96) \* 10000 = 70.28580696386815 (AE97-\$AC\$96) \* 10000 =  
 63.08007076129274 (AF97-\$AC\$96) \* 10000 = 48.668598356142454 (AG97-\$AC\$96) \* 10000 = 34.2571259509921  
 76 (AH97-\$AC\$96) \* 10000 = 19.84565354584189 (AI97-\$AC\$96) \* 10000 = 5.434181140691607 (AJ97-\$AC\$96  
 ) \* 10000 = -8.977291264458675 - 0.05 Z97-\$Q\$64 = 0.037144807193658674 AA97-\$Q\$64 = 0.036424233573401  
 16 AB97-\$Q\$64 = 0.03570365995314362 AC97-\$Q\$64 = 0.034983086332886104 AD97-\$Q\$64 = 0.034262512712628  
 62 AE97-\$Q\$64 = 0.033541939092371076 AF97-\$Q\$64 = 0.03210079185185605 AG97-\$Q\$64 = 0.030659644611341  
 02 AH97-\$Q\$64 = 0.02921849737082599 AI97-\$Q\$64 = 0.027777350130310963 AJ97-\$Q\$64 = 0.026336202889795  
 934  
 -0.10 (=TABLE (T27, T46) ) = 0.16587507425997303 (=TABLE (T27, T46) ) = 0.16511446877192343 (=TABLE (T27,  
 T46) ) = 0.1643538632838738 (=TABLE (T27, T46) ) = 0.1635932577958242 (=TABLE (T27, T46) ) = 0.16283265  
 23077746 (=TABLE (T27, T46) ) = 0.162072046819725 (=TABLE (T27, T46) ) = 0.1605508358436258 (=TA  
 BLE (T27, T46) ) = 0.15902962486752661 (=TABLE (T27, T46) ) = 0.15750841389142742 (=TABLE (T27, T46) ) = 0.  
 15598720291532822 (=TABLE (T27, T46) ) = 0.15446599193922902 - 0.10 (Z98-\$AC\$96) \* 10000 = 186.41142  
 24373123 (AA98-\$AC\$96) \* 10000 = 178.80536755681632 (AB98-\$AC\$96) \* 10000 = 171.19931267632006 (AC9  
 8-\$AC\$96) \* 10000 = 163.59325779582406 (AD98-\$AC\$96) \* 10000 = 155.98720291532808 (AE98-\$AC\$96) \* 10000 =  
 148.3811480348321 (AF98-\$AC\$96) \* 10000 = 133.16903827384013 (AG98-\$AC\$96) \* 10000 = 117.956928512848  
 17 (AH98-\$AC\$96) \* 10000 = 102.7448187518562 (AI98-\$AC\$96) \* 10000 = 87.53270899086424 (AJ98-\$AC\$96  
 ) \* 10000 = 72.32059922987227 - 0.10 Z98-\$Q\$64 = 0.04587507425997303 AA98-\$Q\$64 = 0.045114468771923  
 43 AB98-\$Q\$64 = 0.04435386328387381 AC98-\$Q\$64 = 0.04359325779582421 AD98-\$Q\$64 = 0.042832652307774  
 61 AE98-\$Q\$64 = 0.04207204681972501 AF98-\$Q\$64 = 0.040550835843625815 AG98-\$Q\$64 = 0.039029624867526  
 62 AH98-\$Q\$64 = 0.03750841389142742 AI98-\$Q\$64 = 0.035987202915328226 AJ98-\$Q\$64 = 0.034465991939229  
 03  
 P/BV (2018E), base (x) M91/\$M\$111-1 = -0.4415564325186502 N91/\$M\$111-1 = -0.39505974795755516  
 O91/\$M\$111-1 = -0.7335048143919305 P91/\$M\$111-1 = -0.5580083174624046 Q91/\$M\$111-1 = -0.6343  
 510866909066 R91/\$M\$111-1 = -0.5306423158169965 AVERAGE (M99:R99) = -0.5488537858064072 - 0.1  
 5 (=TABLE (T27, T46) ) = 0.1756324315693832 (=TABLE (T27, T46) ) = 0.17482708458203658 (=TABLE (T27,  
 T46) ) = 0.17402173759468992 (=TABLE (T27, T46) ) = 0.17321639060734328 (=TABLE (T27, T46) ) = 0.17241104  
 361999665 (=TABLE (T27, T46) ) = 0.17160569663265002 (=TABLE (T27, T46) ) = 0.16999500265795675 (=TA  
 BLE (T27, T46) ) = 0.16838430868326348 (=TABLE (T27, T46) ) = 0.16677361470857022 (=TABLE (T27, T46) ) = 0.  
 16516292073387692 (=TABLE (T27, T46) ) = 0.16355222675918368 - 0.15 (Z99-\$AC\$96) \* 10000 = 283.98499  
 553141414 (AA99-\$AC\$96) \* 10000 = 275.9315256579478 (AB99-\$AC\$96) \* 10000 = 267.8780557844812 (AC9  
 9-\$AC\$96) \* 10000 = 259.8245859110149 (AD99-\$AC\$96) \* 10000 = 251.77111603754852 (AE99-\$AC\$96) \* 10000 =  
 243.7176461640822 (AF99-\$AC\$96) \* 10000 = 227.61070641714954 (AG99-\$AC\$96) \* 10000 = 211.503766670216  
 86 (AH99-\$AC\$96) \* 10000 = 195.3968269232842 (AI99-\$AC\$96) \* 10000 = 179.28988717635124 (AJ99-\$AC\$96  
 ) \* 10000 = 163.18294742941885 - 0.15 Z99-\$Q\$64 = 0.05563243156938322 AA99-\$Q\$64 = 0.054827084582036  
 584 AB99-\$Q\$64 = 0.05402173759468992 AC99-\$Q\$64 = 0.05321639060734329 AD99-\$Q\$64 = 0.052411043619996  
 656 AE99-\$Q\$64 = 0.05160569663265002 AF99-\$Q\$64 = 0.049995002657956755 AG99-\$Q\$64 = 0.048384308683263  
 49 AH99-\$Q\$64 = 0.04677361470857022 AI99-\$Q\$64 = 0.04516292073387693 AJ99-\$Q\$64 = 0.043552226759183  
 69  
 P/BV (2018E), implied (x) M92/\$M\$111-1 = -0.4415564325186502 N92/\$M\$111-1 = -0.395059747957  
 55516 O92/\$M\$111-1 = -0.7335048143919305 P92/\$M\$111-1 = -0.5580083174624046 Q92/\$M\$111-1  
 = -0.6343510866909066 R92/\$M\$111-1 = -0.5306423158169965 AVERAGE (M100:R100) = -0.54885378580640  
 72 - 0.20 (=TABLE (T27, T46) ) = 0.18660945854246963 (=TABLE (T27, T46) ) = 0.18575377736841384 (=TA  
 BLE (T27, T46) ) = 0.184898096194358 (=TABLE (T27, T46) ) = 0.18404241502030222 (=TABLE (T27, T46) ) = 0.18318673  
 384624642 (=TABLE (T27, T46) ) = 0.18233105267219063 (=TABLE (T27, T46) ) = 0.18061969032407904 (=TA  
 BLE (T27, T46) ) = 0.17890832797596742 (=TABLE (T27, T46) ) = 0.17719696562785583 (=TABLE (T27, T46) ) = 0.  
 17548560327974422 (=TABLE (T27, T46) ) = 0.17377424093163263 - 0.20 (Z100-\$AC\$96) \* 10000 = 393.7552  
 6526227833 (AA100-\$AC\$96) \* 10000 = 385.1984535217204 (AB100-\$AC\$96) \* 10000 = 376.64164178116215 (AC1  
 00-\$AC\$96) \* 10000 = 368.08483004060423 (AD100-\$AC\$96) \* 10000 = 359.52801830004626 (AE100-\$AC\$96) \* 10000  
 = 350.97120655948834 (AF100-\$AC\$96) \* 10000 = 333.85758307837244 (AG100-\$AC\$96) \* 10000 = 316.74395959725  
 626 (AH100-\$AC\$96) \* 10000 = 299.63033611614037 (AI100-\$AC\$96) \* 10000 = 282.5167126350242 (AJ100-\$AC\$9  
 6) \* 10000 = 265.4030891539083 - 0.20 Z100-\$Q\$64 = 0.06660945854246964 AA100-\$Q\$64 = 0.06575377736841  
 384 AB100-\$Q\$64 = 0.06489809619435802 AC100-\$Q\$64 = 0.06404241502030222 AD100-\$Q\$64 = 0.06318673384624  
 643 AE100-\$Q\$64 = 0.062331052672190634 AF100-\$Q\$64 = 0.060619690324079045 AG100-\$Q\$64 =  
 0.05890832797596743 AH100-\$Q\$64 = 0.05719696562785584 AI100-\$Q\$64 = 0.05548560327974422 AJ100-\$Q\$64 =  
 0.05377424093163263  
 Stage 1 3Y average discount M123/\$M\$115-1 = -0.010204081632653073 N123/\$M\$115-1 = -0.01020408163  
 2653073 O123/\$M\$115-1 = -0.41836734693877553 P123/\$M\$115-1 = -0.29591836734693877 Q123/\$M\$115-  
 1 = -0.3571428571428571 R123/\$M\$115-1 = -0.3571428571428571 AVERAGE (M101:R101) = -0.24149659863945  
 58 - 0.25 (=TABLE (T27, T46) ) = 0.19905008911196764 (=TABLE (T27, T46) ) = 0.19813736252630815 (=TA  
 BLE (T27, T46) ) = 0.1972246359406486 (=TABLE (T27, T46) ) = 0.19631190935498907 (=TABLE (T27, T46) ) = 0.  
 19539918276932958 (=TABLE (T27, T46) ) = 0.19448645618367003 (=TABLE (T27, T46) ) = 0.192661003012351  
 (=TABLE (T27, T46) ) = 0.19083554984103196 (=TABLE (T27, T46) ) = 0.18901009666971294 (=TABLE (T27, T46) ) = 0.  
 18718464349839387 (=TABLE (T27, T46) ) = 0.18535919032707485 - 0.25 (Z101-\$AC\$96) \* 10000 = 518.1615  
 709572585 (AA101-\$AC\$96) \* 10000 = 509.0343051006635 (AB101-\$AC\$96) \* 10000 = 499.90703924406796 (AC1  
 01-\$AC\$96) \* 10000 = 490.77977338747274 (AD101-\$AC\$96) \* 10000 = 481.6525075308778 (AE101-\$AC\$96) \* 10000  
 = 472.52524167428226 (AF101-\$AC\$96) \* 10000 = 454.2707099610921 (AG101-\$AC\$96) \* 10000 = 436.01617824790  
 16 (AH101-\$AC\$96) \* 10000 = 417.7616465347114 (AI101-\$AC\$96) \* 10000 = 399.5071148215207 (AJ101-\$AC\$9  
 6) \* 10000 = 381.2525831083305 - 0.25 Z101-\$Q\$64 = 0.07905008911196765 AA101-\$Q\$64 = 0.07813736252630  
 815 AB101-\$Q\$64 = 0.0772246359406486 AC101-\$Q\$64 = 0.07631190935498908 AD101-\$Q\$64 = 0.07539918276932  
 958 AE101-\$Q\$64 = 0.07448645618367003 AF101-\$Q\$64 = 0.07266100301235101 AG101-\$Q\$64 = 0.07083554984103  
 196 AH101-\$Q\$64 = 0.06901009666971294 AI101-\$Q\$64 = 0.06718464349839387 AJ101-\$Q\$64 = 0.06535919032707  
 485  
 Discount to own historical average  
 P/E (2018E), base (x) M87/\$M\$118-1 = -0.3426668224852458 N87/\$M\$118-1 = -0.3412962051613977  
 O87/\$M\$118-1 = -0.6650508732509515 P87/\$M\$118-1 = -0.43200612366172186 Q87/\$M\$118-1 = -0.5765

360518728673 R87/\$M\$118-1=-0.23094123522021448 AVERAGE (M103:R103)=-0.4314162186087331  
P/E (2018E), implied (x) M88/\$M\$118-1=-0.3426668224852458 N88/\$M\$118-1=-0.341296205161  
3977 O88/\$M\$118-1=-0.6650508732509515 P88/\$M\$118-1=-0.43200612366172186 Q88/\$M\$118-1  
=-0.5765360518728673 R88/\$M\$118-1=-0.23094123522021448 AVERAGE (M104:R104)=-0.43141621860873  
31  
YAPI KREDI YAPI KREDI YAPI KREDI  
P/BV (2018E), base (x) M91/\$M\$119-1=-0.2760916717834354 N91/\$M\$119-1=-0.21581819179683082  
O91/\$M\$119-1=-0.6545432779154655 P91/\$M\$119-1=-0.4270478189327467 Q91/\$M\$119-1=-0.5260  
106679326566 R91/\$M\$119-1=-0.3915733723553658 AVERAGE (M106:R106)=-0.4151808334527502 Y90=  
CAR % of Stage 2 loans transferred to Stage 3 loans AM90=CAR: change from base (bps) % of  
Stage 2 loans transferred to Stage 3 loans BA90=Headroom above threshold % of Stage 2 loans t  
ransferred to Stage 3 loans  
P/BV (2018E), implied (x) M92/\$M\$119-1=-0.2760916717834354 N92/\$M\$119-1=-0.215818191796  
83082 O92/\$M\$119-1=-0.6545432779154655 P92/\$M\$119-1=-0.4270478189327467 Q92/\$M\$119-1  
=-0.5260106679326566 R92/\$M\$119-1=-0.3915733723553658 AVERAGE (M107:R107)=-0.41518083345275  
02 Loan growth (ppt change from base) \$R\$72=0.15303788255670486 AA107-0.05=-0.150000  
00000000002 AB107-0.05=-0.10 -0.05 0 0.05 AD107+0.05=0.10 0.20 0.30 0.40  
0.50 0.60 Y107=0.15303788255670486 AO107-0.05=-0.1500000000000002 AP107-0.05=-0.10  
-0.05 0 0.05 AR107+0.05=0.10 0.20 0.30 0.40 0.50 0.60 AM107=0.153037882556  
70486 -0.05 -0.03 -0.01 0 0.05 BF107+0.05=0.10 0.20 0.30 0.40 0.50 0.60  
0.20 (=TABLE (T27, T46))=0.12943815568072606 (=TABLE (T27, T46))=0.12880262671956874 (=TABLE (T27,  
T46))=0.1281670977584114 (=TABLE (T27, T46))=0.12753156879725405 (=TABLE (T27, T46))=0.12689603  
98360967 (=TABLE (T27, T46))=0.1262605108749394 (=TABLE (T27, T46))=0.12498945295262472 (=TA  
BLE (T27, T46))=0.12371839503031004 (=TABLE (T27, T46))=0.12244733710799538 (=TABLE (T27, T46))=0.  
12117627918568069 (=TABLE (T27, T46))=0.11990522126336603 0.20 (Z108-\$AC\$112)\*10000=-235.99  
726875978806 (AA108-\$AC\$112)\*10000=-242.35255837136123 (AB108-\$AC\$112)\*10000=-248.707847982  
93465 (AC108-\$AC\$112)\*10000=-255.0631375945081 (AD108-\$AC\$112)\*10000=-261.4184270608156  
(AE108-\$AC\$112)\*10000=-267.7737168176547 (AF108-\$AC\$112)\*10000=-280.48429604080144 (AG1  
08-\$AC\$112)\*10000=-293.19487526394823 (AH108-\$AC\$112)\*10000=-305.90545448709486 (AI108-\$AC\$1  
12)\*10000=-318.6160337102417 (AJ108-\$AC\$112)\*10000=-331.32661293338833 0.20 Z108-\$R\$64=0  
.009438155680726062 AA108-\$R\$64=0.00880262671956874 AB108-\$R\$64=0.008167097758411401  
AC108-\$R\$64=0.007531568797254057 AD108-\$R\$64=0.006896039836096712 AE108-\$R\$64=0.006260  
510874939396 AF108-\$R\$64=0.0049894529526247205 AG108-\$R\$64=0.0037183950303100455 AH10  
8-\$R\$64=0.0024473371079953843 AI108-\$R\$64=0.0011762791856806953 AJ108-\$R\$64=-9.4778736633965  
85E-5  
MSCI EM Banks 2018E 0.15 (=TABLE (T27, T46))=0.13506590157988804 (=TABLE (T27, T46))=0.13440274  
092476737 (=TABLE (T27, T46))=0.13373958026964666 (=TABLE (T27, T46))=0.13307641961452596 (=TA  
BLE (T27, T46))=0.13241325895940526 (=TABLE (T27, T46))=0.13175009830428455 (=TABLE (T27, T46))=0.  
13042377699404317 (=TABLE (T27, T46))=0.12909745568380177 (=TABLE (T27, T46))=0.1277711343735603  
9 (=TABLE (T27, T46))=0.12644481306331898 (=TABLE (T27, T46))=0.12511849175307757 0.15 (Z10  
9-\$AC\$112)\*10000=-179.7198097681682 (AA109-\$AC\$112)\*10000=-186.35141631937498 (AB109-\$AC\$1  
12)\*10000=-192.983022870582 (AC109-\$AC\$112)\*10000=-199.61462942178903 (AD109-\$AC\$112)\*1000  
0=-206.24623597299606 (AE109-\$AC\$112)\*10000=-212.87784252420312 (AF109-\$AC\$112)\*10000=-226.1  
4105562661692 (AG109-\$AC\$112)\*10000=-239.40426872903097 (AH109-\$AC\$112)\*10000=-252.667481831  
44477 (AI109-\$AC\$112)\*10000=-265.93069493385883 (AJ109-\$AC\$112)\*10000=-279.19390803627294  
0.15 Z109-\$R\$64=0.015065901579888047 AA109-\$R\$64=0.014402740924767371 AB109-\$R\$64=0.013739  
580269646667 AC109-\$R\$64=0.013076419614525964 AD109-\$R\$64=0.01241325895940526 AE109-\$R\$64=  
0.011750098304284556 AF109-\$R\$64=0.010423776994043177 AG109-\$R\$64=0.00909745568380177 AH10  
9-\$R\$64=0.00777113437356039 AI109-\$R\$64=0.006444813063318983 AJ109-\$R\$64=0.00511849175307  
7575  
P/E (x) 7.57 0.10 (=TABLE (T27, T46))=0.14120526074261022 (=TABLE (T27, T46))=0.1405119564213477  
(=TABLE (T27, T46))=0.13981865210008512 (=TABLE (T27, T46))=0.13912534777882257 (=TABLE (T27, T46))=0.  
13843204345756002 (=TABLE (T27, T46))=0.13773873913629747 (=TABLE (T27, T46))=0.1363521304937724  
(=TABLE (T27, T46))=0.13496552185124727 (=TABLE (T27, T46))=0.1335789132087222 (=TABLE (T27, T46))=0.  
13219230456619707 (=TABLE (T27, T46))=0.130805695923672 0.10 (Z110-\$AC\$112)\*10000=-118.32  
621814094641 (AA110-\$AC\$112)\*10000=-125.25926135357163 (AB110-\$AC\$112)\*10000=-132.192304566  
1974 (AC110-\$AC\$112)\*10000=-139.1253477788229 (AD110-\$AC\$112)\*10000=-146.05839099144842  
(AE110-\$AC\$112)\*10000=-152.9914342040739 (AF110-\$AC\$112)\*10000=-166.85752062932463 (AG1  
10-\$AC\$112)\*10000=-180.7236070545759 (AH110-\$AC\$112)\*10000=-194.58969347982662 (AI110-\$AC\$1  
12)\*10000=-208.45577990507792 (AJ110-\$AC\$112)\*10000=-222.32186633032865 0.10 Z110-\$R\$64=0  
.021205260742610227 AA110-\$R\$64=0.020511956421347705 AB110-\$R\$64=0.019818652100085127  
AC110-\$R\$64=0.019125347778822577 AD110-\$R\$64=0.018432043457560027 AE110-\$R\$64=0.017738  
739136297477 AF110-\$R\$64=0.016352130493772404 AG110-\$R\$64=0.014965521851247277 AH11  
0-\$R\$64=0.013578913208722204 AI110-\$R\$64=0.012192304566197076 AJ110-\$R\$64=0.01080569592367  
2004  
P/BV (x) 1.05 0.05 (=TABLE (T27, T46))=0.14792932077797263 (=TABLE (T27, T46))=0.14720300  
19652214 (=TABLE (T27, T46))=0.14647668315247014 (=TABLE (T27, T46))=0.1457503643397189 (=TA  
BLE (T27, T46))=0.14502404552696765 (=TABLE (T27, T46))=0.1442977267142164 (=TABLE (T27, T46))=0.  
