
2ULJLQDO (QJOLVK

&RPPLWWHH RI ([SHUWV RQ ,QWHUQDWLRQDO
&RRSHUDWLRQ LQ 7D[0DWWHUV
7ZHOIWK 6HVVLQR
*HQHYD 2FWREHU
\$JHQGD LWHP E L
8SGDWH RI WKH 8QLWHG 1DWLRQV 3UDFWLFDO 0DQXDO
RQ 7UDQVIHU 3ULFLQJ IRU 'HYHORSRQJ &RXQWULHV

\$ 0HWKRGV

\$,QWURGXFWRQ WR 7UDQVIHU 3ULFLQJ 0HWKRGV

\$ 7KLV SDUW RI WKH FKDSWHU GHVFULEHV VHYHUDO
GHWHUPLQH DQ DUP¶V OHQJWK SULFH DQG GHVFULEHV KRZ
SULFLQJ PHWKRGV 'RUDPHXWKRGV RRR FIDOMFXODWH RU WHVW
SULFHV RU SURILWV 7UDQVIHU SULFLQJ PHWKRGV DUH Z
SURILWV IURP WUDQVDFWRQV EHWZHHQ DVVRFLDWHG HO
HQWHUSULVHV IRU ZKLFK DQ DUP¶V OHQJWK SULFH LV WR
WUDQVDFWRQV SOLFDWLRQ RI WUDQVIHU SULFLQJ PHWKRGV
WR WKH DUP¶V OHQJWK VWDQGDUG ,W LV LPSRUWDQW WI
XVHG FRPSDQLHV PD\ DOVR KDYH OHJLWLPDWH UHDVRQV V
WUDQVIHU SULFLQJ PHWKRGV DUH QRW GHWHUPLQDWLYH L
UHSRUWV DQ DUP¶V OHQJWK DPRXQW RI LQFRPH ZLWKRX
WUDQVIHU SULFLQJ PHWKRGV WKLW GRHV QRW PHDQ WKDV
QRW EHLQJ DW DUP¶V OHQJWK DQG WKHUH PD\ EH QR UHDV

\$ 6HOHFWLRQ RI 0HWKRGV +RZ :K\ DQG 8VH RI 0HWK

\$ 7KH HM*UHVSHFWLYH VWUHQJWKV DQG ZHDNQH
WKH DYDLODELOLW\ RI UHOLDEOH LQIRUPDWLRQ LQ SDUW
DSSO\ WKH VHOHFWHG PHWKRG DQG WKH GHJUHH RI FR
XQFRQWUROOHG WUDQVDFWRQV

7KH VWDUWLQJ SRLQW LQ VHOHFWLRQ D PHWKRG LV DQ
LQERXQG RU RXWERXQG LQ SDUWLFXODU LKEDLWHG HFRQVW

EXW RWKHU LQWDQJLEOHV ZLWK OHVV OHJDO SURWHFWLF
NQRZRZ WUDGH VHFUHWV PDUNHWLQJ LQWDQJLEOHV HWF
\$,QWHUSOD\ RR GDERYLQ ID FWXRUWLQDWLRQDO JURXS
PRUH LQWHJUDWHG DFURVV MXULVGLFWLRQDO ERXQGDULF
VKDUHG EHWZHHQ HQWLWLHV LQ GLIIHUHQW MXULVGLFWL
GLIILFXOW DQG PRUH QHFHVVDU\ 7KH IXQFWLRQDO DQDO
DQG DVVHWV DUH DWWULEXWDEOH WR WKH YDULRXV UHO
PD\ UHYHDO H[@ ð ð @ ` V 33 dQDUHWF PP6H 0G'@ `W@

VKD @ @ H @ P W P U H W K T • X p € H 0 P À R Q D O V L Q

8VLQJ LQG XVWU\ DQDO\VHV SXEOLFO\ DYDLODEOH R
WR LGHQWLI\ SURILW OHYHOV WKDW FDQ UHVVRQDEO
H J SURGXFWLRQ VHU\LFHV GLVWULEXWLRQ

7KH VX@

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\$ 7UDGLWLRQDO 7UDQVDFWLRQ 0HWKRGV

\$ &RPSDUDEOH 8QFRQWUROOHG 3ULFH

\$ 7KH &RPSDUDEOH 8QFRQWUROOHG 3ULFH &83
IRU SURSHUW\ RU VHUYLFHV WUDQVIHUUHG LQ D FRQWURO
RU VHUYLFHV WUDQVIHUUHG LQ D FRPSDUDEOH XQFRQWUR
7KH &83 0HWKRG PD\ DOVR VRPHWLPHV EH XVHG WR GHWH
RI DQ LQWDQJLEOH DVVHW &83V PDR ESDEDEEB WQDQLWDFH
SH[WHUFRPSDUDEOH WUDQVDFWLRQV)LJXUH EHZRZ H[SC
SDUWLFXODU FDVH VWXG\

\$)DFWV RI WKH &DVH 6WXG\ 7KH FRQWUROOHG
WUDQVIHU RI ELF\FOHV EHWZHHQ \$VVRFLDWHG (QWHUSULV
\$VVRFLDWHG (QWHUSULVH D ELF\FOH LPSRUWHU LQ &RX
WKH ELF\FOHV WR XQUHODWHG ELF\FOH GHDOHUV LQ &RX
FRPSDQ\ RI \$VVRFLDWHG (QWHUSULVH

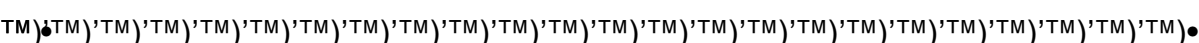
\$,Q DSSO\LQJ WKH &83 0HWKRG WR GHWHUPLQH Z
WUDQVIHUUHG LQ WKLV FRQWUROOHG WUDQVDFWLRQ LV
DVVXPHG WR EH DYDLODEOH IRU FRQVLGHUDWLRQ

