

H-RXUQDO RI 7D[5HVHDFK YRO QR SS

7KH WUDQVIRUPDWLRQ RI W
IXQFWLRQV LQ WKH DXWRPD
LQIRUPDWLRQ HUD ± D GHY
SHUVSHFWLYH

6DODK *~~0~~GGDDKPRXG 0 \$EGHOODWLI

\$EUVUDFW

\$XWRPDWLF ([FKDQJH RI ,QIRUPDWLRQ \$(2, UHVXOWV LQ WD[DGPLQLVWUDWLRQ
DXWRPDWLF EDVLV ZKLFK ZLOO KDYH D VXEVDQWLDO LPSDFW RQ WKHLU IXQF
WD[SD\HUV \$(2, SXWV D JUHDWHU IRFXV RQ WD[DGPLQLVWUDWLRQ IXQFWLRQV R
EXUGHQ RQ WD[SD\HUV DQG HQIRUFHPHQW)URP WKH SHUVSHFWLYH RI WKH WD[

OHG WR WKH GHYHORSPHQW RI WKH \$(2, VWDQGDUG DQG IRFXV QRW RQO\ RQ ID
HIIHFWLYHO\ XVLQJ WKH LQIRUPDWLRQ UHFHLYHG LQ LPSURYLQJ WKHLU IXQFWLRQ

.H\ ZRUGXWRPDWLF ([FKDQJH RI ,QIRUPDWLRQ WD[DGPLQLVWUDWLRQ FRPPRQ U

DQG (FRQRPLFV 4DWDU 8QLYHUVLW\ 'RKD 4DWDU (PDLO P DEGHOOD

H-RXUQDO RI 7D[5HVHDFK

7KH WUDQVIRUPDWLRQ RI WD[DGPLQLVWUDWLRQ IX

H-RXUQDO RI 7D[5HVHDFK

7KH WUDQVIRUPDWLRQ RI WD[DGPLQLVWUDWLRQ IX

FRPSO

H-RXUQDO RI 7D[5HVHDFK

7KH WUDQVIRUPDWLRQ RI WD[DGPLQLVWUDWLRQ IX

SUDFWLFLH 7KH (URH) LHZ ORRNHG WR WKUHH PDLQ DUHDV
LQIRUPDWLRQ LL DFFHVV WR LQIRUPDWLRQ DQG LLL H
IXUWKHU GLYLGHG LQWR HVVHQWLDO HOHPHQWV 2YHUDO
DOO DVSHFWV RI \$HIIHFWLYH XQ,5 RI UHYLHZV WRRN SODF
FRPSOHWHG LQ

6XEVHTXHQWO\ WKH 2(&' GHYHORSHG WKH LQWHUQDWLRQ
WKH &RPPRQ 5HSRUWLQJ 6WDQGDUG &56 ZKLFK ZDV H
0LQLVWHUV DQG *RYHUQRUV RI &HQWUDO %DQNV DV SDUV
LQ)HEUXDU\

7KH 86 RQ WKH RWKHU KDQG WDFNOHG WD[HYDVLRQ W
HQDFWLQJ WKH)RUHLQJ \$FFRXQW 7D[&RPSOLDQFH \$FW

H-RXU

H-RXUQDO RI 7D[5HVHDFK

7KH WUDQVIRUPDWLRQ RI WD[DGPLQLVWUDWLRQ IX

LPSOHPHQWDWLRQ RIRWKHDS\$(2, WLVHDFKDOOHQJHV DQG
LPSDFW WKH\ PD\ KDYH RQ WKH IXQFWLRQV RI WD[DG
XQGHUVWDQG WKH FKDUDFWHULVWLFV RI \$(2, DQG WR
WD[SD\HUV DQG WD[DGPLQLVWUDWLRQV

&KDUDFWHULVWLFV RI \$(2,

%DVHG RQ \$(2, VWDQGDUGV DQG WKH REMHFWLYHV WKH\
\$(2, FDQ EH LGHQWLILHG LQFOXGLQJ VWDQGDUGLVD
VFRSH RI GDWD DQG XVH RI WHFKQRORJ\ 7KHVH FKDU

6WDQGDUGVWKHDLRQW DQG SUREDEO\ PRVW LPSRUWDQ
HIIHFWLYH \$(2, LV VXEMHFW WR DGKHULQJ WR VWDQGD
LQ JDWKHULQJ UHYLHZLQJ SURFHVVQJ RU UHSRUWL
VWDQGDUGLVDWLRQ ERWK FROOHFWLRQ DQG H[SORLV
GLIILFXOW DQG FRVWO\ +HQFH WKH QHHG IRU VWDQ
SURFHGXUHV DQG IRU D VFKHPD WR SXW WKH LQIRUPD
RI &56 DQG)\$7&\$ DQG WKH QHHG IRU D FRPPRQ WHP
UHSRUWV