14284508908871393 (=TABLE (T27, T46))=0.14139245146321144 (=TABLE (T27, T46))=0.1399398138377089  
8 (=TABLE (T27, T46))=0.1384871762122065 (=TABLE (T27, T46))=0.137034538586704 0.05 (Z11  
1-\$AC\$112)\*10000=-51.08561778732229 (AA111-\$AC\$112)\*10000=-58.3488059148346 (AB111-\$AC\$112)\*1000  
0=-65.61199404234719 (AC111-\$AC\$112)\*10000=-72.8751821698595 (AD111-\$AC\$112)\*10000=-80.1383702973  
7209 (AE111-\$AC\$112)\*10000=-87.40155842488467 (AF111-\$AC\$112)\*10000=-101.9279346799093  
(AG111-\$AC\$112)\*10000=-116.45431093493418 (AH111-\$AC\$112)\*10000=-130.98068718995881 (AI1  
11-\$AC\$112)\*10000=-145.50706344498371 (AJ111-\$AC\$112)\*10000=-160.0334397000086 0.05 Z111  
-\$R\$64=0.027929320777972638 AA111-\$R\$64=0.027203001965221407 AB111-\$R\$64=0.02647668315247  
015 AC111-\$R\$64=0.025750364339718917 AD111-\$R\$64=0.02502404552696766 AE111-\$R\$64=0.024297  
7267142164 AF111-\$R\$64=0.022845089088713938 AG111-\$R\$64=0.021392451463211448 AH11  
1-\$R\$64=0.019939813837708986 AI111-\$R\$64=0.018487176212206496 AJ111-\$R\$64=0.01703453858670

4007

0 (=TABLE (T27, T46))=0.15532578681687126 (=TABLE (T27, T46))=0.15456315206348248 (=TABLE (T27, T46))=0.15380051731009367 (=TABLE (T27, T46))=0.15303788255670486 (=TABLE (T27, T46))=0.15227524780331606 (=TABLE (T27, T46))=0.15151261304992725 (=TABLE (T27, T46))=0.14998734354314966 (=TABLE (T27, T46))=0.14846207403637202 (=TABLE (T27, T46))=0.14693680452959443 (=TABLE (T27, T46))=0.1454115350228168 (=TABLE (T27, T46))=0.14388626551603922 0 (Z112-\$AC\$112)\*10000=22.8790 42601663958 (AA112-\$AC\$112)\*10000=15.252695067776155 (AB112-\$AC\$112)\*10000=7.626347533888 078 (AC112-\$AC\$112)\*10000=0 (AD112-\$AC\$112)\*10000=-7.626347533888078 (AE112-\$AC\$112)\*10000=-15.252695067776155 (AF112-\$AC\$112)\*10000=-30.505390135552034 (AG112-\$AC\$112)\*10000=-45.75 808520332847 (AH112-\$AC\$112)\*10000=-61.010780271104345 (AI112-\$AC\$112)\*10000=-76.2634753388 8051 (AJ112-\$AC\$112)\*10000=-91.51617040665639 0 Z112-\$R\$64=0.03532578681687126 AA112-\$R\$64=0.03456315206348248 AB112-\$R\$64=0.033800517310093675 AC112-\$R\$64=0.03303788255670487 AD112-\$R\$64=0.03227524780331606 AE112-\$R\$64=0.03151261304992725 AF112-\$R\$64=0.02998734354314966 AG112-\$R\$64=0.02846207403637202 AH112-\$R\$64=0.026936804529594433 AI112-\$R\$64=0.025411535022816817 AJ112-\$R\$64=0.02388626551603923

MSCI EM Banks 3Y average -0.05 (=TABLE (T27, T46))=0.16350082822828554 (=TABLE (T27, T46))=0.16269805480366578 (=TABLE (T27, T46))=0.161895281379046 (=TABLE (T27, T46))=0.16109250795442617 (=TABLE (T27, T46))=0.16028973452980638 (=TABLE (T27, T46))=0.1594869611051866 (=TABLE (T27, T46))=0.157881414255947 (=TABLE (T27, T46))=0.1562758674067074 (=TABLE (T27, T46))=0.15467032055746782 (=TABLE (T27, T46))=0.15306477370822824 (=TABLE (T27, T46))=0.15145922685898866 -0.05 (Z113-\$AC\$112)\*10000=104.62945671580681 (AA113-\$AC\$112)\*10000=96.60172246960919 (AB113-\$AC\$112)\*10000=88.57398822341128 (AC113-\$AC\$112)\*10000=80.5462539772131 (AD113-\$AC\$112)\*10000=72.5185197310152 (AE113-\$AC\$112)\*10000=64.4907854848173 (AF113-\$AC\$112)\*10000=48.435316992421484 (AG113-\$AC\$112)\*10000=32.379848500025396 (AH113-\$AC\$112)\*10000=16.324380007629593 (AI113-\$AC\$112)\*10000=0.26891151523378287 (AJ113-\$AC\$112)\*10000=-15.786556977162025 -0.05 Z113-\$R\$64=0.04350082822828555 AA113-\$R\$64=0.042698054803665786 AB113-\$R\$64=0.041895281379045995 AC113-\$R\$64=0.04109250795442618 AD113-\$R\$64=0.04028973452980639 AE113-\$R\$64=0.039486961105186597 AF113-\$R\$64=0.037881414255947016 AG113-\$R\$64=0.03627586740670741 AH113-\$R\$64=0.034670320557467826 AI113-\$R\$64=0.033064773708228246 AJ113-\$R\$64=0.031459226858988665

P/E (x) 8.15 -0.10 (=TABLE (T27, T46))=0.1725842075743014 (=TABLE (T27, T46))=0.17173683562609163 (=TABLE (T27, T46))=0.17088946367788185 (=TABLE (T27, T46))=0.17004209172967205 (=TABLE (T27, T46))=0.16919471978146228 (=TABLE (T27, T46))=0.16834734783325248 (=TABLE (T27, T46))=0.16665260393683293 (=TABLE (T27, T46))=0.16495786004041335 (=TABLE (T27, T46))=0.1632631161439938 (=TABLE (T27, T46))=0.16156837224757423 (=TABLE (T27, T46))=0.15987362835115468 -0.10 (Z114-\$AC\$112)\*10000=195.46325017596538 (AA114-\$AC\$112)\*10000=186.98953069386764 (AB114-\$AC\$112)\*10000=178.51581121176991 (AC114-\$AC\$112)\*10000=170.04209172967188 (AD114-\$AC\$112)\*10000=161.56837224757413 (AE114-\$AC\$112)\*10000=153.09465276547613 (AF114-\$AC\$112)\*10000=136.14721380128063 (AG114-\$AC\$112)\*10000=119.19977483708489 (AH114-\$AC\$112)\*10000=102.2523358728894 (AI114-\$AC\$112)\*10000=85.30489690869364 (AJ114-\$AC\$112)\*10000=68.35745794449815 -0.10 Z114-\$R\$64=0.052584207574301406 AA114-\$R\$64=0.05173683562609163 AB114-\$R\$64=0.05088946367788186 AC114-\$R\$64=0.050042091729672056 AD114-\$R\$64=0.04919471978146228 AE114-\$R\$64=0.04834734783325248 AF114-\$R\$64=0.04665260393683293 AG114-\$R\$64=0.044957860040413355 AH114-\$R\$64=0.04326311614399381 AI114-\$R\$64=0.04156837224757423 AJ114-\$R\$64=0.03987362835115468

P/BV (x) 0.98 -0.15 (=TABLE (T27, T46))=0.18273621978455443 (=TABLE (T27, T46))=0.18183900242762646 (=TABLE (T27, T46))=0.18094178507069844 (=TABLE (T27, T46))=0.18004456771377042 (=TABLE (T27, T46))=0.17914735035684243 (=TABLE (T27, T46))=0.1782501329999144 (=TABLE (T27, T46))=0.17645569828605842 (=TABLE (T27, T46))=0.17466126357220238 (=TABLE (T27, T46))=0.1728668288583464 (=TABLE (T27, T46))=0.17107239414449038 (=TABLE (T27, T46))=0.16927795943063437 -0.15 (Z115-\$AC\$112)\*10000=296.98337227849566 (AA115-\$AC\$112)\*10000=288.011198709216 (AB115-\$AC\$112)\*10000=279.0390251399358 (AC115-\$AC\$112)\*10000=270.06685157065556 (AD115-\$AC\$112)\*10000=261.09467800137566 (AE115-\$AC\$112)\*10000=252.12250443209544 (AF115-\$AC\$112)\*10000=234.17815729353558 (AG115-\$AC\$112)\*10000=216.23381015497517 (AH115-\$AC\$112)\*10000=198.2894630164153 (AI115-\$AC\$112)\*10000=180.34511587785516 (AJ115-\$AC\$112)\*10000=162.40076873929505 -0.15 Z115-\$R\$64=0.06273621978455443 AA115-\$R\$64=0.061839002427626466 AB115-\$R\$64=0.060941785070698445 AC115-\$R\$64=0.060044567713770425 AD115-\$R\$64=0.05914735035684243 AE115-\$R\$64=0.05825013299991441 AF115-\$R\$64=0.056455698286058426 AG115-\$R\$64=0.054661263572202384 AH115-\$R\$64=0.0528668288583464 AI115-\$R\$64=0.051072394144490385 AJ115-\$R\$64=0.04927795943063437 -0.20 (=TABLE (T27, T46))=0.19415723352108907 (=TABLE (T27, T46))=0.1932039400793531 (=TABLE (T27, T46))=0.1922506466376171 (=TABLE (T27, T46))=0.19129735319588106 (=TABLE (T27, T46))=0.19034405975414506 (=TABLE (T27, T46))=0.18939076631240906 (=TABLE (T27, T46))=0.18748417942893705 (=TABLE (T27, T46))=0.18557759254546502 (=TABLE (T27, T46))=0.18367100566199304 (=TABLE (T27, T46))=0.181764418778521 (=TABLE (T27, T46))=0.17985783189504903 -0.20 (Z116-\$AC\$112)\*10000=411.1935096438421 (AA116-\$AC\$112)\*10000=401.66057522648236 (AB116-\$AC\$112)\*10000=392.12764080912234 (AC116-\$AC\$112)\*10000=382.59470639176203 (AD116-\$AC\$112)\*10000=373.061771974402 (AE116-\$AC\$112)\*10000=363.528837557042 (AF116-\$AC\$112)\*10000=344.46296872232193 (AG116-\$AC\$112)\*10000=325.3970998876016 (AH116-\$AC\$112)\*10000=306.3312310528818 (AI116-\$AC\$112)\*10000=287.26536221816144 (AJ116-\$AC\$112)\*10000=268.1994933834417 -0.20 Z116-\$R\$64=0.07415723352108908 AA116-\$R\$64=0.0732039400793531 AB116-\$R\$64=0.0722506466376171 AC116-\$R\$64=0.07129735319588107 AD116-\$R\$64=0.07034405975414507 AE116-\$R\$64=0.06939076631240906 AF116-\$R\$64=0.06748417942893706 AG116-\$R\$64=0.06557759254546502 AH116-\$R\$64=0.06367100566199305 AI116-\$R\$64=0.06176441877852101 AJ116-\$R\$64=0.059857831895049035

Turkish banks 3Y average -0.25 (=TABLE (T27, T46))=0.20710104908916166 (=TABLE (T27, T46))=0.20608420275130995 (=TABLE (T27, T46))=0.20506735641345822 (=TABLE (T27, T46))=0.20405051007560646 (=TABLE (T27, T46))=0.20303366373775472 (=TABLE (T27, T46))=0.20201681739990296 (=TABLE (T27, T46))=0.19998312472419952 (=TABLE (T27, T46))=0.19794943204849602 (=TABLE (T27, T46))=0.19591573937279255 (=TABLE (T27, T46))=0.19388204669708908 (=TABLE (T27, T46))=0.19184835402138561 -0.25 (Z117-\$AC\$112)\*10000=540.631665324568 (AA117-\$AC\$112)\*10000=530.4632019460508 (AB117-\$AC\$112)\*10000=520.2947385675335 (AC117-\$AC\$112)\*10000=510.1262751890159 (AD117-\$AC\$112)\*10000=499.9578118104986 (AE117-\$AC\$112)\*10000=489.78934843198095 (AF117-\$AC\$112)\*10000=469.4524216749

4655 (AG117-\$AC\$112)\*10000=449.1154949179116 (AH117-\$AC\$112)\*10000=428.7785681608769 (AI117-\$AC\$1  
 12)\*10000=408.4416414038422 (AJ117-\$AC\$112)\*10000=388.1047146468075 -0.25 Z117-\$RS\$64=0.0871010  
 4908916166 AA117-\$RS\$64=0.08608420275130996 AB117-\$RS\$64=0.08506735641345822 AC117-\$RS\$64=0.084050  
 51007560646 AD117-\$RS\$64=0.08303366373775473 AE117-\$RS\$64=0.08201681739990296 AF117-\$RS\$64=0.079983  
 12472419952 AG117-\$RS\$64=0.07794943204849603 AH117-\$RS\$64=0.07591573937279256 AI117-\$RS\$64=0.073882  
 04669708909 AJ117-\$RS\$64=0.07184835402138562  
 P/E (x) 6.27  
 P/BV (x) 0.81  
 3Y Historical average Akbank Garanti Halkbank Isbank Vakifbank Yapi Kredi Tota  
 l Average Average Average  
 P/E (x) 7.18 6.95 4.33 6.03 5.26 5.84 AVERAGE (M122:R122)=5.9316666666666675 Y106  
 =CAR % of Stage 2 loans transferred to Stage 3 loans AM106=CAR: change from base (bps) % of  
 Stage 2 loans transferred to Stage 3 loans BA106=Headroom above threshold % of Stage 2 loans t  
 ransferred to Stage 3 loans  
 P/BV (x) 0.97 0.97 0.57 0.69 0.63 0.63 AVERAGE (M123:R123)=0.7433333333333333  
 3 Loan growth (ppt change from base) AA123-0.05=-0.15000000000000002 AB123-0.05=-0.10  
 -0.05 0 0.05 AD123+0.05=0.10 0.20 0.30 0.40 0.50 0.60 AO123-0.05=-0.150000  
 0000000002 AP123-0.05=-0.10 -0.05 0 0.05 AR123+0.05=0.10 0.20 0.30 0.40  
 0.50 0.60 -0.05 -0.03 -0.01 0 0.05 BF123+0.05=0.10 0.20 0.30 0.40 0.50  
 0.60  
 0.20 (Z28+Z44+Z60+Z76+Z92+Z108)/6=0.1340805897401999 (AA28+AA44+AA60+AA76+AA92+AA108)/6=0.1329276  
 8650666856 (AB28+AB44+AB60+AB76+AB92+AB108)/6=0.1317747832731372 (AC28+AC44+AC60+AC76+AC92+AC  
 108)/6=0.13062188003960581 (AD28+AD44+AD60+AD76+AD92+AD108)/6=0.1294689768060745 (AE28+AE44+A  
 E60+AE76+AE92+AE108)/6=0.12831607357254313 (AF28+AF44+AF60+AF76+AF92+AF108)/6=0.126010267105480  
 47 (AG28+AG44+AG60+AG76+AG92+AG108)/6=0.12370446063841774 (AH28+AH44+AH60+AH76+AH92+AH108)/6=0  
 .12139865417135504 (AI28+AI44+AI60+AI76+AI92+AI108)/6=0.11909284770429233 (AJ28+AJ44+AJ60+AJ76  
 +AJ92+AJ108)/6=0.11678704123722965 0.20 (AN28+AN44+AN60+AN76+AN92+AN108)/6=-226.656663073271  
 18 (AO28+AO44+AO60+AO76+AO92+AO108)/6=-238.18569540858462 (AP28+AP44+AP60+AP76+AP92+AP108)/6=-  
 249.71472774389812 (AQ28+AQ44+AQ60+AQ76+AQ92+AQ108)/6=-261.24376007921165 (AR28+AR44+AR60+AR76  
 +AR92+AR108)/6=-272.77279241452516 (AS28+AS44+AS60+AS76+AS92+AS108)/6=-284.3018247498387 (AT2  
 8+AT44+AT60+AT76+AT92+AT108)/6=-307.35988942046566 (AU28+AU44+AU60+AU76+AU92+AU108)/6=-330.4179  
 5409109267 (AV28+AV44+AV60+AV76+AV92+AV108)/6=-353.4760187617197 (AW28+AW44+AW60+AW76+AW92+AW  
 108)/6=-376.53408343234673 (AX28+AX44+AX60+AX76+AX92+AX108)/6=-399.5921481029737 0.20 (BB2  
 8+BB44+BB60+BB76+BB92+BB108)/6=0.014080589740199894 (BC28+BC44+BC60+BC76+BC92+BC108)/6=0.0129276  
 8650666855 (BD28+BD44+BD60+BD76+BD92+BD108)/6=0.011774783273137199 (BE28+BE44+BE60+BE76+BE92+BE  
 108)/6=0.010621880039605841 (BF28+BF44+BF60+BF76+BF92+BF108)/6=0.00946897680607449 (BG28+BG44+B  
 G60+BG76+BG92+BG108)/6=0.00831607357254314 (BH28+BH44+BH60+BH76+BH92+BH108)/6=0.006010267105480  
 446 (BI28+BI44+BI60+BI76+BI92+BI108)/6=0.003704460638417744 (BJ28+BJ44+BJ60+BJ76+BJ92+BJ108)/6=0  
 .001398654171355038 (BK28+BK44+BK60+BK76+BK92+BK108)/6=-0.071522957076634E-4 (BL28+BL44+B  
 L60+BL76+BL92+BL108)/6=-0.0032129587627703557  
 0.15 (Z29+Z45+Z61+Z77+Z93+Z109)/6=0.13991018059846946 (AA29+AA45+AA61+AA77+AA93+AA109)/6=0  
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 +AC93+AC109)/6=0.1363010922152409 (AD29+AD45+AD61+AD77+AD93+AD109)/6=0.13509806275416467 (AE2  
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0 (BB36+BB52+BB68+BB84+BB100+BB116) /6=0.08112088461029983 (BC36+BC52+BC68+BC84+BC100+BC116) /6=  
0.07939152976000279 (BD36+BD52+BD68+BD84+BD100+BD116) /6=0.07766217490970577 (BE36+BE52+BE68+BE84  
+BE100+BE116) /6=0.07593282005940875 (BF36+BF52+BF68+BF84+BF100+BF116) /6=0.07420346520911171 (BG3  
6+BG52+BG68+BG84+BG100+BG116) /6=0.0724741103588147 (BH36+BH52+BH68+BH84+BH100+BH116) /6=0.069015  
40065822065 (BI36+BI52+BI68+BI84+BI100+BI116) /6=0.0655566909576266 (BJ36+BJ52+BJ68+BJ84+BJ100+B  
J116) /6=0.06209798125703253 (BK36+BK52+BK68+BK84+BK100+BK116) /6=0.05863927155643849 (BL36+BL52+B  
L68+BL84+BL100+BL116) /6=0.05518056185584445  
-0.25 (Z37+Z53+Z69+Z85+Z101+Z117) /6=0.21452894358431981 (AA37+AA53+AA69+AA85+AA101+AA117) /6=  
0.21268429841066963 (AB37+AB53+AB69+AB85+AB101+AB117) /6=0.2108396532370195 (AC37+AC53+AC69+AC85  
+AC101+AC117) /6=0.20899500806336932 (AD37+AD53+AD69+AD85+AD101+AD117) /6=0.2071503628897192 (AE3  
7+AE53+AE69+AE85+AE101+AE117) /6=0.205305717716069 (AF37+AF53+AF69+AF85+AF101+AF117) /6=0.201616  
4273687687 (AG37+AG53+AG69+AG85+AG101+AG117) /6=0.19792713702146836 (AH37+AH53+AH69+AH85+AH101+A  
H117) /6=0.19423784667416802 (AI37+AI53+AI69+AI85+AI101+AI117) /6=0.19054855632686776 (AJ37+AJ53+A  
J69+AJ85+AJ101+AJ117) /6=0.1868592659795674 -0.25 (AN37+AN53+AN69+AN85+AN101+AN117) /6=577.8268  
753679281 (AO37+AO53+AO69+AO85+AO101+AO117) /6=559.3804236314267 (AP37+AP53+AP69+AP85+AP101+A  
P117) /6=540.9339718949249 (AQ37+AQ53+AQ69+AQ85+AQ101+AQ117) /6=522.4875201584232 (AR37+AR53+A  
R69+AR85+AR101+AR117) /6=504.0410684219217 (AS37+AS53+AS69+AS85+AS101+AS117) /6=485.59461668542  
(AT37+AT53+AT69+AT85+AT101+AT117) /6=448.7017132124169 (AU37+AU53+AU69+AU85+AU101+AU117) /6=411.8088  
097394137 (AV37+AV53+AV69+AV85+AV101+AV117) /6=374.91590626641045 (AW37+AW53+AW69+AW85+AW101+A  
W117) /6=338.02300279340716 (AX37+AX53+AX69+AX85+AX101+AX117) /6=301.1300993204041 -0.25 (BB3  
7+BB53+BB69+BB85+BB101+BB117) /6=0.0945289435843198 (BC37+BC53+BC69+BC85+BC101+BC117) /6=0.092684  
29841066966 (BD37+BD53+BD69+BD85+BD101+BD117) /6=0.0908396532370195 (BE37+BE53+BE69+BE85+BE101+B  
E117) /6=0.08899500806336934 (BF37+BF53+BF69+BF85+BF101+BF117) /6=0.08715036288971918 (BG37+BG53+B  
G69+BG85+BG101+BG117) /6=0.085305717716069 (BH37+BH53+BH69+BH85+BH101+BH117) /6=0.08161642736876  
869 (BI37+BI53+BI69+BI85+BI101+BI117) /6=0.07792713702146838 (BJ37+BJ53+BJ69+BJ85+BJ101+BJ117) /6=  
0.07423784667416804 (BK37+BK53+BK69+BK85+BK101+BK117) /6=0.07054855632686773 (BL37+BL53+BL69+BL85  
+BL101+BL117) /6=0.06685926597956741



0194134188	AO27-0.05=-0.1500000000000002	AP27-0.05=-0.10	-0.05	0	0.05	AR27+0.05=0.10
10	0.20	0.30	0.40	0.50	0.60	AM27=0.1456790194134188
0.05	BF27+0.05=0.10	0.20	0.30	0.40	0.50	0.60
Stage 3	C14/C7=0.7736301083793707	D14/D7=0.7035332628006221	E14/E7=0.7946263447785766			
F14/F7=0.7169568055096923	G14/G7=0.7805910678041662	H14/H7=0.85712308093264	I14/I7=0.778			
4029978891152	Coverage of new Stage 3 loans (70%)	M27*0.7=0	N27*0.7=0	O27*0.7=0		
P27*0.7=0	Q27*0.7=0	R27*0.7=0	S27*0.7=0	0.20	(=TABLE(T27, T46))=0.10395930	
358253379	(=TABLE(T27, T46))=0.10302819762294356	(=TABLE(T27, T46))=0.1020970916633533	(=TABLE(T27, T46))=0.10116598570376306	(=TABLE(T27, T46))=0.10023487974417282	(=TABLE(T27, T46))=0.09930377378458256	(=TABLE(T27, T46))=0.0974415618654021
09930377378458256	(=TABLE(T27, T46))=0.09371713802704111	(=TABLE(T27, T46))=0.09185492610786063	(=TABLE(T27, T46))=0.08999271418868013	0.20	(Z28-\$AC\$32)*10000=-417.19715830885	(AA28-\$AC\$32)*10000=-426.508
2179047523	(AB28-\$AC\$32)*10000=-435.8192775006549	(AC28-\$AC\$32)*10000=-445.1303370965573	(AD28-\$AC\$32)*10000=-454.4413966924597	(AE28-\$AC\$32)*10000=-463.7524562883623	(AF28-\$AC\$32)*10000=-482.374575480167	(AG28-\$AC\$32)*10000=-500.99669467197197
68	(AI28-\$AC\$32)*10000=-538.2409330555816	(AJ28-\$AC\$32)*10000=-556.8630522473867	0.20	Z28-\$M\$63=0.010209303582533788	AA28-\$M\$63=0.00927819762294356	AB28-\$M\$63=0.008347091663353304
5635	AF28-\$M\$63=0.003691561865402093	AG28-\$M\$63=0.001829349946221595	AH28-\$M\$63=-3.28619729588891	5E-5	AI28-\$M\$63=-0.0018950738921393734	AJ28-\$M\$63=-0.0037572858113198715
Total	SUM(C26:C28)=0.9050400142177326	SUM(D26:D28)=0.8046684911151136	SUM(E26:E28)=0.8991765099240	078	SUM(F26:F28)=0.8117262236658447	SUM(G26:G28)=0.8641774703143803
606	SUM(I26:I28)=0.8855155570639418	Stage 3 provisions (new)	M28+M26=4046.342	N26+M26=5633.32	O28+O26=6264.786	P28+P26=5799.235
.858	S28+S26=38306.687000000005	0.15	(=TABLE(T27, T46))=0.11319576344714455	(=TABLE(T27, T46))=0.11218193162725046	(=TABLE(T27, T46))=0.11116809980735634	(=TABLE(T27, T46))=0.11015426
798746224	(=TABLE(T27, T46))=0.10914043616756815	(=TABLE(T27, T46))=0.10812660434767403	(=TABLE(T27, T46))=0.10609894070788584	(=TABLE(T27, T46))=0.10407127706809763	(=TABLE(T27, T46))=0.10204361342830941	(=TABLE(T27, T46))=0.10001594978852121
0.15	(Z29-\$AC\$32)*10000=-324.8325596627424	(AA29-\$AC\$32)*10000=-334.97087786168333	(AB29-\$AC\$32)*10000=-345.1091960606245	(AC29-\$AC\$32)*10000=-355.24751425956555	(AD29-\$AC\$32)*10000=-365.83245850646	(AE29-\$AC\$32)*10000=-375.52415065744765
9-	(AF29-\$AC\$32)*10000=-416.0774234532116	(AH29-\$AC\$32)*10000=-436.35405985109384	(AI29-\$AC\$32)*10000=-456.63069624897577	(AJ29-\$AC\$32)*10000=-476.90733264685787	0.15	Z29-\$M\$63=0.01944576344714455
5	AA29-\$M\$63=0.01843193162725046	AB29-\$M\$63=0.01741809980735634	AC29-\$M\$63=0.016404267987462	237	AD29-\$M\$63=0.015390436167568147	AE29-\$M\$63=0.01437660434767403
836	AG29-\$M\$63=0.010321277068097628	AH29-\$M\$63=0.008293613428309407	AI29-\$M\$63=0.006265949788521	213	AJ29-\$M\$63=0.004238286148733006	
Net profit (base)	6405.467516045113	7118.518599790241	3809.28613779219	6242	.064735470831	3822.804240772133
		3853.9025619301465	SUM(M30:R30)=31252.043791800654	0.10	(=TABLE(T27, T46))=0.12372016294119721	(=TABLE(T27, T46))=0.12261206989837907
	(=TABLE(T27, T46))=0.12039588381274278	(=TABLE(T27, T46))=0.1192877907699246	(=TABLE(T27, T46))=0.1181796977271065	(=TABLE(T27, T46))=0.11596351164147023	(=TABLE(T27, T46))=0.1137473255583393	(=TABLE(T27, T46))=0.1115313947019765
	(=TABLE(T27, T46))=0.10709876729892509	0.10	(Z30-\$AC\$32)*10000=-219.588564722215	8	(AA30-\$AC\$32)*10000=-230.6694951503972	(AB30-\$AC\$32)*10000=-241.75042557857878
	(AD30-\$AC\$32)*10000=-263.9122864349415	(AE30-\$AC\$32)*10000=-274.993	(AF30-\$AC\$32)*10000=-297.15507771948563	(AG30-\$AC\$32)*10000=-319.3169385758486	(AH30-\$AC\$32)*10000=-341.4787994322115	(AI30-\$AC\$32)*10000=-363.64066028857417
	(AJ30-\$AC\$32)*10000=-385.80252114493703	0.10	Z30-\$M\$63=0.029970162941197212	AA30-\$M\$63=0.02886206989837907	AB30-\$M\$63=0.027753976855560913	AC30-\$M\$63=0.026645883812742785
	AD30-\$M\$63=0.0244296977271065	AF30-\$M\$63=0.02221351164147023	AG30-\$M\$63=0.0199973255583393	AH30-\$M\$63=0.017781139470197646	AI30-\$M\$63=0.015564953384561375	AJ30-\$M\$63=0.01334876729892509
Expected provision expenses	Net profit (new) - TRYm	M30-(M28*0.8)+((M48-M46)*(0.8)*(0.04))	=6405.467516045113	N30-(N28*0.8)+((N48-N46)*(0.8)*(0.04))	=7118.518599790241	O30-(O28*0.8)+((O48-O46)*(0.8)*(0.04))
