



TÜRKİYE GAME MARKET 2023 REPORT



TÜRKİYE
GME
MARKET '23
REPORT

: H DUH VMOGHHSO VDGGHQHG E\ VKH HDU\KTXDNHV LQ
. DKUDP DQP DUD RQ) HEUXDU Z KIFK GHYDM\MMG
SURYLOQFHV RI RXUFRXQW : H Z \VK * RGVP HUF VR RXU
FLW\ HQVZ KR QWWKHLU\YHV LQ VKHNV P DMVYH HDU\KTXDNHV
DQG RXUFRQGRQFHV RQFH DJ DLQ VR VKHLU UHOMYHV : H
KRSH VWDW\KHMH Z RXQGV Z H KDYH UHFHYHG DV D FRXQW
Z LOEH KHD\IG DV VRRQ DV SRWE\ E\ \RLQLQJ KDQGV

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6SRQVRUW

0 HGID 6SRQVRUW

6WDWUJLF 3DUQHUV

3UHIDFH

2 YHULHZ RI 734UNLH LQ

(VWP DMIG 0 HGID DQG \$ GYHUWMLQJ ,QYHWIP HQWLQ 734UNLH

,Q * DP H \$ GYHUWMLQJ LV1 RZ D 3DUWRI 2 XU LYHV 3RUWXP D

0 RW8 VHG 6RFIDOO HGID 3OWRUP VLQ 734UNLH

0 DLQ 5 HDVRQVIRU6RFIDOO HGID 8 VH LQ 734UNLH

7\ SHVRI) RORZ HG 6RFIDOO HGID \$ FFRXQW) RORZ HG LQ 734UNLH

3UW DU 8 VHVRU WKH ,QMLQHMLQ 734UNLH

. H & RQVGHUDMRQV\$ ERXWVKH ,QMLQHM8 VH LQ 734UNLH

3UH1HWHG %UDQGV LQ 734UNLH 3 KRQH

3UH1HWHG %UDQGV LQ 734UNLH \$ FFHWRUH

3UH1HWHG %UDQGV LQ 734UNLH * DP LQJ & KDLW

) DFVRUV ,QOHQFLQJ 3XUFKDVHV LQ 734UNLH

7XUNVK 0 RELOI * DP HU+ DEIW

\$ QGURLG : RUQ LQ 734UNLH

/ RFDQJ DMARQ LQ 734UNLH

* DP H DQG 0 XMF

& KDUDFWULMEVRI 7XUNVK * DP HUV

%HYHJDJHV & RQVXP HG E\ 7XUNVK * DP HUV : KLOI * DP LQJ



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(DMQJ + DEIWRI VKH 7XUNLK * DP HVW
7KH 6VDM RI VKH * DP LQJ ,QGXWILQ 734NLH
,P SRUUDQW YHQWLQ VKH * DP LQJ 6HFVRULQ 734NLH LQ
,QYHWMP HQWLQ VKH * DP LQJ ,QGXWIL : HSODA 9HQVXUHV
,QYHWMP HQWLQ VKH * DP LQJ ,QGXWIL : HSODA 9HQVXUHV
%HFRP LQJ D8QH LQJ) RUUFH LQ VKH' WLVDO DP LQJ : RUOG 6VDUWDMM
7(6) (' 7XUNLK (VSRUW) GHGUDMRQ
: KDW RHVVKH) XWVUH + RQCTRU(VSRUW) (P EHG
5LRW DP HV
7KH 5RQIRI * DP WLFDMRQ LQ 2XU LYHV * DP IHG
\$ UWLFLDQ QMWDQ HQFH \$, DQG VKH * DP LQJ ,QGXWIL 2UNXQ , aP DN
/ DMW6WDXDMRQ LQ VKH & RVSDA ,QGXWIL 0 HGRGL. aQD%Q
0 DQJD DQG \$ QLP HLQ 734NLH * HUHNQ HLQH
3URMFMRQ 2I3HURQDO DW, Q7KH * DP LQJ ,QGXWIL 7HYHMRÜQ / HJD
: KDWVVKH 6VDM RI 6HURXV * DP HVW LQ 734NLH \$ IUD%DN
3RSXDMRQ RI 734NLH
,QWLUQHM8 VHUVLQ 734NLH
6RFIDOO HGID8 VHUVLQ 734NLH
0 RELOI8 VHUVLQ 734NLH
1XP EHURI * DP HVW DQG 5HYHQXH LQ 734NLH
* DP HVW EVI 3DMRUP VLQ 734NLH
* DP HVW LQ 734NLH EI \$ JH * URXS



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* DP HV/EV * HQGHULQ 7%UNDH
* DP HV/EV ,QFRP H LQ 7%UNDH
72 3 0 RELQH* DP HV) UHH & DMU RU ' RZ QRDGV
72 3 0 RELQH* DP HV) UHH & DMU RU 5 HYHQXH
72 3 0 RELQH* DP HV 3 DLG & DMU RU ' RZ QRDGV
72 3 0 RELQH* DP HV 3 DLG & DMU RU 5 HYHQXH
3RSXOU7XUNLH 0 RELQH* DP HV RI
0 RWW RZ QRDGHG 0 RELQH\$ SSQDFMRQVLQ 7%UNDH
7RS * URWLQJ 0 RELQH\$ SSQDFMRQVLQ 7%UNDH
7RS 5 DMIG 3 & * DP HV/LQ 7%UNDH
7RS 5 DMIG & RQVRQH* DP HV/LQ 7%UNDH
7RS 5 DMIG * DP H * HQHV/RQ 3 & DQG & RQVRQH LQ 7%UNDH
7XUNLH V3RVMLRQ LQ VKH : RUQ 5 HYHQXH 5 DQNLQJ
3RSXOU* DP LQJ & RP SDQLHV/LQ 7%UNDH * QEDODQG / RFDO
/ RFDO* DP LQJ & RP SDQLHV/LQ 7%UNDH
' LHFW&RQVXP HU,QMUDFWRQ : KLOH(DUQLQJ 5 HYHQXH IURP * DP HV ; 6RQO
,QYHWP HQWBURFHMHVIRU DUO 6VNUH 6VXGLRV : HSOU 9HQVXUHV
7RS 3RSXOUZ LWFK 6WHDH HV/LQ 7%UNDH
7RS 3RSXOU<RX7XEH & KDQQHQYLQ 7%UNDH
7RS 3RSXOU, QWUDH UDP ,QI QHQFHUV/LQ 7%UNDH
\$ FWLH 3DP HQWQWVWVLRQV/LQ 7%UNDH
\$ FWLH (QFWLRQF 0 RQH ,QWVWVLRQV/LQ 7%UNDH



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\$ WRFLDMRQV LQ 7³/4UNLH
* DP H ([KIE\MRQV LQ 7³/4UNLH
(GXFDMLRQ ,QFUHDMQJ O 1 HHGVVR 6\QF : LMK VKH ,QGXWMI * 3YHQ %DMDN
* DP H' HMJ Q %DFKHORUV DQG O DWMUV' HJ UHH 3URJ LDP VLQ 7³/4UNLH
* DP H (QWHSUHQHUXKLS & HQMUV LQ 7³/4UNLH
. HHSLQJ 8 S Z LMK VKH' \ QDP LF 6WKFVXUH RI VKH * DP LQJ ,QGXWMI 6HQHP \$ NMDNDO
3URIHMLRQV LQ VKH * DP LQJ ,QGXWMI
1 XP EHURI ,QWLUQHM&DIHV LQ 7³/4UNLH
3& 6\ WMP VLQ ,QWLUQHM&DIHV LQ 7³/4UNLH
6VDMWLFVRI ,QWLUQHM&DIHV LQ 7³/4UNLH
0 RWB O HG * DP HV LQ ,QWLUQHM&DIHV LQ 7³/4UNLH
%UDNGRZ Q RI ,QWLUQHM&DIHV LQ 7³/4UNLH
6RP H,P SRUW DQW VSRUW 7HDP VLQ 7³/4UNLH
1 XP EHURI / LFHQHG 3 O HUV DQG 7HDP VLQ 7³/4UNLH 7(6)
(VSRUW 7HDP V7KDW DNH %HWB VH 2 I 6RFIDCO HGID %HWLQ 7³/4UNLH
2 1 2)) (VSRUW DQG * DP LQJ (YHQW 2 W DQJ HG LQ 7³/4UNLH
%UDQGV ,QYHMLQJ LQ (VSRUW DQG * DP LQJ LQ 7³/4UNLH
(VSRUW * DP HV LQ 7³/4UNLH
6RP H . H 6HFVRUDCO HGID & KDQQHOYLQ 7³/4UNLH 7UDIIF
7RS 2 QQQH (3 LQ 6D0IV : HEV\MMV LQ 7³/4UNLH 7UDIIF
7RS 2 QQQH * DP LQJ 3 OMRUP VLQ 7³/4UNLH
* DP LQJ 0 DJ DJ LQHV LQ 7³/4UNLH

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* OREDO1 XP EHV

([SHUW2 SLQRQV

6SRQVRUV

0 HGID6SRQVRUV

5 HIHUHQFHV

,QIRUP DMQRQ 1 RWI

* DP LQJ LQ 785. (< _0 (1 \$ _(8 * DP LQJ DQG (VSRUW\$J HQF\ * DP H3XEOKHU

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7KDQN<RX

: H H [WQG RXUVQFHUH J UDVWQGH VR RXUVSRQVRUZ KR KDYH EHHQ DQRQJ VLGH XV VXSSRUWQJ DQG DWVWQJ
LQ VWH SUHSUDMRQ RI VWH HGLWRQ RI VWH 7%UNL H * DP H 0 DUNHW5 HS RW7KL SURMIFWKDV EHHQ D OERU
RI HJ KW HDUW GXUQZ KLFK Z H GLOUHQW FRP SLOIG DQG LQWUHMG GDWDURP YDURXVVRXUFHV
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7KH . LQJ RI) OEP H
* UICDG DQG * DP LQJ

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7%UNL HV* DP HU
2 UHQW MG ,QWLUHM%UDQG

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/ LYH 6WHD P 7Z LMFK
&DP SDJQ 3DMRUP



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Z LMK * DP H/ RFDQ DMWQ

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/ RYH 7KDW DP H
/ RYH 7KDW&KLFNHQ

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7KH 5 HYROVIRQDU (FRM VMP
RI ,Q * DP H\$ GYHUWQJ

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7KDQN<RX

: H H [WQG RXUVQFHUH J UDVWQGH VR RXUVSRQVRUZ KR KDYH EHHQ DQRQJ VLGH XV VXSSRUWQJ DQG DWVWQJ
LQ VWH SUHSUDMRQ RI VWH HGLWRQ RI VWH 7%UNL H * DP H 0 DUNHW5 HSRUW7KL SURMIFWKDV EHHQ D OERU
RI HJW KW HDUW GXUWQ Z KLFK Z H GLQJ HQWDFP SLOIG DQG LQWUSUHMG GDWDURP YDURXVVRXUFHV
[AØµ ö Ð : ī P2:/ : 2 Š2µ öH® Šd ØS! µHŠd S ®! o:/ : 2 Øæ ŠŠH!Ð 20L



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: KHUP LQFRQV RI SHRSQI FRP HVRJ HMKHU
ØYHMHU GD VR FKDWLOMUDFWDOQ P DNH
VKHLURZ QHQWUDQF HQWVRJ HMKHU

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* DP LQJ 9& LQ (XURSH
&HQWDO\$ VD DQG 7XUNH\

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* DP H&RP P HUFH
3RZ HUHG E\ ; VRØ



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GAME+

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7KDQN<RX

: H Z RXC CONH VR H[VMQG RXU KHDUWHOVJ UDWXGH VR RXU LQYDXDEGI P HGLD VSRQVRU/ Z KR KDYH
FRQWLEXWG VR VKH FRQWQWDQG DFFFHWELOW RI VKH * DP H 0 DUNH5 HSRUW
[,] P2y μ@č :/ : 2 Š2μ čeHμ@ Šč Øši μHgšččn



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7KDQN<RX

: H Z RXC C NH VR H VMQG RXU KHDUHÖVJ UDWXGH VR RXU LQYDXDEÖI P HGLD VS RQVRU/ Z KR K DYH
FRQMEXW MG VR VKH FRQM/QWDQG DFFFHMEÖV RI VKH * DP H 0 DUNH5 HS RUW
[,, P2ý µ@ë :/ : 2 Š2µ ñëH@ Šö ØSI µHëSëöN



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GYÜNEY SEKTÖRÜ ETKİNLİKLERİ



PCHOCASI
Türkmenistan teknoloji platformu



SAVE
BUTONU



Shift
Delete.Net



TECHNOPAT



TURUNCU
LEVYE ✓



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7KDQN<RX

: H H [WMQG RXUKHDUW HOWKDQNVIR RXUWDMU LF SDUQHU Z KR KDYH WRRG E\ XVZ LMK VKHUXQZ DYHUIQU
VXSSRUW

STARTGATE

Where dreams come true!

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/ LYHMWHDP 7Z LFK
0 DUNHMQJ 3 DUQHU



gamescom

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3 DUQHU



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3 DUQHU

GAMEVISTA

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& KLOHM0 RELOH * DP H 3 XE@KLO
3 DUQHU

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7KH3UHMHQW6VDWHRIWKH*DPH0DUNHW

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-XVONHHMHLVHDU, DP GHQJWKG VR SUWHQWRXUUHSRUWKHGGHQJ QJ KWRQ WKH JDP LQJ P DUNHW LQ 7%JNLH Z DV D \HDU ILQHG ZLWK FKDQHQJ HV DQG RSSRUWXQHVVTRUWKH JDP H\LGXWV \$V\RX NQRZ WKH HFRQRP LF DQG SRQWLDO VXUEXOQFH LQ WKH SRWSDQGHF LF SHURG EURXJKWDERXWERWK SRVWVH DQG QHJDWLRQ SDFWRQ RXUVHFVRU

7KH HDUWITXDNH ZH H[SHUHQFHG LQ 7%JNLH KDV GHHSQ VDGGHQHG DQG VKDNHQ XV VR RXUFRUH 7KIV WDUH LHMHQWRQFH DJ DLQ GHP RQWUDWV DQG WKH VWHQJWK DQG XQLW RI RXUFRUH \$V D SDUWRK WKH JDP LQJ VHFVRU ZH KDYH VFFFHMIXOO XQGHUWVHQ YDURXV VRFDOLUHSRQMELOW SURWFW DIP HG DWVXSSRUWQJ DQG EUIQJ LQJ VRJHMKHURXU FRP P XQWVHV GXUHQJ WKHMH FKDQHQJ LQJ VP HV 7KHM SURWFWKJHKWKG VKDWKHJDP HV DUH QRWP HUO VRRO RI HQWUWLOP HQWEXW DORSCWURP VRV FRRSHUDWRO DQG VXXSRUW

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7KH HDU\KTXDNH IQ 7%NLH KDV VJ QMFDQW\ LOILOHQFH WKH JHQHUDO
HOIFVRQV DQG WKH HFRQRQF IF DQG SRQMFDOF P\ DM\ 7KH RXVERP HV RI WKH
HOIFVRQV DQG WKH HFRQRQF IF SRQFLHV KDVH GLHFV\ LP SDFHG LQYHWP HQNDUDHV
DQG FRQVXP HUFQFLHQFH \$ QG WKH JDP LQJ 10GXW\ FROHO\ P RQVLUHG WKHM
FKDQJ HV ,QYHWP HQW GHFLMRQV DQG FROVXP HU\ H SHQGLVXUHV TXFVXDMHG
DFFRUGLQJ VR SRQMFDCDQG HFRQRQF IF XQFHUWGDW\

3 RQMFDOHYHQW VXFK DV WKH 3 DGMWQH VUDHOFRQI\ FWRQ WKH IOMUQDMRQDOW\ H
DOR KDG D EURDG LP SDFWRQ RXU P DUNHW 6XFK LQMLQDMRQDQGHMHSR HQW
SDYHG WKH ZD\ TRUHMLVQJ JDP H FRQWQMDQG P DUNHW\ DMU\ LH\

2 QFH DJDLQ Z H KDH FRP HV RI XQGHUW\ DQG WKH YLVOP SRQFLHV RI JOREDO SHDFH
DQG WDELOW IRUMKHJ DP H P DUNHWDVZ HQDV DORWKHUQGXW\ H

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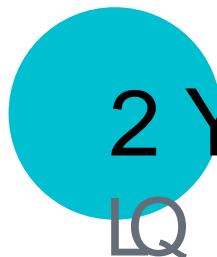
7KH3UHMHQW6V\WH RI WKH* DP H0 DUNHW

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7KH JOREDOŠy æD ý Š2oμHŠ/ ī 2 ÅÅÅ i Š: Ç²(ÄÅ I æææ QHDW WKH VDP H DV
0 RELOI JDP HV DFFRXQW G IRUÇ²(ÉÅ! æææ) 2μ/ 2μ: μ HeD ÄE- ī Høμ H Hšö
æ§ ý μ ,Q VMUP VRI YRQXP H §! ĐŠy μ: 2μSSØμ® Ç²(ÄÅ I æææ) i Øæµ § : ä
ĐŠy μ: Øμæææ hμ2 Ç²(ÄÅ I æææ) 2μ/ 2μ: μ HeD ÄA- Š ® ÄE- ý Š2oμH: ØS2μ:)
2μ/ μSHeμφ 7KHM GDWD UHMHDOMKH P DUNHWGRP LQDQFH RI P RELOI JDP HV DQG WKH
FRQFLW\QW\URZ WK WHQG LQ WKH P DUNHW7KH DFKLHYHP HQWRI WKH ORFDQGHYHØSHU\Q
734N H DQG LQWLUQDMRQDOFRQFRUDMRQV KDYH HQKDQFHG WKH JOREDOYME\Q RI RXU
P DUNHW + RZ HYHU XQO\H SUHLYRXV \ HDU ERWK ORFDQ DQG JOREDO HFRQRP LF
XQFHU\QDQH DV Z HODV WKH H\QDQGHG DQD\QV\ VFRSHV\IRULQYH\QDQH FDQQRWEH
GLVHU DLGHG

: H Z IOKDUH WKH GHM\Q\ORI WKH 7XUN\K JDP H P DUNHW SHURUP DQFH LQ ØM\ULQ
RXU UHSRUW , KRSH WKDW\KLV UHSRUW\H\HV DV D YDQDE\I UHVRXUFH IRU HYHU RQH
LQWLUHWMG HSHFIDQ JDP LQJ SURIHMLRQDQ



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LQ

,Q 7XUNH VSRSXØMRQ LQFUHDHG VQJ KWØ FRP SDUHG VR VKH SUHYRXV\ HDU \$ V
RI ' HFHP EHU VKH SRSXØMRQ UHMLGLQJ LQ 7XUNH LQFUHDHG E\
WKRXVDQG SHRSØI FRP SDUHG VR VKH SUHYRXV\ HDU UHDFKLQJ P LØRQ
WKRXVDQG SHRSØI

: KLOI VKH DQQXDO SRSXØMRQ JURZ VK UDMH Z DV **SHU WKRXVDQG** LQ IW
EHFDP H **SHU WKRXVDQG** LQ

: KLOI VKH P DØI SRSXØMRQ Z DV **P LØRQ** **WKRXVDQG** SHRSØI VKH IHP DØI
SRSXØMRQ Z DV **P LØRQ** **WKRXVDQG** SHRSØI

,Q RWKHU Z RUGV RI VKH VRMDO SRSXØMRQ Z HUH P HQ DQG Z HUH
Z RP HQ

åWIDQEZO/ SRSXØMRQ **GHFUHDHG** E\ **WKRXVDQG** SHRSØI FRP SDUHG VR VKH
SUHYRXV\ HDUDQG EHFDP H P LØRQ **WKRXVDQG** åWIDQEZOZ KHUH RI
7XUNH VSRSXØMRQ UHMLGHV Z DV IRØZ HG E\ \$ QNDUD Z LMK P LØRQ **WKRXVDQG**
SHRSØI ,] P IJZ LMK P LØRQ **WKRXVDQG** SHRSØI %XUD Z LMK P LØRQ
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(WIP DWIG 0 HGLD DQG \$ GYHUMLQJ , QYHWP HQW LQ 7¾JNL H

\$ FFRUGIQLQJ VR VKH IJXUHV LQ VKH (WIP DWIG 0 HGLD DQG \$ GYHUMLQJ , QYHWP HQW LQ 7¾JNL H IRUVKH) IJXUHV DORI UHSRUWSEOKHG EV VKH :: §šéHæ ï @hy2HææD Ðµ §þ: Z KLOI VKH P DUNHMWKDUH UHP DLQHG UHOMVYHO XQFKDQJHG GLJ IJDOFKDQQHQV FRQMQXHG VR GRP LQDMW P HGLD LQYHWP HQW P DLQMDQLQJ D VKDUH LQ DVVKH GLG LQ

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(WIP DWIG 0 HGLD DQG \$ GYHUMLQJ , QYHWP HQW LQ 7¾UNL H

\$ QDO] LQJ VKH SØMRUP EDVHG GLVWEXVRQ RI P HGLD LQYHWP HQW LQ GLJLWD
DGYHUMLQJ FKDQQHQV Z H REVHJHG VKDW Z DV DQRFDMIG VR P RELOH GHMFHV
DQG VR 3&V

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(WIP DWIG 0 HGLD DQG \$ GYHUMLQJ , QYHWP HQW LQ 7 3/4 JNL H

, Q 7 3/4 JNL H VKH P RWVWJ QULFDQW GHYHQSP HQWLQ P HGLD LQYHWP HQW Z LMKLQ
GLJ LWDODGYHUMLQJ FKDQQHQV RFFXWIG LQ VKH 2 VKH FDWJRU DV LWGLG LQ VKH
SUHMRXV\ HDU ,W SHUFHQMJH URVH VR LQ IURP LQ ,QIOHQFHU
P DUNHMQJ WDQGV RXWDV VKH OQJ HWWHJ P HQWLQ VKL FDWJRU IRORZ HG E\ LQ
J DP H DGYHUMLQJ HQW

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(P DLO
&RQQHFWMG 79
,Q * DP H 6SRQRUJKLS



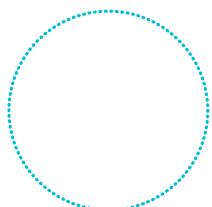
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,Q * DP H\$ GYHUMMQJ LV 1 RZ D3DUARI 2 XU/ LYHV

, Z RXQG QNH VR VDOQ DERXWD UHDQW RI VKH P RGHUQ Z RUQG VKDWZ H DUH DERXWWR IDFH
* DP HV KDYH EHFRP HD SDUARI DGYHUMMQJ

* DP HV XVHG VR EH NYWHQMVNUQLQH HQW<RX Z RXQG VLWGRZ Q Z LMK D TUHQG VKUQ RQ
\RXUFRQRQH RI RXUSKRQH DQG KDYH KRXUW RI IXQ 7RGD KRZ HYHU J DP HV KDYH
EHFRP H DQ IP SRUDQWHP HQMRI FRP SDQHV DQG EUDQGV DGYHUMMQJ WWDWU LHV
1 RZ Z H VHH DGYHUMWP HQW LQ J DP HV VKDWWDWFWDV P XFK DMWQMIRQ DV VKH
J DP H LWHO

,W QRWKDLG VR QRMFH VKLV FKDQJH LQ VKH J DP LQJ Z RUQG ,Q J DP H DGYHUMMQJ LV
HYHUZ KHUU TURP VKH FQVKHV FKDUDFWLUV Z HDUVR VKH EUDQGV LQ VKH J DP H Z RUQG
) URP VKH EUDQG RI GUQN LQ D FKDUDFWLUV KDQG VR VKH ELOERDUGV LQ VKH J DP H VKH
IP SDFWRI DGYHUMMQJ LV I KNDWYHU P RP HQMRI VKH J DP H



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6R LV VKLV FKDQJH J RRG RU EDG" +RZ GR VKHMH FRP P HUFLDO HQHP HQW LQ
HQMVNUQLQH HQWDIHFWRXUJDP LQJ H[SHUHQFH' 6RP H J DP HV P D VKLQN VKDWGDV
P DHN J DP HV P RUH UHDQMF DQG GHMVLQH 7KH EUDQGV Z H VHH LQ VKH J DP H Z RUQG
FDQ KHS XVFRQQHFNP RUH Z LMK VKH UHDQZ RUQG

%XWRQ VKH RWKHUKDQG KRZ P XFK RUJ LQDOW DQG FUHDWW FDQ EH SUHHUHG LQ D
J DP H Z RUQG Z KHUU DGYHUMMQJ LV VR LQWQH" %HLQJ ERP EDUGHG Z LMK
DGYHUMWP HQW TURP VKH EHJLQLQJ VR VKH HQG RI D J DP H J HW ERUQJ RYHUMP H
,QWMDG RI EHHLQJ D VRXFH RI HVFDSH DQG HQMVNUQLQH HQWJ DP HV FDQ P DHN XVIHHO
DVII Z H DUH Z DOLQJ VKURXJK D VKRSSLQJ P DOO



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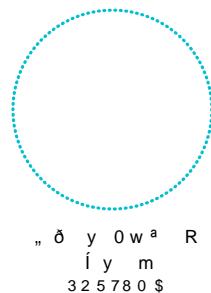
,Q * DP H\$ GYHUMMQJ LV 1 RZ D3DUARI 2 XU/ LYHV

3 HUKDSV VKLV UHT XLHV J DP H GHYHRSHV VR VMINH D P RUH FDUIXOE DQQFH ,WJ RRG
VKDWDGV HQIFK VKH J DP H H SHUHQFH EXW, GRQWKLQN VKH VRKXQ EH DORZ HG VR
GHMDFWIURP VKH HWHQFH RI VKH J DP H * DP HV Z LMK FUHDMMH DQG EDQQFHG
DGYHUMMQJ VWDWU LHV VKDWFQDQ P DLQVZLQ VKHLULGHQMV LQ VKH J DP LQJ Z RUQ FDQ
NHS J DP HV LQWUHWIG IRU ORQJ HU \$ GV FDQ HQIFK VKLV H SHUHQFH EXWVKH
VRKXQ QHYHUUHSOFH LM

* DP HV KDYH EHFRP H DQ HIIHFWMH DGYHUMMQJ SOWRUP IRU P DQ EUDQGV DQG
FRP SDQLHV 7KLV HYROXMRQ LQ VKH Z RUQ RI J DP LQJ LV DWWDFMQLQ VKH DWWQMRLQ RI
QRWRQO J DP HV EXWDOR DGYHUMHW 6R Z K\ KDYH J DP HV EHFRP H DQ LQWUUDO
SDUARI VKH DGYHUMMQJ OQGVFDSh"

: LMK LQ J DP H DGYHUMMQJ EHFRP LQJ P RUH DQG P RUH SUHYDQW J DP HV DUH QR
ORQJ HUMWU DP HV EXWDVRROI RUEUDQGV VR SURP RM VKHLUSURGXFV DQG VHULFHV
7KH SDWDJH RI VP H LQ VKH J DP LQJ Z RUQ KDV P DGH LQ J DP H DGV QRWIMWDQ
DFFHWRU EXWDQ LQWUQMF HQIP HQMRI VKH J DP H %H RQG LQFUHDV LQJ VKH UHDQF RI
VKH J DP H EUDQGV DQG SURGXFV VKDWDSSHDULQ VKH J DP H FDQ EH XHG VR LP SUHW
VKH DXGLHQFH DQG HQIFK VKH VRU

7KH LQ J DP H DGYHUMMQJ P DUNHMZ DV Z RUQ ELOORQ LQ DQG LV H SHFWIG VR
UHDFK ELOORQ E\ DWD &\$ * 5 RI 7KHUH DUH ELOORQ YLGRH J DP H
J DP HV Z RUQZ LGH DQG J DP HV VSHQG DQ DYHUDJH RI KRXUW DQG P LQXWV D
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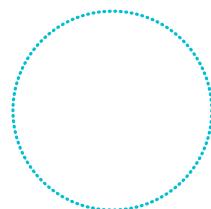
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ELORQ Z KIFK P HDQVKXJH SRWQMDA RUDGYHUMHWV

7KLV HYROXIRQ KDV VDNHQ JDP LQJ EH RQG EHLQJ MWWDQ HQMVUDLQP HQW
DUHGD * DP HV DUH QR ORQJ HUMXWIRUJ DP HUV EXWFDO DOR EH DQ HIIHFVWH
DGYHUMMQJ VRRO VKDW FDQ UHDFK D Z LGH DXGLHQFH ,Q JDP H DGV DUH
RUJ DQLFDQ HP EHGGHG Z LMKLQ VKH JDP H DORZ LQJ VKH YHZ HUVR KDYH D
UHDQH SHUHQFH QRWDQ DQQR LQJ ERP EDUGP HQWRI DGV

,Q VKLV FRQMI WFRQDE RUDMRQ EHM HHQ DGYHUMHWV DQG JDP H GHYHRSHV
LV RQ VKH UMH ,Q JDP H DGV DUH XVHG DV D VRROMKDXSSRUW VKH WRU RI
VKH JDP H DQG RI HUV P RUH LQWUDFMRQ RSSRUWXQMVHV VR VKH JDP HU %UDQGV
LQ VKH JDP LQJ Z RUQ DUH J RLQJ EH RQG EHLQJ SDUARI VKH LQ JDP H Z RUQ
DQG WLQJ VR HWDEOK D GHHSUFRQQHFVRQ Z LMK VKH DXGLHQFH

7KHM DGYHUMMQJ P RGHO QRWRQO P DUNHWD SURGXFEXWDOR LP P HUH
VKH YHZ HU LQ VKH JDP H DQG DORZ EUDQGV VR WMOVKHILU WRULHV P RUH
FRP SHQQJ Q 7KHM P HUJ LQJ Z RUQV RI HUD UFKHUH SHUHQFH RIUJ DP HUV
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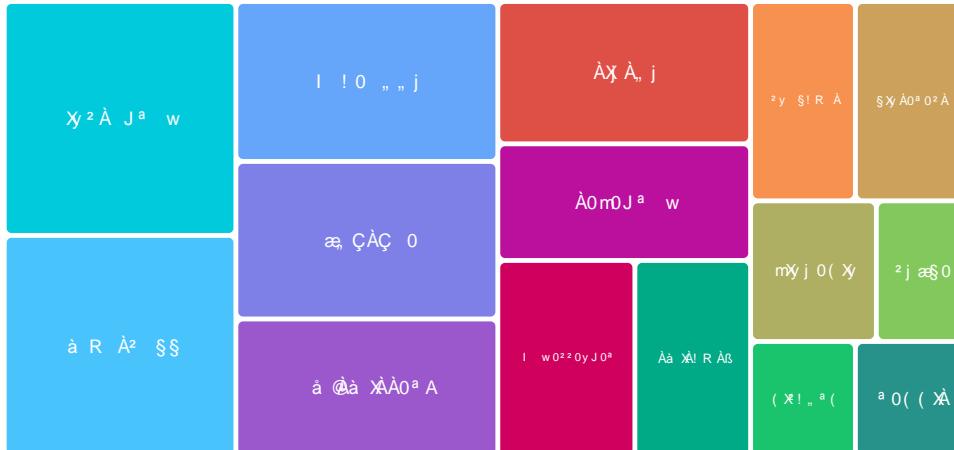
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0 RW8 VHG 6 RFLDOO HGID 3 DWRUP VLQ 7¾UND H



0 RQMØ DYHDLJH SØMRUP XVJUHV RI 7XUNLK XHUV
RQ\$ QGURLG



+ RXUW 0 LQXWAV



+ RXUW 0 LQXWAV



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' HP RJ UDSKIF
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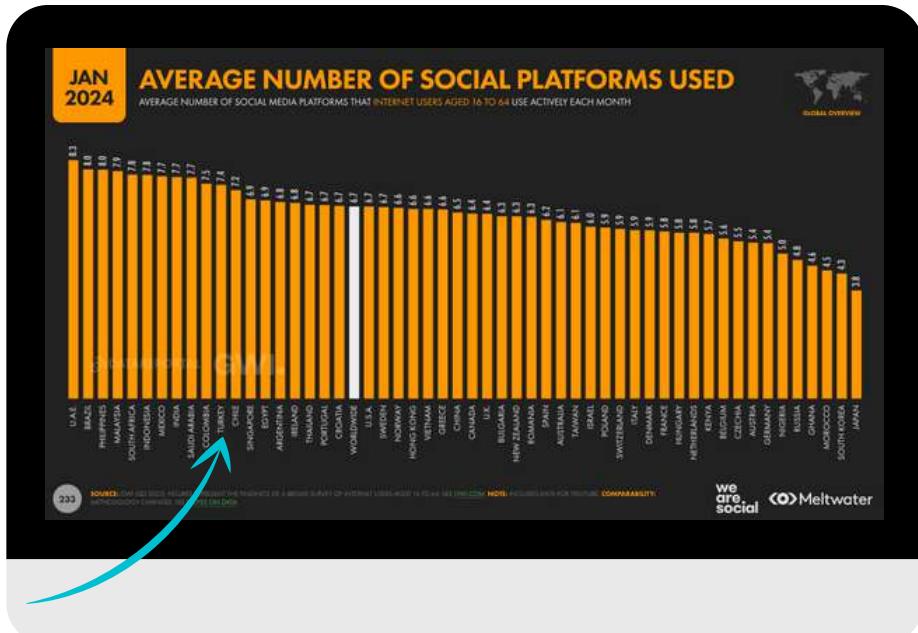
0 RQMØ 6RFLDOO HGID
3 DWRUP 8 VDjhV



* \$ 0 ,1 * ,1 78 5. (< _ 0 (1 \$ _ (8 * \$ 0 ,1 * \$ 1' (63 2 5 76 \$ * (1 & < * \$ 0 (3 8 % / ,6 + (5

0 RW8 VHG 6 RFLDOO HGLD 3 DWWRUP VLQ 7¾ UNL H

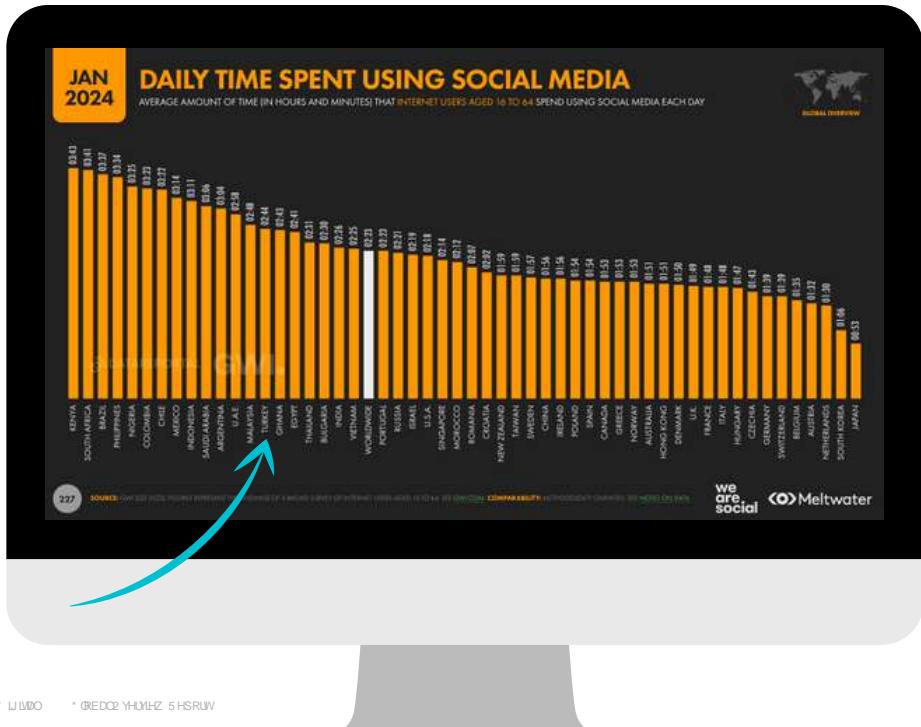
7¾ UNL H LVVKH VK FRXQWV VKDWXVHV VKH P RWWRFLDOP HGLD SØMRUP VLQ VKH Z RUQ Z KLOI VKH
8 QLMG \$ UDE (P WDMV %UD) LO 3 KLOSSIQHV 0 DØV VD 6RXVK \$ IUD ,QGRQHMD 0 H[LFR ,QGLD
6DXGL\$ UDELD 0 H[LFR ,QGLD 6DXGL\$ UDELD DQG & RQP EID DUH DP RQJ VKH VRS FRXQWVHV



* \$ 0 ,1 * ,1 78 5. (< _ 0 (1 \$ _ (8 * \$ 0 ,1 * \$ 1 ' (63 2 5 76 \$ * (1 & < * \$ 0 (3 8 % / ,6 + (5

0 RW8 VHG 6 RFLDOO HGLD 3 DWRUP VLQ 7¾NLH

\$ V D QDMRQ Z H GHGLFDMA D VJ QMLFDQWDP RXQWRI MP H VR VRFLDOP HGLD SØMRUP V 7KH
WP H Z H VSHQG RQ VRFLDOP HGLD FKDQQHQY RQ D GDLO EDMLV LV KRXU/ DQG P LQXWV RQ
DYHUDJH [X YÜÝDH Š: YØ P2 Bå ÿ æPHJ: N



0 DLQ 5 HDVRQVI RU6 RFLDOO HGLD 8 VH LQJ 7³/4 UNL H

w Šæ Ç: ŠĐμ	Ç: ŠĐμ § µ2Şμ HĐĐμ:
) RORZ LQJ VH 1 HZ V	
7R & RP P XQLFDWZ LMK) UHQGV DQG) DP LQ	
/ HVXUH	
3URGXFW6HDUFK DQG 3XFKDMH	
6HDUFKLQJ 1RU,QVSLUDMRQ 1RU3DWMP HV DQG 3XFKDMH/	
6HDUFKLQJ 1RU&RQM/QWHJ YLGHHRV	
6KDULQJ DQG' LVFXWLQJ 2S1QIRQV	
91HZ LQJ %UDQG & RQM/QW	
: DMFKLQJ / LYHMWHD P V	
) RORZ LQJ 6SRUW	
. HHSLQJ XS Z LMK' DLQ 1 HZ V	
6KDULQJ 3ULYDM & RQM/QW	
6HDUFKLQJ 1RU3URIHMRQD&RQMDFW	
) RORZ LQJ & HÖEUMHV DQG ,QOKHQFHU/	
0 HHMQJ 1 HZ 3HRSØI	



7\ SHV RI 6RFLDOO HGLD \$ FFRXQW) RORZ HG LQ 7¾JND H

§§ P HÀO/ µ:	Ç: ŠĐµ § µ2Şµ HĐĐµ:
) UHQGV) DP LQ DQG \$ FT XDLQV DQFHV	
%UDQGV RI 3 XUFKDVH 3 URGXFW	
%UDQGV RI 3 URGXFW VR %H 3 XUFKDVH	
79 3 URJ UDP VRU&KDQQHO'	
(QMUDQLOP HQW0 HP HRU3 DURG \$ FFRXQW	
6SRUW3Ø HU/RU7HDP V	
\$ FVRUV & RP HGLDQVRU2 VHUV3HURUP HU/	
5 HWDXUDQW&KHI RU) RRG 5 HDMIG \$ FFRXQW	
0 XVLF * URXS 6LQJ HU RU0 XVLFDQ \$ FFRXQW	
- RXUDDQW RU1 HZ V&KDQQHO'	
\$ FFRXQW 5 HDMIG VR %XVLQHW3HRSØ	
&RVP HMFDQV	
* DP LQJ ([SHUWRU* DP LQJ 6VGLRV	
\$ FFRXQW 5 HDMIG VR %XVLQHMHV	
: UIMU/RU/ UMDU * URXS V	



3 UP DU 8 VHVRIVKH, QVHUVQHW LQ7¾UND H

w Šæ Ç: ŠĐµ
) LQGLQJ ,QIRUP DMQRQ
. HHSILQJ 8 S Z LMK 1 HZ VDQG (YHQWV
/ HDUQLQJ + RZ VR * HMVKLQJV' ROH
6HDUFKLQJ 1RU3URGXFWRU%UDQGV
6VIA LQJ LQ 7RXFK Z LMK) UHQGV DQG) DP LQ
) LQGLQJ 1 HZ ,GHDV RU,QVSLLDMRQV
* DP LQJ
: DMVKLQJ 9 LGHRV 79 6KRZ VRUO RYHV
/ LVMQQLQJ VR 0 XVF
(GXFDMRQ DQG : RUN* RDY
/ HVXUH 7IP H \$ FVMMWHV
) LQDQFH DQG 6DYLQJ V 0 DQDJ HP HQW
6HDUFKLQJ 1RU+ HDOK 5 HOMMG ,QIRUP DMQRQ RU) LQGLQJ + HDOK 3URGXFW
- RE 5 HOMMG 5 HMHDUFK
/ RFDMRQ 9 DFDMRQ DQG 7US 6HDUFKHV



NEWS

INFORMATION

VIDEO

BRAND

COMMUNICATION

GAMING



. H &RQLGHUDWRQV\$ ERXW WKH ,QWLQHW8 VH LQ 7¾UNL H

- RI LQGLYLGXD\Q\ LQ WKH DJ H J URXS XVH WKH LQWLQHW
 - ,QWLQHW\KVDJ H SHUFHQW\U HV EDVHG RQ J HQGHU O DQH) HP DQH
- ' DQ DYHUDJ H LQWLQHW\KVDJ H RI LQWLQHW\K\VHU\ LQ 7¾UNL H
 - + RXU\ O LQXW\W
- 1 HDU\ DOP RELO\ SKRQH XVHU\ DQG RI FRP SXWUXHV DUH FRQQHFV\G VR LQWLQHW
- ,Q 7¾UNL H RYHU RI LQWLQHW\K\VHU\ DFFHW\ VXE\ VFU\ S\VRQ EDVHG \WHDP LQJ VHULFH S\OMRUP VVFK DV1 HM\Q DQG 3\IP H 9 LGHR
- ,Q 7¾UNL H RI WKH LQWLQHW\K\VHU\ \OM\Q VR P XMF RQOQH 6SRW\ <RX7XEH0 XMF 6KD] DP HM\
- ,Q 7¾UNL H RI LQWLQHW\K\VHU\ XMF H RQOQH WDQV\OMRQ VHULFH\
- ,Q 7¾UNL H RI LQWLQHW\K\VHU\ Z DM\K HGXFDMRQDO\GHRV



. H &RQLGHUDWRQV\$ ERXW VKH ,QWHUQHW8 VH LQ 7¾UNL H

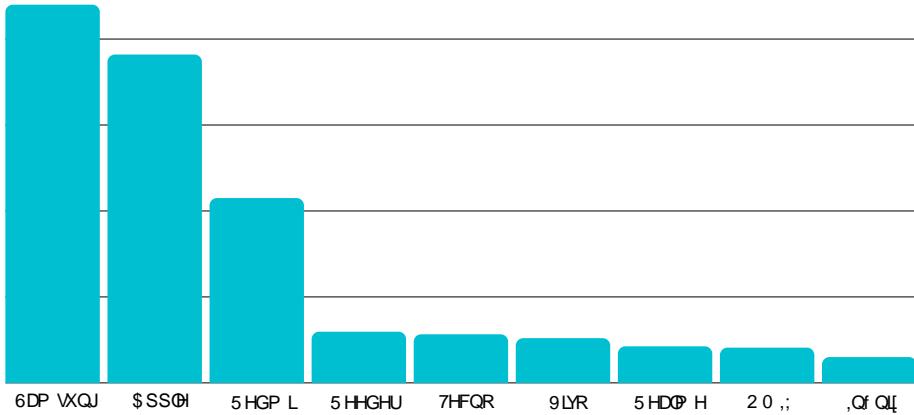
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- ,Q 7¾UNL H RI LQMLQHMXVHU/KDYH VRP H IRUP RI FU SVRFXUWHQF à µ Š2µ 2S òµ® ïæ HDö ! Šœœ æ HDœ 2µDŠ2®.
- ,Q 7¾UNL H RI LQMLQHMXVHU/UHMLHZ SURGXFW DQG IRORZ EUDQGV VRFLDOP HGID DFFRXQW [X : HŠD2Šy æ HDµ ūŠ@æD / ŠH 2j æ HDœ 2µDŠ2®\
- ,Q 7¾UNL H RI LQMLQHMXVHU/IRORZ LQIÖHQFHU/
- ,Q 7¾UNL H RI LQMLQHMXVHU/XVLQMLQHMR DFFHW QHZ V à µ Š2µ 2S òµ® ïæ HDö ! Šœœ æ HDœ 2µDŠ2®.
- ,Q 7¾UNL H RI VKH LQMLQHMXVHU/VKRS RQOQH Z HHNO : H DUH UDQNHG VK LQ VKH Z RUQ LQ VKLV FDMJU RU
- ,Q 7¾UNL H RI LQMLQHMXVHU/SXUFKDWH GLJ LWDORQMLQWRQOQH



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0 RWB UHJ HWHG %UDQGV LQ 7¾UNL H

7¾UNL H KDV D UHOMYHO KLJK UDWA RI VP DU\$KRQH DQG UHJ XDUUSKRQH XVDUH \$ QD0VLV RI
WKH VHFRQG TXDUWURI UHYHDQVWDWRYHU P LORQ P RELOI GHMFHVZ HUH UHJ LWMUHG
Z LMK ,0 (, QXP EHUV: KHQ HYDOXDMIG E\ EUHQG QHDW RI WKHM GHMFHV DUH SURGXFW
IURP 6DP VXQJ \$ SSQI DQG 5 HGP L



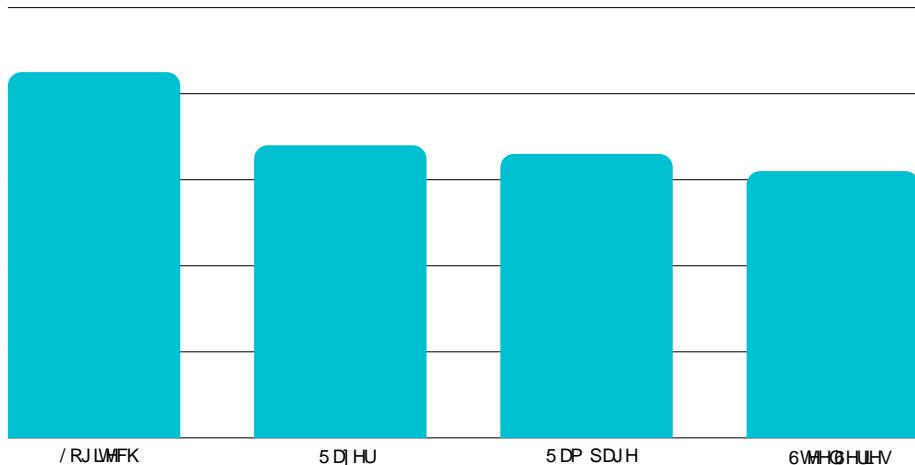
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0 RWB UH! HWHG %UDQGV LQ 7³/₄ UNL H

: KHQ LWFRP HV VR J DP LQJ HTXLSP HQWXFK DV P LFH NH ERDUGV DQG P RXVHSGV LWV
VDI H VR VD VKD WJ DP HVW NQRZ VKH LUE UDQGV \$ FFRUGLQJ VR VKH UHMHDUFK / R J LWFK VDNHV
VKH I LWSOFH LQ SRSXOUIW DP RQJ VKHM EUDQGV

3 RSXOOLW * DP LQJ \$ FFHVRU



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0 RWB UH! HWHG %UDQGV LQ 7³/4 UNL H

,Q WUUP V RI RZ QHG DFFHMRUHV / RJ LMFK RQFH DJ DLQ UDQNV I LWWLQ SRSXOUIW DFFRUGLQJ
VR VKH WXG\ + RZ HYHU VKH GLI HUHQFH E HMZ HHQ VKH E UDQGV LV QRWFHDEO VP DOORU

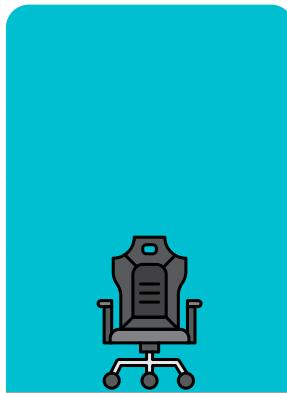
2 Z QHG * DP LQJ \$ FFHVVRU



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\$ FFRUGILOJ VR VKH WKG\ LQ HYHU J DP HV RZ QV D SHURQDOJ DP LQJ FKDLW [ÝaÈ g J Šy µ2 i Ø P:µ ĐŠy æD §ØŠæ\ : KLOI XQE UDQGHG FKDLW DUH FRP P RQO XVHG ; ' UMH HP HUJ HV DV VKH OIDLQJ EUDQG DP RQJ J DP LQJ FKDLUP DQXI DFVXUHV

* DP LQJ & KDLU



8 QE UDQGHG



' UYH



+ DZ N* DP LQJ & KDLU



w µHD @ ö BoCX Høp 2µ: µßzööS o w ß2µHæD ÁVßæµDøP @økæñ@öññ S µßHæ ý µHD @P: µ@ æ Høp X íPµ ſmw µ Š/ / 2 Šßö! o ßm2þ Šo: I X HøpæS/ 2 ŠßöDøP@ æHøp ſy: µßHæ Sßß 2øæD H Høp / 2 íPßHMH / íP: Høp@ t i m2 P: æD Š høp : H 2ø AØP: Qñh Høp ý : HøpæSæp DøD iøæt: Høpæp ſy: ſy / qñh@t: ſy: Ø P2 I XHøp@: t i Yß Ø P2 H DßHøp/ H Høpæt Høp@: P: S: @: T@ññ i æD p: / µßH Høp / Š2H µ2æíPµ ſy: M i t i m2 S P H X Høp / 2 íPßHøp Dßy µ20! : k: T: ý Š(k(ſy: Dl@ Ø: Ø: ſy: m2U! t i m2 A: k: Ø: Š @ Ø: m2U X: HøpæSæp DøD@: Ø: t i m2 H / Š2Høp Høp@ Høp: HøpæHøp PøDøS: H 2øl@áU Dßy m2 l2 ý áá ſy: ØShu / Š2Høp Høp@ æ Høp: Høpæ æ Yß Ø P2!



