

\$QJOR DPHULFNI Y\VRNI ã

9êURpQt JSUIYD R pLQQRVWL

=SUDFRYDOL

SURI 3K'U 0LODGD 3ROLãHQVNI &6F SURYRVWND SRY

,QJ -DQ 9DãHQGD HGLWHO NDQFHOI H SURYRVWD

3K'U -LQG LãND .RWUORYI DVLVWHQWND SURYRVWD

-HGQRWOLYp piVWL YêURpQt JSUIY\ YpHWQ WDEXONRYp S  
V NROHJ\ ] S tVOX2 €f1Vu R

=SUIYD SRGOpKi VFkYiOHQt SUHJLGHWHP \$\$9â

+ODYQt XGiORVWL URNX

7H[WR Yi piVW S tORKD YêURpQt  
\$\$9â SUR URN

=iNODGQt ~GDMH R Y\VRNp ãNROH

9 VRXODGX V QRWi VNêP JiSLVHP Y\KRWRYPHQêP GQH  
QtâH XYHGHQp URJKRGQXWt VSUiYQt UDG\ REHFQ SURVS  
ãNROD R S V D WR QD JiNODG S LMDWpKR XVQHVHQt ]H

5RJKRGQXWt R ]P Q SUIYQt IRUP\ QD ~VWDY  
YH VP\VOX XVWDQRYHQt † ]iNRQD p 6E REHFQ  
DPHULFni Y\VRNi ãNROD R S V VH VtGOHP 3UDKD 0DC  
,ý ]DSVDQp Y UHMVW tNX REHFQ SURVS ãQêFK  
VRXGHP Y 3UDJ]H RGGto 2 YORãND GiOH MHQ REHFQ

,GHQWLILNDFH REHFQ SURVS ãQp VSROHpQRVWL S HG ]P  
1i]HY \$QJOR DPHULFni Y\VRNi ãNROD R S V  
6tGOR /HWHQVni 3UDKD ± 0DOi 6WUDQD  
,ý

2UJiQ URJKRGXMtFt R ]P Q REHFQ SURVS ãQp VSROHpQRVWL  
VH VRXKODVHP ]DNODGDWHO\$

'DWXP URJKRGQXWt VUSQD

3UiYQt SRGNODG SUR URJKRGQXWt XVW † ]iNRQD p

3UiYQt IRUPD SR ]P Q  
2EHFQ SURVS ãQi VSROHpQRVW QDE\OD SUIYQt IRUPX ~V

1i]HY SR ]P Q SUIYQt IRUP\  
\$QJOR DPHULFni Y\VRNi ãNROD ] ~

2VRE\ Y SRVWDYHQt ]DNODGDWHOH ~VWDYX  
1RVLWHOHP SUIY D SRYLQQRVWt ]DNODGDWHOH MH  
/HQND 'HYHURYi  
-DQ 5DLFKO  
5LFKDUG /HVWHU 6PLWK  
0DUWLQ .~ãLN  
0LFKDHOD 3URVNRpLORYi

1i]HY D VtGOR ~VWDYX  
1i]HY ]Qt \$QJOR DPHULFni Y\VRNi ãNROD ] ~ Ä\$\$9â³  
6tGOR ~VWDYX 3UDKD

3UYQtPL pOHQ\ VSUiYQt UDG\ ~VWDYX E\OL MPHQRyQL  
D QD MHGHQ URN

6ORåHQ t S tVOXãQêFK RUJiQ\$ S HG ]P QRX S HG ]

6WDWXWiUQt RUJiQ ãNRO\

6ORâHQ t RUJiQ\$ GOH YQLW QtFK S HGSLV\$ \$\$9â URFH

\$NDGHPLFNi UDGD

\$VVRF 3URI \$ODQ .UDXWVWHQJO 3K ' S HGVHGD  
GRF ,QJ âW SiQ 0•OOHU &6F PtVWRS HGVHGD  
SURI 3K'U 0LODGD 3ROLãHQVNi &6F PtVWRS HGVHGN\Q  
'DYL G /LSND 3K '  
7RQ\ 2]XQD 0 \$  
0LURVODY 6YRERGD 3K '  
-HQQLIHU )DOORQ - '  
'DQLHOD /HQppã &KDOIQLRYi 3K '  
-RVH % \$OYDUH] 3K '  
6LPRQ \*RUGRQ 6PLWK 0 % \$  
:LOOLDP (GGOHVWRQ 3K '  
GRF ,QJ ,UHQD -LQG LFKRYVNi &6F GR Ji t  
'DQLHO 3DGROVN\ 0 \$ RG tMQD  
%F \$GL +DGâLü  
0LFKDO +URQ GR Ji t  
\$Q 1JX\HQ RG tMQD  
0JU 2QG HM 3HNipHN  
0JU -XUDM 9RjiU  
GRF ,QJ -DQD 3 LNU\ORYi 3K '  
3K'U 3HWU 6XFKê 3K '  
SURI ,QJ -DURVODYD 'XUþiNRYi &6F  
0JU 'DQLHO \$Qêâ

6HQiW

6WXGHQWVNi UGD

GR ]i t



3RVOiQt YL]H D VWUDWHJLFNp FtOH \$\$9â Y URFH

\$QJOR DPHULFNI Y\VRNI ãNROD MH ]DORåHQD QD EULWVN  
D Y\XâtYi QHMOHSât WUDGLFH VW HGRHYURSVNp Y]G ODO  
DEVROYHQW\ NWH t EXGRX VFKRSQL Y\XâtYDW VYp Y]G O  
ORNiOQtP QiURGQtP D JOREiOQtP SURVW HGt 3RVOiQt