	=3809.28613779219	P30-(P28*0.8)+((P48-P46)*(0.8)*(0.04))	=6242.064735470831	Q30-(Q28*0.8)+((Q48-Q46)*(0.8)*(0.04))	=3822.804240772133	R30-(R28*0.8)+((R48-R46)*(0.8)*(0.04))
	S30-(S28*0.8)+((S48-S46)*(0.8)*(0.04))	=31252.043791800654	0.05	(=TABLE(T27, T46))=0.13578358018943185	(=TABLE(T27, T46))=0.13456744179323235	(=TABLE(T27, T46))=0.13335130339703283
	(=TABLE(T27, T46))=0.13213516500083333	(=TABLE(T27, T46))=0.1309190266046338	(=TABLE(T27, T46))=0.12970288820843434	(=TABLE(T27, T46))=0.1272061141603535	(=TABLE(T27, T46))=0.12483833462363633	(=TABLE(T27, T46))=0.12240605783123733
	(=TABLE(T27, T46))=0.11754150424643932	0.05	(Z31-\$AC\$32)*10000=-98.9543922398694	6	(AA31-\$AC\$32)*10000=-111.1157762018644	(AB31-\$AC\$32)*10000=-123.27716016385965
	(AD31-\$AC\$32)*10000=-147.5992808784926	(AE31-\$AC\$32)*10000=-159.761	(AF31-\$AC\$32)*10000=-184.0840799738344	(AG31-\$AC\$32)*10000=-208.4068478978246	(AH31-\$AC\$32)*10000=-232.72961582181463	(AI31-\$AC\$32)*10000=-257.05238374580455
	(AJ31-\$AC\$32)*10000=-281.3751516697947	0.05	Z31-\$M\$63=0.042033580189431846	AA31-\$M\$63=0.04081744179323235	AB31-\$M\$63=0.0396130339703283	AC31-\$M\$63=0.03838516500083333
	AD31-\$M\$63=0.03352061141603535	AG31-\$M\$63=0.03108833462363332	AH31-\$M\$63=0.028656057831237328	AI31-\$M\$63=0.026223781038838337	AJ31-\$M\$63=0.02379150424643932	
TRYm Akbank Garanti Halkbank	Isbank Vakifbank	Yapi Kredi	Average Change in net profit from base	M31/M30-1=0	N31/N30-1=0	O31/O30-1=0
R31/R30-1=0	S31/S30-1=0	0	(=TABLE(T27, T46))=0.14970139715884864	(=TABLE(T27, T46))=0.1483606045770387	(=TABLE(T27, T46))=0.14701981199522873	(=TABLE(T27, T46))=0.1456790194134188
	(=TABLE(T27, T46))=0.14433822683160885	(=TABLE(T27, T46))=0.14299743424979888	(=TABLE(T27, T46))=0.14031584908617897	(=TABLE(T27, T46))=0.13763426392255906	(=TABLE(T27, T46))=0.1349526787589391	(=TABLE(T27, T46))=0.13227109359531927
	(=TABLE(T27, T46))=0.13227109359531927	(=TABLE(T27, T46))=0.12958950843169936	0	Z32-\$AC\$32)*10000=40.22377745429851	(AA32-\$AC\$32)*10000=26.815851636199096	(AB32-\$AC\$32)*10000=

13.40792581809941	(AC32-\$AC\$32)*10000=0	(AD32-\$AC\$32)*10000=-13.40792581809941	(AE32-\$AC\$32)*10000=-26.815851636199096	(AF32-\$AC\$32)*10000=-53.63170327239819	(AG32-\$AC\$32)*10000=-80.4475
5490859728	(AH32-\$AC\$32)*10000=-107.26340654479638	(AI32-\$AC\$32)*10000=-134.0792581809952	(AJ32-\$AC\$32)*10000=-160.89510981719428	0	Z32-\$M\$63=0.05595139715884864
045770387	AB32-\$M\$63=0.05326981199522873	AC32-\$M\$63=0.05192901941341879	AD32-\$M\$63=0.05058802	AE32-\$M\$63=0.04924743424979888	AF32-\$M\$63=0.0465684908617897
2683160885	AG32-\$M\$63=0.041202678758939154	AI32-\$M\$63=0.03852109359531927	AJ32-\$M\$63=0.0358395	0843169936	
63922559064	M30/M\$56=0.14227070975751668	N30/N\$56=0.15379565842592643	O30/O\$56=0.133239279	64267931	P30/P\$56=0.13031433781764779
17283423	S30/S\$56=0.1347398172027409	-0.05	{=TABLE(T27,T46)}=0.1658741242757326	{=TABLE(T27,T46)}=0.16438848152580468	{=TABLE(T27,T46)}=0.16290283877587672
1614171960259488	{=TABLE(T27,T46)}=0.1599315532760209	{=TABLE(T27,T46)}=0.1584459105260929	{=TABLE(T27,T46)}=0.15547462502623713	{=TABLE(T27,T46)}=0.15250333952638126	{=TABLE(T27,T46)}=0.14953205402652542
4	{=TABLE(T27,T46)}=0.14656076852666958	{=TABLE(T27,T46)}=0.14358948	-0.05	(Z33-\$AC\$32)*10000=201.95104862313795	(AA33-\$AC\$32)*10000=187.094621123858
302681374	(AB33-\$AC\$32)*10000=172.23819362457925	(AC33-\$AC\$32)*10000=157.3817661253002	(AD33-\$AC\$32)*10000=142.52533862602112	(AE33-\$AC\$32)*10000=127.6689111267415	(AF33-\$AC\$32)*10000=97.95605
87	(AG33-\$AC\$32)*10000=68.24320112962468	(AH33-\$AC\$32)*10000=38.53034613106626	(AI33-\$AC\$32)*10000=8.817491132507849	(AJ33-\$AC\$32)*10000=-20.895363866050566	-0.05
612818336	AA33-\$M\$63=0.07063848152580468	AB33-\$M\$63=0.06915283877587672	AC33-\$M\$63=0.07212412427573259	AD33-\$M\$63=0.0661815532760209	AE33-\$M\$63=0.06469591052609294
07212412427573259	AG33-\$M\$63=0.05875333952638126	AH33-\$M\$63=0.05578205402652542	AI33-\$M\$63=0.05281076852666958	AJ33-\$M\$63=0.049839483026813736	
.06766719602594881	M31/M\$56=0.14227070975751668	N31/N\$56=0.15379565842592643	O31/O\$56=0.133239279	64267931	P31/P\$56=0.13031433781764779
.06172462502623713	S31/S\$56=0.1347398172027409	-0.10	{=TABLE(T27,T46)}=0.18481653970228226	{=TABLE(T27,T46)}=0.1831612402185663	{=TABLE(T27,T46)}=0.1815059407348503
.05281076852666958	{=TABLE(T27,T46)}=0.17819534176741833	{=TABLE(T27,T46)}=0.1765400422837023	{=TABLE(T27,T46)}=0.17322944331627035	{=TABLE(T27,T46)}=0.16991884434883836	{=TABLE(T27,T46)}=0.1666082453814064
ROE (new)	(AB34-\$AC\$32)*10000=358.269213214315	(AC34-\$AC\$32)*10000=341.7162183771552	(AD34-\$AC\$32)*10000=325.1632235399954	(AE34-\$AC\$32)*10000=308.6102287028353	(AF34-\$AC\$32)*10000=275.5042
64267931	(AG34-\$AC\$32)*10000=242.39824935419568	(AH34-\$AC\$32)*10000=209.29225967987603	(AI34-\$AC\$32)*10000=176.18627000555637	(AJ34-\$AC\$32)*10000=143.08028033123642	-0.10
17283423	AA34-\$M\$63=0.0894112402185663	AB34-\$M\$63=0.0877559407348503	AC34-\$M\$63=0.08610064125113431	AD34-\$M\$63=0.08444534176741833	AE34-\$M\$63=0.08279004228370232
1798506412511343	AG34-\$M\$63=0.07616884434883836	AH34-\$M\$63=0.0728582453814064	AJ34-\$M\$63=0.06954764641397443	Change in ROE from base (M34-M33)=0	(N34-N33)=0
2	(O34-O33)=0	(P34-P33)=0	(Q34-Q33)=0	(R34-R33)=0	(S34-S33)=0
2	{=TABLE(T27,T46)}=0.2071991656177836	{=TABLE(T27,T46)}=0.2016318607798184	{=TABLE(T27,T46)}=0.2034876290591401	{=TABLE(T27,T46)}=0.19792032422117492	{=TABLE(T27,T46)}=0.19420878766253147
2	{=TABLE(T27,T46)}=0.190497251103888	{=TABLE(T27,T46)}=0.1867857145452445	{=TABLE(T27,T46)}=0.18307417798660108	{=TABLE(T27,T46)}=0.1793626414279576	-0.15
2	(Z35-\$AC\$32)*10000=615.201462043648	(AA35-\$AC\$32)*10000=596.6437792504306	(AB35-\$AC\$32)*10000=578.0860	(AC35-\$AC\$32)*10000=522.4130480775613	(AF35-\$AC\$32)*10000=485.29768249112675
2	(AG35-\$AC\$32)*10000=448.18231690469196	(AH35-\$AC\$32)*10000=411.06695131825745	(AI35-\$AC\$32)*10000=373.951585731822	(AJ35-\$AC\$32)*10000=336.8362201453881	-0.15
2	Z35-\$M\$63=0.11344916561778359	AA35-\$M\$63=0.11159339733846185	AB35-\$M\$63=0.10973762905914011	AC35-\$M\$63=0.1078818607798184	AD35-\$M\$63=0.10602609250049666
2	AE35-\$M\$63=0.10417032422117492	AF35-\$M\$63=0.10045878766253147	AG35-\$M\$63=0.09674725110388799	AH35-\$M\$63=0.09303571454524454	AI35-\$M\$63=0.08932417798660108
2	AJ35-\$M\$63=0.0856126414279576	-0.20	{=TABLE(T27,T46)}=0.233908433060701	{=TABLE(T27,T46)}=0.23181344465162296	{=TABLE(T27,T46)}=0.2297184562425449
2	{=TABLE(T27,T46)}=0.22762346783346685	{=TABLE(T27,T46)}=0.22552847	{=TABLE(T27,T46)}=0.22343349101531074	{=TABLE(T27,T46)}=0.21924351419715465	{=TABLE(T27,T46)}=0.21505353737899854
2	{=TABLE(T27,T46)}=0.21086356056084243	{=TABLE(T27,T46)}=0.20667358374268638	{=TABLE(T27,T46)}=0.20248360692453027	-0.20	(Z36-\$AC\$32)*10000=882.29413
2	(AA36-\$AC\$32)*10000=861.3442523820416	(AB36-\$AC\$32)*10000=840.394368291261	(AC36-\$AC\$32)*10000=819.4444842004806	(AD36-\$AC\$32)*10000=798.4946001097002	(AE36-\$AC\$32)*10000=777.5447160189194
2	(AF36-\$AC\$32)*10000=735.6449478373586	(AG36-\$AC\$32)*10000=693.745179655797	(AH36-\$AC\$32)*10000=651.8454114742364	(AI36-\$AC\$32)*10000=609.9456432926759	(AJ36-\$AC\$32)*10000=568.0458751111148
2	Z36-\$M\$63=0.140158433060701	AA36-\$M\$63=0.138063444651622	AB36-\$M\$63=0.1359684562425449	AC36-\$M\$63=0.13387346783346685	AD36-\$M\$63=0.131778479424388
2	AE36-\$M\$63=0.12968349101531074	AF36-\$M\$63=0.12549351419715465	AG36-\$M\$63=0.1227273166359	AE37-\$AC\$32)*10000=1156.8953524476563	(AC37-\$AC\$32)*10000=1133.0590398821464
2	(AD37-\$AC\$32)*10000=1109.2227273166359	(AE37-\$AC\$32)*10000=1085.38641475112	(AF37-\$AC\$32)*10000=1037.7137896201052	(AG37-\$AC\$32)*10000=990.0411644890847	(AH37-\$AC\$32)*10000=913.40792581809941
2	(AI37-\$AC\$32)*10000=858.279	COR impact	Akba nk	Garanti Halkbank	Isbank
2	Vakifbank	Yapi Kredi	Total	-0.25	{=TABLE(T27,T46)}=0.2661358171712865
2	{=TABLE(T27,T46)}=0.2637521859147355	{=TABLE(T27,T46)}=0.26136855	{=TABLE(T27,T46)}=0.2589849234016334	{=TABLE(T27,T46)}=0.25660129214508237	{=TABLE(T27,T46)}=0.2542176608885313
2	{=TABLE(T27,T46)}=0.24945039837542932	{=TABLE(T27,T46)}=0.24468313586232726	{=TABLE(T27,T46)}=0.2399158733492252	{=TABLE(T27,T46)}=0.2351486108361231	{=TABLE(T27,T46)}=0.23038134832302112
2	-0.25	(Z37-\$AC\$32)*10000=1204.5679775786768	(AA37-\$AC\$32)*10000=1180.731665013167	(AB37-\$AC\$32)*10000=1156.8953524476563	(AC37-\$AC\$32)*10000=1133.0590398821464
2	(AD37-\$AC\$32)*10000=1109.2227273166359	(AE37-\$AC\$32)*10000=1085.38641475112	(AF37-\$AC\$32)*10000=1037.7137896201052	(AG37-\$AC\$32)*10000=990.0411644890847	(AH37-\$AC\$32)*10000=913.40792581809941
2	(AI37-\$AC\$32)*10000=858.279				

) \*10000=942.3685393580641 (AI37-\$AC\$32) \*10000=894.6959142270439 (AJ37-\$AC\$32) \*10000=847.0232  
 890960233 -0.25 Z37-\$M\$63=0.17238581717128648 AA37-\$M\$63=0.17000218591473548 AB37-\$M\$63=0  
 .16761855465818443 AC37-\$M\$63=0.16523492340163343 AD37-\$M\$63=0.16285129214508237 AE37-\$M\$63=0  
 .16046766088853132 AF37-\$M\$63=0.15570039837542932 AG37-\$M\$63=0.15093313586232726 AH37-\$M\$63=0  
 .1461658733492252 AI37-\$M\$63=0.14139861083612318 AJ37-\$M\$63=0.13663134832302112  
 Stage 2 246.51 748.876 19.004 588.762 78.11 70.684 SUM(C38:H38)=1751.946 Stage 2 loans % in 1  
 oans (base) M20=0.07133662843524677 N20=0.14735534330719807 O20=0.03192368365437227 P20=0.073769  
 12685352839 Q20=0.026227301668108462 R20=0.03727821168956142 S20=0.06569703294666697  
 Stage 3 397.74 488.162 276.835 531.50 1037.65 589.523 SUM(C39:H39)=3321.4100000000003 Stage 3 loan  
 s % in loans (base) M21=0.019902480089475486 N21=0.025255693882762956 O21=0.028200  
 61603322851 P21=0.022987099868194798 Q21=0.03907207566378646 R21=0.04173465306698942 S21=  
 0.029227683046851582  
 Total SUM(C37:C39)=698.1659999999999 SUM(D37:D39)=1616.995 SUM(E37:E39)=392.371 SUM(F37:F39)  
 =1127.66199999999998 SUM(G37:G39)=1283.114 SUM(H37:H39)=813.327 SUM(C40:H40)=5931.635 Stag  
 e 2 loans % in loans (new) (M6-M27)/M\$8=0.07133662843524677 (N6-N27)/N\$8=0.1473553433071  
 9807 (O6-O27)/O\$8=0.03192368365437227 (P6-P27)/P\$8=0.07376912685352839 (Q6-Q27)/Q\$8  
 =0.026227301668108462 (R6-R27)/R\$8=0.03727821168956142 (S6-S27)/S\$8=0.06569703294666697  
 Average gross loans 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\AKBANK MO  
 DEL- Higher RFR and Lower NIM.xlsx\COR'!\$AH\$13/1000=199098.746 'R:\Bank models\Turkish Bank Model w  
 ith 2020 Estimates\Higher RFR\GARANTI MODEL- Higher RFR and Lower NIM.xlsx\COR'!\$AH\$13/1000=219928.  
 43 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\HALKBANK MODEL- Higher RF  
 R and Lower NIM.xlsx\COR'!\$AH\$13/1000=215448.166 'R:\Bank models\Turkish Bank Model with 2020  
 Estimates\Higher RFR\ISBANK MODEL- Higher RFR and Lower NIM.xlsx\COR'!\$AH\$13/1000=249443.2855 'R:\  
 Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\VAKIFBANK MODEL- Higher RFR and Lower  
 NIM.xlsx\COR'!\$AH\$13/1000=197091.47 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Highe  
 r RFR\YAPI KREDI MODEL- Higher RFR and Lower NIM.xlsx\COR'!\$AH\$13/1000=204895.8715 SUM(C41:H41)  
 =1285905.969 Stage 3 loans % in loans (new) (M7+M27)/M\$8=0.019902480089475486 (N7+N27)/N\$8  
 =0.025255693882762956 (O7+O27)/O\$8=0.02820061603322851 (P7+P27)/P\$8=0.022987099868194798  
 (Q7+Q27)/Q\$8=0.03907207566378646 (R7+R27)/R\$8=0.04173465306698942 (S7+S27)/S\$8=0.02922  
 7683046851582 GARANTI GARANTI GARANTI  
 Stage 1 credit impairments C37=53.916 D37=379.957 E37=96.532 F37=7.40 G37=  
 167.354 H37=153.12 I37=858.279 Y26=Tier 1 capital ratio % of Stage 2 loans transferr  
 ed to Stage 3 loans AM26=Tier 1 capital ratio: change from base (bps) % of Stage 2 loans t  
 ransferred to Stage 3 loans BA26=Headroom above threshold % of Stage 2 loans transferred to St  
 age 3 loans  
 CoR (gross) Stage 2 credit impairments C38=246.51 D38=748.876 E38=19.004 F38=  
 588.762 G38=78.11 H38=70.684 I38=1751.946 Loan growth (ppt change from base) \$N\$7  
 1=0.15627462350605692 AA43-0.05=-0.15000000000000002 AB43-0.05=-0.10 -0.05 0 0.05 AD43  
 +0.05=0.10 0.20 0.30 0.40 0.50 0.60 Y43=0.15627462350605692 AO43-0.05=-0.1500000  
 000000002 AP43-0.05=-0.10 -0.05 0 0.05 AR43+0.05=0.10 0.20 0.30 0.40 0.50  
 0.60 AM43=0.15627462350605692 -0.05 -0.03 -0.01 0 0.05 BF43+0.05=0.10 0.20  
 0.30 0.40 0.50 0.60  
 TRYm Akbank Garanti Halkbank Isbank Vakifbank Yapi Kredi Average Stage 3 cred  
 it impairments (new) M28+C39=397.74 N28+D39=488.162 O28+E39=276.835 P28+F39=531.50 Q28+G39=1037  
 .65 R28+H39=589.523 S28+I39=3321.4100000000003 0.20 (=TABLE(T27,T46))=0.1150959976020075  
 9 (=TABLE(T27,T46))=0.11290534643514785 (=TABLE(T27,T46))=0.11071469526828814 (=TABLE(T27,  
 T46))=0.10852404410142841 (=TABLE(T27,T46))=0.10633339293456869 (=TABLE(T27,T46))=0.10414274  
 176770896 (=TABLE(T27,T46))=0.09976143943398952 (=TABLE(T27,T46))=0.09538013710027007 (=TA  
 BLE(T27,T46))=0.09099883476655062 (=TABLE(T27,T46))=0.08661753243283117 (=TABLE(T27,T46))=0.  
 08223623009911173 0.20 (Z44-\$AC\$48)\*10000=-411.7862590404933 (AA44-\$AC\$48)\*10000=-433.692  
 77070909067 (AB44-\$AC\$48)\*10000=-455.59928237768776 (AC44-\$AC\$48)\*10000=-477.50579404628513 (AD4  
 4-\$AC\$48)\*10000=-499.41230571488234 (AE44-\$AC\$48)\*10000=-521.3188173834795 (AF44-\$AC\$48)\*10000=  
 -565.1318407206741 (AG44-\$AC\$48)\*10000=-608.9448640578685 (AH44-\$AC\$48)\*10000=-652.75788739506  
 3 (AI44-\$AC\$48)\*10000=-696.5709107322575 (AJ44-\$AC\$48)\*10000=-740.3839340694519 0.20 Z44-  
 \$N\$63=0.021345997602007588 AA44-\$N\$63=0.019155346435147852 AB44-\$N\$63=0.016964695268288144 AC44  
 -\$N\$63=0.014774044101428407 AD44-\$N\$63=0.012583392934568685 AE44-\$N\$63=0.010392741767708963 AF44  
 -\$N\$63=0.006011439433989518 AG44-\$N\$63=0.0016301371002700737 AH44-\$N\$63=0.00275116523344  
 93847 AI44-\$N\$63=-0.007132467567168829 AJ44-\$N\$63=-0.011513769900888274  
 Stage 1 C37/C\$41\*4=0.0010832011970582677 D37/D\$41\*4=0.006910557220819518 E37/E\$41\*4=0.0017922  
 083402650082 F37/F\$41\*4=1.1866424843093242E-4 G37/G\$41\*4=0.0033964737286702467 H37/  
 H\$41\*4=0.0029892256760283235 I37/I\$41\*4=0.002669803300368691 Recoveries C49=253 D49=860 E49=  
 188 F49=432 G49=446 H49=330 I49=2509 0.15 (=TABLE(T27,T46))=0.1253219179938684 (=TA  
 BLE(T27,T46))=0.12293663430367709 (=TABLE(T27,T46))=0.12055135061348579 (=TABLE(T27,T46))=0.  
 11816606692329448 (=TABLE(T27,T46))=0.11578078323310317 (=TABLE(T27,T46))=0.1133954995429118  
 8 (=TABLE(T27,T46))=0.10862493216252926 (=TABLE(T27,T46))=0.10385436478214666 (=TABLE(T27,  
 T46))=0.09908379740176403 (=TABLE(T27,T46))=0.09431323002138142 (=TABLE(T27,T46))=0.08954266  
 26409988 0.15 (Z45-\$AC\$48)\*10000=-309.5270551218851 (AA45-\$AC\$48)\*10000=-333.37989202379  
 833 (AB45-\$AC\$48)\*10000=-357.2327289257113 (AC45-\$AC\$48)\*10000=-381.08556582762435 (AD45-\$AC\$48  
 ) \*10000=-404.9384027295375 (AE45-\$AC\$48)\*10000=-428.7912396314504 (AF45-\$AC\$48)\*10000=-476.496  
 9134352766 (AG45-\$AC\$48)\*10000=-524.2025872391026 (AH45-\$AC\$48)\*10000=-571.908261042929 (AI4  
 5-\$AC\$48)\*10000=-619.613934846755 (AJ45-\$AC\$48)\*10000=-667.3196086505811 0.15 Z45-\$N\$63=0.  
 03157191799386841 AA45-\$N\$63=0.029186634303677086 AB45-\$N\$63=0.02680135061348579 AC45-\$N\$63=0  
 .024416066923294483 AD45-\$N\$63=0.022030783233103174 AE45-\$N\$63=0.01964549954291188 AF45-\$N\$63=0  
 .014874932162529261 AG45-\$N\$63=0.010104364782146658 AH45-\$N\$63=0.005333797401764026 AI45-\$N\$63=5  
 .632300213814223E-4 AJ45-\$N\$63=-0.004207337359001195  
 Stage 2 C38/C\$41\*4=0.004952517380496208 D38/D\$41\*4=0.013620358222900059 E38/E\$41\*4=3.528273246011294  
 E-4 F38/F\$41\*4=0.009441216247931435 G38/G\$41\*4=0.0015852537910443307 H38/H\$41\*4=0.0013799  
 009122543496 I38/I\$41\*4=0.005449686189301761 Gross loans (base) C41=199098.746 D41=219928.4  
 3 E41=215448.166 F41=249443.2855 G41=197091.47 H41=204895.8715 I41=1285905.969 0 0.10

```

(=TABLE(T27,T46))=0.13697374921230654 (=TABLE(T27,T46))=0.13436669327819248 (=TABLE(T27,T46))=0.
13175963734407845 (=TABLE(T27,T46))=0.12915258140996438 (=TABLE(T27,T46))=0.1265455254758503
2 (=TABLE(T27,T46))=0.12393846954173628 (=TABLE(T27,T46))=0.11872435767350818 (=TABLE(T27,
T46))=0.11351024580528007 (=TABLE(T27,T46))=0.10829613393705197 (=TABLE(T27,T46))=0.10308202
206882386 (=TABLE(T27,T46))=0.09786791020059576 0.10 (Z46-$AC$48)*10000=-193.008742937503
8 (AA46-$AC$48)*10000=-219.0793022786444 (AB46-$AC$48)*10000=-245.14986161978476 (AC46-$AC$48
)*10000=-271.22042096092537 (AD46-$AC$48)*10000=-297.290980302066 (AE46-$AC$48)*10000=-323.361
5396432064 (AF46-$AC$48)*10000=-375.5026583254874 (AG46-$AC$48)*10000=-427.64377700776845 (AH4
6-$AC$48)*10000=-479.78489569004955 (AI46-$AC$48)*10000=-531.9260143723307 (AJ46-$AC$48)*10000=
-584.0671330546115 0.10 Z46-$N$63=0.04322374921230654 AA46-$N$63=0.04061669327819248 AB46
-$N$63=0.038009637344078445 AC46-$N$63=0.035402581409964384 AD46-$N$63=0.03279552547585032 AE46
-$N$63=0.030188469541736276 AF46-$N$63=0.024974357673508182 AG46-$N$63=0.019760245805280074 AH46
-$N$63=0.014546133937051967 AI46-$N$63=0.009332022068823859 AJ46-$N$63=0.004117910200595765
Stage 3 C39/C$41*4=0.007990808741708499 D39/D$41*4=0.008878561084621938 E39/E$41*4=0.005139704925592
172 F39/F$41*4=0.008522979465005484 G39/G$41*4=0.021059257409770195 H39/H$41*4=0.011508733595932
899 I39/I$41*4=0.010331735228145598 Change in loan growth $T$46=0 $T$46=0 $T$46=0 $T$46=0 $T$4
6=0 $T$46=0 $T$46=0 0.05 (=TABLE(T27,T46))=0.15032946625568339 (=TABLE(T27,T46))=0.14746820
758876455 (=TABLE(T27,T46))=0.14460694892184575 (=TABLE(T27,T46))=0.14174569025492692 (=TA
BLE(T27,T46))=0.1388844315880081 (=TABLE(T27,T46))=0.13602317292108929 (=TABLE(T27,T46))=0.
13030065558725162 (=TABLE(T27,T46))=0.12457813825341399 (=TABLE(T27,T46))=0.1188556209195763
3 (=TABLE(T27,T46))=0.11313310358573868 (=TABLE(T27,T46))=0.10741058625190104 0.05 (Z47
-$AC$48)*10000=-59.45157250373534 (AA47-$AC$48)*10000=-88.06415917292365 (AB47-$AC$48)*10000=
-116.67674584211169 (AC47-$AC$48)*10000=-145.2893325113 (AD47-$AC$48)*10000=-173.90191918048
83 (AE47-$AC$48)*10000=-202.51450584967634 (AF47-$AC$48)*10000=-259.73967918805295 (AG47-$AC$48
)*10000=-316.9648525264293 (AH47-$AC$48)*10000=-374.19002586480593 (AI47-$AC$48)*10000=-431.415
1992031824 (AJ47-$AC$48)*10000=-488.64037254155875 0.05 Z47-$N$63=0.056579466255683386 AA47
-$N$63=0.053718207588764555 AB47-$N$63=0.05085694892184575 AC47-$N$63=0.04799569025492692 AD47
-$N$63=0.04513443158800809 AE47-$N$63=0.04227317921089286 AF47-$N$63=0.03655065587251624 AG47
-$N$63=0.03082813825341399 AH47-$N$63=0.025105620919576327 AI47-$N$63=0.01938310358573868 AJ47
-$N$63=0.013660586251901044
Total SUM(C45:C47)=0.014026527319262974 SUM(D45:D47)=0.029409476528341517 SUM(E45:E47)
=0.0072847405904583095 SUM(F45:F47)=0.018082859961367853 SUM(G45:G47)=0.02604098492948477
SUM(H45:H47)=0.015877860184215574 SUM(I45:I47)=0.018451224717816052 Gross loans (new)
M46*(1+M47)=199098.746 N46*(1+N47)=219928.43 O46*(1+O47)=215448.166 P46*(1+P47)=249443.2855 Q46*
(1+Q47)=197091.47 R46*(1+R47)=204895.8715 S46*(1+S47)=1285905.969 0 (=TABLE(T27,T46))=0.
