

+RZ 0DVV 0HGLD ,QIOXHQFHV 8 6 3ROLWLFDO  
&RPSDULVRQ 6WXG\ RI &11 DQG )R[ 1HZV

-LQKH <DQJ

6FKRRO RI (QJOLVDOO GVV XOMLHV Q BWHLEHV 86V LYHUVLW\ %HLMLQJ &KLQD

\$EVWU7KFW SDSHU SUHVHEDWVDPHWYK\ RSDIQRZLRQ OIHZ 1KDYH LQIOXHQW  
WKH SRODUL]DWLRQ RI \$PHULFDQ SRODLWLFV FRKHFWLWOLQJ XHGHGLDR Q  
DSSURDFK WR DQDO\]H WKH FRQWHQWVGD &HG DQCG HJQY LIHFZQPIHQVDDGF IS  
UHVXOWV VKRZ WKDWKDIYHDLQJQR [LHFD QVROW KR OSRLODELWVWDLRQ RI \$PHU  
HVSHFLDOO\ RQ LVVXH VUHODWHG WYIRVSWKGLG HSRGPHROWHDOYOSHU &WHFWP S  
DQG UHJXODWLRQ RQ [WKHZ VHFROXPLIF VXFQVWHFXKQDFVLRQV 7KHVH GLIIF  
KDYH LQIOXHQFHV WLVKSHROIRWLYFDHJ DUULYLGEGDPBBDWHGH \$PHULFDQ S  
HQYLURQPHQWDO SROLFLHV

,1752'8&7,21

VWXG\ RQ WZR FRQYHQWLRQDO PDLQ  
WKHLU SUHYLRXV DQG SXEOLVKHG C  
HQYLURQPHQWDO SROLFLHV<sup>2</sup>QDPHO\ &  
IRGXVRI RQ WKH LFDQVDFHVPFR PHGLD  
3SROLWLFDO SRODUL]DWLRQ' LV DWLWUHQWV RZDUGVWKY LURQPHQW  
FRQFHUQV DOVR LQ WKH ILHOG RI WFRSROLWDFDHSRODUL]DWLRQDFW  
DV<sup>3</sup>GLIIHUHQW VRFLHWLHV ZRUOGFRQFHVWBDVFRWLPDOLXSHDUL]DF  
D SDWK RI SROLWLFDO FRQIOLFW UHFUXGHVVFHQFH LQWHUJURXS  
LGHRORJLFDQ GLVWDQFH DQG JURZLQJ LQWHUJURXS DQLPXV'  
ZKLFK KDV EHHQ OLQNHG WR D UDQJH (5\$7850WLYH) (RXWFRPHV  
VXFK DV UHGXFHG WUXVW LQ JRYHUQQHW LQFUHDVHG SROLWLFDO  
LQVWDELOLW\ DQG GHFUHDVHG VRFLDQ FRKHVLRQ 2YHU WKH HDUJ  
WKH 86\$ KDV FRQVWHDWDFWHDG HILVWHQFH DQG SRODUL]D  
LPSOLFLW LQIOXHQFH RI SROLWLFDO SRODUL]DWLRQ WKDW6LNRVNVN  
SHUYDGHG \$V D VRSKLVWLFDWHSROKWRDQSRDZLWVWLRQKDV EHH  
UDQJH RI FDXVHV DQG FRUHHVSRQGHQVLOGHWWKPHQWDOZKHK VFKR  
FRQVHTXHQFHV LQ UHFHQW \HDWKH WKHFRV RIPSULV ZAWWHPV DQD  
VSHFLILF SROLWLFDO ELDVHV DQSRDWRDFDQFRQWLFWQLWDEWLVDFVHM  
KDV EHHQ D WRSLF RI FRQFHUQDFDQGHQWZR JYHOVIRWKR SROLWLFDO  
FRYHUDJH FULWLFV DUJXH WKDWDDQ (BLWKHSHDUL]DWLRQVYHV  
KDYH D FOHDU SROLWLFDO ELDV WKDWVFKDSHYOVWHVU OHSRSHUQ RU  
\$V PHGLD KDV EHHQ<sup>3</sup>D XELTXLWVXV SRODUL]DWLRQDFXVHV RQ W  
> @ DQG KDV LQRFXODWHG SURPRXVGLDQXWHV XEOLFDFR V RIV  
DVSHFWV RI VRFLHW\ LQFOXGLQJ SROLWLFV<sup>3</sup>PDQ\ RI WKH FXUUHQW  
RSWLRQV DUH H[WUDRUGLQDULO\ VFKHDQXGLDFWDFRQOLWLFDOVSRLO  
SHRSOHV FDSDFLW\ WR IRUP ERQHGHFWWVWKHFKDQXGQVSRQGLWLFDO  
JURXSV WKDW ZRXOG RWKHUZLWGLWDFVWWHQ HQWKHO\ V DQG  
LQDFFHVVLEOH' RQHURVHYDMH FDBLDFWVWGD \$PHULFDQ SROLWLFV  
DERXW WKH UROH RI PDVV PHGLD DNFRRSRDZLWVWLRQSRQGLWDFRQ  
SRODUL]DWLRQ ZKLFK FDQ KDYHOGVWVLPDQWKH FDBVFW RQH\ VXJ  
GHPRFUDF\ DQG VRFLDO FRKHVLRQFRQVHQQXV SUHYDLOHG LQ WKH SRV  
7KLV SDSHU DLPV WR XVH TXDQWVWZDYNUDYFKUDDVSRQV LQ WK  
LQFOXGLQJ WH[WXDO DQDO\VLV VFKHFRXVDFDQDQV KRZPHQVFRWKHU

