

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

,GHQWLI\LQJ WKH IDFWRUV LP
WD[FRPSOLDQFH D VWXG\ LC
RIILFHUV RI 0DOD\VLDQ EXVLQ

1LYDNDQ 6LDMKDU 6DQKZDNW&LKR\ 6KH XQJG6KDUFG \$KPDG
6\XEDLOL

\$EUVUDFW

,W LV DVVXPHG IURP WKH OLWHUDWXUH UHYLHZV LQ WD[DWLRQ WKDW D WHQGHO
ZLWK WD[PDWWHUV LQ WKHLU EXVLQHVV HVWDEOLVKPHQWV LQ 0DOD\VLD ZKHQ

FRPSOLDQFH DQG WKHLU GHFLVLRQ PDNLQJ RQ FRUSRUDWH WD[FRPSOLDQFH

.H\ZRUGV[\$IIDLUV 2IILFHUV 3HUVRQDO 7D[&RPSOLDQFH &RUSRUDWH 7D[&RPS

'RFWRUDO &DQGLGDWH DQG *UDGXDWH 5HVHDFK \$VVLVWDQW)DFX
0DOD\VLD 6DUDZDN 6DUDZDN 0DOD\VLD &RUHVSRQGLQJ DXWKRU
VULQLYDNDQ#JPDLO FRP 7KH DXWKRUV ZLVK WR WKDQN WKH 0LQLVWU

H-RXUQDO RI 7D[5HVHDFK

,GHQWLI\LQJ WKH IDFWRUV LPSDFWLQJ XSRQ SHU

FRPSO\ ZLWK WKH WD[V\VWHP YLRODWLQJ WKH ,QFRPH
WKH &RQVWLWXWLRQ RI WKH FRXQWU\ 6ULWKDUDQ HW D

\$FFRUGLQJ WR WKH ,QODQG 5HYHQXH %RDUG RI 0DOD\VL
ELOOLRQ ZDV UHFRUGHG LQ WKH \HDU 0LQLVWU\ RI)
PDLQ FDXVHV IRU WKH H[LVWHQFH RI WKH WD[JDS LQ WK
FRPSOLDQFH EHKDYLRXU RI WKH WD[SD\HUV 7KLV LVVXH
0DOD\VLD VLQFH WR RI WKH QDWLRQDO UHYHQXH G

0DOD\VLD V WD[DXWKRULW\ FRQIURQWV GLILFXOWLHV L
D WD[FRPSOLDQFH V\VWHP ,5%0 FK@`0G LSG RGKW %I

H-RXUQDO RI 7D[5HVHDFK

,GHQWLI\LQJ WKH IDFWRUV LPSDFWLQJ XSRQ SHU

UHJXODWLRQ QXPEHUG DQG ZLWK DPHQGPHQW RI
0XNWL\DQWR)URP WKH 60(V LQ 0DOD\VLD HPSOR\P
PLOORLRQ SHRSOH LQ WKH \HDU ZKLFK LV UHODWLYHO
RI WKH SUHYLRXV \HDU RI PLOORLRQ 'HSDUWPHQW

(VWDEOLVKPHQW RI DQ 60(LQ 0DOD\VLD LV QRWDEO\ HD
LQVWLWXWLRQV LQ WKH FRXQWU\ SURYLGLQJ VXEVWDQW
%DQN KDV KLJKOLJKWHG WKDW LQ RUGHU WR WUDQV
WR D KLJKHU LQFRPH HFRQRPLF FRQGLWLRQ 0DOD\VLD Z
H[WHQW RQ WKH FRQWULEXWLRQ WR EH PDGH E\ 60(V HV
VWXG\ E\ 5D]DN \$EGXOODK DQG (UVR\ KLJKOLJKWV \
GRPLQDWHG WKH 60(VHFWRUV LQ 0DOD\VLD DQG WKDW
HFRQRP\ WKURXJK WKHLU 60(V KDV EHHQ H[WUDRUGLQD
0DOD\VLD UHPDLQV D PXOWL UDFLDO FRXQWU\ WKH RWKH
DQG %XPLSXWHUDV KDYH EHHQ REVHUYHG WR EH IDU EH
GLVLQWHUHVWHG LQ WKLV HQGHDYRXU 7KH 60(μ&DSDEL
*URZ 3URJUDPPH¶ &*3 DUH WZR RI WKH 0DOD\VLDQ JRYH
HQFRXUDJ@À@€QW¶⊥QGGG JR0