7KH SULFH FKDUJHG IRU ELF\FOHV WUDQVIHUUHG LQ
EHWZHHQ \$VVRFLDWHG (QWHUSULVH DQG 8QUHODWH

(& & 5\$W W D F

7KH W\SH DQG TXDOLW\ RI WKH SURGXFWV (J XQI
XQEUDQGHG %UD]LOLDQ FRIIHH EHDQV
'HOLYHU\ WHUPV (J \$VVRFLDWHG (QWHUSULVH LG
\$VVRFLDWHG (QWHUSULVH DQG 8QUHODWHG 3DUW
FRQWUROOHG DQG XQFRQWUROOHG WUDQVDFWLRQV
KHQFH LW LV SUREDEOH WKDW DOO PDWHULDO GLII
UHFRJQZKHG XQFRQWUROOHG SULFH FDQ EH DGMXVW
WHUPV WR HOLPLQDWH WKH HIIHFWR RI WKLV GLIIHUHQ
9ROXPH RI VDOHV DQG UHODWHG GLVFRXQWV (J
ELF\FOHV WR \$VVRFLDWHG (QWHUSULVH IRU 86 SI
ELF\FOHV WR 8QUHODWHG 3DUW\ & 7KH HIIHFWR RI WK
EH DQDO\VHG DQG LI WKH HIIHFWR LV PDWHULDO DGM
RQ YROXPH GLVFRXQWV LQ VLPLODU PDUNHWV
3URGXFW FGDUDFWHULVWLFV (J WKH XQFRQWUROO
)LJXUH LQYROYH ELF\FOHV RQ ZKLFK PRGLLFDWL
ELF\FOHV VROG LQ WKH FRQWUROOHG WUDQVDFWLRQ
SURGXFW PRGLLFDWLRQV KDYH D PDWHULDO HIIHFV
VKRXOG EH DGMXVWHG WR WDNH LQWR DFFRXQW WKLV

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®¼Ó



\$ 7KH ZHDNQHV V RI WKH &83 0HWKRG OLHV LQ W
XQFRQWUROOHG WUDQVDFWLRQV LQ WKH OLJKW RI WKH
SDUWLFXODUO\ ZLWK UHVSHFW WR WKH FRPSDUDELOLW\ RI

\$:KHQ WR 8VH WKH &83 0HWKRG

\$,Q FDVHV ZKHUH FRPSDUDEOH XQFRQWUROOHG
0HWKRG LV W\SLFDOO\ D YHU\ UHOLDEOH PHWKRG WR X
FRPPHUFLDO DQG ILQDQFLDO WUDQVDFWLRQV EHWZHHQ D
LPSOLHV WKDW DQ H[DPLQHU VKRXOG DOZD\V FRQVLGHU V
7KDW LV DQ H[DPLQHU VKRXOG FRQVLGHU ZKHWKHU LW
FRPSDUDEOHV DQG H[WHUQDO FRPSDUDEOHV &RQVHTXHQ
DQDO\VLV LV ZKHWKHU RQH RI WKH DVVRFLDWHG HQWHUS
LQGHSHQQGHQW HQWHUSULVHV

\$,Q WKH H[DPSOH UHSUHVHQWHG LQ)LJXUH D

(

(& & 5\$W WDF

\$ ([DPSOH (IIHFW RI *HRJUDSKLF 'LIIHUHQFHV

\$ 5HVDOH 3ULFH 0HWKRG

\$ 7KH 5HVDOH 3ULFH 0HWKRG 530 LV RQH RI WKH
WKDW FDQ EH XVHG WR GHWHUPLQH ZKHWKHU D WUDQVD
5HVDOH 3ULFH 0HWKRG IRFXVHV RQ WKH UHODWHG VDOH
VHOOLQJ IXQFWLRQV DV WKH WHVWHG SDUW\ LQ WKH WUD

(&

& 5\$W W D F

\$ &RQVHTXHQWO\ XQGHU WKH 530 WKH VWDUWLC
PHWKRG LV WKH VDOHV FRPSDQ\ 8QGHU WKLV PHWKRG W
EHWZHHQ WKH VDOHV FRPSDQ\ L H \$VVRFLDWHG (QWHUSU
(QWHUSULVH FDQ EH GHVFULEHG LQ WKH IROORZLQJ IRU
73 563 130 ZKHUH

3DJHRI

DOZD\ V EH GHWHUPLQHG E\ WDNLQJ LQWR DFFRXQW WKH
DVVXPHG E\ WKH UHVHOOHU

\$ SUP↑V /HQJWK *URVV 3URILW 0DUJLQ

\$ 7KH ILQDQFLDO UDWLR DQDO\VHG XQGHU WKH
PDUJLQ *URVV SURILW LV GHILQHG DV QHW VDOHV PLQXV
ZKHUH WKH UHVHOOHU GRHV QRW DGG VXEVWDQWLDQ\ W
FRPSDQ\ DUH WKH VDOHV UHYHQXH REWDLQHG E\ VHOOLQ
FRVW RI JRRGV VROG HTXDOV WKH FRVW RI SXUFKDLQJ
RSHUDWLQJ FRVWV 7KXV LI ZH DUH GHWHUPLQLQJ WKH
UHODWHG FRPSDQ\ WKH FRVW RI JRRGV VROG ZLOO LQF
PDQXIDFWXUHU

\$ \$FFRXQWLQJ FRQVLVWHQF\ LV H[WUHPHO\ LPSRU
PDUJLQV ZLOO QRW EH FRPSDUDEOH LI DFFRXQWLQJ SUL
FRQWUROOHG WUDQVDFWLRQ DQG WKH XQFRQWUROOHG WU
PD\ GLIIHU IURP WKH UHODWHG VDOHV FRPSDQ\ LQ UH
WUDQVSRUWDWLRQ FRVWV LQVXUDQFH DQG FRVWV RI SH
H[SHQVHV RU DV FRVW RI JRRGV VROG 'LIIHUHQFHV LQ LQ
JURVV PDUJLQV ,W LV WKXV LPSRUWDQW WKDW W\SHV
UDWKHU \$SSO\WKZILWKRSIS DSSURSULDWH DGMXVWPHQWV
XVHG LQ FRPSXWLQJ WKH JURV PDUJLQ FRVWV DUH FRP