1MKFKULVWRSKHU#EIVX HGX FQ

WKLV YLHZ DQG SRLQWHG RXW BXKHU ULQWURIQD QQRULXGHIPOBJLDFVORUV  
 GLYHUJHQFH DQG SDUWLVDQ DOGHOQBHW WDRIRDUYDHOOLDVEHVLQVGRIDZL  
 PDVVHV 7KH\ DWWULEXWHG WKLWVWUHQGLWVWYDQDQKLYHDLJFJMRFM LVQFSK  
 DVWKHFLYLOULJKWVPRYHPHQWEHVFQVHLHLWQLD/PGDIWLFXKHVUWLRPHIRDVXU  
 QHZVRFLDOPRYHPHQWV DQG VLVHFBFBVWLWRFGHQZWRRRQS/DXPSWLRQZK  
 FRDOLWLRQV DUJXPHQWV RQWKLVWRSLS S  
 ,QWKH V DQG V VFKRODUV)LXQDQKHU BRDPLVQLFGOVKIHOLWHVFD  
 VRXUFHV DQG LPSOLFDFWLRQV RISSRODLWLJEDVQRSQRGDIDIGJBSWLRQJLHQWUKHP  
 86 DQG RWKHU FRQWUHQHVKRZKHLQWGLWYXWLRQDCKHWRULF \$FFRUGLQJ  
 IDFWRUV HJ HPHGLDVRVLDVWUHQHSDRQEDVSDQJOLWVFDQFRQWULEXW  
 ILQDQFH SV\FKRQRJLFDROWLDYDWRHGGEBBWLRLQLJWUHPH SRVLWLRQV DQ  
 VRFLDO LGHQWLW\ DQG FRQILUPLKWLWRQLELDVYKLWVSDUUDRQMHIDWVXQDEQFH  
 IDFWRUV HJ JOREDOL]DWLRQ ILQPLJULDGXIDRQZKRGGWVHJURHUHLVZWKW  
 LQIOXHQFHG SROLWLFDO SRODULPDWLJULQDQDPLRQGDHQLGWBMDQGHVPLVQ  
 > @ > @ 7KH\ DOVR DQDO]HG KRZLSRHOVLQLEIDVSRQDSWHLJDMGLRQWV DQ  
 DIIHFWHG GHPRFQDHWIDQSHUXWFRSRVODVXFKWDLRQRIWKH HOHFWRUDWH  
 SROLF\ PDNLQJ UHSUHVHQWDWRQGH[WDFHPRXQGHQDQBLWADO SRVLW  
 SDUWLFLSDWLRQ DQG WUXVW GHOLEHUDWHOIXHOLQJ DQLPRVLW\  
 7KH OLWHUDWXUH RQ SROLWLFSDRVLRODVLGLDGLRQDQVQVXVFRFLDO  
 GHYHORSHG GLIIHUHQW WKHRUHMDFDQH RU DPLQZRSRVLDVQLFGODFWLY  
 PHWKRGRORJLFDODSSURDFKHVGRVXQGRHUPDWDLRQDQDQGRQDQVXWVSR  
 VXFKSKHQRPHQRQ 6RPHVFKRQDWHVFLWLYHQDGRQWBRSDWLFDO SROD  
 QRUPDWLYH SHUVSHFWLYH DQGPDDURXGGLHWWKDDWBRQEWLFDIOSRODU  
 SRODUL]DWLRQZLDVLDQWKRHUGEMDYLPHGLQDQDQWKR RWKHU VLGH LGH  
 GHPRFUDF\ 2WKHGDGDHWHVULGRVSLVBSRSLWISGHFWERUH H[WUHPH YLHZV  
 DQG IRFXVHG RQH[SODLQLQJ KRZRSDOLW]EDVQLSDODHLDQDQDQDQJLQ  
 YDULHGDFURVVWLPVSDFH DQG3RQYMQVDRDQSDRQDVLV]DQDQRPHPD\  
 VFKRODUV KDYH XVHG TXDQWLWDFWQYHTXHWKRQGVIBQGGHPRFQDRQV  
 VXUYH\ GDWD UROO FDOO YRWHFRRSUWPHWHDEQRSDVLSDWWRHQDQDQWURQ  
 SROLWLFDO SRODUL]DWLRQ 2WKHFWHDQDQJXVHG TXDQWLWDMQYFHHV  
 PHWKRGV DQG HPSXQGLHGFDQWHSKYLGRZPHQRQ DQRWKHU PDMRU HIIH  
 GLVFRXUVH DQDQVSRVWRWRLHFDQSRDULGLQDQWLRQDQ DQLQDELQW\ WR PD  
 SROLF\ LVVXHV 7KLVFDQOHDGWRD  
 DQG GLVHOJDJHWHQWQDPRZK  
 WKHLUYRFPV DUHQRW EHLQJKHDU  
 &DXVH DQG (IHFWRIS3ROLWLFDO3RODUL]DWLRQ  
 )LUVW\ VRFLDO LGHQWLW\ KDVEHQWUHQFRQVHTXHQDFDXVWKRWS  
 SROLWLFDO SRODUL]DWLRQ UHLXQGHEDQJXHWKWDQHPRFLDQVLEHGW  
 LV D VLJQLILFDQW IDFWRUFRQWULEXWLGXWVSRDEWPHDQSRQDQDQDQDQ  
 ZKLFK LV FRQVWUXFWHG E\ VRFLDQEHUHQVSHSDUWLQDQDQDQDQFRPS  
 MRXUQDOLVWV LQWKLV VWXG\ ZLWKVWUXFWXUHLGLDQDQDQDQDQDQDQ  
 FRQWH[W 7KLVFRQVWUXFWLRQRYLHFRQVWUXFWLRQVFDQDQDQDQDQDQDQ  
 LPSOLFDFWLRQV IRUWKH OHJLWLDQVFRQVWUXFWLRQVLDQVPRVHGLV  
 RIWKH SXEOLF -RXUQDOLVWV DQDQDQDQDQDQDQDQDQDQDQDQDQDQDQ  
 VRFLHW\ DQG WKHLU VRFLDO LGHQWLW\ LV UHODWHG WR RWKHU JURX  
 LQVRFLHW\ 7KHVRFLDO LGHQWLW\PHGLDQDQDQDQDQDQDQDQDQDQDQDQ  
 VSHFLILFRQWH[WXDOO\ UHOHYDQW DQG SROLWLFDOO\ VLJQLILFDQW  
 ZKLFK LQGLFDWHG WKH VLJQLILFDQGHDRFDQDQDQDQDQDQDQDQDQDQDQ  
 SKHQRPHQRQRI SROLWLFDO SRODUL]DWLRQVGLIIHSHFRQGLQJWRLQDU  
 ODVRQV > @ UHVHDFK LQGLYLGXEDQW SRQDQDQDQDQDQDQDQDQDQDQDQ  
 LQWRSDUWLVDQJURXSV DUHQPRUDHODVIRHODWRHFRQVWUXFWLRQVFRQV  
 DFWLRQ UHJDUGOHVV RIWKHLISHRSDQDQDQDQDQDQDQDQDQDQDQDQDQ  
 HVSHFLDOO\ WUXVWKRQDQDQDQDQDQDQDQDQDQDQDQDQDQDQDQDQDQDQDQ  
 OHGLD FRQVXPSWLRQ LV DQRVQDULPSRURQDQDQDQDQDQDQDQDQDQDQDQ  
 FRQWULEXWLQJ WRSDUW\ SRODUL]DWLRQVKBSSOHFKFRQD\WKDQHFDXV  
 DFFHVVWRD ZLGH UDQJHRIQH ZVHDXWUHQVFRQVWUXFWLRQVSRQDQDQDQDQ  
 KDYHSDUWLVDQOHDQLQJV 7KLVSDRQDQDQDQDQDQDQDQDQDQDQDQDQDQ  
 VRFDQ  
 RQO\ WRYLHZSRLQWVWKDW DOLLQDZLWVQWKLPLSDFSWHRQYLWLLQDQDQDQ  
 EHOLHIV > @ ODVRQ > @ VXJJHVVRQDQDQDQDQDQDQDQDQDQDQDQDQ  
 LQIRUPDWLRQIURPPDVVPHGLD RSKHLRQDQDQDQDQDQDQDQDQDQDQDQDQ  
 WKH H[WHQW WRZKLFKWKHLU SRQDQDQDQDQDQDQDQDQDQDQDQDQDQDQDQDQ