6L]H RI VWDVHFRQG FKDUDFWHULVWLF RI \$(2, LV WKDW
RI ODUJH YROXPHV RI GDWD 7KH H[FKDQJH LV QRW PD
FDVH RI (R,5 EXW UDWKHU RQ D FROOHFWLYH EDVLV L
VRPHWLPHV PRUH

6FRSH RI H[FKDQJH WR WKH SUHYLRXV FKDUDFWHULV
RYHUDUFKLQJ QDWXUH RI WKH H[FKDQJH DV VKRZQ E\
,Q WKH FDVH RI &56 DQG)\$7&\$ IRU LQVWDQFH WKH
LQFOXGLQJ WKRVH WKDW DUH QRW QHFHVVDULO\ XQG
UHJXODWRUV LQ UHVSHFW RI DOO W\SHV RI ILQDQFLD
HQWLWLHV RU DUUDQJHPHQWV DQG FRYHUV DOO UHOH

8VH RI WHFKQRORJ\ RI WKH VL]H RI GDWD H[FKDQJH
UHTXLUH LQWHQVLYH XVH RI WHFKQRORJ\ WR DOORZ WH
DQG EUP !7Y•

LQIRUPDWLRQ WHFKQRORJ\ ,7 V\ VWHPV ZKLFK JHQHUD
VLJQLILFDQW FKDQJHV LQ WKH RUJDQLVDWLRQ SURFHVV

7KH UROH RI WKH WD[DGPLQLVWUDWLRQ LQ WKLV UHVS
XQGHUVWDQGLQJ WKH REOLJDWLRQV DQG LPSOHPHQWLQJ
WKH ORZHV SRVVLEOH FRVW ,Q WHUPV RI IXQFWLRQV
DFWLYLWLHV

x /LDLVLQJ ZLWK RWKHU UHOHYDQW DXWKRULWLHV WR
VWULNHV WKH ULJKW EDODQFH EHWZHHQ WKH QHHG
DQG D UHDVRQDEOH FRVW RI VXFK FRPSOLDQFH ,Q V
PRVW UHOHYDQW VWDNHKROGHUV DUH ILQDQFLDO VH

x 'UDIWLQJ FOHDU OHJLVODWLRQ DQG UHJXODWLRQV W

x 'UDIWLQJ JXLGDQFH QRWHV DQG SUHSDULQJ UHSRUW

x 2UJDQLVLQJ HYHQWV WR SUHVHQW DQG H[SODLQ WK
TXHVWLRQV HWF

x 3URYLGLQJ DVVLVWDQFH LQFOXGLQJ WUDLQLQJ HW
WRRO

)XUWKHU WD[DGPLQLVWUDWLRQV QHHG DOVR WR PRQLW
LQWHUYHQH DV DQG ZKHQ UHTXLUH WR HQIRUFH WKH RE
LPSURYH WKH RYHUDOO OHYHO RI FRPSOLDQFH

,Q PRVW GHYHORSQJ FRXQWULHV IXOILoolQJ WKH IX
GHVFULEHG DERYH ZLOO EH D PDMRU FKDOOHQJH FRQV
UHTXLUH DQG WKH JHQHUDOO\ OLPLWHG UHVRXUFHV DY
DQG 0HLQ]HU UHSRUWHG WKDW WKH FDSDFLW\ WR FRPSO
WKH JUHDWHVW FRQFHUQ IRU GHYHORSQJ FRXQWULHV

&KDOOHQJHV UDLVHG E\ \$(2, DQG LPSDFW RQ WD[DGPLQLVWU
SHUVSHFWLYH

\$(2, JHQHUDOO\ LQYROYHV WD[DGPLQLVWUDWLRQV UHFH
KLJK YROXPHV WKDW LV YHU\ XVHIXO LQ YHULI\LQJ WKH
UHODWLRQ WR WKHLU WD[OLDELOLW\ 7KH NH\ FKDOO
DGPLQLVWUDWLRQ WR HIIHFWLYHO\ XVH WKH UHFHLYHG
FRQILUPHG WKLV LQ WKHLU UHSDUWLRQV

'LUNLV DQG %RQGILHOG DERYH Q
.HUULH 6DGLT DQG \$GULDQ 6DZ\HU μ'HYHORSQJ &RXQWULHV DQG V
6WDQGDUG ± \$ 32QH 6L]H)LWV \$OWWBOOXDQW RQ RUXP
2(&' 7KH &KDQJLQJ 7D[&RPSOLDQFH (QYLURQHQW DQG WKH 5R
KWS ZZZ RFG RUJ FWS WKH FKDQJLQJ WD[FRPSOLDQFH HQYLURQ
HQ KWP
\$QGUHV .QREHO DQG μ'DUNXG RHLQDON 6HFUHF\ " %ULGJLQJ WKH
\$XWRPDWLF ,QIRUPDWLRQ ([FKDQJH \$Q (YDOXDWLRQ RI 2(&' V &RPPR
\$OWHUQDLOOHV UHSRUW 7D[-XVWLFH 1HWZRUN 1RYHPEHU
KWSV SSSHUV VVUQ FRP VRO SSSHUV FIP"DEVWUDFWBLG

