

( & 21 0RQHWDU\ (FRQRPLFV ,,  
&DSLWDO 0DUNHW , ~~DSHUFDFWWRQFWXUQH~~ DQG )L  
'HYHORSPHQW %XVLQHV &\FOH DQG \*URZ

)DOO  
0DORQH\ +DOO 7 7+

3URI )DELR 6FKLDQWDUHOOL  
5RRP 0DORQH\ +DOO  
7HO  
( 0\$, / VFKLDQWD#EF HGX  
2IILFH KRXUV 7 7K DP

6\OODDEXV DQG 5HDGLQJ /LVW  
\$XJXVW

&RQWHQW , Q WKLV FRXUVH , ZLOO ~~WDOO~~ ~~CPDH~~ ~~NKWH~~ ~~ILQSWHU~~  
LQYHVWPHQW EXVLQHV F\FOH IOXLFQX ~~DRXL~~ ~~ZQW~~ ~~KD~~ ~~Q~~ ~~GT~~ ~~XIUV~~  
H[WHQVLYH UHGGLQJ OLVW VR ~~WR~~ ~~WH~~ ~~FX~~ ~~\$~~ ~~W~~ ~~Q~~ H[~~SOR~~ ~~UDH~~  
VXE WRSLFV ZLOO EH FRYHUHG LQ ~~XG~~ ~~ZI~~ ~~WOL~~ ~~CE~~ ~~HG~~ ~~XI~~ ~~Q~~ ~~L~~ ~~F~~ ~~R~~ ~~X~~ ~~U~~ ~~W~~ ~~K~~ ~~J~~  
LQYHVWLJDWH VRPH RI WKH LVVXH ~~G~~ ~~R~~ ~~Q~~ ~~S~~ ~~X~~ ~~U~~ ~~H~~ ~~R~~ ~~Z~~ ~~L~~ ~~O~~ ~~O~~ ~~Z~~ ~~G~~ ~~W~~ ~~K~~ ~~F~~  
ERWK WKHRUHWLFDQ DQG HPSLU ~~Q~~ ~~E~~ ~~Q~~ ~~D~~ ~~E~~ ~~R~~ ~~Q~~ ~~M~~ ~~P~~ ~~I~~ ~~D~~ ~~E~~ ~~X~~ ~~V~~ ~~R~~ ~~L~~ ~~B~~ ~~Q~~ ~~G~~  
HYLGHQFH 7KH FRXUVH ZLOO DOVR ~~R~~ ~~I~~ ~~Q~~ ~~G~~ ~~E~~ ~~D~~ ~~O~~ ~~X~~ ~~K~~ ~~S~~ ~~H~~ ~~D~~ ~~V~~ ~~L~~ ~~R~~ ~~D~~ ~~W~~ ~~L~~ ~~R~~ ~~C~~  
DQ HPSLULFDQ H[HUFLVH VHH HQG RI UHGGLQJ OLVW

/HFWXUH QRWHV \$ VHW RI OHFWXUR ~~X~~ ~~Q~~ ~~S~~ ~~W~~ ~~H~~ ~~Q~~ ~~R~~ ~~Q~~ ~~W~~ ~~K~~ ~~H~~ ~~D~~ ~~P~~  
P\ JRRJOH SHUVRQDO ZHEVLWH  
KWWSV VLWHV JRRJOH FRP D EF ~~J~~ ~~U~~ ~~G~~ ~~X~~ ~~G~~ ~~K~~ ~~D~~ ~~E~~ ~~L~~ ~~R~~ VFKLDQWDU