16573823654689093 (=TABLE(T27,T46))=0.16258369886661292 (=TABLE(T27,T46))=0.1594291611863349
3 (=TABLE(T27,T46))=0.15627462350605692 (=TABLE(T27,T46))=0.1531200858257789 (=TABLE(T27,
T46))=0.14996554814550092 (=TABLE(T27,T46))=0.14365647278494492 (=TABLE(T27,T46))=0.13734739
742438892 (=TABLE(T27,T46))=0.1310383220638329 (=TABLE(T27,T46))=0.1247292467032769 (=TA
BLE(T27,T46))=0.1184201713427209 0 (Z48-$AC$48)*10000=94.63613040834012 (AA48-$AC$48
)*10000=63.09075360555999 (AB48-$AC$48)*10000=31.545376802780133 (AC48-$AC$48)*10000=0 (AD4
8-$AC$48)*10000=-31.545376802780133 (AE48-$AC$48)*10000=-63.09075360555999 (AF48-$AC$48)*10000=
-126.18150721111998 (AG48-$AC$48)*10000=-189.27226081667996 (AH48-$AC$48)*10000=-252.36301442224
024 (AI48-$AC$48)*10000=-315.4537680278002 (AJ48-$AC$48)*10000=-378.5445216333602 0 Z48-
$N$63=0.07198823654689093 AA48-$N$63=0.06883369886661292 AB48-$N$63=0.06567916118633493 AC48
-$N$63=0.06252462350605692 AD48-$N$63=0.05937008582577891 AE48-$N$63=0.05621554814550092 AF48
-$N$63=0.04990647278494492 AG48-$N$63=0.04359739742438892 AH48-$N$63=0.037288322063832896 AI48
-$N$63=0.030979246703276897 AJ48-$N$63=0.024670171342720898
Recoveries 253 860 432 446 330 SUM(C49:H49)=2509 CoR (net), B
ase C57=0.008943622377209748 D57=0.013768024443224555 E57=0.0037943418836064724
F57=0.011155433566480983 G57=0.01698935017329771 H57=0.009435563468637288 I57=0.010646
610506557188 -0.05 (=TABLE(T27,T46))=0.18364347539821713 (=TABLE(T27,T46))=0.1801481427884907
8 (=TABLE(T27,T46))=0.17665281017876447 (=TABLE(T27,T46))=0.17315747756903815 (=TABLE(T27,
T46))=0.1696621449593118 (=TABLE(T27,T46))=0.16616681234958552 (=TABLE(T27,T46))=0.15917614
71301329 (=TABLE(T27,T46))=0.15218548191068026 (=TABLE(T27,T46))=0.1451948166912276 (=TA
BLE(T27,T46))=0.13820415147177498 (=TABLE(T27,T46))=0.1312134862523232 -0.05 (Z49-$AC$48)
*10000=273.68851892160205 (AA49-$AC$48)*10000=238.73519282433864 (AB49-$AC$48)*10000=203.7818
6672707548 (AC49-$AC$48)*10000=168.82854062981235 (AD49-$AC$48)*10000=133.8752145325489 (AE4
9-$AC$48)*10000=98.92188843528604 (AF49-$AC$48)*10000=29.015236240759744 (AG49-$AC$48)*10000=
-40.891415953766554 (AH49-$AC$48)*10000=-110.79806814829313 (AI49-$AC$48)*10000=-180.70472034281
943 (AJ49-$AC$48)*10000=-250.611372537346 -0.05 Z49-$N$63=0.08989347539821713 AA49-$N$63=0
.08639814278849078 AB49-$N$63=0.08290281017876447 AC49-$N$63=0.07940747756903815 AD49-$N$63=0
.07591214495931181 AE49-$N$63=0.07241681234958552 AF49-$N$63=0.0654261471301329 AG49-$N$63=0
.058435481910680265 AH49-$N$63=0.05144481669122761 AI49-$N$63=0.04445415147177498 AJ49-$N$63=0
.03746348625232232
CoR (net), New (M42+M43+M44-M45)/M48*4=0.008943622377209748 (N42+N43+N44-N45)/N48*4=0.0137680244
43224555 (O42+O43+O44-O45)/O48*4=0.0037943418836064724 (P42+P43+P44-P45)/P48*4=0.0111554335
66480983 (Q42+Q43+Q44-Q45)/Q48*4=0.01698935017329771 (R42+R43+R44-R45)/R48*4=0.0094355634
68637288 (S42+S43+S44-S45)/S48*4=0.010646610506557188 -0.10 (=TABLE(T27,T46))=0.20461510
684801346 (=TABLE(T27,T46))=0.20072061588470727 (=TABLE(T27,T46))=0.1968261249214011 (=TA
BLE(T27,T46))=0.19293163395809493 (=TABLE(T27,T46))=0.18903714299478874 (=TABLE(T27,T46))=0.
18514265203148259 (=TABLE(T27,T46))=0.17735367010487024 (=TABLE(T27,T46))=0.1695646881782579
(=TABLE(T27,T46))=0.16177570625164553 (=TABLE(T27,T46))=0.1539867243250332 (=TABLE(T27,T46))=0.
14619774239842084 -0.10 (Z50-$AC$48)*10000=483.40483341956536 (AA50-$AC$48)*10000=444.4599
237865035 (AB50-$AC$48)*10000=405.51501415344194 (AC50-$AC$48)*10000=366.5701045203801 (AD5
0-$AC$48)*10000=327.62519488731823 (AE50-$AC$48)*10000=288.68028525425666 (AF50-$AC$48)*10000=
210.79046598813323 (AG50-$AC$48)*10000=132.9006467220098 (AH50-$AC$48)*10000=55.0108274558860
94 (AI50-$AC$48)*10000=-22.878991810237338 (AJ50-$AC$48)*10000=-100.76881107636076 -0.10 Z50-
$N$63=0.11086510684801346 AA50-$N$63=0.10697061588470727 AB50-$N$63=0.1030761249214011 AC50

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-\$N\$63=0.09918163395809493 AD50-\$N\$63=0.09528714299478874 AE50-\$N\$63=0.09139265203148259 AF50  
 -\$N\$63=0.08360367010487024 AG50-\$N\$63=0.0758146881782579 AH50-\$N\$63=0.06802570625164553 AI50  
 -\$N\$63=0.060236724325033186 AJ50-\$N\$63=0.052447742398420844  
 CoR (net) Change in CoR from base (bps) (M50-M49)\*100=0 (N50-N49)\*100=0 (O50-O49)\*100=0 (P50  
 -P49)\*100=0 (Q50-Q49)\*100=0 (R50-R49)\*100=0 (S50-S49)\*100=0 -0.15 (=TABLE(T27,T46))=0.22939548  
 310988364 (=TABLE(T27,T46))=0.2250293409918518 (=TABLE(T27,T46))=0.22066319887381997 (=TA  
 BLE(T27,T46))=0.21629705675578811 (=TABLE(T27,T46))=0.2119309146377563 (=TABLE(T27,T46))=0.  
 20756477251972447 (=TABLE(T27,T46))=0.1988324882836608 (=TABLE(T27,T46))=0.1901002040475971  
 2 (=TABLE(T27,T46))=0.1813679198115334 (=TABLE(T27,T46))=0.17263563557546976 (=TABLE(T27,  
 T46))=0.1639033513394061 -0.15 (Z51-\$AC\$48)\*10000=731.2085960382672 (AA51-\$AC\$48)\*10000=  
 687.5471748579487 (AB51-\$AC\$48)\*10000=643.8857536776304 (AC51-\$AC\$48)\*10000=600.224332497311  
 9 (AD51-\$AC\$48)\*10000=556.5629113169937 (AE51-\$AC\$48)\*10000=512.9014901366754 (AF51-\$AC\$48  
 )\*10000=425.57864777603874 (AG51-\$AC\$48)\*10000=338.25580541540194 (AH51-\$AC\$48)\*10000=250.9329  
 630547649 (AI51-\$AC\$48)\*10000=163.61012069412845 (AJ51-\$AC\$48)\*10000=76.2872783334917 -0.1  
 5 Z51-\$N\$63=0.13564548310988364 AA51-\$N\$63=0.1312793409918518 AB51-\$N\$63=0.126913198873819  
 97 AC51-\$N\$63=0.12254705675578811 AD51-\$N\$63=0.11818091463775629 AE51-\$N\$63=0.113814772519724  
 47 AF51-\$N\$63=0.10508248828366079 AG51-\$N\$63=0.09635020404759712 AH51-\$N\$63=0.087617919811533  
 41 AI51-\$N\$63=0.07888563557546976 AJ51-\$N\$63=0.07015335133940609  
 -0.20 (=TABLE(T27,T46))=0.258965994604517 (=TABLE(T27,T46))=0.25403702947908263 (=TABLE(T27,  
 T46))=0.24910806435364827 (=TABLE(T27,T46))=0.24417909922821388 (=TABLE(T27,T46))=0.23925013  
 410277948 (=TABLE(T27,T46))=0.23432116897734515 (=TABLE(T27,T46))=0.2244632387264764 (=TA  
 BLE(T27,T46))=0.21460530847560763 (=TABLE(T27,T46))=0.20474737822473885 (=TABLE(T27,T46))=0.  
 19488944797387012 (=TABLE(T27,T46))=0.18503151772300136 -0.20 (Z52-\$AC\$48)\*10000=1026.9137  
 10984601 (AA52-\$AC\$48)\*10000=977.6240597302572 (AB52-\$AC\$48)\*10000=928.3344084759135 (AC5  
 2-\$AC\$48)\*10000=879.0447572215695 (AD52-\$AC\$48)\*10000=829.7551059672256 (AE52-\$AC\$48)\*10000=  
 780.4654547128822 (AF52-\$AC\$48)\*10000=681.8861522041947 (AG52-\$AC\$48)\*10000=583.306849695507  
 1 (AH52-\$AC\$48)\*10000=484.72754718681927 (AI52-\$AC\$48)\*10000=386.14824467813196 (AJ52-\$AC\$48  
 )\*10000=287.56894216944437 -0.20 Z52-\$N\$63=0.16521599460451702 AA52-\$N\$63=0.160287029479082  
 63 AB52-\$N\$63=0.15535806435364827 AC52-\$N\$63=0.15042909922821388 AD52-\$N\$63=0.145500134102779  
 48 AE52-\$N\$63=0.14057116897734515 AF52-\$N\$63=0.1307132387264764 AG52-\$N\$63=0.120855308475607  
 63 AH52-\$N\$63=0.11099737822473885 AI52-\$N\$63=0.10113944797387012 AJ52-\$N\$63=0.091281517723001  
 36  
 TRYm Akbank Garanti Halkbank Isbank Vakifbank Yapi Kredi Average Tier 1 & CAR  
 impact Akbank Garanti Halkbank Isbank Vakifbank Yapi Kredi Total -0.25 (=TA  
 BLE(T27,T46))=0.29464575386113945 (=TABLE(T27,T46))=0.28903768687397857 (=TABLE(T27,T46))=0.  
 2834296198868177 (=TABLE(T27,T46))=0.27782155289965677 (=TABLE(T27,T46))=0.2722134859124958  
 3 (=TABLE(T27,T46))=0.266605418925335 (=TABLE(T27,T46))=0.2553892849510132 (=TABLE(T27,  
 T46))=0.24417315097669143 (=TABLE(T27,T46))=0.23295701700236962 (=TABLE(T27,T46))=0.22174088  
 302804784 (=TABLE(T27,T46))=0.21052474905372606 -0.25 (Z53-\$AC\$48)\*10000=1383.711303550825  
 3 (AA53-\$AC\$48)\*10000=1327.6306336792165 (AB53-\$AC\$48)\*10000=1271.5499638076078 (AC53-\$AC\$48  
 )\*10000=1215.4692939359984 (AD53-\$AC\$48)\*10000=1159.3886240643892 (AE53-\$AC\$48)\*10000=1103.307  
 954192781 (AF53-\$AC\$48)\*10000=991.1466144495629 (AG53-\$AC\$48)\*10000=878.9852747063451 (AH5  
 3-\$AC\$48)\*10000=766.823934963127 (AI53-\$AC\$48)\*10000=654.6625952199092 (AJ53-\$AC\$48)\*10000=  
 542.5012554766914 -0.25 Z53-\$N\$63=0.20089575386113945 AA53-\$N\$63=0.19528768687397857 AB53  
 -\$N\$63=0.1896796198868177 AC53-\$N\$63=0.18407155289965677 AD53-\$N\$63=0.17846348591249583 AE53  
 -\$N\$63=0.172855418925335 AF53-\$N\$63=0.1616392849510132 AG53-\$N\$63=0.15042315097669143 AH53  
 -\$N\$63=0.13920701700236962 AI53-\$N\$63=0.12799088302804784 AJ53-\$N\$63=0.11677474905372606  
 Stage 1 Base Case (2018E)  
 Stage 2 Total RWAs 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[AKBANK MO  
 DEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$585=302875.679288 'R:\Bank models\Turk  
 ish Bank Model with 2020 Estimates\Higher RFR\[GARANTI MODEL- Higher RFR and Lower NIM.xlsx]Forecast  
 (TRY)'!\$BK\$585=291738.2124657 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[H  
 ALKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$585=234881.86808775 'R:\Bank mod  
 els\Turkish Bank Model with 2020 Estimates\Higher RFR\[ISBANK MODEL- Higher RFR and Lower NIM.xlsx]F  
 orecast (TRY)'!\$BK\$585=344418.17760000005 'R:\Bank models\Turkish Bank Model with 2020 Estim  
 ates\Higher RFR\[VAKIFBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$585=218144.9068410  
 0002 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[YAPI KREDI MODEL- High  
 er RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$590=282617.49027600006 SUM(M55:R55)=1674676.3345584  
 502  
 Stage 3 (C39-C49)/C41\*4=0.0029079037996552724 (D39-D49)/D41\*4=-0.006762891000495025 (E39-E49)/E4  
 1\*4=0.0016493062187403346 (F39-F49)/F41\*4=0.0015955530701186181 (G39-G49)/G41\*4=0.0120076226  
 53583133 (H39-H49)/H41\*4=0.005066436880354615 (I39-I49)/I41\*4=0.002527121016886734 Shar  
 eholders equity 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[AKBANK MODEL- Hig  
 her RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$112=45023.093839641784 'R:\Bank models\Turkish Bank  
 Model with 2020 Estimates\Higher RFR\[GARANTI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!  
 \$BK\$112=46285.562756758685 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[H  
 ALKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$112=28589.813364406662 'R:\Bank mod  
 els\Turkish Bank Model with 2020 Estimates\Higher RFR\[ISBANK MODEL- Higher RFR and Lower NIM.xlsx]F  
 orecast (TRY)'!\$BK\$112=47900.06103707109 'R:\Bank models\Turkish Bank Model with 2020 Estim  
 ates\Higher RFR\[VAKIFBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$112=26437.01735411  
 7375 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[YAPI KREDI MODEL- High  
 er RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$112=37708.092663756914 SUM(M56:R56)=231943.64101575  
 254  
 Total (C40-C49)/C41\*4=0.008943622377209748 (D40-D49)/D41\*4=0.013768024443224555 (E40-E49)/E4  
 1\*4=0.0037943418836064724 (F40-F49)/F41\*4=0.011155433566480983 (G40-G49)/G41\*4=0.0169893501  
 7329771 (H40-H49)/H41\*4=0.009435563468637288 (I40-I49)/I41\*4=0.010646610506557188 Tier 1 Capit  
 al 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[AKBANK MODEL- Higher RFR  
 and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$574=44122.63196284895 'R:\Bank models\Turkish Bank Model w  
 ith 2020 Estimates\Higher RFR\[GARANTI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$574=

45591.27931540731 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[HALKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$574=28018.01709711853 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[ISBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$574=46942.05981632967 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[VAKIFBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$574=25908.277007035027 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[YAPI KREDI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$557=33560.20247074365 SUM(M57:R57)=224142.46766948313 HALKBANK HALKBANK HALKBANK

Tier 2 Capital 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[AKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$575=6078.117668351641 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[GARANTI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$575=7161.802715988953 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[HALKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$575=3144.879470084733 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[ISBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$575=8622.010986672796 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[VAKIFBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$575=6212.699078217583 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[YAPI KREDI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$565=9992.644555895582 SUM(M58:R58)=41212.15447521128 Y42=Tier 1 capital ratio % of Stage 2 loans transferred to Stage 3 loans AM42=Tier 1 capital ratio: change from base (bps) % of Stage 2 loans transferred to Stage 3 loans BA42=Headroom above threshold % of Stage 2 loans transferred to Stage 3 loans

Deductions 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[AKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$577=7.262812189425495 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[GARANTI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$577=34.580451246550766 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[HALKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$577=20.012869355084664 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[ISBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$577=47.9000610370711 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[VAKIFBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$577=2.643701735411738 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[YAPI KREDI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$572=301.6647413100553 SUM(M59:R59)=414.06463687359906 Loan growth (ppt change from base) \$O\$71=0.11928556821019161 AA59-0.05=-0.15000000000000002 AB59-0.05=-0.10 -0.05 0 0.05 AD59+0.05=0.10 0.20 0.30 0.40 0.50 0.60 Y59=0.11928556821019161 AO59-0.05=-0.15000000000000002 AP59-0.05=-0.10 -0.05 0 0.05 AR59+0.05=0.10 0.20 0.30 0.40 0.50 0.60 AM59=0.11928556821019161 -0.05 -0.03 -0.01 0 0.05 BF59+0.05=0.10 0.20 0.30 0.40 0.50 0.60

Capital base M57+M58-M59=50193.48681901117 N57+N58-N59=52718.501580149714 O57+O58-O59=31142.883697848178 P57+P58-P59=55516.17074196539 Q57+Q58-Q59=32118.332383517198 R57+R58-R59=43251.182285329174 S57+S58-S59=264940.55750782083 0.20 (=TABLE(T27,T46))=0.0845984782870507 (=TABLE(T27,T46))=0.08401138557335593 (=TABLE(T27,T46))=0.08342429285966117 (=TABLE(T27,T46))=0.08283720014596639 (=TABLE(T27,T46))=0.08225010743227162 (=TABLE(T27,T46))=0.08166301471857687 (=TABLE(T27,T46))=0.08048882929118732 (=TABLE(T27,T46))=0.0793146438637978 (=TABLE(T27,T46))=0.07814045843640825 (=TABLE(T27,T46))=0.07696627300901873 (=TABLE(T27,T46))=0.0757920875816292 0.20 (Z60-\$AC\$64)\*10000=-346.87089923140917 (AA60-\$AC\$64)\*10000=-352.74182638635684 (AB60-\$AC\$64)\*10000=-358.61275350530434 (AC60-\$AC\$64)\*10000=-364.4836806422522 (AD60-\$AC\$64)\*10000=-370.35460777919985 (AE60-\$AC\$64)\*10000=-376.22553491614735 (AF60-\$AC\$64)\*10000=-387.96738919004287 (AG60-\$AC\$64)\*10000=-399.7092434639381 (AH60-\$AC\$64)\*10000=-411.45109773783355 (AI60-\$AC\$64)\*10000=-423.1929520117288 (AJ60-\$AC\$64)\*10000=-434.9348062856241 0.20 Z60-\$O\$63=-0.004151521712949316 AA60-\$O\$63=-0.004738614426644083 AB60-\$O\$63=-0.005325707140338837 AC60-\$O\$63=-0.005912799854033618 AD60-\$O\$63=-0.006499892567728385 AE60-\$O\$63=-0.007086985281423139 AF60-\$O\$63=-0.008261170708812687 AG60-\$O\$63=-0.0094335356136202208 AH60-\$O\$63=-0.010609541563591757 AI60-\$O\$63=-0.011783726990981278 AJ60-\$O\$63=-0.012957912418370812

Tier 1 capital ratio (base) M57/M55=0.1456790194134188 N57/N55=0.15627462350605692 O57/O55=0.11928556821019161 P57/P55=0.13629379303797134 Q57/Q55=0.11876636214990284 R57/R55=0.11874779030119209 S57/S55=0.13384226136364502 0.15 (=TABLE(T27,T46))=0.09211478921236524 (=TABLE(T27,T46))=0.09147553514225525 (=TABLE(T27,T46))=0.09083628107214525 (=TABLE(T27,T46))=0.09019702700203526 (=TABLE(T27,T46))=0.08955777293192527 (=TABLE(T27,T46))=0.08891851886181529 (=TABLE(T27,T46))=0.08764001072159529 (=TABLE(T27,T46))=0.08636150258137532 (=TABLE(T27,T46))=0.08508299444115533 (=TABLE(T27,T46))=0.08380448630093534 (=TABLE(T27,T46))=0.08252597816071537 0.15 (Z61-\$AC\$64)\*10000=-271.7077899782637 (AA61-\$AC\$64)\*10000=-278.10033067936365 (AB61-\$AC\$64)\*10000=-284.49287138046355 (AC61-\$AC\$64)\*10000=-290.8854120815635 (AD61-\$AC\$64)\*10000=-297.2779527826634 (AE61-\$AC\$64)\*10000=-303.6704934837632 (AF61-\$AC\$64)\*10000=-316.4555748859632 (AG61-\$AC\$64)\*10000=-329.24065628816294 (AH61-\$AC\$64)\*10000=-342.0257376903628 (AI61-\$AC\$64)\*10000=-354.81081909256267 (AJ61-\$AC\$64)\*10000=-367.59590049476236 0.15 Z61-\$O\$63=0.0033647892123652295 AA61-\$O\$63=0.0027255351422552365 AB61-\$O\$63=0.0020862810721452435 AC61-\$O\$63=0.0014470270020352505 AD61-\$O\$63=8.077729319252575E-4 AE61-\$O\$63=1.685188618152783E-4 AF61-\$O\$63=-0.0011099892784047216 AG61-\$O\$63=-0.0023884974186246938 AH61-\$O\$63=-0.0036670055884468 AI61-\$O\$63=-0.004945513699064666 AJ61-\$O\$63=-0.006224021839284638

CAR (base) M60/M55=0.165723068081947 N60/N55=0.18070482140335967 O60/O55=0.13258956066465483 P60/P55=0.16118827156225388 Q60/Q55=0.1472339320162418 R60/R55=0.15303788255670486 S60/S55=0.15820403742534273 0.10 (=TABLE(T27,T46))=0.10067918077136609 (=TABLE(T27,T46))=0.09998049192201033 (=TABLE(T27,T46))=0.09928180307265458 (=TABLE(T27,T46))=0.09858311422329882 (=TABLE(T27,T46))=0.09788442537394307 (=TABLE(T27,T46))=0.09718573652458731 (=TABLE(T27,T46))=0.096483588258758 (=TABLE(T27,T46))=0.0957883588258758 (=TABLE(T27,T46))=0.09439098112716429 (=TABLE(T27,T46))=0.09299360342845278 (=TABLE(T27,T46))=0.09159622572974127 (=TABLE(T27,T46))=0.09019884803102976 0.10 (Z62-\$AC\$64)\*10000=-186.0638743882552 (AA62-\$AC\$64)\*10000=-193.05076288181274 (AB62-\$AC\$64)\*10000=-200.0376513753703 (AC62-\$AC\$64)\*10000=-207.02453986892786 (AD62-\$AC\$64)\*10000=-214.01142836248542 (AE62-\$AC\$64)\*10000=-220.99831685604295 (AF62-\$AC\$64)\*10000=-234.97209384315806 (AG62-\$AC\$64

) \*10000=-248.94587083027318 (AH62-\$AC\$64) \*10000=-262.9196478173883 (AI62-\$AC\$64) \*10000=-276.893  
42480450335 (AJ62-\$AC\$64) \*10000=-290.86720179161847 0.10 Z62-\$O\$63=0.01192918077136608 AA62  
-\$O\$63=0.011230491922010324 AB62-\$O\$63=0.01053180307265457 AC62-\$O\$63=0.009833114223298814 AD62  
-\$O\$63=0.009134425373943059 AE62-\$O\$63=0.008435736524587303 AF62-\$O\$63=0.007038358825875793 AG62  
-\$O\$63=0.005640981127164282 AH62-\$O\$63=0.004243603428452772 AI62-\$O\$63=0.0028462257297412613  
AJ62-\$O\$63=0.0014488480310297508  
Tier 1 capital threshold (2018) 0.09375 0.09375 0.08875000000000001 0.09375 0.08875000000000001  
0.09125 AVERAGE (M63:R63)=0.09166666666666667 0.05 (=TABLE (T27, T46))=0.11049597164022947 (=TA  
BLE (T27, T46))=0.10972915666724038 (=TABLE (T27, T46))=0.10896234169425131 (=TABLE (T27, T46))=0.  
10819552672126222 (=TABLE (T27, T46))=0.10742871174827313 (=TABLE (T27, T46))=0.1066618967752840  
7 (=TABLE (T27, T46))=0.10512826682930589 (=TABLE (T27, T46))=0.10359463688332772 (=TABLE (T27,  
T46))=0.10206100693734955 (=TABLE (T27, T46))=0.10052737699137139 (=TABLE (T27, T46))=0.09899374  
704539322 0.05 (Z63-\$AC\$64) \*10000=-87.89596569962144 (AA63-\$AC\$64) \*10000=-95.564115429512  
27 (AB63-\$AC\$64) \*10000=-103.23226515940296 (AC63-\$AC\$64) \*10000=-110.90041488929391 (AD63-\$AC\$64  
) \*10000=-118.56856461918474 (AE63-\$AC\$64) \*10000=-126.23671434907544 (AF63-\$AC\$64) \*10000=-141.573  
01380885724 (AG63-\$AC\$64) \*10000=-156.9093132686389 (AH63-\$AC\$64) \*10000=-172.24561272842053 (AI6  
3-\$AC\$64) \*10000=-187.58191218820218 (AJ63-\$AC\$64) \*10000=-202.91821164798384 0.05 Z63-\$O\$63=0.  
021745971640229456 AA63-\$O\$63=0.020979156667240373 AB63-\$O\$63=0.020212341694251304 AC63-\$O\$63=0.  
.019445526721262207 AD63-\$O\$63=0.018678711748273125 AE63-\$O\$63=0.017911896775284056 AF63-\$O\$63=0.  
.016378266829305876 AG63-\$O\$63=0.014844636883327711 AH63-\$O\$63=0.013311006937349545 AI63-\$O\$63=0.  
.01177737699137138 AJ63-\$O\$63=0.010243747045393214  
CAR threshold (2018) 0.12 0.12 0.12 0.12 0.12 0.12 AVERAGE (M64:R64)=0.12 0  
(=TABLE (T27, T46))=0.12182180873335301 (=TABLE (T27, T46))=0.12097639522563253 (=TABLE (T27, T46))=0.  