) DFVRUW,QI QHQFLQJ 3XUFKDVHV LQ 7¾NLH

7KH QHDGLQJ IDFVRU LQI QHQFLQJ JDP HUV SURGXFWSXUFKDVHV LV VKH SURFH SHURUP DQFH UDMR Z KLFK LV TXLW XQGHUW DQG DEOH Z KHQ FRQVGHUQJ VKH HFRQRP LF HQYLQRP HQWLQ 7¾NLH IURP DJDP HUV SHUSSHFWVH

I ŠŠH 2 X ÍPµ §æÐ §P280Š: µ:

- &RW(IIHFVWVH 3HURUP DQFH
- 7UXW7UXWVQ VKH 3XUFKDVQJ 3OMRUP DQG VKH %UDQG
- %UDQG) DP LQDUIW
- %UDQG 4 XDOIW
- ' HMJQ
- 5 HFRP P HQGDWIRQV RI) UHQGV DQG 3HHUV
- 7HFKQLFDO) HDVXUHV 7HFKQRORJ\
- 3RVMWH 1 HJ DMWH 3URGXFW6 HMLZ V
- 3URGXFW6FRUH RQ 3XUFKDVQJ 3OMRUP V
- 5 HMLZ 9LGHRV %ORJ V ,QI QHQFHUV 7HFKQRORJ\ &KDQQHQY DQG : HEVLMV
- 6XSSRUW &XWWRP HU6DMWDFWIRQ
- 3D P HQW&RQYHQLHQFH 3D P HQW&SWRQV
- ' HOMHUI 0 HMKRG LQ 2QQQH 3XUFKDVHV

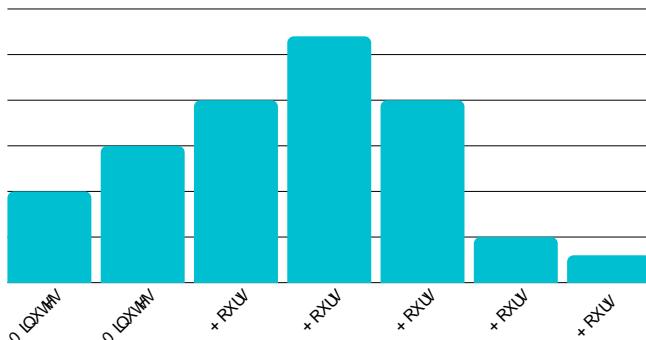


7XUNLVK 0 RELOH * DP HU+ DELW

3HRSQH RI QHDUO DOO DJ HV SQA P RELOH J DP HV LQ 734UNLH &RQMGLHUIQJ VKH
GHP RJ UDSKLHV RI P RELOH J DP HV LQ 734UNLH ZH VHH VKDWJ DP HV DJ HG VR
FRQWIXXVH VKH P DMRUW RI VKH P RELOH J DP H XVHV

0 RELOH J DP HV FDMUVR GLYHVH DJ H JURXSV GXH VR VKHUYDUHG FRQWQMDQG HDW
SQA DELOH RI HUHQJ HQWUWDLQP HQWUHJ DUGQWRI WP H RUQFDWRQ DJ HV EHMZ HHQ
DQG

' DLQ 7LP H 6SHQWRQ 0 RELOH * DP HV \$ J H 5 DQJ H



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7XUNLVK 0 RELOH * DP HU+ DELW

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VLP QDQHMHV DFURW ERWK ,2 6 DQG \$ QGURIG SODMRUP V Z LMK VRP H P LQRU
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- 7R 5 HØ[5 HØYH 6WHW
- 7R) HØU UH
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- 7R \$ FFRP SØM
- 7R 6RFLDQ H 0 DHN) UHQGV

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- : DMFKLQJ 2 QOQH 9LGHRV

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\$ GYHQXUH	%RDUG
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6SRUW) DP LØ
0 XVF	&DUG
2 VKHU	2 VKHU



7XUNLWK 0 RELOH * DP HU+ DELW

,Q DGGLVLRQ VR FKRRVLQJ JDP H JHQHV EDVHG RQ SHURQDO SUHILUHQFH DQRVKHU LP SRUVQWDVSHFW Z KLFK LV DJH GHSHQGHQW LV VKH VHOFVLRQ RI JDP HV/DQG VKH LQ JDP H IDFVRUV/VKDWDSSHDOR P RELOH JDP HV/

à ØØØX LJ Šý µ w Hššhe : X ïðþµ ſµ J Šý µ2 2! Ø øþµ:/

- %HLQJ) UHHVR' RZ QQRDG
- * DP H\$ UWDQG * UDSKLIV
- 1 DUUDMH
- ,Q * DP H 5 HZ DUG 6\ WMP V
- + DYHQJ 1 R' LMXUELQJ ,Q * DP H\$ GV
-) HDWKLQJ 0 XOSOXA HU0 RGHIRU2 QOQH & R 2 S Z LMK) UHQGV
-) HDWKLQJ 6LQJ QI 3OA HU0 RGHIRU3 OA LQJ 2 IIQOH
- \$ ELOV VR 0 DNH) UHQGV & KDW
-) DP LQDULW DQG 7UKWLQ VKH 3URGXFLQJ & RP SDQ\
- &RQMQXRXV,QQRYDMRQ
-) RWMLUQJ D & RP SHMMMH (QYLURQP HQW
- 3OMRUP \$ J QRWLF 3OA DELOV
 - &URW3OA &URW3OMRUP



7XUNLVK 0 RELOH * DP HU+ DELW

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: KHQ H[DP LQLQJ VKH VSHQGLQJ KDEIW RI JDP HV IWEHFRP HV HYLGHQWWKDWWWDWV
 JDP HV 53* V %DWI 5 R\ DQV DQG 0 2 %\$ QNH JDP HV UDQN KUJ KHMV LQ WUP V RI
 H[SHQGLVXUH 3 DUNFXOLO RQOQH FURW SØMRUP FURW SØA JDP HV Z KLFK FDQ EH SØA HG
 DFURW GLI HUHQMSØMRUP V KDYH D SRVWVH LP SDFWRQ VSHQGLQJ



#1 - Strategy



\$109.6 M in (IAP) Spend

YoY IAP Spend +9.2%
 YoY Downloads +4.0%
 2% of All IAP Spend
 2% of All Downloads

#2 - Casino



\$91.3 M in (IAP) Spend

YoY IAP Spend +54.8%
 YoY Downloads -4.9%
 1% of All IAP Spend
 1% of All Downloads

#3 - RPG



\$72.1 M in (IAP) Spend

YoY IAP Spend +5.1%
 YoY Downloads +8.2%
 1% of All IAP Spend
 1% of All Downloads

#4 - Shooting



\$55.7 M in (IAP) Spend

YoY IAP Spend -1.0%
 YoY Downloads -2.0%
 1% of All IAP Spend
 4% of All Downloads

#5 - Match



\$51.5 M in (IAP) Spend

YoY IAP Spend +14.2%
 YoY Downloads +24.2%
 10% of All IAP Spend
 4% of All Downloads

#6 - Simulation



\$40.4 M in (IAP) Spend

YoY IAP Spend +61.7%
 YoY Downloads +5.8%
 8% of All IAP Spend
 19% of All Downloads

#7 - Action



\$39.1 M in (IAP) Spend

YoY IAP Spend +22.7%
 YoY Downloads -8.0%
 7% of All IAP Spend
 9% of All Downloads

#8 - Sports



\$38.3 M in (IAP) Spend

YoY IAP Spend +73.6%
 YoY Downloads +12.6%
 7% of All IAP Spend
 4% of All Downloads



7XUNLVK 0 RELOH * DP HU+ DELW

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: KHQ Z H H[DP LQH VKH GRZ QQRDG WDMWV RI J DP HV LWLW HYLGHQWVKDWK\ SHUFDXDO J DP HVUDQNIWWDP RQJ VKH J DP HVGRZ QQRDGHG VR RXUSKRQHV + VSHUFDXDOJ DP HVVHJH DVH[FHQHQWRRQVIRUP DQJ J DP LQJ FRP SDQLHVVR HWDEQK D XVHUEDMH ,Q VKH VLP XØMRQ FDMU RU 5 REØ[WDGQVRXWDVVKH P RWMSØ HG DQG GRZ QQRDGHG J DP H LQ 73AUNDH



#1 - Hypercasual



643.6 M in Downloads

YoY Downloads +0.5%
YoY IAP Spend +12.2%
32% of All Downloads
0.4% of All IAP Spend

#2 - Simulation



386.1 M in Downloads

YoY Downloads +5.8%
YoY IAP Spend +61.7%
19% of All Downloads
7.7% of All IAP Spend

#3 - Kids



186.6 M in Downloads

YoY Downloads +0.9%
YoY IAP Spend +39.6%
9% of All Downloads
0.8% of All IAP Spend

#4 - Action



180.1 M in Downloads

YoY Downloads -8.0%
YoY IAP Spend +22.7%
9% of All Downloads
7.4% of All IAP Spend

#5 - Puzzle



89.6 M in Downloads

YoY Downloads +12.9%
YoY IAP Spend +3.4%
5% of All Downloads
0.4% of All IAP Spend

#6 - Racing



84.5 M in Downloads

YoY Downloads +12.9%
YoY IAP Spend +17.3%
4% of All Downloads
0.4% of All IAP Spend

#7 - Shooting



76.4 M in Downloads

YoY Downloads +2.0%
YoY IAP Spend +10.1%
4% of All Downloads
10.6% of All IAP Spend

#8 - Match



74.8 M in Downloads

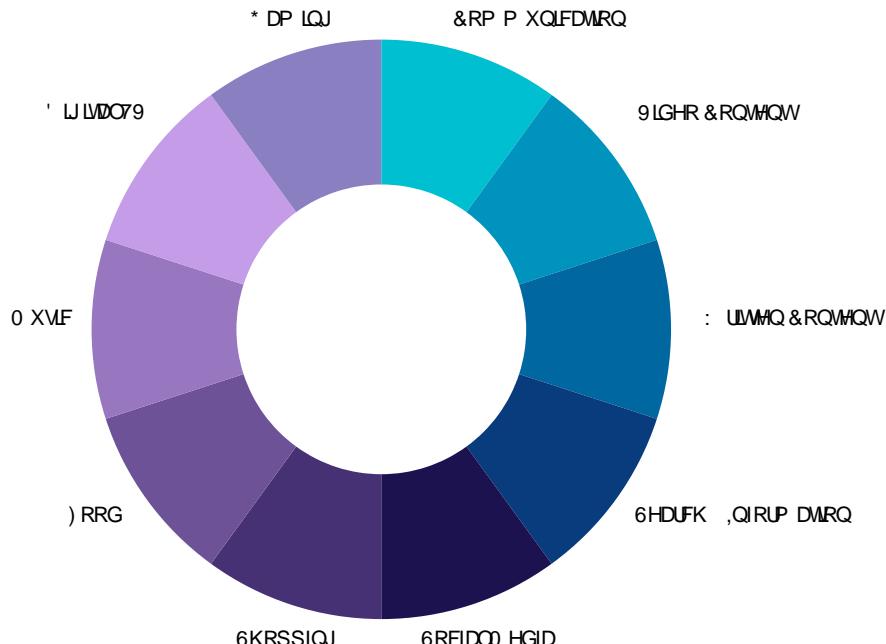
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4% of All Downloads
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7XUNLWK 0 RELOH * DP HU+ DELW

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/ PI æØµ2 Šy Đ ÜÝÐÝá ĐŠy µ / PI æØµ2 N

7XUNLK SXEØKHU/ RI HURYHU ÅÅÆ ĐŠy µ VRXWRI J DP HV/RQ * RRJ ØI 3ØA
[X ÝÜÝDHØp2µ i Š: ÜÜäþN

7KH DYHUDUH VFRUH RI RYHU J DP HV RI IHUG E\ 7XUNLK SXEØKHU/ RQ * RRJ ØI
3ØA LV RXWRI [X ÝÜÝDHØp2µ i Š: HlääN 7KL/ VFRUH LV EHMMUVKDQ VKH RYHUDØ
DYHUDUH VFRUH RI DØP RELOI J DP HV



RI VKH J DP HV SXEØKHG E\ 7XUNLK SXEØKHU/ DUH LQ VKH SDLG FDMU RU [X
ÝÜÝDHØp2µ i Š: ÜÜÈN RI J DP HV FRQMDQ LQ J DP H DGV [X ÝÜÝDHØp2µ i Š: åáÈN

RI VKH J DP HV SXEØKHG E\ 7XUNLK SXEØKHU/ XWØH LQ DSS SXUFKDVHV [X
ÝÜÝDHØp2µ i Š: ÝPÈN

RI VKH J DP HV SXEØKHG E\ 7XUNLK SXEØKHU/ DUH DYDLOEØI ERVÍK RQ * RRJ ØI
3ØA DQG \$ SS 6VRUH [X ÝÜÝDHØp2µ i Š: ÜÜÈN



7KH: RUQ RI \$ QGURLG \$ SSV
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7KHUH DUH RYHU ÅÀÄ ÄP2ØÆØ / PI ÆØM2: DFFRXQMQJ IRU RI VKH
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7KH DYHUDJH VFRUH RI RYHU DSSOEDMRQV RI IHUHG E\ 7XUNLK SXEOKHUV RQ
* RRJ OI 3O LV RXWRI [X YÜÝDæi Š: Häääl 7KLV VFRUH LV EHMMUWDQ WKH
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RI VKH DSS~~OF~~DMRQV SXE~~OF~~KHG E\ 7XUNLK SXE~~OF~~KHV DUH LQ VKH SDLG FDM~~AU~~ RU
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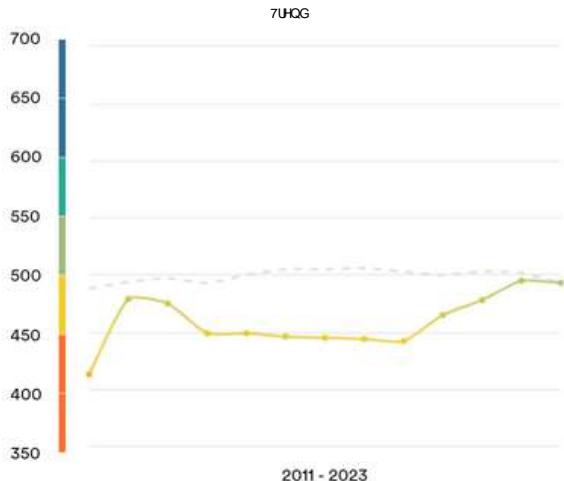
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FRQMDWRI YDURXV FDMU RU DSSOFLMRQV Z KLOI J DP HV P DNH XS [X YÙÝÝD
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: K\ LV/ RFDQ] DM\ RQ (WHQWDA RU 7XUNLVK * DP HU"

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7\J\N\ H VKRZ V D VQJ KWGHFQ\H FRP SDUHG VR VKH SUHMRXV \ HDU \$ FFRUGLQJ VR VKH
VDE\H VKH 1 HMKHU\QGV P DLQ\DLQV LW\WRS SRV\LRQ LQ W\UP VRI (QJ Q\K VSHDNH\W DV
LWKDV LQ SUHMRXV \ HDU\ + RZ HYHU 7\J\N\ H KDV H\ SHUHQFHG D V\Z R O\YHO GURS
GHFQ\Q\QJ VR VKH S\OFH LQ VKH Q\WZ KLFK LQFOXGHV FRXQW\H\



Turkey

#66



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: K\ LV/ RFDQ] DMRQ (WHQWDA RU 7XUNLVK * DP HU"

7%JNL H GURSSHG E\ OMYHO DQG UDQNHG UG LQ ,Q Z H UDQNHG VK
' HFQQLQJ \ HDUE\ \ HDUMQFH Z KHQ Z H UDQNHG QG RXUFRXQWJ FOP EHG OMYHO
DMRQFH LQ 5 DQNLQJ VK LQ DJ DLQ Z VK UMLQJ P RP HQMXP

7%JNL H UDQNV VK LQ 7KH J DP H P DUNHWLV Z HODZ DUH RI VKH VJ QLIFDQFH RI
OFRDQ] DMRQ IRURXUFRXQWJ / DJH DQG P LG VFDQJ J DP LQJ FRP SDQLHV DUH SDUWFXQW
IRFXVHG RQ UHDFKLQJ 7XUNLVK J DP HU VKURXJK YDURXV P HDQV LQFOXGLQJ GXEEILO
WDQVOMRQ DQG HYHQ LQFRUSRUDMQU LQ J DP H FXOXUDQWMP V



,VW FUXFLDO VR XQGHUW\QG VKDW OFRDQ] DMRQ J RHV EH RQG P HUH
WDQVOMRQ RU VKH LQFOXVRQ RI 2 WRP DQ LWP V LQ J DP HV LW D
VJ QLIFDQWDFVIRULQ DFKLHMLQJ VXFFHW

: H FDQ SRLQWRXWVHYHUDO NH GHMOLQY FRQWIEXWQU VR VXFFHW XQ
OFRDQ] DMRQ VXFK DV KDYLQJ D VSHFLDQ] HG WMDP IRU HDFK J DP HV
FRQWIEWVWDQVOMRQ HQXUQU VKH DEVHQFH RI VSHQQJ HUURW
XWQJ LQJ IRQWVKDWXSSRUWSHFID07XUNLVK FKDUDFWHUV QNH ~ % ä
ä ž Ø DGMWVLUQ VK WØQJ VK VR IWLQWUDFH O RXWDFFRP P RGDMQU
7XUNLVK VHQMQFH VKFKVXUV Z KHUH VKH YHUE FRP HV DWVKH HQG
VHOFVNUQJ VXLWDE Ø YRIFH DFVIRU DQG RP LMLQJ LQ J DP H FRQWIEQWVKDW
FRXQG SRVWQMDQO RI HQG 7XUNLVK J DP HUH UQJLRXVQ RU SRQWMDQO
7KHMH IDFVIRU FRQWIEXWV VR HIHFVWYH OFRDQ] DMRQ



0 XMLF LV DQ , QGLVSHQVDE ØH 3 DUWRI * DP LQJ

: HYH ØDLQHG TURP 6SRWA V GDMØ DV Z HØ DV SHURQDO H[SHUHQFHV VKDW ØMHLQJQ VR P XMLF Z KLOH JDP LQJ KDVEHFRP HD UWMKDAIRUJ DP HUV ,Q 6SRWA GLG QRWSURYLGH D GHGLFDWVG ØMIRUVRS VLQJ HUV DØXP V DQG VRQJ V SØA HG YD JDP H FRQRQROH LQ 734UNL H + RZ HYHU EDVHG RQ J HQHUDOGDMØ Z HEHOHYH VKDW 6SRWA V RYHUDØ ØMWJ LYHQ LW\ RXQJ DQG G\ QDP LF XVHUEDVH Z LOOMHUVH DVD YDØXDE ØI J X LGH

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0 XMLF LV DQ , QGLVS HQVDE OI 3 DUWRI * DP LQJ

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- <DQD<DQD 6HP LFHQN 5 H QP HQ
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&KDUDFVHULWLFV RI 7XUNLVK * DP HV



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&KDUDFVHULWLFV RI 7XUNLVK * DP HU

J Šy μ2 Đμ® ÅÀ LÄÅ

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J Šy μ2 Đμ® ÅÈ LÄÅ

J Šy μ2 Đμ® ÅÀ LÄÈ

- (P SOR HG Z HOO
GUHWHG \ HDUV
RQ DQG DJ DP HU
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RQ DQG DJ DP HU
- 6ØHSV ØMM
- 3ØA VJ DP HV/RQ P DQ
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- 7KHLUSUP DU FKRLFH
L/DJ RRG SKRQH DQG
D FRP SXMU
- 8 QLYHUV WKGHQW
SUHUV/VSRUW
FORVKLQJ \ HDUV
RQ DQG DJ DP HU
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- ,V LQ VFKRROGXUJQ
VKH GD, DQG KDV
ØP LMAG I UHH WP H



&KDUDFVHULWLFV RI 7XUNLVK * DP HV

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&KDUDFVHULWLFV RI 7XUNLVK * DP HV

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- 6RFLD08 UHMWJ H DQG 6WDMKV

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- \$ FFHMLQJ 6HDVRQD&RQHMQW

- %HQHILWQJ IURP 6XEVFUSVRQ 3HUV

- \$ YRLGLQJ ,Q * DP H \$ GVZ KLOH 3O\ LQJ

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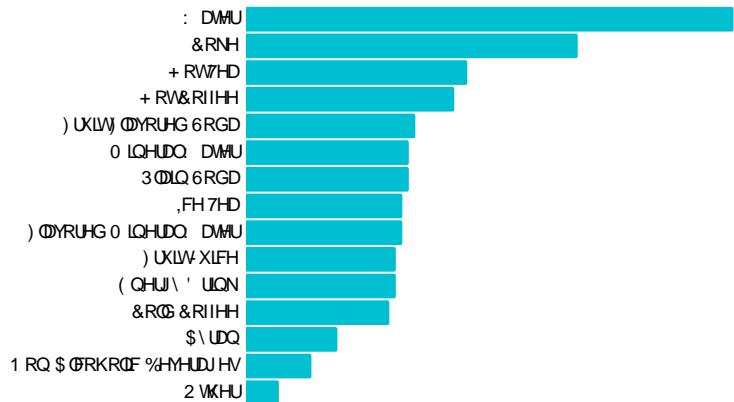


%HYHUDJ HV & RQVXP HG E\ 7XUNLVK

* DP HV: KLOH * DP LQJ

&RP SDUHQJ EHYHUDJ H FRQVXP SWRQ UDWW GXUHQJ J DP LQJ LVW HYLGHQWMDWP RELOH J DP HV FRQVXP H VJ QLIFDQWQ OHW HSFLDQW Z KHQ FRP SDUHG VR 3& J DP HV \$ P RQJ J DP HV J DP LQJ RQ FRP SXWUW LV SHUFHLYHG DV D P RUH VSHFLDODQG FRP SUHKHQMLYH DFWWFW FRP SDUHG VR SOA LQJ J DP HV RQ P RELOH SØMRUP V 7KHUHIRUH VKH SURORQJ HG GXUDMRQ VSHQWDWVKH GHM VJ QLIFDQWQ LQJOHQFHV HDMLQJ DQG GUQNQJ EHKDMIRUW ,WLW REVHVHVG VWDWVKH P RWWSUHHWVG EHYHUDJ H DP RQJ J DP HV LV Z DMUW IRORZ HG E\ FRNH DV VKH VFRQG FKRLFH &RIIHH DQG VWD DUH DOR DP RQJ VKH OHGQLQJ FKRLFHV) RU FRIIHH DQG VWD FRQVXP SWRQ KRWDOMLQDWVHV DUH SUHHWVG RYHUFRCQ RQHV

* HQHUDO & DWIJ RU %DVHG



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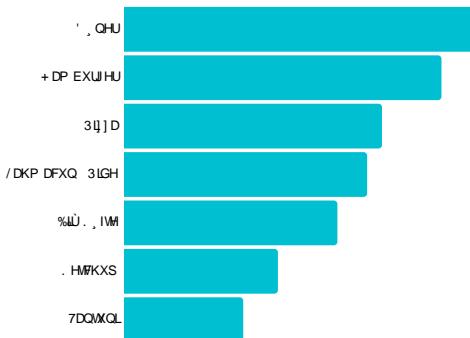
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& RQWDU VR VKH VRFIDOP LVFRQFHSMRQ VKDWJ DP HUV HDWTXLW XQKHDOK J ØREDOUVHDUFK
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-) UHV
- + RP HP DGH 6DØV 6QDFNV FUDFNHUVHM#
- ' UHG) UWL GUHG DSUERW UDQZ LQJ P LØN RUM UKS
- ' HMHUW ' HMHUWP DGH Z LQJ P LØN RUM UKS
- 3IJD
- + DP EXUJHU
- 7RDWIG 6DQGZ LFKHV
- + RP H &RRNHG 0 HDØY
- 3LGH /DKP DFXQ
- 6DQGZ LFKHV
- 1 XJJHVN &KLFNHQ: LQJ V
- 2 QLRQ 5 LQJ V
- 0 R] J DUHØD 6VFNV &KHHMH 6WDZ V
- 2 VKHU



* \$0,1*,1 785. (< _0(1\$_(8 * \$0,1* \$1' (632576 \$*(1&< * \$0(38%/,6+(5

: KDV\VKH6VDXVRI VKH7XUNLK * DP LQJ
0 DUNHW

,Q VKH 7XUNLK JDP LQJ P DUNHW H[SHUHQFHG G\ QDP LF DQG GHVSLM
FKDORQJHV SRVWLMH SURJUHW ' HVSLM D\ HDUP DUNHG E\ LQMLQDMRQDOSRQHDO
IOXFVXDMRQV DQG HFRQRP LF XQFHUWLQMHV VKH 7XUNLK JDP H P DUNHWP DQDJ HG
VR P DLQWLQ LW SRVWLRQ DJ DLQ HYHQ LQ VKH IDFH RI VKH Z HDNHQLQJ 7XUNLK / LWD
DJ DLQWWKH' RODU

* \$0(56\$5(/22.,1*)251(: 3/\$7)2506'8(7267(\$0 6'2//\$/5,=\$7,21



* DP LQJ 0 DUNHWLQ 7³/₄ UNL H

,Q VKH 7XUNLK J DP LQJ P DUNHWLQ SHUHQFHG G\ QDP LF DQG GHNSLM FKDQHQJ HV SRVLMH SURJUHW' HVSLM D\ HDUP DUNHG E\ LQWLUQDMRQDOSRQMFDOI\XFVXDMRQV DQG HFRQRP LF XQFHUWLQH HV VKH 7XUNLK J DP H P DUNHMP DQDJ HG VR P DLQWDLQ LW SRVLRQ HYHQ LQ VKH IDFHR I VKH Z HDNHQLQJ 7XUNLK / LUD DJ DLQWVKH' RQDU

,Q 7³/₄ UNL H J HQHUDMG D UHYHQXH RI P LQHQ 8 6' Z LMK LW P LQHQ J DP HV : KLOI VKHUH Z DV D GHFQOH LQ UHYHQXH LQ 8 6' W\ UP V FRP SDUHG VR VKH SUHMRXV\ HDU VKH P DUNHWLQ SHUHQFHG DQ LQFUHM LQ UHYHQXH LQ 7/ W\ UP V 7KH EUHDNGRZ Q RI UHYHQXH IURP P RELOI 3& DQG FRQVRQ J DP HV UHP DLQV\ VP LQDUVR SUHMRXV\ HDU Z LMK P RELOI J DP HV FRQMQXLQJ VR GRP LQDMA \$ GGILRQDOO VKH LQGXWII FHQIEUDMG DQ LP SRUWLQWP LQWLRQH DV' UHDP * DP HV RQH RI 7³/₄ UNL HV ILLWXLQFLRQV VDZ LW W\ OI 5 RI DOO DW\K EHFRP H VKH VRS HDLQLQJ J DP H J QREDOO \M\QEXOKRWLQJ VKH J QREDOO UHFRQJ HG 38 %* 0 RELOI * QREDO & KDP SIRQKLS IXUKHU XQGHUFRUHV 7³/₄ UNL HV UHSHFWMG SRVLRQ LQ VKH J DP LQJ DUHQD



6WDP V GHFLWLRQ VR VZ LMK VR 8 6' LV H\ SHFWMG VR EHQHILWP RQMKO VXEVFUISWLRQ VHULFHV VXFK DV 3\ UP H * DP LQJ 3\ 6W\MRQ 3\QV DQG ; ER[* DP H 3DW DV Z HODV S\OMRUP VWDWFRQMQXH VR XVH 7/ IRUSXFKDVHV VXFK DV(SLF * DP HV

7KH LQYHWP HQW WWDWRRN SDFH LQ UHQFWKH IDWK LQ LQGXWII P DNLQJ XV QBRN VR VKH IXWUH Z LMK KRSH 2 YHDOO FDQ EH VHHQ DV D\ HDURI ERWK FKDQHQJ HV DQG RSSRUWXQLH HV IRU 7³/₄ UNL HV J DP LQJ P DUNHW' HVSLM VKH FKDQHQJ HV VKH LQGXWII FRQMQXHV VR VKULYH VKURXJK LQQRYDMRQ FRP SHWLRQ DQG VKH GLYHUVLFDMRQ RI VKH J DP LQJ FRP P XQIW UHQHZ LQJ RXU IDWK LQ VKH IXWUH DFKLHMP HQW RI VKH 7XUNLK J DP LQJ LQGXWII



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* DP LQJ 0 DUNHWLQ 7³/₄ UNL H

: H Z DQWIG VR SURYLGH D FODUHUSLFWXUH RI VKH P DUNHWVJ H E\ DGGLQJ D EUHI H[SQQDWRQ KHUH

,QGXW\ 6\ H ,Q86' 7HUP V	((FKDJH 5 DM\	,QGXW\ 6\ H ,Q86' 7HUP V	((FKDJH 5 DM\
0 LORQ86'	7/	0 LORQ86'	7/

/HW FRQYHUNKH LQGXW\ VVJ H IRUMKH SDWW\ R \ HDU\URP 86' WUP VVR 7/ DQG P DNH DFRP SDU\URQ

,QGXW\ 6\ H ,Q7/ 7HUP V	,QGXW\ 6\ H ,Q7/ 7HUP V
7/	7/

,Q FRQFOXVRQ GHVSLW IOFXDMRQV LQ H[FKDJH UDM\ Z H FDQ REVHUVH UHDQ GHYHORSP HQW Z LVKLQ VKH LQGXW\ : KLOI VKH P DUNHW KDV QRP LQDQ VKUKQN FRQMLGHUIQJ VKH LQFHVDW LQ H[FKDJH UDM\ D UHDQJ URZ VK FDQ EH REVHUVHG

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² HuŠy 2 (ööš2æŠHe

6VMDP ØRQJ FKHLVKG HG E\ 7XUNLK JDP HV/ DQG RIHULQJ VKH 7/ RSWRQ VQFH
RIILFDQ GLVFRQMZXHG VKLV VXSSRUWE\ FRQYHULQJ GLVSQHG JDP H SUFHV DQG ZDOW
EDØQFHV VR 86' IXØ WDQWLRQLQJ VR VKH GROØURQ 1 RYHP EHU \$ ØKRXJK
GHYHØSHU/WLØKDYH VKH RSWRQ VR DGXVKVKH QHZ SUFHV VKLV FKDQJH LV SHUFHLYHG DV
QHJ DMVH GHYHØSP HQWE\ 7XUNLK JDP HV/ 6VMDP VGHFLVRQ VR GLVFRQMZXH 7/ VXSSRUW
DQG VZ LVFK VR 86' IRU SXUFKDHV LV ØNHO VR XVKHULQ DQ HFRQRPLFDQ FKDØØIQJ LQJ
SHURG IRU7XUNLK JDP HV/ SDUFXØØ FRQMLGHULQJ VKH YDØXH RI VKH 7/ FRP SDUHG VR
VKH 86'



* DP LQJ 0 DUNHWLQ 7³/₄ UNL H

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: HS | PÖR : Hµ® § Ç J w | äu J ö | Šö! Øšy / æ : Øæ
38 %* 0 2 %/ (VSDUHG H[FLIMP HQWDP RQJ HVSRUW IDQVE\ KRWLQJ VKH 38 %* 0 RELOH
* CREDO&KDP SLRQVLS 30 * & * UDQG) LQDQ\ LQ ÁMDQEXORUVKH ILLWMP H LQ LW KLWRLU
7KH HYHQWRRN SÖFH EHMZ HHQ ' HFHP EHU VK DQG VK DWÄMDQEXOŽ ØHU6SRUW DQG
(YHQW + DÖÖZ KHUH SURP LQHQW 38 %* 0 2 %/ (VWDP VITRP FRXQWILHV FRP SHMAG
2 YHUVKH FRXUH RI VKUHH GDA V VKH * UDQG) LQDQ\ QRWRQO SURYLGHG VKH DXGLHQFH Z LMK
DQ HVSRUW IHDXWEXWDOR IHDXUHG YDURXV FRQFHUW 7KH HYHQWZ LQHQWHG LQMQVH
FRP SHMAG DP RQJ ,+ & (VSRUW 6VQZ DUW VSRUW DQG \$ SKD (VSRUW ,+ & (VSRUW
HP HUJ HG YLFVIRURXV LQ VKH 38 %* 0 2 %/ (* CREDO&KDP SLRQVLS DFFXP XØMQJ D VIRVDO
RI SRLQW \$ QG RXU ØMW: RUQ & KDP SLRQ 6 * (VSRUW UDQNHG VK LQ VKH
VRXUQDP HQWZ LMK SRLQW



* DP LQJ 0 DUNHMLQ 7³/₄ UNL H

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RøØµ: H^a µhµ Pµ æ HØµ à 2øø L^a oŠow Šhø

' UHDP * DP HV RQH RI 7³/₄ UNL HV1 SWWAKLFRUQV DFKLHYHG D VJ QWLFQWP LØWIRQH DVVKHLUMVH
5 R\ DOO DMFK EHFDP H VKH VRS HDUQLQJ JDP H J ØREDØ J HQHUDMQJ P LØRQ 8 6' LQ
UHYHQXH \$ FFRUGLQJ VR GDWD FRØIFWMG IURP 6 VWDWWD UHSRUW AWQEXOEVHG ' UHDP * DP HV
VWØH 5 R\ DOO DMFK EHFDP H VKH VRS HDUQLQJ JDP H J ØREDØ J HQHUDMQJ P LØRQ 8 6'
LQ UHYHQXH LQ - XØ 7KXV 5 R\ DOO DMFK GHMKURQHG J ØREDØ P RWGRZ QØRDGHG & DQG
& UKV 6DJ D VKDMKDVEHHQ LQ SØFH I RUØWV \HDUZ LMK P LØRQ 8 6' UHYHQXH



J Šy µ	^a µhµ Pµ Ø aæe Ç² (A
5 R\ DOO DMFK	
& DQG & UKV 6DJ D	
* DUGHQVFDSHV	
+ RP HMFDSHV	
) LKGPR	
3 XJ] ØI ' UDJ RQV	
& DQG & UKV 6RGD 6DJ D	
(P SWH DQG 3 XJ] ØI 0 DMFK 53*	
7RRQ %ØMW	
7USØI 0 DMFK	



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§ Š/ Š2Š §1 Pæµ® HØµ 0:/ 2H ! ðP! 1² P/ µ2ÿ Š: : äµ1

3DS DUD RQH RI 7³/₄ UNL HV P RW SURP LQHQWSDA P HQWSØMRUP V KDV DFT XLIHG

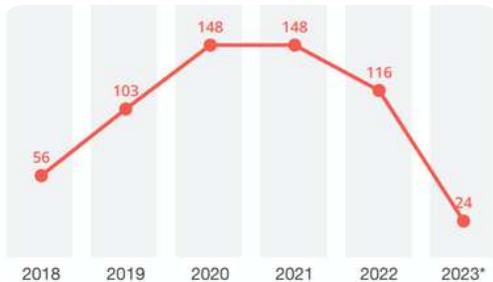
3DS DUD 6XSHUØ DWLYH WKH HRSRUW FOXE LWKDV EHHQ VS RQRVRLQJ VLQFH

3DS DUD 6XSHUØ DWLYH IRXQGHG LQ KDV DFKLHYHG FKDP SLRQVKLSV DFURW YDURXV ILHQV GXULQJ WKLV VHMHQ \ HDU SHURG 3DS DUD V DFT XLMVRQ RI 6XSHUØ DWLYH Z DV ILQDQ HG DQG DQQRXQFHG DWKH HQG RI



,QYHWP HQWLQWKH* DP LQJ ,QGXWU

² HŠ2HP/ : I P ®æ ÁV2ðømu hµ2HØµ æµŠ2

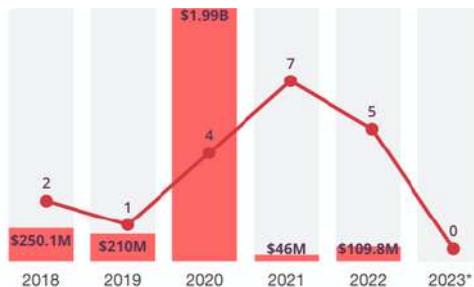


- * DP LQJ 6VIDUN8 SV
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µ: HŠí æµn@DÚá ØŠhp §ó: µ@DI Øéí áßp :H‰ö
æ / µz‰te !



y Pý : µ2 Í! ý / Š æ: OnaæD HØµ (ý µ: H‰ J Šy æD ² µ\$H 2æ HØµ mš: HÆæµŠ2



- IQ 0 LQORQ LQ VRVDO
- IQ 0 LQORQ LQ VRVDO
- IQ %LQORQ LQ VRVDO
- IQ 0 LQORQ LQ VRVDO
- IQ 0 LQORQ LQ VRVDO
- 7KHUH Z HUH QR H LMQ FRP SDQHV IQ 7%UNL H LQ



,QYHWP HQWLQWKH* DP LQJ ,QGXWU

w : HI P ®µ®² HŠ2HLC / : æ ÅÅÅŠ ®À / X hµ: H 2

TOP GAMING DEALS 2023*

	\$4M
	\$3M
	\$3M
	\$2.5M
	\$2.3M

- / XGXV9HQWXUHV
- : H3ØA 9HQWXUHV
- %RÜDJ LCL9HQWXUHV
- %DØLP 9DGVL



À / Åonæl æ HØµ ÀP2øæØJ Šÿ æD² µ\$H 2

TOP EXITS (ALL TIME)

	\$1.8B
	\$250M+
	~\$200M
	\$180M
	\$100M

TOP ACQUIRERS (ALL TIME)

	7
	1
	1

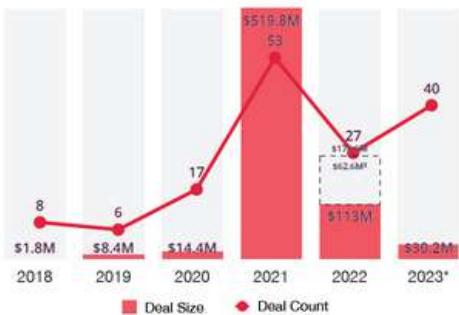
- 3HDN %LORQ
- * UDP * DP HV 0 LORQ
- 0 DMRP R 0 LORQ
- 5RCF 0 LORQ
- \$DFXV 0 LORQ



,QYHWP HQWLQVWH* DP LQJ ,QGXWU

R i ÿ P§Øÿ mu i Š: æhþ: Hj®æ Hðµ ÁP2ðæð Ðšÿ æÐ: µ§H 2æ ÅÀÅÃ

GAMING INVESTMENTS (ANGEL & VC DEALS)¹



- IQ 0 LQORQ LQ VRVDO
- IQ 0 LQORQ LQ VRVDO
- IQ 0 LQORQ LQ VRVDO
- IQ 0 LQORQ LQ VRVDO
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y Hj ÚC Aðm Py | µ2 Š2µ řŠKÞPKHj® : Š:µ® Hðµ § ý / Š æ: řŠKÞPKHj®æ AVðæþul

y Hj YQ 2þS J Šy µ: Mæhp: Hj µ Hi Š: řŠKÞPKHj® 2þu® P 2þu® YÜYY æ Hðµ / 2þæþul: 2þu® 2þD Pþce Hðæ µ: Hši æððæðæ řŠKÞPKHj®æ YÜYY

y Hj PCÄðm řŠæðæ řŠö~áYlý ÿ åææ C2(æ YÜYY æ řŠKÞPKHj® H řŠ2/ H æhþ: Hj µ Hi



- ' XUQJ VWH I LWWQLOH P RQMKVRI D VRVDO RI P LQORQ 8 6' Z DV/LQYHWMG DFURW LQYHWP HQWLQVWH QXQVIQ DØMHFVRU LOFOXGLQJ VHNG HDUQ DQG ØMWSKDMV : KLGJ VWH OXP EHUDQG DP RXQWRI LQYHWP HQWLQVWH I LWWQLOH P RQMKVRI DUH KJU KHVKDQ VWH SUH SDQGHP LF SHURG VWH UHP DLQ VJ QLIFDQW ØZ HUVKDQ GXUQJ VWH SDQGHP LF SHURG
- 734NLH KDV/ ÞðSµ® ÄHð LQ VWH ØMRI FRXQWILHV/VKDWKDYH 2þu® řŠKÞPKHj® Hðµ ý : H: µµ® ÍP 2æÐ æ Hðµ Á2® 1 PŠ2Hj2 ï ÅÀÅÃ LQ (XURSH DQG VWH 0 (1 \$ UHJLRQ DIWU (QJ ØQG * HUP DQJ DQG) UDQFH
- 7KH I LQHØVVKDKWUHFHLYH VWH P RWLQYHWP HQWLQVWH I LWWQLOH P RQMKVRI LQ VWH P VRI LQYHWP HQWDP RXQW Z HUH 9 LGHR * DP HV \$ UWLFLDQ QMKØH HOFH 6DD6 (QHJ\ DQG) LQMFK
- ,QYHWP HQWSDUFLSDMRQ UDMR RI IRUHQ LQYHWRU/ GURSSHG GRZ Q VRI LQ UHDFKLQJ D UHFRUG ØZ QXP EHU 7KH I LWWQV P RQMKVRI



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,QYHWP HQWLQWKH* DP LQJ ,QGXWU