%

+XPDQLWLHV

5

9LVXDO \$UWV

6 W X G H Q W L

6WLSHQGLMQt SURJUDP\ \$\$9â PLPR iGQ QDGDQt VWXGHQ

\$\$9â XG OXMH D~~XWRVSDWIKRM~~p Y~~AMPSNWXGKHQ~~W\$P NWH  
S HGHSVDQp SRGPtQN\ NWHUp MVRX XYH HMQ Qp Y S tV  
ZZZ DDXQL SURVS FKRYp VWLSHQGLXP WHG\ QHQt W HED â

\$\$9â Wpâ XG OXMH PDJLVWHUD/NLêF~~K~~HUW~~XI~~QH~~Q~~W\$P~~HW~~GLX  
VWLSH~~D~~EX~~R~~OYHQWVNP ~~OW~~HUM~~WV~~R~~X~~Q~~G~~R~~X~~Q â SRGPtQ  
SURVS FKHP Y EDNDOi VNpP VWXGLX QD \$\$9â

1HMOHSât VWXGHQWL EDNDOi VNpKR RERUX -RXUQDOLVP  
JtVNDW1~~RM~~YQ~~i~~VW~~N~~SHQGLXP \$~~OW~~HUP~~Y~~W~~D~~K~~R~~MH QD Y\EU  
VWXGLMQtKR RERUX

6WXGHQW\$P \$\$9â P\$âH EêW YH YêMLP~~H~~\$~~Q~~E~~K~~O~~S~~tS~~D~~W~~H~~SK  
NWHUp Pi MHGQRUIjRYê FKDUDNWHU

3RGUREQ Mât LQIRUPDFH NH VWLSHQGLtP MVRX XYH HMQ  
D WDNp VDPRj HMP YH 6WLSHQGLMQtP iGX \$\$9â

6WXGHQWL VH VSHFLILFNêPL SRW HEDPL

\$\$9â MH XPtVW QD Y SURQDMDWp KLVWRULFNp EXGRY

# \$EVROYHQWL

6SROXSUIFH V DEVROYHQW\

\$\$9â SRYDâXMH VSROXSUIFL VH VYêPL DEVROYHQW\ JD YH  
DEVROYHQW\ ~JFH VSROXSUDFXMH L SR MHMLFK ~VS ãQpP

\$\$9â SURYRj\$MMPVjLY.&XEX DEVROYHQW\$ NWHUê MHKR pOH  
QivOHGXMtFt YêKRG\

- x 3RGSRU D S L KOHGiqT jDP VWQiqT
- x 3 tVWXS GR NQLKRYQ\ D N MHMtP YHãNHUêP jGURM\$P
- x 3RjYiQND QD SUDYLGHOQp REFKRGQt D VSROHþHQVNp
- x =DVtOiQt pV\$YUXPQHWHQHXOHWWHU
- x 6OHYD QD ãNROQpP SUR VWXGLXP Y PDJLVWHUVNêFK
- x

# =iMHP R VWXGLXP

3 LMtPDFt ]NRXãN\ QD \$\$9â

3 HGSRNODG\ SUR S LMHWt XFKD]HþH N EDNDOi VNpPX VW

3 LMtPDFt t]HQ t VH tGt 9\KOi\$NRXVRISRISMO3PDSIPPHJLGNp  
Y\VRNp ãNRO\ NWHUi MH S tVWXSQi QD ZHERYêFK VWUiQN

3UR S LMHWt PXVt XFKD]Hþ S HGORåLW QiVOHGXMtFt GRNX

D iGQ Y\SOQ QRX S LKOiãNX NH VWXGLX QD \$\$9â

• äLYRWRSLV NRSLL SDVX D IRWR

F 7]Y Ä3HUVQRQDO 6WDWHPHQW<sup>3</sup> NWHUê MH URYQ å SRI





=DP VWQDQFL

.DULpUQt iG Y\VRNp ãNRO\ D PRWLYDpQt QiVWURMH SUR

9 URFH GRãOR N JiVDGQt ~SUDY NDULpUQtKR iGX \$\$\$  
DNDGHPLFNêP SUDFRYQtN\$ JDP VWQDQêP QD GREX QHXU  
OLQLHPL J QLFKå MHGQD MH YtFH JDP HQi QD YêXNX JDV  
1RYê NDULpUQt iG URYQ å URjãt LO LQWHUQt VWXSOLF  
RKRGRFHQt J S HGHãOêFK QD Q\Q MãtFK -HGQi VH R

/HFWXUHU ,  
/HFWXUHU ,,  
6HQLRU /HFWXUHU ,  
6HQLRU /HFWXUHU ,,  
'LVWLQJXLVKHG 6HQLRU /HFWXUHU

7HQWR NDULpUQt iG VH XSODW RYDO D GiOH URJYtMHO Y

'\$OHåLWêP PRWLYDpQtP QiVWURMHP SUR RGP RYiQt SHG  
RGP Q\ JD SXEOLNDpQt pLQQRVW NWHUp MVRX GLIHUHQF  
PRQRJUDILH pOiQHN Y LPSDNWRYDQpP pDVRSLVH pOiC  
YH VERUQtNX DWG 3RGPtQNRX XG OHQt RGP Q\ MH å  
\$\$9å 1D WXWR RGP QX MLå DOH QRY QHPDMt QiURN DI  
JDP HQp VStãH QD Y GX D YêJNXP QHER" WDWR pLQQRV  
9 S tSDG Y\QLNDMtFtKR EDGDWHOVNpKR YêVOHGNX Yã  
9 SURVLQFL E\OD URYQ å S LMDWD VP UQLFH R SRGS  
pLQQRVWL QD \$\$\$å D WR JHMPpQD SUR MHMt NPHQRYp  
DNDGHPLFNêPL SUDFRYQtN\ \$\$\$å Y\XåtYiQD