\$VVLJQPHQWV DQG \*UDGLQJ 6WXG ~~K~~ ~~Q~~ ~~W~~ ~~H~~ ~~Z~~ ~~H~~ ~~O~~ ~~U~~ ~~E~~ ~~H~~ ~~U~~ ~~H~~ ~~R~~ ~~U~~  
GLVWLQFW WRSLFV XVLQJ YHU\ ~~U~~ ~~H~~ ~~F~~ ~~H~~ ~~Q~~ ~~W~~ ~~R~~ ~~S~~ ~~D~~ ~~S~~ ~~I~~ ~~Y~~ ~~H~~ ~~U~~ ~~D~~ ~~O~~ ~~D~~ ~~M~~ ~~Y~~  
SUHVHQWDWLRQ )LQDOO\ WKH\ ~~Z~~ ~~E~~ ~~D~~ ~~O~~ ~~L~~ ~~R~~ ~~Q~~ ~~H~~ ~~H~~ ~~[~~ ~~S~~ ~~H~~ ~~U~~ ~~F~~ ~~F~~ ~~M~~ ~~G~~ ~~X~~ ~~M~~ ~~L~~ ~~C~~  
GDWD WHFKQLTXHV \*UDGLQJ ZLOO EH EDVHG RQ DOO WK

\$ &\$3,7\$/ 0\$5.(7 ,03(5)(&7,216 ),1\$1&,\$/ 6758&785(  
,19(670(17 \$1' %86,1(66 &<&/(')/8&78\$7,216

&RUSRUDWH )LQDQFH 3ULPHU IURP WKH ~~P~~ ~~6~~ ~~H~~ ~~W~~ ~~D~~ ~~U~~ ~~L~~ ~~H~~ ~~F~~ ~~3~~ ~~U~~ ~~H~~ ~~I~~  
,QIRUPDWLRQ DQG ,QFRPSOHWH &RQUDFWV

D 7KH 0RGLJOLDQL 0LOOHU 7KHRUHP6 ~~D~~ ~~Q~~ ~~G~~ ~~F~~ ~~W~~ ~~K~~ ~~H~~ ~~U~~ ~~H~~ ~~U~~ ~~H~~ ~~O~~ ~~H~~ ~~Y~~ ~~D~~

0RGLJOLDQL ) DQG 0 0LOOHU UDWK ~~R~~ ~~Q~~ ~~R~~ ~~I~~ ~~V~~ ~~O~~ ~~D~~ ~~R~~ ~~F~~ ~~H~~ ~~D~~ ~~S~~  
WKH 7KHRU\ RI QYHVWPHQW \$PHULFDQ (FRQRPLF 5HY

&K LQ 6DUJDFQVWHFRQRPLVHFRQRGJHGLWLRQ  
E )LUPV )LQDQFLDO 6WUXFWXUH XQRPS\$VWPP&VQWFDQFM  
:DOVK &RQHWDU\ 7KH RU\ DQG BR70BBHVV &K  
-HQVHQ 0 DQG : 0HFNOLQJ <sup>37KDIQU%HRKDWKRU</sup>)L  
\$JHQF\ &RVWV DQG 2ZQHUVKLS 6WUQRW&EVH' SSRXUQDO  
0\HUV 6 & DQG 16 0DMOXI <sup>3QRHSWPEVW</sup>)L  
'HFLVLRQV :KHQ )LUPV +DYH ,QIRUPDWLRQRXUKDDO ,RIYH  
)LQDQFLDO (FRQRPLFV -XQH SS  
6WLJOLW] - DQG \$ :HLVV <sup>3&ZLHWGLWPSBWIHFWL</sup>  
,QIRUPDWLRQ' \$PHULFDQ (FRQRPLF 5HYLHZ -XQH SS  
%HVWHU + <sup>36FUHHQLQJ 9HUVXV 5DWLRQLQJ LQ</sup>