H-RXUQDO RI 7D[5HVHDFK

,GHQWLI\LQJ WKH IDFWRUV LPSDFWLQJ XSRQ SHU

LQWHJULW\ RI 0DOD\VLDQ WD[SD\HUV DQG HQFRXUDJLQ.
2QH VWXG\ FRQGXFWHG LPPHGLDWHO\ DIWHU WKH LQW
SHUFHSWLRQ RI WKH WD[SD\HUV WRZDUGV WKH VHOI DVV
ZHUH PRUH FRPIRUWDEOH ZLWK WKDW V\VWHP WKDQ ZL
.DVLSLOODL

&

H-RXUQDO RI 7D[5HVHDFK

,GHQWLILQJ WKH IDFWRUV LPSDFWLQJ XSRQ SHU

	2Q WKH ILUVW		
	1H[W		
	2Q WKH ILUVW		
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	2Q WKH ILUVW		
	1H[W		

([FHHGLQJ

/HIHEYUH HW DO 7KH LQGLYLGXDO WD[SD\HU¶V EH E\ WKH EHKDYLRXU RI KLV QHLJKERXUV RU E\ WKH EHK LQGLYLGXDO IUHTXHQWO\ LQWHUDFWV \$OP %ORRPTXLVV VWXG\ KDV HPSOR\HG DQ H[SHULPHQWDO PHWKRG WR WH FRPSOLDQFH EHKDYLRXU DQG LW KDV IRXQG WKDW WKHU QHLJKERXUV¶ WD[FRPSOLDQFH EHKDYLRXU DQG WKH LQQ +RZHYHU WKH VWXG\ IXUWKHU FRQFOXGHV WKDW WKLV FRPSOLDQFH EHKDYLRXU GRHV QRW DOZD\ LPSURYH EHKDYLRXU ,Q DGGLWLRQ \$OP HW DO H[SODLQ WK ZLGH WKDW LW FDQQRW EH QDUURZHG GRZQ WR LQIRUPD

7KH VWXG\ E\ +R /RR DQG /LP IRXQG WKDW WD[SD\H EDVHG UHDFRQLQJ WR PDNH MXGJPHQWV RQ WD[FRPSO KLJKOLJKWHG WKDW SHRSOH DUH DOZD\ UHDF\ WR UHDF WKHLU QHLJKERXUV DQG WKHLU SHHUV &RQYHUVHO\ KR -DEEDU DQG 6DPVXGLQ IRXQG WKDW SHU LQIOXHQ HIIHFW RQ WD[FRPSOLDQFH DPRQJ -RUGDQLDQ WD[SD\ VXSSRUWHG E\ %RUQPDQ ZKR H[SODLQHG WKDW WH FRPSO\LQJ ZLWK WKH WD[V\VWHP ZKLOH WKHLU SHHUV Z

5HIHUULQJ WR WKH GHFLVLRQ PDNLQJ RI DQ LQGLYLGXD GLVFRYHUHG WKDW WKH LQIOXHQFH H[HUWHG E\ WK GHWHUPLQDQW RI WD[FRPSOLDQFH LQ RWKHU UHJLRQV D RI -RUGDQLDQV LV KLJKO\ LQGLYLGXDOLVP RULHQWHG D DPRQJ WKH SHRSOH RI WKH FRXQWU\ SURYLGLQJ DQ H[SC UHODWLRQVKLS RQ WD[FRPSOLDQFH ,QWHUHVWLQJO\ D 8GLQ LQ WKH VDPH VWXG\ VHWWLQJ RI WKH 0LGGO SHHUV VWURQJO\ GHWHUPLQHV WKH WD[FRPSOLDQFH EH ILQGLQJ KLJKOLJKWV WKH UHODWLRQVKLS EHWZHHQ WKH GHFLVLRQ PDNLQJ \$ VLPLODU RXWFRPH KDV EHHQ UHSR H[SODLQHG WKDW WKH UHIHUHQFH JURXS KDV WKH PRV FRPSOLDQFH EHKDYLRXU DPRQJ VPDOO DQG PHGLXP HQW