5RjYRM GRYHGQRVWt DNDGHPLFNêFK SUDFRYQtN\$

9 URFH VH QD \$\$\$å NRQDO\ W L VHPLQi H D ZRUNVK  
)DFXOW\ 'HYHORJSDPHêVp QDVQLROHGXMtFt WpPDWD

KRGQRFHQt D PRWLYRYiQt VWXGHQW\$  
Y\XåLWt WHFKQRORJLH S L YêXFH  
MDN XSODWQLW YêVOHGN\ VYpKR YêJNXPX

3 HG jDKiMHQtP VHPHVWUX SR iGi \$\$\$å SUR QRYp Y\XpXMt  
VWVpP SUR HOHNWURQLFNRX SRGSRUX YêXN\ \$\$\$å

3RGSRUUD URGLp\$ PHjL JDP VWQDQFL

\$\$\$å XPRåQXMH JDP VWQDQF\$P VWJRYGLQDPHI QHILFLHOQRPR  
SUDFRYQt GREX D Wpå SUIFL QD jNUiFHQê ~YDjHN



'LYHUJLWD MH QHGtOQRX VRXp6WDLWYHPJHQDWSKROGQEMWY\$E W\ SUR OHSät Y\SRytGDMtFt KRGQRWX Y RULJLQioQtP ]Q Qt

\$QJOR \$PHULFDQ 8QLYHUVLW\ YDOXH V DQG HQFRXUD  
DQG VWDII ,WV OHDGLQJ SULQFLSOH LV GHPRFUDFA  
EDFNJURXQG DQG SRLQW RI YLHZ ZLWK GLJQLW\ DO  
DQ LQWHUQDWRQDO PXOWLFXOWXUDO DQG PXOWL  
DQG FRGHV HGXFDWRQDO DQG WHDFKLOJ SKLORV  
RSHUDWRQV DQG ZRUN FRUHVSRQG WR WKH XQL  
GLYHUVLW\ LV RQH RI WKH PRVW LPSRUWDQW

9ê]NXPQi YêYRMRYi XP OHFNI D G  
YH VP\VOX † jINRQD p 6E R Y\VRNêFK ãNROI

3URSRMHQt WY\$Upt pLQQRVWL V pLQQRVWt Y]G OiYDFt ]D

\$\$9â SUDYLGHOQ SR iGi DNFH QD NWHUêFK VH VWXGHQV  
UiPHF E âQp YêXN\ pL RGERUQtN\ ] SUIFH IRUPRX KRVM  
ILUPIFK '\$OHâLWRX UROL Y WRPWR RKOHGX SOQt &HQV  
L GDOât VRXpiVWL \$\$9â .RQNUpWQt DNFH MVRX XYHGHQV\  
D GDOâtFK RGERUQêFK DNft QD \$\$9â Y URFH

1HMOHSâtP DEVROYHQW\$P VWXGLMQtFK RERU\$ EDNDOI V  
ODJLVWHUVNpW]MWID\$HIGORZGKIOSWL PDJLVWHUVNêFK SU  
QD WRWR VWLSHQGLXP PDMt SRYLQQRVW SRVN\WQRXW ã  
GHVHWL KRGLQ WêGQ -HGQi VH R DVLVWHQFL Y REOD  
SUHIHUHQFtFK GDQpKR VWXGHQWD D WDNp S tVOXãQpKR  
~]FH VSROXSUDFXMH

-DN MLâ E\OR QD]QDpHQR Y S HGHãOpP WH[WX NDSLW  
NPHQRYêP DNDGHPLFNêP SUDFRYQtN\$ ]DP VWQDQêP QD  
NDULpUQtPL OLQLHPL ] QLFKâ MHGQD MH YtFH ]DP HQi  
Yê]NXP \$NDGHPLpWt SUDFRYQtFL Y NDULpUQt OLQLL ]DP  
URYQ â Yê]QDPQ SRGtOHMt QD YêXFH ] pHKRâ SURILWX  
VH]QiPLW V DNWXiOQtPL YêVOHGN\ MHMLFK Y GHFNR Yê]N  
PDMt PRâQRVW SRGSRU\ ~pDVWL QD NRQIHUHQFtFK D FHC

6SROXSUIFH V DSOLNDpQt VipURX

9 URFH QD \$\$9â LQWHQJLYQ S\$VRELOR&&HQQWHUXPI RDJ  
\$SSOLHG 50H]HLDN]HKR KODYQt DNWLYLW\ SDW t RUJDQL]  
RGERUQêFK S HGQiãHN H[SHUW\$ ] SUD[H VWXGHQWVNp  
Yê]NXPQp SURMHNW\ D SRUDGHQVWYt +ODYQtP SRVOiQt  
Xâ VRXNURPêFK ILUHP pL QH]LVNRYêFK D QHYOiGQtFK RUJ

.RQNUpWQt DNFH RUJDQL]RYDQp FHQWUHP MVRX XYHGHQV\  
D GDOâtFK RGERUQêFK DNft QD \$\$9â Y URFH

3 HKOHG NRQIHUHQft VHPLQi \$ GLVNXVt D GDOätFK RGE

1ijHY	7\ S DNFH	ÒpDVWQt	FL'DWXP NRQiQt	
9 /HFWXUH 3RODQGSDHVCUäNDHFWDLQVVDZ			2ELUHNHGHQ	
9 /HFWXUH 7KH UDFSLDHCGLÄNDIQPRHMLQGRU OHGHQ MXGJPHQW WKH FDVH RI 5RPD LQ 6ORYDNLD				
7KH /DVW 3HWDO RQ SJKH HQWDAFDUMRLKH /ORVD ~QRU			/DUDEXUH	
\$\$8 YV 81<3 ± 2[IRUGGMEVDWD		VBØWHØD /HQppã~QRU	&KDOIQLRYi JDUDQW	GXE