&RP SDQ	.QYHWRU	\$P RXQWQYHWMG
\$SSKIF* DP HV	/P D9HQMXUHV : HSQ 9HQMXUHV	0 LORQ' RQDU6HHG) XQGLQJ
\$ULV* DP HV	%RUDJ LQ9HQMXUHV	7KRXVDQG' RQDU6HHG) XQGLQJ
) DQWDJLH	: HSQ 9HQMXUHV 6SRUW/ 0 DFNRQN \$FXQ, QFDQ 6DUD+RQGLQJ 0 7(DQG, QGLYLGXDO QYHWRU/	
) UDQMF* DP HV	9JD P HV (P HUI LQJ (XURSH DQG \$NQ%DEDI LULW	0 LORQ' RQDU,QYHWP HQW
) URJHQ3DZQ	%RUDJ LQ9HQMXUHV) LQDQFIDO HMDQY1 RM\$ QRQXQFHG
) XQYHUH* DP HV	: HSQ 9HQMXUHV \$ QLQ 9& <@> 7HNQR* 6< 0 HGLMUD&DSLVDSUWHU2 UKDQ \$ \ DQDU%XUDN \$ CBIURP \$ WD+ RQGLQJ	0 LORQ' RQDU6KDQ %DQHG ,QYHWP HQW KURXJK' RQDU \$ SSUFLDMLQJ
) XW* DP HV	1); DQG /DNHMDU	0 LORQ' RQDU3UH 6HHG) XQGLQJ
* DP HVMU. LGV	\$3< 9HQMXUHV ' RSLQJ + DI#D NXUFXQDU6HP LK + DN HP H] \$ Q. DUDNX DQG 1 0 HUW DQNDYDQ	7KRXVDQG' RQDU,QYHWP HQW
* @DP * DP HV	,W&DSVDO/ XGV9HQMXUHV/DQG 7HUD3RUW \	0 LORQ' RQDU6HHG) XQGLQJ
* XOMHUB* DP HV	%RUDJ LQ9HQMXUHV DQG 8 6 FHQMHG RQ 0 DUFK & DSVDO	0 LORQ' RQDU,QYHWP HQW
+ XQJUL* DP HV	%RUDJ LQ9HQMXUHV	7KRXVDQG' RQDU,QYHWP HQW



,QYHWP HQWLQWKH* DP LQJ ,QGXWU

&RP SDQ	.QYHWRU	\$P RXQWQYHWP
/ DWWLJM* DP HV	%RUDJ LQ 9 HQWXUHV	0 LORQ' RODUS SSUHFIDMRQ
/ D, HU\$,	-IP 3D, QH \$ NLQ %DED, UUW 0 LFKHOI \$ WLDQ ' LSHMK 3DUP DU7KH* DP HV) XQG 7KH* DP HV/6\ QGLFDW *) 5) XQG / DMRQ 9 HQWXUHV * QREDO (OHQD 6LQIORN DQG 7DIP XU5 DVKLQ	0 LORQ' RODU,QYHWP HQW
/ XGVV(ÜWIP 7HNQRORWBL	. LGRORJ	7KRXVDQG' RODU,QYHWP HQW
/ XP LH* DP HV	+ DNNE\$ QDQ	0 LORQ 75< \$ SSUHFIDMRQ 0 LORQ 75< 6HHG) XQGLQJ
0 HJD RUXQD	\$ 3< 9 HQWXUHV 9 HWMOB HQWXUHV DQG 7DFLQBL3RUW \) XVMUH, P SDFW XQG	0 LORQ' RODU6HHG) XQGLQJ
1 HU,7	6VDUUMU4XE	7KRXVDQG' RODU6HHG) XQGLQJ
2 QH3HUFHQW	: H3Φ 9 HQWXUHV	0 LORQ' RODU,QYHWP HQW
3DWLRQ3XQFK	&RQHQGL 7XUNFHQX-HQ 7HNQRORWBL 6<) 5H31H3RUW \ DQG DQJ HQYH-WRLV	0 LORQ' RODU6HHG) XQGLQJ
3D[LH* DP HV	/ XGVV9 HQWXUHV \$ OD* DP HV 3DUOHUV DQG \$ QH QYH-WRLV	0 LORQ' RODU,QYHWP HQW
3LQN* DP HV	\$ OMWD<DVWLP DQG * HRP HMI 9 HQWXUHV' HM-QBSP HQW	0 LORQ 75<,QYHWP HQWURXJK 75< \$ SSUHFIDMRQ
5DMF	7KH ZDFH) DP LQ XQGHUWKH QDGHUWLIS RI \$ WLDQ ZDFH 2 ; 2) LQDQV DQG \$ GFDQ (LGRUDQ	0 LORQ' RODUS SSUHFIDMRQ



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&RP SDQ	.QYHWRU	\$P RXQWQYHWP
6FRXWD	6HFDO\$NND&DQ+LGHJPHJ 0XWDID(P.UH*%QG%\$.DQ.DUDSDUDUJDQZQGHYD*4HP.1LQ\7XQD&HP %A%NND(D)HMLSKPHW]EXQWSQDQ\$GMD(6INURQLN7HNQRQW<DWUP \$YH6HWD*)]LQDQ	0LORQ/9DOKDMRQ2YHU 7KRXVDQG 7/,QYHWP HQW
6SHNWD*DPHV	/XGXV9HQWUHV7KH*DPHV)XQG \$OD*DPHV3DUQHUV	0LORQ 7KRXVDQG'RQDU,QYHWP HQW
6VGLR%LORQ	:HSQW9HQWUHV%<2/LPD	
6XSHUHDV*DPHV	7KH705:)RXQGDARQIRUPHUYLFHSLUHGLHQVRI8QW8\$.DUDGHPLWIRXQGHURI 0DVRPRDQG: HEWNRQ&UDKLP\$NPDQ&(2RI,QJDPH*URXS*HQFR\$GS)RXQGHURI2FVRSXV(P.UH<DGQIRXQGHURI(/\$*DPH6VGLR0XUDWS\$U,) DQBJZLWKLQWIKWRODOLQYHMRU<DGQ7HNQR*6<2	0LORQ'RQDU,QYHWP HQW
7IDP R	\$GMD<DWUP	0LORQ/9DOKDMRQ
7RRQ0HMD*DPHV	%RUDJLQ9HQWUHV	.86',QYHWP HQWZLK P LORQGRQDUYDOKDMRQ
7UR0RELO	DQG VK<HDU,QLADWYH &DSLWD)LQDFIDOHMWDY1RW\$QQRXQFHG
9HBRLD	,19(67IXQG&RQDFWYH 6SDUNDQG%RUDJLQ9HQWUHV	%UIGUH,QYHWP HQW6RXQG)LQDFIDOHMWDY1RWLYFGRVHG
:RGR1HWZRUN	9%7<DJZP	0LORQ'RQDU,QYHWP HQW
<\$0<6VGLR	839HQWUH&DSLWD	0LORQ'RQDU/9DOKDMRQ

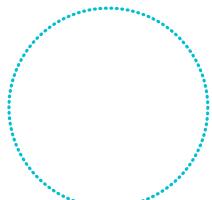


,QYHWP HQW LQ VKH* DP LQJ ,QGXWU

Z DV D P LOMRQH \ HDU IRU VKH 7XUNVK J DP LQJ LQGXWU 6LP LQDU VR VKH J GREDO
J DP LQJ LQGXWU DQG RVKHLQGXWUHV VKH 7XUNVK J DP LQJ LQGXWU DOR H SHUHQFHG D
\ HDU LQ Z KLFK LWEHFDP H YHU GLWFXQVVR DFFHW P RQH 7KH P DLQ VRXUFH RI VKLV
VVKHDMRQ LVVKH UHFHVWRQ LQ VKH Z RUQ EXW, VKLQN VKHUU DUH DOR VSHFLDOUDVRQVIRUMVKH
7XUNVK J DP LQJ LQGXWU

,WZ RXQ EH XHIXOVR HYDODWHA Z KI Z DV D P LOMRQH IRU VKH 7XUNVK J DP LQJ
LQGXWU E\ UHZ LQGLQJ VKH ILQ D ELW: KHQ Z H HYDODWHA VKH VHFVRUIURP RQZ DUGV
LWV SRWECH VR GLYGH LWLQMR SHURGV DV SHURG SHURG
SHURG DQG EH RQG : KHQ Z H GRN DWKH ILWMSHURG VKH 7XUNVK J DP LQJ VHFVRU
Z KLFK WDUWAG VR DWIDFWDWHAQMRQ Z LMK VKH DWLYDORI 0 86' H\ LW VXFK DV * UDP
* DP HV DQG 0 DVDP R Z KLOI LWZ DV LQ D SRVLRQ VKDWZ DV SHUKDSV QRW HWFDQDG VKH
VHFVRU VKRZ HG VHURXV JURZ VK EHMZ HHQ ,Q VKH Z LQG FUHDWAG E\ VKH
K\ SHUDVXDOJ DP H J HQH LQ RXU FRXQWU DQG VKH VXEVHTXHQW3HDN H\ LW DQG VKH
HP HUJ HQFH RI 73411 HV ILWQW8 QLFRUQ FRP SDQI URPU VKH J DP LQJ LQGXWU Z DV VKH
EHJ LQQLQJ RI VKH J RQHQ DJH RI VKH J DP LQJ LQGXWU LQ 73411 H 1 RWRQQ ODFDO EXW
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,Q VKLV SURFHW 73411 H EHFDW H VKH VK FRXQWU Z LMK VKH P RWU DP H LQWDMHV LQ VKH
Z RUQ Z KLOI AWDQEXOEHDW H VKH QG DQG \$ QNDUD VKH VK FLW : LMK VKH YHU SRVWVH
IP SDFWRI VKH SDQGHP LF VKH J DP LQJ LQGXWU DORVYHU VKH Z RUQ KDV EHFRP H VKH
IDWWVWJ URZ LQJ VHFVRULQ VKH Z RUQ Z KLOI VKH JURZ VK VHQQ LQ RXUFRXQWU KDV EHQQ
DKHDG RI J GREDOLJ XUV 7KHMH H\ WDRUGLQDU GHYKRSR P HQW LQ VKH SHURG RI
J DYH VKH 7XUNVK J DP LQJ LQGXWU LW J RQHQ DJH Z KLOI DWKH VDP H WIP H FDXVQJ VKH
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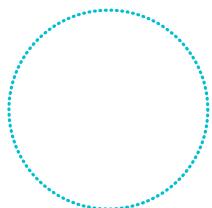


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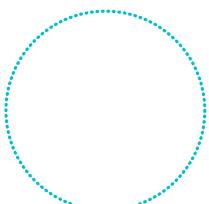
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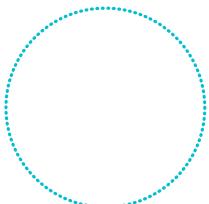
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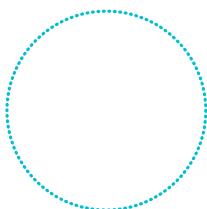
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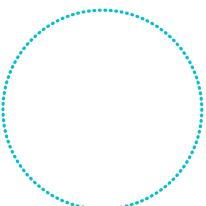
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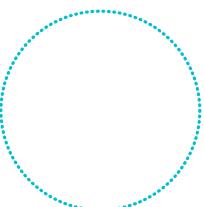
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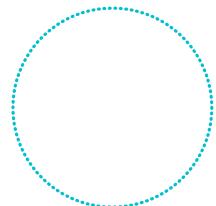
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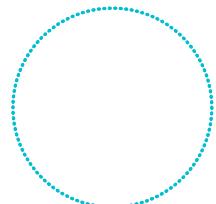
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LQMLUQDWQRQDOVFHQH VV\ HDU 2 XUVJ QULFDQWDQG P HP RUDE\I DFKLHMP HQW
LQFOXGHG VHFXUQJ) LWW3 QFH LQ VVH 9 DORUDQW6SLNH 1 DMQRQV LQ 6SDLQ 6HFRQG
3 QFH LQ VVH 38 %* 0 RELOI,(6) & KDP SIRQVKLS LQ 5 RP DQLD 7KLUG 3 QFH LQ VVH
H) LED 6HDVRQ : RUQ) LQDQ\ LQ 6Z HGHQ 6HFRQG 3 QFH LQ VVH H) RRVIDCO
%UDQFK RI VVH (XURSHDQ * DP HV LQ 3 RQOOG DQG) LWW3 QFH LQ VVH 1 %\$.
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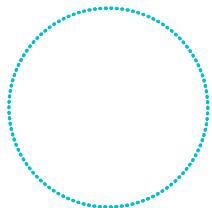
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7KH 7XUNLK (VSRUW) HGHUDMRQV VWDW\J IRU LQYRQHV SØ\IQLQ D
P RUH DFVYH URO\ RQ D J ØREDOVFDØI DQG IXU\KHUIQ VKH DFKLHYHP HQW RI
RXU QDMRQDO VMDP V Z KR Z LO\ EH UHSUHMHQIQLQ RXU FRXQW\ LQ VKH
LQMLQDMRQDO DUHQD ,Q VKLV FRQW\ W Z H DLP VR VWHQVVKHQ RXU
FRQQHFVRQVZ V\K VKH * ØREDO (VSRUW) RXQGDMRQ * () DQG HQJ DJ H LQ DQ
DFVYH P DQQHU : H DUH SØQQQLQJ VR KDYH RXU VMDP V SDU\FLSDWM LQ
VJ QLLFDQWWRXUQDP HQW RUJ DQJ HG E\ LQMLQDMRQDOE RGLHV VXFK DV * ()
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0 RUHRYHU Z H Z LO\EH KDYLQJ RXUQDMRQDOVMDP V SDU\FLSDWM LQ 2 ØP SIF
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GLVFLSØQH DQG SURP RW\ RXUFRXQW\ LQMLQDMRQDØ

,Q RXUFRXQW\ Z H DUH LQ VKH SURFHWRQ LQMRGXFLQJ ØU DOUH XØMRQV
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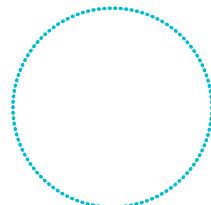
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7KHM HYHQW Z LOODØRZ ØFDOMDQIQWIR EH GLVFRYHUHG DQG GHYHØRSHG DV Z HØDV SURP RWQJ FRQQHFWLRQ DQG SDUQHUKLS EHMZ HHQ WDÑHKRØCHU/LQ VKH LQGXWU 7KH 734JNLH & XS DQG RVKHU QDWRQDO RXLQDP HQW Z LOODØR SURYLGH J UHDW RSSRUWXQMVHV IRU RXU QDWRQDO WMDP V VR SUHSDUH IRU LQMLUQDWLRQDOFRP SHMWRQV

, Q DGGLWRQ HVSRUW VXP P LWZ LOOFUDW DQ HQYLURQP HQWZ KHUH LQGXWU ØIDGHUW DMKOMMV IDQV DQG RVKHU LQMLUHWIG SDUWHV FRP H VRJ HMKHU DQG VKDUH LGHDV DQG GLVFXW WUDMULHV VKDWZ LOOKDSH VKH VRP RUZR RI VKH LQGXWU

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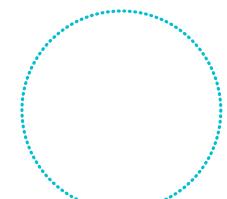
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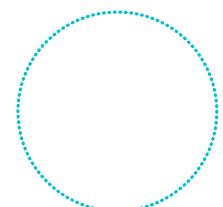
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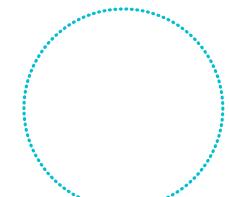
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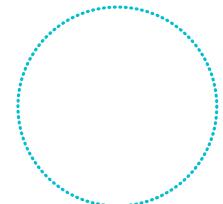
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7KLV \ HDU Z H Z DQWHVSRUW LQ RXU FRXQWV VR GHYHÖRS IXUKHU DV Z HO: LMKLQ VKLV FRQW\ W FUHDMQJ LQIUDWVKFXUH DQG WDLQLQJ SURJ UDP V LQ RUGHU VR GLVFRYHU DQG GHYHÖRS \ RXQJ WDXQW P D CHDG VR J UHDW RXWFRP HV (VSRUW FOKEV LQ VFKRRÖ SURYGLQJ QHFHWDU VXSSRUWDQG IRFXVLQJ RQ VKHM SURJ UDP V FRXQ SHUKDSV SDYH VKH Z D IRUP DQ\ RXQJ DMKÖMMV , QYHWP HQW DQG SDUQHUKLSV IRU VRQGLV LQJ VKH HVSRUW VFHQH LQ 7\UNLQ H QHHG VR EH VXSSRUWIG E\ DQ LQFUDHV LQ VSRQVRUW\ HWMG FRQW\W O RUHRYHU VKHM FRQW\W VKRXQ EH UHSÖFHG Z LMK P RUH LQWUDFW\H DQG FUHDW\H LGHDV 5 HJ DUGLQJ VKH H\ HFXW\H HV RI RUE DQJ\ DMQVZ H QHHG VR DSSHDOVR VKHP) XUWKHP RUH VKRXJK VKLV EHFRP HV D SRILQWRI GLVFXWLQ HYHU \ HDU Z H QHHG VR HQFRXUDH 7XUNLK DMKÖMMV VR SDUWLSDW LQ LQMLQDMRQDOHNSRUW VRXLQDP HQW DQG VXSSRUW\H DFKLHYHP HQW RQ VKH J CREDOW\H 5 HFHLYLQJ VXFK VXSSRUW\H VKH WDMZ RXQ QRWRQO P DHV VKLQJ VHDW\H IURVKH DMKÖMMV UHSUHMHQ\W XV DQG VKH H\ HFXW\H EXWDOR I RWMUWVKH J URZ VK RI VKH LQGXWII : H KRSH VKDW\H\ HDU Z H FDQ LQFHQM\H VKH SXE\H VR VXSSRUWVKLV LQGXWII HP SKDM\ LQJ DWHYHU W\H VKDW HVSRUW\H DFRP SHMM\H VSRUWEUDQFK



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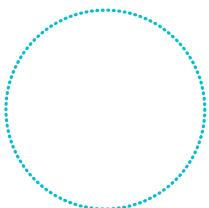
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IHØNSURI RXQGØ EHFDXVH RI VKH & RYLG SDQGHP LF DQG J ØREDO DUP HG FRQI ØFW ,Q
DQG LQMUHWHV LQ VKH J DP LQJ LQGXWII DQG J URZ VKH HJ SHFWØMRQV
GHYHØRSHG IDWMU WKDQ DQMFLSDWMG VKDQNV LQ QR VP DØØSDUWVR VKH HIIHFWR RI VKH
SDQGHP LF : LMK Z DQLQJ LQMUHWHØYHY UHMULQJQ VIR QRUP DO LQ VKH LQGXWII
LQWDMWG J ØREDOVFDØI QRUP DQ DMRQ HIIRUW 8 QIRUXQDMWØ DUP HG FRQI ØFW DQG
HFRQRP LF KDUGVKLSV FDXVHG VKLV SURFHWR EHFRP H P RUH VHMHUH DQG UDSLG * URZ VKH
HJ SHFWØMRQVIRUWKH J ØREDOJ DP LQJ LQGXWII GHFUHDVHG Z KLOI HJ SHQVHVNHSWSLQJ XS

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KDYH RQ LQI ØMRQ , EHØYH VWDWVKH I LWWKDO RI VKH \ HDUZ LØEH D GLWLFXØNSHURG EXW,
DØR EHØYH VWDWZ H Z LØMH D SRVMWH GHYHØSP HQWURUXFRXQWII LQ VKH VHFRQG KDO
7KH DGYDQFHP HQW LQ WFKQRQBJ LF DQGHYHFV DQG VKH J URZ LQJ SRWQMDORI VKH J DP LQJ
LQGXWII DUH HJ SHFWMG VR P DNH VKH ØWWMØ P RQMVVR P RUH UHØJ HG FRP SDUHG VR

, KDYH REVHMHG VWDW3 & VDØV DQG J URZ VKH P RELOI J DP LQJ LQGXWII LQFUHDVHG
UDSLGØ EHØYH HHQ DQG , DQMFLSDWMG VWDW3 & VDØV DQG VKH P RELOI J DP LQJ
LQGXWII Z LØVXUSDW LQMUHWHV LQFRQVRØV VKLV \ HDU) XUMKHP RUH , HJ SHFWVKH HFRQRP LF
LQYHØP HQW P DGH LQ 7%JN H LQ VIR EHJ LQ \ LQKQJQ UHMVØVKLV \ HDU 7KH GHFUHDVH
LQ LQI ØMRQ UDMV Z LØKDYH D SRVMWH HIIHFWRQ J DP HU LQ RXUFRXQWII ERVK Z LMKLQ
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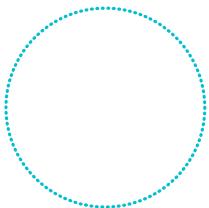
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, SUHGLFWVWKDWVHFQQRQJ LF DODGYDQFHP HQW DQG Z LGHVSUHDG LQMLUQHWDFFFHW Z LQIXVWHU GHYHRS VWH JDP LQJ DQG HVSRUW LQGXWUHV \$ GYDQFHP HQW LQ YLWJDQHDOVW 95 DQG DXJ P HQWIG UHDOW \$ 5 Z LQSDUFXOQD HQKDQFH VWH LQMLUDFVWYH DQG LP P HUJYH JDP LQJ H[SHUHQFH 7KLVZ LQIDFLQDMV VWH JURZ VV LQ ERVK VWH QXP EHURI JDP HU DQG VWH JDP LQJ LQGXWU DV D Z KRQJ

, Q FRQFQVLRQ LWFQ EH VDLG VWDWVWH JDP LQJ DQG HVSRUW LQGXWUHV H[KLELW VJ QLIFDQWJ URZ VV SRWQMDODQRQJ Z LQK WDFKQRQJ LF DODGYDQFHP HQW DQG JOREDO HFRQRQ LF UHFRYHU LQ DQG EH RQG , H[SHFWVIR VHH VWHMH LQGXWUHV SXOOLQ P RUH LQYHWIP HQWDQG LQMLUHWERVK LQ 734ND H DQG DURXQG VWH Z RUQ LQ VWH IXWUH



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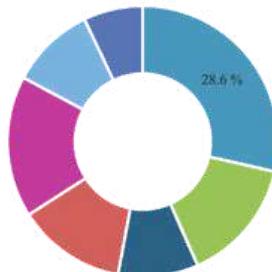


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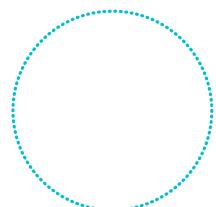
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VKH SUIP DU LQGXWUHV KDYH DGRSMIG J DP UUFDWLRQ VROXVRQV (GXFDMRQ LV DOR D SURP LQHQW
LQGXWUHV DV XVXDO VLQFH LWWUHVW \ RXQJ DXGLHQFH \$ FFRUGLQJ VR J ØREDO UHHDUFK VKH
J DP UUFDWLRQ P DUNHVKDV UHDFKHG QXP EHUV DV KJL K DV ELQORQ GRQHUV Z LK D I RUHFDWLRQ
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- Retail
- Banking
- Government
- Healthcare
- Education and Research
- IT & Telecom
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\$ FFRUGLQJ VR D UHMHDUFK FDWHLG RXWLQ VKH 8 6 P RUH VKDQ RI Z RUNHU DUH P RUH RSHQ VR
DQG SUHIUHJ SHUHQFHV UHMHP EOOQ JDP HV 3UHIUHJG JDP UUFDWLRQ VWDWLU LHV IRUDGXOV DUH
QAMG DV FRP SØMQJ ØYHQV HDUQLQJ SRLQW DQG JHMLQJ VFRUHV JHMLQJ LP P HGLDWA
IHHGEDFN SURJ UHMLRQ EDUV HYHQWZ DQY FRP SHMLRQ Z LMK IUHQGV EHMLQJ SDUWRI D WRU
DYDMUW DQG YLWUDOFRLQV

1 Gamification in training

Sources: eLearning Learning, EHLTools



US workers who believe game-based learning is more engaging



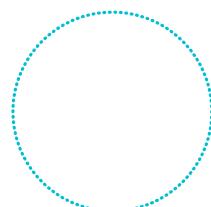
increase in employee engagement as a result of gamification training features



improved productivity because of gamification training features



business transformation programs that fail due to poor employee engagement



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* DP IIIFDMRQ KDV EHHQ HQMR LQJ LWJ RQHQR DJ H LQ H FRP P HUFH LQ 73\11 H DQG KDV EHHQ XW\Q HG JRUHFDMRQ J DP IIIHG CR DOW SURJ UDP VE\ P DQI GLIIHUHQMEVXQHWHV LQ RUGHU\ P DQDJH VKH LQFHUDLQJ GHP DQGV DIW\U VKH SDQGHF LF

,Q + HS VLEXUDGD RQH RI VKH EIJ J HWH FRP P HFH SØMRUP V FRP E LQHQH VKH SRZ HURI J DP HV Z LMK VKHLU
ØR DØW SURJ UDP RQ VKHLU 2\ QDQgNED. DJ DQ (DUQ \$V <RX 3 Ø SØMRUP 7KLUH DUH P DQJ J DP HV RQ VKLV
SØMRUP ,QFOXGLQJ J DP HV VKDM RX FDQ SØA FRQMQXRXWD DV Z HØDVK VHDVRQDOLQJMDVWYH H SHUHQFHV
6FLDVMK J DP HV ILQG VR Z LQJ DP HV J LYHDZ D V ELQJ R DQG RMKHUQFN EDVHG J DP HV FDQ EH SØA HG E\\ UH XØU
FXWRP HV 1 XUUXUQJ J DP HV GHM J QHG I RLQGMUDFWLYW LQFHQMMH J FXWRP HV XVLQJ LHZ DUGV FRXSRQV DQG
VKH HØP HQWRI VXSLUW * DP HV DQG J DP 3FLDMRQ KDHY KHØSHG + HS VLEXUDGD DFKLHMH D UHUXUQ UDWA RI
DP RQJ VKRHZ K KR KDHY SDUMFLSDMG LQ VKH J DP HV LQ 7KH YRQXP H RI RUGHV KDV GRXEØG VKDQNV VR
DP HV + HS VLEXUDGD HP SRZ HUJQJ LV FXWRP HV Z LMK VKH UU KWIR FKRRVH KDV GRXEØG LV UDWA IRU VDQMV
FRQYHUMRQ

: H KDG DQHIDG GLFVXWHG %HEHYH Q. XOE% %DE\ 3 DUHQW&OKE RI (EHEHN Z KLFK P RQFLRUV HGXFDMWV DQG
UHZ DUGV\ RX DQG \ RXUEDE\ IURP VKH SUH ELWK SHURG DQOMKH Z DA XS VR VKH DJH RI LQ RXU\\$FKLHYHV/R
DUWFQH\ ' XUQJ VKH * DP IHG [2 QNL* DP IIIFDMRQ LQ (FRP P HUFH / HYHO Z HEQDU (EHEHN KDG WDQMG VKDW
SDUWFISDQW LQ VKH UHMHDUFK VKH. FROGXFWHG Z LMKLQ VKH LQGXWII SUHHUHG DSS\OFDMRQV VKDWRIHU P RUH
UHZ DUGV DQG HQMLWUDLOP HQW7KH. KDG VKDUGH VKDMKH FOKE UHDFKHG RYHU P HP EHJ/LQ DQG DW
VKH MP H P RUH VKDQ. SHRSQH Z HUH SDUWFISDQW LQ VKH JDP IIIHG %HEHYH Q. XOE% 2 Q VKLV S\OMRUP
Z KHUH\ RX FDQ HDUQ SRLQW\ FRP S\OMQJ P LQJ DP HV/DQG TXHWV VKH EDQ\OFDMRQ LQJ JDP H KDV/DZ DUGHG RYHU
%HEHYH Q SRLQW\ VR FXWRP HV Z KLOI GDLW WLYD JDP HV/KDHY VHQQD S DUWFISDQW QXP EHURI RYHU
VKRXVDQG SHRSQH (EHEHN KDV DQR JDP IIIHG VKH VKRS H\ SHUHQFH LQ Z KHUH P RUH DQG P RUH SHRSQH
KDYH UHUXLUQHG VR SK\ VFDOKRVS DIWUVKH SDQGHF LF 7KH. KDHY LQFRUSRDW\ VKH IHHGEDFN JDP H RQ VKH
S\OMRUP ' HGHNU %HEHYH Q\ HMFVW\ %DE\ 3 DUHQW Z KLFK KH\SV FXWRP HV VHQQ GLWFLW HHGEDFN VXLQJ
SKRVRV 7KURJK %HEHYH Q. XOE% (EHEHN KDV EHFRP H RQH RI VKH FRP SDQHV VKDWKDV XV\HG DQG
UHFHLYHG IHHGEDFN IURJ DP IIIFDMRQ Z LMKLQ VKH LQMQWRI P DNLIQ VKH FXWRP HUH SHUHQFH P RUH HQMLWUDLOQJ
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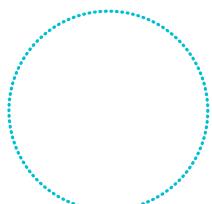
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3 HJ DVXV DOR XVHV JDP UUFDWLRQ LQ LW FRUSRUDM FXOXUH DV Z HODV LW SURGXFV 7KH DOR XVH VLP XOMRQV DQG JDP UUFDWLRQ IFRUSRUDM HGXFDMRQ

7KH JDP H 3 HJ DVXV%RORO Z KIFK KDVEHHQ SDUJRI VKH 3 HJ DVXV RI DOW SURJ UDP IRUD \ HDU DWDFW DQ DYHUDJH P RQMKO SØA HUFRXQWRI MRKXVDQG DQG KDV EHHQ SØA HG E\ D VRMDORI P LORQ SHRSØI RYHUD VSDQ RI P RQMKV ,Q RYHU ELORQ %RQ XDQ UHZ DUG SRLQW KDYH EHHQ DZ DUGHQ LQ VKLV JDP H SØA HG E\ MRKXVDQG XQLTXH SØA HV ' XULQJ VKH JDP UUFDWLRQ LQ H FRP P HUFH Z HELODU 3 HJ DVXV KDV WDMAG VKDWSHRSØI V VSHQGLQJ DQG P RELOI DSSOFDMRQ XVLJH UDMM KDV LQFUHDHG LQ VKH SHURG Z KHUH VKH KDYH LQFRUSRUDMIG JDP UUFDWLRQ

\$ QRVKHJJ UHDW[DP SØI RI JDP UUFDWLRQ LQ DIWUWKH SDQGHP LF FDP H1URP . DUDFD 3 RLQW HDUQHG E\ SØA LQJ JDP HV Z LMKLQ VKH DSS VXLQHG LQMR VDØM \$ FFRUGLQJ VR GDM SURYLGHG E\ . DUDFD RYHU P LORQ FXWRP HV KDYH SØA HG VKHLIJUJDP HV DQG HDUQHG P LORQV RI SRLQW . DUDFD P HQMRQHG VKDW VKHLUVRDODGV Z HQWKS Z LMK %XEEØI %ØWEHLQJ VKHLUP RWMSØA HG JDP H 7KH KDYH DOR WDMAG VKDWKH ØIDGHUERDUG EDVHG UHZ DUG V WAP LV KUJ KO H1HFWM . DUDFD KDV P DQDJHG VR LQFUHDHG VDØM FRQYHULRQ UDWA Z KLOI DOR SXØOQJ FXWRP HV VR VKHLU DSS XVLQJ JDP HV DQG JDP UUFDWLRQ LQ VKHLU RI DOW SURJ UDP V



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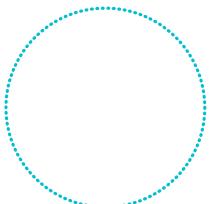


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ml à řekk DUH SUREDEO IDP KODUZ LMK / & : DINNLV P RWIDP RXV P DVFRWVKH P RQNH ॥ \ RX Z HUH ERUQ EHIRUH ,Q VKH P RQNH P DGH D FRP HEFDN IRU VKH EUDQG 7KLV DYDMDU XVHG LQ P DQI GLIHHQW P DUNHMQU FDP SDJLQV DQR SURYLGHV QXP HURXV RSSRUQXQMLHV 5HZ DUG RSSRUQXQMLHV VKURXJK P RQNH FDUGV VKH : DL : DL&KE GRQDMDQ FDP SDJLQV Z LMK FRP P HQW VR VKH / & : DINNL 0 HP RUDO) RUHWMDQG P HHMDQG JUHHW Z LMK VKH GHQDUL P RQNH DUH DP RQJ VKH VWDWULHV VKH XVH VR LOFUHWD LQWUDFWMLW DQG CR DOW DP RQJ FXWRP HV YLD J DP HV DQG J DP ॥LFDMRQ : LMK : DINNL DQG HQYMRQHQ LQ VKH KDYH SUHQMIG VKHLUP HMDYHUV GUHD V 8 VQJ J DP ॥LFDMRQ ERMK LQ LWFRUSRDWFXQXH DQG LWVDCM FDP SDJLQV DQG SURGXFW / & : DINNLKDWDUHQH LWVSDFH DRQH RI VKH FRP SDQJHV VKDWHQWMLQHG DQG UHZ DUGHG LWVFXWRP HV/VKURXJK JDP HV/LQ



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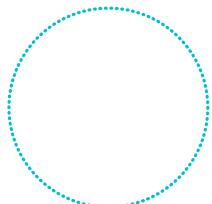


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2^a µœœ Ly ŠH2µ Ç/ 37KH1DUXH8S DSS LV DQ LQ KRXVH JDP UUFDWLRQ SØMRUP VKDWLP VVR
VXSSRUWVXU Z RUQV VXWDLQDELOW 7KH 1DUXH 8S DSS Z KIFK FRP ELQHV VKH SRZ HU RI
* DP UUFDWLRQ DQG 6XWDLQDELOW LV D JDP UUHG P RELOI DSS VKDWLQHQGV VR UDLH DZ DUQHW
IRU VXWDLQDELOW : KHQ \ RX RSHQ VKH DSS \ RX DUH SUHMHQW G Z LK D VFUHQ VKDWQW\ RX
FDGXOMM\ RXUFDUEQ I RRVSLQWDIWLQZ KIFK \ RX FDQ WDLQ RXUNRXUQH RQ GHUQLQJ KRZ
\ RX FDQ UHGXFH LW7KH DSS LQJ RUP VVKH XHUDVVKH H[SORUH WLQJ VR DFKLHMH D EHKDYLUDO
GLIIHUHQFH VKURXJK TXHMW DQG DFWRQV 7KH DSS Z LQJ R ØYH Z LQKQ VKH FRP SDQ VRZ DUGV
VKH HQG RI * DP H P HFKDQLFV VXFK DV SRLQW ØYH EDGJHV ØFNHG FRQWQWDQG D
WHH JURZ LQJ P LQJ DP H DOR VXSSRUWVKHLUJ DP UUFDWLRQ J RDØY



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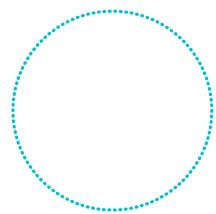


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' HYHØSP HQWHSRUW<DSÄ. UHGL%DQNDØKDV WØMIG VKDWLWZ LØØDNH \ HDU VR FRP SØMA VKH IWWMS RI VKHL
JØREDOU RDØ DFFRUGLQJ VR VKHLUSØQV , Q RUGHUVR UDVL DZ DUHQHW I RUVKHLUVXWØQDEØV J RDØ VKH ØXQFKHG
VMS Z KLFK WØQGV IRU 63%G%ØØLØ7HUFK 3URJ UDP ä VKH 6XWØQDEØI & KRLFH 3URJ UDP 7KH TXHWV RX
FDQ ILOG LQGH VKH DSS LQFOQHG FKRRVQJ VVWØQDEØI RSWRQV ØNH HØFWRQLF EDQN WØMP HQW RYHUSUQMG
RQHV RUDGQLQJ IXQGV VR I RXUWIDQNSRUWFUDG XVLQ VKH <DSÄ. UHGL Ø RELOADSS Z KLFK UHZ DUGV\ RX Z LMK 6WMS
3RLQW 7KHMH SRLQWVKHQ J HMGQDWMG VR VKH VRFIDCJHSRQELOV SURMIFWKRVHQ EV VKH XHURQ VKH SØMRUP

X Læ/2V µ : ! Pq 7KH ,WØQEXO0 HMRSRØQ 0 XQFLISDØV FRQMQXHG LW <33%H ØMØQEXO : DQ 1 RZ
,WØQEXO J DP UUFDWLRQ HIJRUW LQ 6XSSRUW MG EV RYHU SHRSØI VKH SØMRUP KDV ØIG VR EHDKYRUDO
FKDQJ HV : LMK VKH DGRSWRQ RI DGYDQFHG WØFKQRØJLHV J DP UUFDWLRQ KDV KDG VXFFHW LQ FUHDMQJ D ØQN
EHMZ HHQ GRQDMRQV DQG VKH FDP SDUJ Q SDUJ H DQG ØHDGLQJ DMKØMV * HMLQJ P LØRQ FØCNV RQ VKH ,WØQEXO
0 DUDMKRQ FDP SDUJ Q DQG DQG EHFRP LQ VKH EHMDMKØMV LQ VKH ØHDGHUELDUGV FUHDMV I UHQGO FRP SHMRQ
EHMZ HHQ QRQ J RYHUQP HQMDORUJ DQJL DMRQV 7KH <33%H ØMØQEXO SURMIFVWVWVHV IRU D 0 RUH \$ FVH DQG
+ DSSILHU ,WØQEXO2 QFH DJ DLQ WØMIMFV SURYLGHG LQ VKH J DP UUFDWLRQ LQ H FRP P HUH HYHQWZ HUH VJ QLQFDQW
: KLOI VKH DYHUDJ H DJH LQ 74111 H LV LWDOR KDV VKH KLU KHMWGLDEHMV DQG REHMW UDMV Z LMK DQG
UWSHFWYHØ ,WØQEXOKDV D SKV FDFDWFYLW UDMV RI Z LMK 6DUU HU EHQQ VKH P RWDFWYH GLWIFW DQG
%D DN HKLFRP LQ LQ ØMWSØFH 7KH <33%H ØMØQEXOSURMIFWKDV GRZ QØRDGV DQG KDV KHSHG SHRSØI
VØNH RYHU ELØRQ VMWSV 7KH GLWIFWZ LMK VKH P RWMMWSV LV & DGGERWØQ Z LMK VKH P RWDFWYH VP HIUDP H
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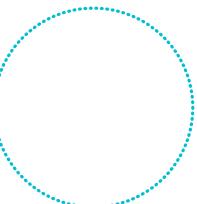
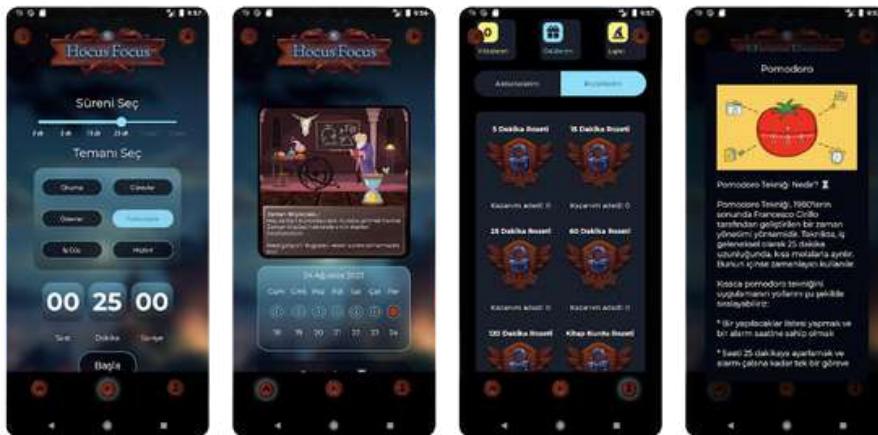
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J Šy ïµ@ L R S P: I S P: (6FUHQ WIP H LV FRQMGHUG D SOJXH LQ VKH DJH RI WFKQRQJ\ : KLOI VKHUH LV DZ DUHQHW VHJ DUGLQJ VKLV LVAJXH LQ RXU FRXQW\ Z H VHH VKRUWUUP GLVXDVLYH DSSURDFKHMVKDWLRQ SÖMIO VKUQ VKH VFUHHQVRII \$ VVKKH* DP IHG 7%AND H VMDP V Z H KDHY EHJ XQ VR ØBRN I RUVRQMRQVVKDWXLQVRII VKH VFUHHQVZ KHQ VKH. DUH VXSSRMHG VR EH VVQHGRII ,Q VKH + RFXV) RFXV DSS QDP HG E\ RXUWMDP V DQG RZ LQJ LV GHYHØSP HQWDQG LQWUDFHV HQMLHO VIR YROXQMDU VRXUFHV Z H KDHY TXHWXZ KHUH \ RX QHHG VR VWA DZ D. IURP VKH VFUHHQ RIU

P LQXMV DQG EDGJHV FRUJHSRQGLQJ VR VKH Z RUN \ RX GR GXUJQJ VKLV WIP H 7KLV DSS Z KIFK \ RX FDQ ILOGQ RQ * RRJ GI 3 ØA 6VRUH D0HDG\ Z IØEH XSGDMG DQG SXWRQ \$ SSØI 6VRUH DV Z HØIQ ,WZ KØSURYLGHD VRQMRQI RUJDQLP SRUWQMSUREØP LQ RXUFRXQW\ VKURXJK J DP UUFDWLRQ



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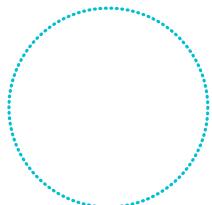
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* DP UUFDWLRQ DOR KDG VR EH XWQ HG LQ HGXFDMRQ DQG HP SOR P HQWDV LWZ DV XVHG LQ H FRP P HUFH GXUJQ VKH SDQGHP LF (P SOR P HQWSURFHMHV LQ SDUWFXOUDKDH XVHG J DP HV IRU SWFKRP HMFLVWVWVQJ DORZ LQJ VHYHUDOEXVLQHMHV VR VDYL WIP H DQG UHRXUFHV 7KH FRP SDQ + 5 3HDN KDV DQHDKG] WMSHGH LQVR VKLV IILQG LQ RXUFRXQW Z LMK VKH ORFDODSS DQG SRUVDQ+ WUJQ * DP HV KW\$V Z Z Z KUWQJ DP HVFRP 2 Q VKLV SØMRUP FDQGLGDMV FDQ SOR GLWUHQWJ DP HV EH DQDQ] HG IRUMKHLURFP SHM\$QFHV DQG J HMD FRP SØQFH UHSRUW

0 DQI HQWULWLVHV XSJ UDGHG VKHLU EXVLQHV SURFHMHV VKURXJK J DP UUFDWLRQ VRQWLRQV DV Z HØ%VLRQL LV RQH VXF H] DP SOR %VLRQL WMDP ØQHV VKH NRE KXQMQJ SURFHW P DNQJ LW IDWUDQG P RUH HIIHFVWY VKURXJK D KUJ KO LQQRYDWH J DP UUFDWLRQ DSSURDFK VKDWXWQ HV P DMFK UDWW Z LMK VSHFLWL SRVWLRQV ,I \ RX Z DQWWR LP SURYH \ RXU P DMFK UDWW \ RX FDQ FRP SOR\$A VFU\$WGX TXHMW SURYLGHG E\ %VLRQL RU VKH HP SOR HU DQG J HWDKHDG RI RWKHU FDQGLGDMV %VLRQL GLWQJ XLVKHV LWHD Z LMK D QH W J HQHDMRQ KXP DQ UHRXUFHV DSSØFDWLRQ DQG DLP V VR LQWRGXFH VKH FRQFH\$WRI UHFUXLWLOP HQW P DNQJ UHFUXLP HQW SURFHMHV P RUH HQWUDQLOQJ VR VKH LQGXWU

: H H] SHFWWR VHH P RUH H] SHUHQFH EDVHG H FRP P HUFH P LQJ DP HV VKDWFRP P XQLFDMA Z LMK HDFK RWKHUDQG RWKHUJ DP WUHG H] SHUHQFHV VKDWDUH SDUWRI D ELJ J HUJ DP H LQ : H Z LQWHH KRQWIF DSSURDFKHM FRQWDLQLOQJ FRLQ WSH SRLQW HDUQHG IURP LQWUDFWLRQV VXF DV VKRSSLQJ FRP P HQM\$QJ VKDUJQ DQG VRFLDO VKRSSLQJ H] SHUHQFHV VP LQDU VR VKH V WIP V RQ \$QH SUHW DQG 3LQGXRGXR : H Z LQEH VHHQJ P RUH WIP WEDVHG J DP LQJ H] SHUHQFHV LQ DSSØFDWLRQV Z LMK VKH DGYHQWRI \$ UWLFDQ,QM\$QJ HQFH DVZ HØ\$ ERYH DØZ H Z LMK \ RX D KHDKM KDSS\ J RRG DQG SURGXFVWQH QHZ \ HDUZ LMKRXWDQ\ FDWDFURSKHV



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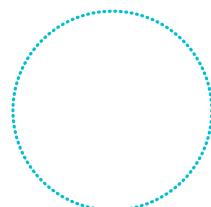
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7Z R \ HDU DJ R & KDW 37 DQG RWKHUOQJ XDUH P RGHØEHDHP H SDUARI RXUOYHV DV D UHVKORI
VKH * 37 P RGHØGHYHRSHG E\ 2 SHQ\$, P DNLQJ UDSLQ SURJUHW , EHØHYH VKDWLQ Z HZ LO
EH LQWUDFNUQJ Z LMK DUWLFLDOLQW\QJ HQFH V WMP V QRWRQO RQ D W\ WEDVHG TXHMIRQ DQG
DQVZ HUEDML EXWDOR LQ YLGHR VRXQG DQG LP DJ H IRLP DW ,Q DGGWLRQ VR V WMP V VXFK DV
* RRJ ØI * HP LQL 8 QND DQG * 37 9LVRQ RSHQ VRXUFH P RGHØV VXFK DV / DYD DUH
GHP RQWUDMQU VP LQDUHJXQV