7KH PL[HG FRQFOXVLRQV UHDFKHG E\ UHVHDFKHUV GR G WKH UHODWLRQVKLS EHWZHHQ WKH SHU WD[FRPSOLD FRPSOLDQFH EHKDYLRXU \$OVR VWXGLHV IRFXVLQJ RQ V LQGLYLGXDO LPSDFWHG E\ UHIHUHQFH WR KLV SHHUV LQ ,GULV DQG 0RKDPDG VXJJHVW WKDW SHU WD[FRPS YDULDEOH DV LW LV LQYROYHG ZLWK VRFLDO SUHVXUH LQ WKLV UHJDUG VKRXOG EH HPSOR\HG WR REWDLQ D SHUFHSWLRQV IURP WKH LQGLYLGXDOV FRQFHUQH

3UREDELWLW\ RI WD[DXGLW

\$FFRUGLQJ WR \$OOLQJKDP DQG 6DQGPWR WD[SD\HUV WD[V\VWHP LI WKH\ ILQG WKDW WKH SUREDELWLW\ RI W KLJK 6RPH VWXGLHV KDYH IRXQG WKDW WKHUH LV D SRVL WD[FRPSOLDQFH \$\HUV 6HLGPDQ 7RZHU\ 0RGXJ\ VXSSOHPHQWDO DQDO\VLV FDUULHG RXW E\ \$\HUV HW DO DXGLW DOWHUV WKH H[SHFWDWLRQ RI PDQDJHUV RQ IXW KDYH UHSRUWHG PL[HG UHVXOWV RQ WKH DVVRFLDWLRQ OHYHO RI WD[FRPSOLDQFH)RU H[DPSOH 'H%DFNHU HV

H-RXUQDO RI 7D[5HVHDFK

,GHQWLILQJ WKH IDFWRUV LPSDFWLQJ XSRQ SHU

0° 5HVQDO WD[F

H-RXUQDO RI 7D[5HVHDFK

,GHQWLILQJ WKH IDFWRUV LPSDFWLQJ XSRQ SHU

H[SHQGLWXUHV PDGH E\ WKH JRYHUQPHQW DUH QRW DV I
EH %UDLWKZDLWH

7R PLQLPLVH WKH LPSDFW RI WD[FRPSOLDQFH RQ LQG
RUJDQLVDWLRQV LQVWLWXWLRQV EXVLQHVV HQWLWLHV
GLVFRXUDJH DQ\ EDG LQWHQWLRQ RI WD[HYDVLRQ WKH
(DUQ† 3\$<(KDV EHHQ DGRSWHG ZKHUHE\ WKH WD[HV GX
WKH LQGLYLGXDOV FRQFHUQH DUH GHGXFWHG IURP WKH
WR WKH WD[DXWKRULW\ 7KH DGRSWLRQ RI WKH 3\$<(V
UHODWLRQVKLS EHWZHHQ SHUFHSWLRQ RI JRYHUQPHQW
WD[SD\HUV DUH GHSULYHG RI WKH RSSRUWXQLW\ WR WDN
RQ WKHLU SHUFHSWLRQ WRZDUGV WKH JRYHUQPHQW 5R
KDYH IRFXVHG WKHLU DWWHQWLRQ RQ WKH SHUFHSWLRQ
VSHQGLQJ

\$OOLQJKDP DQG 6DQGPR KDYH PRGHOOHG DQ LQGL
EHKDYLRXU DQG WKLV PRGHO DOVR VXJJHVWV WKDW WD[
EDVHG RQ D VLPSOH H[SHFWHG XWLOLW\ IXQFWLRQ ZKLF
JRRGV RU VHUYLEFHV EH\RQG WKH PRQHWDU\ YDOXH \$FF