1HVWOH V LQWHUQD SLRQDQND-DVQXSBH ILUP\ GXEHQ VWUDWHJLHV DQG LQWURGXFLLQJ WRS LF RI ILQDO SURMHFW WR VWXGHQWV			
,QWHUQDWLRQDO - RRUHQRYL VQULHQWL .QDU GXEHQ (XURSHV (DVWHUQ 1HLJKE RUKRRG 'DLQD 0XQDVLSRYD \$QGUHZ *LDUHOO		6DILH \$EO\DH HYD =DXU	
6XFFHVVL RQ 3ODQQLS JHGQIãND-DQD %XUJHURYi GXEHQ			

: \* 6HEDOG )RU D 1RUWKHUQ 5HDGHU

1HVWOH (PSOR\HU ESDIQQCNBPSOR\HH  
SUHVHQW DW \$\$8 IRU VWXGHQW ILQDO  
SUHVHQWDWLRQV

0HDVXULQJ FRPPXQLSDWGLRQND-SUQ6FKXEHW tMHQ WHVWLQJ WUDFNLQJ SRVW WHVWV			
:KDW LW WDNHV WR SWHGWãNDQHWDR\$UWHP\HYD LVWRS DG 5HWDLO 6WRUH LQ 3UDJXH			
3URIHVVRUV LQ WKH SDXEHORRYW*GHRONXDQ)DU, 5LJKW JDUDQW			QHVWR#S'G.4F
35 SUDFWLFH LQ WKH SIKCUEDPHXQDLFDNRYi VHFWRU			OLVWRS DG



5\$.2

UNXUIH

6LPRO \*PUCRO 6PLOWK WRSDG

DDQLjiWru

6DOHV PDQDJHPHQW S HGQianE p0V dr FLWK

3XEOLNDpQt XP OHFNi D GDOãt WY\$Upt pLQQRVW Y URFH  
=GH MVRX XYHGHQL NPHQRYt SUDFRYQtFL \$\$9â GiOH H[V  
H[WHUQLVWp NWH t PDMt VYp KODYQt SUDFRYLãW PLPF  
V DNUHGLWRYDQêPL SURJUDP\ \$\$9â pL E\O\ XVN XWHpQ Q

0DU\ \$QJLROLOOR 3K '

+RVWXMtFt S HGQi<sup>a</sup>HMtFt  
,PSURYLVDWL~~00VWHFK00DXM~~ 8QLYHUJLWD /MXEOMDQD  
)LOP DQG 7HOHYLVLRQ 'HSDUWPHQW RI )LOP DQG 7HOHY

3HOLQ \$DQ 0XVLO 3K '

ýOIQN\  
\$DQ 0XVLO '3HPRFUDF\ DQG ,VODPH~~00VWHFK00DXM~~ QG~~00VWHFK00DXM~~ QH~~00VWHFK00DXM~~ MDLRO

\$DQ 0XVLO 3 %LOJLQ +DVUHW ' 7\SHV RI RXWF  
IURP QRQ GHPRFUDWL~~00VWHFK00DXM~~ QH~~00VWHFK00DXM~~ MDLRO 6FL

3 tVS YHN YH VERUQtNX  
'HPRFUDF\ LQ 7XUNH\ ,Q 'HPRFUDF\ &RQWHVWHG &  
(DVW V 3UDKD 2ULHQWioQt ~VWDY' \$9~~00VWHFK00DXM~~ 5UDF\ 3XEC  
WKH 3ROLWLFDO &XOWXUH RI WKH OL~~00VWHFK00DXM~~ (DVW \$V

.RQIHUHQpQt S tVS YN\  
7KH ,VODPLVWV WKH .XUGV DQG QHZ ,~~00VWHFK00DXM~~ QH~~00VWHFK00DXM~~ MDLRO  
&RQIHUHQFH RQ 'HPRFUDWLF 7UDQVIRUPDWLRQ LQ 3RVW  
6XFFHVV" „vFHHVXx QMp €HPDX 'VVHXx QMp €H

3HWHU %ROFKD 3K '

%ROFKD 3 5RYQê - /XFN RU OX[XU\" 3RVVLEOH  
SURFHVV LQ WKH- & JHFC5CH SXEØ&EOLF 3ROLF\

3 HGQIãND SUR YêWYDUQp SHGDJRJ\ QD 9\ããt VW HGQt SH  
3UH]HQWDFH D ZRUNVKRS SUR VWXGHQW\ &,( ( Y 3UD]H  
9H HMQi SUH]HQWDFH YLGht Y 0RUDYVNp JDOHULL %UQR  
3UH]HQWDFH D ZRUNVKRS SUR VWXGHQW\ J\PQi]LD Y 3RO  
2SRQHqWXUD %F SUIFH 0LFKDHOD ýtãNRYi VWXGHQW RI  
&\NOXV IRWRJUDILt SRWUpW\$ pHVNêFK IRWRJUDJ\$ ý7  
&RVPRSROLWDQ :RPHQ ZKR KDYH LQIOXHqFH RQ PH  
5R]KRYRU D IRWRGRNXPHQWDFH V 7RPIãHP 3RVSLV]\OHP Y  
<LQDFKL

6 DPRVWDWQp YÆVWDY\  
6ROR SHUIRUPDQFH Ä3HQHWUDWLRQ RI 7KH %ODFN +ROH<sup>3</sup>  
PHGLD \$UW VWXGLR D V YH HMQRVWt )ORUDOLD IHVWLYI  
8QLW\ -HGQRWD 9êFKRGRpHVNi JDOHULH 3DUGXELFH  
9 SDP WL -HGQRW\ \*DOHULH 1RYê -LPUDPRY  
9LHQQD FRQWHPSRUDU\ \$UW IDLU /XNDV )HLFKWQHU \*DC

ÒpDVW QD VNXSLQRYÆFK YÆVWDYiFK  
3URVSHURXV 3RLVRQ 2Q 7KH )HPLQLVW \$SSURSULDWLRQ  
9tGH  
)HPLQLQH ZRPDQV LVVXHV \$UWLQER[ \*DOOHU\ 3UDKD  
&HQD -LQG LFKD &KDOXSHFNpKR ~pDVW QD VNXSLQRYpP  
+ROHãRYLFNi WUãQLFH 3UDKD