\$Q ,QWURGXFWRQ WR ,QWHUPHGLDWLRQ DQG %DQNLQJ

'LDPRQG ' DQG 3 '\EYLJ 3%DQNDQXQALTXLSRWLW  
-RXUQDO RI 3ROLWLFDO (FRQRPL -XQH SS

'LDPRQG ' 3%DQNV DQG /LTXISRWLW &RQDRWLWQF  
'LDPRQG '\EYLJ 0RGHO' (FRQRPLF 4XDURWHLFXPR)GHUD  
1 6SULQJ SS

-DFNOLQ & - 3'HPDQG 'HSRDLQV L V L V N D G K I D Q U L Q H V V  
&RQWUDFWXDO \$UUDQJHPHQWV (RU' , Q W H H U V W R W P S R D Q Q  
:DOODFH (GV 0LQQHDSROLV 8QLYSJSJVLW\ RI 0LQQHV

'LDPRQG ' )LQDQFLDO ,QWHUFRGLLQWL R Q H Y Q I S Z '  
RI (FRQRPLF 6WXGLHV -XO\ SS

'LDPRQG ' 3)LQDQFLDO ,QWHURHWRWRQ D  
(FRQRPLF 4XDUWHUOH %DQNURO 5LHFWRXCPHURSS

%R\G - + DQG ( & 3UHVFRWW 0LQLQDQFLDO ,QWHU  
-RXUQDO RI (FRQRPLF 7KHUR\ \$SULO SS

'LDPRQG ' : 30RQLWRULQJ DQG WZHSXQV D%DLRQ  
/RDQV DQG GLUHFWO\ 3ODFHG 'HEW9RORXUQDRI 3R  
SS

5DMDQ 5 3,QVLGHUV DQG 2XWLDGWHURQV 7KLH \$DQ  
\$UPV /HQQWK 'HEW' -RXUQDO RI )LQDQFH SS

3HWHUVHQ 0 DQG 5 5DMDQ WLRQV%KLSWILWVGRHQ  
IURP 6PDOO %XVLQHVV 'DWD' -RXUQDO RI )LQDQFH

%HUJHU \$ / .ODSSHU \* 8GHOO DLQGLW\ \*RHH%DLQNV V  
/HQQ WR ,QIRUPDWLRQDOO\ 2SDTXH LQPDQDQG%XLVLDQHV  
9RO SS

&DSLWDO 0DUNHW ,PSHUIHFWLRQV ,QYHWWXDPWHQRVQ VD Q G  
0RGHOV DQG \$JJUHJDWH ,PSOLFDWLRQV

D )LQDQFLDO )ULFWLRQV DQG WKH )LQDQFLDRO \$FFPHOHU  
°C

0DWVX\DPD . 3\$JJUHJDWH ,PS,DISFDWHLRQMRQV'&U  
1%(5 0DFUR \$QQXDO  
KWWS ZZZ QEHU RUJ ERRNVBLQBSURJUHVV PDFUR LC

\*HUWOHU 0DUN FRPPHQW RQ .OLFDWVLRQDPRI3  
&UHGLW 0DUNHW ,PSHUIHFWRQV' VHH DERYH IRU OLQ

%UXQQHUPHLHU 0 . 7 0 (LVHQEDFKFUDRQFRQ6DLQFLN  
ZLWK )LQDQFLDO )ULFWLRQV D 6XUYH'\ 3ULQFHWRQ 8  
KWWS VFKRODU SULQFHWRQ HGXGRDUNXV ILOHV VXUY

%HUQDQNH % DQG 0 \*HUWOHU QG 3\$XMQGH&R&WFO  
)OXFWXDWLRQV' \$PHULFDQ (FRQRPLF 5HYLHZ 0DUF

%HUQDQNH % DQG 0 \*HUWOHU RQ3RPPQFLDO  
3HUIRUPDQFH' 4XDUWHUO\ -RXUQDO RI (FRQRPLFV )HE

\*HUWOHU 0 DQG 5 \* +XEEDUG VLQHVLQDQFLDO  
)OXFWXDWLRQFLDQ 0DUNHW 9RODWLQW\ &DXVHV &  
5HFRPPHQGDWLRQDO 5HVHUYH %DQN RI .DQVDV &LW\