H-RXUQDO RI 7D[5HVHDFK

H-RXUQDO RI 7D[5HVHDFK

,GHQWLILQJ WKH IDFWRUV LPSDFWLQJ XSRQ SHU

μVDWLVIDFWLRQ ZLWK JRYHUQPHQW VSHQGLQJ¶ WR EH DG
FRPSOLDQFH

7KHUHIRUH ZH SRVWXODWH

+

H-RXUQDO RI 7D[5HVHDFK

,GHQWLILQJ WKH IDFWRUV LPSDFWLQJ XSRQ SHU

7KH 6PDUW3/6 DSSOLFDWLRQ ZDV XVHG WR DQDO\XH WK
DSSHDO RI 3/6 6(0 LV DOORZLQJ WKH UHVHDFKHU WR HV
FRQVWUXFWV DQG LQGLFDWRUV DQG FRPSOLFDWHG V
GLVWULEXWLRQDO DVVXPSWLRQV RQ WKH GDWD +DLU
PHDVXUHPHQW PRGHO LV WR FKHFN WKH ILWQHVV EHWZ
YDULDEOHV 7KH 3/6 DOJRULWKP UHYHDOV WKH RXWHU O
DQG RXWHU ZHLJKW IRU WKH IRUPDWLYH FRQVWUXFW
JRYHUQPHQW VSHQGGLQJ DQG VHUULFH TXDOLW\ RI WD[D
PRGHOV DQG WKH UHVW DUH IRUPDWLYH FRQVWUXFW
~~FRQVWUXFWV IRU WKH FRQVWUXFWV DV DZLOWL DVWWYKA@OLEGWRU LZFSL~~
ORDGLQJ DQG IDFWRU ZHLJKW UHYHDO YDOXHV DERYH W
LQGLFDWRUV RI SHHU WD[FRPSOLDQFH DQG LQGLYLGXD

7KH VHFRQG VWHS LQ WKH PHDVXUHPHQW PRGHO LV W
UHOLDELOLW\ PRVW RIWHQ XVLQJ FRPSRVLWH UHOLDEL
UHOLDELOLW\ &5 VKRZV WKH LQGLFDWLRQ RI LQGLFDWR
DQG UHSRUWLQJ WKH YDOXHV DERYH WKH EHQF

7KH WKLUG VWHS LV DVVHVVLQJ WKH FRQYHUUHQW YDOL
H[WHQW WR ZKLFK WKH FRQVWUXFWV FRQYHUUHQW WR H[SOD
YDULDQFH H[WUDFWHG \$9(LV UHSRUWHG EHWZHHQ WKH
WKH UHFRPPHQGHG EHQFKPDUN F[WÅ SO

H-RXUQDO RI 7D[5HVHDFK

,GHQWLILQJ WKH IDFWRUV LPSDFWLQJ XSRQ SHU

5()(5(1&(6

\$EGXO -DEEDU + 3RSH - μ7KH HIIHFWV RI WKH VHOI DVVHVV
RI VPDOO DQG PHGLXP HSWWSDOLVHQV 7000 DUDQRD 1 SS

\$KPHG \$.HGLU 6 μ7D[FRPSOLDQFH DQG LWV GHWHUPLQDQ
,QWHUQDWLRQDO -RXUQDO RIYSHOVHDFK LQSRFLDO 6FLHQFHV

\$ODVIRXU) 6DP\ 0 %DPSWRQ 5 μ7KH GHWHUPLQDQV R
(YLGHQFH IUSBYRQSHDQ LQYRD[DWLSS

\$OOLQJKDP 0 * 6DQGPR \$ μ,QFRPH WDRXVQDORR \$XVGRU
(FRQRPRV QRV SS

\$OP - %ORRPTXLVW .0 0F.HH 0 μ:KHQ \RX NQRZ \RXU QHLJ
SHHU HIIHFWV DQGLWDFRVSGLDHOVH SS

\$OVKLU D K \$) \$EGXO -DEEDU + 6DPVXGLQ 5 6 μ7KH HIIHFW
DPRQJ -RUGDQDWHUHQDWLRQDO -RXUQDO RI \$FDGHPLF 5HVHDFK
DQG ODQDJHPHQW 6FLHQRVV SS