7KLV KDV P XQW\DFHMG HIIHFV RQ VKH JDP LQJ LQGXWU 7H\ VKUHV REMIFV DQG SIFHV RI
P XMF FUHDMIG E\ DUWLFLDOLQW\QJ HQFH DUH DSSHDUQJ LQ P RUH DQG P RUH JDP HV 6RP H
FRP SDQLHV KDYH GHYHRSHG VRRQ VKDWFDQ FUHDM ' P RGHØV GLWHFW\ IURP W\ WSURP SW
7KH SRWELO\ RI FUHDMQU FXVWRP \ DEGI FKDUDFWHUV VKDWFDQ DGDSWR S\O\ HU DFVLRQV DQG
SUHHQWG\H UHUHQW\ SHUHQFHV VHHP V VR EH QRWWKDW\ DU DZ D \$ XJP HQW\G DQG YLW\KDO
UHD\W VHFQROUHV Z LO\DO\Z S\O\ HU\ VR XH SKRVRV RI VKHP VHOHV DQG VKHLU KRP HV VR
SHURQDQ\ H VKHLUFKDUDFWHUV DQG HQYLURQP HQWLQJ DP HV

\$ W\W\FLDOLQW\QJ HQFH SURYLGHV D P \ UDG RI DGYDQMDJ HV VR JDP H GHYHRSHV (YHQ VP DQBLU
JDP H W\GLRV Z LO\EH DEGI VR FDM\K XS VR ØUH W\MDP V VKDQNV VR DUWLFLDOLQW\QJ HQFH
P RGHØV \$ SDUWIURP JDP H GHYHRS\P HQWP DUNHMQU DQG FRP P XQ\W P DQDJ HP HQWDUH
DOR DP RQJ VKH ILHQV LQ Z KLFK VKH XW\Q\ DM\RQ RI DUWLFLDOLQW\QJ HQFH LV EHFRP LQJ
LQFUHDMQU Ø VJ QLIFDQW) DFVRLV/VXFK DV SHURUP DQFH P DUNHMQU LQI ØHQFHUP DUNHMQU DQG
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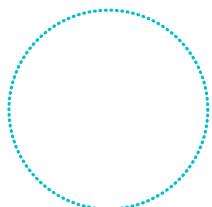
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J DP HV VXFK DV \$,' XQJ HRQ 7KLV JDP H HQDEQH SØA HUV VR FUHDMQ DQG
LP P HUV VKhP VHOHV LQ QHDLQ DQ\ WRU RUVFHQDUR VKh FDQ LP DJ LQH ,W
UHVSQRQGV G\ QDP LFDO\ VR VKh SØA HUV SURP SW FUHDMQJ UHDOMP H W\ W
EDVHG QDUDMRQ DQG HYHQW ,W FDQ DOR J HQHDM\ SKRVRV RI VKh
HQYLURQP HQWDQG FKDUDFWLW\ XVLQJ DUWLFLDOLOQW\ HQFH DQG VKDUH VKhP
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J DP H P DW\W DUWLFLDOLOQW\ HQFH , DP FRQILGHQWWKDWZ H Z LQVHH D
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LQMLQG VR LQYHWAQ VKLV\ LQ DVZ H\O

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, EHÖHYH VKhDW Z LOEH VKh \ HDU RI FRP SDQLHV VKhDWSURYLGH FØRG
J DP LQJ VHULFHV &ØRG J DP LQJ HØP LQDMW VKh QHHG IRUKUJ K HQG 3&V
DQG FRQVRQH Z KLOH HQDEQH XV VR SØA ØMMWJ DP HV RQ DQ\ GHMFH Z H
Z DQWZ VKhRXWDQ\ LWXHV &RP SDQLHV VXFK DV 0 LFURVRIW 1 YLGID DQG
* RRJ OH KDH EHHQ LQYHWAQ LQ VKLV\ LQ DVZ H , EHÖHYH VKhMH
Z LOEHFRP H HYHQ P RUH SRSXØUHQ



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/ DMHW6 LWXDWLRQ LQ VKH &RVSØA , QGXWU

&RVSØA LQ DGGWLRQ VR EHLQJ DQ LQFUHDVQJ Ø SRSXØUWKREE\ LQ 73UNLH KDV DOR P DQDJ HG VR EHFRP H DQ LQGXWU * URZ LQJ LQ ØQH Z LVK VKH J DP LQJ LQGXWU FRVSØA KDV DFKLHYHG J UHDW VXFHW LQ LW ILLHQ , Q FRVSØA VRRN SDUWLQ DQF RWDOOJ DP H IDLU LQ 7XUH DWDDFVQJ D ØWRJL DWAQMRQ DQG DFKLHYHG LQWUQDMRQDOVXFHW

, Q \$ XJ XW RXU UHSUHMHQDWMHV VHOFWIG LQ VKH 8 S* DP H=ROH &RVSØA FRP SHWLRQ Z HQW VR VKH 0 LGGØI (DWMUQ &RVSØA 6XP P LW DQG UHSUHMHQWIG RXU FRXQWU LQ VKH LQWUQDMRQDOFRP SHWLRQ KHØC DWAKDULQ &RP LF&RQ Z LVK VKH SDUWLISDMRQ RI FRXQWILHV : LVK RXU WMDP EUQL LQJ VKH ILLWMSØFH WRSKV VR RXU FRXQWU 73UNLHV QDP H Z DV DQQRXQFHG LQ VKH J ØEDOFRVSØA VFHQH IRUMKH ILLWMP H

7KH IP SRUDQFH RI VKLV ILLWMSØFH Z DV VKDWLWZ DV 7XUH V ILLWMSØFH LQ FRVSØA , Q Z H FDQ VHH VKDWFRVSØA DQG J DP LQJ DUH LQHSDUDEØI : H Z LQHMHG VKDW DP H FRP SDQIHW IHDVXUHG FRVSØA HUV SRUWLQJ VKH FKDUDFWLWV RI VKH LQJ DP HV LQ VKH RUJLDOHYHQW DQG FRVSØA FRQFHWWZ LVK ELJ JHSUHV HVVKDQ LQ SUHMRXV\ HDU/VRRN SØFH DWIDLUV : H Z LQHMHG HJ FMIQJ FRVSØA WDJH VKRZ VEHIRUH + D NR &HSNLQ DQG \$ MBD 3 HNDQ FRQFHWW RQ VKH P DLQ WDJH RI , W/HMWDQG EURXJ KWFRVSØA VRJHVKHZ LVK P XVL : LVK VKH LQFUHDVQJ LQWUHMVKLV\ HDU Z H FDQ VDI VKDW P XQLFSDOMHV DUH QRWLGQH LQHQWVR VKLV LQWUHWV7KH FRVSØA HVZ KR DSSHDUHG DWKH 0 HUHQ 0 XQLFSDOMV <RXW) HWMDOERVK SHURUP HG HQMLWDLQJ VKRZ V RQ WDJH DQG P DQDJ HG VR EHFRP H RQH RI VKH EXLQJ EØFNV RI VKH IHHMDO) RU VKH 7DUJVX V HWMDO6KDKP HUHQ <HDU VKH FUHDWIG FUHDWIG FRWXP HV VR KRQRU6KDKP HUHQ Z LVK VKH FRVSØA NQRZ ØIGJH DQG FUHDWIG VKH P RWFRØUXOLP DJHV RI VKH IHHMDO+ DYLQJ VKHLURZ Q SUDOMV P HHWJUHW DUHD Z LVKLQ 7HNQRVD * DP LQJ 3DUNRXU 7XUH V EHWV FRVSØA HV P DQDJ HG VR EH VKH P RWDOQFLSDWIG DQG SRSXØUHØIP HQWRI VKH HYHQW\$ VR V Z H FDQ VHH VKDWFRVSØA LVQR ØQRJH UHWWRH RI VKH FRQUXOMJ KWZ H VHH DWJ DP H IDLU DQG KDV FUHDWIG DWHVRUZ LVK LW QDP H , Q Z H DUH VXUH VKDWVKH FRVSØA LQGXWU Z LQDFKLHYH JUHDWVXFHW DQG FRQMOXH VR J URZ



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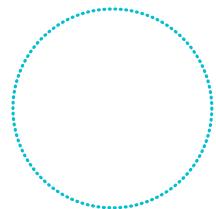


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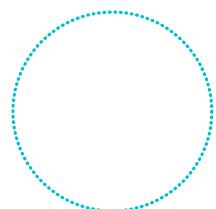
0 DQJ D DQG DQLP H URRWIG LQ VKH UFK FXOXUH RI - DSDQ KDYH EHFRP H D IDWUURZ LQJ SKHQRQ HQRQ LQ UHFHQW HDUW %RMK DUH FRUQHWRQHV RI - DSDQHM SRSXØUDQF XOXUH Z LMK VKHLU XQLTXH WØMV WRUHV DQG DHMVKHMV \$ ØKRXJK VKH WØUP P DQJ D GDWV EDFN DQ DYHUDJH RI \ HDUW LVZ DV I LWWXVHG LQ VKH VK FHQWVU VR UHUVR VKH VNHMFKHV DQG FDWRRQV GUZ Q E\ VKH DJWVW RNKVDLVR GHSLFWYHU GD. ØH \$ QLP H Z KIFK HP HUJ HG DV DQ H\ VMQMRQ RI P DQJ D FXOXUH RZ HV LV P DQG GHYHØSP HQWWR 2 VDP X 7H XNDV \$ WMR %R\ VHUVHSXEØKHG LQ VKH V

7KH IDFWWDW DQJ D DQG DQLP H DWWDFWVKH DWWQMRQ RI YHZ HV DQG UHDGHU RI DØDJH VVRGA LV UHØWMG VR VKH WØMV RI VKH Z RUNV LQ VKLV I LKØ DQG VKH IDFWWDWVKH DUH DKHDG RI VKHLU DØWQDMVHV 7KH NRXUQH RI P DQJ D DQG DQLP H Z KIFK KDYH LQSVLHG VKH LP DJ LQDWRQ DQG QRXULVKHG VKH VRXQ RI SHRSØI LQ P DQG SDUW RI VKH Z RUQ HVSHFLDØ VQFH VKH V KDV DØR SDWVHG VKURXJK GLIUVHUVWWDU HV/LQ 7¾UNL H

: KLOI P DQJ D FXOXUH Z DV QRW HVZ LGHVSUHDG LQ 7¾UNL H SRSXØUDQLP HV/VFK DV & DQG\ & DQG\ . \ DQGL . \ DQGL & DSWØLQ 7VXEDV. \ DSXWØQ 7VXEDV 6DLØRU 0 RRQ %ØKRXNR 6HQVKL 6DLØRU 0 RRQ ' UDJ RQ %DØ DQG 3RNHP RQ WØUWIG VR EH EURDGFDWWRQ ØRFDO VØYMLVRQ FKDQQHQY : LMK VKH Z LGHVSUHDG XVH RI VKH LQWLUQHMLQ VKH HDUO V P DQJ D DQG DQLP H ØRYHV KDG VKH RSSRUWQHV VR ERVK J HWR NQRZ VKLV FXOXUH FØRHØ DQG FUHDMV VKHLURZ Q FRP P XQWVHV VKURXJK YDURXVIRUKP V , QWØDØ WØQVØWIG DQG FLUXØWIG RQ VKH LQWLUQHWE\ YRQXQMVHUI DQ FRP P XQWVHV NQRZ Q DV IDQXEV P DQJ D DQG DQLP H EHJ DQ VR EH RIILFDØ LQFOXGHG LQ VKH SXEØKLQJ Z RUQ LQ VKH V LQ H\ FKDQJH IRU ØFHQMQLJ IHHV , QVKH DQLP H LQGXW\ Z KHUH Z H FDQ VWDØ DERXWHURXVIHHVIRP GXEELOJ VR DGDSVØMRQ VR VKH ØQJ XDJ H RI VKH FRXQW\ VR EH VKRZ Q Z H VKRXQ\ QRWIRUJ HVWVKH RSHQLQJ FØRVLQJ VRQJ V SHURUP HG EV SRSXØUP XWFLDQV DQG EDQGV RI VKH SHURG Z LMK KJ K UR DØHVV



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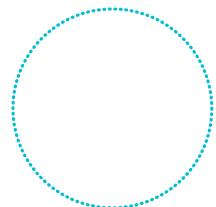


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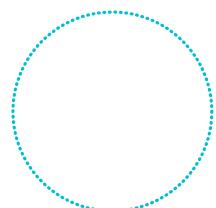
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: LMK VKLV/LVH RYHUVKH \ HDW VKH J DP LQJ DQG P DQJ D DQLP H VFVRUV/KDYH EHFRP H
VZ R LP SRUUDQWUDHV RI HQMLVUDQW HQWWDKDWFRQWVXWLP SRUUDQWFRP SRQHQW RI
SRSXDUFXOXUH DQG DUH LQ H FKDQJ H Z LMK HDFK RVKHU 7KH UHOMRQVKLS EHMZ HHQ
VKH VFVRUV KDV LQFUHDVHG LW LP SDFWRQ IDQ EDHV DV VLP LQOUVKHP HV FKDUDFWHU
GHM J QV DQG WRUOQHV KDYH EHFRP H LQMLVZ LQHG 9LGHR J DP H DGDSVDMRQV RI
SRSXDUUDQFKLVHV VXFK DV UDJ RQ %DQO 1 DUXVR DQG 2 QH 3 LHFH KDYH EHHQ Z HO
UHFHLYHG EV D Z LGH DXGLHQFH * DP HV LQVSUHG EV DQLP H VXFK DV) LQDO) DQMDM
0 HMDO * HDU 6RQG 3RNHP RQ * HQMLQ ,P SDFW / HDJ XH RI / HJ HQGV RU DQLP H
DGDSVDMRQV KDYH FRQWIEXWIG VR VKH HQIFKP HQW RI ERVK VFVRUV 6XFK
DGDSVDMRQV HQDEO P DQJ D DQG DQLP H IDQV VR LQMLUDFWZ LMK VKHLU IDYRUUH
FKDUDFWHVW VHJHQVVKHQLOJ VKH LQMLUDFVRQ EHMZ HHQ VKH VFVRUV 7KLV FUHDMYH
LQMLUHOMRQVKLS KDV LQFUHDVHG FXOXUDOLQWUDFVRQ DQG FRQWIEXWIG J UHDW VR VKH
HYROXVRQ RI SRSXDUFXOXUH

7KH LQMLUHMLQ DQLP H DQG P DQJ D KDV DOR VSUHDG DP RQJ VKH DUWLF FRP P XQLW
LQ RXUFRXQWV ,Q VKH V P DQJ D GUDZ LQJ SURGXFW DQG P DQJ D GUDZ LQJ ERRNV
Z HUH LQMRGXFHG VR VKH P DUNHW \$ QRVKHU GHYHORSP HQWLQ VKH \ HDW LV VKH
HP HJ HQFH RI WXGHQMFQEV LQ XQLYHULHV Z KHUH DQLP H DQG P DQJ D ORYHUV FDQ
FRP H VRJ HMKHU 6LQFH VKH V YDURXV VFUHHQLOJ V DQG IHWMAYDO KDYH EHHQ
RJ DQJ HG LQ P DQJ GLI HUHQFLWHV HSHEFDQ VKH - DSDQHMH \$ QLP DMHQ ' DV DQG
VKH - DSDQHMH) LQ) HMAYDO, Q VKH VDP H \ HDW DQLP H DQG P DQJ D ORYHUV LQ J HQHUDO
KDYH P DGH LWWKHLP LWWQRQ VR SRSXDUUH VKL VXFQXUH + RZ HYHU VQFH Z H FDQ
VDA VKHDVDQLP H KDV VSUHDG VKURXJK VHDP EDHG VRXUFHV ' XUQJ VKL SHURG
VKH UH Z HUH KDUGO DQJ SURGXFWRQVRQ VHOMYLVRQ



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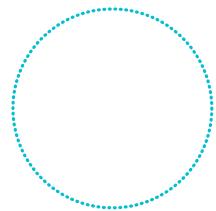
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2 Q VKH RWKHU KDQG VKHUH KDV EHHQ D VJ QLIFDQW\QFUHDVH LQ VKH FLUFXOMRQ DQG
VDQHVRQ \FHQHG P DQJ D

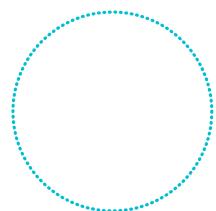
7KH SDUD\DOORFNGRZ QV Z KLFK WDUHMG LQ 7¾UNL H LQ VKH I\UW\P RQMV RI DI\WU
VKH &2 9.' SDQGHP LF VSUHDG DFURWVKH Z RUQ DQG FRQMQXHG IRUP RUH VKDQ D
\HDXVHG VJ QLIFDQW FKDQJ HV LQ VKH GDQ \QHV RI LQGLYLGXDQY ,W\U DQ
XQGHQD\DE\I IDFWVKDW\QGLYLGXDORUHQM\G YDUDE\ON VXFK DV VSHQGLQJ W\U H DW
KRP H VKH U\H RI GLJ U\OSOMRUP V VKLQLQJ VRZ DUGV LQGLYLGXDODFV\W\H GVXH VR
VRFLDOGLW\QFLQJ UX\QV FX\QUDOGLYHULW DQG VKH QHHG VR J HWDZ D. IRUP UHD\W
KDYH DFFHQHDMG VKH VSUHDG RI P DQJ D DQG DQLP H FX\QXUH ,Q VKLV SHURG P DQJ D
DQG DQLP H Z KLFK GHDOZ U\K P DQJ GLI\UHQWVXE\W\FW VXFK DV DGYHQVXUH FRP HG
VFLHQFH I\W\RQ KRULRU DQG UR\ DQFH Z U\K GLI\UHQWGDZ LQJ W\QV KDYH P DQDJ HG
VR UHDFK SHRS\RI DQDJ HVE\ J R\QJ EH\ RQG VKH\U\IDQ EDVH

0 DQJ D DQLP H DQG J DP LQJ IDQV FRQQHFWDQG VKDUH VKH\U\QMUHW DQG SDWLRQV
VKURXJK VRFLDOP HG\Q S\OMRUP V HYHQW DQG FRP P XQ\W\H ,Q VKLV FRQMF\W\KHMH
VHFV\UW\KDYH FUHD\W\G D FX\QUDOLQI UD\W\KFVXUH Z KHUH SHRS\RI FRP H VRJ HMKHU DQG
VKDUH FRP P RQ\QMUHW

\$ V D UH\QVKH P DQJ D DQLP H DQG J DP LQJ VHFV\UW\KDYH FUHD\W\G DQG
VXSSRUHMG E\ QRW RQO D FRQVXP HU EXW DOR D SURGXFW\H DQG FUHD\W\H
FRP P XQ\W\H \$ V VKH QXP EH\ RI ER\K SURGXFH\W\H DQG FRQVXP HU\ LQ VKHMH I\H\QV
J URZ V 7¾UNL HB\ SUH\HQFH LQ VKHMH FUHD\W\H LQGXW\H VZ LOE\HFRP H W\U\QJ HUDQG LW
IP SRU\QWURQ\H LQ FURW FX\QUDOLQW\UDFV\RQ Z LOFRQMQXH VR J URZ



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2 Q ' HFHP EHU VWH 7XUNLK ' DVĐ 3URMFWRQ \$ XWKRUV SXEΩKHG UHFHQWGHFLVRQV RI VWH 3HURQDO DVĐ 3URMFWRQ %RDUG ÐARDUDE RQ LV Z HE VWM 2 QH RI VWHM GHFLVRQV UHΩMA VR D GDVĐ FRQMRQHUIURP VWH 7XUNLK J DP LQJ LQGXWU Z KFK VKHG VJ KWIR GDVĐ SURFHMLQJ DFWMVWLVHV LQ VWH LQGXWU VWH %RDUGV I LQGLQJ VZ LVK UHSHFWWR VKR VH DFWMVWLVHV DQG FRP SODQFH FRQMGHUDMRQV XQGHU 3HURQDO DVĐ 3URMFWRQ / DZ □' 3 / E

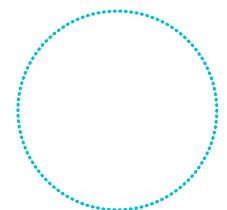
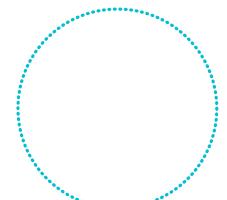
,Q VXP P DU VWH FRP SODQWVXEP LWWG VR VWH %RDUG E\ VWH GDVĐ VXEWFVWLFQXGHV DQDU DMQRQV UHJ DUGLQJ VR VWH I RQZ LQJ P DWJU\ LQFRP SODM RULQFRUHWFSUYDF\ QRWFHV FRRNLHV SRQF\ XQDQZ IXO LQWUDMRQDOWDQMHU RI SHURQDO GDVĐ XVDJH RI VKLGD SUW FRRNLHV Z LMKRXWFRQVHQW XVDJH RI VXUH LQDQFH VRVIZ DUH GXUQJ J DP LQJ DQG GDVĐ FRQMRQHUIU\ LQFRP SODM UHRSRQH VR VWH GDVĐ VXEWFVW

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- 7KH %RDUG REVHJHG WKDWKHUH LV D KJ K QNHOKRRG RI SODA HVJ HQJ DJ LQJ LQ IUDXG FKHDMLQJ DQG VHQDQJ DFFRXQWVIR RWKHU DQG DUH FDSDÉØI RI DXVRP DMQJ VWH SURJUHMRQV RI VWH JDP H VKRXJK ERWVIRVIZ DUH Z LMKRXWSHURQDQJ SODA LQJ VWH JDP H VR FDW\ RXWVWKH DFWMVWLVHV 7KH SURSLHMDU VRVIZ DUH XHG E\ VWH GDVĐ FRQMRQHUI DWMP SW VR GHMLP LQH Z KHMKHU D SODA HVU LV XVLQJ ERW VRVIZ DUH E\ DQDQJ LQJ VWH H[H ILOP WKDWDUH RSHQHG RUUXQQLQJ RQ VWH FRP SXWUDV VRRQ DV VWH JDP H LV LQWUDMVG 7KLV VRVIZ DUH VSHFLFDQJ DLP V VR GLI\ HUHQDMV VWH WSHV RI RSHQ H[H ILOP RQ VWH FRP SXWUDQG WDFNV ,3 FKDJQJ HV D VJQ RI IUDXG DQG FKHDMLQJ ,VWDV EHHQ QRWAG VWDMLQIURP DMQRQ LV REVWLQHG VKRXJK VKLV VRVIZ DUH Z LMKRXWDFVXDOGDVĐ WDFNHWURYHUVKHLQWMLQHV DQG VWH WDFNQJ LQYROHV P RQLVRULQJ VWH ,3 DGGUHV 7KH %RDUG FRQFQGHG VWDV VWH GDVĐ FRQMRQHUI XVHV VWH SURSLHMDU VRVIZ DUH VR DVFHUVLQZ KHMKHU JDP H XVHV HQJ DJ H LQ FKHDMLQJ DQG RUI IUDXG DQG VWHUHV LV QR XQDQZ IXOSURFHMLQJ RI SHURQDOGDMV E\ DFFHMLQJ SHURQDOGDMV RQ VWH SODA HVJ FRP SXWUDV

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- 7KH %RDUG REVHUHG VKDWGWD VXEWFVW Z KR Z LK VR EHQHILURP VKH RQOQH YLUJDOJ DP LQJ VHJXFH DUH UHTXLHG VR FUHDW D P HP EHUKLIS UH LWMDMRQ ' XUQQJ VKH UH LWMDMRQ SURFHV GDWD VXEWFVW DUH UHTXHMG VR FKHFN DERI LQGLFDLQJ VKDWKHK KDHY UHDG XQGHUMRRG DQG DFFHSWIG VKH 6LJ Q 8 S 3 UYDF 1 RMFH DQG 3 UYDF 3 RÖF : KLOVKH 6LJ Q 8 S 3 UYDF 1 RMFH DSSHDUV VR EH SUHSDUHG IRUGDWD VXEWFVW Z KR Z LOO UH LWMM DV P HP EHUV DQG LQ J HQHUDO FRP SÖDQW Z LK \$ UMFQI RI VKH 3' 3/ DQG VKH &RP P XQLTXH RQ 3 UYDF 1 RMFHV LV VKH %RDUG QRWIG VKDWDP ELJ XRXV H[SUHMRQV VFK DV P DI EH VKDUHG VKRXQ QRWEH LQFOXGHG

- 8 SRQ VKH UHMHZ RI VKH V[WMMQG 3 UYDF 3 RÖF LV VKH %RDUG REVHUHG VKDWKLV/V[WL/DQ RQOQH SUYDF SRÖF RI HUHG VR YLVRUV XVHVJ DQG FXWRP HV E\ VKH GDWD FRQMRQHUV SDUHQWFRP SDQI D P DWRU VKDUHKRÖHUR RI VKH GDWD FRQMRQHUV Z KRP DQR VRKXQ EH FRQVLGHUG DV D GDWD FRQMRQHUV 7KH %RDUG FRQFOXGHG VKDWKLV/V[WL/ QRMQF Z LK \$ UMFQI RI VKH 3' 3/ DQG VKH &RP P XQLTXH RQ 3 UYDF 1 RMFHV DQG VKHUIRUH WL/QFHMDU VR DP HQG VKLV/V[VZ KLFK LV DQR DWXP HG VR EH DFFHSWIG LQ VKH 8 VH\$ JUHP HQWLQ QDH Z LK VKH 3' 3/ DQG LQ FROWMÖQF Z LK RMKHU V[W SUHMQMVG VR GDWD VXEWFVWGXUQQ VKH P HP EHUKLIS UH LWMDMRQ RUHFRP RYH LWFRP SÖMÖQ

- 7KH %RDUG REVHUHG VKDWKHK 3HURQDO DWD 3URWIFWRQ 3 RÖF LQFOXGHV J HQHUDOLQI RUP DMRQ RQ VKH SURFHMDQJ RI SHURQDOGWD KRZ HYHU Z KHQ FRP SDUHG VR VKH RMKHUV R GRFXP HQW/LDGGUHM/H D Z LGHU FDMUJ RU RI GDWD VXEWFVW VKH SXUSRHV RI SHURQDOGWD SURFHMDQJ DFWMVHV FDWUHG RXWE\ VKH GDWD FRQMRQHUV FDMUJ RUHV RI SHURQDOGWD FDMUJ RUHV RI SDUHV Z LK Z KRP SHURQDOGWD DUH WDQW/HUHG DQG VKH SXUSRHV RI VKRH WDQW/HV 7KH FRQWQW LV VR J HQHUDO VKDW P DNHV VKH GRFXP HQW LQFRP SUHKHOMEÖI DQG WLW QRWFÖDUD XQGHUMRRG Z KLFK JURXS RI GDWD VXEWFVW Z KLFK SHURQDOGWD IRUZ KLFK SXUSRHV DQG RQ VKH EDWV/RI Z KLFK ÖU DOJHDRVQ DUH SURFHMG DQG Z KLFK VKLG SDUHV/VKH GDWD DUH WDQW/HUHG VR VKHUIRUH VKH %RDUG FRQFOXGHG VKH SRÖF VKRXQ EH DP HQHG VR EH FRP SÖDQWZ LK VKH &RP P XQLTXH RQ 3 UYDF 1 RMFHV

- 7KH %RDUG DQR SRLQWIG RXWGXUQQ VKH RQ V[UHMHZ VKDW/SUHMQJ VKUHH GLI HUHQWGRFXP HQW FUHDWW D FRP SÖF WL/KDWRQ I RUMKH GDWD VXEWFVWFRQFHQHG

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,Q DGGJLWRQ VR VKH UHMHZ RI VKH JDP LQJ FRP SDQ, B/ GHIIHQVH VKH %RDUG LQVSHFWHG VKH 7XUNVK 7UDGH 5 HJ LVW/ * DJ HMM UH DUGLQJ VKH I RUHJ Q VKDULKRQBLQJ VKH FVXUH DQG VKH 9 (5 %6 TXHU SDJ H Z LMK UHSHFWHR VKH WDMP HQW UH DUGLQJ VKH FURW ERUGHU WDQMVH/LQ RUGHUVR LQY-HM/ DWD VKH DQJU DMRQV LQ TXHMIRQ

) XUHKUP RUH VKH %RDUG FRQGXFWHG DQ RQ VVW UHMHZ VKURXJK D YLWLRQ VKH JDP LQJ FRP SDQ, VQFH D GHMUP LQDMRQ FRXQW QRWEH P DGH RQ Z KHMKHU GDWD VXEWFWBHP DLODGGUHWV DQG ,3 DGGUHWV Z HUH EHLOJ WDCMVHJHG DEURDG

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• \$QR VKH %RDUG UHMHZ HG VKH WDMP HQW UH DUGLQJ LQWUDMRQDO GDWD WDQMVH/ Z LMKLQ VKH GDWD FRQMRQHUV UH LQWUDMRQ LQ VKH DWD & RQMRQHUV 5 HJ LVW/ 6 WMP 9 (5 %6 DQG QRWIG VKDW VKH WDMP HQW RQ 9 (5 %6 LOGFDWV VKH HJ LWMQH RI LQWUDMRQDOGDM/ WDQMVH/

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 - 2 Q VKH RVKHUVDQG RQ VKH FRRNLHV VDECH IRXQG LQ VKH &RRNLHV 6VWMP HQW DQG &RRNLHV 3RQF SXE@KHG RQ VKH Z HEVW RI VKH GDWD FRQWRCQHUVLW WDQG VKDWIRU XV FRRNLHV DUH XHVG E\ VKLG SDUW FRRNLH SURYLGUV LQ VKH FDMJRU RI QHFHWDU FRRNLHV EXWDV WDQG LQ VKH * LXLQHQH RQ &RRNLHV \$SS@FDMRQV LQ FDMHV Z KHUH VKLG SDUW FRRNLHV DUH SDFHG RQ D Z HEVW YLVLRUV VKRXQG EH JQIRUP HG FQHDLQ DQG VKHLU FRQHQWP XWEH REVDLQHG DQG LQ FDMHV Z KHUH Z HEVW VWSHULQJ LQ 7XUH FDUW RXWQMLQDQMRQDOGDM WDQHJHUDFWLWV YD FRRNLHV SURYLGH E\ FRP SDQHUV RSHUDMLQ DEURDG VKLW LQH QDMRQDQ GDWD WDQHJHUDFWLWV P XWEH FDWLG RXWLQ DFFRQDQFH Z LMK VKH FRQGLRQV LQ \$ UNFCI RI VKH / DZ 7KH %RDUG FRQFOXGHG VKDWLQ VKLV FDMH H SDFLWFRQHQW RI VKH GDWD VXEIMFW Z HUH QRWREVDLQHG DQG VKH SHURQDOGDMZ Z HUH WDQHJHUDFG DEURDG LQ YLQMRQ RI \$ UNFCI RI VKH / DZ

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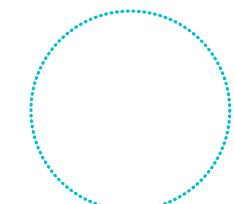
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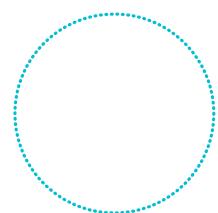
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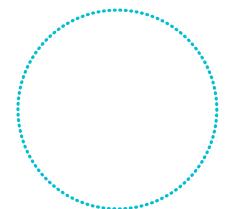
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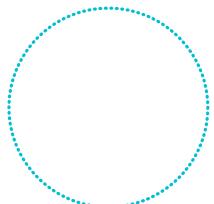
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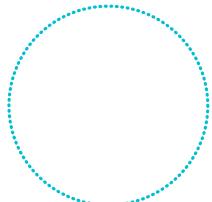
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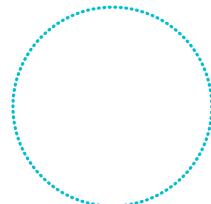
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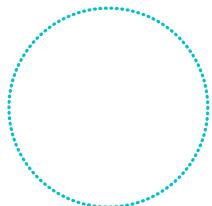
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- 7KH , QQRYDMLRQ \$ Z DUG 3RWWDUDLQ , QMXU 95 %DVHG 5 HKDELOMIRQ E\ %QH+ DØR
- 6WXGHQW & KRIFH 3UDLQ 7LQH H\ WØLQE\ & DQWIRQ GH 9DXG
- 3XEØF V&KRIFH ' \VØF LD , QMUHUVHQMRQ 7UDLQLQJ IRU GXFDMRUE/E\ %DØS HURVSDFH LQ SDUQHUVLKS Z LMK \$) 5 / * 5 , // p



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* \$ 0 ,) , & \$ 7,2 1 \$ 1 '
(' 8 & \$ 7,2 1
\$ 662 & , \$ 7 2 1 9 , & (
& + \$, 53 (5 6 2 1 2) 7 + (
%2 \$ 5 '



* \$ 0 ,1 * ,1 785 . (< - 0 (1 \$ - (8 * \$ 0 ,1 * \$ 1 ' (6 3 2 5 7 6 \$ * (1 & < * \$ 0 (3 8 % , 6 + (5

: KDWVWKH 6WDWH RI
6HURXV* DP HV LQ 7³/₄ UNL H"

0 hŠđPŠHæ ï ÅÀÅÃ Š ®ÅÀÅÃ | o ï2Š \$ Šđò

* DP IHG 7XUH WDP SXEΩKHG VKH J DP H FDΩIG 3 URWQRNU Z KLFK Z DV GHMΩRSHG LQ VKH (DUΩKTXDHN * DP H - DP HYHQWVKH RUJ DQJL HG DIΩVLUHK) HEUKDU HDUΩKTXDHN RQ \$ QGURLQ DQG \$ SS 6VRUH SΩMRUP V XQGHUVKH QDP H 3 URWIR LQ 6HDUFK DQG UHMFXH VXSRRWFDP H IURP YDUIRXV FRXQWILHV VR VKH HDUΩKTXDHN] RQH 2 QH RI VKHMH FRXQWILHV 3 URWIR VKH VHDUFK DQG UHMFXH GRJ DFFPR SDQJLQJ VKH 0 H LFQD WDP KDG ΩVKLV QH LQ 7ΩJNL H DV D UHXRΩRI KLV KHURF HIRUW) RUVKLV UHDVRQ VKH QDP H 3 URWIR Z DV FKRVHQ E\ VKH * DP IHG WDP VR H\ SUHW VKHLUJ UDΩWKGH DQG UHVSHWI RU KLP 7KH P DLQ REΩFWLH RI VKH J DP H LV VIR VP XΩVM D VHDUFK DQG UHMFXH GRJ UHFHLYLQJ VSHFLDΩWDLQLQJ DJ DLQWHDUΩKTXDHN DQG UHMFXLQJ VKRVM WDSSHG XQGHU VKH UKEEΩ GXUJQ DQ HDUΩKTXDHN

7KH 7UDLQLQJ 7UDFN LQ VKH JDP H FRQVLW\ RI GLIIHUHQW\DFNV VKDWDORZ S\O\ HU\ VR H\ S\O\H VKH SRW\QMDORI VKH GRJ V HQGXUDQFH VSHHG DQG VWHQV\K 7KHUH DUH GLIIHUHQW\ LMRQV) RUHW\ \$ YDQ\QFKH DQG (DWKTXDNH 7KH UHFXH GRJ DIP VVR IXQ\Q\W\DMNVE\ XVLQJ \NLQY\VFK DV VQLI\LQJ GLJJLQJ DQG FDW\LQJ



| a \$ mXj

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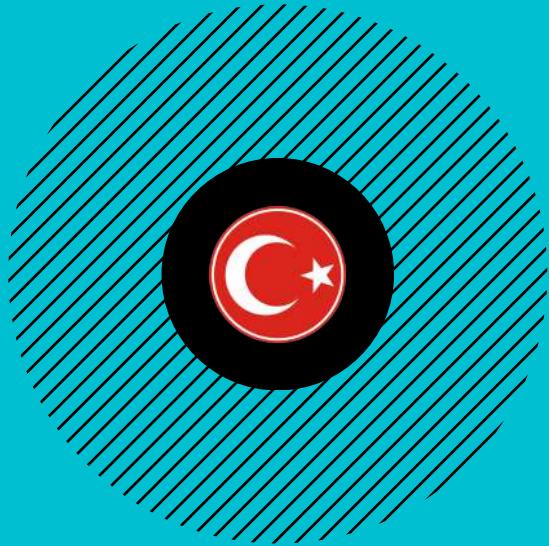
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- 3 RSXOWWRQ RI 7¾UNL H LQ
- **b\$ J HG**
- \$ J HG
- \$ J HG DQG DER YH

- 3 RSXOWWRQ RI 7¾UNL H LQ
- **b\$ J HG**
- \$ J HG
- \$ J HG DQG DER YH



* \$ 0 ,1 * ,1 785 . (< _0 (1 \$ _ (8 * \$ 0 ,1 * \$ 1 ' (632576 \$ * (1 & < * \$ 0 (38 % / ,6 + (5



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- ,QWHLUQHW8 VHUV
- RI WKH SRSXOWRQ LV
FRQQHFWHG VR WKH LQWHLUQHW
 - , QGLYLGXDO/ LQ WKH DJ H J URXS
 - , QWHLUQHWDFFFHVV DWKRP H , QWHLUQHWXVDJ H S HUFHQWDJ HV EDVHG RQ J HQGHU 0 DOH) HP DOH
- RI WKH SRSXOWRQ LV
FRQQHFWHG VR WKH LQWHLUQHW
 - , QGLYLGXDO/ LQ WKH DJ H J URXS
 - , QWHLUQHWDFFFHVV DWKRP H , QWHLUQHWXVDJ H S HUFHQWDJ HV EDVHG RQ J HQGHU 0 DOH) HP DOH

* \$ 0 ,1* ,1 785. (< _0 (1\$ _ (8 * \$0 ,1* \$1' (632576 \$* (1&< * \$0 (38 %/,6+(5



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- **\$ FWYH 6RFID00 HGLD 8 VHUV**

- 7KH DYHUDJ H DP RXQW RI WLP H LQWHUQHW XVHUV DJ HG VSHQG HYHU GD\ RQ VRFLDOP HGLD Å R P2: ÄÇ w æ PHµ:
-) DFHE RRN 0 LOORQ 8 VHUV
- <RXWKEH 0 LOORQ 8 VHUV
- ,QVWDJ UDP 0 LOORQ 8 VHUV
- 7LNWRN 0 LOORQ 8 VHUV
- 7Z LWVHU 0 LOORQ 8 VHUV
- 6QDSFKDW 0 LOORQ 8 VHUV
- 7Z LWFK 79 0 LOORQ 8 QLT XH 0 RQWKA 8 VHUV
- ' LVFRUG 0 LOORQ 8 QLT XH 8 VHUV

- **\$ FWYH 6RFID00 HGLD 8 VHUV**

- 7KH DYHUDJ H DP RXQW RI WLP H LQWHUQHW XVHUV DJ HG VSHQG HYHU GD\ RQ VRFLDOP HGLD Å R P2: ÄÄ w æ PHµ:
-) DFHE RRN 0 LOORQ 8 VHUV
- <RXWKEH 0 LOORQ 8 VHUV
- ,QVWDJ UDP 0 LOORQ 8 VHUV
- 7LNWRN 0 LOORQ 8 VHUV
- 7Z LWVHU 0 LOORQ 8 VHUV
- 6QDSFKDW 0 LOORQ 8 VHUV
- 7Z LWFK 79 0 LOORQ 8 QLT XH 0 RQWKA 8 VHUV
- / LQNHGQL 0 LOORQ 8 VHUV

) LJXUHV DQH EDHG RQ DYHUDJ H/V RI GD\ IDLURP GLIIHUHQW RXUFHV ,WZ IZEH XSGDMG IL P RIU UHFHQDQG FGD\ HUGD\ DUH DYD\ DE GE

* \$ 0 ,1 * ,1 785 . (< _0 (1 \$ _ (8 * \$ 0 ,1 * \$ 1 ' (632576 \$ * (1 & < * \$ 0 (38 % / ,6 + (5



0 2 %, / (8 6 (5 6

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- 0 RELOH 8 VHUV/b
- b0 RELOH 3 RSXOWIRQ
- 6 P DUM\$KRQHV 0 RELOH
- 6 P DUM\$KRQHV 8 VHUV b b

1 XP EHURI FXVWRP HUV Z LWK D * FRP SDWLEOH GHYLFH DQG 6,0 FDUG

- 1 XP EHURI * & X VWRP HUV 0 LOORQ
- 1 XP EHURI * & X VWRP HUV 0 LOORQ
- 2 WKHU * DQG 0 0

- 0 RELOH 8 VHUV/b
- b0 RELOH 3 RSXOWIRQ
- 6 P DUM\$KRQHV 0 RELOH
- 6 P DUM\$KRQHV 8 VHUV b b

1 XP EHURI FXVWRP HUV Z LWK D * FRP SDWLEOH GHYLFH DQG 6,0 FDUG

- 1 XP EHURI * & X VWRP HUV 0 LOORQ
- 1 XP EHURI * & X VWRP HUV 0 LOORQ
- 2 WKHU * YH 0 0

* \$0,1*,1 785. (< -0(1\$ -(8 * \$0,1* \$1' (632576\$*(1&< * \$0(-38%/.6+(5



* \$0 (56 \$1' 5(9(18(

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- * DP HUV b
 - 7RWDO* DP HU5 HYHQXH b b

86'

q! : äü CÜ à| Ü Ü Ü | Ü Ü Ü C² (1° Og\

' ROMI 75 <

- * DP HUVb
 - 7RWDO* DP HU5 HYHQXH b b

86'

g w | äü CþÜ| Ü Ü Ü| Ü Ü Ü C² ([° Og]

g § ! CÜB à I Ü Ü Ü I Ü Ü Ü Ç² (۱° Oql

* \$ 0 ,1* ,1 785. (< _0 (1\$ _ (8 * \$ 0 ,1* \$ 1' (632576 \$ * (1 &< * \$ 0 (38 %/, 6+ (5



* \$ 0 (56 %< 3/ \$ 7) 2506

7ž5. ã(* \$ 0 (0 \$ 5. (75(3257

%JHDNGRZ Q RI * DP HUVE\ 3OMRUP (WIP DMIG

- w „ Xm0 0 L00RQ * DP HUV



- w „ Xm0 0 L00RQ * DP HUV

- § ! 0 L00RQ * DP HUV



- § ! 0 L00RQ * DP HUV

- ! „ y ² „ m0 0 L00RQ * DP HUV



- ! „ y ² „ m0 0 L00RQ * DP HUV

* \$ 0 ,1* ,1 785. (< _0 (1\$ _ (8 * \$ 0 ,1* \$ 1' (632576 \$* (1 &< * \$ 0 (38 %/, 6+(5



* \$ 0 (56 %< \$ * (

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* DP HU/ % \$ J H

\$ J HG

\$ J HG

\$ J HG

\$ J HG

\$ J HG



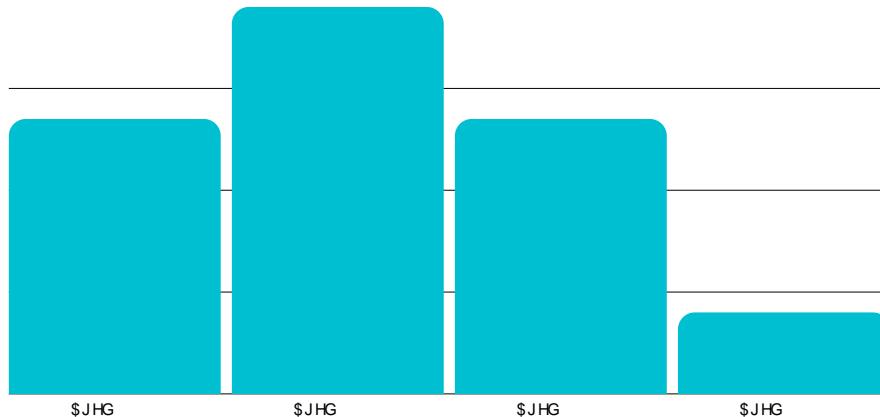
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) HP D@I* DP HU/

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0 D@I* DP HU/

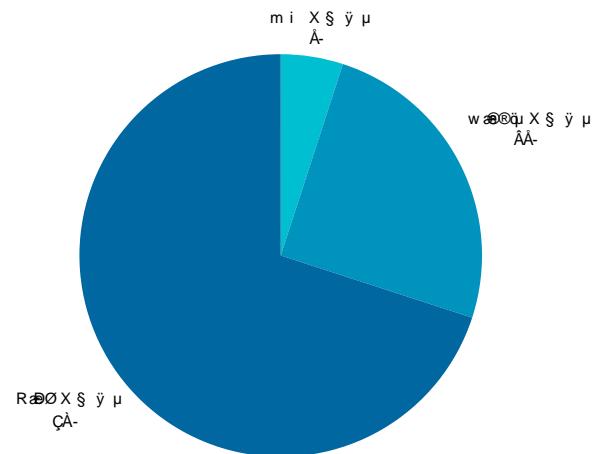
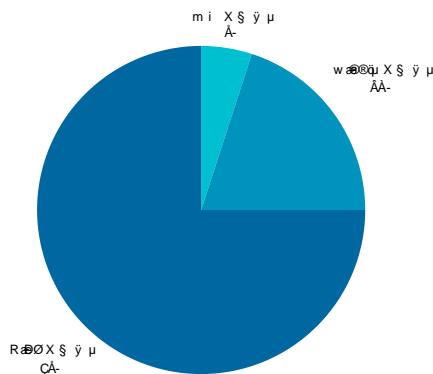
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* \$ 0 ,1* ,1 785. (< _0 (1\$ _ (8 * \$ 0 ,1* \$ 1' (632576 \$ * (1 & < * \$ 0 (38 % / ,6+ (5