12013098171791207 (=TABLE (T27, T46))=0.11928556821019161 (=TABLE (T27, T46))=0.1184401547024711  
4 (=TABLE (T27, T46))=0.11759474119475069 (=TABLE (T27, T46))=0.11590391417930974 (=TABLE (T27,  
T46))=0.11421308716386883 (=TABLE (T27, T46))=0.1125222601484279 (=TABLE (T27, T46))=0.11083143  
313298696 (=TABLE (T27, T46))=0.10914060611754604 0 (Z64-\$AC\$64) \*10000=25.36240523161398  
4 (AA64-\$AC\$64) \*10000=16.908270154409184 (AB64-\$AC\$64) \*10000=8.454135077204661 (AC64-\$AC\$64  
) \*10000=0 (AD64-\$AC\$64) \*10000=-8.454135077204661 (AE64-\$AC\$64) \*10000=-16.908270154409184 (AF6  
4-\$AC\$64) \*10000=-33.816540308818645 (AG64-\$AC\$64) \*10000=-50.724810463227826 (AH64-\$AC\$64) \*10000=-  
67.63308061763715 (AI64-\$AC\$64) \*10000=-84.54135077204647 (AJ64-\$AC\$64) \*10000=-101.44962092645  
565 0 Z64-\$O\$63=0.033071808733353 AA64-\$O\$63=0.03222639522563252 AB64-\$O\$63=0.0313809  
81717912065 AC64-\$O\$63=0.0305355682101916 AD64-\$O\$63=0.029690154702471133 AE64-\$O\$63=0.0288447  
4119475068 AF64-\$O\$63=0.027153914179309735 AG64-\$O\$63=0.025463087163868817 AH64-\$O\$63=0.0237722  
60148427884 AI64-\$O\$63=0.022081433132986952 AJ64-\$O\$63=0.020390606117546034  
Tier 1 capital headroom M61-M63=0.05192901941341879 N61-N63=0.06252462350605692 O61-O63=0.03  
05355682101916 P61-P63=0.042543793037971345 Q61-Q63=0.03001636214990283 R61-R63=0.0274977903  
01192093 S61-S63=0.04217559469697835 -0.05 (=TABLE (T27, T46))=0.13498261355496177 (=TA  
BLE (T27, T46))=0.13404586728601944 (=TABLE (T27, T46))=0.13310912101707711 (=TABLE (T27, T46))=0.  
13217237474813476 (=TABLE (T27, T46))=0.1312356284791924 (=TABLE (T27, T46))=0.1302988822102500  
7 (=TABLE (T27, T46))=0.1284253896723654 (=TABLE (T27, T46))=0.1265518971344807 (=TABLE (T27,  
T46))=0.12467840459659602 (=TABLE (T27, T46))=0.12280491205871133 (=TABLE (T27, T46))=0.12093141  
952082666 -0.05 (Z65-\$AC\$64) \*10000=-156.97045344770163 (AA65-\$AC\$64) \*10000=-147.602990758278  
34 (AB65-\$AC\$64) \*10000=138.23552806885505 (AC65-\$AC\$64) \*10000=128.8680653794315 (AD65-\$AC\$64  
) \*10000=119.50060269000792 (AE65-\$AC\$64) \*10000=110.13314000058463 (AF65-\$AC\$64) \*10000=91.39821  
462173778 (AG65-\$AC\$64) \*10000=72.66328924289093 (AH65-\$AC\$64) \*10000=53.928363864044066 (AI6  
5-\$AC\$64) \*10000=35.19343848519721 (AJ65-\$AC\$64) \*10000=16.45851310635049 -0.05 Z65-\$O\$63=0.  
04623261355496176 AA65-\$O\$63=0.045295867286019434 AB65-\$O\$63=0.044359121017077105 AC65-\$O\$63=0.  
.04342237474813475 AD65-\$O\$63=0.04248562847919239 AE65-\$O\$63=0.04154888221025006 AF65-\$O\$63=0.  
.03967538967236538 AG65-\$O\$63=0.03780189713448069 AH65-\$O\$63=0.035928404596596006 AI65-\$O\$63=0.  
.03405491205871132 AJ65-\$O\$63=0.03218141952082665  
CAR headroom M62-M64=0.04572306808194701 N62-N64=0.06070482140335967 O62-O64=0.0125895606  
6465483 P62-P64=0.04118827156225388 Q62-Q64=0.027233932016241802 R62-R64=0.03303788255670487  
S62-S64=0.03820403742534273 -0.10 (=TABLE (T27, T46))=0.15039729473253458 (=TABLE (T27, T46))=0.  
14935357435263277 (=TABLE (T27, T46))=0.14830985397273097 (=TABLE (T27, T46))=0.1472661335928291  
4 (=TABLE (T27, T46))=0.14622241321292734 (=TABLE (T27, T46))=0.14517869283302554 (=TABLE (T27,  
T46))=0.14309125207322193 (=TABLE (T27, T46))=0.1410038113134183 (=TABLE (T27, T46))=0.13891637  
05536147 (=TABLE (T27, T46))=0.1368289297938111 (=TABLE (T27, T46))=0.13474148903400746 -0.1  
0 (Z66-\$AC\$64) \*10000=311.1172652234297 (AA66-\$AC\$64) \*10000=300.68006142441163 (AB66-\$AC\$64  
) \*10000=290.24285762539364 (AC66-\$AC\$64) \*10000=279.8056538263753 (AD66-\$AC\$64) \*10000=269.3684  
500273573 (AE66-\$AC\$64) \*10000=258.93124622833926 (AF66-\$AC\$64) \*10000=238.05683863030322 (AG6  
6-\$AC\$64) \*10000=217.1824310322669 (AH66-\$AC\$64) \*10000=196.30802343423085 (AI66-\$AC\$64) \*10000=  
175.4336158361948 (AJ66-\$AC\$64) \*10000=154.55920823815848 -0.10 Z66-\$O\$63=0.0616472947325345  
66 AA66-\$O\$63=0.060603574352632764 AB66-\$O\$63=0.05955985397273096 AC66-\$O\$63=0.058516133592829  
13 AD66-\$O\$63=0.05747241321292733 AE66-\$O\$63=0.056428692833025526 AF66-\$O\$63=0.054341252073221  
92 AG66-\$O\$63=0.05225381131341829 AH66-\$O\$63=0.050166370553614684 AI66-\$O\$63=0.048078929793811  
08 AJ66-\$O\$63=0.045991489034007446  
Stage 1 Impact of weaker asset quality (2018E) -0.15 (=TABLE (T27, T46))=0.16861149997695918 (=TA  
BLE (T27, T46))=0.16744137747492394 (=TABLE (T27, T46))=0.1662712549728887 (=TABLE (T27, T46))=0.  
16510113247085345 (=TABLE (T27, T46))=0.1639310099688182 (=TABLE (T27, T46))=0.1627608874667829  
7 (=TABLE (T27, T46))=0.16042064246271248 (=TABLE (T27, T46))=0.158080397458642 (=TABLE (T27,  
T46))=0.15574015245457148 (=TABLE (T27, T46))=0.153399907450501 (=TABLE (T27, T46))=0.15105966  
244643051 -0.15 (Z67-\$AC\$64) \*10000=493.2593176676757 (AA67-\$AC\$64) \*10000=481.558092647323  
3 (AB67-\$AC\$64) \*10000=469.8568676269708 (AC67-\$AC\$64) \*10000=458.1556426066184 (AD67-\$AC\$64  
) \*10000=446.454417586266 (AE67-\$AC\$64) \*10000=434.7531925659136 (AF67-\$AC\$64) \*10000=411.3507  
425252087 (AG67-\$AC\$64) \*10000=387.9482924845039 (AH67-\$AC\$64) \*10000=364.54584244379873 (AI6  
7-\$AC\$64) \*10000=341.1433924030939 (AJ67-\$AC\$64) \*10000=317.74094236238903 -0.15 Z67-\$O\$63=0.  
07986149997695917 AA67-\$O\$63=0.07869137747492393 AB67-\$O\$63=0.07752125497288868 AC67-\$O\$63=0.  
.07635113247085344 AD67-\$O\$63=0.0751810099688182 AE67-\$O\$63=0.07401088746678296 AF67-\$O\$63=0.

.07167064246271247 AG67-\$O\$63=0.06933039745864199 AH67-\$O\$63=0.06699015245457147 AI67-\$O\$63=0  
.06464990745050099 AJ67-\$O\$63=0.0623096624446430505  
Total RWAs (new) M55\*(1+\$T\$46)=302875.679288 N55\*(1+\$T\$46)=291738.2124657 O55\*(1+\$T\$46  
)=234881.86808775 P55\*(1+\$T\$46)=344418.17760000005 Q55\*(1+\$T\$46)=218144.90684100002  
R55\*(1+\$T\$46)=282617.49027600006 SUM(M68:R68)=1674676.3345584502 -0.20 (=TABLE(T27,T46))=0.  
19034657614586403 (=TABLE(T27,T46))=0.1890256175400508 (=TABLE(T27,T46))=0.1877046589342375  
7 (=TABLE(T27,T46))=0.18638370032842436 (=TABLE(T27,T46))=0.1850627417226111 (=TABLE(T27,  
T46))=0.18374178311679792 (=TABLE(T27,T46))=0.18109986590517144 (=TABLE(T27,T46))=0.17845794  
8693545 (=TABLE(T27,T46))=0.17581603148191854 (=TABLE(T27,T46))=0.1731741142702921 (=TABLE(T27,  
T46))=0.17053219705866565 -0.20 (Z68-\$AC\$64)\*10000=710.6100793567242 (AA68-\$AC\$64)\*10000=  
697.4004932985918 (AB68-\$AC\$64)\*10000=684.1909072404596 (AC68-\$AC\$64)\*10000=670.981321182327  
5 (AD68-\$AC\$64)\*10000=657.7717351241951 (AE68-\$AC\$64)\*10000=644.5621490660632 (AF68-\$AC\$64  
)\*10000=618.1429769497983 (AG68-\$AC\$64)\*10000=591.7238048335339 (AH68-\$AC\$64)\*10000=565.3046  
327172693 (AI68-\$AC\$64)\*10000=538.885460601005 (AJ68-\$AC\$64)\*10000=512.4662884847404 -0.2  
0 Z68-\$O\$63=0.10159657614586402 AA68-\$O\$63=0.10027561754005078 AB68-\$O\$63=0.098954658934237  
56 AC68-\$O\$63=0.09763370032842435 AD68-\$O\$63=0.0963127417226111 AE68-\$O\$63=0.094991783116797  
91 AF68-\$O\$63=0.09234986590517143 AG68-\$O\$63=0.089707948693545 AH68-\$O\$63=0.087066031481918  
53 AI68-\$O\$63=0.0844241142702921 AJ68-\$O\$63=0.08178219705866564  
Tier 1 capital (TRYm) M57-(M\$28\*0.8)=44122.63196284895 N57-(N\$28\*0.8)=45591.27931540731  
O57-(O\$28\*0.8)=28018.01709711853 P57-(P\$28\*0.8)=46942.05981632967 Q57-(Q\$28\*0.8)=25908  
.277007035027 R57-(R\$28\*0.8)=33560.20247074365 S57-(S\$28\*0.8)=224142.46766948313 -0.2  
5 (=TABLE(T27,T46))=0.21657210441484973 (=TABLE(T27,T46))=0.2150691470677912 (=TABLE(T27,  
T46))=0.21356618972073255 (=TABLE(T27,T46))=0.21206323237367394 (=TABLE(T27,T46))=0.21056027  
50266153 (=TABLE(T27,T46))=0.20905731767955674 (=TABLE(T27,T46))=0.2060514029854395 (=TA  
BLE(T27,T46))=0.20304548829132232 (=TABLE(T27,T46))=0.2000395735972051 (=TABLE(T27,T46))=0.  
1970336589030879 (=TABLE(T27,T46))=0.1940277442089707 -0.25 (Z69-\$AC\$64)\*10000=972.86536  
20465811 (AA69-\$AC\$64)\*10000=957.8357885759951 (AB69-\$AC\$64)\*10000=942.8062151054094 (AC6  
9-\$AC\$64)\*10000=927.7766416348234 (AD69-\$AC\$64)\*10000=912.747068164237 (AE69-\$AC\$64)\*10000=  
897.7174946936512 (AF69-\$AC\$64)\*10000=867.6583477524789 (AG69-\$AC\$64)\*10000=837.599200811307  
1 (AH69-\$AC\$64)\*10000=807.5400538701348 (AI69-\$AC\$64)\*10000=777.480906928963 (AJ69-\$AC\$64  
)\*10000=747.421759987791 -0.25 Z69-\$O\$63=0.1278221044148497 AA69-\$O\$63=0.126319147067791  
13 AB69-\$O\$63=0.12481618972073254 AC69-\$O\$63=0.12331323237367393 AD69-\$O\$63=0.121810275026615  
3 AE69-\$O\$63=0.12030731767955673 AF69-\$O\$63=0.11730140298543949 AG69-\$O\$63=0.114295488291322  
31 AH69-\$O\$63=0.11128957359720508 AI69-\$O\$63=0.1082836589030879 AJ69-\$O\$63=0.105277744208970  
7  
Capital base (TRYm) M60-(M\$28\*0.8)=50193.48681901117 N60-(N\$28\*0.8)=52718.501580149714  
O60-(O\$28\*0.8)=31142.883697848178 P60-(P\$28\*0.8)=55516.17074196539 Q60-(Q\$28\*0.8)=32118  
.332383517198 R60-(R\$28\*0.8)=43251.182285329174 S60-(S\$28\*0.8)=264940.55750782083  
Tier 1 capital ratio (new) M69/(M68\*(1+\$T\$46))=0.1456790194134188 N69/(N68\*(1+\$T\$46))=0.156274  
62350605692 O69/(O68\*(1+\$T\$46))=0.11928556821019161 P69/(P68\*(1+\$T\$46))=0.13629379303797134 Q69/  
(Q68\*(1+\$T\$46))=0.11876636214990284 R69/(R68\*(1+\$T\$46))=0.11874779030119209 S69/S55=0.1338422613  
6364502  
CAR (new) M70/M68=0.165723068081947 N70/N68=0.18070482140335967 O70/O68=0.1325895606  
6465483 P70/P68=0.16118827156225388 Q70/Q68=0.1472339320162418 R70/R68=0.15303788255670486  
S70/S55=0.15820403742534273  
CoR (net) Tier 1 capital ratio - chg. from base (bps) (M71-M61)\*100=0 (N71-N61)\*100=0 (O71  
-O61)\*100=0 (P71-P61)\*100=0 (Q71-Q61)\*100=0 (R71-R61)\*100=0 (S71-S61)\*100=0 ISBANK ISBANK ISBA  
NK  
CAR - chg. from base (bps) (M72-M62)\*100=0 (N72-N62)\*100=0 (O72-O62)\*100=0 (P72-P62)\*100=0 (Q72  
-Q62)\*100=0 (R72-R62)\*100=0 (S72-S62)\*100=0 Y58=Tier 1 capital ratio % of Stage 2 loans t  
ransferred to Stage 3 loans AM58=Tier 1 capital ratio: change from base (bps) % of Stage 2  
loans transferred to Stage 3 loans BA58=Headroom above threshold % of Stage 2 loans transferr  
ed to Stage 3 loans  
Tier 1 capital headroom M71-M63=0.05192901941341879 N71-N63=0.06252462350605692 O71-O63=0.03  
05355682101916 P71-P63=0.042543793037971345 Q71-Q63=0.03001636214990283 R71-R63=0.0274977903  
01192093 S71-S63=0.04217559469697835 Loan growth (ppt change from base) \$P\$71=0.1362  
9379303797134 AA75-0.05=-0.15000000000000002 AB75-0.05=-0.10 -0.05 0 0.05 AD75+0.05=0.  
10 0.20 0.30 0.40 0.50 0.60 Y75=0.13629379303797134 AO75-0.05=-0.1500000000000000  
02 AP75-0.05=-0.10 -0.05 0 0.05 AR75+0.05=0.10 0.20 0.30 0.40 0.50 0.60  
AM75=0.13629379303797134 -0.05 -0.03 -0.01 0 0.05 BF75+0.05=0.10 0.20 0.30  
0.40 0.50 0.60  
CAR headroom M72-M64=0.04572306808194701 N72-N64=0.06070482140335967 O72-O64=0.0125895606  
6465483 P72-P64=0.04118827156225388 Q72-Q64=0.027233932016241802 R72-R64=0.03303788255670487  
S72-S64=0.03820403742534273 0.20 (=TABLE(T27,T46))=0.09780050867702982 (=TABLE(T27,T46))=0.  
09674982824717993 (=TABLE(T27,T46))=0.09569914781733001 (=TABLE(T27,T46))=0.0946484673874801  
(=TABLE(T27,T46))=0.0935977869576302 (=TABLE(T27,T46))=0.0925471065277803 (=TABLE(T27,T46))=0.  
09044574566808049 (=TABLE(T27,T46))=0.08834438480838068 (=TABLE(T27,T46))=0.0862430239486808  
7 (=TABLE(T27,T46))=0.08414166308898106 (=TABLE(T27,T46))=0.08204030222928124 0.20 (Z76  
-\$AC\$80)\*10000=-384.9328436094153 (AA76-\$AC\$80)\*10000=-395.4396479079142 (AB76-\$AC\$80)\*10000=  
-405.94645220641337 (AC76-\$AC\$80)\*10000=-416.4532565049124 (AD76-\$AC\$80)\*10000=-426.96006080341  
147 (AE76-\$AC\$80)\*10000=-437.4668651019105 (AF76-\$AC\$80)\*10000=-458.48047369890855 (AG76-\$AC\$80  
)\*10000=-479.49408229590665 (AH76-\$AC\$80)\*10000=-500.50769089290475 (AI76-\$AC\$80)\*10000=-521.521  
2994899028 (AJ76-\$AC\$80)\*10000=-542.534908086901 0.20 Z76-\$P\$63=0.004050508677029815 AJ76  
-\$P\$63=0.0029998282471799254 AB76-\$P\$63=0.0019491478173300075 AC76-\$P\$63=0.984673874801036  
E-4 AD76-\$P\$63=-1.5221304236980038E-4 AE76-\$P\$63=-0.0012028934722197043 AF76-\$P\$63=-  
0.0033042543319195122 AG76-\$P\$63=-0.00540561519161932 AH76-\$P\$63=-0.007506976051319128 AI76  
-\$P\$63=-0.009608336911018936 AJ76-\$P\$63=-0.011709697770718758  
TRYm Akbank Garanti Halkbank Isbank Vakifbank Yapi Kredi Average 0.15 (=TA  
BLE(T27,T46))=0.10648977882413835 (=TABLE(T27,T46))=0.10534574871526588 (=TABLE(T27,T46))=0.

10420171860639338 (=TABLE(T27,T46))=0.1030576884975209 (=TABLE(T27,T46))=0.1019136583886484  
 1 (=TABLE(T27,T46))=0.10076962827977591 (=TABLE(T27,T46))=0.09848156806203096 (=TABLE(T27,  
 T46))=0.09619350784428597 (=TABLE(T27,T46))=0.093905447626541 (=TABLE(T27,T46))=0.09161738  
 740879603 (=TABLE(T27,T46))=0.08932932719105105 0.15 (Z77-\$AC\$80)\*10000=-298.040142138329  
 94 (AA77-\$AC\$80)\*10000=-309.48044322705465 (AB77-\$AC\$80)\*10000=-320.92074431577964 (AC77-\$AC\$80  
 )\*10000=-332.3610454045045 (AD77-\$AC\$80)\*10000=-343.80134649322935 (AE77-\$AC\$80)\*10000=-355.241  
 64758195434 (AF77-\$AC\$80)\*10000=-378.12224975940387 (AG77-\$AC\$80)\*10000=-401.00285193685374 (AH7  
 7-\$AC\$80)\*10000=-423.88345411430345 (AI77-\$AC\$80)\*10000=-446.7640562917531 (AJ77-\$AC\$80)\*10000=  
 -469.64465846920297 0.15 Z77-\$P\$63=0.012739778824138348 AA77-\$P\$63=0.011595748715265877 AB77  
 -\$P\$63=0.010451718606393379 AC77-\$P\$63=0.009307688497520894 AD77-\$P\$63=0.00816365838864841 AE77  
 -\$P\$63=0.007019628279775911 AF77-\$P\$63=0.004731568062030955 AG77-\$P\$63=0.002443507844285972 AH77  
 -\$P\$63=1.5544762654100264E-4 AI77-\$P\$63=-0.0021326125912039667 AJ77-\$P\$63=-0.00442067280894  
 895  
 Valuation Akbank Garanti Halkbank Isbank Vakifbank Yapi Kredi Total 0.10  
 (=TABLE(T27,T46))=0.11639068801233297 (=TABLE(T27,T46))=0.11514029146771823 (=TABLE(T27,T46))=0.  
 11388989492310346 (=TABLE(T27,T46))=0.1126394983784887 (=TABLE(T27,T46))=0.1113891018338739  
 3 (=TABLE(T27,T46))=0.11013870528925916 (=TABLE(T27,T46))=0.10763791220002965 (=TABLE(T27,  
 T46))=0.10513711911080012 (=TABLE(T27,T46))=0.1026363260215706 (=TABLE(T27,T46))=0.10013553  
 293234108 (=TABLE(T27,T46))=0.09763473984311154 0.10 (Z78-\$AC\$80)\*10000=-199.031050256383  
 7 (AA78-\$AC\$80)\*10000=-211.53501570253113 (AB78-\$AC\$80)\*10000=-224.03898114867886 (AC78-\$AC\$80  
 )\*10000=-236.54294659482642 (AD78-\$AC\$80)\*10000=-249.04691204097412 (AE78-\$AC\$80)\*10000=-261.550  
 87748712185 (AF78-\$AC\$80)\*10000=-286.558808379417 (AG78-\$AC\$80)\*10000=-311.56673927171227 (AH7  
 8-\$AC\$80)\*10000=-336.5746701640074 (AI78-\$AC\$80)\*10000=-361.5826010563027 (AJ78-\$AC\$80)\*10000=  
 -386.5905319485981 0.10 Z78-\$P\$63=0.022640688012332974 AA78-\$P\$63=0.02139029146771823 AB78  
 -\$P\$63=0.02013989492310346 AC78-\$P\$63=0.018889498378488703 AD78-\$P\$63=0.017639101833873932 AE78  
 -\$P\$63=0.01638870528925916 AF78-\$P\$63=0.013887912200029648 AG78-\$P\$63=0.01138711911080012 AH78  
 -\$P\$63=0.008886326021570606 AI78-\$P\$63=0.006385532932341079 AJ78-\$P\$63=0.003884739843111537  
 Net profit (base) M30=6405.467516045113 N30=7118.518599790241 O30=3809.28613779219 P30=  
 6242.064735470831 Q30=3822.804240772133 R30=3853.9025619301465 S30=31252.043791800654 0.05  
 (=TABLE(T27,T46))=0.127739439904692 (=TABLE(T27,T46))=0.12636712260856153 (=TABLE(T27,T46))=0.  
 12499480531243104 (=TABLE(T27,T46))=0.12362248801630055 (=TABLE(T27,T46))=0.1222501707201700  
 5 (=TABLE(T27,T46))=0.12087785342403956 (=TABLE(T27,T46))=0.1181332188317786 (=TABLE(T27,  
 T46))=0.11538858423951762 (=TABLE(T27,T46))=0.11264394964725666 (=TABLE(T27,T46))=0.10989931  
 505499567 (=TABLE(T27,T46))=0.10715468046273469 0.05 (Z79-\$AC\$80)\*10000=-85.5435313327934  
 6 (AA79-\$AC\$80)\*10000=-99.26670429409812 (AB79-\$AC\$80)\*10000=-112.98987725540304 (AC79-\$AC\$80  
 )\*10000=-126.71305021670798 (AD79-\$AC\$80)\*10000=-140.4362231780129 (AE79-\$AC\$80)\*10000=-154.159  
 39613931783 (AF79-\$AC\$80)\*10000=-181.60574206192743 (AG79-\$AC\$80)\*10000=-209.05208798453728 (AH7  
 9-\$AC\$80)\*10000=-236.49843390714688 (AI79-\$AC\$80)\*10000=-263.9447798297567 (AJ79-\$AC\$80)\*10000=  
 -291.3911257523666 0.05 Z79-\$P\$63=0.033989439904692 AA79-\$P\$63=0.03261712260856153 AB79  
 -\$P\$63=0.03124480531243104 AC79-\$P\$63=0.029872488016300547 AD79-\$P\$63=0.028500170720170054 AE79  
 -\$P\$63=0.02712785342403956 AF79-\$P\$63=0.024383218831778602 AG79-\$P\$63=0.021638584239517616 AH79  
 -\$P\$63=0.018893949647256658 AI79-\$P\$63=0.016149315054995672 AJ79-\$P\$63=0.013404680462734686  
 Net profit (new) M31=6405.467516045113 N31=7118.518599790241 O31=3809.28613779219 P31=  
 6242.064735470831 Q31=3822.804240772133 R31=3853.9025619301465 S31=31252.043791800654 0  
 (=TABLE(T27,T46))=0.14083273249492292 (=TABLE(T27,T46))=0.13931975267593907 (=TABLE(T27,T46))=0.  
 13780677285695522 (=TABLE(T27,T46))=0.13629379303797134 (=TABLE(T27,T46))=0.1347808132189875  
 (=TABLE(T27,T46))=0.13326783340000362 (=TABLE(T27,T46))=0.13024187376203591 (=TABLE(T27,T46))=0.  