\$\HUV % & 6HLGPDQ - . 7RZHU\ (0 μ7D[UHSRUWLQJ EH
&RQWHPSRUDU\ \$FFRXQWLQJ GRVHDSFK

%DJGDG 0 \$ 1RRU 5 0 +DPLG 1 \$ \$]L] 5 \$ μ)DFWRUV DIIH
WD[DXGLWYHDFK DQG 6XVWDLQDELOLWRI *ORQBO %XVL
SS

%HUQDDP μ7D[GRGJHUV ,5% WR ILQDZVHSDREH RQPHVODU
\$SULO \$YDLODEOH DW KWWSV ZZZ QVW FRP P\ QHZV QDW
ILQDOLVH SUREH ODUJH FRPSDQLHV DFFHVVHG -DQXDU\

%RUQPDQ BULQFLSOHV IRU XQGHUVWDQGLQJ HQFRXUDJLQJ D
FRPSOLDQFRWRUDO GLVVHUSDWLRQ 8QLYHUVLW\ RI -RKDQQHV

%UDLWKZDLWHILDQFH LQ WD[DWLQ DQG JRYHUQDQFH 5HVLVWLQ
GHPRFU(GZDUG (OJDU 3XEOLVKLQJ &KHOWHQKDP 8.

&KRQJ . 5 \$UXQDFKDODP 0 μ'HWHUPLQDQV RI HQIRUFHG V
IURP 0DQ\YLDV

H-RXUQDO RI 7D[5HVHDFK

,GHQWLILQJ WKH IDFWRUV LPSDFWLQJ XSRQ SHU

6FKQHLGHU) ZLWK (QVWH ' μ+LGLQJ LQ WKH VKDGRZV 7KH
,QWHUQDWLRQDO 0RQHWDU\)XQG ,0) (FRQRPLF ,VVXHV 1
KWWSV ZZZ LPI RUJ HQ 3XEOLFDWLRQV (FRQRPLF ,VVXHV ,V
6KDGRZV 7KH *URZWK RI WKH 8QGHUJURXQG (FRQRPL\

6HNDUDQ 5HVHDFK PHWKRGV IRU EXVLQHWK \$HVLQGLQJ
6RQV &KLFKHVWHU 8.

6NDWWHYHU HJWKW)URP 7KH 6NDWWHYHUNHW 6WRFNKROP \$
KWWSV ZZZ VNDWWHYHUNHW VH VHUULFHODQNDU RWKHUODQ
VDQG\H DUERN DF H D I KWPO

6OHPURG - <LW]KDNL 6 μ7D[DYRLGDQFH HYDVLRQ DQG
)HOGVWHLQ+DQG HERN RI SXEOLFHFROHFWRFK+ROODQG \$PVWH

6ULWKDUDQ 1 6DODZDWL 6 D μ(FRQRPLF IDFWRUV LPSDFW
EHKDYLRXU LQVWHDQDWLRQDO -RXUQDO RI \$FDGHPLF 5HVHDFK
DQG 0DQDJHPHQW & FLHQFHV SS

6ULWKDUDQ 1 6DODZDWL 6 E μ([DPLQLQJ WKH PRGHUWL
UHODWLRQVKLS EHWZHHQ LQGLYLGXDO IDFWRUV DQG LQFRPL
,QWHUQDWLRQDO -RXUQDO RI \$FDGHPLF 5HVHDFK LQ \$FFRXQ
YRO QR SS