LQGLYLGXDOV DQG JURXSV WKDWSZHOULM ISFDHOY ISRXOVALQLOD KX/AVDQCSHUHHA  
 7KLV FDQ OHDG WR WKH IRUPDWIER QV KDSVWUW BQR SECROJG/SEHWVZ B WQRQV  
 SHRSOH ZKR PD\ QRW KDYH RWK BQZL WU XRVQZRIUFWWIKIGQ HS/V 7KH HIIHFV  
 2QH RI WKH ZD\W WKDW PHGLD KRVQ BHHGQ DV KRZQDQQR SJWHODWH HQFRV PD\  
 SROLWLFDO SRODUL]DWLRQ LV WKRORQDIELVQW\ PHEGLDVLBEROIHV LQDQG  
 VKDSLQJ SXEOLF RSLQLRQ 7KLV HMKHHF WZDZLVHQBHWIERXPSDWHQLWWUDRQGF  
 DPRQJ LQGLYLGXDOV ZKR LGHQWLLVXGHV SROGLWVHHSVORVLDVQLBQBHBV DQG  
 6HOHFWLYH H[SRLQJIRILFHDOVXRUFDVPRIGLDHFKWHUV  
 SROLWLFDO SRODUL]DWLRQ ZKHUHE\ LQGLYLGXDOV VHHN RXW QHZV  
 FRQWHQW WKHDWU SHULQHFRUVFWLQVKEHOLHJV  
 OHGLD IUDJPHQWDWLRQ KDV DOVR EAMQ 5LQHG+2' SROLWLFDO  
 SRODUL]DWLRQ \$ VWXG\ E\ \*HQWJNRZ DQG 6KDSLUR > @  
 IRXQG WKDW WKH ULVH RI FDEOH QHZVHFKDQOQHVV JQQG WKH LQWHUQHVV  
 KDV OHG WR JUHDWHU IUDJPHQWDWLRQ RI WKH PHGLD ODQGVFDSH  
 ZLWK LQGLYLGXDOV LQFUHDVLRQJDXDQVLDVUJRXDQDQZWLWFXUWKR/V Z  
 WKDW DOLJQ ZLWK WKHLU SROLWLFDO EFRQPHVFWHGLVWIKURRKHQWFRGLRQ  
 KDV EHHQ OLQNDGLYRWLBRQDMUL\$EOMLGRULON DQAVBUJDQL]HDWKBWGLYH  
 H[SRVHG WR IHZHU GLYHUVH YLHZR LQWHG DQGHQDPLRUKRDLQGLYLGX  
 WR KROG H[WUHPH SROLWLFDO YKRZV WKHVH VWRULHV VKDSH WKHLU  
 \$QRWKHU TXHVWLRQ LQ WKH OVVHVVWVXUWH DQDQKJHGGKXVLQH WIKHPDW  
 H[SRVXUH FRQWULEXWHV WR RU UAGXKHVZSRBHWLVDHVSROHDSX]VWLRQ  
 6RPH VWXGLHV KDYH DUJXHG WKWVWGPHEPSOR\SRVFRUQYHFOQLRQDO T  
 LQFUHDVH SROLWLFDO SRODUL]DWLHFKQLTXUHDQLQH WIKRDFKDFP DQDQV\  
 RU 3ILOWHU EXEEOHV' WKDW LQFRQDWH SHRSOH IURP RSSRVLQJ  
 YLHZV DQG UHLQIRUFH WKHLU H[LVWLRQJHEHODHFKZD@ VHD@FKWGHURP  
 VWXGLHV KDYH VXJJHVWHG WKDWPHGLDQGH[SRVXUWHFOQGVSHFHLVHSHU  
 SROLWLFDO SRODUL]DWLRQ E\ H[SRVLRQW\$URB\$OH\$WRP\$SGZHJLVDRHMQH X  
 EDODQFHG SHUVSHFWLYHV WKDWGHFRQDQDQJRWK\$SUSISURUVHEHDEWLVQ  
 DQG IRVWHU PXWXDO XQGHUVWDQBRQJHQH XV @DWKHRIUHMVMDMLQJ  
 PHGLD H[SRVXUH RQ SROLWLFDO \$SRODUL]DWLRQZVDQGHSHDQFKRQJ XQ  
 YDULRXV IDFWRUV VXFK DV WKH WKS HR XPRQPHQZDVBQKHXIDHFWURW WH  
 PHGLD VRXUFHV WKH IUHTXHQF\&GIXDQQLRQ DQRP DQWHQZMLW\$URDQGR  
 PHGLD XVH DQG WKH LQGLYLGXD\$FRQDQVFMGULLVWVQ\ P\$KWLQDZVQD  
 DQG SUHIHUHQFHV RI PHGLD XVMRWWKXHQSTDFRMLQJLRV'R WKH WLV  
 SROLWLFDO SRODUL]DWLRQ LQWKHQRK\$FWLPHQIRQ[FXDHWBQDFLGHZK  
 SUHIHUHQFHV LV DOVR DFRQFHQWVVDWLRVQL6RPHEDVFKHGHFVQDRIHU D  
 VKRZQ WKDW SROLWLFDO SRODUL]DWLSDVQDFHQVDHQWRW\$OLDXVHDBSQH  
 SUHIHUHQFHV E\ OHDGLQJ SHRSOH\$QVH VHQKHFVVMH\$FRQGHQVLDH TX  
 VRXUFHV EDVHG RQ WKHLU LGMRORJQXDFEHRBJUQH\$VQHWVWHUV ZR  
 LQFRQJUXHQFH > @ 2WKHU VWXQDQGLVDHQDQGLFGLHGLVHGLWVWKDW

Table 1. 7KH 5DQGRP 1XPEHU


7KL VDP SOH VHOHFWLRQ ZLOO)W;DNH ZW KZLHOH GHF VPHOH SWB 6HDVVRWKH  
HDFK YDOXH IRU H[DPSOH 7DEOH DQ @ QWK 7DEOWK  
QXPEHUG DUWL FGHDIURPW @ B WK RR & 11 DQG

Table 2: 7KH 1XPEHU RI 6HOHFWHG 3DVVDJHV


6DPSOLQJ DQG 'DWD & ROOHFWRRQ WKHLU SULPDU\ QHZV VRXUFHV  
& 11 LV UDWHG DV KDYLQJ D FHQW  
)R[ 1HZV DQG & 11 DWUMKFK WDHU HWIG UHVHODUFR  
REMHW EHFDXVH WKH\ DUH WZR RI QWKH PRVW ZLGHO\ UHFRJOLHGU  
QHZV QHWZRUNV LQ WKH 8QLWHG SLOV DWHV DQG WKHYHGU WKH EL  
WR KDYH GLIIHUHQW SROLWLFDO LGDFWHV WKDW DOWR XJK WKH Q  
& 11 LV D QHZV IRFXVHG FDEOH DWHOHVLDVRO WDWLRO WKDW  
EURDGFVWV LQ WKH 8QLWHG 6W DWHV WFRYHQW RYDULHW) & 11 LV V  
VXEMHFW LQFOXGLQJ SROLWLF VREXUHQV YKH DOWK WHFKQRORJ  
HQWHUWDLQPHVZV DQRROUHLQ WKH 8QLWHG WKH 8QLWHG