&DUOVWURP & 7 DQG 7 6 )XHUVWUWK DQ\$J%QFLQRY  
)OXFWXDWLRQV \$ &RPSXWDEOH \*HQHFDQ(FRQRPLFUX  
5HYLHZ 'HFHPEHU SS

%HUQDQNH % 0 \*HUWOHU DQG 6HWLDQFLWLRQV DQ  
&\FOLFDO )OXFWXDWLRQ'0DFUR7RORUPIDQ 0 :RRGIR  
HGV DYDLODEOH DOVR DV 1%(5 :RUNLQJ 3DSHU D

.L\RDNL 1 DQG - ORRUH 3RQHLQWLDQ(FRQRPLF  
1 \$SULO SS

'PLWULHY 0 DQG - +RGGHQEDJK DQG 6<sup>3</sup>&RQD&RQWU  
&RQWUDEFWV' PLPHR )68

5RPHU & ' DQG ' + 5RPHU 31HZ 7UDQGHVPEMVRQVH  
0HFKDQLVP' %URRNLQJV 3DSHUV RQ (FRQRPLF \$FWLYL

5DPH\ 9 3+RZ ,PSRUWDQW LV WDKHV&LVHGLRW &RKD  
0RQHWDU\ 3ROLF\"' &DUQHJLH 5RFKHLFW3RUO&RQIHUHQ  
'HFHPEHU SS

%HUQDQNH % 6 DQG \$ 6 %OLQGHUDQG WK<sup>3</sup>H&K DQGHUOD  
0RQHWDU\ 7UDQVPLVLRQ' \$PHULFDQ (FRQRPLF 5HYLH  
%HUQDQNH % 0 \*HUWOHU DQG DO \$LFFHCUHVDWRU DQ<sup>3</sup>  
)OLJKW WR 4XDOLW\ 5HYLHZ RI (FRQRPLFVXDQG 6V DV

:DOVK & ( DQG - \$ :LOFR[ 3\$DQNY&WH'GLW- DQGH  
DQG ( 5RVHQJUVHQ% DQGM /HQGLQJ ,PSRUWDQW I  
0RQHWDU\ 3)RGLFUD 5HVHWRQ %RQNRHJRN 6HULHV 1F  
SS

,DFRYLHOOR 0 DQG 5 0LQHWL QHW<sup>3</sup>DKH 3RULGLW  
(YLGHQFH IURP WKH +RXVLQJ 0DUNHWSS-RXUQDO RI 0D

.DVK\DS \$ 1 - & 6WHLQ DQG ' : :LOFR[DQG &U<sup>3</sup>H&QW  
&RQGLWLRQV (YLGHQFH IURP WKH &R\$SRVLWDRQ RI  
(FRQRPLF 5HYLHZ QR 0DUFK SS

20LQHU 6 ' DQG \* ' 5XGHEXVK &UHGLWR&RWQDUWBR  
(YLGHQFH IURP WKH &RPSRVLWLRQ RI (HWHFUD 0D )L  
(FRQRPLF 5HYLHZ QR 0DUFK SS