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* \$ 0 ,1* ,1 785. (< _0 (1\$ _ (8 * \$ 0 ,1* \$ 1' (632576 \$ * (1 & < * \$ 0 (38 % / ,6 + (5



723 0 2 % / (* \$ 0 (6) 5 ((& \$ 7 (* 2 5 < ' 2 : 1 / 2 \$ ' 6

7ž 5 . ã(* \$ 0 (0 \$ 5 . (7 5 (3 2 5 7

5 REOR[

6 XEZ D\ 6 XU HUW

38 %* 0 2 % / (

< %] % W 2 NH\ 3 OXV

: RUGV RI : RQGHUW & URWZ RUG

7UDHILF 5 LGHU

& DQG\ & UKVK 6 DJ D

(\$ 632576) & Q 0 RELOH 6 RFFFHU

* RLQJ % DQW

0 \ 7D0N1LQJ 7RP

3 LDQR 6 VDU 7DS 0 XVLF 7LQHV

5 DFH 0 DVWHU ' & DU 5 DFLQJ

5 R\ D0O DWFK

6 WFNP DQ 3 DUW 0 LQL* DP HV

+ D\ ' D\

5 REOR[& RUS RUDWIRQ

6 < % 2 * DP HV

7 HQFHQW

= \ QJD , QF

) XJR * DP HV

VNJ DP HV

. LQJ

(OHFWRQLF \$ UW

6 XSHUWRLF 6 VKGLRV / 7'

2 XWLW / LP LWHG

7LQ\ P D[

6 D\ * DP HV / WG

' UHD P * DP HV / WG

3 QD\ 0 D[* DP H 6 VKGLR

6 XSHUFHO



* \$ 0 ,1* ,1 785. (< _0 (1\$ _ (8 * \$ 0 ,1* \$ 1' (632576 \$ * (1 &< * \$ 0 (38 % / ,6+ (5



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3 8 %* 0 2 %,/ (7HQFHQW	8 6'
<¾] %Ш2 NH\ 3 OXV	=\ QJ D ,QF	8 6'
&DQG\ &UKVK 6 DJ D	. LQJ	8 6'
5 REOR[5 REOR[&RUSRLDWQRQ	8 6'
0 RELOH / HJ HQGV %DQJ %DQJ	0 RRQVRQ	8 6'
H) RRV\ EDQQ	. 2 1 \$ 0 ,	8 6'
5 R\ DOO DWFK	' UHDP * DP HV	8 6'
&OVK RI &OQV	6 XSHLFHQD	8 6'
5 LVH RI . LQJ GRP V	/ LQVK * DP HV	8 6'
* DUGHQVFDSHV	3 O\ Ш[8 6'
2 NH\ <DQQ 6 HVQ 2 GD	<DQQ * DP H	8 6'
/ RUGV 0 RELOH 6 KUHN . LQJ GRP * 2	,* * & 2 0	8 6'
: KLUHRXW6 XUYLYDO	&HQVXU * DP HV 3 VH / VG	8 6'
(\$ 632576) &Q 0 RELOH 6 RFFHU	(OHFWWRQLF \$ UW	8 6'
3 RN«P RQ * 2	1 LDQWF ,QF	8 6'

* \$ 0 ,1* ,1 785. (< _0 (1\$ _ (8 * \$ 0 ,1* \$ 1' (632576 \$ * (1 &< * \$ 0 (38 % / ,6+ (5



723 0 2 % / (* \$ 0 (6 3\$, ' & \$ 7 (* 2 5 < ' 2: 1 / 2 \$ ' 6

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0 LQHFUDI W

* UDQG 7KHIW\$ XWR 6DQ \$ QGUHDV

5) 6 5 HDO) QJ KW6LP XOOVRU

* UDQG 7KHIW\$ XWR 9LFH & LW

0 QRQRSRØ

* HRP HWI ' DVK

\$ \ QN ' LWRS\ D

0 HVLK

6 VDUGHZ 9DØH

3 OJ XH ,QF

(DUQ VR ' LH

) LYH 1 LJ KW DW) LHGG\ V

+ XP DQ) DØ) ØDW

7HWDUD

) LYH 1 LJ KW DW) LHGG\ V

0 RNDQJ

5 RFNWØDU* DP HV

5 2 5 7 2 6 6 5 /

5 RFNWØDU* DP HV

0 DLP DØGH * DP H 6WGLR

5 RE7RS * DP HV

) DMIK %HFHUHQ

) DMIK %HFHUHQ

& RQFHUHQ\$ SH

1 GHP LF & UHDWRQV

1 RW RSSØHU

& QFNWØDP 8 6 \$ // &

* DP HV

* DP HV

& QFNWØDP 8 6 \$ // &



* \$ 0 ,1* ,1 785. (< _0 (1\$ _ (8 * \$ 0 ,1* \$ 1' (632576 \$ * (1 & < * \$ 0 (38 % / ,6+ (5



723 0 2 % / (* \$ 0 (6 3\$, ' & \$ 7 (* 2 5 < 5 (9 (18 (

7ž 5. ã(* \$ 0 (0 \$ 5. (7 5 (3 2 5 7



0 LQHFUDI W	0 RNDQJ	8 6'
* UDQG 7KHI W\$ XWR 6DQ \$ QGUHDV	5 RFNWWDU* DP HV	8 6'
) DUP LQJ 6LP XODVRU 0 RELOH	* LDQW 6RIVZ DUH	8 6'
5) 6 5 HDO) QJ KW6LP XODVRU	5 2 5 72 6 65 /	8 6'
* UDQG 7KHI W\$ XWR 9LFH & LW	5 RFNWWDU* DP HV	8 6'
6 VDUGHZ 9DQH\	& RQFHUQHG\$ SH	8 6'
0 QRSSRQ	0 DUP DODGH * DP H 6VKGLR	8 6'
\$ J H RI + LWRU ,,	/ XNDV] - DNRZ VNL	8 6'
3 OJ XH , QF	1 GHP LF & LHDWRQV	8 6'
+ XP DQ) DQO) OOW	* DP HV	8 6'
0 \ & KLOB / HEHQVERUQ	6 DUHSVD 6VKGLR	8 6'
* HRP HWA ' DVK	5 RE7RS * DP HV	8 6'
7KH 3DW: LVKLQ	5 XWV / DNH	8 6'
(DUQ VR ' LH	1 RW RSSOHU	8 6'
%ORRQV 7'	1 LQND . LZ L	8 6'

* \$ 0 ,1 * ,1 785 . (< _0 (1 \$ _ (8 * \$ 0 ,1 * \$ 1 ' (632576 \$ * (1 & < * \$ 0 (38 % / ,6 + (5



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7XUNVK J DP HV/EHIRUH LQYHMP HQWDQG RUSXUFKDMH DUH DOR LQFOXGHG
%DVHG RQ1XP EHURI ' RZ QBDGV

- 5 R\ DOO DM\K ' UHD P * DP HV
- : RUGVRI : RQGHUV &URWZ RUG) XJR
- 7UDILF 5 LGHU 6RQHU. DUD VNU DP HV
- 2 NH 3QV 3HDN =\QJD
- . DID 7RSX 0 DVRP R 0 LQJFOS
- 7UDILF 5 DFHU 6RQHU. DUD VNU DP HV
- %XV6LP XOMRU =XXNV* DP HV
- &DU3 DUNLQJ ' 2 QQQH' UIW) * DP HV
- 2 NH \$ KR\ * DP HV
- 7UKFN6LP XOMRU 8 OMP DM\ =XXNV* DP HV
- 7& 6LP %OM RQX 7IDP R * DP HV
- %DQDN 2 NH =\QJD 7DNH7Z R ,QWUDFWMH
- 2 NH E\ 3HDN* DP HV =\QJD 7DNH7Z R ,QWUDFWMH
- &UMFD06VMNH & 2 QQQH) 36 9HUVW R * DP HV
- 0 HQMDQ 3 %UDLQ * DP HV) RU. LGV 0 HQMDQ 3
- . HOP HON +H \$ SSV

* \$ 0 ,1 * ,1 785 . (< _0 (1 \$ _ (8 * \$ 0 ,1 * \$ 1 ' (632576 \$ * (1 & < * \$ 0 (38 % / ,6 + (5



0 2 67 ' 2: 1 / 2 \$ ' (' 0 2 % / (\$ 336 ,1 7 2 5 . ˜ (7 2 5 . ˜ (* \$ 0 (0 \$ 5 . (7 5 (3 2 5 7

7LN7RN

% W HGDQFH

: KDW\$ SS 0 HWHQJ HU

0 HWD 3 COWRUP V

,QWDJ UDP

0 HWD 3 COWRUP V

7UHQGV RO

W HHQGV ROFRP

=LLDDW0 RELO

) LQWHIN \$ 6

7H0HJ UDP

7H0HJ UDP

6QDSFKDW

6 QDS

7XUNFHOO

7XUNFHOO

7KUHDGV

0 HWD 3 COWRUP V

) DFHERRN

0 HWD 3 COWRUP V

* RRJ OH 0 DSV

* RRJ OH

;

; & RUS

<RXVKEH

* RRJ OH

<HP HN 6 HS HWL

' HQYHU + HUR + RQQLQJ

3 LQWHLHW

3 LQWHLHW



* \$ 0 ,1 * ,1 785. (< _0 (1 \$ _ (8 * \$ 0 ,1 * \$ 1 ' (632576 \$ * (1 & < * \$ 0 (38 % / ,6 + (5



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7LN7RN	% VHGQDFH	8 6'
\$] DU	+ \ SHLFRQQHFW	8 6'
7DQJ R	7DQJ R0 H	8 6'
/ LY8	& / \$ 6+ \$ 5 76 + .	8 6'
7LQGHU	0 DVFK * URXS	8 6'
<RX7XEH	* RRJ OH	8 6'
' LVQH\	' LVQH\	8 6'
% LJ R / LYH	<< ,QF	8 6'
& KDP HW / LYH 9 LGHR	& KDP HW7 HDP	8 6'
& RQQHFWIG P H	& O	8 6'
, QWDJ LDP	0 HWD 3 QDWWRUP V	8 6'
%XP EOH ' DWLQJ) WHQGV	%XP EOH + RQBLQJ	8 6'
+ DSSQ ' DWLQJ \$ SS	+ DSSQ	8 6'
' LVFRUG	' LVFRUG	8 6'
%HLP XGD 9 LGHR & KDW	%HLP XGD ,QF	8 6'

* \$ 0 ,1* ,1 785. (< _0 (1\$ _ (8 * \$ 0 ,1* \$ 1' (632576 \$ * (1 & < * \$ 0 (38 % / ,6+ (5



7235\$7(' 3& * \$ 0 (6

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* \$ 0 (38 % / ,6+ (5	* (15 (
\$ JHRI (P SLJHV	b0 LFURVRIW	6WDMU\
\$ ØQ: DNH,,	(SIF * DP HV	6XULYDO
\$ P RQJ 8 V	,QQHUSØRMK	\$ UFDGH
\$ SHI / HU HQGV	(ØFWRQLF \$ UW	%DWBH5R\ DØI
\$ 5. 6XULYDO(YRØHG	6QDLO* DP HV	6XULYDO
%DØXUV/* DWA	/ DUDQ 6VXGLRV	5RØI 3ØLQJ
%DWBHLLHØ	(ØFWRQLF \$ UW	6KRRMU) 36
%DWBHLLHØ	(ØFWRQLF \$ UW	6KRRMU) 36
%DWBHLLHØ 9	(ØFWRQLF \$ UW	6KRRMU) 36
%HDP 1 * GUWH	%HDP 1 *	6LP XØMRQ
&2' 0 RGHLQ: DUDUH,,, ,,,	\$ FVMMLRQ 3XEØKLQJ	6KRRMU) 36
&RXQMU6WMNH * 2	9 DØH	6KRRMU) 36
&1 EHUSXQN	&' 352 - (. 75 ('	5RØI 3ØLQJ
' HDG E ' D ØJ KW	%HKDYLRXU,QMUDFVW	\$ GYHQWUH
' HDG, VØQG	' HHS 6LOHU 3ØLRQ	\$ FWRQ 5 3*



* \$ 0 ,1 * ,1 785 . (< _0 (1 \$ _ (8 * \$ 0 ,1 * \$ 1 ' (632576 \$ * (1 & < * \$ 0 (38 % / ,6 + (5



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* \$0(38% ,6+(5	* (15(
(\$ 6SRUW) &	(OHFWRQLF \$ UW	6SRUW
(VFDSH) URP 7DUNRZ	%DWDMWDM * DP HV	6KRRMU) 36
(XUR 7UKFN6LP XOMRU	6&6 6RIVZ DUH	6LP XOMRQ
) ,) \$	(OHFWRQLF \$ UW	6SRUW
,1 \$ /) \$17\$6<; ,9 2 QQQH	6TXDUH(QT	\$ FMRQ 53*
) RUQLM	(SLF * DP HV	%DWCH 5 R DDI
* HQVKLQ,P SDFW	P L+ R<R	5 RCH 3 OI LQJ
* UDQG 7KHW\$ XVR 9	5 RFNMUD* DP HV	\$ GHQVXUH
+ DO / LH	9 DOXH	6KRRMU) 36
+ RJ Z DUW / HJ DF	: DUQHU%URV ,QWALDFWVH (QWALUDQH HQW	2 SHQ: RUQ
+ RXVH) OSSHU	3 OI: D 6 \$	6LP XOMRQ
. QJ KW2 QQQH	1 77 * DP H	5 RCH 3 OI LQJ
/ HDJ XH RI / HJ HQGV	5 LRW* DP HV	0 2 % \$
/ LHVRI 3	1 HRZ IJ * DP HV) LHMKLOH * DP HV	5 RCH 3 OI LQJ
/ RUGVRI VKH) DOIQ	&, * DP HV	\$ FMRQ 53*



* \$ 0 ,1 * ,1 785 . (< _0 (1 \$ _ (8 * \$ 0 ,1 * \$ 1 ' (632576 \$ * (1 & < * \$ 0 (38 % / ,6 + (5



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* \$0(38% ,6+(5	* (15(
/ RWØUN	6P LØU DM	5 RØI 3ØI LQJ
0 RXQW %ØGH,, %DQQHØURUG	7DØt RUØV	2 SHQ: RUØ
0 HMQ	* DP HIRUH	5 RØI 3ØI LQJ
0 LQHFUDIW	0 RWØQJ 6VXGLRV	6DQGER[
1 HHG IRU6SHHG 8 QERXQG	(ØFWRQLF \$ UW	5 DFLQJ
2 YHIZ DMFK	%ØI] DUG (QMVUØLQP HQW	6KRRWU) 36
3\$<' \$<	' HHS 6LØHU 3ØIRQ	6KRRWU) 36
38%* %\$77/(* 5281' 6	. UDIVRQ	%DMØI 5 RØDØI
5 LWH2 QØQH	5 RNR * DP H7HNQRØRN\$	5 RØI 3ØI LQJ
5 2% / 2 ;	5 REØR[& RLSRUDMRQ	6DQGER[
5 RFNHW HDJ XH	3 V RQL	6SRUW
5867) DFHSXQFK 6VXGLRV	6XULYDO
67\$5 : \$ 56 -HGL 6XULYRU	(ØFWRQLF \$ UW	2 SHQ: RUØ
6VØULHØ	%HMKHVGD * DP H6VXGLRV	2 SHQ: RUØ
6WØHØW LJ KWMU	&DSFRP) LJ KWMQJ



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6XPH E@I* X\ V	6FRSHØ	3@MRUP
6XSHU6P DMK %URV 8 QIP DMA	%DQGDL1 DP FR) LJ KVHQJ
7HDP) RUWHW	9 DOH	6KRRMU) 36
7KH/HJ HQG RI =HQD 7HDWRI VKH. LQJ GRP	1 LQWHQGR (QMUDQF HQW	\$ FWRQ \$ GHQHQXUH
7KH6LP V	(@FWRQLF \$ UW	6LP X@MRQ
7KH6RQV2 I 7KH) RUHW	1 HZ QJ KW	6XUWYDO
7RP &OQFV BY5 DLQERZ 6I 6I HUH	8 ELVRIW	6KRRMU) 36
9 DORUDQW	5 LRW DP HV	6KRRMU) 36
: RUQ RI 7DQNV%OJY	: DJJ DP LQJ	\$ FWRQ
: RUQ RI : DUFUDIW	%Q] DUG (QMUDQF HQW	5 R@I 3@I LQJ
: RUQ RI : DUKLSV	: DJJ DP LQJ	\$ FWRQ



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\$ SH[/ HJ HQGV	(@FWRQLF \$ UW	%DWBH 5 R\ D@H
\$ WDWLQV&UHHGp 0 LDJH	8 ELRIW	\$ FW@Q \$ GYHQXUH
\$ VWRB/3@URRP	6RQ\ ,QWUDFWXH (QWUDLQP HQW	3@MRUP
&DORI ' XW 0 RGHQ: DUJUH,, ,,, : DJ RQHb	\$ FWMLRQ 3XE@KLQJ	6KRRMU
' IDE@R,9	%Q] DUG (QWUDLQP HQW	\$ FW@Q 53 *
(\$ 6SRUW) &	(@FWRQLF \$ UW	6SRUW
(\$ 6SRUW8) &	(@FWRQLF \$ UW	6SRUW
H) RR@EDOB (6 6HDVRQ 8 SGDM	. RQDP L	6SRUW
) DO@ X\ V	. RQDP L	6SRUW
) , \$	(SIF * DP HV3XE@KLQJ	3@MRUP
) , \$	(@FWRQLF \$ UW	6SRUW
) ,1 \$ /) \$ 17\$6< ; , 9 2 QDQH	6TXDUH (QI	\$ FW@Q 53 *
) RU@RNHQ	6TXDUH (QI	\$ FW@Q 53 *



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* \$ 0 (38 % ,6+ (5	* (15 (
) RUQWM	(SLF * DP HV	%DWB15R1D0H
) RUD+RUI RQ	; ER[* DP H 6VXGLRV	5 DFLQJ
) RUD+RUI RQ	; ER[* DP H 6VXGLRV	5 DFLQJ
) RUD0 RVRUSRUW	; ER[* DP H 6VXGLRV	5 DFLQJ
* KRWRI 7VXKLP D	6RQ\ ,QWUDFWLH (QWUDLQP HQW	\$ GYHQVXUH
* RG RI : DU5DJQDURN	6RQ\ ,QWUDFWLH (QWUDLQP HQW	\$ GYHQVXUH
* UDQ7XUWP R	6RQ\ ,QWUDFWLH (QWUDLQP HQW	5 DFLQJ
* UDQG7KHW\$ XVR 9	(@FWRQLF \$ UW	\$ GYHQVXUH
+ RJZ DUW/HJDW	: DUQHU%URV ,QWUDFWLH (QWUDLQP HQW	2 SHQ: RUQ
,WDNHV7Z R	(@FWRQLF \$ UW	\$ GYHQVXUH
/(* 2 . ' WYH	9 LVXDO&RQFHSH	5 DFLQJ
0 DILD,,	.	\$ GYHQVXUH
0 DUWHV6SLGHU0 DQ	6RQ\ ,QWUDFWLH (QWUDLQP HQW	\$ GYHQVXUH
0 DUWHV6SLGHU0 DQ 0 LQWV0 RUDGW	6RQ\ ,QWUDFWLH (QWUDLQP HQW	\$ GYHQVXUH



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0 LQHFDIW	0 RNDQJ 6VXGLRV	6DQGER[
0 RUWDO. RP EDW	: DLQHU%URV ,QMAUDFVWYH (QMUDLQP HQW) LJ KWMQJ
1 %\$.	.	6SRUW
3\$ < '\$ <	' HHS 6LOHU 3DLRQ	6KRRMU
5 HG ' HDG 5 HGHP SWRQ	5 RFNMUDU* DP HV	\$ GYHQMXUH
52 % / 2 ;	5 REOB[& RUSRUDMRQ	6DQGER[
5 RFNHW HDJ XH	3 V RQI[6SRUW
67\$5 : \$ 56 - HGL 6XUNLYRU	(OFWWRQLF \$ UW	2 SHQ : RUQ
6WDULHQS	%HMKHGD* DP H 6VXGLRV	2 SHQ : RUQ
6WHHW LJ KWMU	&DSFRP) LJ KWMQJ
7HDUGRZ Q	7X[HGR / DEV	6DQGER[
7KH & UHZ Q O RVRUHW	8 ELRIW	5 DFLQJ
7KH / HJ HQG RI = HOD 7HDWRI VKH . LQJ GRP	1 LQHQGR (QMUDLQP HQW	\$ FWRQ \$ GYHQMXUH
7RP &OQF\ B/5 DLQERZ 6lf 6LHJH	8 ELRIW	6KRRMU



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6KRRWMU) 36



6WDWMU\



2 SHQ: RUQ



\$ GYHQWUH



6DQGER[



) W KWQJ



%DWQH 5 R\ DQH



5 DFLQJ



0 2 %\$



5 RQH 3 Q\ LQJ



3 QMRUP



6XUNLYDO



6SRUW



\$ UFDGH



6LP XQMRQ

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- * ØRE DO5 DQNLQJ V 7RWDO

.....

- * ØRE DO5 DQNLQJ V 0 RELOH

- * ØRE DO5 DQNLQJ V 7RWDO

- * ØRE DO5 DQNLQJ V 0 RELOH

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- 62) 7
- . * DP HV
- 0 RELOH * DP HV
- * \$ 0 (6
- 7+
- * DP HV
- URDG , QMUDMIRQDQ
- \$ FMMVLRQ3XEOKLQJ
- \$ IMUHUV * DP HV
- \$ KRV * DP HV
- \$ LGDQD . HQJ EHILQ
- \$ SSV RXORH
- \$ YLD 6XQ
- \$ [OIEROV
- \$ \ DMV
- \$] XU , QMUDFWMH * DP HV
- %DJ HGRGH
- %DQGDL1 DP FR
- %DMWDMWDM * DP HV
- %HDFK %XP
- %HDP 1 *
- %HKDYLRXU , QMUDFWMH
- %HMKVGD
- %HMMU * DP HV
- %J) LVK * DP HV
- %LORQDWH * DP HV
- %LQJ FKXDQ1 HMZ RUN
- %Q] DUG (QMUDLQP HQW
- %RRP ER[* DP HV
- %R DD
- %XLQJQ %ORFNV
- &DP HGVMGLR
- &DQGLYRUH
- &DSFRP
- &DUJ 7HFQKQRJLHV
- & 3 URMVNA5 HG
- &HQMKU * DP HV
- &KHQJ GX : DUWU7HFK
- &KHWFRP
- &, * DP HV
- &OFNMDP 8 6\$ // &
- &RGLQJ &RGH 0 RELOH
- &RJ QRVSKHUH
- &RQFHQHG\$ SH
- &UMEDO RUFH
- ' HHS 6LOHU
- ' J VRQ
- ' * DP HV
- ' LDQ , LDQ , QMUDFWMH
- ' LJ LVR * DP HV
- ' UHD 3QV
- ' URXSQUL (QMUDLQP HQW
- (CHWRLQF \$ UW
- (CHI
- (SLF \$ FMRQ // &
- (SLF * DP HV
- (SLF : DU / &
- (SWRQDO CREDO
-) DFHSXQFK 6WXGLRV
-) DUQJ KW DP HV
-) DMW* DP H
-) DMK %HFHUHQ
-) LQJ HUJ XQ
-) LUWTRXFK * DP HV
-) RUWU DP HV
-) XJR
-) XQ * DP HV) RU) UHH
-) XQJ DP HUSQV
-) XQQDNLQJ
-) XQ3 QV
-) XQWIDUH
- * DQ[\ 3 Q\
- * DP H) RFXV
- * DP HEDMFV
- * DP HIRUJH
- * DP HGRW
- * DUQD
- * LDQW6RIVZ DUH
- * RDW* DP HV
- * RRG - RE * DP HV
- * UDP * DP HV

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- * UHHQ + RUJH * DP HV
- + DEEV
- + DHU LQ
- + H \$ SSV
- + . + HUR (QMULDQP HQW
- + RQJ . RQJ . H0 R 6RIVZ DUH
- + XXXJH * DP HV
- ,&&* DP H
- ,FHEHJU * DP H
- ,*
- ,0
- ,QQHUGRVMK
- ,QQSOM / DEV
- - DZ DNHU
- NWDP HV
- - RNHU* DP H
- . DEDP * DP HV
- . DP D* DP HV
- . HIW
- . LQJ
- . RQDP L
- . RUDP J DP H
- . UDI VRQ
- / DUDQ 6VKGIRV
- / HYHQ QI LQVM
- / H[LDQJ FR
- / W,H,V\$ * DP H
- / IOMK * DP HV
- / RFNZ RRG 3XEOKLQJ
- / RNXP * DP HV
- / RQJ 7HFK 1 HMZ RUN
- / RYH* DP H
- / XNDM] - DNRZ VNL
- 0 DFKLQH=RQH
- 0 DG0 DVQ
- 0 DJLF 7DYHQL
- 0 DJP DMF * DP HV
- 0 DQF
- 0 DUP DQGH* DP H 6VKGLR
- 0 DVP R
- 0 DMSSV
- 0 DMHIO
- 0 HQRIW
- 0 HQMDG 3
- 0 HMDFRUH* DP HV
- 0 IFR: RUQ
- 0 IFURIQX
- 0 IFURVRIW
- 0 W 6VKGLR
- P L< R< R
- 0 LQFDOS FRP
- 0 RELQH DU
- 0 RMQJ
- 0 RRQ \$ FWMH
- 0 RRQMRQ
- 0 XUND* DP HV
- 0 \ * DP HV
- 0 \ %XGGI DL
- 0 \ QHW
- 1 GHP LF & UHDMRQV
- 1 HNL
- 1 HRZ l * DP HV
- 1 HMADVH
- 1 HMP DUEQH
- 1 HZ QJ KW
- 1 H[WHU/* QREDO
- 1 ILQWV * DP HV
- 1 LDQMF
- 1 LQND . IZ L
- 1 LQMHQGR
- 1 RUGHXV
- 1 RW RSSQIU
- 1 77 * DP H
- 1 XYHUMH
- 2 QKDW
- 2 QHP W
- 2 QHVRIW
- 2 XWFLGDZ Q
- 2 \ XQ 6VWIG RVX
- 3 DQRUDP LN* DP HV
- 3 DUDGR[,QMAUDFWYH

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- 3 HDN * DP HV
- 3 HDUOS EV W
- 3 KDMQI * DP HV
- 3 QDUXP // &
- 3 QD NRW 7'
- 3 QD QHMD
- 3 QD UI
- 3 QD VRP H
- 3 QD VIND
- 3 QD : D
- 3 URGXFWD DGQHW
- 3 V RQI
- 5 LRV DP HV
- 5 REQRI & RLS RUDMRQ
- 5 RE7RS * DP HV
- 5 RFNMWDU * DP HV
- 5 RQOF * DP HV
- 5 RNR * DP H 7HNQRORW
- 5 RUWRV
- 5 RYLR (QMUDLQP HQW
- 5 XWV / DNH
- 6 DUHSVID 6VXGLR
- 6 (* \$
- 6 FRSHO
- 6 FRUHZ DUWIRU
- 6 & 6 6RIVZ DUH
- 6 KLUWS
- 6 N CE
- 6 P LOU DMA
- 6 QDLO* DP HV
- 61 * * DP HV
- 6 RFLDO8 RLQW
- 6 RQHU DUD
- 6 RQ , QMUDFWYH
- 6 SHFILDO* DP HJ
- 6 SLO; * DP HV
- 6 TXDUH (QL
- 6 VDJ RUWXQH
- 6 VDUB QLRQ
- 6 XSHUFHQ
- 6 XSHUWHDW
- 7DNH7Z R , QMUDFWYH
- 7DQI RUGV (QMUDLQP HQW
- 7DS IXQ
- 7HQ6TXDUH * DP HV
- 7HQFHQW
- 7* , QF
- 7LQI %XICQ
- 7RFD %RFD
- 7RS * DP HV
- 7RSZ DU6VXGLR
- 77+ P REL
- 7X[HGR / DEV
- 8 * DP H
- 8 \$ & 6VXGLR
- 8 ELVRIW
- 8 VHUR
- 9 DOH
- 9 DQH
- 9 HUW R * DP HV
- 9 LWDQ&RQFHSW
- 9 UJ RU\$ SSV
- 9 RRGR
- 9 XY
- : DJI DP IQJ
- : DUP HW RRG
- : DUQHU%JURV
- : DUWIRU* DP H
- : DW* DP HV
- : HP DGH
- : LCOQH 6VXGLRV
- : RRJD
- ; ' * QREDO
- ; ERJ * DP H 6VXGLRV
- ; IDP HQ 0 HFKDQLW
- <DQI * DP H
- <* 7HFKQRORJ\) = // &
- <RRJ RR
- <RWDU
- =HQ/ UH * DP HV
- =HSVRI DE
- =HURR * UDYLW
- =UJ=D* DP H , QF
- =USIQ + RQBLQJ V + .
- =XXNV* DP HV
- =\ QJD

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0 HG/D* DP H6WGLR	KW& P HG/DFRP	LQIR# P HG/DFRP	ãMQEXO
. 0 RELØI	KW&V WMIIDQVR		
\$ DE * DP HV	KW&V DDEJDP HV/MR/H		ãMQEXO
\$ EUDNGDDEU* DP HV	KW&V DEUDNGDDEUDJ DP HV/R	KW&V DEUDNGDDEUDJ DP HV/R	ãMQEXO
\$ FH* DP HV	KW&V DFHJD P HV	LQIR# DFHJD P HV	ãMQEXO
\$ GHQH* DP HV	DGHQDHJ DP HV/FRP	VDP HM DGHQDHJ DP HV/FRP	\$ QNDL
\$ GHQ* DP HV	KW&V Z Z Z DGHQJ DP HV/FRP	LQIR# DGHQJ DP HV/FRP	ãMQEXO
\$ JDYH* DP HV	KW&V Z Z Z DJDYHJ DP HV/FRP	KW&V Z Z Z DJDYHJ DP HV/FRP	ãMQEXO
\$ @EUXQ7HFQQRBU\	KW&V D@EUXQFRP KRP H	LQIR# D@EUXQFRP	ãMQEXO
\$ @LK* DP HV	KW&V Z Z Z DJJ DP HV/FRP	VWGR# DJJ DP HV/FRP	ãMQEXO
\$ @&DO\$ UJM	@DNHGLQFRP LQ D@FQDQ DUMM D	KW&V VZ LMUFRP &DOBS UJM	7HNLLGDÜ
\$ @FVK	Z Z Z D@FVKVFRP	KH@R# D@FVKVFRP	\$ QNDL
\$ @DP H* DP HV	KW&V Z Z Z D@DP HJ DP HV/FRP	KUDDP H# D@DP HJ DP HV/FRP	\$ QNDL
\$ @SHU* DP HV	Z Z Z D@SHUJ DP HV/FRP	LQIR# D@SHUJ DP HV/FRP	ãMQEXO
\$ /3 (5 6 \$ 5 . , \$ < \$	KW&V Z Z Z D@SHUDUNDJ DFRP	JDP HD@SHUDUNDJ D J P DLOFRP	ãMQEXO
\$ @D* DP HV	KW&V Z Z Z D@DJ DP HV	FRQMDFW D@DJ DP HV	ãMQEXO
\$ @DND	KW&V D@DNDP REL		
\$ @DQ* DP HV	KW&V Z Z Z D@DQ JDP HV/FRP		(VNLHKW
\$ @HP R* DP HV	KW&V D@HP RJ DP HV/FRP LGH@ KW@ O	LQIR# D@HP RJ DP HV/FRP	ãMQEXO
\$ @LRW DP HV	KW&V Z Z Z D@LRW DP HV/FRP	FRQMFHW D@LRW DP HV/FRP	ã P W
\$ QND* DP HV	KW&V Z Z Z D@NDMKGRVFRP	LQIR# D@NDMKGRVFRP	ãMQEXO
\$ @Q* DP HV	KW&V Z Z Z D@J DP HV/R	LQIR# D@J DP HV/R	ãMQEXO

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\$ SSJD P HGR	KWB Z Z Z DSSJD P HGR FRP	LQIR# DSSJD P HGR FRP	ã P W
\$ SSKLF * DP HV	Z Z Z DSSKLFJDP HVFRP	LQIR# DSSKLFJDP HVFRP	ãMQEXO
\$ SSV0 RELQH* DP HV	KWB V DSSVFRP W	LQIR# DSSVFRP W	\$ QNDL
\$ UFDGH RQN	Z Z Z DUDGHP RQNFRP	FDUHUF DUDGHP RQNFRP	ãMQEXO
\$ UNKH* DP HV	KWB V DUNKHU DP HVFRP	FRQMDFW DUNKHU DP HVFRP	\$ QMDD
\$ UKD* DP H6VKGLRV	KWB V DUJKDGH	LQIR# DUJKDGHY	ãMQEXO
\$ UYU* DP HV	KWB V DUUYU DP HVFRP Y	LQIR# DUUYU DP HVFRP	ãMQEXO
\$ UDV* DP HV	Z Z Z DU DJU DP HVFRP	KWB V Z Z Z DU DJU DP HVFRP FRQMDFW	ãMQEXO
\$ VKLD 6VKGLRV	KWB V Z Z Z DVKLDWVKGLRVFRP	VXSSRUW DVKLDWVKGLRVFRP	ãMQEXO
\$ VDQ* DP H6VKGLR	KWB V DVQDJ DP HMVKGLRFRP	DKP HW DVQDJ DP HMVKGLRFRP	\$ QNDL
\$ WR* DP HV	KWB V Z Z Z DMRP JV	LQIR# DMRP JDP HVQHW	ãMQEXO
\$ Z ND 7HFQQRQJLHV	KWB V Z Z Z DZ ND WFK LR	DGP LO# DZ ND WFK LR	ãMQEXO
\$ I H06WGLR	Z Z Z DJ H06WGLR FRP	KH06# DJ H06WGLR FRP	ãMQEXO
\$ QN* DP HV	KWB V D.QNFRP	FRQMDFW D.QNFRP	ãMQEXO
%DELO6WGLRV	Z Z Z EDELO6WGLRVFRP	LQIR# EDELO6WGLRVFRP	ãMQEXO
%DFNSDFN* DP HV	KWB V Z Z Z EDFNSDFNJ DP HV	MREV# EDFNSDFNJ DP HV	ã P W
%DG* DE* DP HV	KWB V Z Z Z EDGDEJ DP HVFRP	XOHUJRNMKUN# JP DCFRP	ãMQEXO
%DNRGXQ* DP H6VKGLRV	KWB V Z Z Z EDNRGXQJ DP HMVKGLRVFRP	Z KDM# EDNRGXQJ DP HMVKGLRVFRP	2 UBX
%DQED* DP HV	KWB V EDQEDJ DP HV	LQIR# EDQEDJ DP HV	ãMQEXO
%DÜ . DSØQ	LOWDUJDP FRP EDUWDSØQJ DP HV	LOWDUJDP FRP EDUWDSØQJ DP HV	
EDMSDG	KWB V Z Z Z EDMSDG FR		' HQJ Ø
%HUP XGD* DP HV	KWB V EHUP XGDJV	LQIR# EHUP XGDJV	\$ QNDL

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%HJ DK* DP HV	Z Z Z EHJ DKJDP HVFRP	IQR# EHJ DKJDP HVFRP	\$ QNDUD
%H. DJ D.	KW&V Z Z Z EH. DJ D. FRP WJ	EH. DJ D. DGM J P. DLOFRP	%DGNHUL
%J. * DP HV	KW&V EINJDP HVFRP	FROMDFW EINJDP HVFRP	\$ QMDD
%L 0 RELOU* DP HV	KW&V Z Z Z EUJ P RELOU DP HVFRP	FROMDFW EUJ P RELOU DP HVFRP	AMQEXO
%L J HJ* DP HV	KW&V EUJ HJDP HVFRP	IQR# EUJ HJDP HVFRP	AMQEXO
%L 3 RJ R* DP HV	Z Z Z QDNHGQFRP FRP SDQ. EUJSRJ R		AMQEXO
%OFNEXUOH* DP HV	KW&V Z Z Z EOFNEXUOHDP HVFRP WJ	JXQHM/ EOEQDFRP	AMQEXO
%M. * DP HV	KW&V Z Z Z E&JDP HVFRP	IQR# E&JDP HVFRP	JP WJ
%EOQHG* DP HV	KW&V EOQHGJDP HVFRP	IQH# EOQHGJDP HVFRP	AMQEXO
%BRCG 3 HO	WMDP GHM-BSHUEBRCG S HO DP HV		
%AKHSI 6WKGIRV	QDNHGQFRP FRP SDQ. EOKHSI WKGIRV		AMQEXO
%RRP DFD	KW&V ERRP DFDFRP	ERRP DFD J P. DLOFRP	JP WJ
%RRP * DP HV	KW&V ERRP JDP HMKGIRFRP	KHOR# ERRP JDP HMKGIRFRP	AMQEXO
%RRP + LW	KW&V ERRP KIWFRP	VXSSRUW ERRP KIWFRP	AMQEXO
%RVSKRUXV LJ WDO	KW&V ERVSKRUXVGLJWDFRP WJ	GHMMNI! ERVSKRUXVGLJWDFRP WJ	AMQEXO
%UJM/HO* DP HV	KW&Z EUJM/HODP HVFRP	FROMDFW EUJM/HODP HVFRP	
%UHZ* DP HV	KW&V Z Z Z EUHZ JDP HVFRP	IQR# EUHZ JDP HVFRP	AMQEXO
%XFNHG* DP HV	KW&V EXFNHGDP HVFRP	FROMDFW EXFNHGDP HVFRP	AMQEXO
%XGJLH* DP HV	KW&V EXGJLHDHP HVFRP	KHOR# EXGJLHDHP HVFRP	AMQEXO
%XJU L* DP HV	KW&V Z Z Z EXJU LJDP HV	IQR# EXJU LJDP HV	\$ QNDUD
%XUDN' DEDN	KW&V Z Z Z GENJDP HVFRP	KW&V Z Z Z GENJDP HVFRP	JP WJ
%YWDLP 7HNRGRW/VG WJ	KW&V Z Z Z EYNEQDFRP	IQR# EYNEQDFRP	. RFDHQ

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% FRGHF * DP HV	KWSV Z Z Z E\FRGHFJ DP HV/FRP	FRQMDFW E\FRGHFJ DP HV/FRP	ãMQEXO
% WMWSHU	KWS E\WMWSHUF RP		ãMQEXO
&DQG * DP IQJ	KWSV Z Z Z FDQG JDP IQJ []	KWSV Z Z Z FDQG JDP IQJ []	
&DM * DP H 6VKGLRV	KWSV Z Z Z FDMJN DP HMKGRL/FRP	FDMJN DP HMKGRL# J P DLOFRP	ãMQEXO
&DMK * DP HV	KWSV FDWKJ JDP HV	IQR# FDWKJ JDP HV	\$ QNDUD
&D&DMK 6VKGLRV	KWSV Z Z Z FDWHRQ/FRP	KHQ# FDWHRQ/FRP	ã P IU
&DJ * DP H 6VKGLR	KWSV Z Z Z FDJ JDP HMKGRL/FRP	FDJ JDP HMKGRL# J P DLOFRP	\$ QNDUD
&HUJDLQ * DP HV	KWSV Z Z Z FHUJDLQ JDP HV/FRP	FHUJDLQ JDP HV# J P DLOFRP	ãMQEXO
&KDP S J DP HV	KWSV FKDP S J DP HV/FRP	IQR# FKDP S J DP HV/FRP	\$ QNDUD
&KHMHDNH HY	KWSV FKHMHFDNHGHY/FRP		
&KHI * DP H 6VKGIR	KWSV Z Z Z FKHI JV	IQR# FKHI JV	\$ QNDUD
&KISL XQN * DP HV	KWSV FKISL XQN JDP HV	NIXUNDQFD.EDW# J P DLOFRP	ãMQEXO
&LFROLD * DP HV	KWS Z Z Z FIERQDN JDP HV/FRP	IQR# FIERQDN JDP HV/FRP	ãMQEXO
&FDS * DP HV	KWSV FDSJ DP HV/DSS	IQR# FDSJ DP HV/DSS	\$ QNDUD
&QD 7RNHQ * DP H 6VKGLR	KWSV FQD VRNHQ/QHW		\$ QNDUD
&QFN: IJ DUG * DP HV	KWSV Z Z Z FORNZ IJ DUG JDP HV/FRP		ãMQEXO
&2 V(QMUDQDQ HQW	KWSV Z Z Z FRVHQMDQDQ HQ/RUI	FRVLOGHVMGLRM# J P DLOFRP	ãMQEXO
&RFROXW DP H	KWS Z Z Z FRFROXW/DP H/FRP	FRQMDFW FRFROXW/DP H/FRP	ãMQEXO
&RGHZ D. 6VKGLRV	KWSV Z Z Z FRGHZ D. FR	KHQ# FRGHZ D. FR	ãMQEXO
&RH(QJ DJ H	KWSV FRUHQDJ H/FRP	IQR# FRUHQDJ H/FRP	ãMQEXO
825(6VKGLRV	KWSV Z Z Z FRUH DMDFN/FRP	DMDFN# FRUH DMDFN/FRP	ãMQEXO
&RUHS \$ SSV	KWS Z Z Z FRUHSDDS/FRP	FRUHSDDS# J P DLOFRP	ãMQEXO

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&UDQD* DP HV	Z Z Z FUDQD JP HV/FRP	LQI R# FUDQD JP HV/FRP	ãMQEXO
&UDMRQJ	KW&V FUDMRQJ FRP	LQI R# FUDMRQJ FRP	ãMQEXO
&UHDGRH* DP HV	Z Z Z FUHDGRH JP HV/FRP	FRO/DPW FUHDGRH JP HV/FRP	ãMQEXO
&UHDVDXU (QMUDQDOP HQW	Z Z Z FUHDVDXUHQW	LQI R# FUHDVDXUHQW	\$ QNDUD
&UHFVLY* DP HV	Z Z Z FUHFVLYU DP HV/FRP	KHÖR# FUHFVLYU DP HV/FRP	ãMQEXO
&UHZ * DP H 6WXGLR	KW&V Z Z Z FUHZ J DP HWXGLR FRP	LQI R# FUHZ J DP HWXGLR FRP	ãMQEXO
&URW%RQH	KW&V Z Z Z Z HDUHFURWERQH FRP	Z Z Z Z HDUHFURWERQH FRP DERXW	ãMQEXO
&UWDOKDUN* DP HV	KW&V FUWDOKDUN JP HV/FRP	LQI R# FUWDOKDUN JP HV/FRP	ãMQEXO
&XEFLR 6WXGLRV	KW&V FXEFLRWXGLRV/FRP	VXUKDOFLYDOP HWJ P DLOFRP	ãMQEXO
&XQMF* DP HV	KW&V FXQMF J DP HV	FXQMF J DP HV/ J P DLOFRP	ãMQEXO
& SKHU* DP HV	KW&V Z Z Z F SKHUI DP HV/FRP	LQI R# F SKHUI DP HV/FRP	ãMQEXO
' DEGDD* DP HV	KW&V Z Z Z GDEGDD FRP		\$ QNDUD
' DXRP E* DP HV	KW&V Z Z Z GDERP E J DP HV	LQI R# GDERP E J DP HV	ãMQEXO
' DDX* DP HV	KW&V GDØNU DP HV/FRP	HJ HP HQF GDØNU DP HV/FRP	\$ QNDUD
' DUN: RUG* DP HV	KW&V SØLQJ IHW/FRP		
' DUN=RQH* DP H 6WXGLR	KW&V GDØNU RGH FRP W		ãMQEXO
' HUXFL* DP HV	KW&V Z Z Z GHUXFL DP HV/FRP	LQI R# GHUXFL DP HV/FRP	o XÜØ
' LUWIR* DP HV	KW&V GLUWIR J DP HV	VXSSRUW GLUWIR J DP HV/FRP	ä P LU
' R R* DP H	KW&V GRGRJ DP HFR	LQI R# GRGRJ DP HFR	ãMQEXO
' UDURQJGRZ HU* DP HV	KW&V Z Z Z GLDJRQJGRZ HU DP HV/FRP	GLDJRQJGRZ HU DP HV/ J P DLOFRP	ãMQEXO
' UHD* DP HV	Z Z Z GUHD J DP HV/FRP	LQI R# GUHD J DP HV/FRP	ãMQEXO
' UHD* + DUHMNU/	KW&V GUHD KDUMHMMU/FRP	FRO/DPW GUHD KDUMHMMU/FRP	\$ QNDUD