\$ 7UDQVDFWLRQDO &RPSDULVRQ YHUVXV
)XQFWLRQDO &RPSDULVRQ

\$ 7KH DUP↑V OHQJWK SULFH RU PDUJLQ FDQ UH
IXQFWLRQDOLW\ GLVWULEXWRUV RI EURDGO\ VLPLODU W\
FRPSDULVRQ E\ ORRNLQJ DW HDFK WUDQVDFWLRQ WKH W
SURGXFWV L H VDOHV RI GLIIHUHQW W\SHV RI ELF\FOHV

\$ 7KH DUP↑V OHQJWK UDQJH RI JURVV SURILW
FRPSDQ\ LQ WKH FRQWUROOHG WUDQVDFWLRQ FDQ WKHUH

%\ WUDQVDFWLRQDO FRPSDULVRQ)RU H[DPSOH RC
PDUJLQ WKDW \$VVRFLDWHG (QWHUSULVH HDUQV ZK
LQGHSHQQGHQW PDQXIDFWXUHU LQ D FRPSDUDEOH
XQFRQWUROOHG WUDQVDFWLRQ PD\ LQLWLDQO\ KDY
IRU SXUSRVHV RI DSSO\LQJ WKH &83 0HWKRG EHFD
LQYROYHV D GLIIHUHQW W\SH RI ELF\FOH ,I WKH VDO
WKH XQUHODWHG WUDQVDFWLRQV LQYROYH ELF\FOH
LQYROYH EURDGO\ VLPLODU SURGXFWV ZLWK FRPSD
*RRGV 6ROG &2*6 PDNLQJ JURVV PDUJLQ FRPSDULV

%\ IXQFWLRQDO FRPSDULVRQ WKH JURVV SURILW
FRPSDQLHV LQ FRPSDUDEOH XQFRQWUROOHG WUDC
LQFXUULQJ ULVNV FRPSDUDEOH WR WKH IXQFWLRG
\$VVRFLDWHG (QWHUSULVH)XQFWLRQDO FRPSDU
FRPSDUDEOH GLVWULEXWLRQ FRPSDQLHV UDWKHU W
IRU H[DP3` @O RXO€FL

RO \ @ °0

P0 HD •0 HG@UO 0RX@

E\ WKH VDOHV FRPSDQ\ ,QVWHDG WKH 5HVDOH 3ULFH 0
H[DPSOH EDVHG RQ WKH JURVV PDUJLQ D VDOHV FRPSDQ\
VLPLODU SURGXFWV

\$ \$V WKH JURVV SURILW PDUJLQ UHPXQHWDWHV
PDUNHWLQJ DQG VHOOLQJ IXQFWLRQV WKH 5HVDOH 3ULFH
UHJDUGLQJ IXQFWLRQV SHUIRUPHG ULVNV DVVXPHG DQG
IRFXVHV RQ IXQFWLRQDO FRPSDUDELWLW\ \$ VLPLODU OHY
VLPLODU IXQFWLRQV DFURVV GLIIHUHQW DFWLYLWLHV ,I V
PDUJLQV HDUQHG LQ WKH FRQWUROOHG DQG WKH XQFRQW
WR DFFRXQW IRU VXFK GLIIHUHQFHV ,Q JHQHUDO FRPSDU
WKH JURVV SURILW PDUJLQV RI WKH XQFRQWUROOHG WUD
ZLWK WKH IXQFWLRQV SHUIRUPHG DQG ULVNV LQFXUUHG V
GLIIHUHQFHV LQ IXQFWLRQV SHUIRUPHG DUH IUHTXHQWO\

\$ 7KH IROORZLQJ LVVXHV VKRXOG EH FRQVLGHUH
SHUIRUPHG E\ DQ XQFRQWUROOHG HQWLW\ DUH FRPSDUDE
HQWLW\ IRU SXUSRVHV RI DSSO\LQJ WKH 5HVDOH 3ULFH 0H

,Q FRQWUDVW WR WKH &83 0HWKRG WKH UHOLDELO
IDFWRUV WKDW KDYH OHVV HIIHFW RQ WKH SULFH RI
IXQFWLRQV 6XFK GLIIHUHQFHV FRXOG DIIHFW JURVV
DUP\ OHQJWK SULFHV RI SURGXFWV H J WKH FRPS
LQ,QA)AR@W@#0\$AW p J 0 @ p J WKHp0T'W p° R óV#vD€ SW

7KH DQDO\VLV VKRXOG FRQVLGHU GLIIHUHQFHV LQ D
UHVHOOHU DQG WR FRPSDUDEOH FRPSDQLHV LQ RUG
HQRDQFH FRPSDUDELWLW\ DQG
7KH UHDELDELWLW\ RI WKH DQDO\VLV ZLOO EH DIIHF
SURGXFWV GLVWULEXWHG IRU H[DPSOH DV D UHVXO

\$,W VKRXOG EH UHFRJQL]HG WKDW UHWXUQV WR
GLIIHUHQW PDUNHWV *HQHUDOO\ UHDELDELWLW\ LV HQRD
FRPSDQLHV DUH RSHUDWLQJ LQ WKH VDPH PDUNHW

\$ 6WUHQJWKV DQG :HDNQHVVHV RI WKH 5HVDOH 3ULF

\$ 7KH VWUHQJWKV RI WKH 5HVDOH 3ULFH 0HWKRG

7KH PHWKRG LV EDVHG RQ WKH UHVDOH SULFH D
GHPDQG GULYHQ PHWKRG LQ VLWXDWLRQV ZKHUH W
FRVWV LQFXUUHG DQG WKH VDOHV SULFH RI D SUR
LQHODVWLF WKH UHVDOH SULFH PD\ EH PRUH UHOLD
7KH PHWKRG FDQ EH XVHG ZLWKRXW IRUFLQJ GLV
SURILW\WKH GLVWULEXWRU HDUQV DQ DUPV OHQJWK JU
KDYH RSHUDWLQJ ORVVHV GXH IRU H[DPSOH WR KL
VWUDWHJLHV VXFK DV D PDUNHW SHQHWUDWLRQ VWU
7UDQVDFWLRQDO 1HW 0DUJLQ 0HWKRG ZKLFK DQD
RSHUDWLQJ SURILWV ZLOO JHQHUDOO\ UHVXOW LQ D
SURILWV 7KH WHVWHG SDUW\ LQ WKH DQDO\VLV ZR
RSHUDWLQJ SURILW ZLWKLQ WKH UDQJH +RZHYHU