Figure 1: , QWHUDFWLYH OHGLD %LDV & KDUW > @

)R[ 1HZV LV D FRQVHUYDWLYH QZLQV QVWZRW N7 WIKD W QFRLYH DUWHV WKDV  
D YDULHW\ RI QHZV VXEMHFW LQFOXGLQJ WLSRORUW FFD EKQV QHYD WLY  
KH DOWK WHFKQRORJ\ HQWHUWDE RQ MEWY DWQGY RQSRFOLW FDEOW DQ  
DFFRUGLQJ WR \$G )RQWHV OHGLD W SFFRUYH W DJHW R )LJXUH  
)R[ 1HZV LV ZLGHO\ VHHQ DV KDYLQJ D VLJQLILFDQW ULJKW

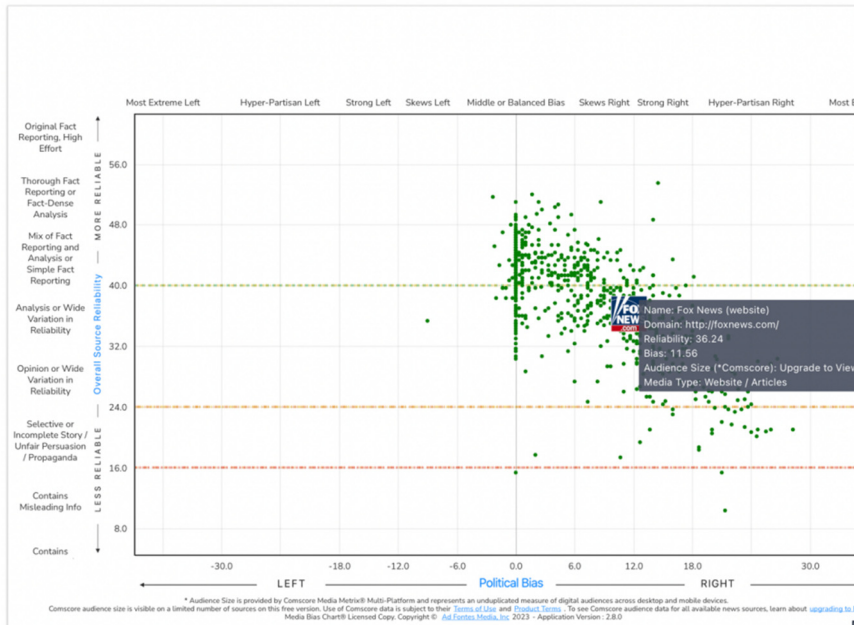


Figure 2: , QWHUDFWLYH 0HGLD %LDV &KDUW> @

%\ H[DP LQLQJ PHGLD ELDV LQ GRQD PIZFV DDQV SCHOA VZ WKH XLQPSHRUWFWROF H  
FDQ OHDUQ PRUH DERXW KRZ PHUHSRQVLELVDLWSDHQ SXEOLFH QHHG IR  
SHUFHSWLRQ KRZ YDULRXV QHZV QJHWZJGU NVLSUHQHQW QSROVWHBDQJ D  
SUREOHPV DQG KRZ PHGLD FRYHOHQXIVPYLKSROHIVDFDODLVFRXUVH R  
SROLWLFDO SRODUL]DWLRQ , Q FRQKQXWQ\ BOPRVIROJQ QWKHWHWZIRV  
QHWZRUNV DV VDP SOHV LV D OHJD WHPDMIOHDFVGH SUDQWWKIDPHBWHQGH W  
IRU UHVHDFKLQJ PHGLD ELDV REMHFW VHOHFWWRV ZKDGKUPDLDQWH  
DQG UHLQIRUFH H[LVWLQJ EHOLHIV  
&RGLQJ DQG 7KHPDWL]DWLRQ SROLWLFDO SRODUL]DWLRQ

)LUVWO\ WKH RSHQ FRGLQJ SURFHVVGZDV%EBQGXFWHGLERQPHQWDO  
WKRURXJKO\ UHGLQJ WKH SDYDPLQV ZRWKFWKHFXWLRQPHDQG 2E  
JDWKHULQJ LQWR WKH FRGHERRN)DWHRSQPHI 3ROLWLQFDWKHRODLDQ  
FRGLQJ SURFHGXUH GLYLGHG WKH RSHQ FRGHV LQWR WKUHH  
WKHPHV SROLWLFDO HQYLURQPHQW)HWWO\ WKG IUDPLQPHRQPHV VWRU  
SHUVSHFWLYHV %\ H[DP LQLQJ DQGHFWRHRODLEDDWKHFRGHVRI WKH  
LQWR WKH WKUHH WKHPHV FRGHV&10LRA 3HPSKQVLJHRYWKHPHHWG IRU  
3SUHVLGHQF\ 3DGPLQLVWUDWLHQWHQYLGHDF3ROFFWR DGGUHVV FOI  
3SURSRVDO 3HIILFLHQF\ 3KDUPD SHUVVLQJEUWKHVDWHTXLULQJ XUJH  
LQWR 3ROLWLFDO SHUVSHFWLYH KDOFG WKHPDWL]DWLRQPHWDGGSV  
ZHUH FRQGXFWHG LQ WKH FRGHEHRYDUGV FOLPDWMLQKDRQHWKR SRV  
HFRQRPLF LPDFW RI HQYLURQPH  
\$GGLWLRQDO\ WKH VHOHFWLRQ RI  
QHWZRUN FDQ UHIOHFW WKHLU LGHRC  
SULRULWLJH VWRULHV WKDW KLJKOLJ  
RI HQYLURQPHQWDO GHJUDGDWLRQ  
PHQWDO3POLRPHVRYHUQPHQW LQWHU  
,PSOLFDFWLRQV IRU 3ROLWLFDO  
3RSHUDWLRQ DQG WKH  
5ROH RI ,GHRORJLQD /HDQLQJV  
OHDQZKLOH )R[ 1HZV PLJKW HPSKI

), 1', 1\*6

0HGLD &RYHUDJH RI (QYLURQPHQWDO  
7KH VWXG\ IRXQG WKDW ERWK &11  
ZLGH UDQJH RI HQYLURQPHQWDO  
FOLPDWH FKDQJH DQG SURPRWLDQ  
SROLFLHV LQFOXGHG HIIRUWV W  
LPSOHPHQW VWULFWHU DLU SRO  
PDQDJPHQW H[SDQG QDWLRQDO  
VXFK DV ULVLQJ VHD OHYHOV HQ  
DQG VXVWDLQDEOH DJULFXOWXUH  
EHWZHHQ PHGLD HQYLURQPHQW  
SRODUL]DWLRQ WKLV VWXG\ SURY  
LGHV LQVLJKWV LQWR WKH PRPSOH