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' UHD P 2 UH QM G	KW&V GUHD P RUHQMG RUI	LQI# GUHD P RUHQMG RUI	\$ QNDUD
(DM &ØS * DP HV	KW&V HD M FØSJ DP HVFRP	LQI# HD M FØSJ DP HVFRP	\$ QNDUD
() 162) 7	KW&V Z Z Z H QIVRIVFRP	LQI# H QIVRIVFRP	AMQEKO
(Ø * DP H 6VKGLR	KW&V Z Z Z H QJ DP HMKGRL FRP	LQI# H QJ DP HMKGRL FRP	JP JL
(ØM* DP H 6VKGLR	Z Z Z LQI DP H JURXS FRP	FROMDFW LQI DP H JURXS FRP	AMQEKO
(QUIK * DP HV	Z Z Z HQUIKJ DP HVFRP	KU# HQUIKJ DP HVFRP	AMQEKO
(UN* DP HV	Z Z Z HUNJ DP HVFRP	LQI# HUNJ DP HVFRP	\$ QNDUD
(WRU7KLQJ	KW&V HURUKLQJ P \ SRUMLR FRP	HURUKLQJ # JP DLOFRP	\$ QNDUD
(<32 15 * \$ 0 (6	KW&V Z Z Z H SRQURP WJ		\$ QNDUD
) DEUND* DP HV	Z Z Z IDEUNDU DP HVFRP	FRQMDFW# IDEUNDU DP HVFRP	AMQEKO
) DDM]] LH 2 \ XQ 7HNDRGÑBILS	KW&V [DDM]] LHFRP	LQI# [DDM]] LHFRP	AMQEKO
) (* DP HV	KW&V Z Z Z IH DP HVFR	LQI# IH DP HVFR	AMQEKO
) HJU 6VKGLR	KW&V IHU DFVKGLR FRP	LQI# IHU DFVKGLR FRP	0 X
) HUYDØØH	KW&V Z Z Z IHUYDØØHFRP	LQI# IHUYDØØHFRP	(VNL-HKL
) .5(678' , 2 6	KW&V IWHMKGRLVR	LQI# IWHMKGRLVR	\$ QNDUD
) IEHU* DP HV	Z Z Z IEHU DP HVFRP WJ	LQI# IEHU DP HVFRP WJ	AMQEKO
) ØN* DP HV	KW&V ØN JDP HVFRP	IØN JDP HVRIIØD J P DLOFRP	AMQEKO
) ØP LQJ R* DP H 6VKGLR	KW&V IØP LQJ RJV	IØP LQJ RJV	AMQEKO
) ØP LQJ R* DP HV	KW&V IØP LQJ RJV	IØP LQJ RJV	AMQEKO
) ØN* DP HV	KW&V ØNQII JDP HVFRP	IØNQII JDP HMW J P DLOFRP	\$ QNDUD
) / < / 2 * \$ 0 (6	KW&V IØIØJ DP HVFRP	FROMDFW IØIØJ DP HVFRP	\$ QNDUD
) 0 * DP H 6VKGLR	KW&V Z Z Z IP FJ DP HMKGRL FRP	LQI# IP FJ DP HMKGRL FRP	\$ QNDUD

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) RP R* DP HV	KW&V IRP RJV	KH&# IRP RJV	ãMQEXO
) RUJH* DP HV	KW&V IRUJHDP HVFR	LQI& IRUJHDP HVFR	ãMQEXO
) RUJKH0 LOH* DP HV	KW&V IRUJKH0 LOHFRP	FRQMDFW IRUJKH0 LOHFRP	ãMQEXO
) RJ3LGHU* DP HV	KW&V Z Z Z I RJ SIGHJU DP HVFRP	LQI& I RJ SIGHJU DP HV	\$ QNDUD
) UDME* DP HV	KW&V Z Z Z IUDMEJDP HVQHW	LQI& IUDMEJDP HVQHW	\$ QNDUD
) URW&D* DP HV	KW&V IURW&DHJDP HV	LQI& IURW&DHJDP HVFRP	ãMQEXO
) UJHQ3DZQ	KW&V Z Z Z IURHQ3DZQFRP	KW&V Z Z Z IURHQ3DZQFRP FRQMDFW	ãMQEXO
) XEX* DP HV	KW&V IXEXJDP HVFRP	VIDKOMSHGH&# IXEXJDP HVFRP	ãMQEXO
) XJR* DP HV	Z Z Z IXJRFRP WJ	LQI& IXJRFRP WJ	ãMQEXO
) XQNWX* DP HV	KW&V Z Z Z IXQNWXJDP HVFRP	VXSSRUW IXQNWXJDP HVFRP	þ P LU
) XQP RWK* DP HV	Z Z Z IXQP RWKFRP	LQI& IXQP RWKFRP	ãMQEXO
) XQUND	KW&V Z Z Z IXQUNDFRP	LQI& IXQUNDFRP	ãMQEXO
) XQYHUH* DP HV	KW&V Z Z Z IXQYHUHDP HVFRP	KU! IXQYHUHDP HVFRP	ãMQEXO
) XUJH* DP H	KW&V IXUJHDP HFRP	KW&V IXUJHDP HFRP	þ P LU
) XVH* DP HV	KW&V Z Z Z IXVHDHP HVLR	KW&V Z Z Z IXVHDHP HVLR FRQMDFW	ãMQEXO
) 86(KW&V IXVHHFRP	LQI& IXVHHFRP	ãMQEXO
) < %OL7HNRGRNBUSS	KW&V I\NP REL0IFRP	LQI& I\NP REL0IFRP	þ P LU
* DEE@6\GLRV	KW&V Z Z Z JDEE@M\GLRVFRP	LQI& JDEE@M\GLRVFRP	ãMQEXO
* DP ERO* DP HV	KW&V Z Z Z JDP ERODP HVFRP	Z Z Z JDP ERODP HVFRP FRQMDFW	ãMQEXO
* DP H7KHRI* DP HV	KW&V Z Z Z JDP HMKHRIJDP HVQHW	LQI& JDP HMKHRIJDP HV	ãMQEXO
* DP HEUDLQ	KW&V JDP HEUDLQ		\$ QNDUD
* DP HJLQH	KW&V Z Z Z JDP HJLQHJDP HV	LQI& JDP HJLQHJDP HV	\$ QNDUD

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* DP HURV	KWSV Z Z Z JDP HURVFRP	LQIR# JDP HURVFRP	ãMQEXO
* DP H' XUX	Z Z Z JDP HUXUQH/W	KHOR# JDP HUXUQH/W	ãMQEXO
* DP HV/B QLMG <DJ ãB	KWSV Z Z Z JDP HVXQLMG FR	KHOR# JDP HVXQLMG FR	ãMQEXO
* DP H/M UNW	KWSV Z Z Z JDP HMP UNWFRP		0 HULQ
* DP HMWU	Z Z Z JDP HMWUFRP WI	LQIR# JDP HMWUFRP WI	ãMQEXO
* DP HMWU. LGV	KWSV JDP HMWUNGVFRP	KWSV JDP HMWUNGVFRP	ãMQEXO
* DP HMWURU	KWSV Z Z Z JDP HMWURUFRP	WDP# JDP HMWURUFRP	ãMQEXO
* DP LNUR	Z Z Z JDP LNURFRP	LQIR# JDP LNURFRP	ãMQEXO
* DP LQD7HFKQRBU\	KWSV JDP LQDMFKQRBU\ FRP	LQIR# JDP LQDMFKQRBU\ FRP	ãMQEXO
* DP LQEV	KWSV Z Z Z JDP LQEVFRP	KWSV Z Z Z JDP LQEVFRP FROMDFW	ã P W
* DQJ * DP HV	KWSV J DQJ JDP HVFRP	VRFID@ J DQJ JDP HVFRP	ãMQEXO
* DUDZ HØJ DP HV	KWSV Z Z Z J DUDZ HØFRP	LQIR# J DUDZ HØFRP	ãMQEXO
* HGHY	KWSV J HGHYJV	FROMDFW J HGHYJV	ãMQEXO
* HGHY* DP HV	KWSV J HGHYJV	FROMDFW J HGHYJV	ãMQEXO
* LDQW\$ YRFDGR	KWSV J LDQW\$YRFDGRJDP HV	LQIR# J LDQW\$YRFDGRJDP HV	\$ QMDJD
* LJ DQMF * DP HV	KWSV J LJ DQMF JV	DFAURQURERWJDP HM/JP DLQFRP	\$ QNDJD
* LJQ * DP HV	KWSV J LJQ JDP HV	LQIR# J LJQ JDP HV	\$ QNDJD
* LDP * DP HV	KWSV Z Z Z J LDP JDP HVFRP	LQIR# J LDP JDP HVFRP	ãMQEXO
* XØMHUJ * DP HV	KWSV J XØMHUJDP HV	KWSV J XØMHUJDP HV	ãMQEXO
* QDQJ * DP H6WGLR	Z Z Z J QDQJDP HVWGLR FRP	LQIR# J QDQJDP HVWGLR FRP	ãMQEXO
* RRG - RE * DP HV	Z Z Z J RRG - RE JDP HVFRP	FROMDFW J RRG - RE JDP HVFRP	ãMQEXO
* RRG 0 RRG * DP HV	KWSV Z Z Z H HWRZ DURU	JRRGP RRG DJ LIP # JP DLQFRP	\$ QNDJD

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* RUI RQJ H* DP HV	KW&V Z Z Z J RUI RQJ HJ DP HV/WKGIR	J RUI RQJ HJ DP HM# JP DLOFRP	(VNL HKW
* RUQD6RIVZ RUNV	KW&V J RUIQDRIVZ RUN/FRP	LQI/R# J RUIQDRIVZ RUN/FRP	ã P IU
* LDP * DP HV	Z Z Z JUDP JV	RMKHUF J LDP JV	ãMQEXO
* 5\$ <32 :	KW&V Z Z Z JUD SRZ FRP	LQI/R# JUD SRZ FRP	
* XØMHUV* DP HV	KW&V J XØMHUV JDP HV	VXSSRUW J XØMHUV JDP HV	ãMQEXO
* \EH* DP HV	KW&V J \EH JDP HV/FRP	LQI/R# J \EH JDP HV/FRP	ãMQEXO
* \URVFRSLQJ * DP HV	KW&V J \URVFRSLQJ JDP HV/FRP	LQI/R# J \URVFRSLQJ JDP HV/FRP	\$ QNDUD
+ DGL* DP HV	KW&V Z Z Z KDGJL V	LQI/R# KDGJL V	5 HP RMI
+ DNDQ1 HKW	Z Z Z UY UFRP	FRQMDFW UY UFRP	\$ QNDUD
+ DP @W DP HV	KW&V KDP @W/DP HW/KGIR FRP	LQI/R# KDP @W/DP HW/KGIR FRP	ãMQEXO
+ DP P XDEL* DP HV	Z Z Z KDP P XDEL JDP HV/FRP	KDP P XDEL JDP HM# JP DLOFRP	ãMQEXO
+ DQH6WKGIRV	KW&V KDOHMXGIRV/FR		ãMQEXO
+ DSS1 &DE * DP H6WKGIR	KW&V Z Z Z KDSS1 FDE FRP WI	KW&V Z Z Z KDSS1 FDE FRP WI	. RFDH@
+ DSS1 * DP H&RP SDQ	KW&V Z Z Z KDSS1 JDP HFRRP SDQ FRP	KW&V KDSS1 JDP HFRRP SDQ FRP	ã P IU
+ DUP RQD* DP HV	KW&V Z Z Z KDUP RQDJ DDP HV/FRP	KHOR# KDUP RQDJ DDP HV/FRP	ãMQEXO
+ H \$SSV	Z Z Z KH DSSVFRP	LDMAP # KH DSSVFRP	\$ QNDUD
+ HHQ* DP HV	Z Z Z KHJHQJ DP HVQHW	LQI/R# KHJHQJ DP HVQHW	ãMQEXO
+ HUGDQ6WKGIRV	KW&V Z Z Z KHUGDQ6WKGIRV/FRP		ã P IU
+ HUR &RFQHSW	KW&V KHURFQHSW/FRP	LQI/R# KHURFQHSW/FRP	ãMQEXO
+ HUR * DP HV	KW&V Z Z Z KHURJ DDP HW/KGIR FRP	KHOR# KHURJ DDP HW/KGIR FRP	ãMQEXO
+ H. * DP HV	Z Z Z KH. JVWI	LQI/R# KH. JV	ãMQEXO
+ LGURMIG* DP H	KW&V Z Z Z KLGRMIG DDP HFRP WI	P XVBFDQGUL# KRWP DLOFRP	. RFDH@

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+2*2 * DP HV	KWSV Z Z Z KRJ RJ DP HV/FRP		. RFDHQ
+ RRGJ 6WKGIRV	KWSV GLJLDP H KRGJ WKGIRV	QLOD# QLOD FRP SDQ	ã P IJ
+28) * DP HV	KWSV KRXI J DP HV	LQI# KRXI J DP HV	ãMDEOXO
+XP EDUD* DP H6WKGIR	KWSV Z Z Z KXP EDUD DP HV/FRP	KXP EDUD DP HV# JP DLOFRP	. DUDEAN
+XQJUL* DP HV	KWSV Z Z Z KXQJ UL DP HV/FRP	LQI# KXQJ UL DP HV/FRP	ãMDEOXO
+ \SHELY* DP HV	KWSV Z Z Z K\SHELYFRP		ãMDEOXO
+ \SHUDE	KWSV Z Z Z K\SHUDE J DP HV	KH# K\SHUDE J DP HV	ãMDEOXO
+ \SHU RON	KWSV Z Z Z K\SHUP RQN DP HV/FRP	LQI# K\SHUP RQN DP HV/FRP	\$ QNDUD
+ \SHUROYD7FKQRQJ) * DP LQJ	KWSV Z Z Z K\SHUROYD WFK FRP	LQI# K\SHUROYD WFK FRP	\$ QNDUD
, 6,* DP HV	KWSV LGJLDP HV/FRP	KWSV LGJLDP HV/FRP FRQDFW	\$ QMDOD
,P DJLQW 6WKGIRV	Z Z Z IP DJLQW MVRWFRP	LQI# IP DJLQW MVRWFRP	ãMDEOXO
,OGIH GLU* DP HV	Z Z Z LOGHGLUFRP	LQI# LOGHGLUFRP	\$ QNDUD
,QYHOMQD* DP HV	KWSV Z Z Z LOYHOMQD FRP	LQI# LOYHOMQD FRP	ãMDEOXO
,521+(\$ * DP HV	KWSV ILRKHDGYUFRP	DWU ILRKHDGYUFRP HV/FRP/VFRP	\$ QNDUD
LELU KW DP HV	KWSV Z Z Z LEUW KW DP HV/FRP	KWSV Z Z Z LEUW KW DP HV/FRP	ãMDEOXO
-IE * DP HV	b	b	b
- 0 HWD	KWSV IP HWD J DP HV	LQI# IP HWD J DP HV	ã P IJ
-2,1762) 7	KWSV IRQWRIWQHLOGH KWP O	VXSSRUW IRQWRIWQH	ãMDEOXO
-RQFR* DP HV	KWSV Z Z Z RQFR J DP HV/FRP		ã P IJ
-RNHU* DP H	KWSV IRNHU DP HOHW	FRSLUDW# IRNHU DP HV	ãMDEOXO
-RQW* DP HV	KWSV IRQW J DP HV/FRP	LQI# IRQW J DP HV/FRP	ãMDEOXO
-RJ DP H2\XQ YH7HNORQNS	KWSV Z Z Z IRJ DP HFRP	KU# IRJ DP HFRP	ãMDEOXO

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. \$ * DP HV	KW&V NDJ DP HV/QHW	LQI R# NDJ DP HV/QHW	ãMQEXO
. DJI D* DP HV	KW&V Z Z Z NDJ DJ DP HV/FRP	LQI R# NDJ DJ DP HV/FRP b	\$ QNDUD
. HHS * DP HV	KW&V NHHS DP HV/FR	LQI R# NHHS DP HV/FR	ãMQEXO
. KR* DP HV	KW&V Z Z Z NKR J DP HV/FRP	LQI RNKRJ DP HV J P DQFRP	ãMQEXO
. IN* DP HV	KW&V Z Z Z NNJ DP HV/IQ	KW&V Z Z Z NNJ DP HV/IQ	\$ QNDUD
. ØILOMQLQ * DP HV	KW&V NBLOMQLQ DP HV	LQI R# NBLOMQLQ DP HV	ãMQEXO
. RDD* DP H 6VKGLR	KW&V Z Z Z NRDD DP HW/KGLR FRP	LQI R# NRDD DP HW/KGLR FRP	ãMQEXO
. RGREXU	Z Z Z NRGREXUFRP WJ	LQI R# NRGREXUFRP	\$ QNDUD
. RQKQ* DP H	KW&V Z Z Z NRQKQFRP	LQI R# NRQKQFRP	\$ QNDUD
. RQMD* DP HV	KW&V Z Z Z NRQMDJ DP HV	KH # NRQMDJ DP HV	ãMQEXO
. RVN* DP HV	KW&V Z Z Z NRVN DP HV/FRP	FRQMDFW RVN DP HV/FRP	þ P IU
/ 6VKGLRV	KW&V O VKGLRV/FRP	LQI R# O VKGLRV/FRP	ãMQEXO
/ DERUØØIP	KW&V ØERUEØØP FRP	LQI R# ØERUEØØP FRP	\$ QNDUD
/ DFLYHUV LU WØOGHUMFHV * DP H 6VKGLR	Z Z Z ØFLYHUVJU	GHMMN# ØFLYHUVJU	ãMQEXO
/ DGIN\$SSV	KW&V Z Z Z ØGINDSSVFRP	ØGINDSS# JP DQFRP	
/ DJRW DP HV	KW&V Z Z Z ØJRW DP HV/FRP	FRQMDFW ØJRW DP HV/FRP	ãMQEXO
/ DP D* DP HV	KW&V Z Z Z ØP D J DP HV/FRP	FRQMDFW ØP D J DP HV	\$ QNDUD
/ DSV* DP HV	KW&V ØSV DP HV/FRP	SØ # ØSV DP HV/FRP	\$ QNDUD
/ DMWØJM* DP HV	KW&V Z Z Z ØMWEJM DP HV	FRQMDFW ØMWEJM DP HV	ãMQEXO
/ HDS* DP HV	KW&V Z Z Z ØDSJ DP HVP REL	LQI R# ØDSJ DP HVP REL	ãMQEXO
/ HDUMV6VKGLRV	KW&V ØHDUMV6VKGLRV/FRP	NRREV# ØHDUMV6VKGLRV/FRP	ãMQEXO
/ HEØE* DP HV	KW&V Z Z Z ØEØE FRP	KW&V Z Z Z ØEØE FRP FRQMDFW	6DP VXQ

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/ HMKH 6WXGLRV	KW&V ØMKHMWXGLRVQHW	LQI# ØMKHMWXGLRVQHW	ãMQEXO
/ IEUD 6RIVZ RUNV	Z Z Z ØEDVRIVZ RUNVFRP	ØEDVRIVZ RUNV# J P DLOFRP	ãMQEXO
/ RNKP * DP HV	Z Z Z ØNKP JDP HVFRP	FROMDFW ØNKP JDP HVFRP	ãMQEXO
/ RQJ KRUD * DP HV	KW&V ØQJ KRUD JDP HV	KHØ# ØQJ KRUD JDP HV	ãMQEXO
/ RSS * DP HV	KW&V ØRSJ DP HVQHW	VXSSRUW ØRSJ DP HVQHW	\$ QNDUD
/ RW&DQGD * DP HV	KW&V ØRW&DQGDJ DP HVFRP	LQI# ØRW&DQGDJ DP HVFRP	\$ QNDUD
/ RW&D0W/6WXGLRV	KW&V ØRW&D0W/WXGLR	LQI# ØRW&D0W/WXGLR	%DQDNNDØ
/ XGX * DP HV	KW&V Z Z Z ØGXDUWFRP	LQI# ØGXDUWFRP	ãMQEXO
/ XGXY(ULMP 7HQRGRNBLL	KW&V ØGXVHGMPK FRP		\$ QNDUD
/ XJDØ DP HV	KW&V Z Z Z ØJ DØ DP HVFRP	LQI# ØJ DØ DP HVFRP	ãMQEXO
/ XP LHU* DP HV	KW&V Z Z Z ØP LHU DP HVFRP	LQI# ØP LHU DP HVFRP	ãMQEXO
0 * DP HV	KW&V P JDP HVFR	LQI# P JDP HVFR	ãMQEXO
0 DFKLØ* DP HV	KW&B P DFKLØJ DP HV[]	LQI# P DFKLØJ DP HV[]	ãMQEXO
0 DG&VM* DP HV	Z Z Z P DGE\VM DP HVFRP	FROMDFW P DGE\VM DP HVFRP	ãMQEXO
0 DGFUDW6WXGLRV	Z Z Z P DGFUDW6WXGLRVFRP	KW&V P DGFUDW6WXGLRVFRP FRQDFW	ãMQEXO
0 DHMR* DP H6WXGLR	KW&V P DHMRJ V		ãMQEXO
0 DUD* DP HV	KW&V P DUD JDP HVFRP	LQI# P DUD JDP HVFRP	ãMQEXO
0 DJH* DP HV	KW&V Z Z Z P DJH DP HVFRP	LQI# P DJH DP HVFRP	ã P LU
0 DJLF/ DE * DP H7HFQKØJLH	Z Z Z P DJØE FRP W	KHØ# P DJØE FRP W	\$ QNDUD
0 DL* DP HV	KW&V Z Z Z P DLJ DP HV	KU# P DLJ DP HV	ãMQEXO
0 DNHP DNH	KW&V Z Z Z P DNHP DNHFRP W	JDP H# P DNHP DNHFRP W	ãMQEXO
0 DQF	KW&V P DQFJ DP HVFRP		ãMQEXO

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0 DQJ RUDP D 6VKGLR	Z Z Z P DQJ RUDP DMKGIR FRP	FROMDFW P DQJ RUDP DMKGIR FRP	ãMQEXO
0 DVDO* DP HV	KW&V P DVDO DP HVFRP	LQIR# P DVDO DP HVFRP	ãMQEXO
0 DVPR R	Z Z Z P DVPR R FRP	VXSSRUW P DVPR R FRP	ã P W
0 DYLV* DP HV	Z Z Z P DYLV DP HVFRP	VD JLO# P DYLV DP HVFRP	ãMQEXO
0 D DGHP 7HNRGRW	Z Z Z P D DGHP F RP	FROMDFW P D DGHP F RP	ãMQEXO
0 D DZ RUW	KW&V P D DZ RUW	LDMMP # P XOMSØ HUFRP W	ãMQEXO
0 HJD) RUJKQD	KW&V P HJ DIRUJKQDFR	\HGD# P HJ DIRUJKQDFR	%XUD
0 HQM&B 3 / HDQJLQJ * DP HV	KW&V Z Z Z P HQM&BS FR	LQIR# P HMOKS QHW	ãMQEXO
0 HMD6DSIHO* DP HV	KW&V P HMDSIHOJ DP HVFRP	LQIR# P HMDSIHOJ DP HVFRP	ãMQEXO
0 HMDYHUM%L0 L7HNRGRNDBLUS	KW&V P HMDYHUM%L0 LFRP W	LQIR# P HMDYHUM%L0 LFRP W	ãMQEXO
0 HMDYLURO 6VKGLR	KW&V P HMDYLURO F RP W	LQIR# P HMDYLURO F RP W	ãMQEXO
0 LGSRO * DP HV	KW&V Z Z Z P IGSROJ DP HVFRP	LQIR# P IGSROJ DP HVFRP	ãMQEXO
0 LO DP H6VKGLR	KW&V P LO DP HMKGIR FRP	LQIR# P LO DP HMKGIR FRP	\$ ONDD
0 LQD DQD	KW&V P LQD DQD F RP	KU# P LQD DQD F RP	\$ ONDD
0 LOGHFN* DP HV	KW&V Z Z Z P LOGHFNJ DP HVFRP	LQIR# P LOGHFNJ DP HVFRP	ãMQEXO
0 LOGQERU	KW&V P LOGQERUHY	FKLYHOR# P LOGQERUHY	ãMQEXO
0 LLDFQI: RUN* DP H6VKGLR	KW&V P LLDFQI: RUNF RP W	LQIR# P LLDFQI: RUNF RP W	ãMQEXO
0 LWFEN* DP HV	KW&V P LWFEN DP HVFRP	FROMDFW P LWFEN DP HVFRP	ãMQEXO
0 LI HU* DP HV	KW&V Z Z Z P LI HU DP HV	KH# P LI HU DP HV	ãMQEXO
0 REJH	Z Z Z P REJH QHW	VXSSRUW P REJH QHW	(VNL HKW
0 RELOHFUDIW	Z Z Z P RELOHFUDIWQHW	VXSSRUW P RELOHFUDIWQHW	ãMQEXO
0 RP HQMXP ' LJWDO HGLD 7HFKQRQJLH	Z Z Z P RP HQMXP GP WFRP W	LQIR# P RP HQMXP GP WFRP	ãMQEXO

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0 RP RVK 6\KGIRV	KW&V Z Z Z P RP RVK\KGIRVFRP	P RP RVK\KGIRV# JP DLOFRP	\$ QNDUD
0 RRG * DP HV	KW&V P RRG JDP HV	VXSSRUW P RRG JDP HV	%QUD
0 RRP RR * DP HV	KW&V Z Z Z P RRP RRJDP HV	LQI/R# P RRP RRJDP HV	AMQEKO
0 RRQ3XOFKJ 7HKQRQBU LH/V	KW&V Z Z Z P RRQ3XOFKJ DP HV/FRP	KW&V Z Z Z P RRQ3XOFKJ DP HV/FRP	AMQEKO
0 RRQ6VBU* DP HV	KW&V Z Z Z P RRQMBU DP HV/FR	LQI/R# P RRQMBU DP HV/FR	AMQEKO
0 RRQ6VBU* DP HV	KW&V Z Z Z P RRQMBU DP HV/FRP	LQI/R# P RRQMBU DP HV/FRP	AMQEKO
0 RUDDEV	Z Z Z P RUDDEVFRP	LQI/R# P RUDDEVFRP	\$ QNDUD
0 RUL* DP HV	KW&V P RULJ DP HV/FRP	LQI/R# P RULJ DP HV	AMQEKO
0 RMRO %QXU	KW&V Z Z Z P RMROEQXUFRP	LQI/R# P RMROEQXUFRP	AMQEKO
0 \VKUD7HFK	Z Z Z P \VKUDMFK FRP	LQI/R# P \VKUDMFK FRP	¶ P LU
1 3DMK * DP HV	KW&V QSDMKJ DP HV/FRP	KU# QSDMKJ DP HV/FRP	\$ QNDUD
1 DUDFGH	Z Z Z QDUDFGHFRP	KW&V Z Z Z QDUDFGHFRP FROWDFW	AMQEKO
1 DMUHSU H06\KGIRV	KW&V Z Z Z QDMUHSU H06\KGIRVFRP		' HQJ ¶
1 ' * 6\KGIR	KW&V QJ6\KGIR FRP WJ		\$ QNDUD
1 HJ HQMD	Z Z Z QHJ HQMDFRP WJ	LQI/R# QHJ HQMDFRP WJ	(VNL HKLU
1 LFHZU * DP HV	KW&V QW\KGIR FRP	DKP HMW# JP DLOFRP	AMQEKO
1 LDK * DP HV	KW&V QLDKJ DP HV/FRP	KHOR# QLDKJ DP HV/FRP	¶ P LU
1 LAD* DP HV	KW&V Z Z Z QLADU DP HV/FRP	LQI/R# QLADU DP HV/FRP	AMQEKO
1 LMIG * DP H	Z Z Z QLMIG FRP	LQI/R# QLMIG FRP	AMQEKO
QNR . LGJ	KW&V QNR NLGJ FRP	KHOR# QNR NLGJ FRP	AMQEKO
QR SDFW	Z Z Z QRSDFWFRP	LQI/R# QRSDFWFRP	AMQEKO
1 R (LW DP HV	KW&V Z Z Z QRH (LWDP HV/FRP	LQI/R# QRH (LWDP HV/FRP	\$ QNDUD

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1 RKR * DP HV	KW&V Z Z Z QRKRJD P HV	KH&# QRKRJD P HV	ãMQEXO
1 RQXP * DP HV	KW&V QRQXP JDP HV/FRP	LQI/R# QRQXP JDP HV/FRP	ãMQEXO
1 R6XUHQHÜ* DP H6WXGLR	KW&V Z Z Z QRXUHQHÜWXGLR	KH&# QRXUHQHÜWXGLR	ãMQEXO
1 RZ KHUH6WXGLRV	Z Z Z QRZ KHUH6WXGLRV/FRP	LQI/R# QRZ KHUH6WXGLRV/FRP	ãMQEXO
1 \ FVRSKLOH6WXGLRV	KW&V Z Z Z Q.FVRSKLOH6WXGLRV/FRP	LQI/R# Q.FVRSKLOH6WXGLRV/FRP	ãMQEXO
2 G * DP H6WXGLR	KW&V Z Z Z RGJDP HMWXGLR FRP	LQI/R# RGJDP HMWXGLR FRP	\$ QNDUD
2 * DP HV/ QMUDLOP HQW	Z Z Z RJJD P HMHQMDLOP HQW/FRP	RJJDP HVR11FLD0# JP DLOFRP	§ P IU
2 P IFRQ * DP HV	KW&V RP IFRQJD P HV	FRQDFW RP IFRQJD P HV	ãMQEXO
2 P QL* DP HV	KW&V RP QLRJD P HV/FRP	KL# RP QLR JV	ãMQEXO
2 OH3HUFHQW DP H	KW&V Z Z Z RHSHUFHQW DP H	LQI/R# RHSHUFHQW DP H	ãMQEXO
2 Q2II * DP HV	KW&V RQRIIJD P HV	LQI/R# RQRIIJD P HV	ãMQEXO
2 1,)81 6RIVZ DUH	KW&V Z Z Z RQIXQURIVZ DUH/FRP	LQI/R# RQIXQURIVZ DUH/FRP	ãMQEXO
2 SWP XV* DP H6WXGLR	KW&V RSWP XVJD P HMWXGLR FRP		\$ QNDUD
2 UHRO6WXGLRV	KW&V RUHROMWXGLRV/FRP	LQI/R# RUHROMWXGLRV/FRP	\$ QNDUD
2 772 * DP HV	KW&V Z Z Z RWMPJD P HVWXGLR	KL# RWMPJD P HVWXGLR	\$ QNDUD
2 WRP DQ * DP HV	KW&V Z Z Z RWMP DQJD P HV/FRP	LQI/R# RWMP DQJD P HV/FRP	ãMQEXO
2 ; 2 * DP HV	KW&V Z Z Z R RJD P HVQHW	R RJD P HVQHW# JP DLOFRP	ãMQEXO
2 \ XQ	KW&V Z Z Z R\ XQFRP	LQI/R# R\ XQFRP	ãMQEXO
2 \ XQ6WXGLRVX	Z Z Z R\ XQWXGLRVX FRP	LQI/R# R\ XQWXGLRVX FRP	ãMQEXO
3 DQ* DP HV	KW&S SDQJD P HV	VXSSRLW SDQJD P HV	ãMQEXO
3 DQGD%HDU	KW&V Z Z Z SDQGD%HDU DP HV/FRP	KH&# SDQGD%HDU DP HV/FRP	ãMQEXO
3 DQR * DP HV	KW&S Z Z Z SDQRJD P HV/FRP	LQI/R# SDQRJD P HV/FRP	ãMQEXO

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3DQMRQ	KW&V Z Z Z SDQMRQJ DP HV	LQIR# SDQMRQJ DP HV	\$ QNDUD
3DSHU3LJHQ* DP HV	KW&V Z Z Z SSUJHQFRP	LQIR# SSUJHQFRP	AMQEKO
3DUP D* DP HV	KW&V Z Z Z SDUP DJ DP HV/FRP		AMQEKO
3DVDMIP SRV* DP HV	KW&V SDVDMIP SRVJ DP HV/EXVQHVV/VJM	KW&V SDVDMIP SRVJ DP HV/EXVQHVV/VJM	AMQEKO
3DMRQ3XOFK	KW&V SDMROSXOFK FR	FROMDFW SDMROSXOFK VNGR	AMQEKO
3D[\$ QLP L* DP HV	KW&S Z Z Z SD[DQLP LJ DP HV/FRP	LQIR# SD[DQLP LJ DP HV/FRP	AMQEKO
3D[LH* DP HV	KW&V Z Z Z SD[LHJ DP HV/FRP	KH. # SD[LHJ DP HV/FRP	AMQEKO
3HDN* DP HV	Z Z Z SHDNFRP	FROMDFW SHDNFRP	AMQEKO
3HDU* DP HV	KW&V SHDU DP HVFR	KW&V SHDU DP HVFR FROMDFWVX	AMQEKO
3HMRO* DP HV	KW&V Z Z Z SHMROJ DP HV/FRP	LQIR# SHMROJ DP HV/FRP WJ	AMQEKO
3KHZ 3KHZ * DP HV	KW&V SKHZ SKHZ J DP HV/FRP	LQIR# SKHZ SKHZ J DP HV/FRP	AMQEKO
3IQH* DP HV	KW&V SIQH DP HV/FRP	LQIR# SIQH DP HV/FRP	AMQEKO
3IQN* DP HV	KW&V SIQN DP HVQHV	FROMDFW SIQN DP HVQHV	AMQEKO
3IOT* DP HV	KW&V SLOT J DP HV/WJ	LQIR# SLOT J DP HV	\$ QNDUD
3ISRJ D* DP HV	KW&V SISRJ D VNGR EXVQHVV/VJM	KW&V SISRJ D VNGR EXVQHVV/VJM	\$ QNDUD
3IJUHD6VNGR	Z Z Z SIJUHD6VNGRFRP	LQIR# SIJUHD6VNGRFRP	\$ QNDUD
3I[RXQ	Z Z Z SI[RXQFRP	LQIR# SI[RXQFRP	\$ QNDUD
3IQFN* DP HV	KW&S FURWZ RUGSIOQFNJ DP HV/FRP	LQIR# SIOQFNJ DP HV/FRP	
3Q[DE(O) DFVRU	KW&V S[Q[DE(O) DFVRU FRP	KH[Q[S[Q[DE(O) DFVRU FRP	AMQEKO
3Q[VWH_QMLDFWH	KW&V S[Q[VWH FRP	KW&V S[Q[VWH FRP	\$ QNDUD
3Q[XP P	KW&V S[Q[XP P FRP	DGP LQ[S[Q[XP P FRP	%XUD
3RVQ6RIVZ DUH	KW&V Z Z Z SRVQ6RIVZ DUHFRP		AMQEKO

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3RNXFK	KW&V SRNXFK FRP	FRO&FW SRNXFK FRP	7UDE) RQ
3RQ RP * DP HV	KW&V SRQ,RP FRP	VXSSRUW SRQ,RP FRP	ãMQEXO
32 : * DP HV	KW&V SRZ JDP HV	KH# SRZ JDP HV	%XUD
3UHMR * DP HV	KW&V ZZZ SUHMRJ DP HV/FRP		ãMQEXO
3URXG' LORVDXU/	KW&V SURXGLORVDXU/FRP	KW&V SURXGLORVDXU/FRP FRO&FW	ãMQEXO
3XQGXO* DP HV	KW&V SXQGXQFR	KU SXQGXQFR	%XUD
3XVX * DP HV	ODNHGLQFRP FRP SDQ, SVXJ DP HV		\$ GDD
3UR* DP HV	KW&V ZZZ S U RJ DP HVR	KH# S U RJ DP HVR	ã P W
4 XRN * DP HV	KW&V TXRNJ DP HV	LQR# TXRNJ DP HV	\$ QNDL
5 DGLDM&DM6VKGLR	KW&V ZZZ UDGLDM&DM6VKGLR	LQR# UDGLDM&DM6VKGLR	ãMQEXO
5 DMVQJ * DP H 6VKGLR	KW&V ZZZ UDVMQJ DP HMVKGLR FRP	LQR# UDVMQJ DP HMVKGLR FRP	%XUD
5 DSS* DP HV	KW&V ZZZ UDSSJ DP HV/FRP	LQR# UDSSJ DP HV/FRP	ãMQEXO
5 DSVKUH* DP HV	KW&V UDSVKUHFRP W	LQR# UDSVKUHFRP W	ãMQEXO
5 DMF	KW&V UDMFIR	VXSSRUW UDMF FRP	ãMQEXO
5 HD&VS UV6VKGLR	Z ZZ UHD&VS UV6VKGLR FRP	LQR# UHD&VS UV6VKGLR FRP	ãMQEXO
5 HFRQ&FW DP HV	Z ZZ UFRQ&FW DP HFRP	LQR# UFRQ&FW DP HFRP	ãMQEXO
5 HG \$[H* DP HV	KW&V UHG(\$[H) DP HV/FRP	FRO&FW UHG(\$[H) DP HV/FRP	. RFDHQ
5 HG &KDP HFRQ* DP H 6VKGLR	KW&V ZZZ UF0VKGLRIR	KU UF0VKGLRIR	ãMQEXO
5 HG 5XE 6VKGLR	KW&V UHG(XE) VKGLR	LQR# UHG(XE) VKGLR	ãMQEXO
5 HG3 XQFK 6VKGLRV	KW&V UHGSXQFKV6VKGLRV/FRP	J DP HV# DJ H WFK FRP	= RQJ XQDN
5 HP RRE	KW&V UHP RREJ DP HV/FRP	KH# UHP RREJ DP HV/FRP	\$ QNDL
5 HM&Ø	KW&V ZZZ UHM&Ø FRP	VXSSRUW UHM&Ø FRP	ãMQEXO

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5 HMXQJ* DP H 6WXGLR	KW& UHMXQJ DP HMWXGLR FRP	FRQMDFWU UHMXQJ DP HMWXGLR FRP	ãMQEXO
5 HYHQ* DP HV	KW& ZZZ UHYHQJ V	LQJ# UHYHQJ V	ãMQEXO
5 LGJJH	KW&V ZZZ UGJJH FRP	LQJ# UGJJH FRP	' HQJ @
5 RDU* DP H 6WXGLR	KW& URDUJ V	LQJ# URDUJ V	\$ QNDL
5 RFLODDM* DP HV	KW& ZZZ URFLODDMU DP HV/FRP	LQJ# URFLODDMU DP HV/FRP	ãMQEXO
5 RJ 6WXGLRV	Z Z Z URJWXGLRV/FRP	FRQMDFW URJWXGLRV/FRP	ãMQEXO
5 RNR* DP H 6WXGLRV	KW&V Z Z Z URNRVRV/FRP	LQJ# URNRVRV/FRP	ãMQEXO
5 RQF* DP HV	Z Z Z URQFJ DP HV/FRP	LQJ# URQFJ DP HV/FRP	ãMQEXO
5 RRIVRS* DP HV	KW&V URRIVRS JDP HV/FRP		\$ QNDL
5 RRMWU* DP HV	KW& URRMWUJ DP HVQHW	LQJ# URRMWUJ DP HVQHW	' HQJ @
5 RRW DP HV	KW& UR RW DP HV/FRP	KW& UR RW DP HV/FRP FRQMDFW	ã P IJ
5 RVWDMADE	KW&V URVDMADE FRP	LQJ# URVDMADE FRP	* DJ IDQMS
5 XEV* DP H 6WXGLR	Z Z Z UKEJDP HMWXGLR FRP	UKEJDP HVQHW# UMRV FRP	ã P IJ
5 XII* DP HV	KW&V Z Z Z UXIJDP HMWXGLR FRP	KHQB# URIJDP HV	ã P IJ
5 XQH* DP HV	KW&V UKQH DP HV/FRP	FRQMDFW UKQH DP HV/FRP	ã P IJ
5 XWBI* DP HV	KW&V UKWBUDP HV/FRP	LQJ# UXWBUDP HV/FRP	. RFDHQ
6 6* \$ 0 (KW&V V WJ DP HV/FRP	LQJ# V WJ DP HV/FRP	%XUD
6\$* * \$ 0 (6	KW&V VDJDP HV/FRP	VXSSRUW VDJDP HV/FRP	\$ QNDL
6HN* DP HV	KW&V VHNU DP HV/FRP	LQJ# VHNU DP HV/FRP	ãMQEXO
6HP UXN* DP HV	KW&V VHP UXNU DP HV/FRP FRQMDFWV	KW&V VHP UXNU DP HV/FRP FRQMDFWV	ãMQEXO
6HYHQZ 2 Z O* DP HV	KW&V VHYHQZ QDP HV/FRP	VXSSRUW VHYHQZ QDP HV/FRP	ãMQEXO
6KDZ W* DP HV	KW&V Z Z Z VKDZ WJ DP HV/FRP	LQJ# VKDZ WJ DP HV/FRP	ãMQEXO

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6WV* DP HV	KW&V VLVFRP WJ	JDP HM# VLVFRP WJ	\$ QNDUD
6IP VRIW	Z Z Z VLP VRIWFRP WJ	LQI R# VLP VRIWFRP WJ	\$ QNDUD
6LOFDSS * DP HV	KW&V Z Z Z VOFDSSJDP HVFRP	VQFDSSWKLR# JP DLOFRP	ãMQEXO
6LOJ LQJ IDQW	KW& V Z Z Z VQJ LQJ IDQWFRP	LQI R# VQJ LQJ IDQWFRP	ãMQEXO
6LJ6WKGRV	Z Z Z VJWMKGIRVFRP	VXSSRUW VJWMKGIRVFRP	ãMQEXO
6LUXV* DP HV<DJ ãP	KW&V VLUXVDP HVFR	LQI R# VLUXVDP HVFR	ãMQEXO
6LMURV* DP HV	KW&V Z Z Z VMLURVDP HVFRP	VMLURVDP HV JP DLOFRP	ãMQEXO
6. (%6WKGIRV	KW&V VNHEWKGIRVFRP	LQI R# VNHEWKGIRVFRP	ãMQEXO
VNJDP HV	KW&V Z Z Z VNJDP HV/QHW	WDI1FLDFHJDHP H# JP DLOFRP	\$ QNDUD
6N GRIW	KW&V Z Z Z VN GRIWKGIRVFRP	KW&V Z Z Z VN GRIWKGIRVFRP FRMDFW	ã P WJ
61 * ,&7	KW&V Z Z Z VQJ LFVFRP	LQI R# VQJ VQJLFVFRP	\$ QNDUD
6VKGIRV	KW&V Z Z Z VQJ LFVFRP	LQI R# VQJ LFVFRP	\$ QNDUD
6RL* DP HV	KW&V VRLDP HVFRP	FRMDFW# VRLDP HVFRP	ãMQEXO
6SHNMJD* DP HV	KW&V VSHNMJDJP HV	EXWLOHM# VSHNMJDJP HV	ãMQEXO
6SINH* DP HV	KW&V VS NHJDP HVFRP	VXSSRUW VS NHJDP HVFRP	ãMQEXO
6WDUGXW DP HV	KW&V WDUGXWV	LQI R# WDUGXWV	ãMQEXO
6WHKRO 6VKGIRV	KW&V WMHDKROMKGIRVFRP	KW&V WMHDKROMKGIRVFRP EJ H XQDLO	ãMQEXO
6VRUP ãQJ 6VKGIRV	KW&V VRUP ãQJ VKGIRVFRP	LQI R# VRUP ãQJ VKGIRVFRP	ãMQEXO
6WDUMD* DP HV	KW&V WDUMDFR	FY# WDUMDFR	ãMQEXO
6VKGIR%LORQ	Z Z Z VKGIRELOROFRP WJ	LQI R# VKGIRELOROFRP	ãMQEXO
6VKGIR* DP HEIW	Z Z Z VKGIRDP HEIWFRP	FRMDFW VKGIRDP HEIWFRP	ãMQEXO
6XN* DP HV	KW&V VNXJDP HV	LQI R# VNXJDP HVFRP	ãMQEXO

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6XSHU* HDW* DP HV	KWSV VXSHUJHDWJDP HV	FROMDFW VXSHUJHDWJDP HV	ãMQEXO
6XSHU0	KWSV VXSHU0J V		\$ QNDL
6XSHU HK * DP HV	KWSV VXSHU HKJDP HV	LQIR# VXSHU HKJDP HV	ãMQEXO
6XXS * DP HV	KWSV Z Z VXXSJDP HV/FRP	KWSV Z Z VXXSJDP HV/FRP &ROMDFW	ãMQEXO
7DED* DP HV	KWSV VBEDJDP HV/FRP	FROMDFW VBEDJDP HV/FRP	\$ QNDL
7DXR RÜGV(QMUDQH HQW	Z Z Z VD0Z RÜGVFRP	LQIR# VD0Z RÜGVFRP	\$ QNDL
7DXV6WKGR	KWS V Z Z VD0VWKGR FRP	LQIR# VD0VWKGR FRP	ãMQEXO
7DID* DP HV	KWS VD IDJDP HV/FRP	LQIR# VD IDJDP HV/FRP	ãMQEXO
7HDP 0 DFKUDYHQ			ä P LU
7HDSRUMU	KWSV WD0SRUMU J	SDUDHUKLS# WD0SRUMU J	ãMQEXO
7HRV* DP HV	KWSV Z Z Z WRWDP HMWKGR FRP	LQIR# WRWDP HMWKGR FRP	ä P LU
7+(% 5 * DP HV	KWSV VKHEJUFRP JDP HV	LQIR# VKHEJUFRP	ãMQEXO
7KH3DFN6WKGRV	KWSV VKHSDFNWKGRVFRP	FROMDFW VKHSDFNWKGRVFRP	ä P LU
7KH6\$ * DP H6WKGR	KWSV VKHMDJDP HMWKGR FRP	LQIR# VKHMDJDP HMWKGR FRP	' HQJ Ø
7IDP R * DP HV	KWSV WDP RJDP HV/FRP	LQIR# WDP RJDP HV/FRP	ãMQEXO
7IFN QMUDFWMH	KWSV Z Z Z MFNQMFUDFWMHFRP	LQIR# MFNQMFUDFWMHFRP	%XUD
7IQNHUER	KWSV Z Z Z IQNHUER WKGR	FROMDFW IQNHUER WKGR	%XUD
7ISØ 6WKGR	Z Z Z WSØ WKGR FRP	LQIR# WSØ WKGR FRP	' HQJ Ø
7LDP LX 6WKGRV	KWSV Z Z Z LDPLXJDP H	LQIR# LDPLXJDP H	ãMQEXO
7RRQ DP HV	KWS V Z Z VRRQDP HMWKGR FRP	LQIR# VRRQDP HV/FRP	ãMQEXO
7RRQ0 HMDP DP HV	KWSV Z Z Z VRROPHMDQJDP HV	VXSSRUW VRROPHMDQJDP HV	ä P LU
7RVE * DP HV	KWSV VRVEJDP HV/FRP	LQIR# VRVEJDP HV/FRP	ãMQEXO