<p>7&2 D &RXQWU\ : FRUSRUDWLRQ LV WKH H[FOXVLYH GLVW GHWHUPLQH ZKHWKHU WKH JURVV SURILW PDUJLQ I UHVXOW WKH ORFDO WD[LQJ DXWKRULW\ FRQDUJH XQFRQWUROOHG GLVWULEXWRUV WKDW SHUIRUP VL XQFRQWUROOHG WUDQVDFWLRQV +RZHYHU WKH X GLVFRXQWV DQG LQVXUDQFH DV FRVW XFKJR RW W B H[SHQVHV ,Q VXFK FDVHV DFFRXQWLQJ UHFQWVL WUHDWPHQW RI VXFK PDWHULDO LWHPV ,QDELOLW GHFUHDVH WKH UHOLDEQRULW\ RI HWUHQVDFWLRQ</p>

\$ ([DPSOH

:&2 D &RXQWU\ : FRUSRUDWLRQ PDQXIDFWXUHV 3I
 5&2 LWV ZKROO\ RZQHG IRUHLJQ VXEVLGLDU\ 5&2
 DQG VHOORV\ RZQHG SDUWLHV LQ WKDW FRXQWU\
 GLVWULEXWH FRPSHWLQJ SURGXFWV RI DSSUR[LPD
 DUH XQEUDQG

5HODWLYHO\ FRPSOHWH GDWD LSHUIRUPHGOHQH
 XQFRQWUROOHG GLVWULEXWRUV DQG WKH FRQWUD

WKH SURGXFWV VROG E\ 6 7KH YDOXH RI SURGXFW
WR WKDW RI 3URGXFW ;

\$OWKRJK FORVH SURGXFW VLPLODULFDWLRQRM DW
3ULFH 0HWKR&RPSDIURDEWKHBQFRQWUROOHG 3ULFH 0
YDOXH RI WKH SURGXFWV LQYROYHG LQ WKH FRQW
UHOLDELWLW\ RI WKH UHVXOWV ,Q DGGLWLRQ HEHF
WUDGHPDUN ZLOO KDYH RQ SULFH RU SURILWV UH
%HFDXVH WUDQVDFWLRQV LQYROYLQJ &RPSDQLHV '
WKR VH LQYROYLQJ &RPSDQLHVRSQ% WUDQVDFWLRQV
&RPSDQLHV ' DQG (PD\ EH LQFOXGHG LQ GHWHUPLQ

\$ SUP↑V /HQJWK *U~~R~~\$VIR~~B~~UR&RWW0BONV 0HWKRG

\$ 7KH ILQDQFLDO UDWLR FRQVLGHUHG XQGHU WK
PDU~~NS~~ ZKLFK LV GHILQHG DV WKH JURVV SURILW WR FRV
FRPSDQ\ \$V GLVFXVVHG DERYH JURVV SURILW HTXDOV Q
PDQXIDFWXULQJ FRPSDQ\ FRVW RI JRRGV VROG HTXDOV
LQFOXGHV GLUHFV ODERXU FRVWV GLUHFV PDWHULDO
SURGXFWLRQ

\$ \$V ZLWK WKH 5HVDOH 3ULFH 0HWKRG DFFRXQW
LQ DSSO\LQJ WKH &RVW 3OXV 0HWKRG \$SSOLFDWLRQ R
FRQWUROO0HWD#FWD# KH 9 °@KK K O HW@p

(& & 5\$W W D F

UHVSHFW WR WKH IXQFWLRQV SHUIRUPHG DQG ULVNV LQFX
EH PRUH OLNHO\ LQ WKHVH FLUFXPVWDQFHV WKDW D QHW
3DUDJUDSK

\$ %DVHG RQ EHQFKPDUNLQJ DQG ILQDQFLDO DQD
SURILWX\$DUHNDUQHGE\ FRPSDUDEOH LQGHSHQGHQW PDQXI
JURVV SURKSLMDFUDQHG E\ WKH UHODWHG SDUW\ PDQXIDFWX
WUDQVIHU SULFH ZLOO EH FRQVLGHUHG DUP↑V OHQJWK

\$ &RPSDUDELWLW\

\$ \$Q XQFRQWUROOHG WUDQVDFWLRQ LV FRQVLGH
LQ DSSO\LQJ WKH &RVW 3OXV 0HWKRG LI

7KHUH DUH QR GLIIHUHQFHV EHWZHHQ WKH WUDQVD
DIIHFW WKH JUR\$V SURILW PDUN
5HDVRQDEO\ DFFXUDWH DGMXVWPHQWV FDQ EH SHUI
GLIIHUHQFHV

\$ \$V ZLWK WKH 5HVDOH 3ULFH 0HWKRG DQG IRU
SURGXFWV LQ WKH FRQWUROOHG DQG XQFRQWUROOHG WU
0HWKRG WKDQ XQGHU WKH &83 0HWKRG ZKLOH IXQFWLRQ
RI ULVNV DVVXPHG DQG DVVHWV XVHG LV PRUH LPSRUWD
LQ SURGXFWV PD\ QHFHVVDULO\ UHVXOW LQ VLJQLILFDQV
XQFRQWUROOHG WUDQVDFWLRQV VKRXOG LGHDOO\ LQYRO
SURGXFW IDPLO\