H-RXUQDO RI 7D[5HVHDFK

7KH WUDQVIRUPDWLRQ RI WD[DGPLQLVWUDWLRQ IX

UHWKLQN WKHLU IXQFWLRQV DQG RSHUDWLRQV WR FRSH
DEOH WR HIIHFWLYHO\ XVH LW ,Q WKLV FRQWH[W WKH IF

5LVN DVVHVVPHQW DQG DXGLW

7KH NH\ DUHD ZKHUH WKH UHFHLYHG GDWD FDQ EH XY
SURILOHV 7KH GDWD ZLOO LGHQWLI\ KLJK ULVN WD[SD
ZKLFK ZRXOG DOORZ D EHWWHU DOORFDWLRQ RI UHVR)
LQ WKH %(36 \$FWLRQ ILQDO UHSRUW RQ &E&5 ,W FO
EH XVHG WR DVVHVV WUDQVIHU SU(30 VHE LYHOQHHRQ

H-RXUQDO RI 7D[5HVHDFK

7KH WUDQVIRUPDWLRQ RI WD[DGPLQLVWUDWLRQ IX

WKH DXGLW IXQFWLRQ LV UHTXLUHG LQ WKH FRQWH[W
JHQHUDWHG WKH GDWD WR EH VHQW WR H[FKDQJH SDU
\$FKLHYLQJ DOO WKH DERYH LQ D GHYHORSLQJ FRXQWU
PRELOLVLQJ WKH UHTXLUHG WHFKQLFDO H[SHUWLVI D
IURQWV WR PDNH WKH EHVW XVH RI WKH UHFHLYHG G
SUHVXSSRVHV WKH H[LVWHQFH RI D IDLUO\ VRSKLVWLF
WD[DGPLQLVWUDWLRQ DOORZLQJ WKH LQWHJUDWLRQ
DQG LWV XVH WR GHWHFW FDVHV RI QRQ FRPSOLDQF
SDWWH#QW LV QRW 0 LV 0 pLRQ @ U`APRVW GYHORSLQJ

H-RXUQDO RI 7D[5HVHDFK

7KH WUDQVIRUPDWLRQ RI WD[DGPLQLVWUDWLRQ IX

DXWRPDWLRQ RI PRVW RI LWV DFWLYLWLHV 7KH DXWKR
WUDQVIRUPDWLRQ DLPLQJ DW LQFUHDVLQJ LWV UHVRXUF

· \$VVHVPHQW RI 4DWDU¶V SUDFWLFH LQ \$(2,

4DWDU VLJQHG D)\$7&\$,*\$ ZLWK WKH 86 DQG LV DPRQJVV
WR LPSOHPHQW DQG LPSOHPHQWHG &56 LQ)LUVW
H[FKDQJH SDUWQHUV RQ 6HSWHPEHU ,Q WKLV FRQ
DQG WKH 0&\$\$ RQ 1RYHPEHU DQG LVVXHG D &56 &L

H-RXUQDO RI 7D[5HVHDFK

7KH WUDQVIRUPDWLRQ RI WD[DGPLQLVWUDWLRQ IX

DJUHHPHQW

H-RXUQDO RI 7D[5HVHDFK

7KH WUDQVIRUPDWLRQ RI WD[DGPLQLVWUDWLRQ IX

)URP WKH 47' SHUVSHFWLYH VHH VHFWRQ DQG EHF
IRU WKH SXUSRVHV RI ERWK)\$7&\$,*\$ DQG &56 LV WDNLQJ
WKH LPSOHPHQWDWLRQ RI \$(2, LQ WKHVH WZR DUHDV GLG
WHUP KDYH D PDMRU LPSDFW RQ WKH ZD\ WKH 47' FRQG
PDQDJHPHQW RU FROOHFWLRQ IXQFWLRQV 1RW UHFHLY
DGDSW DQG XSJUDGH WKHVH IXQFWLRQV

)RU &E& UHSRUWLQJ KRZHYHU LQ WKH DEVHQFH RI LQGL
WKH H[FKDQJH RI UHSRUWV ZLOO EH UHFLSURFDO +HQ
VXEVLGLDULHV LQ 4DWDU ZLOO VHH WKHLU &E& UHSRUW
VHQW WR 47' E\ WKH FRPSHWHQW DXWKRULW\ RI WKH 6WD
SDUHQW FRPSDQ\ RU LWV VXUURJDWH +RZHYHU WKH LF