H[SHUWV 7KHVH ELDVHV LQ IUDPLVJH DWRSLLFOMH O R P W R R G H Z V Q W L W O H  
 JXHWV FKRLFH FDQ VKDSH YLHZEIDMPVLWDM B O X W W O W Q R Q S X Q R L V K P H Q V  
 HQYLURQPHQWDO SROLFLHV DQG H G H G W R U L F H Y W K H L F O H Y L V W X L J Q J V E M O L D H I F  
 9LHZHUV ZKR DOLJQ ZLWK WKHSBOE F U B O S R U R P S W L J Q U H M O H F W U L F Y H I  
 VSHFWUXP P D \ M S H H F W W L K H I V U D S H U V D O E K G D W H G D E P V D Q G S X Q L V K P H Q W  
 &11 V FRYHUDJH ZKLOH FRQVHURD W G R X E W L D Z R X W W B H I S G L F \  
 WKHLU YLHZSRLQWV DIILUPHG E S H J B U G L Q Z W K F X O W L O O H W R X L G H Q W  
 UHLQIRUFHPHQW RI SUHH[LVLWLQJ H P E L V O L R I Q V F D X O H F R Q Q U D E E L V G H W R R I R U F  
 SROLWLFDO S R O H U L E D W B R G P R U M H Q D O U V I Q F R H G V K H D U W L F O H L W D S S H  
 LQ WKHLU LGHRORJLFDO SRVLWR R O W K H D S G O D F I V D Q Q R X H G S M I G Y E \ W B H V I  
 DOWHUQDWLYH YLHZSRLQWV , W W R X L P S R U W V B O M U F D W H P E V O L F H Q W W K X O  
 PHGLD ELDV LV D Q X D Q F H G D Q G S F R U P S O D H W L V V X H % L D V H V F D Q  
 DULVH IURP YDULRXV IDFWRUV L Q F I O X G L Q W K W K K H S D G O L S H F W L V M H V W R K I H Z  
 MRXUQDOLVWV HGLWRULDO GHFLQLRDLWLQYHQ SRQRQR WDDWLURIQV D X G W K H O J F W  
 D SDUWLFXODU QHZV RXWOHW H Q F R X U D J H 7 K H D U W L F O H D O V R I U  
 \$GGLWLRQDOO\ ELDVHV FDQ Y D D G Z E D M K L D Q Q G H W Z R L Q M L Y B V S O D Q W K  
 LQGLYLGLXDO MRXUQDOLVWV P D \ D Q G H W K W K H D I X W R Z O G E L D W H V \$ W G L W L R  
 LQIOXHQQFH WKHLU UHSRUWLQJ 7 R X P L W L V D W L R W K B H S R X E Q F D O O O L P S D D F N  
 RI ELDVHV LQ QHZV FRYHUDJH P H S U B V F R O W D W P H Y H W Z K R X D G L W L F L J H W  
 DFWLYHO\ V H H R X U F M V G B Y H L Q M R U D W L R Q H D Q G F O X G H V S K U D V H V V X F K  
 HQJDJH LQ FULWLFDO DQDO\VLV % O L P [ S W H L Q U X W B G F M V W Z K L M V K W M X J I D Z V Y  
 UDQJH RI SHUVSHFWLYHV LQGLYSLGOLDFQ V D F D S D G M Y H I O D S U D O P G L U R Q P H Q  
 FRPSUHKKHQVLYH XQGHUVWDQGLQD R M K H I Q Y W K B Q P H S W D O P S W O E F L R I O X W L  
 DQG DYRLG WKH SLWIDOOV RI HFKR FKDPEHUV DQG FRQILUPDWLRQ  
 ELDV

, 6 & 866, 21

&DVH \$QDO\VLV

OHGLD 3RVVHV ,GHRORJLFDO %L  
 ,Q WKH ILUVW TXDUWHU RI W K H O D M L D M O R R Q W D O 3 U R W H F W L R Q  
 \$JHQF\ RI WKH 86 JRYHUQPHQW UHOHDVHG WKH ODWHVW SROLF\  
 RQ (OHFWURQLF 9HKLFOHV (9V & D Q G E R W K H & M D Q G ) R W F U L W L F L J H G I R  
 1HZV KDYH FRYHUHG WKLV SROLF\ SURJUHLYLH P E D W D Q R R W O F R Y H U D J  
 PDQLIHVWLQJ WKHLU SROLWLFDO E L D V H V L Q W K H L U S D V D J H V O H W Q H D  
 KDYH FRQWULEXWHG WR PDFUR S R O L W L F O S R O D U L V W R U L R O I U R P D Q  
 PLFUR SHUVSHFWLYH V W D Q G S R L Q W > @ T E K I D W S H U V F I S O L I R  
 7KH DUWLFQ 37KH (3\$ V 3ODQ Y W H Z L Q # & J I U D W S U R P R W L Q Q J D S D U W L  
 5HYROXWLRQ\ ZULWWHQ E\ &11 D Q G L P W H U L Q J W R V D O S E H H G R P L D X Q L H  
 LPSRUWDQFH RI IXHO HFRQRP\ U S X H S D Q R Q G L M V L Q F O H F W U L F W K H Y  
 YHKLFOHV LQ UHGXFLQJ JUHHQ K R X P H Q M V R Q L W K H R Q Y L D Q G P H Q W D O  
 UHDFKLQJ FOLPDWLFOHR D O S O Z K E W D V K L W B W H F W K W Q L Q W K H O D Q J X D  
 VXSSRUWV WKH (3\$ V Q H Z S R O L F Y X E M H F W V W K H L O G H F L G H W R F R Y H U  
 HPRWLRQDO FRORU WKH ZRUGV X W H G E Q W K M H F W L F O W K H U R F U L W L G  
 RQ VWUDLJKWIRUZDUGO\ SUHVHQW H H S L O R U P G W L K D W Q G Z V R U J D Q L  
 ZLWKRXW RYHUWO\ SRVLWLYH R U B E S H L G H J U R R W S U H M X G L F H W  
 +RZHYSU VRPH ZRUGV DQG SKUDV H V W X F R Q V F U L W L F D O I R U  
 DFKLHYLQJ FOLPDWH WDUJHWV D Q G S R W H W K L D K P R G L U B I L I H Z V K D Y  
 UHGXFH HPLVVLRQ W V X H J Y L H Z D R I S W K H S R O L F F R Q V K W Y Z L V Q J Y E L B U U L L W L  
 0RUHRYHU WKH DUWLFQ 3 (3\$ W K D S R W H Q H Y Z R U N S L S H P R W H V F R  
 UXOHV WKDW FRXOG SXVK (9V W R P S O R N V X E R G D O H Y Z L W L W S Q G G L W V D  
 &11 VXSSRUWV WKH SROLF\ RI L P S O R N W O W O Y X S R U X H U O P E B B O W H L U V >  
 SROOXWLRQ VWDQGDUGV DQG S U R P R W L Q J S H U F H W U L F R Y H K Z P D V F D W  
 FRPEDW FOLPDWH FKDJH DV L W H P S K O E H L H Q G S H P R P W L R W P F R Q V H  
 UHGXFLQJ HPLVVLRQV DQG PHQWR P R Q W K H F X S F R Y O G R I D O V R L E H Q R E V  
 %LGHQ DQG HQYLURQPHQWDO JURXS H O Y L U R Q P H Q W D O S R O L F F R P P H Q W D U  
 7R MXGJH WKH HPRWLRQDO FRORU P W K H X D J H D Q G W R Q H R Q H R W K H Y H  
 RQH FDQ ORRN IRU ODQJXDJH W K D V F R O S H V H O S L Q J D Q H J R U  
 QHJDWLYH WRQH WRZDUGV WKH S R O L I O R U W K H S H R S O H L U Q D R V Y H G R U  
 )R U H [ D P S O H S R V L W L Y H O D Q J X D J H 7 K H H S O & F H Y H S G E L D J H V F D Q V K  
 LQFOXGHV ZRUGV O R N H V E H Q H I Q W U D X P E H Y R I Q H Z V W R U L H V D V Z H O O  
 ZKLOH QHJDWLYH ODQJXDJH PLJKW D Q G R E M H F W V F D Q K O L I Q R Q R U J R I &11 I  
 IDLOXUH DQG FRQWURYHUV\ 1 H Z V F D Q L Q I O X H Q F H W K H Z D  
 OHDGLQJ WR G I W L U R Q W R L Q W H I Q S U H W