Ä9\WYU]HQt<sup>3</sup> IHVWLYDO QD WpPD PDWH VWYt &LUNXV 1HI  
GD\ V LQ WKH PRWLRQ 0H]LQiURGGQt IHVWLYDO VRXpD  
%HDXW\ IUHH VKRS 0HHW )DFWRU\ 3UDKD  
/XNDV )HLFKWQHU\ DOOHU\ LVWDQFH JDOOHU\ H[KLELWLRQ

-RVHSK 'RGGV 3K '

8NRQpHQt YtFHOhWpKR SV\FKRDQDO\WLFNpKR YêFYLNx D  
SV\FKRDQDO\WLFNp DVRFLDFL tMHQ

3URI (YD (FNHUW 3K '

ýOiQN\  
(FNHUW ( 5RPDQL LQ WKH &QWFKU6RFWRQ 100JX L-VWKLFO 0SD  
RI /DQJXDJH  
&RSH / (FNHUWXQWLOLQJXDOLVP DQG PLQRULWLHV LQ WK  
LQWURGãFWLROD WLRQDO -RXUQDO RI WKH 6RFLRORJ\ RI /

= YDQp S HGQi^N\  
&RPPXQLFDWLRQ DQG ERXQGDULHV 7H[DV DQG (XURS  
WKH SHUVSHFWLY 0HRLQSURJYQIQNDQCHUMQFHU8ODYLF +XP  
IRU (XUDVLD )) 8. 3UDKD  
(PLJUDFH GR 7H[DVX 3 HVGQAINDVMDNR ELRXPVSW SURMHN  
ODQGV RI WKH 1RUWKHUQ DQG 6RXWKHUQ \$PHULFD 8QLY

5REHUW (OOPDQQ - ' 0 3KLO

2UJDQL]DFH V\PSR]LD Y UIPFL YÆXN\  
(QHUJ\ 3ROLF\ 6\PSRVLXP V 'U 'DYLGH 9DXJKQHP ] 8QLW  
RWHSORYiQt

ÒpDVW QD SURMHNWX ý987 0 HQt ]QHþLãW Qt RY]GXât Y

-HQQLIHU )DOORQ - '

(GLW\$R\$RIDZ )RXP 6SULQJ SS

\*HRUJ +D\V , , 3K '

2UJDQL]DFH GBVNRXVQV R pV\$BQa WKH 3XE  
7pPDWD GLVNX]t \$XVWUDOLDQ )DU 5LJKW 86 SUHVLGHQWLDO  
2EKiMHQi GLVHUWDþQt SUIFH 3K ' )DNXOWD VRFLiOQtFK

3K'U +HOHQD +RQFRRSRYi

.QLKD  
+RQFRRSRYi + 0RVWRZ 0DNRSWR RDNXRDDVDV .DUROLQ  
VWU >(QJOLVK DQG LQ &]HFK YHUVLRQV IDFVLPLOH D  
FRGH[ RI WKH ODWH WK FHQWXU\@

9Æ]NXPQi pLQQRVW  
9HGHQt PH]LQiURGQtKR SURMHNWXPDS&RFSWVDXWHYNDSQ6K  
HãHQpP YH Yê]NXPQpP FHQWUX 7KH \$UW 5HVHDFK &HQW  
. \RWR 9êVOHGN\ SURMHNWX E\O\ SUH]HQWRYiQ\ QD  
LQ . \RWR

5REHUW +RUYLW] % \$

GRF ,QJ ,UHQD -LQG LFKRYVNi &6F

ýOIQN\

.XEtþNRYi ' -LQG LFKRYVNi , &RPSDUDELWLW\ DC  
WKH VHFWRU RI &]HFK 60(6 WHQ \HDUV RI ,)5(6XDRSDHSDU  
5HVHDFK 6WXGLHV -RXUQDO

3 tVS YN\ YH VERUQtFtFK  
-LQG LFKRYVNi , .RKRXW 0 (53 V\WHPV LQ VHUY  
&]HFK 5HSXEOLFHHGLQJV RI WKH WK ,QWHUQDWLRQDO  
5XOHV DQG /RFDO 8VH 3UDJXH 6HSWBU\$QJOR \$PHULFDQ 8Q  
SS ±

-LQG LFKRYVNi , .XEtþNRYi ' 7KH PDQDJHPHQW D  
RI WKH &]HFK 5HSXEOLFHHGLQJV RI WKH WK ,QWHUQDWLR  
\* OREDO 5XOHV DQG /RFDO 8VH 3UDJXH 6HSWBU\$QJOR \$PHULFDQ  
8QLYHUVLW\ SS ±

0XLU ' - -LQG LFKRYVNi , 'HULYDWLYHV ILQDQ  
3URFHHGLQJV RI WKH WK ,QWHUQDWLRQDO 6FLHQW  
8VH 3UDJXH 6HSWBU\$QJOR \$PHULFDQ 8QLYHUVLW

.XEtþNRYi ' -LQG LFKRYVNi , 7KH FDKQJH LQ PDQ  
5HSXEOLF IURP LQVWLWXWLRQDO DQG FRQLQJHWHKSHU  
,QWHUQDWLRQDO 'D\V RI 6WDWLWLVFV 8QG (ERQRPL  
KWWS PVHG YVH F] PVHGB VERUQLN WRF KWPO

GRF 'U -L t .DãQê 7K '