\$ \$V WKH JURXS SURKLOWUDUHV D PDQXIDFWXU
SHUIRUPLQJ D PDQXIDFWXULQJ IXQFWLRQ WKH &RVW 3OX
FRPSDUDELWLW\ ,I WKHUH DUH PDWHULDO GLIIHUHQFHV
SURILWX\$DUHDFKLHYHG RQ WKH FRQWUROOHG DQG WKH XC
VKRXOG EH PDGH WR DFFRXQW IRU VXFK GLIIHUHQFHV ,Q
PDGH RQ WKH JUR\$V SURKLOWUDUHV WUDQVDFWL
H[SHQVHV LQ FRQQHFWRQ ZLWK WKH IXQFWLRQV SHUIRU
DFFRXQW DV GLIIHUHQFHV LQ IXQFWLRQV SHUIRUPHG PD\ E

\$ 'HWHUPLQDWLRQ RI &RVWV

\$ \$\$\$OLFDFWLRQ RI WKH &RVW 3OXV 0HWKRG HQW
DVVRFLDWHG ZLWK WKH GHWHUPLQDWLRQ RI WKH FRVWV
DFFRXQWLQJ WUHDWPHQWV

7KH OLQN EHWZHHQ FRVWV LQFXUUHG DQG WKH PDUN
SURILW PDUJLQV FDQ YDU\ JUHDWO\ HDFK \HDU
,W LV LPSRUWDQW WR DSSO\ D FRPSDUDEOH PDUN XS

'LIIHUHQFHV EHWZHHQ WKH WHVWHG SDUW\ DQG FRPS
 UHVSHFW LW LV FUXFLDO WR FRQVLGHU GLIIHUHQFHV
 FRQQHFWRQ ZLWK WKH IXQFWLRQV SHUIRUPHG DQG
 XQFRQWUROOHG WUDQVDFWLRQV ,I GLIIHUHQFHV PHU
 WKH SDUWLHV EHLQJ FRPSDUHG QRXV WKH WHVWHG
 ,I KRZHYHU DGGLWLRQDO IXQFWLRQV DUH EHLQJ SH
 EH QHFHVVDU\ WR GHWHUPLQH DQ DSSURSULDWH DGG
 D VHSUDWH UHWXUQ IRU WKHVH DGGLWLRQDO IXQFW
 IXQFWLRQV QRW SHUIRUPHG E\ WKH WHVWHG SDUW\
 EH VXEWUDFWHG IURP WKH JURVV SURILW PDUJLQ DS
 WHVWHG SDUW\
 &DUHIXO FRQVLGHUDWLRQ VKRXOG EH JLYHQ WR ZKDV
 EDVLV \$Q H[DPSOH RI FRVWV WKDW VKRXOG EH H[FO
 WKURXJK WKDW LV FRVWV H[SOLFLWO\ QRW VXEMHFV
 FRPSDUDEOH WUDQVDFWLRQV
 \$V ZLWK WKH 5HVDOH 3ULFH 0HWKRG DFFRXQWLQJ FR
 *URVV SURILW VDOHQG EH FDOFXODWHG XQLRUPO\ E\
 WKH LQGHSHQGHHQ HQWHUSULVHV
 +LVWRULFDO FRVWV VKRXOG LQ SULQFLSOH EH DVFUL
 FRVWV GLIIHU RYHU D SHULRG DQY DDEH KRWWV RYHU
 2QH FDQ XVH HLWKHU EXGJHWHG FRVW RU DFWXDO FR
 WKH RQH KDQG XVLQJ DFWXDO FRVWV ZLOO EHWWHU
 PDQXIDFWXUHU RWKHU KDQG WKLV SDUWLHV ZLOO
 VHOOHQJ SURGXFWV WR WKH PDUNHW 7KDW LV WKH\
 DPRXQW DW WKH HQG RI WKH \HDU LI DFWXDO FRVWV
 \$V WKH FRVWV FRQVLGHUHG LQ XVLQJ WKH &RVW 3OX
 PDQXIDFWXUHU RI WKH JRRGV RU WKH VHUYLFH SURY
 WKH DOORFDWLRQ RI VRPH FRVWV EHWZHHQ WKH PDQ
 SXUFKDVHU RI JRRGV RU VHUYLFHV

\$ 6WUHQJWKV DQG :HDNQHVVHV

\$ 7KH VWUHQJWK RI WKH &RVW 3OXV 0HWKRG LV

@Åð00p HFJRVW € LWRK p°LQ HSHKHVK@RG U ÀLDUð€

/&2 D GRPHVWLF PDQXIDFWXUHU RI FRPSXWHU FRPSRQHQQW
87 DQG 87 DUH GRPHVWLF FRPSXWHU FRPSRQHQQW PDQXIDFWXUHU
5HODWLYHO\ FRPSOHWH GDWD LV DYDLODEOH UHJDUGLQJ WK
DQ ð @€pD5W UKHV Q ÀVJ@0 U @8 wR J Y† UK`~UQQF @ÀW {x

\$ ([DPSOH

7KH IDFWV DUH WKH VDPH DV LQ ([DIRSOVXSHUJHLSW
DGPLQLVWUDWLYH FRVWV DV RSHUDWLQJ H[SHQVHV
SURILWXS PDUN 87 87 DQG 87 KRZHYHU UHIOHF
LVWUDWLYH H[SHQVHV EHFDXVH WKH\GDUSFFDFURKQJ
SURILWXS PDUN 87 87 DQG 87 PXVW EH DGMXVWHG
GDWD LV QRW VXIILFLHQW WR GHWHUPLQH ZKHWH
FRQWUROOHG DQG XQFRQWUROOHG GRW WKH VDPH WLQV

\$ ([DPSOH

7KH IDFWV DUH WKH VDPH DV LQ ([DPSOH DERYH H[FHSW
FRQVLJQHGE\)6 87 87 DQG 87 RQ WKH RW DQG WKH US
PDUNXS DUH GHWHUPLQHGE\ LQFOXGLQJ WKH FRVWV RI WKH
ULVN E\ SXUFKDLQJ LWV RZQ PDWHULDOV ZKLOH WKH X
GLIIHUHQFH UHJUHWH DQ DGMXVWPHQW LI WKH GLIIHUHQFBVK
WKH XQFRQWUROOHG SURGXFHUV ,QDELOLW\ WR UHVRQDI
PDUN XSV ZLOO DIIHFW WKH UHOLDELOLW\ RI WKH UHVXOWV RI 87 87