6ULWKDUDQ 1 6DODZDWL 6 &KHXN 6 & 6 μ+RZ VRFLDO IDF
FRPSOLDQFH EHKDYLRU HULQDQV LQVWHDQDWLRQDO -RXUQDO RI \$FDGHPLF
SS

6XSULRQR \$ 8WDPL , 0XNWL\DQWR \$ μ([SORUDWLRQ RI W
VPDOO DQG PHGLXP HQWUHQV\ DQJQR SS

7UDQVSDUHQF\ ,QWRUQDSWLRFQDSHUFH\$WUBQQ LQGH[

7UDQVSDUHQF\ ,QWRUQDSWLRFQDSHUFH\$WUBQQ LQGH[

:RUOG %DQN μ³6PDOO LV WKH QHZ ELJ' ± 0DOD\VLDQ 60(V KH

H-RXUQDO RI 7D[5HVHDFK

,GHQWLI\LQJ WKH IDFWRUV LPSDFWLQJ XSRQ SHU

:RUOG %DQN7KH E9XOQHUDELOLW\ RI -REV WR &29,' 7KH &
KWWSV ZZZ ZRUOGEDQN RUJ HQ HYHQW WKH YXOQH
FDVH RI PDOD\VLD

:RUOG %DQNDODVLD WR \$FKLHYH +LJK ,QFRPH 6WDWXV %HWZHHC
,PSURYH WKH 4XDOLW\ ,QFOXVLYHQHV DQG 6XVWDLQDEL
&RPSHWLWLYRUOG %DQN KWWSV ZZZ ZRUOGEDQN R
UHOHDVH DLPLQJKLJKPDOD\VLD

<LW]KDNL 6 μ\$ QRWH RQ ,QFRPH W<XHQDOLRQ3\$EOKFRFRQRP
YRO QR SS

\$33(1',;

&RGH	,QGLFDWRU	&RGH	,QGLFDWRU
37\$;	, ZRXOG IHHO J XLOV\ DRYWQVGH[SD\HUV H[SHFW PH WR UHSRUW P\ DFWXDO L QFRPH WQDOO P\ LQFRPH RQ WKH P\ DQQXDO WD[UHWXU DQQXDO WDXUQ		
37\$;	7R IHHO JXLOW\3I(R) XQGHUUDOO\ , ZRX OG GR ZKDW PF UHSRUWLQJ LQFRPH WWD[SD]RQ H[SHFW PH WR GR		
37\$;	8QGHU UHSRUW3QJ5 P\ LQFRPH WWD[SD]RQ H[SHFW PH WR GR WD[PDNHV PH EHWWH PHRIH J IDPLO\ IULHQGV DQG EXVLQHV SDUWQHUV H[SHFW PH UHSRUW DOO P\ LQFRPH RQ WKH DQQXDO WD[UHWXUQ		
37\$;	7KHUH DUH D QXREHU RHQHUUDOO\ , ZRX OG GR ZKDW JRYHUQPHQW VHUYLEHSHRSOH ZKR DUH LPSRUWDQW WR LQIUDVWUXFWXUHV DQZRXDFLOH[SHFW PH WR GR IRU ZKLFK , DP WKDQIXO		
37\$;	8QGHU UHSRUW3QJ5 LQFRPH WWD[SD]RQ H[SHFW PH WR GR DFFHSWDEOH LI DQ\ SDUFWXDO RQFRPH RQ WKHLU DQQXDO WKH PRQH\ FROOHFWHGHLWXUQV		
37\$;	3D\LQJ DV OLW3QJ5 WDDHUUDOO\ , ZRX OG GR ZKDW PF SRVVLEOH L RWKHU WD[SD]RQ H[SHFW PH WR GR		
37\$;	*RYHUQPHQW KDBV(5\$HQWVSKHR SOH ZKR DUH LPSRUWDQW PRQH\ FROOHFWHG IURPH WDDJ IDPLO\ IULHQGV DQG HIILFLHQWO\ EXVLQHV SDUWQHUV XQGHU UHS WKHLU DFWXDO LQFRPH RQ WKHLU DQQXDO WD[UHWXUQ		
37\$;	8QGHU UHSRUW3QJ5 P\ LQFRPH WWD[SD]RQ H[SHFW PH WR GR ZLOO QRW KXUW WKH SRIRSHW\ ZKR DUH LPSRUWDQW WR ZKROH GR		

H-RXUQDO RI 7D[5HVHDFK

,GHQWLILQJ WKH IDFWRUV LPSDFWLQJ XSRQ SHU

37\$; , IHHO WKDW , KDSYH PD,GEHDLHYH WKH JRYHUQPHQW XV
SRVLWLYH FRQWULEXWLRQDORPWLFDPRXQWRIWD[UHY
FRXQWU\ E\ IXOO\ UHSWDLQLDOVRFLDOJRDOV
RI P\ LQFRPH