ýOIQN\

.DãQê - 6PORXY\ D YODVWQLFWYt Y KHEUHMVNp %

.OtSD 2 (NRQRPLFNp D NXOWXUQt DVSHNW\ SROV  
>(FRQRPLF DQG &XOWXUDO \$VSHFWV RI 3ROLVK 0LJUD  
\*HRJUDILFNp UR]KOHG\

.DSLWROD Y NQL]H  
.OtSD 2 &LYLF 1DWLRQ %XLOGLQJ LQ 3RVW 6RY  
0LQRULWLHV ,Q /\WY\Q 0 HGVWR8NLFDLQ H± 3RQD DQDGH  
&RQVFLR XROD XPH /YRY 1DWLRQDO \$FDGHP\ RI 6FLH  
.U\SLDNHY\FK ,QVWLWXWH RI 8NUDLQLDQ 6WXGLHV

5HFHQ]H  
.OtSD 2 <RDY 3HOHG 7KH &KDOOHQJH RI (WKQLF  
\*URXSV LQ ,VUDHO 3RODQG DQG 1RUWKHUQ ,UHODQG  
KWWSV ZZZ SRO LQW RUJ GH QRGH U  
.OtSD 2 (ZD \$ \*ROHELZRZVND 7KH 0DQ\ )DFHV RI 7ROH  
LQ 3RODQG UHYLHZ 3RO ,QW DYDLODEOH DW KWWS

3 tVS YN\ QD NROIHUHQFTFK  
7KH ,PSDFW RI (XURPDLGDQ RQ 8NUDLQLDQ 1DWLRQ  
3ROLVK 0LJUDILFNp %XLOGLQJ LQ 3RVW 6RYLHW 8NU  
5HVHDFK )DFWRU\ RI % RUGHUV LQ 0RWLRQ )UDQNIXUW  
,GHQWLI\LQJ RI (XURSHDQ 5RPD \* \SV\ JURXSV ZLV  
FRQVHQV\UHQFH PR ü L VDPRLGHQW\ILNDFMD EDáND V  
HWQLF]Q\FK L UHOLJLMQ\FK SR UR]SDG]LH -XJRVáDZLL  
PHGLD ,QVWLWXWH RI 3ROLWLFDO 6FLHQFH DQG ,QWH  
.UDNRZ ±

2OG RUGHUV EHKLOG WKH QHZ IDFDGH SURWHFWLRO  
5HSXEOLF DQWUHQFH &XOWXUHV LQ 7LPHV RI 7UDQ  
9LDGULQD )UDQNIXUW 2GHU

6RYLHW OHJDO OHJDF\ LQ W 6HFRQG HSHQWGHUODWLRO  
FRQIHUHQFH 8NUDLQLDQ 3ROLVK UHODWLRQV LQ WKH F  
SURFHVVHV LQ (DVW & HEMUIDOQ\ XOWXU\ 8NUDLQLDQ  
\$FDGHP\ RI 6FLHQFHV /YRY

&KDVLOJ VWDWLWVLFDO 5RPD .RQKRUHQGH ZRQIORNWY  
L Z\]QDQLRZH D EH]SLHF]H VWZR Z Z\PLDU]H ORNDOQ\ P  
:\G]LDá 1DXN 6SRáHF]Q``0Dá RPLVKE @W\_2 Á



3RVN\WRYDWHO %UDQGHQEXUJ 0LQLVWU\ RI 6FLHQFHV 5  
1ijHY SURMHNWXLDQ SHULSKHULHV - 8NUDLQH DV D  
VDFH SHUVSHFWLYH  
5ROH 9HGRXft SURMHNWX  
2EGREt /HGhq SURVLQHF

3RSXODUL]DFH  
5RP YV &LNIQ >55RFDHYWL\*VWE\U3VHHDVH FKRRVH \RXU  
2ULHQWDFH HVVD\ S

(YURSD VL KRGQ (XURSH QVYQFWRDYOH WR EUHHG ÄJRF  
2ULHQWDFH HVVD\ S

% ORUXVRYp SRW H>7KVI t %YODVWVLDQSW FQHHG WKHLU F  
QRYLQ\ 2ULHQWDFH HVVD\ S

.XOWXUQt PHQ<sup>a</sup>LQ\ >8XOWXUSDON pLIQRHJWLHW LQ (XURS  
S HGQiãND 0R]DLN\ 3ODWIRUP 'LDORJ 3UDKD  
6HH KWWS ZZZ SODWIRUPGLDORJ F] HYHQWV VKRZ NXOW

'DYLg /DQJZDOOQHU // 0

ýoiQN\  
/DQJZDOOQHU ' 1HZ &RQVWLWXWL RQ RII :H QHHG WR F  
RI MXGLFLDO RQWODSHUHQVW]RQH ,UHODQG \$XSRVWL  
'RVWXSQp QD KWWSV YLOODJHPDJD]LQH LH LQGH

/DQJZDOOQHU ' 7DNLQJ KRXVLQJ IURP VFDQGDO WR ULJ  
UHIHUHQ]PDJH ODJD]LQH ,UHODQG VDSROLWLFDO DC  
'RVWXSQp QD KWWSV YLOODJHPDJD]LQH LH LQGH[ SKS  
ULJKW

/DQJZDOOQHU ' 6PLWK 0 0RUDOO\ 0RVW :DQWHG )DG  
IRU PRUDO RIIHQFHV DJDLQVW WKH HFRORLO WKH HQYLU  
ODJD]LQH ,UHODQG V SROXOLFDO DQ'RVWXSQp QD PR  
KWWSV YLOODJHPDJD]LQH LH LQGH[ SKS PRUDOO\  
/DQJZDOOQHU G\FH Y -DUQ\G\FH