1LOVHQ - + 37UDGH &UHGLW DQGRW<sup>3</sup>KDQDRIN /  
0RQH\ &UHGLW DQG %DQNLQJ )HEUXDU\ SS

0RUJDQ ' 3 37KH &UHGLW (IIEGWQFRI 0RQHWDU  
&RPPLWPHQWV' -RXUQDO RI 0RQH\ S&UHGLW DQG %DQ

3HHN - DQG ( 5RVHQJUHQ 37KH ,QWHUQDWLRQ

.DVK\DS \$ . 2 \$ /DPRQW DQG - &GL6WHLRQV DQG W&K  
&\FOLFDO %HKDYLRUXDIU, QYUQW-RUXUQDO R1 (F \$ QRPVLW  
SS

.DVK\DS \$ 1 - & 6WHLQ <sup>3</sup>:K B Q/VGRQD%DLONML R/Q  
DERXW WKH 7UDQVPLVLRQ RI 0RQHW ULHZROLF\ " ' \$ P  
SS

(KUPDQQ ( / \*DPEDFRUWD - 0DU\$WLRQHP3DJHV 3 6H  
<sup>3</sup>)LQDQFLDO V\WHPV DQG WKH 5ROH QVPL%DLONML R/Q W&K  
(XUR \$UHQRHLVQDU\ 3ROLF\ 7UDQVPLVLRQRI 0RQHWKH (\$UF  
.DVK\DS DQG % 0RMRQ HGLWRUV &DPEULGJH 8QLYHUV

.KZDMD \$ , DQG \$ 0LDQ <sup>3</sup>7UDFXDGLWKBKRSDNV  
(YLGHQFH IURP DQ (PHUJLQJ 0DUNHW' \$PHULFDQDQ (F  
(FRQRPLF \$VVRFLDWLRQ \$PHULFDQ (FRQRPLF \$VVRF  
6HSHWPEHU

-LPHQH] \* 2QJHQD 6 3H\GUy - &UHQIGW- 6\$SSOLDD  
0RQHWDU\ 3ROLF\ ,GHQWLI\LQJ WKH %DQRDQ%DODQ  
\$SSOLFDWLRQV' \$PHULFDQ (FRQRPLF 5HYWHZQ\$PHULFD  
SDJHV \$XJXVW

-LPHQH] \* 6 2QJHQD - / 3H\GUR DDUGRXV6DXPHQDIR  
PRQHWDU\ SROLF\ :KDW GR WZHQRW XWKUWHH PHLODEWQ  
PRQHWDU\ SROLF\ RQ FUHGLW ULVN WDNLQJ"' (FRQRPH

F 2WKHU 3DSHUV RQ WKH 7UDQVPLVLRQ 0HFKDQLVP RI

'HOO↑\$ULFFLD \* / /DHYHQ DQG \*JH6DDUGHPRQHWDU  
3ROLF\↑V 5LVN 7DNLQJ &KDQQHO (YLGHQFHPHLODEWQ WK  
3DSHUV ,QWHUQDWLRQDO 0RQHWDU\ )XQG

'UHFKVOHU , \$ 6DYRY DQG 3 6FDDUGHPRQHWDU  
3ROLF\↑ RWRP SDJHV VWHUQ Q\X HGX aVWHUQILQ SVF

,SSROLWR ) \$ . 2JGDJOL DQG \$LV3HROHRI 0RQHWDU  
3ROLF\ 7KURXJK %DQN /HQGLQJ 7KH )ORDWLQJ 5DWH &

%ROWRQ 3 DQG ; )UHL[DV <sup>3</sup>&RQBDDWH )L  
7UDQVPLVLRQ 0HFKDQLVP' 7KH 5HYLHZ RI )LQDQFLDO

G )LQDQFLDO 6KRFNV )LQDQFLDQRPWHUPHGLDWLRQ

i) *Models without Financial Intermediaries*

-HUPDQQ 8 DQG 9 4XDGULQL )LQDQFLDQRPWHUPHGLDWLRQ  
6KRFNV' \$PHULFDQ (FRQRPLF 5HYLHZRUNLQJ) BIESHIDU\

.KDQ \$ DQG - . 7KRPDV <sup>3</sup> & UHGXFWXIDRVLNRQ DQG  
(FRQRP\ ZLWK 3URGXFWLRQ +HWHURQRPHLWQLY+RUKULQD



\*HUWOHU 0 DQG 1 .L\RWDNL DQG) & Q B G E W D B R, Q L V F  
%XVLQHVV & \F O B Q S G E R R N L V I' 0 R Q H W D U J 0 ( ) F U L H R P L D F Q / G D Q C  
0 :RRGIRU HGV YRO FK (OVHYLHU