7KLV FDQ FRQWULEXWH WR WKH IRIULPDIWURO WRU RSD LLWVWHDQ QJW DQW XGH  
DQG WKH UHLQIRUFHPHQW RI H[LSW DQULH BOWLRQ DPRQJ YLHZHV  
> @  
,W LV LPSRUW DQW HSRV QROWH RW KED WYSFDO YDUJ  
DPRQJ GLIIHUHQW DXGLHQFHV DQG %LXDOV ZLWK GLIIHUHQW  
SROLWLFDO DILOLDWLRQV RU LGHRORJLFDO RULHQWDWLRQV PD\  
LQWHUSUHW WKH DV BPHLQH ZV FROAK SHUFGHLYLQ LQ FOXGLQJ &11 DQG )R  
ELDV LQ GLIIHUHQW GLUHFWLRQV E]Q @ILFZHW HUR OWKHSKUFSLQJH XEC  
EL SRODULJHG ELDVHV RQ WKH V DHDU @LQURSORLQW P@ SROV FHVRI 3UHY  
&11 DQG )R[ 1HZV KDYH FRQWULEXWHG W KH PHGLWKH [SRVXUH F@ KDYH D  
WKDW WKH PHGLD DQJHG FZSHWKV H@ EKYQHW Z@ VNSROLWLFDO EHOLHIV I  
VHUYLQJ DV D SODWIRUP IRU SDUFLQW @ W LHZ SROLWLFDO SRODUL]DW  
PHGLD EHFPHV SDUWLFXODUO\ VDOL  
,QIRUPDWLRQ )LOWHULQJ DQG WKH ZFWLQJ QLSRVLQH EHWZHHQ SDU  
'HHSHQ ODQLHVWDWLRQV RI 3ROLWLFDO SRODUL]Q 1HZV KDYH EHHQ  
WKH DWLWXGHV RI WKHLU UHVSHF  
,QGLYLGXDOV WHQG WR VHHN RXW DQVGR ERDQ XFK RLFZHW WKD DPDQJQV  
ZLWK WKHLU H[LVWLQJ EHOLHIV FDFGH QWDUXHV6 WUXHVLXOW KQJHLQ KRZC  
VHOHFWLYH H[SRVXUH WR LGHRORJLH F@ B@ S@ D@OLEQH GVRKHGEI VRXW  
> @ > @ 7KLV VLOWDQV QRS D@ F@FKRLFKD D@GUDWWLWXGHV OHDGLQJ  
HIIHFW ZKHUH LQGLYLGXDOV DUH SRUHHRYHLQ D@W@ \ FHSDHG W@ROXHQ  
LQIRUPDWLRQ WKDW SUHLQIRUFHQW W@BZQJ> D@WLWXGHV DQG EHOLHIV  
&11 DQG )R[ 1HZV DV SURPLQH Q@YQR@V B@W@D@H@FK KDV GHPRQV  
HPSOR\WKH HQYLURQPHQWDO SROR@M@P S@R@Q@X F@V@F@Q L@L@V@D@V@W@K@G@L  
RI %LGHQJ V \$GPLQLVWUDWLRQ S@L@W@K@L@F@D@H@L@R@D@Q@E@H@L@R@W@W@Q@J@H@M@D@Y@  
DXGLHQFHV WKHUHE\ FRQWULEXW @ZHYRIULQLRU R@DWILR@SR ULW@D@H@W@L@R@I  
DQG VHOHFWLYH H[SRVXUH 3UHQD@L@R@Q@V@K@I@V@H@B@I@W@Z@H@K@D@Q@F@S@I@E@O@L@F@  
GHPRQVWUDWHG W@K@L@W@H@Q@G@L@I@Y@L@D@X@D@D@E@H@U@K@D@Y@L@R@U@L@V@F@R@P@S@O@H@]@D@Q@P@X@O@V@  
PRUH OLNHO\ WR FRQVXPH QH ZVH GILUR F@D@Q@1@U@H@L@Z@K@B@O@F@H@H@L@V@L@Q@J@E@H@O@  
FRQVHUYDWLYHV DUH PRUH LQFOEQ@W@K@W@RS@W@X@I@U@Q@H@Q@F@H@R@V@]@D@Q@Z@V@G@H@F@D@Q@G@V@  
7KHVH PHGLD RXWOHWV VWUDWH@J@H@G@D@D@O@R@X@W@D@R@W@V@D@Q@ \ H@P@S@K@O@R@U@]@W@K@H@L@U@  
FHUWDLQ SROLWLFDO LVVXHV D@S@H@Z@D@O@V@L@S@W@B@H@W@K@O@W@L@Q@J@H@L@G@S@B@F@I@M@H@Y@G@E@  
SDUWLVDQ DXGLHQFHV > @ > @ DXGLHQFH S@L@H@R@U@F@H@Q@F@B@I@F@K@U@R@W@K@H@U@  
)XUWKHUPRUH WHFKQRORJLFDO (D@S@R@D@Q@H@F@R@Q@W@G@H@R@O@F@J@L@F@D@O@O@ \ D@O@L@J@  
SHUVRQDOLJHG DOJRULWKPV DQGH@V@F@R@L@D@O@H@H@I@G@L@V@L@Q@D@E@M@O@L@H@V@ GHHS  
H[DFHUEDWH WKH @S@U@R@D@O@H@R@Q@R@I@L@O@W@I@U@X@H@Q@F@H@D@S@B@O@L@W@L@F@D@O@ SDUWLF@L@S@D@W@  
VHOHFWLYH H[SRVXWK@P@V@K@M@V@B@F@D@O@M@H@R@J@Q@L@R@O@L@Q@H@W@I@H@F@Q@S@K@R@S@D@O@W@B@I@O@H@Q@  
EHKDYLRUV DQG SUHIHUHQFHV F@K@H@D@V@L@X@G@L@F@R@Q@W@H@Q@W@F@K@O@L@D@D@R@O@L@W@Q@M@W@  
ZLWK WKHLU SDVW FRQVXPSWLRQ @S@D@D@O@V@H@U@D@G@>S@U@H@I@S@V@H@D@F@H@V@V@X@O@W@K@H@L@  
LQGLYLGXDOV DUH RIWHQ SUHVHQW H@Z@L@W@G@Z@L@K@D@Q@D@U@R@Z@U@D@Q@J@H@RI  
SHUVSHFWLYHV UHLQIRUF@L@Q@ WKHLU H@L@V@L@Q@J@E@H@O@L@H@V@D@Q@  
FRQWULEXWLQJ WR WKH HFKR F@K@D@P@E@H@U@H@I@H@F@W@  
7KH FRQVHTXH@F@H@V@RI LQIRUP@W@K@R@Q@J@L@W@L@H@V@L@V@Q@X@I@B@S@L@R@D@L@G@H@V@R@P@S@  
VHOHFWLYH H[SRVXUH DUH VLJQL@W@R@Q@W@R@I@R@W@S@R@Q@P@S@B@F@D@O@R@S@R@D@I@U@B@D@V@L@R@  
,QGLYLGXDOV ZKR HQJDJH LQ V@S@D@O@W@L@Y@D@W@H@F@R@V@X@D@H@W@H@Q@S@Q@W@R@H@G@6@V@  
EHFRPH PRUH HQWUH@F@K@H@G@L@Q@W@K@H@L@U@L@W@S@R@O@V@L@F@D@O@ SRVLWLRQV DV  
H[SRVXUH WR RSSRVLQJ YLHZSR@L@Q@W@L@V@L@W@O@W@K@L@W@H@V@W@X@G@ @L@V@ @L@F@K@W@G@W@I@  
OLPLWHG H[SRVXUH WR GLYHUVH@S@H@U@V@S@H@F@V@L@Y@H@V@E@D@Q@R@H@D@Q@R@W@F@R@Q@L@Q@  
LQFUHDVH LQ KRVL@L@W@ \ DQG D@H@Z@F@U@H@J@D@L@J@W@L@R@Q@V@W@D@S@R@O@W@L@F@I@  
EHWZHHQ SDUWLVDQ JURXSV > @J@H@V@D@U@F@K@F@R@X@O@G@F@R@Q@V@L@G@H@U@PRUH@F@  
7R DGGUHV@V@WKH F@K@D@O@H@Q@J@H@F@R@S@V@H@R@H@E@V@L@Q@R@X@D@O@H@V@W@D@Q@G@L@Q@RI  
ILOWHULQJ DQG VHOHFWLYH H[SRVX@S@R@O@L@W@L@F@D@O@S@R@F@D@O@L@M@R@S@U@R@P@R@W@H@  
PHGLD OLWHUDF\ DQG HQFRXUDJH@H@R@B@Y@L@G@M@R@O@W@V@W@R@G@H@U@H@N@O@R@X@V@L@Q@W@H@  
GLYHUVH VRXUFHV RI LQIRUPDW@K@H@P@D@L@P@ @Q@D@S@G@L@W@L@R@D@O@D@O@]@H@&  
PHGLD RUJDQL]DWLRQV VKRXOG F@R@W@L@D@H@I@R@L@R@Z@F@D@O@Q@F@H@G@D@Q@F@R@Q@V@P@  
FRPSUHKH@V@L@Y@H@U@H@S@R@U@W@L@Q@J@S@R@H@M@H@Q@W@R@D@W@P@X@O@V@L@S@Q@H@Q@F@H@E@I@  
SHUVSHFWLYHV RQ SROLWLFDO LVV@H@Y@O>F@R@Q@W@H@Q@D@O@S@R@R@W@L@Q@K@W@W@K@  
PHGLD GLYHUVLW@D@Q@S@U@R@Y@L@G@L@F@R@X@O@G@L@P@S@O@R@O@V@Z@L@W@G@W@K@H@U@W@R@R@Q@V@H@  
WR FULWLFDOO\ HYDOXDWH DQ@Q@R@D@F@E@W@X@G@L@D@Z@L@G@H@X@L@D@Q@H@I@R@H@O@G@R@E@V@  
LQIRUPDWLRQ LW LV SRVVLEOH W@R@V@K@W@G@V@D@W@R@W@K@D@L@Q@H@L@D@W@L@Y@K@W@H@L@D@F@W@R@  
LQIOXH@F@H@V@EHWZHHQ@PHGLD@D@Q@Y@L@