 12721591412406816 (=TABLE(T27,T46))=0.12418995448610046 (=TABLE(T27,T46))=0.1211639948481327  
 1 (=TABLE(T27,T46))=0.11813803521016498 0 (Z80-\$AC\$80)\*10000=45.389394569515794 (AA8  
 0-\$AC\$80)\*10000=30.25959637967729 (AB80-\$AC\$80)\*10000=15.129798189838784 (AC80-\$AC\$80)\*10000=  
 0 (AD80-\$AC\$80)\*10000=-15.129798189838507 (AE80-\$AC\$80)\*10000=-30.25959637967729 (AF80-\$AC\$80  
 )\*10000=-60.519192759354304 (AG80-\$AC\$80)\*10000=-90.77878913903187 (AH80-\$AC\$80)\*10000=-121.038  
 38551870888 (AI80-\$AC\$80)\*10000=-151.2979818983863 (AJ80-\$AC\$80)\*10000=-181.5575782780636 0  
 Z80-\$P\$63=0.047082732494922924 AA80-\$P\$63=0.045569752675939074 AB80-\$P\$63=0.04405677285695522 AC80  
 -\$P\$63=0.042543793037971345 AD80-\$P\$63=0.041030813218987494 AE80-\$P\$63=0.039517833400003616 AF80  
 -\$P\$63=0.036491873762035915 AG80-\$P\$63=0.03346591412406816 AH80-\$P\$63=0.030439954486100457 AI80  
 -\$P\$63=0.027413994848132714 AJ80-\$P\$63=0.024388035210164985  
 Book value (base) M56=45023.093839641784 N56=46285.562756758685 O56=28589.813364406662 P56=  
 47900.06103707109 Q56=26437.017354117375 R56=37708.092663756914 S56=231943.64101575254 -0.0  
 5 (=TABLE(T27,T46))=0.15604734902484535 (=TABLE(T27,T46))=0.1543709170924533 (=TABLE(T27,  
 T46))=0.15269448516006118 (=TABLE(T27,T46))=0.1510180532276691 (=TABLE(T27,T46))=0.14934162  
 1295277 (=TABLE(T27,T46))=0.1476651893628849 (=TABLE(T27,T46))=0.14431232549810072 (=TABLE(T27,  
 T46))=0.14095946163331655 (=TABLE(T27,T46))=0.13760659776853237 (=TABLE(T27,T46))=0.13425373  
 390374817 (=TABLE(T27,T46))=0.13090087003896397 -0.05 (Z81-\$AC\$80)\*10000=197.5355598687400  
 5 (AA81-\$AC\$80)\*10000=180.77124054481948 (AB81-\$AC\$80)\*10000=164.00692122089833 (AC81-\$AC\$80  
 )\*10000=147.24260189697748 (AD81-\$AC\$80)\*10000=130.47828257305662 (AE81-\$AC\$80)\*10000=113.7139  
 6324913546 (AF81-\$AC\$80)\*10000=80.18532460129374 (AG81-\$AC\$80)\*10000=46.65668595345201 (AH8  
 1-\$AC\$80)\*10000=13.128047305610291 (AI81-\$AC\$80)\*10000=-20.40059134223171 (AJ81-\$AC\$80)\*10000=  
 -53.929229990073715 -0.05 Z81-\$P\$63=0.06229734902484535 AA81-\$P\$63=0.06062091709245329 AB81  
 -\$P\$63=0.05894448516006118 AC81-\$P\$63=0.05726805322766909 AD81-\$P\$63=0.055591621295277005 AE81  
 -\$P\$63=0.05391518936288489 AF81-\$P\$63=0.05056232549810072 AG81-\$P\$63=0.047209461633316546 AH81  
 -\$P\$63=0.043856597768532374 AI81-\$P\$63=0.040503733903748174 AJ81-\$P\$63=0.03715087003896397  
 Book value (new) M56-(M28\*0.8)=45023.093839641784 N56-(N28\*0.8)=46285.562756758685  
 O56-(O28\*0.8)=28589.813364406662 P56-(P28\*0.8)=47900.06103707109 Q56-(Q28\*0.8)=26437.01735411  
 7375 R56-(R28\*0.8)=37708.092663756914 S56-(S28\*0.8)=231943.64101575254 -0.10 (=TA  
 BLE(T27,T46))=0.17386757098138633 (=TABLE(T27,T46))=0.17199969466165319 (=TABLE(T27,T46))=0.  
 17013181834192 (=TABLE(T27,T46))=0.16826394202218684 (=TABLE(T27,T46))=0.1663960657024537 (=TA  
 BLE(T27,T46))=0.1645281893827205 (=TABLE(T27,T46))=0.1607924367432542 (=TABLE(T27,T46))=0.15705668410378784  
 (=TABLE(T27,T46))=0.15332093146432155 (=TABLE(T27,T46))=0.1495851788248552

(=TABLE(T27,T46))=0.14584942618538888 -0.10 (Z82-\$AC\$80)\*10000=375.7377794341499 (AA82-\$AC\$80)\*10000=357.0590162368184 (AB82-\$AC\$80)\*10000=338.38025303948666 (AC82-\$AC\$80)\*10000=319.7014898421549 (AD82-\$AC\$80)\*10000=301.0227266448234 (AE82-\$AC\$80)\*10000=282.34396344749166 (AF82-\$AC\$80)\*10000=244.98643705282848 (AG82-\$AC\$80)\*10000=207.62891065816495 (AH82-\$AC\$80)\*10000=170.27138426350203 (AI82-\$AC\$80)\*10000=132.91385786883853 (AJ82-\$AC\$80)\*10000=95.5563314741753

1 -0.10 Z82-\$P\$63=0.08011757098138633 AA82-\$P\$63=0.07824969466165319 AB82-\$P\$63=0.07638181834192001 AC82-\$P\$63=0.07451394202218684 AD82-\$P\$63=0.07264606570245369 AE82-\$P\$63=0.07077818938272051 AF82-\$P\$63=0.06704243674325419 AG82-\$P\$63=0.06330668410378784 AH82-\$P\$63=0.05957093146432155 AI82-\$P\$63=0.0558351788248552 AJ82-\$P\$63=0.052099426185388875

Price (TRY/shr) 6.60 7 6.40 4.94 4.06 2.2 -0.15 (=TABLE(T27,T46))=0.19492419722480683 (=TABLE(T27,T46))=0.1928301075099503 (=TABLE(T27,T46))=0.19073601779509375 (=TABLE(T27,T46))=0.18864192808023716 (=TABLE(T27,T46))=0.1865478383653806 (=TABLE(T27,T46))=0.18445374865052405 (=TABLE(T27,T46))=0.18026556922081094 (=TABLE(T27,T46))=0.1760773897910978

3 (=TABLE(T27,T46))=0.17188921036138471 (=TABLE(T27,T46))=0.1677010309316716 (=TABLE(T27,T46))=0.16351285150195846 -0.15 (Z83-\$AC\$80)\*10000=586.3040418683548 (AA83-\$AC\$80)\*10000=565.3631447197896 (AB83-\$AC\$80)\*10000=544.422247571224 (AC83-\$AC\$80)\*10000=523.481350422658

2 (AD83-\$AC\$80)\*10000=502.5404532740926 (AE83-\$AC\$80)\*10000=481.5995561255271 (AF83-\$AC\$80)\*10000=439.71776182839596 (AG83-\$AC\$80)\*10000=397.8359675312648 (AH83-\$AC\$80)\*10000=355.9541732341337 (AI83-\$AC\$80)\*10000=314.07237893700255 (AJ83-\$AC\$80)\*10000=272.1905846398712 -0.1

5 Z83-\$P\$63=0.10117419722480683 AA83-\$P\$63=0.0990801075099503 AB83-\$P\$63=0.09698601779509375 AC83-\$P\$63=0.09489192808023716 AD83-\$P\$63=0.09279783836538061 AE83-\$P\$63=0.09070374865052405 AF83-\$P\$63=0.08651556922081094 AG83-\$P\$63=0.08232738979109783 AH83-\$P\$63=0.07813921036138471 AI83-\$P\$63=0.0739510309316716 AJ83-\$P\$63=0.06976285150195846

Paid-in cap (TRYm) 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[AKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$113=4000 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[GARANTI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$113=4200 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[HALKBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$113=1250 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[ISBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$113=4500 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[VAKIFBANK MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$113=2500 'R:\Bank models\Turkish Bank Model with 2020 Estimates\Higher RFR\[YAPI KREDI MODEL- Higher RFR and Lower NIM.xlsx]Forecast (TRY)'!\$BK\$113=8447.051 -0.20 (=TABLE(T27,T46))=0.22005114452331706 (=TABLE(T27,T46))=0.2176871135561548 (=TABLE(T27,T46))=0.21532308258899252 (=TABLE(T27,T46))=0.2129590516218302 (=TABLE(T27,T46))=0.2105950206546679

2 (=TABLE(T27,T46))=0.20823098968750564 (=TABLE(T27,T46))=0.20350292775318107 (=TABLE(T27,T46))=0.1987748658188565 (=TABLE(T27,T46))=0.19404680388453194 (=TABLE(T27,T46))=0.18931874195020737 (=TABLE(T27,T46))=0.18459068001588277 -0.20 (Z84-\$AC\$80)\*10000=837.5735148534571 (AA84-\$AC\$80)\*10000=813.9332051818346 (AB84-\$AC\$80)\*10000=790.2928955102118 (AC84-\$AC\$80)\*10000=766.6525858385886 (AD84-\$AC\$80)\*10000=743.0122761669658 (AE84-\$AC\$80)\*10000=719.3719664953429 (AF84-\$AC\$80)\*10000=672.0913471520973 (AG84-\$AC\$80)\*10000=624.8107278088517 (AH84-\$AC\$80)\*10000=577.530108465606 (AI84-\$AC\$80)\*10000=530.2494891223603 (AJ84-\$AC\$80)\*10000=482.9688697791143 -0.20 Z84-\$P\$63=0.12630114452331706 AA84-\$P\$63=0.1239371135561548 AB84-\$P\$63=0.12157308258899252 AC84-\$P\$63=0.11920905162183021 AD84-\$P\$63=0.11684502065466792 AE84-\$P\$63=0.11448098968750564 AF84-\$P\$63=0.10975292775318107 AG84-\$P\$63=0.1050248658188565 AH84-\$P\$63=0.10029680388453194 AI84-\$P\$63=0.09556874195020737 AJ84-\$P\$63=0.09084068001588277

M.Cap (TRYm) M83\*M84=26400 N83\*N84=29400 O83\*O84=8000 P83\*P84=22230 Q83\*Q84=10149.999999999998 R83\*R84=18583.5122 -0.25 (=TABLE(T27,T46))=0.2503693022131963 (=TABLE(T27,T46))=0.2476795603127806 (=TABLE(T27,T46))=0.24498981841236483 (=TABLE(T27,T46))=0.24230007651194907

7 (=TABLE(T27,T46))=0.2396103346115333 (=TABLE(T27,T46))=0.23692059271111754 (=TABLE(T27,T46))=0.23154110891028604 (=TABLE(T27,T46))=0.22616162510945453 (=TABLE(T27,T46))=0.22078214130862303 (=TABLE(T27,T46))=0.2154026575077915 (=TABLE(T27,T46))=0.21002317370695997 -0.2

5 (Z85-\$AC\$80)\*10000=1140.7550917522497 (AA85-\$AC\$80)\*10000=1113.8576727480925 (AB85-\$AC\$80)\*10000=1086.9602537439348 (AC85-\$AC\$80)\*10000=1060.0628347397771 (AD85-\$AC\$80)\*10000=1033.1654157356195 (AE85-\$AC\$80)\*10000=1006.267996731462 (AF85-\$AC\$80)\*10000=952.4731587231469 (AG85-\$AC\$80)\*10000=898.6783207148319 (AH85-\$AC\$80)\*10000=844.8834827065168 (AI85-\$AC\$80)\*10000=791.0886446982015 (AJ85-\$AC\$80)\*10000=737.2938066898863 -0.25 Z85-\$P\$63=0.1566193022131963 AA85-\$P\$63=0.1539295603127806 AB85-\$P\$63=0.15123981841236483 AC85-\$P\$63=0.14855007651194907 AD85-\$P\$63=0.1458603346115333 AE85-\$P\$63=0.14317059271111754 AF85-\$P\$63=0.13779110891028604 AG85-\$P\$63=0.13241162510945453 AH85-\$P\$63=0.12703214130862303 AI85-\$P\$63=0.1216526575077915 AJ85-\$P\$63=0.11627317370695997

P/E (2018E), base (x) M\$85/M79=4.121479023017509 N\$85/N79=4.130072793638036 O\$85/O79=2.100131024716534 P\$85/P79=3.5613216046410034 Q\$85/Q79=2.6551189547571217 R\$85/R79=4.821998455169255 AVERAGE(M87:R87)=3.565020309323243

P/E (2018E), implied (x) M\$85/M80=4.121479023017509 N\$85/N80=4.130072793638036 O\$85/O80=2.100131024716534 P\$85/P80=3.5613216046410034 Q\$85/Q80=2.6551189547571217 R\$85/R80=4.821998455169255 AVERAGE(M88:R88)=3.565020309323243 (=TABLE(T27,T46))=0

Change from base M88/M87-1=0 N88/N87-1=0 O88/O87-1=0 P88/P87-1=0 Q88/Q87-1=0 R88/R87-1=0 S88/S87-1=0 VAKIFBANK VAKIFBANK VAKIFBANK

Y74=Tier 1 capital ratio % of Stage 2 loans transferred to Stage 3 loans AM74=Tier 1 capital ratio: change from base (bps) % of Stage 2 loans transferred to Stage 3 loans BA74=Headroom above threshold % of Stage 2 loans transferred to Stage 3 loans

P/BV (2018E), base (x) M\$85/M81=0.5863657458554173 N\$85/N81=0.6351872646445671 O\$85/O81=0.27981994488847295 P\$85/P81=0.4640912666644752 Q\$85/Q81=0.38393135897454816 R\$85/R81=0.4928255683921537 AVERAGE(M91:R91)=0.47370352490327244 Loan growth (ppt change from base) Q\$97

1=0.11876636214990284 AA91-0.05=-0.15000000000000002 AB91-0.05=-0.10 -0.05 0 0.05 AD91+0.05=0.10 0.20 0.30 0.40 0.50 0.60 Y91=0.11876636214990284 AO91-0.05=-0.15000000000000002 AP91-0.05=-0.10 -0.05 0 0.05 AR91+0.05=0.10 0.20 0.30 0.40 0.50 0.60 AM91=0.11876636214990284 -0.05 -0.03 -0.01 0 0.05 BF91+0.05=0.10 0.20 0.30 0.40 0.50 0.60

P/BV (2018E), implied (x) M\$85/M82=0.5863657458554173 N\$85/N82=0.6351872646445671 O\$85  
/O82=0.27981994488847295 P\$85/P82=0.4640912666644752 Q\$85/Q82=0.38393135897454816 R\$85  
/R82=0.4928255683921537 AVERAGE(M92:R92)=0.47370352490327244 0.20 (=TABLE(T27, T46))=0.08390277  
567196999 (=TABLE(T27, T46))=0.083427397241939 (=TABLE(T27, T46))=0.08295201881190799 (=TA  
BLE(T27, T46))=0.08247664038187699 (=TABLE(T27, T46))=0.082001261951846 (=TABLE(T27, T46))=0.  
08152588352181499 (=TABLE(T27, T46))=0.08057512666175298 (=TABLE(T27, T46))=0.0796243698016909  
8 (=TABLE(T27, T46))=0.07867361294162899 (=TABLE(T27, T46))=0.07772285608156698 (=TABLE(T27,  
T46))=0.07677209922150499 0.20 (Z92-\$AC\$96)\*10000=-348.6358647793285 (AA92-\$AC\$96)\*10000=  
-353.38964907963845 (AB92-\$AC\$96)\*10000=-358.14343337994853 (AC92-\$AC\$96)\*10000=-362.89721768025  
85 (AD92-\$AC\$96)\*10000=-367.6510019805684 (AE92-\$AC\$96)\*10000=-372.4047862808785 (AF92-\$AC\$96  
)\*10000=-381.9123548814986 (AG92-\$AC\$96)\*10000=-391.41992348211863 (AH92-\$AC\$96)\*10000=-400.927  
4920827385 (AI92-\$AC\$96)\*10000=-410.4350606833586 (AJ92-\$AC\$96)\*10000=-419.9426292839785 0.20  
Z92-\$Q\$63=-0.004847224328030017 AA92-\$Q\$63=-0.0053226027580610125 AB92-\$Q\$63=-0.00579798118809  
2022 AC92-\$Q\$63=-0.006273359618123017 AD92-\$Q\$63=-0.006748738048154013 AE92-\$Q\$63=-  
0.007224116478185022 AF92-\$Q\$63=-0.008174873338247027 AG92-\$Q\$63=-0.009125630198309032  
AH92-\$Q\$63=-0.010076387058371022 AI92-\$Q\$63=-0.011027143918433027 AJ92-\$Q\$63=-0.011977  
900778495018  
Stage 1 Change from base M92/M91-1=0 N92/N91-1=0 O92/O91-1=0 P92/P91-1=0 Q92/  
Q91-1=0 R92/R91-1=0 S92/S91-1=0 0.15 (=TABLE(T27, T46))=0.0913572755898955 (=TABLE(T27,  
T46))=0.0908396612691056 (=TABLE(T27, T46))=0.09032204694831569 (=TABLE(T27, T46))=0.08980443  
26275258 (=TABLE(T27, T46))=0.0892868183067359 (=TABLE(T27, T46))=0.088769203985946 (=TA  
BLE(T27, T46))=0.08773397534436621 (=TABLE(T27, T46))=0.0866987467027864 (=TABLE(T27, T46))=0.  
08566351806120662 (=TABLE(T27, T46))=0.08462828941962681 (=TABLE(T27, T46))=0.0835930607780470  
3 0.15 (Z93-\$AC\$96)\*10000=-274.09086560007347 (AA93-\$AC\$96)\*10000=-279.2670088079724 (AB9  
3-\$AC\$96)\*10000=-284.4431520158715 (AC93-\$AC\$96)\*10000=-289.6192952237704 (AD93-\$AC\$96)\*10000=  
-294.79543843166937 (AE93-\$AC\$96)\*10000=-299.97158163956846 (AF93-\$AC\$96)\*10000=-310.32386805536  
635 (AG93-\$AC\$96)\*10000=-320.67615447116435 (AH93-\$AC\$96)\*10000=-331.02844088696224 (AI93-\$AC\$96  
)\*10000=-341.38072730276025 (AJ93-\$AC\$96)\*10000=-351.73301371855814 0.15 Z93-\$Q\$63=0.00260727  
5589895486 AA93-\$Q\$63=0.0020896612691055916 AB93-\$Q\$63=0.0015720469483156835 AC93  
-\$Q\$63=0.0010544326275257893 AD93-\$Q\$63=5.36818306735895E-4 AE93-\$Q\$63=1.9203985945986934E-5  
AF93-\$Q\$63=-0.0010160246556338015 AG93-\$Q\$63=-0.002051253297213604 AH93-\$Q\$63=-0.003086  
4819387933923 AI93-\$Q\$63=-0.004121710580373195 AJ93-\$Q\$63=-0.005156939221952983  
Discount to MSCI EM Banks 0.10 (=TABLE(T27, T46))=0.09985123716333615 (=TABLE(T27, T46))=0.  
0992854975441257 (=TABLE(T27, T46))=0.09871975792491525 (=TABLE(T27, T46))=0.0981540183057048  
(=TABLE(T27, T46))=0.09758827868649436 (=TABLE(T27, T46))=0.0970225390672839 (=TABLE(T27, T46))=0.  
09589105982886302 (=TABLE(T27, T46))=0.09475958059044212 (=TABLE(T27, T46))=0.0936281013520212  
4 (=TABLE(T27, T46))=0.09249662211360034 (=TABLE(T27, T46))=0.09136514287517945 0.10 (Z94  
-\$AC\$96)\*10000=-189.15124986566695 (AA94-\$AC\$96)\*10000=-194.80864605777137 (AB94-\$AC\$96)\*10000=  
-200.46604224987593 (AC94-\$AC\$96)\*10000=-206.12343844198037 (AD94-\$AC\$96)\*10000=-211.78083463408  
478 (AE94-\$AC\$96)\*10000=-217.43823082618934 (AF94-\$AC\$96)\*10000=-228.7530232103982 (AG94-\$AC\$96  
)\*10000=-240.0678155946072 (AH94-\$AC\$96)\*10000=-251.38260797881603 (AI94-\$AC\$96)\*10000=-262.697  
400363025 (AJ94-\$AC\$96)\*10000=-274.0121927472339 0.10 Z94-\$Q\$63=0.011101237163336136 AA94  
-\$Q\$63=0.010535497544125694 AB94-\$Q\$63=0.009969757924915237 AC94-\$Q\$63=0.009404018305704795 AD94  
-\$Q\$63=0.008838278686494352 AE94-\$Q\$63=0.008272539067283896 AF94-\$Q\$63=0.007141059828863011 AG94  
-\$Q\$63=0.006009580590442112 AH94-\$Q\$63=0.004878101352021227 AI94-\$Q\$63=0.0037466221136003286  
AJ94-\$Q\$63=0.0026151428751794437  
P/E (2018E), base (x) M87/\$M\$110-1=-0.45555098771235025 N87/\$M\$110-1=-0.4544157472076571  
O87/\$M\$110-1=-0.7225718593505239 P87/\$M\$110-1=-0.5295480046709375 Q87/\$M\$110-1=-0.6492  
577338497858 R87/\$M\$110-1=-0.36301209310842075 AVERAGE(M95:R95)=-0.5290594043166126 0.05  
(=TABLE(T27, T46))=0.10958729883685875 (=TABLE(T27, T46))=0.10896639639763459 (=TABLE(T27, T46))=0.  
10834549395841041 (=TABLE(T27, T46))=0.10772459151918624 (=TABLE(T27, T46))=0.1071036890799621  
(=TABLE(T27, T46))=0.10648278664073792 (=TABLE(T27, T46))=0.1052409817622896 (=TABLE(T27, T46))=0.  
10399917688384126 (=TABLE(T27, T46))=0.10275737200539295 (=TABLE(T27, T46))=0.1015155671269446  
1 (=TABLE(T27, T46))=0.1002737622484963 0.05 (Z95-\$AC\$96)\*10000=-91.79063313044092 (AA9  
5-\$AC\$96)\*10000=-97.99965752268255 (AB95-\$AC\$96)\*10000=-104.20868191492433 (AC95-\$AC\$96)\*10000=  
-110.41770630716596 (AD95-\$AC\$96)\*10000=-116.62673069940746 (AE95-\$AC\$96)\*10000=-122.83575509164  
923 (AF95-\$AC\$96)\*10000=-135.25380387613237 (AG95-\$AC\$96)\*10000=-147.67185266061577 (AH95-\$AC\$96  
)\*10000=-160.08990144509892 (AI95-\$AC\$96)\*10000=-172.50795022958232 (AJ95-\$AC\$96)\*10000=-184.925  
99901406544 0.05 Z95-\$Q\$63=0.02083729883685874 AA95-\$Q\$63=0.020216396397634576 AB95-\$Q\$63=0  
.019595493958410398 AC95-\$Q\$63=0.018974591519186235 AD95-\$Q\$63=0.018353689079962085 AE95-\$Q\$63=0  
.017732786640737908 AF95-\$Q\$63=0.016490981762289594 AG95-\$Q\$63=0.015249176883841253 AH95-\$Q\$63=0  
.01400737200539294 AI95-\$Q\$63=0.0127655671269446 AJ95-\$Q\$63=0.011523762248496286  
P/E (2018E), implied (x) M88/\$M\$110-1=-0.45555098771235025 N88/\$M\$110-1=-0.4544157472076571  
6571 O88/\$M\$110-1=-0.7225718593505239 P88/\$M\$110-1=-0.5295480046709375 Q88/\$M\$110-1  
=-0.6492577338497858 R88/\$M\$110-1=-0.36301209310842075 AVERAGE(M96:R96)=-0.5290594043166126  
0 (=TABLE(T27, T46))=0.12081999696763678 (=TABLE(T27, T46))=0.12013545202839214 (=TABLE(T27,  
T46))=0.11945090708914748 (=TABLE(T27, T46))=0.11876636214990284 (=TABLE(T27, T46))=0.11808181  
72106582 (=TABLE(T27, T46))=0.11739727227141356 (=TABLE(T27, T46))=0.11602818239292428 (=TA  
BLE(T27, T46))=0.114659092514435 (=TABLE(T27, T46))=0.11329000263594573 (=TABLE(T27, T46))=0.11192091  
27545644 (=TABLE(T27, T46))=0.11055182287896717 0 (Z96-\$AC\$96)\*10000=-20.53634817733935  
(AA96-\$AC\$96)\*10000=13.69089878489299 (AB96-\$AC\$96)\*10000=6.845449392446357 (AC96-\$AC\$96)\*10000=  
0 (AD96-\$AC\$96)\*10000=-6.845449392446357 (AE96-\$AC\$96)\*10000=-13.690898784892852 (AF96-\$AC\$96  
)\*10000=-27.381797569785565 (AG96-\$AC\$96)\*10000=-41.07269635467842 (AH96-\$AC\$96)\*10000=-54.7635  
9513957113 (AI96-\$AC\$96)\*10000=-68.45449392446399 (AJ96-\$AC\$96)\*10000=-82.1453927093567 0  
Z96-\$Q\$63=0.032069996967636766 AA96-\$Q\$63=0.03138545202839213 AB96-\$Q\$63=0.030700907089147467 AC96  
-\$Q\$63=0.03001636214990283 AD96-\$Q\$63=0.029331817210658195 AE96-\$Q\$63=0.028647272271413546 AF96  
-\$Q\$63=0.027278182392924274 AG96-\$Q\$63=0.02590909251443499 AH96-\$Q\$63=0.024540002635945718 AI96  
-\$Q\$63=0.023170912757456433 AJ96-\$Q\$63=0.02180182287896716  
3Y average discount M122/\$M\$114-1=-0.11901840490797555 N122/\$M\$114-1=-0.14723926380368102

O122/\$M\$114-1=-0.46871165644171786 P122/\$M\$114-1=-0.2601226993865031 Q122/\$M\$114-1=-0.354  
 6012269938651 R122/\$M\$114-1=-0.2834355828220859 AVERAGE(M97:R97)=-0.2721881390593048 -0.0  
 5 (=TABLE(T27,T46))=0.1338725728173261 (=TABLE(T27,T46))=0.1331140742696866 (=TABLE(T27,  
 T46))=0.1323555757220471 (=TABLE(T27,T46))=0.1315970771744076 (=TABLE(T27,T46))=0.13083857  
 862676812 (=TABLE(T27,T46))=0.1300800800791286 (=TABLE(T27,T46))=0.12856308298384964 (=TA  
 BLE(T27,T46))=0.12704608588857066 (=TABLE(T27,T46))=0.1255290887932917 (=TABLE(T27,T46))=0.  