&XUGLD 9 DQG 0 :RRGIRUG <sup>3</sup>&RQDY O O R Q R O M D O U \ D  
3ROLF\ ' )5% RI 6W /RXLV 5HYLHZ -XO\ \$XJXVW

:RRGIRUG 0 DQG 9 &XUGLD <sup>3</sup>7 K H H & H Q W U D D O %  
, Q V W U X P H Q W R I 0 R Q H W D U \ 3 R O L F \ ' ) 5 % X O \ 1 H Z < R U N 6

\*HUDOL \$ 6 1HUL / 6HVVD DQ G Q G 6% D Q R U E W W Q D ' 6 '  
0 R G H O R I W K H ( X U R \$ U H D ' - R X U Q D O R I 6 S Q H \ & U H G L W

\$GULDQ 7 DQG + 6 6KLQ <sup>3</sup>) L O B Q F I W D D O U \, Q W H  
(FRQRPL B Q G E R R N R I 0 R Q H W D U J 0 ( ) F U L H R P L D F Q / D Q G 0 : R R G  
HGV (OVHYLHU

\$GULDQ 7 DQG + 6 6KLQ <sup>3</sup>) D Q H D O F L G O D Q X H U P V  
5LVN' )HGHUDO 5HVHUYH %DQN RI 1HZ <RUN 6WDII 5HS

%UXQQHUPHLHU 0 . DQG < 6DQQLNR G H O Z L W \$ D D F U  
)LQDQFLDO 6HFWRU' 3ULQFHWRQ 8QLYHUVLW\ PLPHR  
KWWS VFKRODU SULQFHWRQ HGX PDUNXV ILOHV PDFU

\$RNL . DQG . 1LNRORV %DQN<sup>3</sup>% D E S E ) L Q L D Q F L D P G H R  
KWWS ZZZ HFE LQW HYHQWV FRQIHUHQFHV KWPO PDU

&KULVWHQVHQ , & 0HK DQG . 0RUBQ DQG <sup>3</sup>/HY  
0DFURHFRQRPLF '\QDPLF' PLPHR  
KWWS ZZZ IHGHUDOUHVHUYH JRY D P Y K O W V F R Q I H U H Q F  
& \ F O H V D Q G 0 D F U R H I  
KWWS ZZZ HFE LQW

&KDUL 9 9 3 - .HKRH DQG ( 5 0F\*U D W W M D Q D W L Y H  
5HSUHVHQWDWLRQV 0HWKRGRORJL & W F O B I Q D F F R F X R P S I R Q L  
)HGHUDO 5HVHUYH %DQN RI 0LQQHDS \$ R O S L R U W 5 H V H D U F I  
0DUFK

+DOO 5 ( 37KH +LJK 6HQVLW W Y R L W L Q F I Q F E R D Q R  
)ULFWLRQV' 6WDQIRUG 8QLYHUVLW\ PLPHR

H 2SHQ HFRQRP\

\*HUWOHU 0 6 \*LOFKULVW ) 1D W D L O X W F L R Q 0 R Q H ( W W  
3ROLF\ DQG WKH )LQDQFLDO \$ F F H O B I Q D F F R F X R P S I R Q L  
SS

&HVSHGHV / 3 5 &KDQJ DQG \$ 9 H D Q Q F R F K D Q J H % J D O V  
3ROLF\ \$ P H U L F D Q ( F R Q R P L F 5 H Y L H Z SS

(OHNGDJ 6 -XVWLQLDQR \$ DQG W F K G N O P D R O Y O 2 S H Q  
(FRQRP\ ORGHO RI WKH )LQDQFLDO \$ F F H O B I Q D F F R F X R P S I R Q L  
-RXUQDOV

\$JKLRQ 3 % D F F K H W W D 3 D Q G \$ 9 L W H D Q B Q H H R Q H W D  
3ROLF\ LQ DQ (FRQRP\ ZLWK &UHGLW \$ R O M W J D L Q S / S '