9HGHQt GLVNXVQtFK SDQHO\$ )DFH WR )DFH 6WXGHQWV )  
/LEHUDOLVPXV YHUVXV NRQ]HUYDWLVPXV  
/LEHUDOLVPXV YHUVXV VRFLDOLVPXV

5HSUH]HQWDFH \$\$9â Y RERURYp UDG GRNWRUVNpKR SUR  
3K ' LQ ,QVWLWXWLRQ (FRQRPLFV DQG /DZ &ROOHJLR 8

-8'U 5DGND 0DF\*UHJRU 3HOLNiQRYi 3K ' // 0 0%\$

.DSLWROD Y NQL]H  
0DF\*UHJRU 3HOLNiQRYi 5 3UiYR HYURSVNp ,Q . 6F  
(QF\NORSHGLH pHVNÆFK SUIYQtFK G M&Q]H9,\$OYAD]H  
yHQ N

yOiQHN  
0DF\*UHJRU 3HOLNiQRYi 5 0DF\*UHJRU 5 2QH GH  
GRPDLQ QDPHV IRU DOO (XURSHDQSRVLEOXQI&DQWKHPL  
&RPPLVV&QXDZ )RUXP 'RVWXSQp QD KWWS ZZZ DDXQL  
ODZ IRUXP SGI

3 tVS YHN YH VERUQtNX  
0DF\*UHJRU 3HOLNiQRYi 5 0DF\*UHJRU 5 7KH 'L  
3URSHUW\ ORUWJDJHV LQ WKH (8 ,Q &RQLHG H&KRIYVNW K '  
,QWHUQDWLRQDO 6FLHQWLILF &RQIHUHQFH RQ ,)56  
8QLYHUVLW\ 3UDJXH 3U&DHSQJOUR DPHULFni Y\VRNi â  
0DF\*UHJRU 3HOLNiQRYi 5 0DF\*UHJRU 5 &XUUH  
YLHZV RQ WKH YDOXDWLRQ RI ,QWHUQHWR GRPDLQ QDPHV  
&RQIHUHQFH 3URFHGHGLQJV 7KH WK ,QWHUQDWLRQ  
3UDJXH 'RVWXSQp QD  
KWWSV PVHG YVH F] PVHGB VERUQLN WRF KWPO

0DF\*UHJRU 3HOLNiQRYi 5 %HQHã 0 0DF\*UHJRU 5  
PLV UHFRQFLOLDWLRQ RI UXOHV DJDLQVW PLVOHDGLQJ F  
FUXVDGH RI WKH &RPPLVVLRQ DQG &- (8 3URFHGHGLQJWi  
WKH WK ,QWHUQDWLRQDO &RQIHUHQFH (FRQRPLF  
&RXQ<sup>3</sup>WULHV 3HWURYLFH X .DUYLQp

0DF\*UHJRU 3HOLNiQRYi 5 0DF\*UHJRU 5 3UHIHUI  
(XURSHDQ %XVLQHVVHV 3,QR,F&K&R&DQVNiê ,QWHUQDWLR  
,QIRUPDWL]DWLRQ RI (FRQRPLF DQG ODQDJHPHQW 3U  
&YLN ( ' 0DF\*UHJRU 3HOLNiQRYi 5 ,PSOHPHQW  
DQG LWV ,PSDFW RQ (8 DQG OHPEHU 6WDWHV 0DUNHWV I  
3URFHGLD - 6RFLDO DQG %K&WKL,QWHDU&FWHR&B&RQ  
(QWHUSULVH DQG &RPSHWLWLYH (QYLURQPHQW (&  
QD KWWS ZZZ VFLHQFHGLUHFV FRP VFLHQFH DUWLFOH

0DF\*UHJRU 3HOLNiQRYi 5 &YLN ( ' )\$7&\$ IURP  
SHUVSHFWLYHV \*RYHUQPHQWV RI WKH ZRUOG IRU WD[ F  
+UDGHF (FRQRPLF 'D\ 'RXEOH EOLQG SHHU UHYLHZ

VFLHQWLILF FROIHUHQFH +UDGHF (FRORUDGHFD\UVORYp  
8QLYHUVLW\ RI +UDGHF .UiORYp  
0DF\*UHJRU 3HOLNiQRYi 5 &YLN ( ' 8VH RU QRW WR  
-HGOLpNDUHG (FRQRPLF 'D\ 'RXEOH EOLQG SHHU UHYL  
VFLHQWLILF FROIHUHQFH +UDGHF (FRORUDGHFD\UVORYp )H  
8QLYHUVLW\ RI +UDGHF .UiORYp

'XQFDQ 0FOHDQ 3K '

3 tVS YN\ QD NRQIHUHQFtFK  
3 HGQiãND +XPDQLWDULDQ 'LSORPDF\ 8QLYHUVLW\ RI 6  
3 HGQiãND 7KH (QYLURQPHQW DQG +HPRUUKDJLF )HYHUV  
(QYLURQPHQWDO +LVWRU\

9Æ]NXPQi pLQQRVW  
6SROXSUiFH V 0HGHLQV VDQV )URQWLHUV ,QFUHDVHG  
'HPRFUDWLF 5HSXEOLF RI &RQJR

7RQ\ 2]XQD 0 \$

ýOIQN\  
&RQWHPSRUDU\ -D]] 3UDJXH 6X\$D]LQ \$SURSH  
KWWS MD]]LQHXURSH PIPPHGLD QO FRQWHPSRUDU  
DSULO

.ULV %RZHUV +HDGOLQHV 7HHQ 7X-D]] LOOD\$SURSH -D]] )H  
KWWS MD]]LQHXURSH PIPPHGLD QO NULV ERZHUV  
IHVWLYDO

9V ,QWHUSUHWDWLRQ \$ 1HZ )H V]L]LDO \$SURSH ,PSURYLVD  
KWWS MD]]LQHXURSH PIPPHGLD QO YV LQWHUSUHV  
LPSURYLVDWLRQ

.XUW 5RVHQZLQNO DQG KLV SURMHFW] ZLOO\$SURSHR]HU

KWWS MD]]LQHXURSH PIPPHGLD QO NXUW URVHQZL  
PRW]HU EDQGLW

(OHFWULF 6ZLQROXWFXRID2VWUDYDURSH  
KWWS MD]]LQHXURSH PIPPHGLD QO HOHFWULF VZL

3UDJXH 3URPV D VXPPHU PL[ RI MD]] ]&LOOV(XLQFDQ IL  
KWWS MD]]LQHXURSH PIPPHGLD QO SUDJXH SU  
FODVVLFDQ DQG ILOP VFRUHV

%RKHPLD -D]]-)D]]WLO (XQRSH  
KWWS MD]]LQHXURSH PIPPHGLD QO ERKHPLD MD]]

0DUV :LOOLDPV 6ZHWFD]D]HW 6XISRSHPEHU  
KWWS MD]]LQHXURSH PIPPHGLD QO PDUV ZLOOLDP



3LOQê 2 3ROLWLND FKDUDNWHULJDFH ,U\$ D .HOW\$  
%tOHN 0 3URFKi]ND ~9HNLWQGO† HXVOWXUQtKR YÆYRM  
KUGL3B0KD )) 8.