\$ ([DPSOH

)6 D IRUHLJQ FRUSRUDWLRQ SURGXFWGDWDSSDUJHOS
PDWHULDOV IURP XQUHGDVHWGWKXS SSSDUJHOSDFRUC
3&2 7KH ORFDO WD[LQJ DXWKRULW\ LGHQWLILHV
RSHUDWH LQ WKH VDPH JHRJUDSKLF PDUNHW DQG D
5HODWLYHO\ FRPSOHWH GDWD LV DYDLODEOH UHJDUGLQJ

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\$ 7UDQVDFWLRQDO 1HW 0DUJLQ 0HWKRG

\$ 7KH 7100 H[DPLQHV WKH QHW SURILW PDUJLQ U
FRVWV VDOHV DVVHWV WKDW D WD[SD\HU UHDOL]HV IURP
DSSURSULDWH WR EH DJJUHJDWHG 7KH SURILW PDUJLQ
ORRNV DW WKH SOURCE WVDWRWRE HI RI WKH UHODWHG SDUWL
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\$VVRFLDW
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8QUHO
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*LYHQ SULFH
&RVW RI JRRGV VROG _____"
*URVV SURILW _____"
2SHUDWLQJ H[SHQVHV _____
1HW SURILW RI 3ULFH &RPSDUDEOH

\$VVRFLDWHG (QWHUSULVH D ELF\FOH PDQXIDFWXUHU L
(QWHUSULVH ZKLFK UHVHOOV WKH ELF\FOHV WR WKH LQG
LQ &RXQWU\ \$VVXPH WKDW \$VVRFLDWHG (QWHUSULVH
YDULHW\ RI WHFKQRORJ\ DQG RSHUDWLQJ LQWDQJLEOHV
FKDUJHG LQ WKH FRQWUROOHG WUDQVDFWLRQ EHWZHHQ
(QWHUSULVH ZLWK WKH SULFH FKDUJHG LQ FRPSDUDEOH
FDQQRW EH DSSOLHG WKH &RVW 3OXV 0HWKRG DQG 5HVDO

\$ 7KH &RVW 3OXV 0HWKRG LV OLNHO\ WR EH UHOD
ZRXOG WUHDW WKH PRUH FRPSOH[HQWLW\ \$VVRFLDWHG
\$VVRFLDWHG (QWHUSULVH RZQV YDOXDEOH LQWDQJLEOH
8QGHU WKH 5HVDOH 3ULFH 0HWKRG WKH VDOHV FRPSDQ
LQYROYHG LQ WKH FRQWUROOHG WUDQVDFWLRQ ZLOO EH
VHDFK IRU GLVWULEXWUV ZKLFK VHOO EURDGO\ VLPLOD
ULNVV FRPSDUDEOH WR WKRVH RI \$VVRFLDWHG (QWHUSULV
JURVV SURILWV FDQ EH REWDLQHG

\$ 6RPHWLPHV LW PD\ EH PRUH UHOLDEOH WR FK
SURILWV ,I IRU H[DPSOH WKHUH LV GLIIHUHQW UHSRUW
H[SHQVHV IRU WKH WHVWHG SDUW\ DQG WKH FRPSDUDEOH
UHSRUWHG DUH QRW FRPSDUDEOH DQG UHOLDEOH DGMXVW
PD\ EH UHODWLYHO\ XQUHOLDEOH +RZHYHU WKLV W\SH RI

SURGXFW GLIIHUHQFHV DQG FRVW DFFRXQWLQJ GLIIHUHQFH
PHWKRGV FDQ EH D VLJQLILFDQW SUDFWLFDO EHQHILW RI

\$ 7KH DSSOLFDWLRQ RI WKH 7100 ZRXOG HQWDLQ
SDUWLQ² WKLV FDVH WKH GLVWULEXWRU 6XFK DQ DQDO\VLV
GLVWULEXWRUV WDNLQJ LQWR DFFRXQW WKH FRPSDUDELO
7100 IRFXVLQJ RQ WKH UHODWHG SDUWLQ\ PDQXIDFWXUHU DV
VLWXDWLRQ LQ ZKLFK \$LVREDFRQWUDFWHEDQXVDFWXUHU
FRQWUDFW PDQXIDFWXUHU ZLOO W\SLFDOO\ EH WKH OHDV
RZQHUVKLS RI YDOXDEOH WHFKQRORJ\ LQWDQJLEOHV IURP
0HWKRG ZRXOG QRUPDOO\ EH FRQVLGHUHG LI WKH &83 0HW
WKH DFFRXQWLQJ LQFRQVLVWHQF\ PHQWLQRHG DERYH LW
D ILQDQFLDO UDWLR EDVHG RQ QHW SURILW PDUJLQ WKDW
WRWDO FRVWV

\$ 0HFKDQLVP RI WKH 7UDQVDFWLRQDO 1HW 0DUJLQ 0

\$ 7KH QH[W TXHVWLRQ LV KRZ WR GHWHUPLQH WKH
RI WKH 7100" 7KH PHFKDQLVP RI WKH 7100 LV VLPLODU WR
0HWKRG DQG &RVW 3OXV 0HWKRG DV FDQ EH VHHQ LQ WKH

\$ 5HODWHG SDUWLQ\ GLVWULEXWRU ,Q DSSO\LQJ W
DUP\ OHQJWK WUDQVIHU SULFH WKH PDUNHW SULFH RI S
XQUHODWHG FXVWRPHUV L H VDOHV SULFH LV NQRZQ Z
GHWHUPLQH EDVHG RQ D EHQFKPDUNLQJ DQDO\VLV 7KH
UHODWHG SDUWLQ\ GLVWULEXWRU LV WKH XQNQRZQ YDULDE
JURVV SURILW PDUJLQ RI SHU FHQW WKH WUDQVIHU SUL