,DFRYLHOOR 0 DQG 5 0LQHWL FOHV<sup>3</sup>, ZLWKU Q R P W L V R Q L  
DQG )RUHLJQ /HQQHUV' -RXUQDO RI 0RQHWDU\ (FRQRP

0HQGRJD ( \* 6XGGHQ 6WRSWDJLQ D Q P H L D F D Q L V H  
(FRQRP\ 5HYLHZ ±

3HUUL ) 9 4XDGULQL <sup>3</sup>, QWHUQDWLRQDO 5HFHV  
KWWS ZZZ ISHUUL QHW 3\$3(56 LUHFHVLRQVBODWHVW

&UHGLW )ULFWLRQV DQG ,QYHVWPHQW 0LFUR (YLGHQF

D (DUO\ &ULWLFDO 5HYLHZV

6FKLDQW DUHOOL ) <sup>3</sup>)LQDQFLDO H & W K R G R O R J L Q W  
,VXHV DQG ,QWHUQDWLRQDO (YLGHQF\ 2 [ P R U G 5 H Y L  
1R SS , V O % D Q Q / H Q G L Q J , P S R U W D Q W I R  
0RQHWDU\ 3 H R G L W H G E \ - 3 H H N D Q G ( 6 5 R V H Q J U H Q )  
%RVWRQ &RQIHUHQFH 6HULHV 1R -XQH



.DSODQ 6 1 DQG / =LQJDOHV VL<sup>3</sup>WQYHWWPHQSWH&D  
9DOLG 0HDVXUHV RI )LQDQFLQJ &RQRQDILQWV'D\4XSDUV

\$OPHLGD + DQG 0 &DPSHOOR W<sup>3</sup>)LQDQFLQJ &RQRQ  
&RUSRUDWH ,QYHVWPHQW' F L<sup>5</sup>HY 16HW XGLHV SS

%RQG 6 DQG - \* &XPPLQV <sup>3</sup>1RLWRGKIDURI 3ULF  
,QYHVWPHQW' ,)6 :RUNLQJ 3DSHUXGLHV ,QVWLWXWH I

&XPPLQV - \* . \$ +DVVHWW DQG 6Q'W 2%HQBVLRU  
2EVHUYDEOH ([SHFWDWLRQV DQG ,QVWLWXWH )XQSSV' :

OR\HQ 1 <sup>3</sup>,QYHVWPHQW &DVK QHRGZ Y6HUCWLWLY  
8QFRQVWUDLQH )LUPV' -RXUQDO RI )LQDQFH SS

\$OPHLGD + DQG 0 &DPSLHOOR DQG ODVK :HQZHQEDF  
6HQVLWLYLW\ RI &DVK' 7KH -RXUQDO RI )LQDQFH /,;

(ULFNVRQ 7 DQG 7 0 :KLWHG H<sup>3</sup>05HDXWHHQVQLS  
EHWZHHQ ,QYHVWPHQW DQG 4' -RXUQDO RI 3ROLWLFDO

\*RPHV - ) <sup>3</sup>)LQDQFLQJ ,QYHVWPHQW'WHZ \$PHUL  
'HFHPEHU SS

&RRSHU 5 DQG - (MDUTXH YH<sup>3</sup>)LQDQFLQJ &RQRQ  
LQ 4' 5HYLHZ RI (FRQRPLF '\QDPLFV SS

\$GGD - DQG 5 &RRSHU <sup>3</sup>'\QDPLFSSORFDWLRQW'  
0,7 3UHV 2FWREHU FK

:KLWHG 7 0 <sup>3</sup>([WHUQDO )LQDQFLQJ &RQRQ  
RI ,QYHVWPHQW' -RXUQDO RI )LQDQFLDO (FRQRPLFV

:KLWHG 7 0 DQG \* - :X <sup>3</sup>)LQDQFLQJ &RQRQ  
6WXGLHV

& +HQQHV\ \$ /HYL DQG 7 0 :KLWHG <sup>3</sup>7HVWLQJ

1LNRORY % / 6FKPLGW 5 6WHUL QVWUDLQWVPLKLE  
)ULFWLRQV 0DWWHU IRU &RUSRUDWH 3ROLFLHV" PLPH  
KWWSV LGHDV UHSF RUJ S UHG VHG KWPO