 1240120916980127 (=TABLE(T27,T46))=0.12249509460273372 -0.05 (Z97-\$AC\$96)\*10000=151.06210  
 66742325 (AA97-\$AC\$96)\*10000=143.47712119783765 (AB97-\$AC\$96)\*10000=135.89213572144251 (AC9  
 7-\$AC\$96)\*10000=128.30715024504767 (AD97-\$AC\$96)\*10000=120.7221647686528 (AE97-\$AC\$96)\*10000=  
 113.13717929225767 (AF97-\$AC\$96)\*10000=97.96720833946796 (AG97-\$AC\$96)\*10000=82.7972373866782  
 5 (AH97-\$AC\$96)\*10000=67.62726643388852 (AI97-\$AC\$96)\*10000=52.457295481098534 (AJ97-\$AC\$96  
 )\*10000=37.28732452830882 -0.05 Z97-\$Q\$63=0.04512257281732608 AA97-\$Q\$63=0.0443640742696866  
 596 AB97-\$Q\$63=0.04360557572204708 AC97-\$Q\$63=0.0428470771744076 AD97-\$Q\$63=0.042088578626768  
 11 AE97-\$Q\$63=0.0413300800791286 AF97-\$Q\$63=0.039813082983849626 AG97-\$Q\$63=0.038296085888570  
 655 AH97-\$Q\$63=0.036779088793291684 AI97-\$Q\$63=0.035262091698012685 AJ97-\$Q\$63=0.033745094602733  
 71  
 -0.10 (=TABLE(T27,T46))=0.14916049008350216 (=TABLE(T27,T46))=0.14831537287455818 (=TABLE(T27,  
 T46))=0.14747025566561414 (=TABLE(T27,T46))=0.14662513845667016 (=TABLE(T27,T46))=0.14578002  
 124772615 (=TABLE(T27,T46))=0.14493490403878215 (=TABLE(T27,T46))=0.14324466962089416 (=TA  
 BLE(T27,T46))=0.14155443520300615 (=TABLE(T27,T46))=0.13986420078511816 (=TABLE(T27,T46))=0.  
 13817396636723014 (=TABLE(T27,T46))=0.13648373194934216 -0.10 (Z98-\$AC\$96)\*10000=303.94127  
 933599316 (AA98-\$AC\$96)\*10000=295.49010724655335 (AB98-\$AC\$96)\*10000=287.03893515711303 (AC9  
 8-\$AC\$96)\*10000=278.5877630676732 (AD98-\$AC\$96)\*10000=270.13659097823313 (AE98-\$AC\$96)\*10000=  
 261.6854188887931 (AF98-\$AC\$96)\*10000=244.7830747099132 (AG98-\$AC\$96)\*10000=227.880730531033  
 07 (AH98-\$AC\$96)\*10000=210.9783863521532 (AI98-\$AC\$96)\*10000=194.07604217327304 (AJ98-\$AC\$96  
 )\*10000=177.17369799439317 -0.10 Z98-\$Q\$63=0.06041049008350215 AA98-\$Q\$63=0.05956372874558  
 17 AB98-\$Q\$63=0.05872025566561413 AC98-\$Q\$63=0.05787513845667015 AD98-\$Q\$63=0.057030021247726  
 145 AE98-\$Q\$63=0.05618490403878214 AF98-\$Q\$63=0.05449466962089415 AG98-\$Q\$63=0.052804435203006  
 136 AH98-\$Q\$63=0.05111420078511815 AI98-\$Q\$63=0.049423966367230135 AJ98-\$Q\$63=0.047733731949342  
 15  
 P/BV (2018E), base (x) M91/\$M\$111-1=-0.4415564325186502 N91/\$M\$111-1=-0.39505974795755516  
 O91/\$M\$111-1=-0.7335048143919305 P91/\$M\$111-1=-0.5580083174624046 Q91/\$M\$111-1=-0.6343  
 510866909066 R91/\$M\$111-1=-0.5306423158169965 AVERAGE(M99:R99)=-0.5488537858064072 -0.1  
 5 (=TABLE(T27,T46))=0.16722490929776715 (=TABLE(T27,T46))=0.16627744225382995 (=TABLE(T27,  
 T46))=0.1653299752098927 (=TABLE(T27,T46))=0.16438250816595548 (=TABLE(T27,T46))=0.16343504  
 11220183 (=TABLE(T27,T46))=0.16248757407808104 (=TABLE(T27,T46))=0.16059263999020662 (=TA  
 BLE(T27,T46))=0.15869770590233218 (=TABLE(T27,T46))=0.15680277181445776 (=TABLE(T27,T46))=0.  
 15490783772658331 (=TABLE(T27,T46))=0.1530129036387089 -0.15 (Z99-\$AC\$96)\*10000=484.58547  
 14786431 (AA99-\$AC\$96)\*10000=475.11080103927117 (AB99-\$AC\$96)\*10000=465.63613059989865 (AC9  
 9-\$AC\$96)\*10000=456.1614601605264 (AD99-\$AC\$96)\*10000=446.68678972115447 (AE99-\$AC\$96)\*10000=  
 437.21211928178195 (AF99-\$AC\$96)\*10000=418.26277840303777 (AG99-\$AC\$96)\*10000=399.313437524293  
 36 (AH99-\$AC\$96)\*10000=380.3640966455492 (AI99-\$AC\$96)\*10000=361.4147557668047 (AJ99-\$AC\$96  
 )\*10000=342.4654148880606 -0.15 Z99-\$Q\$63=0.07847490929776714 AA99-\$Q\$63=0.07752442253829  
 95 AB99-\$Q\$63=0.0765799752098927 AC99-\$Q\$63=0.07563250816595547 AD99-\$Q\$63=0.074685041122018  
 28 AE99-\$Q\$63=0.07373757407808103 AF99-\$Q\$63=0.07184263999020661 AG99-\$Q\$63=0.069947705902332  
 17 AH99-\$Q\$63=0.06805277181445775 AI99-\$Q\$63=0.0661578377265833 AJ99-\$Q\$63=0.064262903638708  
 89  
 P/BV (2018E), implied (x) M92/\$M\$111-1=-0.4415564325186502 N92/\$M\$111-1=-0.395059747957  
 55516 O92/\$M\$111-1=-0.7335048143919305 P92/\$M\$111-1=-0.5580083174624046 Q92/\$M\$111-1  
 =-0.6343510866909066 R92/\$M\$111-1=-0.5306423158169965 AVERAGE(M100:R100)=-0.54885378580640  
 72 -0.20 (=TABLE(T27,T46))=0.1887812452619324 (=TABLE(T27,T46))=0.18771164379436267 (=TA  
 BLE(T27,T46))=0.1866420423267929 (=TABLE(T27,T46))=0.18557244085922317 (=TABLE(T27,T46))=0.  
 18450283939165343 (=TABLE(T27,T46))=0.18343323792408364 (=TABLE(T27,T46))=0.1812940349889441  
 7 (=TABLE(T27,T46))=0.17915483205380467 (=TABLE(T27,T46))=0.17701562911866517 (=TABLE(T27,  
 T46))=0.17487642618352567 (=TABLE(T27,T46))=0.17273722324838617 -0.20 (Z100-\$AC\$96)\*10000=  
 700.1488311202957 (AA100-\$AC\$96)\*10000=689.4528164445983 (AB100-\$AC\$96)\*10000=678.75680176890  
 07 (AC100-\$AC\$96)\*10000=668.06078709320233 (AD100-\$AC\$96)\*10000=657.364772417506 (AE100-\$AC\$9  
 6)\*10000=646.668757741808 (AF100-\$AC\$96)\*10000=625.2767283904133 (AG100-\$AC\$96)\*10000=603.884  
 6990390183 (AH100-\$AC\$96)\*10000=582.4926696876233 (AI100-\$AC\$96)\*10000=561.1006403362283 (AJ1  
 00-\$AC\$96)\*10000=539.7086109848333 -0.20 Z100-\$Q\$63=0.1000312452619324 AA100-\$Q\$63=0.098961  
 64379436266 AB100-\$Q\$63=0.0978920423267929 AC100-\$Q\$63=0.09682244085922316 AD100-\$Q\$63=0.095752  
 83939165342 AE100-\$Q\$63=0.09468323792408363 AF100-\$Q\$63=0.09254403498894416 AG100-\$Q\$63=0.090404  
 83205380466 AH100-\$Q\$63=0.08826562911866516 AI100-\$Q\$63=0.08612642618352566 AJ100-\$Q\$63=0.083987  
 22324838616  
 Stage 1 3Y average discount M123/\$M\$115-1=-0.010204081632653073 N123/\$M\$115-1=-0.01020408163  
 2653073 O123/\$M\$115-1=-0.41836734693877553 P123/\$M\$115-1=-0.29591836734693877 Q123/\$M\$115-  
 1=-0.3571428571428571 R123/\$M\$115-1=-0.3571428571428571 AVERAGE(M101:R101)=-0.24149659863945  
 58 -0.25 (=TABLE(T27,T46))=0.21479110572024315 (=TABLE(T27,T46))=0.2135741369393638 (=TA  
 BLE(T27,T46))=0.21235716815848443 (=TABLE(T27,T46))=0.2111401993776051 (=TABLE(T27,T46))=0.  
 20992323059672574 (=TABLE(T27,T46))=0.20870626181584634 (=TABLE(T27,T46))=0.2062723242540876  
 5 (=TABLE(T27,T46))=0.2038383866923289 (=TABLE(T27,T46))=0.2014044491305702 (=TABLE(T27,  
 T46))=0.19897051156881146 (=TABLE(T27,T46))=0.19653657400705277 -0.25 (Z101-\$AC\$96)\*10000=  
 960.2474357034031 (AA101-\$AC\$96)\*10000=948.0777478946096 (AB101-\$AC\$96)\*10000=935.90806008581  
 59 (AC101-\$AC\$96)\*10000=923.7383722770224 (AD101-\$AC\$96)\*10000=911.568684468229 (AE101-\$AC\$9  
 6)\*10000=899.3989966594349 (AF101-\$AC\$96)\*10000=875.0596210418481 (AG101-\$AC\$96)\*10000=850.720  
 2454242606 (AH101-\$AC\$96)\*10000=826.3808698066737 (AI101-\$AC\$96)\*10000=802.0414941890862 (AJ1  
 01-\$AC\$96)\*10000=777.7021185714992 -0.25 Z101-\$Q\$63=0.12604110572024313 AA101-\$Q\$63=0.124824  
 1369393638 AB101-\$Q\$63=0.12360716815848442 AC101-\$Q\$63=0.12239019937760508 AD101-\$Q\$63=0.121173  
 23059672573 AE101-\$Q\$63=0.11995626181584633 AF101-\$Q\$63=0.11752232425408764 AG101-\$Q\$63=0.115088

38669232889 AH101-\$Q\$63=0.1126544491305702 AI101-\$Q\$63=0.11022051156881145 AJ101-\$Q\$63=0.107786  
57400705276  
Discount to own historical average  
P/E (2018E), base (x) M87/\$M\$118-1=-0.3426668224852458 N87/\$M\$118-1=-0.3412962051613977  
O87/\$M\$118-1=-0.6650508732509515 P87/\$M\$118-1=-0.43200612366172186 Q87/\$M\$118-1=-0.5765  
360518728673 R87/\$M\$118-1=-0.23094123522021448 AVERAGE(M103:R103)=-0.4314162186087331  
P/E (2018E), implied (x) M88/\$M\$118-1=-0.3426668224852458 N88/\$M\$118-1=-0.341296205161  
3977 O88/\$M\$118-1=-0.6650508732509515 P88/\$M\$118-1=-0.43200612366172186 Q88/\$M\$118-1  
=-0.5765360518728673 R88/\$M\$118-1=-0.23094123522021448 AVERAGE(M104:R104)=-0.43141621860873  
31  
YAPI KREDI YAPI KREDI YAPI KREDI  
P/BV (2018E), base (x) M91/\$M\$119-1=-0.2760916717834354 N91/\$M\$119-1=-0.21581819179683082  
O91/\$M\$119-1=-0.6545432779154655 P91/\$M\$119-1=-0.4270478189327467 Q91/\$M\$119-1=-0.5260  
106679326566 R91/\$M\$119-1=-0.3915733723553658 AVERAGE(M106:R106)=-0.4151808334527502 Y90=  
Tier 1 capital ratio % of Stage 2 loans transferred to Stage 3 loans AM90=Tier 1 capital ratio: c  
hange from base (bps) % of Stage 2 loans transferred to Stage 3 loans BA90=Headroom above threshol  
d % of Stage 2 loans transferred to Stage 3 loans  
P/BV (2018E), implied (x) M92/\$M\$119-1=-0.2760916717834354 N92/\$M\$119-1=-0.215818191796  
83082 O92/\$M\$119-1=-0.6545432779154655 P92/\$M\$119-1=-0.4270478189327467 Q92/\$M\$119-1  
=-0.5260106679326566 R92/\$M\$119-1=-0.3915733723553658 AVERAGE(M107:R107)=-0.41518083345275  
02 Loan growth (ppt change from base) \$R\$71=0.11874779030119209 AA107-0.05=-0.150000  
0000000002 AB107-0.05=-0.10 -0.05 0 0.05 AD107+0.05=0.10 0.20 0.30 0.40  
0.50 0.60 Y107=0.11874779030119209 AO107-0.05=-0.1500000000000002 AP107-0.05=-0.10  
-0.05 0 0.05 AR107+0.05=0.10 0.20 0.30 0.40 0.50 0.60 AM107=0.118747790301  
19209 -0.05 -0.03 -0.01 0 0.05 BF107+0.05=0.10 0.20 0.30 0.40 0.50 0.60  
0.20 (=TABLE(T27,T46))=0.08405256566761009 (=TABLE(T27,T46))=0.08352295819997899 (=TABLE(T27,  
T46))=0.08299335073234787 (=TABLE(T27,T46))=0.08246374326471674 (=TABLE(T27,T46))=0.08193413  
579708562 (=TABLE(T27,T46))=0.08140452832945451 (=TABLE(T27,T46))=0.08034531339419229 (=TA  
BLE(T27,T46))=0.07928609845893006 (=TABLE(T27,T46))=0.07822688352366784 (=TABLE(T27,T46))=0.  
07716766858840561 (=TABLE(T27,T46))=0.07610845365314338 0.20 (Z108-\$AC\$112)\*10000=-346.95  
224633582 (AA108-\$AC\$112)\*10000=-352.24832101213104 (AB108-\$AC\$112)\*10000=-357.544395688  
4422 (AC108-\$AC\$112)\*10000=-362.8404703647535 (AD108-\$AC\$112)\*10000=-368.13654504106466  
(AE108-\$AC\$112)\*10000=-373.4326197173758 (AF108-\$AC\$112)\*10000=-384.024769069998 (AG108-\$AC\$1  
12)\*10000=-394.6169184226203 (AH108-\$AC\$112)\*10000=-405.2090677752425 (AI108-\$AC\$112)\*1000  
0=-415.8012171278648 (AJ108-\$AC\$112)\*10000=-426.39336648048715 0.20 Z108-\$R\$63=-0.007197  
43433238991 AA108-\$R\$63=-0.007727041800021012 AB108-\$R\$63=-0.008256649267652127 AC10  
8-\$R\$63=-0.008786256735283257 AD108-\$R\$63=-0.009315864202914373 AE108-\$R\$63=-0.0098454716705  
45489 AF108-\$R\$63=-0.010904686605807706 AG108-\$R\$63=-0.011963901541069938 AH108-\$R\$63=  
-0.013023116476332156 AI108-\$R\$63=-0.014082331411594387 AJ108-\$R\$63=-0.015141546346856619  
MSCI EM Banks 2018E 0.15 (=TABLE(T27,T46))=0.09152037395943932 (=TABLE(T27,T46))=0.09094371  
252020395 (=TABLE(T27,T46))=0.09036705108096856 (=TABLE(T27,T46))=0.08979038964173316 (=TA  
BLE(T27,T46))=0.08921372820249776 (=TABLE(T27,T46))=0.08863706676326237 (=TABLE(T27,T46))=0.0  
0874837438847916 (=TABLE(T27,T46))=0.08633042100632082 (=TABLE(T27,T46))=0.0851770981278500  
4 (=TABLE(T27,T46))=0.08402377524937926 (=TABLE(T27,T46))=0.08287045237090848 0.15 (Z10  
9-\$AC\$112)\*10000=-272.2741634175277 (AA109-\$AC\$112)\*10000=-278.0407780988143 (AB109-\$AC\$1  
12)\*10000=-283.80739220223535 (AC109-\$AC\$112)\*10000=-289.57400659458926 (AD109-\$AC\$112)\*1000  
0=-295.3406209869433 (AE109-\$AC\$112)\*10000=-301.1072353792972 (AF109-\$AC\$112)\*10000=-312.6  
4046416400487 (AG109-\$AC\$112)\*10000=-324.1736929487127 (AH109-\$AC\$112)\*10000=-335.706921733  
4205 (AI109-\$AC\$112)\*10000=-347.2401505181283 (AJ109-\$AC\$112)\*10000=-358.7733793028361  
0.15 Z109-\$R\$63=2.7037395943932396E-4 AA109-\$R\$63=-3.062874797960524E-4 AB109-\$R\$63=  
-8.829489190314427E-4 AC109-\$R\$63=-0.001459610358266833 AD109-\$R\$63=-0.002036271797502237  
AE109-\$R\$63=-0.0026129332367376273 AF109-\$R\$63=-0.003766256115208394 AG109-\$R\$63=-0.00491  
95789936791745 AH109-\$R\$63=-0.006072901872149955 AI109-\$R\$63=-0.0072262247506207355 AJ10  
9-\$R\$63=-0.008379547629091516  
P/E (x) 7.57 0.10 (=TABLE(T27,T46))=0.10002949963748634 (=TABLE(T27,T46))=0.0993992229817931  
3 (=TABLE(T27,T46))=0.0987689463260999 (=TABLE(T27,T46))=0.09813866967040666 (=TABLE(T27,  
T46))=0.09750839301471342 (=TABLE(T27,T46))=0.0968781163590202 (=TABLE(T27,T46))=0.09561756  
304763376 (=TABLE(T27,T46))=0.0943570097362473 (=TABLE(T27,T46))=0.09309645642486085 (=TA  
BLE(T27,T46))=0.0918359031134744 (=TABLE(T27,T46))=0.09057534980208795 0.10 (Z110-\$AC\$11  
2)\*10000=-187.18290663705756 (AA110-\$AC\$112)\*10000=-193.48567319398964 (AB110-\$AC\$112)\*1000  
0=-199.78843975092198 (AC110-\$AC\$112)\*10000=-206.09120630785432 (AD110-\$AC\$112)\*10000=-212.3  
9397286478666 (AE110-\$AC\$112)\*10000=-218.6967394217189 (AF110-\$AC\$112)\*10000=-231.302272535  
5833 (AG110-\$AC\$112)\*10000=-243.90780564944785 (AH110-\$AC\$112)\*10000=-256.51333876331245  
(AI110-\$AC\$112)\*10000=-269.11887187717684 (AJ110-\$AC\$112)\*10000=-281.7244049910414 0.10  
Z110-\$R\$63=0.008779499637486338 AA110-\$R\$63=0.00814922298179313 AB110-\$R\$63=0.007518946326099896  
AC110-\$R\$63=0.006888669670406661 AD110-\$R\$63=0.006258393014713426 AE110-\$R\$63=0.005628  
116359020205 AF110-\$R\$63=0.004367563047633763 AG110-\$R\$63=0.003107009736247307 AH11  
0-\$R\$63=0.0018464564248608512 AI110-\$R\$63=5.859031134744092E-4 AJ110-\$R\$63=-6.7465019791204  
67E-4  
P/BV (x) 1.05 0.05 (=TABLE(T27,T46))=0.10978294291279682 (=TABLE(T27,T46))=0.10909121  
07101766 (=TABLE(T27,T46))=0.10839947850755637 (=TABLE(T27,T46))=0.10770774630493613 (=TA  
BLE(T27,T46))=0.1070160141023159 (=TABLE(T27,T46))=0.10632428189969566 (=TABLE(T27,T46))=0.1  
049408174944552 (=TABLE(T27,T46))=0.10355735308921475 (=TABLE(T27,T46))=0.1021738886839742  
8 (=TABLE(T27,T46))=0.10079042427873383 (=TABLE(T27,T46))=0.09940695987349338 0.05 (Z11  
1-\$AC\$112)\*10000=-89.64847388395272 (AA111-\$AC\$112)\*10000=-96.56579591015485 (AB111-\$AC\$1  
12)\*10000=-103.48311793635726 (AC111-\$AC\$112)\*10000=-110.40043996255966 (AD111-\$AC\$112)\*1000  
0=-117.31776198876193 (AE111-\$AC\$112)\*10000=-124.23508401496433 (AF111-\$AC\$112)\*10000=-138.0  
6972806736886 (AG111-\$AC\$112)\*10000=-151.9043721197734 (AH111-\$AC\$112)\*10000=-165.739016172  
17805 (AI111-\$AC\$112)\*10000=-179.5736602245826 (AJ111-\$AC\$112)\*10000=-193.40830427698714

0.05 Z111-\$RS\$63=0.01853294291279682 AA111-\$RS\$63=0.017841210710176608 AB111-\$RS\$63=0.017149  
478507556368 AC111-\$RS\$63=0.016457746304936127 AD111-\$RS\$63=0.0157660141023159 AE111-\$RS\$63=  
0.01507428189969566 AF111-\$RS\$63=0.013690817494455207 AG111-\$RS\$63=0.012307353089214754  
AH111-\$RS\$63=0.010923888683974287 AI111-\$RS\$63=0.009540424278733833 AJ111-\$RS\$63=0.008156  
95987349338  
0 (=TABLE (T27, T46) )=0.1210356945613585 (=TABLE (T27, T46) )=0.12027305980796972 (=TABLE (T27,  
T46) )=0.1195104250545809 (=TABLE (T27, T46) )=0.11874779030119209 (=TABLE (T27, T46) )=0.11798515  
554780328 (=TABLE (T27, T46) )=0.11722252079441448 (=TABLE (T27, T46) )=0.11569725128763687 (=TA  
BLE (T27, T46) )=0.11417198178085927 (=TABLE (T27, T46) )=0.11264671227408167 (=TABLE (T27, T46) )=0.  
1112144276730405 (=TABLE (T27, T46) )=0.10959617326052645 0 (Z112-\$AC\$112)\*10000=22.8790  
42601664096 (AA112-\$AC\$112)\*10000=15.252695067776296 (AB112-\$AC\$112)\*10000=7.626347533888  
078 (AC112-\$AC\$112)\*10000=0 (AD112-\$AC\$112)\*10000=-7.626347533888078 (AE112-\$AC\$112)\*1000  
0=-15.252695067776155 (AF112-\$AC\$112)\*10000=-30.505390135552172 (AG112-\$AC\$112)\*10000=-45.75  
808520332819 (AH112-\$AC\$112)\*10000=-61.01078027110421 (AI112-\$AC\$112)\*10000=-76.2634753388  
8037 (AJ112-\$AC\$112)\*10000=-91.51617040665639 0 Z112-\$RS\$63=0.029785694561358503 AA11  
2-\$RS\$63=0.029023059807969723 AB112-\$RS\$63=0.0282604250545809 AC112-\$RS\$63=0.027497790301192093  
AD112-\$RS\$63=0.026735155547803285 AE112-\$RS\$63=0.025972520794414478 AF112-\$RS\$63=0.024447  
251287636876 AG112-\$RS\$63=0.022921981780859274 AH112-\$RS\$63=0.021396712274081672 AI11  
2-\$RS\$63=0.019871442767304057 AJ112-\$RS\$63=0.018346173260526455  
MSCI EM Banks 3Y average -0.05 (=TABLE (T27, T46) )=0.13411157292117287 (=TABLE (T27, T46) )=0.  
13326654826367837 (=TABLE (T27, T46) )=0.13242152360618384 (=TABLE (T27, T46) )=0.1315764989486893  
(=TABLE (T27, T46) )=0.13073147429119478 (=TABLE (T27, T46) )=0.12988644963370027 (=TABLE (T27, T46) )=0.  
12819640031871124 (=TABLE (T27, T46) )=0.1265063510037222 (=TABLE (T27, T46) )=0.1248163016887331  
6 (=TABLE (T27, T46) )=0.12312625237374412 (=TABLE (T27, T46) )=0.12143620305875508 -0.05 (Z11  
3-\$AC\$112)\*10000=153.63782619980782 (AA113-\$AC\$112)\*10000=145.1875796248628 (AB113-\$AC\$112)\*1000  
0=136.73733304991748 (AC113-\$AC\$112)\*10000=128.28708647497217 (AD113-\$AC\$112)\*10000=119.83  
683990002686 (AE113-\$AC\$112)\*10000=111.38659332508183 (AF113-\$AC\$112)\*10000=94.48610017519  
15 (AG113-\$AC\$112)\*10000=77.58560702530116 (AH113-\$AC\$112)\*10000=60.68511387541067 (AI113-\$AC\$1  
12)\*10000=43.784620725520334 (AJ113-\$AC\$112)\*10000=26.884127575629858 -0.05 Z113-\$RS\$63=0  
.042861572921172875 AA113-\$RS\$63=0.04201654826367837 AB113-\$RS\$63=0.04117152360618384 AC113-\$RS\$63=  
0.04032649894868931 AD113-\$RS\$63=0.03948147429119478 AE113-\$RS\$63=0.038636449633700276 AF11  
3-\$RS\$63=0.03694640031871124 AG113-\$RS\$63=0.03525635100372221 AH113-\$RS\$63=0.03356630168873316 AI11  
3-\$RS\$63=0.03187625237374413 AJ113-\$RS\$63=0.03018620305875508  
P/E (x) 8.15 -0.10 (=TABLE (T27, T46) )=0.14942678340908455 (=TABLE (T27, T46) )=0.1484852590221848  
2 (=TABLE (T27, T46) )=0.14754373463528506 (=TABLE (T27, T46) )=0.1466022102483853 (=TABLE (T27,  
T46) )=0.14566068586148553 (=TABLE (T27, T46) )=0.14471916147458574 (=TABLE (T27, T46) )=0.14283611  
270078625 (=TABLE (T27, T46) )=0.14095306392698675 (=TABLE (T27, T46) )=0.13907001515318723 (=TA  
BLE (T27, T46) )=0.1371869663793877 (=TABLE (T27, T46) )=0.13530391760558821 -0.10 (Z114-\$AC\$11  
2)\*10000=306.7899310789246 (AA114-\$AC\$112)\*10000=297.3746872099273 (AB114-\$AC\$112)\*10000=287.95  
94433409297 (AC114-\$AC\$112)\*10000=278.544199471932 (AD114-\$AC\$112)\*10000=269.1289556029344 (AE1  
14-\$AC\$112)\*10000=259.7137117339365 (AF114-\$AC\$112)\*10000=240.8832239959416 (AG114-\$AC\$112)\*1000  
0=222.05273625794663 (AH114-\$AC\$112)\*10000=203.22224851995142 (AI114-\$AC\$112)\*10000=184.39  
176078195618 (AJ114-\$AC\$112)\*10000=165.56127304396122 -0.10 Z114-\$RS\$63=0.058176783409084  
554 AA114-\$RS\$63=0.05723525902218482 AB114-\$RS\$63=0.05629373463528506 AC114-\$RS\$63=0.05535221024838  
53 AD114-\$RS\$63=0.054410685861485536 AE114-\$RS\$63=0.05346916147458575 AF114-\$RS\$63=0.051586  
11270078625 AG114-\$RS\$63=0.04970306392698676 AH114-\$RS\$63=0.047820015153187234 AI114-\$RS\$63=  
0.04593696637938771 AJ114-\$RS\$63=0.044053917605588216  
P/BV (x) 0.98 -0.15 (=TABLE (T27, T46) )=0.16752345268008098 (=TABLE (T27, T46) )=0.16646790  
2848401 (=TABLE (T27, T46) )=0.165412353016721 (=TABLE (T27, T46) )=0.16435680318504098 (=TABLE (T27,  
T46) )=0.16330125335336096 (=TABLE (T27, T46) )=0.16224570352168094 (=TABLE (T27, T46) )=0.16013460  
385832096 (=TABLE (T27, T46) )=0.15802350419496095 (=TABLE (T27, T46) )=0.15591240453160093 (=TA  
BLE (T27, T46) )=0.15380130486824092 (=TABLE (T27, T46) )=0.1516902052048809 -0.15 (Z115-\$AC\$11  
2)\*10000=487.7566237888889 (AA115-\$AC\$112)\*10000=477.20112547208896 (AB115-\$AC\$112)\*1000  
0=466.64562715528905 (AC115-\$AC\$112)\*10000=456.09012883848885 (AD115-\$AC\$112)\*10000=445.53  
463052168865 (AE115-\$AC\$112)\*10000=434.97913220488846 (AF115-\$AC\$112)\*10000=413.8681355712  
8863 (AG115-\$AC\$112)\*10000=392.7571389376885 (AH115-\$AC\$112)\*10000=371.6461423040884 (AI115-\$AC\$1  
12)\*10000=350.5351456704883 (AJ115-\$AC\$112)\*10000=329.4241490368882 -0.15 Z115-\$RS\$63=0.0762734  
5268008098 AA115-\$RS\$63=0.07521790284840099 AB115-\$RS\$63=0.074162353016721 AC115-\$RS\$63=0.073106  
80318504098 AD115-\$RS\$63=0.07205125335336096 AE115-\$RS\$63=0.07099570352168094 AF115-\$RS\$63=0.068884  
60385832096 AG115-\$RS\$63=0.06677350419496095 AH115-\$RS\$63=0.06466240453160094 AI115-\$RS\$63=0.062551  
30486824093 AJ115-\$RS\$63=0.060440205204880915  
-0.20 (=TABLE (T27, T46) )=0.18911827275212265 (=TABLE (T27, T46) )=0.18792665594995267 (=TABLE (T27,  
T46) )=0.18673503914778264 (=TABLE (T27, T46) )=0.18554342234561264 (=TABLE (T27, T46) )=0.18435180  
55434426 (=TABLE (T27, T46) )=0.1831601887412726 (=TABLE (T27, T46) )=0.18077695513693262 (=TA  
BLE (T27, T46) )=0.1783937215325926 (=TABLE (T27, T46) )=0.17601048792825258 (=TABLE (T27, T46) )=0.  