7DEOH \$0HFKDQLVP RI WKH 5HVDC			
		% HQFKPI DQDO\VLV	&KDSWH
	,QLW		
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& 5\$W WDF

&RVW RI VROG	"		&KDSWH
*URVV SU	"		RI UH SULFH

\$ 7KH GHWHUPLQDWLRQ RI DQ DUP¶V OHQJWK WUDRU OHVV VLPLODU 7KH PDLQ GLIIHUHQFH IURP D JURVV PD FRQVLGHUHG LQ FDOFXODWLQJ WKH WUDQVIHU SULFH , GLVWULEXWRU WKH UHVDOH SULFH DQG WKH RSHUDWLQJ H ZKLOH WKH DUP¶V OHQJWK QHW SURILW PD¶XQQRQ WKH HVD

5HVDOH SUL			&KDSWHU
&RVW RI JRRG	"		&KDSWHU
*URVV SURIL	"		&KDSWHU
2SHUDW\ \$BQ			&KDSWHU
2SHUDWLQJ	"		RI UHVDC

\$ 5HODWHG SDUW DSSO\ LQJ WKH 7100 WR WKH WHVWHG SDUW\ OHWKRG WKH FRVW RI JRRGV VROG DQG WKH RSHUDWLQJ NQRZQ \$ EHQFKPDUNLQJ DQDO\VLV ZLOO GHWHUPLQH WKH

\$,Q DSSO\ LQJ WKH 7100 WR WKH WHVWHG SDUW\ OHWKRG WKH FRVW RI JRRGV VROG DQG WKH RSHUDWLQJ NQRZQ \$ EHQFKPDUNLQJ DQDO\VLV ZLOO GHWHUPLQH WKH

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GLIIHUHQW DFWLYLWLHV LW ZLOO DOVR EH YHU\ GLI
H[SHQVHV DQG DVVHWV EHWZHHQ WKH UHOHYDQW EX
WHVWHG SDUW\ RU WKH FRPSDUDEOHV 7KLV PHDV
FRQVLGHUDWLRQ LQ SUDFWLFH
7100 LV DSSOLHG WR RQO\ RQH RI WKH UHODWHG SD
PDUJLQ IRXQG PD\ WKXV UHVXOW LQ DQ H[WUHPH U
LQYROYHG LQ WKH FRQWUROOHG WUDQVDFWLRQ H J
WKH RWKHU SDUW\ LV JXDUDQWHHG D QHW SURILW
0HWKRG DQG 5HVDOH 3ULFH 0HWKRG EXW PD\ EH P
EHFDXVH QHW PDUJLQV DUH DIIHFWHG E\ IDFWRUV W
SULFLQJ \$ FKHFN RI WKH UHVXOWV RI DOO UHODW
DSSURSULDWH

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GXH WR DFFRXQWLQJ LQFRQVLVWHQF\ WKH UHODWHG SD
DOORFDWLQJ FRVWV EHWZHHQ FRVW RI JRRGV VROG DQG R
\$)RU H[DPSOH LW PD\ EH WKH FDVH WKDW WKH U
FRVWV DV FRVW RI JRRGV VROG ZKLOH WKH FRPSDUDEOH
H[SHQVHV ,I WKH ZDUUDQW\ FRVWV RI WKH FRPSDUDEOH
DSSURSULDWH DGMXVWPHQWV RQ WKH JURVV SURILW OH
GHWDLOHG LQIRUPDWLRQ DERXW LQGHSHQGHQW HQWHUSU
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F R Q W U L E X W L R Q V Z K L O H W K H F R Q W U L E X W L R Q D Q D O \ V L V
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\$ 7 K H F R Q W U L E X W L R Q D Q D O \ V L V D Q G W K H & R P S D U
D S S O \ L Q S U D F W L F H D Q G W K H U H I R U H Q R W R I W H Q X V H G 7
H [W H U Q D O P D U N H W G D W D Q H F H V V D U \ W R V S O L W W K H F R P E
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\$ 6 W U H Q J W K V D Q G : H D N Q H V V H V

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WUDQVDFWLRQ PHWKRG ,Q RWKHU ZRUGV WKH WUDQVDFW
LGHQWLI\ FRPSDUDEOH WUDQVDFWLRQV ,Q WKLV UHVSHF
FRPSOH[LQGXVWULHV VXFK DV IRU H[DPSOH WKH JOREDO

\$ 7KH 5HVLGXDO 3URILW 6SOLW 0HWKRG LV W\SL
VLGHV WR WKH FRQWUROOHG WUDQVDFWLRQ RZQ YDOXDE
DQG WUDGH QDPHV ,I RQO\ RQH RI WKH DVVRFLDWHG HQ
WKH RWKHU DVVRFLDWHG HQWHUSULVH ZLOO EH WKH WHV
SULFH RU WUDQVDFWLRQDO QHW PDUJLQ PHWKRGV +RZH
SURSHUWLHV IRU ZKLFK LW LV LPSRVVLEOH WR ILQG FRPS
WKH PRVW UHOLDEOH PHWKRG \$ SUDFWLFDO H[DPSOH Z
PDQXIDFWXUHV HOHFWURQLF FRPSRQHQWV DQG WUDQVIH
ZKLFK XVHV WKHP WR PDQXIDFWXUH DQ HOHFWURQLF SUR
LQQRYDWLYH WHFKQRORJLFDQ GHVLJQ WR PDQXIDFWXUH

<p>DXWKRULW\ FDSLWDOL\$WV DQ GHSR XUWHLV HD WGDW WKH\ KDYH D YDOXH LQ \$VLD V 6WB YLLL 7KXV ;<\$VLDQGW;R JHWKHU FRQW D DEXMGH GHYHORS PHQW H[SHQVHV\$VRLD TND SKU RGRVDM IRU RI ZKLFK ;<= FRQWULEXWHG D W \$FFRUGLQJO\ WKH WD[LQJ DXWKRULW\ GH WKH 6WHORQ OLFHQVH IRU WKH WDKDU ;<=\$VLD V0LOOLRQ LQ UHVLGXDO 6WHORQ</p>
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PHWKRG