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7UDQW DP HV	Z Z Z WWDQW DP HV/FRP		ãMQEXO
7UFNM * DP HV	KW&V Z Z Z WFMN J DP HV/FRP	LQJ# WFMN J DP HV/FRP	ãMQEXO
7UJGM* DP HV	Z Z Z WJGM J DP HV/FRP	LQJ# WJGM J DP HV/FRP	ãMQEXO
7XQJD* DP HV	KW&V WKJ DVRI/WFRP	LQJ# WKJ DVRI/WFRP	(VNL-HKLW
7Z HQM* DP HV	KW&V VZ HQM J DP HV	LQJ# VZ HQM J DP HV	\$ QNDL
7Z R3DJH* DP HV	KW&V VZ RSDJH J DP HV/FRP	\ DJJ# VZ RSDJH J DP HV/FRP	\$ QNDL
7Z R (6VGLRV	KW&V VZ RGHMXGLRVFRP	LQJ# VZ RGHMXGLRVFRP	ãMQEXO
8 EIN6VGLRVb	KW&V Z Z Z XEINMXGLRVFRP	KH&# XEINMXGLRVFRP	ãMQEXO
8 GR* DP HV	Z Z Z XGRJ DP HV/FRP	LQJ# XGRJ DP HV/FRP	\$ QNDL
8 QIR(6WGLR* DP H	KW&V XQIR J DP HMWGLR FRP	UHNDP YHUM# JP DLOFRP	ãMQEXO
8 P XUR* DP HV	KW&V X P XUR QHW	P H# X P XUR QHW	%DODNDG
8 QERXQG* DP H 6WGLR	KW&V XQERXQG J DP HMWGLR FRP	LQJ# XQERXQG J DP HMWGLR FRP	ä P IU
8 QFRVRW-DI@P	Z Z Z XQFRVRWFRP	KH&# XQFRVRWFRP	ä P IU
8 QLFR* DP H 6WGLR	KW&V XQLFRWGLRFR	XQFR# XQLFRWGLRFR	ãMQEXO
8 QLSRQ* DP HV	KW&V XQLSRQ J DP HV/FRP	LQJ# XQLSRQ J DP HV/FRP	ãMQEXO
8 QSUHGLWDE@H* DP HV	KW&V Z Z Z XQSUHGLWDE@H J DP HV/FRP	FRQMDFW XQSUHGLWDE@H J DP HV/FRP	ä P IU
8 SJ UDGH QMUJZLQH HQM	Z Z Z XSJ UDGH HQM UJZLQH HQM/FRP	XSJ UDGH HQM UJZLQH HQM/E# JP DLOFRP	ãMQEXO
8 SSHUSIN* DP HV	KW&V XSSHUSINFRP	LQJ# XSSHUSINFRP	\$ GDD
8 63(; * DP HV	KW&V XVSJ J DP HV/FRP	FRQMDFW XVSJ J DP HV/FRP	\$ QMD
9DFXP* DP HV	KW&V Z Z Z YDFXP J DP HV/FRP	LQJ# YDFXP J DP HV/FRP	ãMQEXO
9DOR@H	KW&V Z Z Z YDOR@H FRP	KW&V Z Z Z YDOR@H FRP FRQMDFW	\$ QNDL
9DQMB@A * DP HV	KW&V YDQMB J DP HV	KH&# YDQMB J DP HV	ãMQEXO

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9 DZ UDHN7HFQRBÜ) ,OF	KW&V YDZ UDHNFRP	LÖMMAP # YDZ UDHNFRP	AMQEKO
9 HÖFKRU) DP HV	KW&V YHÖFKRU) DP HV/FRP	FRQMDFW YHÖFKRU) DP HV/FRP	AMQEKO
9 HQR) DP HV	KW&V SÖY YHQR) DP HV/FRP	VXSSRUW SÖY YHQR) DP HV/FRP	JP LU
9 HQR) ID	KW&V YHQR) IDFR	KH.# YHQR) IDFR	AMQEKO
9 HURDO) DP HV	KW&V Z Z Z YHURDO) DP HV/FRP	LQIR# YHURDO) DP HV/FRP	AMQEKO
9 HUW R * DP HV	Z Z Z YHUW R) DP HV/FR	LQIR# YHUW R) DP HV/FR	AMQEKO
9 LÜKDC8URMFW&R	KW&V YLUKDC8URMFW&R	LQIR# YLUKDC8URMFW&R	AMQEKO
9 LYH	KW&V YLYH) DP HV/FR	LQIR# YLYH) DP HV/FR	S QNDUD
9 R,YR) * DP HV	ØDNHGLO FRP FRP SDQ) YRØR) JDP HV	ØDNHGLO FRP FRP SDQ) YRØR) JDP HV	AMQEKO
9 RØ * DP H	KW&V Z Z Z YRØJ) DP H/FRP	LQIR# YRØJ) DP H/FRP	JP LU
9 RØ * DP HV	KW&V Z Z Z YRØJ) DP HV/FRP	KI# YRØJ) DP HV/FRP	AMQEKO
9 R) HÖVKGLR	KW&V Z Z Z YR) HÖVKGLR FR	LQIR# YR) HÖVKGLR FR	AMQEKO
9 R, DQW DP HV	KW&V YR, DQW) DP HV	LQIR# YR, DQW) DP HV	AMQEKO
9 XYI 7HNRGNS	KW&V XYI FRP		AMQEKO
: DHU) DP HV	KW&V Z DHU) DP HV/FRP	FRQMDFW Z DHU) DP HV/FRP	AMQEKO
: DUBRN S UV	KW&V Z DUBRN S UV	LQIR# Z DUBRN S UV	S QNDUD
: HESHURO) DP HV	KW&V Z Z Z Z HESHURO) FRP	LQIR# Z HESHURO) FRP	RQ, D
: HH) %HH)	Z Z Z Z HH) EH) FRP	Z HH) EH) JDP HM# JDP DLOFRP	S QNDUD
: HQGU R) DP HV	KW&V Z HQGU R) DP HV	KHQ# Z HQGU R) DP HV	AMQEKO
: KRSV) DP HV	KW&V Z KRSV) DP HV/FRP	LQIR# Z KRSV) DP HV/FRP	AMQEKO
: LD 3XP SNO	KW&V Z LD 3XP SNO FRP	LQIR# Z LD 3XP SNO FRP	S QNDUD
: ROHV, QMUDFV&H	Z Z Z Z ROHV, QMUDFV&H FRP KRP H	LQIR# Z ROHV, QMUDFV&H FRP	AMQEKO

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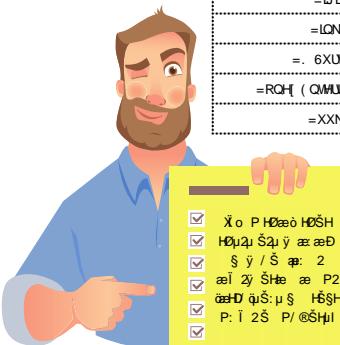


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; HQR@D	KW&V Z Z Z HQR@D FRP	LQ R# HQR@D FRP	' HQJ @
<DP \ 6\WGLR	KW&V \ DP \ WGLR FRP	LQ R# \ DP \ WGLR FRP	@MDOEXO
<HDSS * DP H	KW&V \ HDSS J V	LQ R# \ HDSS J V	@MDOEXO
<HAW* DP H\WGLR	KW&V Z Z Z HAW DP H/QHW	LQ R# \ HAW\WGLR H\QHW	
<LQ <DJU * DP HV	KW&V \ LQ DJU J DP HV	KH@# \ LQ DJU J DP HV	@MDOEXO
<RGR * DP H\WGLR	KW&V Z Z Z RGR DP H\WGLR FRP	FRG\WFW \ RGR DP H\WGLR FRP	@MDOEXO
\XP \ LR	KW&V \ XP \ LR		
<X\ XVR * DP HV	KW&V Z Z Z X\ XVR DP HV/FRP	LQ R# \ X\ XVR DP HV/FRP	@MDOEXO
=DEDURQ * DP HV	KW&V Z Z Z DEDURQ DP HV/FRP] DEDURQ DP HV/ J P D\FRP	@MDOEXO
=HJDQ * DP HV	KW&V] HJDQ DP HV	LQ R#] HJDQ DP HV/	@MDOEXO
=HURXP	KW&V] HURXP FR	LQ R#] HURXP FR	@MDOEXO
=UD * DP HV	KW&V Z Z Z UD DP H\WGLR FRP] UD DP H\WGLR FRP	' HQJ @
=LQN * DP HV	KW&V Z Z Z LQN J DP HV/FRP	LQ R#] LQN J DP HV/FRP	@MDOEXO
= 6X\UYDO* DP HV	KW&V] N J DP HV/FRP		
=RGR (QMURH\DP HQM6\WGLRV	KW&V] RGR WGLR/FRP		@MDOEXO
=XXN* DP HV	Z Z Z] XXN/FRP	KH@#] XXN/FRP	@MDOEXO

ଆଜି କେହାଶିପୁ: ତଥ୍ୟ ଅଦ ଯ / ଶ ଅ: ତିହାଶିପୁ: : ଅମ: ଶ @ ଫିରିଥିଲୁ ତି: PSSM: // ଅବଧାରଣ ଗୋ ଶ୍ୟ କି ଦ୍ୟ ଅଦ
ଅଚିପ: ହୋଲ ଅଳୁଙ୍କ ଥିଲୁ ୨ୟ ହୁ: ମି କିମ୍ବାକିମ୍ବା ଶ୍ୟ ପିରି ଲୁଗୁ: P2S: ଶ @ S: : ମହିମ ମୁଗ ମୁଗ: H2P: / 10Sଶ୍ୟ
ଶ୍ୟ / ଶ ଓ ଶ ଅ: / ୨ୟ ହୁଶିତିହାଶିପୁ: ହୋଲମଦ୍ୟ ଅମ ସ: : ହୁଯି ପିରି / ୨ୟଦ ଗମୁକାଶ ଶ୍ୟ @ ଅ ହାଶିତ
ଅଦିପ: ହୋଲ ମର୍ଦଦିପ: : ତି: ଅମ ୨୪ମି ପିରି ଫିରିଥିଲୁଶିପୁ: ଶ୍ୟ / ଶ ଓ ଶ ହାଶିପୁ: ହୋଲ ମି ୨୦ ତି ଦ୍ୟ ଅଦ ଦି ଅଦ
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7KH ,P SRUUDQFH RI ' LUHFW &RP P XQLFDWLRQ Z LMK &RQVXP HW IRUO RUH 3URI LVDEOH * DP HV

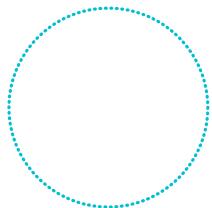
/ HDUQ KRZ DGGIQU D GLUHFWR FRQVXP HUDSSURDFK VR \ RXUGLW\EXWIRQ DQG VDQV FDQ KHS
OMHOXS \ RXUJ DP LQJ EXVLQHW

* RQH DUH VKH GD\ V RI RQH VJ H I LV DOP RQHM\ DMURQ LQ JDP LQJ 7KH JDP LQJ Z RUQ LV
FKDQJ LQJ IDWV DQG Z KDWZ RUNHG \ HWMUGD\ WDG\ IRQDOP DUNHMQJ DQG VDQV P LJ KWQRW
FXWLW\RGD\ 7KDW\ Z KHUH VKH GLUHFWR FRQVXP HU ' & EXVLQHW P RGHOFRP HV LQ ,VV D
JDP H FKDQJ HU DOPZ LQJ \ RX VR FRQQHFWGLUHFWD\ Z LMK S\H HU\ DQG XQORFN QHZ UMHQXH
VHDP V

5 HDG VKL\ DUNFOH DQG \ RX OOXQGHUW\ DQG Z K\ JDP H GHM\ ORSHU\ DUH H\ SCRUIQJ VKL\ GLUHFWR
DSSURDFK DQG DGRSMQJ K\ EUG P RQHM\ DMURQ P RGHO : H\ OGL\ FXW WHQGV LQ P DUNHMQJ
DQG P RQHM\ DMURQ Z K\ JRLQJ EH\ RQG VKH XVXDOWN\ D\ H\ LVQBN\ XWRS\ VRQDOE\ XWHM\ HQMD\ O
Z KDW & LV DQG KRZ \ RX FDQ XVH \NFRQ\ LGHQW\ DQG P DJLP LQ H LV\ LP SDFWRQ\ RXUJ DP LQJ
EXVLQHW

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7KH JDP LQJ P DUNHML\ERRP LQJ IURP . E\ORQ LQ VR E\ORQ VRGD\ \$ QG LV\ QRW
VRZ LQJ GRZ Q ([SHFLW\ WR UHD\K\ . E\ORQ E\ Z LMK S\H HU\ JURZ LQJ IURP
P LORQ VR E\ORQ %XW\KDW\ QRWD\ * DP HU\ DUH VSHQGLQJ P RUH VRR Z LMK DYH\DU\H
UMHQXH SHUXVHUXP SLQJ LQ NXW\KL\ SDW\ HDU



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7KH ,P SRUUDQFH RI ' LUHFW &RP P XQLFDWLRQ Z LK &RQVXP HW IRUO RUH 3URI LVDEOH * DP HV

: KDW/GULQJ VKLV JURZ LK DQG Z KDW/QH WRUVHQJ LQ VKLV G QDP LF P DUNHW

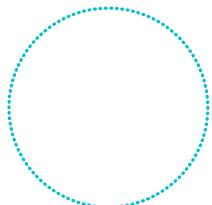
7KLV P DWLYH VKLWV WDOUHKDSLQJ KRZ JDP HV DUH VRQ EXWEDLFDO VKH P LGGOIP DQ LV
IDGLQJ ' HYHORSHU/ DUH VDNLQJ FRQMIRODQG IRUJ LQJ GLHFWFRQQHFWRQV Z LK SODA HV ,Q VKH
SDWWKHUH KDV DQZ DV EHHQ D UMHQHUEHV HHQ GHYHORSHU/ DQG VKHLUSODA HV 6R Z KI KDV
VKLVXVXDOMAHS EHHQ FKDQJ LQJ UHFHQW

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7KLQN RI JDP H SØMRUP V ONH FURZ GHG VKRSSLQJ P DQY : KIØI FRQYHQHQWDQG DØHDG
HMDEØKHG Z LK D GHDXOWKRSSLQJ DXGLHQFH VKH WDOOP LWZ KR VHVV RXUJ DP H 7KH
XVXDOO VDQJ HWSHFLWL P DUNHW DQG FDQ P DNH LWKDLGHUJURUSHRSOH VR FRP H DFURW \ RXU
SURGXFW QDMKUDQ

7KH DOR KDYH DQP LMG QXP EHURI SDP HQWP HMKRGV J DMNHHSLQJ SRMQLQDOEX\ HUZ KR
GRQWKDH DFFHW VR VKHP \$ QG RI FRXUH VKH Z IØFKDQJH KJK SØMRUP IHHV EHFDXVH
VKH FRP P DQG D ØUJH DXGLHQFH 7KDWDØHDGV VR ORZ HUSURILW P DJLQV RQ VKRVH SØMRUP V
GXH VR VKRVH NLQGV RI ØP LVDMRQV DQG FRW

6R LW QR VXSUHV WKDWGHYHORSHU/ DUH YHQVKLQJ EH RQG VKH P DQZ DQY VHMLQJ XS VKRS LQ
XQH SHFWMG SØFHV 1 RWRQO GRHV WKDWDOZR VKHP VR FDSSXUH VKH P DUNXS VKDMXVXDO
JRHV VR VKLQG SDUW SØMRUP V LQJYHV VKHP EDFN P RUH FRQMIRO



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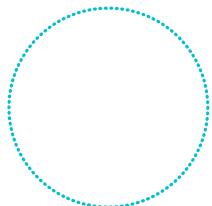
7KH FDQ UHDFK D EIJ J HUDXGLHQFH DQG LP SURYH UHMHQMRQ Z LK ORFDQ HG XHUL SHUHQFH
7KH FDQ KDYH HDW DFFHW DQG RZ QHUKLS VR VKHLU FXWRP HUGDWD VR EHWWUXQGHUWDOG
FXWRP HUEHKDYLRUDQG SUHHUHQFH DORZ LQJ VKHP VR LP SURYH SURGXFW 8\$ P DUNHMQJ
DQG P RUH

' & DOR KHOSVRQVKH XVHUVGH ,WRSHQVXS H[FLWQJ SDWZ D V DQG FKDQQHOV IRUSOH HU/VIR
GLVFYHU QHZ FRQWQWDQG SDI LQ Z D V VKH FKRRVH RXWGH RI DSS WRUHV RU RQ
GLVWEXVRQ SODMRUP V 7KH QXP EHUV SURYH VKLV WHQG LI Z H ORRN DWVKH 6(\$ JDP LQJ
P DUNHUV RI VRVDO JDP LQJ UHMHQXH LV P RELOH JDP LQJ UHMHQXH DQG LV IURP
DOMUQDWYH GLVWEXVRQ FKDQQHO DFFRUGLQJ VR 1 LNR 3DUQHU/UHMHDUFK

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' LUHFWIR FRQVXP HULQVKH JDP HV LQGXWLI LV DZ D RI P DUNHMQJ VHOOQJ DQG GLVWEXVIQJ D
JDP H GLUHFVWIR VR SODHUW DS DUWIRP RULQ DGGVLRQ VR VKLIG SDUW SODMRUP V %J SODHUW/LQ
VKH JDP LQJ VSDFH [NH %Q] DUG 8 ELVRIWDQG (\$ KDYH DOR XHG ' & 7KDWW EHFDXVH VKH
GLUHFVWIR FRQVXP HUP RGHOGRHMWFRP SHM Z LK VKH H[LMIQJ GLVWEXVRQ SODMRUP V LV
FRP SODHQWVKHP

7KH WDGVLVRQDO EXVLQHW VR FRQVXP HU RU % & JDP LQJ EXVLQHW P RGHO KDQGOMV
GLVWEXVRQ DQG VDQHVE\ UHOLQJ RQ P DQJ H[VWDQDOSDUQHUV ,W DQG RWONH \ RXUJ DP H KDV
VR WWDYHOMKURXJK D P D] H RI VKH UHUVRUV DQG GLVWEXVRU/EHIUH UHDFKLQJ \ RXUSODHU <RX
KDQG LVRII \ VR VRP HRQH HOH DWDFK VMS DQG FDQ WDQ D V FRQWRAOKRZ VKH WHDWLRU\ RXU
FXWRP HUW 7KDWP HDQV\ RX KDYH OMWSRZ HURYHUVLQJ V [NH SUIFLQJ FXWRP HUW HUWDFK DQG
KRZ \ RXUEUDQG LV SUHHQMG ,Q VKLQJ VKDWFDO DQG DNH LWDUGHU\ RX VR P D] LP IJ H\ RXU
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<RX JDQ P RUH FRQWROHYHU VH HQLJH SURFWH Z LK D GLHFWLR FRQVXP HU DSSURDFK ,W
ONH VHQDQ \ RXUJ DP H GLHFW\ IURP \ RXURZ Q VKRS <RX UH LQ FKDQH RI HYHU VKLQJ IURP
SURGXFVGHM\ Q VR FXWRP HU VXSRRUW <RX FDQ VDLRU VH H[SHUHQFH VR \ RXU VSHFLF
DXGLHQFH J HQHDMQJ P RUH P RQH DQG EXLQGLQJ D WMRQJ HU UHOMRQKLS Z LK \ RXU
FXWRP HU

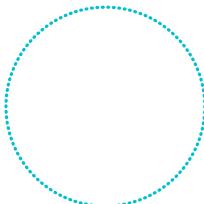
,Q VKRUW' & LV ONH KDMQJ \ RXURZ Q WRUH Z KLOI WDGLVRQDO% & LV ONH UHMQJ D VKHO LQ
VRP HRQH HOMHV \$ QG DFFRUGLQJ VR LQGXW\ GDWD S\A HUV DFVXDO Z DQWGLHFV\ QMUDFWRQ
Z LK VH VHOIU RI FRQVXP HU SUHIHUV SXUFKDH GLHFW\ IURP VH EUDQGV VH . W\KWW

6R KRZ GR\ RX LP S\H P HQW & LQ\ \ RXUJ DP LQJ EXVLQHW'

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/ ðøµ2 . 2 VHU VKDQ FUHGLWDQG GHE\WFDUGV D\QDQMH SD\ P HQWP HM\RGV \$ 30
FRQW\XW\ D VJ Q\LFQWSRU\LRQ RI VH J\REDO\SD\ P HQW \QGVFD\SH P RUH VKDQ ,Q
DGG\VRQ VH DYHUDJ H VFNHM\ H RI DQ \$ 30 WDQVDF\LRQ LV XS VR KUJ KHVKDQ VKDW\RI
FUHGLWDUGV RU3 D\ 3 DQ\ VH 8 6 &DQGD - DSDQ 6 RXV\ . RUHD VH 8 QLW\G . LQJ GRP DQG
7XUNH

0 : P2µ o P2 ÐŠý µ æ / 2 H\§H\@ ŠD\æ: H Í2SP@.) UD\GWMU\ WMDOP RUH VKDQ IXW
P RQH VH WMDOP RXUJ RRG UHSV\W\LRQ 7KDW/Z KV SURW\W\QJ \ RXUS\W\HUV DQG EUDQG
IURP IUDXG LV FUHGLWDUGV JRRG DQW\IUDXG VRQW\LRQ XVHV LQ J DP H SDW\W\QV DQG DGYDQFHG
DJ RUW\K P V VR LGHQW\ VVSLFLRXV DFV\W\W E\RFN IDNH SXUFKDH DQG FXWRII UHSDW
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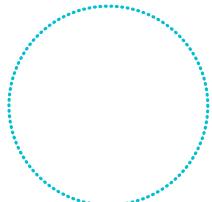
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7KH ,P SRUUDQFH RI ' LUFHW &RP P XQLFDWLRQ Z LMK &RQVXP HW IRUO RUH 3URI LVDEOH* DP HV

w μμHö §Šö § ſy / öš ſm Š ® Hšn 2µ1Päµy µ H . ,P DJ LQH VHOOQJ \ RXUJ DP H DFURW FRXQWILHV ,WRXQGV J UHDW%XWGLI HUHQWFRXQWILHV KDYH VKHLURZ Q UXOH <RX QHHG VR IRQHZ VKHP VR DYRLG WRXE OH 7KLQN RI LWDNH OHDLQLQJ VKH OFRDOOQJ XDJH EXWMKDW OFQJ XDJH FRQMLW RI OFRDOQJ OFZ V JDP LQJ UHJ XOMRQV OH VSHQGLQJ RU SOWIP H OFQJ LWDQG SDAP HQWLHJ XOMRQV/VXFK DV3&, ' 66 36' LQ (XURSH DQG 5% LQ ,QGLD



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7KDW D IDQFA Z D\ VR VD\ VKLQN DERXW RXU FXWWRP HUV H\ SHUHQFH 7R VKLQ \ RXU SOWIP HUWLQMR GR DCDQVZ KR IXHO RXUJ DP HVJURZ VK \ RX QHHG VR GR DTHZ VKLQV * HW VKH EDVLFV LJKWE\ HQVXUIQJ VHFXUH SDAP HQWDQG OHU DOFRP SODQFH &XWWRP qH\ RXU FKHFNRXWWR P DMFK \ RXUEUDQG DQG RSHUDW VP RRVKQ O DNH VKH 8 , SUHW Z LMK JRRG SURGXFWYLXDOV DQG OFRDOQJ DMFRQ 7DQ\ VR \ RXU SOWIP HUV Z LMK LQ JDP H P HWDJ HV RU EDQQHUV DQG VKDUH RIHVU DQG XSGDMW VR EXLOG XS \ RXU GLUHFWRUHOMRQKLS Z LMK VKHP 5 HP HP EHUKDSSV SOWIP HU/EHFRP H GR DOFXWWRP HUV

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§ Š2H µ2i äö Š ſy µ2\$0Š H ï 2µ§ 28. 8 VLQJ DQ DQOLQ RQH VRQWLRQ VKDWFDO J XLGH \ RX VKURXJK DQOMKH FRP SOTI LWHVRI J GREDOSDAP HQW VD\ HV DQG FRP SODQFH Z LQNDYH \ RX WP H DQG P RQH ; VRQWLV D JDP LQJ VSHFLWIF P HUFKDQWRI UHFRUG O R5 VKDWFDO KHS J XLGH \ RX VKURXJK DQOMKHMH FKDQOQJHV DQG VHW RX XS Z LMK D GLUHFWRUHFRQVXP HU P RGHO&KHFN RXWDQOMKH GHMDOQJ RQ KRZ VKH FDQ KHS VHW RX XS IRU' & VXFFHW Z RUQZ LGH

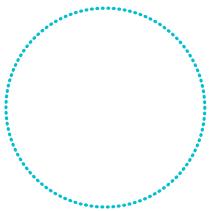


,QYHWP HQWBURFHMHVIRU (DUO 6VJDJH 6WXGLRV

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: H3ØA + XE \$ FFHQUDMRU 3URJ UDP LV D Z HHN SURJ UDP DLP HG DW GHMHORSLQJ DQG SUHSULQJ HDUO WDUH JDP H WXGLRVIRUWKH LQYHWP HQW SURFW 7DJH HMQJ JDP H WXGLRV LQ (XURSH & HQMDOS VD DQG 7XUNH WKH SURJ UDP DLP VVR LQFUDHV WKH FKDQFH RI VXFFHWIRUSDUFLSDQWWXGLRV RQ DJREDOMFDQH 7KH SURJ UDP RI HUVVJ QLQFDQWVXSSRUWQ DUHDVVFK DV WUDMUIF FRQVXQIQLQJ EXIQLQJ LQGXWV QHZ RUNV VFQKQLFDQWVXSSRUWDQG ILQDQFLDO UHVRXUFHV 3DUFLSDQW UHFHLYH WDLQLQJ LQ DUHDV VFK DV EXVLQHW SØQ GHMHORSP HQW ILQDQFH ØZ VMDP VWFKFWUH DQG ØIDGHUWLIS Z KLOI DOR KDYLQJ WKH RSSRUWXQLW VR UHFHLYH RQH RQ RQH P HQMRUIQLQJ IURP H[SHUHQFHG SURIHWMRQDØ

6WXGLRV DWYDURXV WDUH HV RI GHMHORSP HQW IURP WKH LQWDO WDUH VR DGYDQFHG ØYHQ FDQ DSSØ VR WKH SURJ UDP ' XULQJ WKH DSSQFDMRQ SURFW SURMFW DQG EXVLQHW SØQV DUH VWRURXJK Ø UHMLZ HG . H UHTXLWH HQW LQFOXGH D VMDP VJH RI DWQDWIRXUP HP EHUV DQG DQ DGYDQFHG ØYHORI (QJØK SURMFWHQF\ (YDQFDMRQ LV EDWHG RQ IDFMRUV VFK DV VMDP FRP SHMIFQF SURMFWWDXV ØYHO RI LQQRYDMRQ DQG FRP P HUFLDOSRWHQMDO



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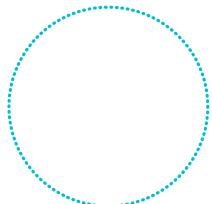
,QYHWP HQWBURFHWHVIRU (DUO 6VWDJH 6WXGLRV

: H3ΩA + XE VXSSRUWVKH LQQRYDWH GHYHORSP HQWRI JDP H WXGLRV HQFRP SDWLQJ
DZ LGH UDQJH RI FDWUDU RUIHVZ LVIKLQ VKH JDP LQJ HFRV WMP 7KH SURJ UDP IRFXVHV QRW
RQO RQ WUDGLWRQDOSOMRUP V VXFK DV P RELOI 3& DQG FRQVRQI JDP HV EXWDOR
LQFOXGHV DXJP HQWIG DQG YLUJXDO UHDOW \$ 5 95 WUDFKQRQJLHV \$ GGLWRQDΩ VKH
SURJ UDP VXSSRUWVKH GHYHORSP HQWRI JDP HV EDVHG RQ %OFNFKDLQ DQG : HE
LQFRUSRUDMΩQ VKH OMWWWWHQVILQ VKH JDP LQJ Z RUQ

7KH SURJ UDP ØWWIRUVKUHH P RQMVV DQG LQFOXGHV RYHU KRXU RI WDLQLQJ 7KH
FRQMMQWFRYHV DZ LGH UDQJH RI VRSLFV IURP TLQDFIDOWUDMU LHV VR EXVLQHW P RGHO
GHYHORSP HQW LQYHWP HQW P DQDJ HP HQW VR WUDMULF SØQQLQJ 9HQWVUHV VKDW
VXFFHWXΩ FRP SØMM VKH SURJ UDP KDYH VKH RSSRUWXQLW VR UHFHLYH LQYHWP HQW
IURP : H3ΩA 9HQWVUHV DWMUSUHMQJ VKHLUSURMFWDWVKH' HP RGDA HYHQW

\$ VDJDREODFFFHQIUDMRU : H3ΩA + XE KDV KRWIG JDP H WXGLRV IURP GLIIHUHQW
FRXQWVH DQG DFKUHYHG VJQLIQFDQWVXFFHWV) XVLVH SØQQV LQYRQH H[SDQGLQJ VKH
SURJ UDP VR KRVWRYHU WXGLRV DQG EXLQGLQJ DQ HFRV WMP VKURXJK : H3ΩA + XE
VKDWHQVUHV FRQMQXRXV LQMLUDFWRQ EHM HHQ WXGLRV P HQWVU DQG RXUWDP 2 XU
JRDOLV VR FRQWUDQVLP SURYH RXULQQRYDWH P HMKRGV DQG VXSSRUWFRQWEXW VR
VKH G QDP LF RI VKH JDP LQJ HFRV WMP DQG VXSSRUWVKH ØMIQJ VXFFHW RI YHQWVUHV

7RDSSØ VR VKH SURJ UDP \RX FDQ FRQWDFWXV RUYLVWVKH : H3ΩA + XE Z HEVWV IRU
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TWITCH

	FOLLOWERS	FOLLOWERS GAINED	VIEWING TIME (HOURLY)	AVG. VIEWS	MAX. VIEWS	STREAM TIME (HOURLY)
#1 ELRAENN	4.47M	745K	12.8M	28.045	110.428	459
#2 WTCN	2.92M	121K	9.3M	9.865	119.384	947
#3 KENDİNEMÜZİSYEN	2.59M	107K	3.2M	10.598	71.983	306
#4 JAHREIN	1.9M	177K	19.5M	13.864	147.761	1.407
#5 MITHRAIN	1.7M	33K	3.1M	2.386	12.957	1.334
#6 RRAENEE	1.13M	472K	6.1M	8.839	25.728	692
#7 ERAY	1.05M	308K	13M	9.646	33.855	1.350
#8 TOLUNAYOREN	914K	278K	3.09M	3.104	26.037	997
#9 RIOTGAMESTURKISH	849K	17K	2.3M	2.941	16.072	783
#10 LEVO	839K	73K	6.3M	2.773	46.921	2.271

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TWITCH

	FOLLOWERS	FOLLOWERS GAINED	VIEWING TIME (HOURLY)	AVG. VIEWS	MAX. VIEWS	STREAM TIME (HOURLY)
#11 HYPE	785K	188K	14.3M	13.232	83.333	1.081
#12 EBONIVON	610K	279K	2.5M	3.023	10.932	816
#13 VALORANT_TUR	503K	48K	3.1M	2.808	59.413	1.105
#14 PURPLEBIXI	477K	185K	10.4M	13.863	285.246	754
#15 HOLYPHOENIX	317K	27K	2.6M	1.654	5.670	1.621
#16 ATADOGANN	258K	207K	3.1M	3.959	23.128	790
#17 CASINOSAKULTAH	206K	191K	6.2M	3.475	22.528	1.789
#18 HASKOLOGLU	180K	62K	2.6M	4.563	29.764	579
#19 HTALKS	150K	74K	2.3M	3.319	18.634	702
#20 CAVS	105K	89K	3.4M	2.966	33.294	1.144

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YOUTUBE

	SUBSCRIBERS	TOTAL VIEWS	NUMBER OF VIDEOS	Avg. Video Views	Views of Most Popular Video
#1 BETER BÖCÜK	43.2M	25.71B	3.75K	301.38K	12,633,424
#2 NETD MÜZİK	24.8M	58.58B	24.57K	5.42K	564,048,261
#3 ENES BATUR	16.1M	9.9B	1.9K	4.06M	166,337,517
#4 OYUNCAK AVI	15.2M	8.11B	537	5.82K	893,863,951
#5 CZN BURAK	14.4M	5.96B	502	3.09M	368,485,594
#6 ATV	11.9M	7.93B	27.05K	20.9K	154,806,568
#7 OYUNCAKOYNUYORUM	11.5M	11.23B	954	286.49K	1,060,130,534
#8 ORKUN İŞİTMAK	10.8M	3.7B	1.7K	1.06M	44,438,973
#9 MAŞA İLE KOCA AYI	9.71M	5.66B	1.15K	291.5K	267,824,816
#10 DELİ Mİ NE?	9.18M	2.28B	370	2.32M	29,741,118

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YOUTUBE

	SUBSCRIBERS	TOTAL VIEWS	NUMBER OF VIDEOS	Avg. Video Views	Views of Most Popular Video
#11 SEVİMLİ DOSTLAR	9.03M	10.23B	1.17K	199.81K	435,654,905
#12 KURULUŞ OSMAN	8.62M	4.51B	7.63K	194.28K	32,295,871
#13 KANALD	8.3M	8.61B	32.82K	6.74K	172,775,454
#14 GÜLTEKİN AİLESİ	8.29M	7.18B	25.28K	427.97K	138,406,606
#15 KAFALAR	7.94M	2.48B	837	373.33K	18,787,881
#16 RUHİ ÇENET	7.91M	1.3B	421	2.82M	24,614,046
#17 KARADENİZLİ MACERACI	7.44M	2.81B	158	19.23M	319,644,136
#18 ZUUKS GAMES	7.29M	95.88M	69	1.68M	13,329,599
#19 ÇUKUR	6.75M	7.37B	4.45K	12.95K	130,480,099
#20 AFACANTV	6.67M	4.79B	406	503.68K	492,936,078

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INSTAGRAM

FOLLOWERS

#1	TUĞCAN "ELRAENN" GÖNÜLTAŞ	2.6M
#2	PQUEEN	1.2M
#3	BARIŞ CAN	1.1M
#4	ELANUR	958K
#5	KENDİNE MÜZİSYEN	812K
#6	ATABERK DOĞAN	808K
#7	WTCN	805K
#8	TUGAY GÖK	778K
#9	MEZARCI	751K
#10	DOCH	699K

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INSTAGRAM

FOLLOWERS

#11 MERVAN	680K
#12 RRAAENE	674K
#13 SESE GEL	637K
#14 DUYGU KÖSEOĞLU	629K
#15 MERTCAN BAHAR	614K
#16 HZ YASUO	608K
#17 EMRECAN ÖNAL	566K
#18 UNLOST	561K
#19 BATURAY ANAR	549K
#20 MIAFITZ	540K

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- %5 4 / LQN ~ GHP H + l P HVØHL \$
- (I l ~ GHP H + l P HVØHL \$
- (OHNVH (OHNWRQLN 3 DLD YH ~ GHP H . XUXOX X \$
-) DWKUDNRP ~ GHP H + l P HVØHL \$
- * OREDO ~ GHP H + l P HVØHL \$
- * , QGHU\$ O ~ GHP H + l P HVØHL \$
- ä VH 3 D\ ~ GHP H . XUXOX X \$
- . ORQ ~ GHP H . XUXOX X \$
- / LGLR ~ GHP H + l P HVØHL \$
- 0 RQH\ * LDP 7XUNH\ ~ GHP H + l P HVØHL \$
- 0 \ SD\] ~ GHP H . XUXOX X \$
- 2 FWHW(SUHW ~ GHP H . XUXOX X \$

- ~ GHDO ~ GHP H . XUXOX X \$
- 3 DLDJ LDP ~ GHP H . XUXOX X \$
- 3 DLDWIND ~ GHP H + l P HVØHL \$
- 3 D\) l (OHNWRQLN 3 DLD YH ~ GHP H + l P HVØHL \$
- 3 D\ QHW ~ GHP H + l P HVØHL \$
- 5 LD 7XUNH ~ GHP H . XUXOX X \$
- 6 HQGHU ~ GHP H + l P HVØHL \$
- 6 XQGXV (OHNWRQLN 3 DLD YH ~ GHP H . XUXOX X \$
- 7LHQG ~ GHP H . XUXOX X \$
- 7LRQDSD ~ GHP H + l P HVØHL \$
- 75326 ~ GHP H . XUXOX X \$
- 9 H] QH 7DKVLQDW6LW\HP ØHL YH ~ GHP H + l P HVØHL \$
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- %HØLP (OHNWRQLN 3 DUD YH ~ GHP H + l] P HVØHL \$
- %LØH LN ~ GHP H + l] P HVØHL YH (OHNWRQLN 3 DUD \$
- %31 ~ GHP H YH (OHNWRQLN 3 DUD + l] P HVØHL \$
- &HP HWI (OHNWRQLN 3 DUD YH ~ GHP H + l] P HVØHL \$
- &HR ~ GHP H YH (OHNWRQLN 3 DUD . XUXOX X \$
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- ' LQDP LN (OHNWRQLN 3 DUD YH ~ GHP H + l] P HVØHL \$
- ' JSDD ~ GHP H YH (OHNWRQLN 3 DUD . XUXOX X \$
- ' 60 ~ GHP H YH (OHNWRQLN 3 DUD + l] P HVØHL \$

- (USD ~ GHP H + l] P HVØHL YH (OHNWRQLN 3 DUD \$
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- 0 RQH\ RXW(OHNWRQLN 3 DUD YH ~ GHP H + l] P HVØHL \$
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- 3 DLRO\ S DLD (OHNWRQLN 3 DLD YH ~ GHP H + l] P HVØHL \$
- 3 DV EXØØ~ GHP H + l] P HVØHL YH (OHNWRQLN 3 DLD \$
- 3 DV FR (OHNWRQLN 3 DLD YH ~ GHP H + l] P HVØHL \$
- 3 DV SRØH ~ GHP H + l] P HVØHL YH (OHNWRQLN 3 DLD \$
- 3 DV SRUHØ~ GHP H + l] P HVØHL YH (OHNWRQLN 3 DLD \$
- 3 DV W~ GHP H YH (OHNWRQLN 3 DLD . XUKOX X \$
- 3 LDW\N ã ØHP ~ GHP H YH (OHNWRQLN 3 DLD \$

- 5 XE LN (OHNWRQLN 3 DLD YH ~ GHP H + l] P HVØHL \$
- 6 LSD\ (OHNWRQLN 3 DLD YH ~ GHP H + l] P HVØHL \$
- 7 R NHQ ~ GHP H + l] P HVØHL YH (OHNWRQLN 3 DLD \$
- 7 RP 3 DV (OHNWRQLN 3 DLD YH ~ GHP H + l] P HVØHL \$
- 77 ~ GHP H YH (OHNWRQLN 3 DLD + l] P HVØHL \$
- 770 (OHNWRQLN 3 DLD YH ~ GHP H + l] P HVØHL \$
- 7XUN (OHNWRQLN 3 DLD \$
- 7XUNFHØØ~ GHP H YH (OHNWRQLN 3 DLD + l] P HVØHL \$
- 7XUNRQD\ (OHNWRQLN 3 DLD YH ~ GHP H + l] P HVØHL \$
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- 9 DN\ (OHNWRQLN 3 DLD YH ~ GHP H + l] P HVØHL \$
- 9 HS DLD (OHNWRQLN 3 DLD YH ~ GHP H + l] P HVØHL \$
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- 72 * (' 7XUNLVK \$ WRFLDWRQ RI

* DP H ' HYHORSHUV b

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- 72 * (' 7XUNLVK \$ WRFLDWRQ RI

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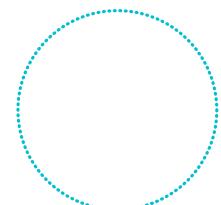
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: H @IWDQRVKHU\ HDU EHKLQG 7KH J DP LQJ LQGXW\ LQ 7341\ H FRQMQXHV DMIXO\SHHG Z LMK LQYHMP HQW QHZ V J DP HV FRP LQJ RXW DQG QHZ LQIWDV\HV : LMK DCOV\KLV I\QGLQJ DQG UHM\QGLQJ TXDOLHG KXP DQ UHMRXUFHV KDVEHFRP H D J URZ LQJ QHHG (P S@R HH UHMQM\QHV LV/D VHS DUDM\ LVXH EXWLQGLQJ VKH L\J KWDQG ORDGHG KXP DQ UHMRXUFHV UHTXLWHV DQ HQRUP RXV DP RXQWRI W\H DQG VKHUIRH FDVK 1 RZ DGD\ V Z KHQ Z H IRFXV ILQD\ RQ GHYH\RS\QJ FDVX DODQG 3& RUHYHQ FRQVRQ\ J DP HV VKHUI DUH QRWP DQ. GHYH\RS\HUV D\W\W DQG GHM\QHUV Z KR FDQ GR Z KDW\K\H VD\ VKH FDQ GR 7KH K\ SHUFD\XDOZ LQG QRWRQ\ FUHD\W G D J UHD\W RP HQ\W\K EXWDOR @IWXFK D @U DF\ 2 I FRXUH VKLV/LV QRWM\K\H RQ\ UHDVRQ 7KH \OFN RI DGHT XDM\ DQG SURSHUHGXFDM\QD\QI UD\W\K FVXUHV D\OR VKRZ V\W\H\Q LQ VKLV FLUFX\OMRQ

/ DM\ HDU QHZ GL\ W\DOJ DP H GHM\Q GHSDU\W HQW Z HUH RSHQHG RUW\HG VR EH RSHQHG Z H P HMZ LMK VRP H RI RXUYD\XDE\I SURIHW\RV DJ DLQ : H VD\NH DERXWKRZ VKH FRX\G FUHD\W D SURJ UDP Z LMK VKH P HDQV DW KDW\G Z H W\H\G VR KH\ VKHP Z LMK VKHL\WDFKHUQHHGV EXWLQDNO Z H FRX\Q\WGR P XFK %HFDXVH L\W\ YHU GL\W\FX\W\RU\W\XFK LQIWDM\H\W\VKDW\GR QRWFDM\K XS Z LMK VKH GDA W\WFKQRQ\J DQG VKHG\W\VR SURJ U\W\ ,W\ GL\W\Q\W\Q\ QRWZ RUNLQJ VR VKLQ\N VKDW\H FDQ M\W\Q E\QG DQG SDM\K XS VKH GH\FLW\OM\U \$ P DM\W S\Q\Q LV QHFHW\DU P XFK HDU\H\U ,W\H\HP V VKDW\K\U Z LQ\Q\W\EH VRQHG LQ W\H E\ Z DM\Q\J TRU YDURXV DFDGHP LF SURFHGXUHV) LQGLQJ \OFVXUHV Z LMK VKH DSSURSUDM\ 3K' GHU UH\ DGHT XDM\ \$/(6 VFRUH DS\W\XGH\IRUSUDF\W\DCFRXUHV HM\ LV/D Y\FLRXV FLU\FO\ DM\K\H P RP HQW

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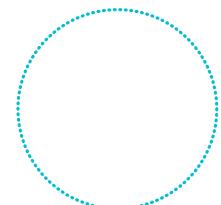
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7KMH SURIHMIRQDO DFDGHP LFV QHHG VIR IRQOZ VKH FRQWIDQWORZ RI GDM DQG H[SHUHQFH FRP LQJ TURP
VKH LQFXEDMRQ FHQMUV DQG XSGDMA VKHLUFRXUHV DFFRUGLQJ Q 6SHDNLQJ RI Z KIFK UU VKHUH LV VRP HMKLQJ
P XFK P RUH LP SRUWQWMDWJ DP H DFDGHP LFV VKRXQ GR LALVVR SDA J DP HV < RX QHHG VIR H[SHUHQFH VKLV
IIHC LQ D YHU YHUDM DZ D LQ RUGHUVR WDFK LW7KLV/LV/HMHQMDMR EH LQ VI QF Z LK ERWK VKH LQGXWII DQG
VKH WXGHQW\$ OR Z H VKRXQ QRWBRN DWHGXFDMRQ DQG VKH LQGXWII RQO DV VKH HQMUVLQP HQWLQGXWII
Z H FDQQRWVH SHFWHYHU SHURQ WLQHOG LQ VKLV IIHC VR Z RUN LQ SURGXFWRQ : H VKRXQ DOR FRQMLGHU
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RI OWM HDU , VKLQN VKLV P RP HQWXP Z LOO DOR WUJ HU HGXFDMRQ LQ D J RRG GLUHFVWRQ EHFDVXH J RRG
SURMFVW DUH RQO SRWEFOZ LK WMDP VVKDWKDYH VKH UU KWHTXLSQ HQWDQG H[SHUHQFH 7KLV/WP H , Z DQMG
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\$ UNQ 8 QLYHULW RI & UHDVH \$ UNV DQG ' HMJ Q	751 &	%DFKHORU) DFXOV RI & RP P XQLFDMRQ	' LJLVD' DP H' HMJ Q (QJOK 3DG
\$ UNQ 8 QLYHULW RI & UHDVH \$ UNV DQG ' HMJ Q	751 &	%DFKHORU) DFXOV RI & RP P XQLFDMRQ	' LJLVD' DP H' HMJ Q (QJOK 6FKRDUKLS
\$ UNQ 8 QLYHULW RI & UHDVH \$ UNV DQG ' HMJ Q	751 &	%DFKHORU) DFXOV RI & RP P XQLFDMRQ	' LJLVD' DP H' HMJ Q (QJOK 2II
%DKGH HKLU8 QLYHULW) RXQGDMRQ	%DFKHORU) DFXOV RI & RP P XQLFDMRQ	' LJLVD' DP H' HMJ Q (QJOK 3DG
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amDQEZO/H NHQMB QLYHULW) RXQGDMRQ	%DFKHORU) DFXOV RI & RP P XQLFDMRQ	' LJLVD' DP H' HMJ Q 6FKRDUKLS
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(DWMLQ 0 HGIVMUDQHDQ 8 QLYHULW	751 &	%DFKHORU) DFXOV RI & RP P XQLFDMRQ	' LJLVD' DP H' HMJ Q (QJOK 3DG
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0 XÙΦ6aMä. RCP DQ 8 QLYHULW	6VDM	%DFKHGRU	%RGUP) DFXOV RI) LQH \$ UW	' W LWDÖ DP H' HMJQ
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ãMĐQEXO1 L DQMD å8 QLYHULW) RXQGDMRQ	%DFKHGRU) DFXOV RI \$ UNDQG' HMJQ	' W LWDÖ DP H' HMJQ 6FKRØUKLS