17362725432391257 (=TABLE (T27, T46) )=0.17124402071957256 -0.20 (Z116-\$AC\$112)\*10000=703.704  
8245093056 (AA116-\$AC\$112)\*10000=691.7886564876057 (AB116-\$AC\$112)\*10000=679.8724884659055 (AC1  
16-\$AC\$112)\*10000=667.9563204442054 (AD116-\$AC\$112)\*10000=656.04015242225051 (AE116-\$AC\$112)\*1000  
0=644.123984400805 (AF116-\$AC\$112)\*10000=620.2916483574053 (AG116-\$AC\$112)\*10000=596.4593123140  
049 (AH116-\$AC\$112)\*10000=572.6269762706049 (AI116-\$AC\$112)\*10000=548.7946402272048 (AJ116-\$AC\$1  
12)\*10000=524.9623041838047 -0.20 Z116-\$RS\$63=0.09786827275212265 AA116-\$RS\$63=0.09667665594995  
267 AB116-\$RS\$63=0.09548503914778264 AC116-\$RS\$63=0.09429342234561264 AD116-\$RS\$63=0.09310180554344  
26 AE116-\$RS\$63=0.0919101887412726 AF116-\$RS\$63=0.08952695513693262 AG116-\$RS\$63=0.08714372153259  
259 AH116-\$RS\$63=0.08476048792825258 AI116-\$RS\$63=0.08237725432391257 AJ116-\$RS\$63=0.07999402071957  
257  
Turkish banks 3Y average -0.25 (=TABLE (T27, T46) )=0.21517456810908178 (=TABLE (T27, T46) )=0.  
21381877299194615 (=TABLE (T27, T46) )=0.2124629778748105 (=TABLE (T27, T46) )=0.2111071827576748  
4 (=TABLE (T27, T46) )=0.2097513876405392 (=TABLE (T27, T46) )=0.2083955925234035 (=TABLE (T27,  
T46) )=0.20568400228913225 (=TABLE (T27, T46) )=0.20297241205486094 (=TABLE (T27, T46) )=0.20026082

182058963 (=TABLE(T27,T46))=0.19754923158631835 (=TABLE(T27,T46))=0.19483764135204704 -0.2  
5 (Z117-\$ACS112)\*10000=964.2677780788969 (AA117-\$ACS112)\*10000=950.7098269075407 (AB117-\$ACS1  
12)\*10000=937.1518757361841 (AC117-\$ACS112)\*10000=923.5939245648275 (AD117-\$ACS112)\*10000=910.03  
5973393471 (AE117-\$ACS112)\*10000=896.4780222221142 (AF117-\$ACS112)\*10000=869.36221198794016 (AG1  
17-\$ACS112)\*10000=842.2462175366885 (AH117-\$ACS112)\*10000=815.1303151939754 (AI117-\$ACS112)\*1000  
0=788.0144128512626 (AJ117-\$ACS112)\*10000=760.8985105085494 -0.25 Z117-\$RS63=0.123924568109081  
78 AA117-\$RS63=0.12256877299194616 AB117-\$RS63=0.1212129778748105 AC117-\$RS63=0.11985718275767  
485 AD117-\$RS63=0.11850138764053919 AE117-\$RS63=0.11714559252340351 AF117-\$RS63=0.11443400228913  
225 AG117-\$RS63=0.11172241205486094 AH117-\$RS63=0.10901082182058963 AI117-\$RS63=0.10629923158631  
835 AJ117-\$RS63=0.10358764135204704  
P/E (x) 6.27  
P/BV (x) 0.81  
3Y Historical average Akbank Garanti Halkbank Isbank Vakifbank Yapi Kredi Tota  
l Average Average Average  
P/E (x) 7.18 6.95 4.33 6.03 5.26 5.84 AVERAGE(M122:R122)=5.9316666666666675 Y106  
= Tier 1 capital ratio % of Stage 2 loans transferred to Stage 3 loans AM106= Tier 1 capital ratio:  
change from base (bps) % of Stage 2 loans transferred to Stage 3 loans BA106= Headroom above thresho  
ld % of Stage 2 loans transferred to Stage 3 loans  
P/BV (x) 0.97 0.97 0.57 0.69 0.63 0.63 AVERAGE(M123:R123)=0.7433333333333333  
3 Loan growth (ppt change from base) AA123-0.05=-0.15000000000000002 AB123-0.05=-0.10  
-0.05 0 0.05 AD123+0.05=0.10 0.20 0.30 0.40 0.50 0.60 AO123-0.05=-0.150000  
0000000002 AP123-0.05=-0.10 -0.05 0 0.05 AR123+0.05=0.10 0.20 0.30 0.40  
0.50 0.60 -0.05 -0.03 -0.01 0 0.05 BF123+0.05=0.10 0.20 0.30 0.40 0.50  
0.60  
0.20 (Z28+Z44+Z60+Z76+Z92+Z108)/6=0.09490160491470033 (AA28+AA44+AA60+AA76+AA92+AA108)/6=0  
.09394085222009087 (AB28+AB44+AB60+AB76+AB92+AB108)/6=0.09298009952548142 (AC28+AC44+AC60+AC76  
+AC92+AC108)/6=0.09201934683087194 (AD28+AD44+AD60+AD76+AD92+AD108)/6=0.0910585941362625 (AE2  
8+AE44+AE60+AE76+AE92+AE108)/6=0.09009784144165305 (AF28+AF44+AF60+AF76+AF92+AF108)/6=0.0881763  
3605243412 (AG28+AG44+AG60+AG76+AG92+AG108)/6=0.08625483066321521 (AH28+AH44+AH60+AH76+AH92+AH  
108)/6=0.08433332527399628 (AI28+AI44+AI60+AI76+AI92+AI108)/6=0.08241181988477737 (AJ28+AJ44+A  
J60+AJ76+AJ92+AJ108)/6=0.08049031449555845 0.20 (AN28+AN44+AN60+AN76+AN92+AN108)/6=-376.0625  
452175527 (AO28+AO44+AO60+AO76+AO92+AO108)/6=-385.67007216364726 (AP28+AP44+AP60+AP76+AP92+AP  
108)/6=-395.2775991097419 (AQ28+AQ44+AQ60+AQ76+AQ92+AQ108)/6=-404.8851260558365 (AR28+AR44+A  
R60+AR76+AR92+AR108)/6=-414.4926530019311 (AS28+AS44+AS60+AS76+AS92+AS108)/6=-424.100179948025  
7 (AT28+AT44+AT60+AT76+AT92+AT108)/6=-443.3152338402149 (AU28+AU44+AU60+AU76+AU92+AU108)/6=-  
462.530287732404 (AV28+AV44+AV60+AV76+AV92+AV108)/6=-481.7453416245932 (AW28+AW44+AW60+AW76  
+AW92+AW108)/6=-500.9603955167824 (AX28+AX44+AX60+AX76+AX92+AX108)/6=-520.1754494089715 0.20  
(BB28+BB44+BB60+BB76+BB92+BB108)/6=0.003234938248033658 (BC28+BC44+BC60+BC76+BC92+BC108)/6=0.0022741  
85553424205 (BD28+BD44+BD60+BD76+BD92+BD108)/6=0.0013134328588147448 (BE28+BE44+BE60+BE76  
+BE92+BE108)/6=3.5268016420528003E-4 (BF28+BF44+BF60+BF76+BF92+BF108)/6=-6.080725304041778E-4  
(BG28+BG44+BG60+BG76+BG92+BG108)/6=-0.001568825225013638 (BH28+BH44+BH60+BH76+BH92+BH108)/6=-  
0.0034903306142325535 (BI28+BI44+BI60+BI76+BI92+BI108)/6=-0.0054118360034514715 (BJ28+BJ44+B  
J60+BJ76+BJ92+BJ108)/6=-0.007333341392670389 (BK28+BK44+BK60+BK76+BK92+BK108)/6=-0.00925484678188  
9306 (BL28+BL44+BL60+BL76+BL92+BL108)/6=-0.011176352171108225  
0.15 (Z29+Z45+Z61+Z77+Z93+Z109)/6=0.10333331650447523 (AA29+AA45+AA61+AA77+AA93+AA109)/6=0  
.10228720392962637 (AB29+AB45+AB61+AB77+AB93+AB109)/6=0.10124109135477749 (AC29+AC45+AC61+AC77  
+AC93+AC109)/6=0.10019497877992863 (AD29+AD45+AD61+AD77+AD93+AD109)/6=0.09914886620507977 (AE2  
9+AE45+AE61+AE77+AE93+AE109)/6=0.09810275363023091 (AF29+AF45+AF61+AF77+AF93+AF109)/6=0.0960105  
284805332 (AG29+AG45+AG61+AG77+AG93+AG109)/6=0.0939183033083546 (AH29+AH45+AH61+AH77+AH93+AH  
109)/6=0.09182607818113774 (AI29+AI45+AI61+AI77+AI93+AI109)/6=0.08973385303144003 (AJ29+AJ45+A  
J61+AJ77+AJ93+AJ109)/6=0.08764162788174229 0.15 (AN29+AN45+AN61+AN77+AN93+AN109)/6=-291.7454  
293198037 (AO29+AO45+AO61+AO77+AO93+AO109)/6=-302.2065550682923 (AP29+AP45+AP61+AP77+AP93+AP  
109)/6=-312.667680816781 (AQ29+AQ45+AQ61+AQ77+AQ93+AQ109)/6=-323.1288065652696 (AR29+AR45+A  
R61+AR77+AR93+AR109)/6=-333.5899323137582 (AS29+AS45+AS61+AS77+AS93+AS109)/6=-344.051058062246  
9 (AT29+AT45+AT61+AT77+AT93+AT109)/6=-364.973309592241 (AU29+AU45+AU61+AU77+AU93+AU109)/6=-  
385.89556105620136 (AV29+AV45+AV61+AV77+AV93+AV109)/6=-406.8178125531786 (AW29+AW45+AW61+AW77  
+AW93+AW109)/6=-427.7400640501558 (AX29+AX45+AX61+AX77+AX93+AX109)/6=-448.6623155471331 0.15  
(BB29+BB45+BB61+BB77+BB93+BB109)/6=0.011666649837808558 (BC29+BC45+BC61+BC77+BC93+BC109)/6=0.0106205  
372629597 (BD29+BD45+BD61+BD77+BD93+BD109)/6=0.009574424688110832 (BE29+BE45+BE61+BE77+BE93+BE  
109)/6=0.00852831211326197 (BF29+BF45+BF61+BF77+BF93+BF109)/6=0.007482199538413108 (BG29+BG45+B  
G61+BG77+BG93+BG109)/6=0.006436086963564243 (BH29+BH45+BH61+BH77+BH93+BH109)/6=0.004343861813866  
523 (BI29+BI45+BI61+BI77+BI93+BI109)/6=0.0022516366641687977 (BJ29+BJ45+BJ61+BJ77+BJ93+BJ  
109)/6=1.594115144710681E-4 (BK29+BK45+BK61+BK77+BK93+BK109)/6=-0.0019328136352266545 (BL2  
9+BL45+BL61+BL77+BL93+BL109)/6=-0.00402503878492438  
0.10 (Z30+Z46+Z62+Z78+Z94+Z110)/6=0.11294075295633754 (AA30+AA46+AA62+AA78+AA94+AA110)/6=0  
.11179737784870315 (AB30+AB46+AB62+AB78+AB94+AB110)/6=0.11065400274106875 (AC30+AC46+AC62+AC78  
+AC94+AC110)/6=0.10951062763343435 (AD30+AD46+AD62+AD78+AD94+AD110)/6=0.10836725252579997 (AE3  
0+AE46+AE62+AE78+AE94+AE110)/6=0.10722387741816557 (AF30+AF46+AF62+AF78+AF94+AF110)/6=0.1049371  
2720289677 (AG30+AG46+AG62+AG78+AG94+AG110)/6=0.10265037698762797 (AH30+AH46+AH62+AH78+AH94+AH  
110)/6=0.10036362677235917 (AI30+AI46+AI62+AI78+AI94+AI110)/6=0.0980768765570904 (AJ30+AJ46+A  
J62+AJ78+AJ94+AJ110)/6=0.0957901263418216 0.10 (AN30+AN46+AN62+AN78+AN94+AN110)/6=-195.6710  
6480118048 (AO30+AO46+AO62+AO78+AO94+AO110)/6=-207.1048158775244 (AP30+AP46+AP62+AP78+AP94+AP  
110)/6=-218.53856695386844 (AQ30+AQ46+AQ62+AQ78+AQ94+AQ110)/6=-229.97231803021236 (AR30+AR46+A  
R62+AR78+AR94+AR110)/6=-241.406091065564 (AS30+AS46+AS62+AS78+AS94+AS110)/6=-252.839820182900  
35 (AT30+AT46+AT62+AT78+AT94+AT110)/6=-275.70732233558823 (AU30+AU46+AU62+AU78+AU94+AU110)/6=-  
298.5748244882763 (AV30+AV46+AV62+AV78+AV94+AV110)/6=-321.44232664096415 (AW30+AW46+AW62+AW78  
+AW94+AW110)/6=-344.3098287936521 (AX30+AX46+AX62+AX78+AX94+AX110)/6=-367.1773309463401 0.10  
(BB30+BB46+BB62+BB78+BB94+BB110)/6=0.02127408628967088 (BC30+BC46+BC62+BC78+BC94+BC110)/6=0.0201307  
1118203649 (BD30+BD46+BD62+BD78+BD94+BD110)/6=0.018987336074402086 (BE30+BE46+BE62+BE78+BE94+BE

110)/6=0.01784396096676769 (BF30+BF46+BF62+BF78+BF94+BF110)/6=0.01670058585913329 (BG30+BG46+B  
G62+BG78+BG94+BG110)/6=0.015557210751498891 (BH30+BH46+BH62+BH78+BH94+BH110)/6=0.013270460536230  
105 (BI30+BI46+BI62+BI78+BI94+BI110)/6=0.010983710320961305 (BJ30+BJ46+BJ62+BJ78+BJ94+BJ110)/6=0  
.008696960105692512 (BK30+BK46+BK62+BK78+BK94+BK110)/6=0.006410209890423718 (BL30+BL46+BL62+BL78  
+BL94+BL110)/6=0.004123459675154924  
0.05 (Z31+Z47+Z63+Z79+Z95+Z111)/6=0.12395311662328205 (AA31+AA47+AA63+AA79+AA95+AA111)/6=0  
.12269825596093499 (AB31+AB47+AB63+AB79+AB95+AB111)/6=0.12144339529858796 (AC31+AC47+AC63+AC79  
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{0}{en-US}{0}{c14}{102}{2}{1}{col}{clustered}{0}{0}{0}'FX loans'!\$C\$19{1}{0}FX loans USD mn{accent1}{50000}{0}{0}{1}{ellipsis}{horz}{square}{38100}{19050}{38100}{19050}{ctr}{1}{1000}{1}{0}{none}{noStrike}{1200}{0}{tx1}{75000}{25000}{+mn-lt}{+mn-ea}{+mn-cs}{en-US}{0}{1}{0}{0}{0}{0}{0}{CE6537A1-D6FC-4f65-9D91-7224C49458BB}{1}{9525}{flat}{sng}{ctr}{tx1}{35000}{65000}'FX loans'!\$B\$20:\$B\$25{6}{0}Isbank{1}Yapi Kredi{2}Halkbank{3}Garanti{4}Akbank{5}Vakifbank'FX loans'!\$C\$20:\$C\$25#,##0{6}{0}19736.687010309281{1}15247.577113402062{2}13835.030103092784{3}13780.62{4}12908.517113402067{5}11864.07175257732{0}{0}{0}{0}{0}{0}{80}{-27}{2069713336}{2069713728}{2069713336}{minMax}{0}{b}{General}{1}{none}{none}{nextTo}{9525}{flat}{sng}{ctr}{tx1}{15000}{85000}{-60000000}{1}{ellipsis}{horz}{square}{ctr}{1}{900}{0}{0}{none}{noStrike}{1200}{0}{tx1}{65000}{35000}{+mn-lt}{+mn-ea}{+mn-cs}{en-US}{2069713728}{autoZero}{1}{ctr}{100}{0}{2069713728}{minMax}{0}{1}{9525}{flat}{sng}{ctr}{#,##0}{1}{none}{none}{nextTo}{-60000000}{1}{ellipsis}{horz}{square}{ctr}{1}{900}{0}{0}{none}{noStrike}{1200}{0}{tx1}{65000}{35000}{+mn-lt}{+mn-ea}{+mn-cs}{en-US}{2069713336}{autoZero}{between}{1}{gap}{0}{bg1}{9525}{flat}{sng}{ctr}{tx1}{15000}{85000}{en-US}{0.75}{0.7}{0.7}{0.75}{0.3}{0.3}

{0}{en-US}{0}{c14}{102}{2}{1}{col}{percentStacked}{0}{0}{0}'FX loans'!\$B\$4{1}{0}TRL Loans{tx2}{20000}{80000}{0}{0}{1}{ellipsis}{horz}{square}{38100}{19050}{38100}{19050}{ctr}{1}{900}{1}{0}{none}{noStrike}{1200}{0}{tx1}{75000}{25000}{+mn-lt}{+mn-ea}{+mn-cs}{en-US}{0}{1}{0}{0}{0}{0}{0}{CE6537A1-D6FC-4f65-9D91-7224C49458BB}{1}{9525}{flat}{sng}{ctr}{tx1}{35000}{65000}'FX loans'!\$C\$3:\$H\$3{6}{0}Akbank{1}Garanti{2}Halkbank{3}Isbank{4}Vakifbank{5}Yapi Kredi'FX loans'!\$C\$4:\$H\$4#,##0{6}{0}134151.96{1}147845.886{2}148284.092999999999{3}148967.893000000001{4}137593.37{5}122529.948999999999{1}{1}'FX loans'!\$B\$5{1}{0}FX Loans{accent1}{75000}{0}{0}{1}{ellipsis}{horz}{square}{38100}{19050}{38100}{19050}{ctr}{1}{900}{1}{0}{none}{noStrike}{1200}{0}{bg1}{+mn-lt}{+mn-ea}{+mn-cs}{en-US}{0}{1}{0}{0}{0}{0}{0}{CE6537A1-D6FC-4f65-9D91-7224C49458BB}{1}{9525}{flat}{sng}{ctr}{tx1}{35000}{65000}'FX loans'!\$C\$3:\$H\$3{6}{0}Akbank{1}Garanti{2}Halkbank{3}Isbank{4}Vakifbank{5}Yapi Kredi'FX loans'!\$C\$5:\$H\$5#,##0{6}{0}62606.308000000019{1}66836.00699999999998{2}67099.8959999999993{3}95722.932000000001{4}57540.748{5}73950.7489999999996{0}{0}{0}{0}{0}{0}{80}{100}{2069709024}{2069709416}{2069709024}{minMax}{0}{b}{General}{1}{none}{none}{nextTo}{9525}{flat}{sng}{ctr}{tx1}{15000}{85000}{-60000000}{1}{ellipsis}{horz}{square}{ctr}{1}{900}{0}{0}{none}{noStrike}{1200}{0}{tx1}{65000}{35000}{+mn-lt}{+mn-ea}{+mn-cs}{en-US}{2069709416}{autoZero}{1}{ctr}{100}{0}{2069709416}{minMax}{0}{1}{9525}{flat}{sng}{ctr}{%}{1}{none}{none}{nextTo}{-60000000}{1}{ellipsis}{horz}{square}{ctr}{1}{900}{0}{0}{none}{noStrike}{1200}{0}{tx1}{65000}{35000}{+mn-lt}{+mn-ea}{+mn-cs}{en-US}{2069709024}{autoZero}{between}{b}{0}{0}{1}{ellipsis}{horz}{square}{ctr}{1}{900}{0}{0}{none}{noStrike}{1200}{0}{tx1}{65000}{35000}{+mn-lt}{+mn-ea}{+mn-cs}{en-US}{1}{gap}{0}{bg1}{9525}{flat}{sng}{ctr}{tx1}{15000}{85000}{en-US}{0.75}{0.7}{0.7}{0.75}{0.3}{0.3}

{297}{0}{0}{0}{minor}{tx1}{65000}{35000}{1000}{1200}{0}{0}{0}{minor}{tx1}{65000}{35000}{9525}{flat}{sng}{ctr}{tx1}{15000}{85000}{900}{1200}{allowNoFillOverride allowNoLineOverride}{0}{0}{0}{minor}{tx1}{bg1}{9525}{flat}{sng}{ctr}{tx1}{15000}{85000}{1000}{1200}{0}{0}{0}{minor}{tx1}{75000}{25000}{900}{1200}{0}{0}{0}{minor}{dk1}{65000}{35000}{lt1}{dk1}{25000}{75000}{900}{1200}{0}{1}{clip}{clip}{horz}{square}{36576}{18288}{36576}{18288}{ctr}{1}{0}{1}{auto}{0}{minor}{tx1}{0}{1}{auto}{0}{minor}{tx1}{0}{1}{auto}{1}{0}{minor}{tx1}{28575}{rnd}{phClr}{0}{auto}{1}{auto}{0}{minor}{tx1}{9525}{phClr}{circle}{5}{0}{auto}{1}{0}{minor}{tx1}{9525}{rnd}{phClr}{0}{0}{0}{minor}{tx1}{65000}{35000}{9525}{flat}{sng}{ctr}{tx1}{15000}{85000}{900}{1200}{0}{0}{0}{minor}{tx1}{dk1}{75000}{25000}{9525}{flat}{sng}{ctr}{tx1}{65000}{35000}{0}{0}{0}{minor}{tx1}{9525}{flat}{sng}{ctr}{tx1}{35000}{65000}{0}{0}{0}{minor}{tx1}{9525}{flat}{sng}{ctr}{tx1}{65000}{35000}{0}{0}{0}{minor}{tx1}{9525}{flat}{sng}{ctr}{tx1}{5000}{95000}{0}{0}{0}{minor}{tx1}{9525}{flat}{sng}{ctr}{tx1}{50000}{50000}{0}{0}{0}{minor}{tx1}{9525}{flat}{sng}{ctr}{tx1}{35000}{65000}{0}{0}{0}{minor}{tx1}{65000}{35000}{900}{1200}{allowNoFillOverride allowNoLineOverride}{0}{0}{0}{minor}{tx1}{allowNoFillOverride allowNoLineOverride}{0}{0}{0}{minor}{tx1}{0}{0}{0}{minor}{tx1}{65000}{35000}{900}{1200}{0}{0}{0}{minor}{tx1}{9525}{flat}{sng}{ctr}{tx1}{35000}{65000}{0}{0}{0}{minor}{tx1}{65000}{35000}{1400}{0}{1200}{0}{0}{0}{auto}{0}{0}{minor}{tx1}{19050}{rnd}{phClr}{sysDot}{0}{0}{0}{minor}{tx1}{65000}{35000}{900}{1200}{0}{0}{0}{minor}{tx1}{lt1}{9525}{flat}{sng}{ctr}{tx1}{65000}{35000}{0}{0}{0}{minor}{tx1}{65000}{35000}{900}{1200}{0}{0}{0}{minor}{tx1}

{cycle}{10}{accent1}{accent2}{accent3}{accent4}{accent5}{accent6}{60000}{80000}{20000}{80000}{60000}{40000}{50000}{70000}{30000}{70000}{50000}{50000}