\$ %HFDXVH RI LWV ZLGHVSUHDG DSSOLFDWLRQ WKLV
FRXQWU\ H[SHULHQFHV ZLWK WKH DSSOLFDWLRQ PHWKRG 6HFWLRQ
WR DGGUHVV WKH UHODWLRQVKLS EHWZHHQ WKH VL[WK PH
OHJLVODWLRQ DQG WKH DUPV OHQJWK SULQFLSOH DV GH
7KH ZRUNLQJV RI WKH VL[WK PHWKRG PD\ UHVHPEOH WKH
PHWKRG ,Q DGGLWLRQ LW JHQHUDOO\ FRQVLGHUV FHUWD
GHILQH LQ UHOHYDQW GRPHVWLF SUDFWLFHV IRU WKH
WUDQVDFWLRQ \$EVHQW UHOLDEOH DQG WLPHO\ FRQILUP
FKDUDFWHULVWLFV RI WKH FRQWUROOHG WUDQVDFWLRQ
WKH DSSOLFDWLRQ RI D WUDQVIHU SULFH EDVHG RQ SXEO
DQ DVVXPSWLRQ RI WKH WLPH WKH UHOHYDQW WHVWHG W
FRPPRGLW\ SULFH OLVWLQJ XVHG 'HVSLWH LWV PRUH JHQ
PHWKRG GHSHQGLQJ RQ KRZ LW LV DSSOLHG FRXOG EH
GHHPLQJ UXOH RU HYHQ SUHVXPHG D IRUP RI VDIH KDUE
PHWKRG DQ LPSHUIHFV DSSOLFDWLRQ FRQVLGHU DSSURDFK
DV WKH VL[WK PHWKRG DGGUHVVLQJ ZKHWKHU WKH WHUP F
GHHPLQJ UXOH RU VDIH KDUERXU LV PRUH DSSURSULDWH R

\$ 7KH VL[WK PHWKRG DSSURDFK KDV EHQHILWV DQG
PHWKRG LV LWV UHODWLYH FHUWDLQW\ DQG UHODWLYH HD
FROOHFWLRQ HIILFLHQF\ 6RPH GLVDGYDQWDJHV RI WKH
WUDGLWLRQDO WUDQVDFWLRQV PHWKRGV RU WUDGLWLRQD
PD\ QRW EH UHFRJQL]HG E\ WKH FRXQWU\ RI WKH DVVRF
WUDQVDFWLRQ LWV LQDFXUDF\ FRQVLGHULQJ WKH JHQ
SULQFLSOH WKDW WKH PHWKRG GRHV QRW FRQVLGHU V
WUDQVDFWLRQ WKDW LV WHVWHG DQG WKDW WKH PHWKRG
HQWHUSULVH DW WKH GHWULPHQW RI DQRWKHU DVVRFLD
WD[DWLRQ %HQHILWV DQG GLVDGYDQWDJHV DUH GLVFXVV

\$ 7KLV FKDSWHU GHVFULEHV WKH VR FDOOHG VL[WK
VHYHUDO FRXQWULHV ,W DOVR GLVFXVVHV 2(&' JXLGDQFH
DSSURDFK WKDW JHQHUDOO\ LV XVHG WR WDFNOH DEXVLY
SURYLGH D GHVFULSWLRQ RI WKH DSSOLFDWLRQ RI WKH
WUDQVDFWLRQV DQG GHVFULEHV ZKDW VWHSV FDQ EH WDM
XVLQJ WKH VL[WK PHWKRG

¹² \$V WKH UXOH LV UHIHQWHG DSSURDFK WKH VL[WK PHWKRG VHHPV WR
SUDFWLFDQ SXUSRVHV WKLV WLWOH DQG ZRUGLQJ ZLOO EH XVH

¹³ %UD]LO DSSOLHV D VLPLODU VL[WK PHWKRG DSSURDFK WKH WHU
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+LHUDUFK\ PHWKRG	0DQGDWRU\ LIRWVHHFVDEOLVKH DUH PHW 2SWLRQDO HLWKHU WKLV PHDV DSSOLHG 1RW H[SUHVVO\ HVWDEOLVKHG E
3ULFHV W FRQVLGI	7KH KLJKHU SULFH EHWZHHQ WK WKH WUDQVSDUHQW PDUNHWKH\ VKLSPHQW DQG WKH SULFH DJU LQWHUPHGLDU\ ([SRUW DQG LPSRUWV DUH DIIRL)RU H[SRUWV UHVHDFK RQ LQV ZLWK WKH WHUPV DJUHVRXSRQ VKLSPHQW GDWH XQOHVV WKHU DQRWKHU GDWH)RU LPSRUWV WKH SULFH PD\ Q LQWHUQDWLRQDO SDUDPHWHUV RULJLQDOO\ SXUFKDVHG 0XOWLSOH FULQWUWHUWODWLRQ WUDQVSDUHQW PDUNHW RQ WKH DYHUDJH SUPERIOR SHDLRG RU XQORDGLQJ RU DIWHU ORDGLQJ ZKLFK WKH DJUHHPHQW ZSWHFF D GD\ WHUP DIWHU WKH DJUHFF SULFH RQ WKH WUDQVSDUHQW P WKH SULRU GDWH LQ ZKLFK D T\ RI WKH ILUVW GD\ WKH JRRGV D FDLHV E\ FRXQWU\ 6RPH FRXQWULHV DFFHSW WKH : ZKHQ WKH DJUHHPHQW LV ILOHG

DSSLOJ
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WKH ORFDO WD[SD\HU ;
HYLGHQFH WKDW WKH LC
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\$ &RQVLGHULQJ WKH REVHUYDWLRQV UHVXOWLQJ I
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WUDQVDFWLRQV WR HQFRXUDJH DFFHVV WR DYRLGDQFH