3URIHVRUVNp t]HQt QD )) 8. ]DKiMHQR VFkYiOHQR Y GHF

3LHWUR \$QGUHD 3RGGD 3K '

3RGGD 3 \$ 2EMHFWLYLW\ LQ ILQBQREDO DFERKQRW  
WK ,QWHUQDWLRQDO 6FLHQWLILF &RQIHUHQFH ,)56  
6HSWHPEHU 3UDKD \$QJOR \$PHULFDQ 8QLYHUVLW\ SS

SURI 3K'U 0LODGD 3ROLãHQVNi &6F

ýOHQND RERURYp UDG\ GRNWRUVNpKR VWXGLMQtKR SURJ  
=DSViQD QD 6H]QDP KRGQRWLWHO\$ 1iURGQtKR DNUHGLWD  
+RGQRWLWHOND &((386

GRF 3K'U )UDQFLV 5DãND 3K '

ýOiQN\  
7KH 6WUXJJOH IRU &]HFKRQVORRYONXVLWRD DDXOHRILQX  
&LYLOL]DWLSS

.QLãQt UHFHQ]H  
%DGLRX \$ODLQ DQGK\*DWFKVWW RDEUFGORQH" \$ 'LDORJXH  
&DSLWDOLVP DOG WK&HDPEULXGWH&RIPHQ,QRVUD-FRXUQDO  
\$PHULFDQ &LYLOS\$DWLRO

&HEH 6DQONRYÆ åLYRW pHVNÆFK 3UDYXEi \$RPHQHLWHFK  
-RXUQDO RI (XUR \$PHULFSSQ &LYLOL]DWLRO

.OLPNH 0DUWLQ 3HNHOGHU -DFFRHWQGH6EKBUORXWK 6-R  
)UHQFK OD\ 2SSRVLWLRO DQG HZH<YRUNW 17QH(QURSH  
(XURSHDQROXPH\ 1XPEHU SS

+RSSH -L t ãNRGRYi 0DUNpWD 2DQGY&EDPHDPRR V)UDYHFEV  
VRFLDOLVPX † ýW\ L LQWHUGLVFLSOLQi3UDtJXHGHFNp  
,RPHQLXV -RXUQDO RI (XUR \$PHULFDQ &LYLOL]DWLRO  
%DUWRãHN S.DSUDDD\$XH /LWRP&ãRPHQLXV, -RXUQDO RI (X  
&LYLOL]DWLSS

6WHSKDQLH 6KHWRQ % 6

3UDYLGHOQi Y\VWRXSHQt Y UDGLX &1%& 5DGLR 1HWZRUN  
=DORãLOD SURIHVLRQiOQt EORJ NRPHQWXMH SROLWLFNp  
VWHSKDQLVKHOWRQ FRP

,QJ -DQ 9DãHQGD

3UH]HOWDFH  
9DãHQGH- &DVH RI 8QLYHUVLW\ \$F3UHH6QWDFHLQD \$  
GRNWRUDQGVNpP ZRUNVKRSX 1Å]WZ ñ ]WwQ 2 3 2 V

=DMLã"RYiQt NYDOLW\ D KRGQRFHQ  
pLQQRVWt

9QLW Qt KRGQRFHQt NYDOLW\

\$\$9â Y URFH LQWHQJLYQ SUDFRYDOD QD jY\ãRYiQt  
YêE UHP D MHGQDN L MHMLFK YHGHQtP WjYPLQH#U V\WVLP  
YêXN\ KRGQRFHQt V\ODE\$ YHGRXFtPL NDWHGHU D Y\KRGQ

\$\$9â SRXâtYi VWDQGDUGLjRYDQê IRUPXoi SRGOH YjRU  
Y\SO XMt SRVOHGQt KRGLQX S HG jY UHpQRX jNRXãNR

1iURGQt D PH]LQiURGQt H[FHOHQFH

9URFH \$\$9â ~VS ãQ ]DYUãLOD VYp Q NROLNDOHWp ~  
Y S HGHãOêFK YêURpQtFK ]SUIYiFK NG\`å Mt E\OD GQH

# 7 HWt UROH Y\VRNp ãNRO\

3\$VREHQt Y REODVWL S HQRVX SR]QDWN\$ GR SUD[H  
QDS FHQWUD SUR S HQRV SR]QDWN\$ D WHFKQRORJLt L

9 WpWR REODVWL \$\$9â QHE\OD DNWLYQt NURP pLQQRVV  
YêãH

3\$VREHQt Y UHJLRQX VSROXSUiFH V UHJLRQiOQtPL VDPRV  
Y UHJLRQX QDS QD S tSUDY VWUDWHJLt D SOiQ\$ UR]YR  
D VRFLiOQtFK SUREOpP\$

\$\$9â Y WpWR REODVWL Y URFH QHE\OD DNWLYQt

1DGUHJLRQiOQt S\$VREHQt \$\$9â

9L] !N!D`S" @Q\$@P\$@ !iUR'@ Q&@DP#H]LQiURGQt H[FHOHQFH Y\V