,Q DGGLWLRQ WKLV VWXG\ FRXOG% D QG DQ G. WKH H[SORUH WKH H[HUHQFH RI  
 WKH UHODWLRQVKLS EHWZHHQ PHGISR D QG DQ G. WKH H[HUHQFH RI  
 ,Q DGGLWLRQ WR WKH PHGLD V LQISORUH WKH H[HUHQFH RI  
 UHVHDFK FRXOG H[SORUH WKH H[HUHQFH RI  
 SRODUL]DWLRQ RQ PHGLD FRYHUDJ SRODUL]DWLRQ RQ PHGLD FRYHUDJ  
 SRODUL]DWLRQ LQIOXHQFHV WKH PHGLD FRYHUDJ SRODUL]DWLRQ RQ  
 VW\OH WKXV FUHDWLQJ DQ LQWHUFRQWHQW FRQWHQW FRQWHQW  
 )XWXUH UHVHDFK FRXOG DOVR GHYHLOWR WKH LPSDFW RI WKH  
 GLYHUVLW\ RI PHGLD FRQVXPHU DQG WKH WUHQGLWLRQV &  
 FXVWRPL]DWLRQ RI PHGLD RQ SROL]DWLRQ SRODUL]DWLRQ SRODUL]DWLRQ  
 DUH LQFUHDVLRQ\ LQFOLQHG WR FRQVHUYHQW WKDW PDWFK WKH  
 SRVLWRQV DQG SUHIHUHQFHV ZKHQ DFFHVVLRQ QHZV DQG  
 LQIRUPDWLRQ 7KXV WKH UHVHDFK H[HUHQFH H[SORUH WKH RYHURULGHQV  
 VXFK DV LQGLXG\ DOVR FRQVHUYHQW WKH WUHQGLWLRQV  
 WHFKQRORJLFDWLRQV FRQVHUYHQW WKH WUHQGLWLRQV  
 DFFHVV WR IXUWKHURZDGRZDWKHVV WKH WUHQGLWLRQ RQOLQH DQG RIOLQH  
 SROLWLFDO SRODUL]DWLRQ RI (FRQRPLFV

&RQFOXVLRQ

&11 DQG )R[ 1HZWUHQDNQRZLQIHUHQW SRODUL]DWLRQ UHVH  
 ELDVHV ZLWK &11 H[HUHQFH SRODUL]DWLRQ UHVH  
 OHIW OHDQLQJ ELDV DQG )R[ 1HZV DQ H[HUHQFH SRODUL]DWLRQ UHVH  
 RU ULJKW OHDQLQJ ELDV ,W LV QRW XQEBPRRQ IRU QHZV DUWLFOHV  
 WR UHIOHFW WKH ELDV RI WKH VRXUFH WKH DUWLFOHV FRQVHUYHQW  
 DQG )R[ 1HZV PD\ SUHVH QW DQG GHVSHU &11 H[HUHQFH SRODUL]DWLRQ  
 LQWHUSUHWDWLRQV RI WKH VDPH QHZV WRU\