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. DKUDP DQP DUD amNDQ8 QLYHULW	6VDM	%DFKHöRU	(QJ LOHHUQJ \$ UFKLUMFVXUH DCG' HMJ Q	' LJLWDÖ DP H' HMJ Q
+ DQD8 QLYHULW) RXQGDMRQ	%DFKHöRU) DFXÖV RI) LOH \$ UW	' LJLWDÖ DP H' HMJ Q 6FKRÖÜKLS
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+ DVDQ . DÖRQFX 8 QLYHULW) RXQGDMRQ	%DFKHöRU) DFXÖV RI & RP P XQLFDMRQ	' LJLWDÖ DP H' HMJ Q 3 DLG
+ DVDQ . DÖRQFX 8 QLYHULW) RXQGDMRQ	%DFKHöRU) DFXÖV RI & RP P XQLFDMRQ	' LJLWDÖ DP H' HMJ Q 2 II
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/ HNH \$ YUKSD 8 QLYHULW	751 &	%DFKHØU) DFXOV RI &RP P XQLFDMRQ 6FLHQFHV	' LJLWD' DP H' HMJQ (QJØK 2 II
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8 ØVØUDUÐA. ÆU/8 QLYHULW	751 &	%DFKHØU) DFXOV RI &RP P XQLFDMRQ	' LJLWD' DP H' HMJQ (QJØK 2 II
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%DKCH HKLW8 QLYHULW) RXQGDMRQ	0 DMWU	,QWIMXWM RI (GXFDMRQ	* DP H' HMJQ (QJØK 7KHMV
%DKCH HKLW8 QLYHULW) RXQGDMRQ	0 DMWU	,QWIMXWM RI (GXFDMRQ	* DP H' HY 7HFKQRØJLHV 7XUNLK : LMKRXW/KHMV
%DKCH HKLW8 QLYHULW) RXQGDMRQ	0 DMWU	,QWIMXWM RI (GXFDMRQ	* DP H' HY 7HFKQRØJLHV 7XUNLK : LMKRXW/KHMV
+ DFHWASH 8 QLYHULW	6VDMH	0 DMWU	,QIRUP DMFV, QWIMXWM	&RP SXWMS QLP DMRQ DQG * DP H 7HFK 7KHMV
+ DFHWASH 8 QLYHULW	6VDMH	0 DMWU	,QIRUP DMFV, QWIMXWM	&RP S \$ QLP DMRQ DQG * DP H 7HFK : LMKRXW/KHMV
aWQEXO7HNQIN 8 QLYHULW ÆZ	6VDMH	0 DMWU	,QWIMXWM RI (GXFDMRQ	* DP H DQG ,QMLUDFWRQ 7HFK : LMK 7KHMV
0 XÜØ 6AM. RCP DQ 8 QLYHULW	6VDMH	0 DMWU	,QWIMXWM RI 6FLHQFH DQG 7HFKQRØJ\	' LJLWD' DP H' HMJQ DQG 7HFK 7KHMV (QJ



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y Šy µ	Ào/ µ	m §ŠHe	J Šy µ I §P:
&HQWURI \$ QLP DMIRQ 7HFKORØJ LH/DQG * DP H' HYHØSP HQW\$720	3UH LQFXEDMRQ &HQWU	\$ QNDUD	<HV
%\$0 %8 ' LJ LWDØ DP H 6VXGLR' 26	\$ FFHØUDMRQ &HQWU	ã P LJ	<HV
,QRUP DMIRQ&RP P HUFIDQJ DMIRQ &HQWU %70	3UH ,QFXEDMRQ ,QFXEDMRQ DQG 3RW, QFXEDMRQ &HQWU	ãMDQEXO	
%8 * / DE 7(. 0 (5	3UH ,QFXEDMRQ DQG ,QFXEDMRQ &HQWU	ãMDQEXO	<HV
&UD] \+ XEVãMDQEXO	\$ FFHØUDMRQ &HQWU	ãMDQEXO	<HV
&XEH %H RÜQX	3UH LQFXEDMRQ &HQWU	ãMDQEXO	
' LJ L* DP H 6VDUWS 6VXGLR	\$ FFHØUDMRQ &HQWU	ã P LJ	<HV
' LJ LWDØ QLP DMIRQ DQG * DP H \$ J J UHJ DM &HQWU ' , * , * (3UH ,QFXEDMRQ DQG ,QFXEDMRQ &HQWU	. RFHDØ	<HV
* DP H &LWFØI	3UH ,QFXEDMRQ DQG ,QFXEDMRQ &HQWU	\$ QNDUD ãMDQEXO	<HV
* DP HQWU	3UH LQFXEDMRQ &HQWU	ãMDQEXO	<HV
* DP H) DFVRU + XE	,QFXEDMRQ &HQWU	2 QDQH	<HV
* DP H HY	\$ FFHØUDMRQ &HQWU	ãMDQEXO	<HV



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y Šy µ	Ào/ µ	m §ŠHe	J Šy µ I §P:
* DP HRJUDSK	\$ FFHØUDMRQ & HQMU	%DQDNNDØ	<HV
* DP HM8 QLMG	\$ FFHØUDMRQ DQG ,QFXEDMRQ & HQMU	ãMDQEXO	<HV
ãMDQEXO DP H (QMHSUHQHXUKLS \$ FDGHP \ LQ 6SDFH	\$ FFHØUDMRQ & HQMU	ãMDQEXO	<HV
. %CANGHNP HPH (QMHSUHQHXUKLS DQG ,QRYDMRQ & HQMU . ž * ã	,QFXEDMRQ & HQMU	ãMDQEXO	
* XLO (QMHSUHQHXUKLS & HQMU	,QFXEDMRQ & HQMU	ãMDQEXO	
R) 2 1	\$ FFHØUDMRQ DQG ,QFXEDMRQ & HQMU	' HQJ Ø	<HV
2 < (0 * DP H' HYHØSP HQW&HQMU	,QFXEDMRQ & HQMU	ä P W	<HV
* DP H' HYHØSP HQW&HQMU 2 * (0	,QFXEDMRQ & HQMU	ãMDQEXO	<HV
67\$57* \$7(\$ FFHØUDMRQ 3UH ,QFXEDMRQ DQG ,QFXEDMRQ & HQMU	ãMDQEXO	<HV
8 GR * DUDJH	\$ FFHØUDMRQ & HQMU	\$ QNDUD	<HV
: RUNKS* DP LQJ	\$ FFHØUDMRQ & HQMU	ãMDQEXO	<HV
<7ž 6VQUNXS + RXVH* DP HM8 3	,QFXEDMRQ & HQMU	ãMDQEXO	<HV



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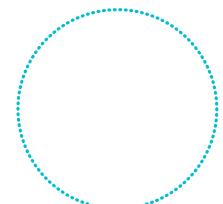
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, Q V K H DFDGHP LF \ HDU ' W L V D O * DP H ' HMJ Q XQGHUJ UDGXDMH SURJ UDP V Z H U H RSHQHG LQ GLI HUHQWXQLYHUVLHV Z K L Q I V R P H J UDGXDMH SURJ UDP V Z H U H F Ø V H G : K H Q Z H Ø R N D W X S V R G D M M Ø W X Q L Y H U V L H V V K D W Z H U H Q R W L Q F Ø G H G L Q V K H 7 X U N H * DP H 6 H F V R U U H S R U W R S H Q H G ' W L V D O * DP H ' HMJ Q XQGHUJ UDGXDMH SURJ UDP V D Q G X Q L Y H U V L H V F Ø V H G V K H I L P D W M U V SURJ UDP V

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. DKUDP DQP DUD åMÑDØ8 QLYHUVW
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8 QXVØUDUDvá. ÆLW/8 QLYHUVW

Ç åµ2 åþ: i åþ: i öæøµ® w Š: Hj22 § 2 Đ2Šy :
, åN 8 QLYHUVW
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0 LGGØI (DW7HFKQLFDØ8 QLYHUVW 0 (78



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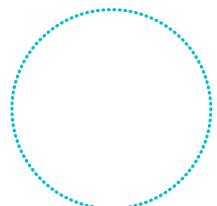
, Q V K H Ç M \ R X Z L Ç O I Q G ' W V M D O * D P H ' H M J Q
E D F K H Ç R U V G H J U H H S U R J U D P V I Q G L I H U H Q W
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I Q G L I H U H Q W F L M H V L Q R X U F R X Q W I 7 K H F L W
Z L M K V K H P R W W * * G H S D U P H Q W L V à M D Q E X O
7 K H F L M H V Z L M K V K H P R W W J D P H G H M J Q
E D F K H Ç R U V D Q G P D M M U V G H J U H H S U R J U D P V
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\$ V \ R X P D I Q R M F H I Q V K H Ç M \ V K H M H
G H S D U P H Q W D U H P R W W D W S U I Y D M A
I R X Q G D M R Q X Q L Y H U M M H V , Q S X E Ç F X Q L Y H U M M H V
V K H U H D U H R Q Q V Z R X Q L Y H U M M H V Z L M K * *
X Q G H J U D G X D M A G H S D U P H Q W

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- . D K U D P D Q P D U D à M I N D O S Q L Y H U M L W

, I \ R X Z D Q W V R V M G I ' * ' D W R Q H R I V K H
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X V X D Q Q V K H U H R S V R Q V S D L G V F K R Q D U K L S D Q G
G L V F R X Q W 6 R P H V F K R R Q D O R R I H U V R P H
R I V K H L U F R X U H V I Q (Q J Ç M K 7 K H U H I R U H V K H A
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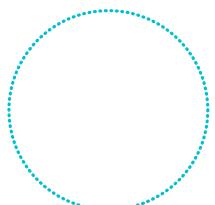
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, I \ RX Z DQWIR GR D P DWWUV GHU UHH VKHUU DUH 7XUNVK (QJ QMK DQG VKHUV QRQ VKHUV RSWRQV , 78 DQG 0 6. 8
RIIURQO VKHUV SURJ UDP V Z KLOI %DKCH HKLUDQG + DFHMWSH DOR RIHUQRQ VKHUV SURJ UDP V

8 QIRUJKQDMQJ JUDGXDMQJ IURP D GHSDUWP HQWUJDMG VR JDP H GHMJ Q GRHV QRWJ XDUDQMH D NRE , WLV P XFK
P RUH LP SRUDQWIR LP SURYH RQHMHD LQ VKLV IIHQZ 21 FRXUH WKG LQJ DWD VFKRRQMDWRIIHW / JRRG HGXFDMRQ LQ
VKLVIIHQZ Z LOEHQHILWQ GLIHTUHQWZ DV : KHQ Z H GRN DWWKH LQFUHDHV LQ VKH QXP EHURI XQLYHUVHVZ LMK * DP H
' HMJ Q GHSDUWP HQW XQIRUJKQDMQZ H VHH VKDWKH TXDQW RI HGXFDMRQ KDV QRWLQFUHDHG DWWKH VDP H UDWA , W
LV GLIIFXOWIR ILQG TXDQWLG SHRSOI VR MDFK LQ VKHMH GHSDUWP HQW 7KUHURU Z KHQ FKRRVLQJ D ' LJ LWD* DP H
' HMJ Q GHSDUWP HQWUVXHIXOIR DOR UHMDFK VKH XQLYHUVHVFXWFXQXP DQG QIFVXUHV

1 RWFRXQMJQ VKH QHZ ' 27 GHSDUWP HQW VR EH RSHQHG LQ VKH IXVXUH P RUH VKDQ ' 27 JUDGXDMVZ LQEH
JUDGXDMG IURP VKHMH XQLYHUVHV LQ \ HDUW 6LQFH VKH EEWK RI VKH JDP H LQGXWII LQ RXUFRXQWII LQGXWII
HP SGR HHV Z HUH WDLQHG DV DSSUHQMFHV 1 RZ DERXW \ HDUW DIVMUVKH VHFVRUZ DV IURP HG LQ 74WHLH Z H
WDLQHG VR VHH ' 27 JUDGXDMV LQ VKH VHFVRU , Q VKH QHDUIXVXUH VKH QXP EHURI HP SGR HHV JUDGXDMQJ IURP
JDP H GHMJ Q GHSDUWP HQW Z LQH FHHG VKH QXP EHURI VKRH Z KR DUH WDLQHG LQ VKH IIHQZ & RP SHMRQ IURREV
Z LQOLQFUHDH \$ V , P HQMRQHG DWWKH EHJ LQQLQJ LNZ LQQRWRQO EH HQRXJK V R JUDGXDMV IURP VKLV GHSDUWP HQW
EXWLVZ LQEH HYDQDMG Z KDW RX DGG VR LW3HRSOI Z KR NHHS XS Z LMK VKH G QDP LF VKFVXUH RI VKH JDP H
LQGXWII GR QRWMDA DZ D IURP QHZ GHMGRSLQJ WIFKQRQJLHV LQWJU UDWA VKHP LQVR VKHLLQHV LI SRWLEOI DQG
DQZ D VWA VR GR EHMMU DQG FRQWDMQD LP SURYH VKHP VHOHV LQ VKLV VHQHV Z LQZ LQ



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• ' WHFVIRQ

• ([HFXWYH

• &RQFH SW

• &LQHP DMFV

• (FRQRP \

• / LYH 2 SHUDVIRQV

• (QYLURQP HQW

• * HQHLDQW

• ,QWUDFVIRQ

• 3 URWIFW 0 DQDJ HP HQW

• 0 RGHO

• 0 RWIRQ &DSVXUH

• / HYHO

• 3 URVIRWSLQJ

• 7HFKQLFD O

• 3 DUWFOH

• 1 DUDWYH

• 3 XEOKLQJ

• 7H[VXUH

• 3 URJ UDP P HU

• 4 XHWV

• 5 HODVH

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• 7HFKQLFD O

• 6\ WMP V

• 0 DQDJ HP HQW

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• 8 ,

• 6VRU ERDUGLQJ

• 8 ;

• 6VXGLR 0 DQDJ HP HQW

• 8 O

• : RUQG

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- %UDQG
- &RP P XQLW
- &RQM/QW
- ' LJ L/D0
- (FRP P HUFH
- ,QIÖHQFHU
- 3XEØF 5 HDMRQV
- 3URGXFW
- 8 VHUS FTXVMRQ
- 6RFLOO HGID

- \$ QDØVLV
- \$ XVRP DM/RQ
- &HULIFDMRQ
- &RP SDMELOW
- &RP SØDQFH
- (QJ LQHHUQJ
- ,QMLUKSW
- / HDG
- / RFDOJ DM/RQ
- 3HURUP DQFH
- 3ØMRUP
- 6' (7
- 6XEP LM/RQ
- 7HMQJ

- &RP SRVMRQ
- ' HMJQ
- ' LHFMRQ
- (QJ LQHHUQJ
- 3URJ UDP P HU
- 4 \$
- 9RIFH

- &LQHP DM/RJ UDSK\
- * DP H&DSWXUH
- * UDSKLIF' HMJQ
- 0 RMRQ * UDSKLIF
- ' HMJQ
- 3RWB3URGXFMRQ
- 9LGHR (GLMQU

- &UHDWYH' LHFVRU
- ' HSDUJP HQW
- 2 SHUDMRQV
- 3URGXFW
- 3URJ UDP
- 3URMIFW
- 6WDMMU\

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- ' HY2 SV
- 1 HVZ RUNLQJ
- 6HFXUW (QJ LQHHUHQJ
- 6\WMP \$ GP LQLWMDMRQ
- 7HFK 6XSSRUW

m0J m

- &RP S0HQFH
- &RXQWHO
- (P S0X P HQW
- / LFHQMQJ
- 0 HUJ HU \$ FTXVLMRQ

(À

- \$ GP LQLWMDMRQ
- \$ QD0VLV
- (QJ LQHHUHQJ
- 6FLHQFH

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- \$ FDGHF LF
- &RQVXP HU
- 0 DUNHW
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- \$ FFRXQW0 DQDJ HP HQW
- \$ G 2 SHUDMRQV
- %XVLQHW' HYHORSP HQW
- % %
- % &
- * DP H 0 RQHM, DMRQ
- 3 DUQHUKLSV
- 5 HYHQXH 6WDMU LW

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- (GLVRU
- - RXUQDDMW
- 3 KRVJ UDSKHU
- 9 LGHRJ UDSKHU

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- %XVLQHW3DUQHU
- &RP SHQVDMRQ %HQHILW
- ' LYHULW ,QFOVLRQ
- (P S0X HU%UDQGLQJ
- + HDOK 6DIHW
- 7UDLQLQJ ' HYHORSP HQW
- 5 HFXUWU

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- &XWRP HU6XSSRUW
- ' HYHORSHU6XSSRUW
- 7HFKQLFD06XSSRUW



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- HYHØSP HQW
- 7HDFKLQJ
- \$ GP LQWWDWYH
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- (HFXVYH \$ WLWÐQW
-) DFLØAHV6XSSRUW
-) URQWRI + RXVH
- 2 IIIFH
- À m0y Å
- \$ J HQW
- \$ QDØW
- &DWMIU
- &RQMÅQW&UHDVIRU
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- ,QWÜYLHZ HU
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- Ç.ÄÅÀbLQWHUQHWFDI HV

0 DQ\ LQWHUQHWFDI HV Z HUH IRUFHG VR FORVH LQ
GXH VR WKH RQJ RLQJ HIIHFVW RI WKH SDQGHP LF FRWW
DQG WD[HV ,Q WKH QXP EHU RI DFVLYH FDI HV
GURSSHG VLJ QJLFDQV\ GXH VR FORVXUHV DQG NRE
FKDQJ HV

- ÆÅÀbLQWHUQHWFDI HV

,Q SULHYLRXV \ HDU\ P DQ\ RI RXU LQWHUQHWFDI HV
Z HUH IRUFHG VR FORVH WKHLU EXVLQHWHV GXH VR
WKH RQJ RLQJ HIIHFVW RI WKH SDQGHP LF FRWW
DQG WD[HV ,Q WKH QXP EHU RI DFVLYH
FDI HV FRQWLQXHG VR GHFQQH GXH VR VLP LQDU
HFRQRP LF FRQGLWRQV DQG EXVLQHW FKDQJ HV

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• Processor	i3	i5	i7	i9	
• Percentage	10%	50%	30%	10%	
• Ram	4 GB	8 GB	16 GB	32 GB	64 GB
• Percentage	2%	40%	40%	10%	8%
• Internet Speed	16 MB	24 MB	32 MB	64 MB	100 MB
• Percentage	0%	0%	20%	20%	60%

• Processor	i3	i5	i7	i9	
• Percentage	10%	50%	30%	10%	
• Ram	4 GB	8 GB	16 GB	32 GB	64 GB
• Percentage	2%	40%	40%	10%	8%
• Internet Speed	64 MB	100 MB	200 MB	300 MB	1000 MB
• Percentage	15%	25%	25%	30%	5%

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- 3HDN+ RXU/
- 3HDN' DV : HHNHGV
- \$ YHJDJH) HH + RXU
- ' DQ \$ YHJDJH 3LQ6DQW 4 W
- \$ YJ) RRG 3D P HQW 3HU/RQ

) 5 ,'	\$ <	681'	\$ <
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- 3HDN+ RXU/
- 3HDN' DV : HHNHGV
- \$ YHJDJH) HH + RXU
- ' DQ \$ YHJDJH 3LQ6DQW 4 W
- \$ YJ) RRG 3D P HQW 3HU/RQ

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- 38%* %\$77/(* 5281' 6 •) UHH) UH
- 6WMDP 2 \XQOOLü • &6 * 2
- / HDJ XH RI / HJ HQGV • * 7\$
- 9\$/25\$17 • &D02I' XW

- 38%* %\$77/(* 5281' 6 •) &
-) RUWOLM • &6 * 2 &6
- / HDJ XH RI / HJ HQGV • * 7\$
- 9\$/25\$17 • &D02I' XW

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\$ GDQDVSRU	(\$) &
\$ QDA	(\$) &
\$ QMDODVSRU	(\$) &
%DANHMLWSRU	(\$) &
%%(J XUP VSRU	(\$) &
%%/ (VSRUW	9\$/25\$17
%H LMD (VSRU	/ HDJ XH RI / HJ HQGV 9\$/25\$17 38%* 0 RELOH (\$) &
0 XP LD (VSRUW	38%* 0 RELOH
%XUDVSRU	(\$) &
%DNXU5J HNSRU	(\$) &



* \$ 0 ,1 * ,1 785 . (< _0 (1 \$ _ (8 * \$ 0 ,1 * \$ 1 ' (632576 \$ * (1 & < * \$ 0 (38 % / ,6 + (5



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' DUN3DWDJH	/ HDJXHRI / HJHQGV 38%* 0 RELÖH
' HQI] EDQN äWIDQEXQ LÖCFDW	/ HDJXHRI / HJHQGV 9\$/25\$17 38%* 0 RELÖH 38%* %\$77/(* 5281' 6 (\$)& : LÖG5LW
' LJLWDOS WKCÖMFV	9\$/25\$17 38%* 0 RELÖH 38%* %\$77/(* 5281' 6
(VNLHKLWSRU(VSRU	(\$)&
(WÄLQDO) LH	&6 * 2 &6 9\$/25\$17 . DGQ
(WÄLQDO) LH \$ FDGHP \	&6 * 2 &6
) HQHUEDKCH(VSRU	9\$/25\$17 38%* 0 RELÖH 38%* %\$77/(* 5281' 6 (\$)&
) LH) Ø[9\$/25\$17 38%* 0 RELÖH
) 87 (VSRUW	9\$/25\$17 38%* 0 RELÖH 38%* %\$77/(* 5281' 6 (\$)& / HDJXHRI / HJHQGV
* DÖÖNMFRV	/ HDJXHRI / HJHQGV 9\$/25\$17 38%* %\$77/(* 5281' 6 (\$)&



* \$ 0 ,1 * ,1 785 . (< _0 (1 \$ _ (8 * \$ 0 ,1 * \$ 1 ' (632576 \$ * (1 & < * \$ 0 (38 % / ,6 + (5



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* DØMDVUDΛ (VSU	38 %* 0 RELØH (\$) &
* DJ LDQMS) .	(\$) &
* HQCQHUEILØUL	(\$) &
* HMR (VSUW	38 %* 0 RELØH
* LWHXQVSU	(\$) &
+ DMΛ VSU	(\$) &
+ 2 : / (VSUW	9\$/25\$17
,QMUDLO(VSU	(\$) &
AMQELEXO%D DN HKLW	(\$) &
AMQELEXOSRU	(\$) &



* \$ 0 ,1 * ,1 785 . (< _0 (1 \$ _ (8 * \$ 0 ,1 * \$ 1 ' (632576 \$ * (1 & < * \$ 0 (38 % / ,6 + (5



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0² § „ ª Å² Å0 w²	J w 0² § m æ0(
. DUJU ¾P UAN(VSRU	(\$) &
. DUå DND(VSRU	(\$) &
. DVÅP SD D	(\$) &
. DA VHULVSRU	(\$) &
. RFDHØASRU	(\$) &
0 DYLGDQFH(VSRUW	38 %* 0 RELØH
0 HØAH(VSRUW	38 %* 0 RELØH
1 \$ 65 (VSRUW	/ HDJ XH RI / HJ HQGV : LØG 5 LIW
1 H[W5 ¾D* DP LQJ	38 %* 0 RELØH
) XU 2] DUR[(VSRUW	38 %* 0 RELØH



* \$ 0 ,1 * ,1 785 . (< _0 (1 \$ _ (8 * \$ 0 ,1 * \$ 1 ' (632576 \$ * (1 & < * \$ 0 (38 % / ,6 + (5



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3DS DUD 6XSHW DWLYH	/ HDJ XH RI / HJ HQGV 9\$/25\$17 38%* 0 RELØH 38%* %\$77/(* 5281' 6 (\$)& 5 RFNHW HDJ XH
3&,) ,& (VS RUW	&6 * 2 &6 9\$/25\$17 . DGäQ / HDJ XH RI / HJ HQGV
5 HJ QXP &DUD	9\$/25\$17 38%* 0 RELØH (\$)&
6 * (VS RUW	38%* 0 RELØH 9\$/25\$17
6DNDU DVSRU	(\$)&
6LYDWSRU	(\$)&
7DP DUD \$0XQJD (VS RU	&6 * 2 &6 9\$/25\$17 9\$/25\$17 . DGäQ
7HDP \$ XURUD	(\$)&
7HDP ' HP WDO	9\$/25\$17
7UDE] RQVS RU	(\$)&



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0² § „ ¸ Á² Á0 w²	J w 0² § m æ0(
<HQL0 DOWDWSRU	(\$) &
<äSRUW6DP VXQVSRU	(\$) &

Çy X 0 a² Xæ0² § „ ¸ Á² Á0 w²	J w 0² § m æ0(
\$ <%8 (VSRU \$ * 0 (VSRU	&6 * 2 &6 9\$/25\$17
%\$8 (VSRUW	+ DGR &6 * 2 &6 9\$/25\$17 / HDJ XH RI / HJ HQGV
%\$81 (VSRUW	9\$/25\$17
%dLKQL(VSRUW	9\$/25\$17



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Çy X 0 ^a 2 Xæ0 ² § „ ^a À ² À0 w ²	J w 0 ² § m æ0(
%78 (\SRU	9\$/25\$17 / HDJ XH RI / HJ HQGV
' 28 (\SRU	9\$/25\$17 / HDJ XH RI / HJ HQGV
* DJL(\SRU	&6 * 2 &6 9\$/25\$17 / HDJ XH RI / HJ HQGV 7 : 105 LLW
+ DFHMMSH (\SRUW	9\$/25\$17 / HDJ XH RI / HJ HQGV
+ %0 (\SRU	&6 * 2 &6 9\$/25\$17 / HDJ XH RI / HJ HQGV
, \$8 (\SRU	9\$/25\$17 / HDJ XH RI / HJ HQGV
, , 8 (\SRU	&6 * 2 &6 9\$/25\$17
,78 (\SRU	9\$/25\$17 / HDJ XH RI / HJ HQGV



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Çy X 0 ^a 2 Xæ0 ² § „ ^a À ² À0 w ²	J w 0 ² § m æ0(
0 \$8 (\VS RUW	9\$/25\$17 / HDJ XH RI / HJ HQGV
0 HGHQD\HW(\VS RU	9\$/25\$17
0 (78 (\VS RUW	9\$/25\$17 / HDJ XH RI / HJ HQGV
1 ,6+ (\VS RU	9\$/25\$17 / HDJ XH RI / HJ HQGV
6HQXN(\VS RUOU	&6 * 2 &6 9\$/25\$17 / HDJ XH RI / HJ HQGV : 105 LLW
7\$82 . (\VS RUW	9\$/25\$17
7(' 8 (\VS RUW	&6 * 2 &6 9\$/25\$17



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TESFED
TÜRKİYE ESPOR FEDERASYONU



7KHUH DUH
ÃÀÈ• QFHQVHG
HVS RUW WHDP V
LQ 7¾UNL H

7KHUH DUH
ÃÀ.ÆÉÂ•
QFHQVHG
HVS RUW SØ\ HUV
LQ 7¾UNL H



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INSTAGRAM

	FOLLOWERS	NUMBER OF CONTENT (ANNUAL)	AVG. POST LIKES	Avg. Post Comment	Avg. Total Engagement	Avg. Engagement Per Post
S2G ESPORTS	264.718	370	8.353	251	8.604	23
GALATASARAY ESPORTS	253.433	256	2.974	26	3.000	12
BEŞİKTAŞ ESPORTS	243.088	202	3.320	34	3.354	17
FUT ESPORTS	156.961	1.505	5.494	84	5.578	4
BBL ESPORTS	104.565	201	5.751	57	5.808	29
ETERNAL FIRE	99.125	144	3.641	42	3.683	26
FENERBAHÇE ESPOR	73.748	225	642	9	651	3
FIRE FLUX ESPORTS	51.128	195	4.738	57	4.796	25
PAPARA SUPERMASSIVE	42.669	394	521	14	535	1
DENİZBANK İSTANBUL WILDCATS	38.887	479	347	9	357	1
PCIFIC ESPORTS	9.139	412	49	10	60	0,14
BAU ESPORTS	5.312	343	325	2	327	1



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YOUTUBE

	SUBSCRIBERS	NUMBER OF VIDEOS (ANNUAL)	Avg. Video Likes	Avg. Video Views	Avg. Video Comment	Avg. Total Engagement	Avg. Engagement per Video
S2G ESPORTS	114.000	60	2.321	40.225	69	42.615	710
ETERNAL FIRE	70.900	156	758	22.900	91	23.749	152
FUT ESPORTS	61.300	85	652	13.680	36	14.369	169
BBL ESPORTS	50.100	75	1.723	31.024	78	32.825	438
FIRE FLUX ESPORTS	34.900	84	386	9.063	27	9.477	113
PAPARA SUPERMASSIVE	34.300	77	440	8.414	40	8.894	116



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TWITTER (X)

	FOLLOWERS	NUMBER OF CONTENT (ANNUAL)	Avg. Post Likes	Avg. Post Comment	Avg. Post Retweet	Avg. Total Engagement	Avg. Engagement per Post
BBL ESPORTS	156.329	943	768	16	24	809	0,86
FENERBAHÇE ESPOR	113.963	284	75	4	3	82	0,29
FUT ESPORTS	97.439	3.331	633	24	24	682	0,20
GALATASARAY ESPORTS	95.166	584	273	10	16	299	0,51
ETERNAL FIRE	90.446	1.398	825	23	13	861	0,62
BEŞİKTAŞ ESPORTS	84.826	303	183	7	7	197	0,65
PAPARA SUPERMASSIVE	66.504	1320	142	10	8	160	0,12
S2G ESPORTS	40.581	671	124	6	5	136	0,20
DENİZBANK İSTANBUL WILDCATS	37.997	677	71	4	3	79	0,12
FIRE FLUX ESPORTS	31.078	542	324	12	8	345	0,64
PACIFIC ESPORTS	6.829	2.134	29	3	2	34	0,02
BAU ESPORTS	1.571	379	10	1	1	12	0,03



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TIKTOK

	FOLLOWERS	NUMBER OF VIDEOS (ANNUAL)	Avg. VIDEO VIEWS	Avg. VIDEO LIKES	Avg. VIDEO COMMENT	Avg. Total Engagement	Avg. Engagement per Video
FUT ESPORTS	234.300	560	131.406	3.286	37	134.728	241
S2G ESPORTS	86.300	117	81.809	5.672	48	87.530	748
BEŞİKTAŞ ESPORTS	43.600	21	146.069	2.769	92	148.930	7.092
GALATASARAY ESPORTS	32.900	50	43.154	2.531	17	45.702	914
FIRE FLUX ESPORTS	32.300	245	84.063	1.485	10	85.557	349
BBL ESPORTS	27.800	49	123.931	5.204	111	129.247	2.638
PAPARA SUPERMASSIVE	15.200	68	68.397	1.262	26	69.685	1.025
DENİZBANK İSTANBUL WILDCATS	7.008	31	17.856	1.167	21	19.044	614
FENERBAHÇE ESPOR	5.588	2	14.863	418	17	15.297	7.649
ETERNAL FIRE	1.002	19	14.138	470	10	14.618	769
BAU ESPORTS	677	34	2.193	23	1	2.216	65



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- \$ QNDUD+HUNHV7HN =XØ7RXUQDP HQW
- %DØNHMLW' * 0),)\$ 7RXUQDP HQW
- %DØNHMLW' * 0 9\$/25\$177RXUQDP HQW
- %D NHQW (VSRU7RXUQDP HQW
- %% (VSRUWYV) 87 (VSRUW VK <HDU6KRZ FDW 0 DMFK
- %/\$' (&6*2 : LQJ P DQ 7RXUQDP HQW
- (6\$ 2 SHQ) LH\$ ØØ6VDUW
- (6\$ 5 HMXUR RI VHK 7LØQV (QG RI VKH & KDRV9\$/25\$177RXUQDP HQW
- (6\$ 5 HMXUR RI VHK 7LØQV) LH9\$/25\$177RXUQDP HQW
- (6\$ 5 HMXUR RI VHK 7LØQV ,FH9\$/25\$177RXUQDP HQW
- (6\$ 5 HMXUR RI VHK 7LØQV 1 DMXUH9\$/25\$177RXUQDP HQW
- (6\$ 5 HMXUR RI VHK 7LØQV 5 DLQ9\$/25\$177RXUQDP HQW
- (6\$ 5 HMXUR RI VHK 7LØQV 7KXQGHU9\$/25\$177RXUQDP HQW
- (6/ &6*2 7XUNH & KDP SIRQMKLS
- (6/ 3UR/HDXUH (WHUQDO) LH YV&ØXG : DMFK 3DUW
- H6SRUW %ØGH6XSUHP DF 5 R1 DØI38% 7RXUQDP HQW
- H6SRUW 1 HZ 6VDUW 0 RELØI &DSVØLQV&XS
- H6SRUW 3 URWDØW 6HUHV 6HDVRQ

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- H6SRUW 38%* 0 D\ VK <RXVK DQG 6SRUW' D\ &XS
-) UDU 1 %ØGH &6 : LQJ P DQ 7RXUQDP HQW
-) XW VSRUW: DMFK 3DUW 3\ NØP D 3DUW
- * \$ 0 (;
- (VSRUW7RXUQDP HQW\$ P RQJ <RXVK &HQMLW'
- * HQVKLQ ,P SDFW\$ GYHQVKUH &DQDQDO
- * ,67
- * %QU ,UHQ 0 XQLFLSDQW),)\$ 7RXUQDP HQW
- * %QU ,UHQ 0 XQLFLSDQW / HDU XH RI / HJ HQGV7RXUQDP HQW
- + DUE\ H2 SHQ \$ LH6VDUH) 87 (VSRUWYV/% (VSRUW: DMFK 3DUW
- ,QWAOQ RQWMLU/5 HØRDGHG &KDP SIRQMKLS
- . HØL, UHQ 0 XQLFLSDQW 7HNQRP HU9\$/25\$177RXUQDP HQW
- .) & ' RUWLRV7Z LWMU &6*2 7RXUQDP HQW
- / HDU XH RI / HJ HQGV7XUNLK & KDP SIRQMKLS / HDU XH
- / LGRP D (VSRUW 5 HERLQ
- 0 RELOH / HJ HQGV%DJQ %DJQ 7%UNL H & KDP SIRQMKLS
- 3 DWØYLOD 38% ' XR 7RXUQDP HQW
- 3 HQGIN 0 XQLFLSDQW ,QWMLU WJK 6FKRRO9\$/25\$177RXUQDP HQW



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- 38 %* 0 RELOH * OREDO&KDP SIRQVKLS
- 5 HG %XO&DP SXV&QWFK * LDQG) LQDQ
- 5 HG %XO&DP SXV&QWFK 2 QOQH4 XDOILHU/
- 5 HG %XO&DP SXV&QWFK 5 HJ LRQDQ LQDQ
- 5 HG %XO&DP SXV&QWFK 7%UNLH) LQDQ
- 5 HG %XO&RP H* URXQG (0 (\$ 4 XDOILHU
- 5 l H 0 XQLFISDQW 9\$/25\$177RXUQDP HQW
- 7(6) (' 3 DSDUD7%UNLH &XS
- 7%UN7H0INRP * \$ 0 (21 9\$/25\$177RXUQDP HQW
- 7%UNLH VK \$ QQLYHJUDU 9\$/25\$177RXUQDP HQW
- 8 (7 6SUIQJ 6HP HWMU,QMUKQLYHULW 9\$/25\$177RXUQDP HQW
- 8 (7 ,QMUKQLYHULW / HDJ XH RI / HJ HQGV7RXUQDP HQW \$ SUO
- 8 (7 ,QMUKQLYHULW / HDJ XH RI / HJ HQGV7RXUQDP HQW 0 D
- 8 (7 6XP P HU&DP S / HDJ XH RI / HJ HQGV Y 7RXUQDP HQW
- 9\$/25\$17 &KDO&QJ HU// HDJ XH 7%UNLH %UN 6SOW
- 9\$/25\$17 &KDO&QJ HU// HDJ XH 7%UNLH %UN 6SOW
- 9\$/25\$17 5 HEHO
- 9\$/25\$17 5 HEHO

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- 9\$/25\$17 5 HEHO
- 9&7 (0 (\$ %/ (VSRUWYV7HDP + HUHMIV: DMFK 3 DUW
- 9&7 (0 (\$) 87 YV9 LDQDQ : DMFK 3 DUW
- 9&7 / RFN ,Q) 87 (VSUWYV554 : DMFK 3 DUW
- 9 RONZ DJ HQ \$ UHQD %/ (VSUWYV) 87 (VSUW: DMFK 3 DUW
- : RUQG RI : DUJKLSV1 HZ 6KLS / DXQFK &RP P XQLW 0 HHMQJ



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- 0 D[LP XP
- 0 F' RQDQEV
- 0 HUFHGHV
- 0 WURV
- 0 RQVMU(QHJU\
- 0 RQVMU1 RMERRN
- 0 6,
- 1 HMFDIH
- 1 INH
- 1 LP R 79
- 2 ØG 6SIFH
- 2 ØSV
- 2 0 (1 E\ + 3
- 3 DSDD
- 3 DUEX
- 3 DWØYLOO
- 3 D FHØ
- 3 HSL
- 3 XP D
- 5 DP SDJ H
- 5 DJ HU
- 5 DJ HU* RG
- 5 HG %XØ
- 5 HJ QXP &DU D
- 6DP VXQ 2 G\ WH
- 6DP VXQJ
- 6DUDQ * UX S
- 6WØQHULHV
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- 7/ 0
- 7IN7RN
- 7RVØ
- 7XUNFHØ
- 7XUNQHW
- 7%UN 7HØHNR P
- 9HMHO
- 9RGRIRQH
- : XØJ
- ; ' ULYH
- ; 3*
- <HP HMHSHW
- =LR
- =RZ LH



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- \$ J H RI (P S IWHV
- \$ 3 (; / HJ HQGV
- \$ UHOD RI 9 DQH
- \$ WHMR & RUUD & RP SHM! LRQH
- %HDW6 DE HU
- %UDZ KDQH
- %UDZ C6 VDHW
- &DORI ' XW 0 RELQH
- &DORI ' XW 0 RGHLQ: DUDUH
- &DORI ' XW: DJ RQH
- &DKM 5 RI DQH
- &RXQM!U6WINH
- &RXQM!U6WINH * GREDQ2 IIHQVLYH
- ' 27\$
- (\$) &
- (\$ 6SRUW8) &

- (\$ 6SRUW8) &
- H) RRVIEDQH
- H) RRVIEDQH
-),) \$
-) RRVIEDQH DQDJ HU
-) RRVIEDQH DQDJ HU
-) RUQDLM
-) UHH) LH
- + DQR
- + HDUWWRQH
- / HDJ XH RI / HJ HQGV
- / HDJ XH RI / HJ HQGV 7HDP) W KWDFWV
- / HDJ XH RI / HJ HQGV : LOG 5 LIW
- / HJ HQGV RI 5 XQHMAUD
- 0 RELQH / HJ HQGV %DQJ %DQJ
- 0 RUUDQ RP EDW

- 1 %\$.
- 1 %\$.
- 2 68
- 38 %* 0 RELQH
- 38 %* 1 HZ 6VDMH
- 38 %* %\$77/(* 5281' 6
- 4 XDNH
- 5 RFNHW HDJ XH
- 6P LM
- 6VDUFUDIW
- 6WHHM LJ KWUW9
- 7HNNHQ
- 7RP &DQF V5 DLQERZ 6lf 6IJUH H
- 9\$/25\$17
- : RUUD RI 7DQNV
- : RUUD RI : DUFUDIW
- : : (.



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- RQDQ&P + DEHU
 - 7HFKQRSDW
 - 6KUWGHOMA
 - : HEWMNQR
 - 7DP LQGLU
 - &KLS
 - 0 HUQQLQ. DJ DQä
 - 7%UNP P R
 - 3+ + RFDVä
 - 2\XQJ HJ HU
 - , * 1
 - %6&
 - 0 LG
 - + DUGZ DUH 3 QXV
 - 7HFKQR 7RGD\
 - \$ VDUWDO
 - 7HNQREX
 - aQGLUFRP
 - 7HNQRGIRW
 - * DP HU3 DSHU\
 - 6DYHEXVRQX
 - * DP UJ P
 - 0 RELGLFVXP
 -) 5 3 QHW
 - / HDGHUJ DP HU
 - 0 DYL. RO
 - 3 O\ HU%URV
 - 7XUKQFX / HM H
 - (VSRU7LP HV
 - 7HNQRELLG
 - 7HNQRIHHG
 - 7HNQRULG
 - (VSRU* DJ HM\NL
 - / HYHO
 - 7HFKQRQJ LF
 - 0 LVWLUORRE
 -) O\QDN (VSRLW
 - 2 \XQ 3 RWV
 - 2 \XQ * %QO\U^3
 - 2 J] QHW
 - 7HNQR + RFDP
 - (VSRLW P DJ
 - * DP HUEDM\
 -) UD\W\W
 - ' LW\DO6SRUDU
 - 2 \XQ' LW\DO
 - %D O\W\X X
 - aQFHQIP HFR
 - . DU\NRFD * DP LQJ
 - / XGHQRLG
 - * HHNQIN YH~ WMLOH
 - \$ GDQ= \ H (VSRL
 - (VSRLQ

* \$ 0 ,1* ,1 785. (< _0 (1\$ _ (8 * \$ 0 ,1* \$ 1' (632576 \$ * (1 & < * \$ 0 (38 % / ,6+ (5



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- EXWDJ E FRP
- EVQRJD P HFRP
- GLMSLQ FRP
- GXUP DSØA FRP
- HSILQ FRP WJ
- IR[QJ DP HFRP
- J DFRP
- JDP HVDW/FRP
- JRØUDJ HUFRP WJ
- ,WMP VDMW/FRP
- NWK DØVHUL/FRP
- NDEDVDNDØRQØQH FRP
- NDØVJ DP HFRP
- NRSDJ DUFRP
- PLGDVEXI FRP
- PWVJ DP HFRP
- RXQDØVHUL/FRP
- RXQIRUFRP
- SHUGJ LVIDOFRP
- SØA VXØDQ FRP
- YDMDQJ DP HFRP
- \HMLOXUWDP HFRP



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- %DWQH QHW
- (SIF * DP HV
- * 2 *
- + XP EOH %XQGQH
- LFK LR
- . LQJ XLIQ
- 2 UU LQ
- 3 O\ 6VDMRQ 6VRUH
- 3 O\ WRUH FRP
- 5 RFNMDO* DP HV 6RFIDQ&QE
- 6WDP
- 8 ELVRW6VRUH

6XEVFUSWRQ 0 RGHO

- \$ P DJ RQH 3UP H* DP LQJ
- (\$ 3O\
- * H) RUFH 1 RZ
- 1 HMQI * DP HV
- 3O\ VDVMRQ 3QV
- ; ER[* DP H3DW



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* GREDO1 XP EHUV

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- %LORQ' RODU7RV05 HYHQXH
 - %LORQ' RODU0 REL0I
 - %LORQ' RODU&RQVR0I
 - %LORQ' RODU3&
- %LORQ* DP HU/

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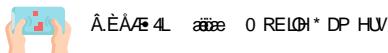


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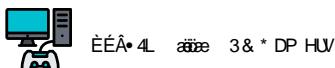
* CREDO1 XP EHUV

72 7\$/ 2) %// ,21 * \$ 0 (56 : 25 / : , (

1 XP EHURI * DP HUVE\ 3@MRUP



ÂÈÂÆ 4L w æze J Šy µ2



ÈÉÂ• 4L w æze 3& * DP HU/



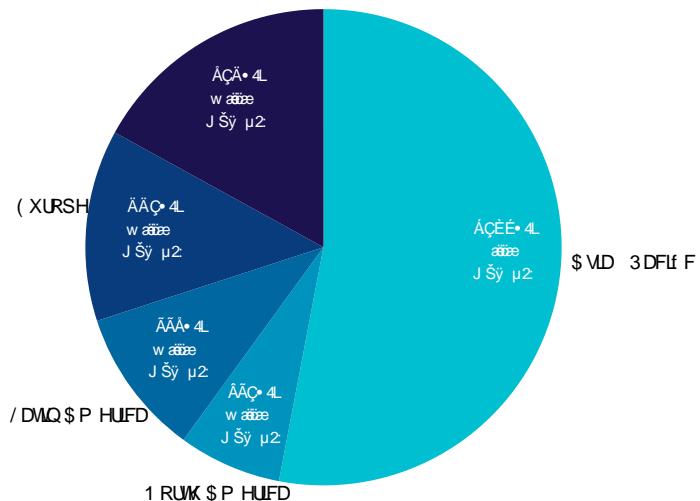
ÂÄÉ• 4L w æze &RQVRQ* DP HU/

,Q VKH QXP EHU RI JDP HUV
Z RUQZ LGH UHDFKHG ELOQRQ DQ
DQOXDO LQFUHDVH RI 7KH P DLQ
VRXUFH RI VKLV JURZ VK LV P RELQH JDP HV
7KH LQFUHDVHQJ SUHVQFH RI JDP HV LQ VKH
P DLQWHDQ DQG VKH LQFUHDVH LQ VKH
VRXQJ SRSXOMRQ Z LQ LQFUHDVH VKH
QXP EHURI JDP HUV LQ DQDUHDV

,Q VKH QXP EHU RI JCREDO SDI LQJ
XHVU/LQFUHDVHG E\ RYHU VR ELOQRQ

1 XP EHURI * DP HUVE\ 5 HJLRQ

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