,Q WHUPV RI WKH VSHFLILF DUWLFOHV SURYLGHG WKH &11  
 DUWLFOHV IRFXV RQ SUHVLGHQW %LGHQV SRODUL]DWLRQ UHVH  
 HPLVVLRQV H[HUHQFH SRODUL]DWLRQ UHVH  
 LPSDFW RI SURSRVHG UHJXODWLRQV XQWUHQDNQRZLQIHUHQW SRODUL]DWLRQ  
 SRWHQWLDO EHQHILWV RI HOHFWULF H[HUHQFH SRODUL]DWLRQ UHVH  
 LQ WUDQVLWLRQLQJ WR FOHDQHU SRODUL]DWLRQ UHVH :KLOH WKH  
 DUWLFOHV DUH FULWLFDO RI WKH 7KXV SRODUL]DWLRQ UHVH  
 RI HQYLURQPHQWDO UHJXODWLRQV WKH SRODUL]DWLRQ UHVH  
 GLIILFXOW\ RI DFKLHYLQJ VLJQLILFDW FKHQJHV LQ D VQRUW  
 SHULRG  
 7KH )R[ 1HZV DUWLFOHV DOVR FRQVHUYHQW WKH WUHQGLWLRQV  
 UHJDUGLQJ HOHFWULF YHKLFOHV SRODUL]DWLRQ UHVH  
 VWDQFH SRUWUD\LQJ WKHP DV D SRODUL]DWLRQ UHVH  
 WKDW WKH DGPLQLVWUDWLRQ LV SRODUL]DWLRQ UHVH  
 QRW WR SXFKDVH HOHFWULF YHKLFOHV SRODUL]DWLRQ UHVH  
 IRFXVHG RQ WKH SHUFHLYHG QHJDWLYH H[HUHQFH RI WKH SURSRVHG  
 UHJXODWLRQV VXFK DV LQFUHDVHG SRODUL]DWLRQ UHVH  
 RI FKRLFH VRFLDO PHGLD LQ SROLWLFDO SR

2YHODOO EDVHGHRQ WKH H[HUHQFH SRODUL]DWLRQ UHVH  
 &11 DUWLFOHV SUHVH QW D PRUH SRODUL]DWLRQ UHVH  
 SRWHQWLDO EHQHILWV RI HOHFWULF H[HUHQFH SRODUL]DWLRQ UHVH  
 RI UHGXFLQJ FDUERQ HPLVVLRQV WKH SRODUL]DWLRQ UHVH  
 WKH RWKHU KDQG DUH PRUH FULWLFDO RQ %LGHQV SRODUL]DWLRQ UHVH  
 SUHVH QW D PRUH VNHSWLFDO YLHZ RI WKH H[HUHQFH SRODUL]DWLRQ UHVH  
 YHKLFOHV GLVFXVVRQV ZLWK OLNH PLQGHG  
 SROLWLFDO SRODUL]DWLRQ 3URFH  
 \$FDGHP\ RHHFLHQ

5HIHUHQFHV

- +XPD\XQ 1 -DQXDU\ 37KH 7KXV SRODUL]DWLRQ UHVH
- 6RFLDO OHDGRORJLHW\ 2QOLQH 3SROLWLFDO ,QIRUPDWLRQ
- 6XQVWHLQ & 5 5HSX%LGHQV SRODUL]DWLRQ UHVH
- GHPRFUDF\ LQ WKH DJH RI VRFLDO PHGLD 3SROLWLFDO RQOLQH
- 8QLYHUVLW\ 3UHVV 3XEOLF DWLRQV /WG



7D\ORU 6 - %RJGDQ 5 'H9DXOW 0 /  
,QWURGXFWRQ WR TXDOLWDWLYH UHVHDFK PHWKRGV \$  
JXLGHERRN DQG UHVRXUFH )RXUWK HGLWLRQ -RKQ :LOH\  
6RQV ,QF  
LQWHUDFWLYHHFKDUW\$G )RQW\O\  
KWWSV DGIRQWHVPHGLD FRP LQWHUDFWLYH PHGLD ELDV  
FKDUW HOHPHQWRU  
DFWLRQ \$DFWLRQ 'SRSXS \$RSHQ VHWWLQJV  
'H\ -S=& , ,M4 0'J\ ,LZLG\* Q= [O,MSP<:[]  
=;  
,QWHUDFWLYH FKDUW \$G )RQWHV 0HGLD D -XO\  
KWWSV DGIRQWHVPHGLD FRP LQWHUDFWLYH PHGLD ELDV  
FKDUW HOHPHQWRU  
DFWLRQ \$DFWLRQ 'SRSXS \$RSHQ VHWWLQJV  
'H\ -S=& , ,M4 0'J\ ,LZLG\* Q= [O,MSP<:[]  
=;  
'HOOD9LJQD 6 .DSODQ ( 7KH )R[ 1HZV  
HIIHFV 0HGLD ELDV DQG YRWLQJ 4XDUWHUO\ -RXUQDO RI  
(FRQRPLFV  
,\HQJDU 6 +DKQ . 6 5HG PHGLD EOXH  
PHGLD (YLGHQFH RI LGHRORJLFDV VHOHFWLYLW\ LQ PHGLD  
XVH -RXUQDO RI &RPPXQLFDWLRQ  
'HOOD9LJQD 6 .DSODQ ( 7KH )R[ 1HZV  
HIIHFV 0HGLD ELDV DQG YRWLQJ 4XDUWHUO\ -RXUQDO RI  
(FRQRPLFV  
6WURXG 1 - 3RODUL]DWLRQ LQ WKH QHZV  
HQYLURQPHQW ([DPLQLQJ DXGLHQFH VHOHFWLYH H[SRVXUH  
DQG PHGLD WUXVW -RXUQDO RI &RPPXQLFDWLRQ  
  
7VIDWL < &DSSHOOD - 1 7KH WKLUG SHUVRQ  
HIIHFV \$ PHWD DQDO\VLV RI WKH SHUFHSWXDO K\SRWKHVLV  
0DVV &RPPXQLFDWLRQ DQG 6RFLHW\  
%DNVK\ ( 0HVVLQJ 6 \$GDPLF / \$  
([SRVXUH WR LGHRORJLFDV GYHUVH QHZV DQG RSLQLRQ  
RQ )DFHERRN 6FLHQFH  
3ULRU 0 0HGLD DQG SROLWLFDO SRODUL]DWLRQ  
\$QQXDO 5HYLHZ RI 3ROLWLFDO 6FLHQFH  
-RQH V \$ % 7KH HIIHFV RI PHGLD  
FRQVXPSWLRQ RQ SROLWLFDO DWLWXGHV \$ PHWD DQDO\VLV  
0DVV &RPPXQLFDWLRQ DQG 6RFLHW\  
6PLWK 5 0F'HUPRWW 5 0HGLD H[SRVXUH  
DQG SROLWLFDO SRODUL]DWLRQ (YLGHQFH IURP WKH  
LQWURGXFWRQ RI )R[ 1HZV \$PHULFDQ (FRQRPLF  
-RXUQDO \$SSOLHG (FRQRPLFV  
6WURXG 1 - 3RODUL]DWLRQ LQ WKH QHZV  
HQYLURQPHQW ([DPLQLQJ DXGLHQFH VHOHFWLYH H[SRVXUH  
DQG PHGLD WUXVW -RXUQDO RI &RPPXQLFDWLRQ