H &UHGLW )ULFWLRQV DQG 3ULFH 6HWWLQJ

%LOV 0DUN 3ULFLQJ LQ D &XVWRPHU QDODRNHW  
(FRQRPLFV 0,7 3UHVY YRO SDJHV 1RYHPE

\*RWWIULHV 1LOV &XVWRPHU 6DULRQWVDQJHGDV  
3ULFH 5LJLGLW\ (FRQRPLFD /RQGRQL 6DORFQHQF(HRQ  
SDJHV \$XJXVW

&KHYDOLHU -XGLWK \$ 6FKDUIVWHHW, PSMUGHFWLRQV&  
&RXQWHUF\FOLFDO 0DUNXSV 7KHUR\ DFQSHYLIHGHZHQFH  
\$PHULFDQ (FRQRPLF \$VVRFLDWLRQ EYRU SDJHV

\$QQD %RWWDVVR 0DUJLR \*DOHRWWL7K \$OHVS/DQVURI 6  
)LQDQFLQJ &RQVWUDLQWV 2Q 0DUNXSV 7KHUR\HURPUXHQG (Y  
'DWD &(5,6 :RUNLQJ 3DSHU , QWFKL RQ WIHU PRUD (E B  
\*URZWK 0RQFDOLHUL 72

%XFKW &KDUORWWH \*RWWIULHV 1LQW /XULFLHQ )DDQ  
LQ D 5HFHVLRQ" )LQDQFLDO &RQVWUDLQWVLRQYHV  
:RUNLQJ 3DSHU 6HULHV 8SSVDFRQRPILYUVLW\ 'H

0DUYLQ - %DUWK ,,, 9DOHULH \$ 5DRH\ORQHWDUKH &  
7UDQVPLVLRQ 1%(5 &KDSWHUV LQ 1%(5RDXPHRHFRC  
SDJHV 1DWLRQDO %XUHDX RI (FRQRPLF 5HVHD

5DYHQQD )HGHULFR :DOVK &DUO (F\ ZLWK2SWKHP B B V  
FKDQQHO -RXUQDO RI 0RQHWDU\ (5RQRPLFV (OVHY  
0DUFK

-DH 6LP 5DSKDHO 6FKRHQOH (JRQ =DNUQMOVHMLRQLP  
'\QDPLFV 'XULQJ WKH )LQDQFLDO &ULVLRFLHW\ 0RQHWDU  
(FRQRPLF '\QDPLFV

I 1HZ 0LFUR DQG 0DFUR (YLGHQFH RQ WKZIL & HQGLW D  
LQWHUSUHWHG PRVWO\ EXW QRWU RQJQ 'HUEVP & WKML)  
3HULRG

i) US

%HFNHU % DQG 9 ,YDVKLQD \ 3 & LFUPL FCHYLHO R  
HYLGHQFH' -RXUQDO RI 0RQHWDUDJ (FRQRPLFV (OVHYL

.DKOH . DQG 5 6WXO] 3\$F DQGV WKR HDQDWBDDQ  
,PSDLUHG FUHGLW FKDQQHO RU GLRLQIV3CHGHPDQG  
'LFH & HQWHU IRU 5HVHDFK LQ )LQDRQF% 0LQFRQRPLFV  
2KLR 6WDWH 8QLYHUVLW\ )HEUXDU\

\$GULDQ 7 &ROOD 3 DQG + 6 6KLFQVLRQV" 3KDLFVL QJQ  
(YLGHQFH IURP WKH )LQDQFLDO & ULVLHU RI 1%  
1DWLRQDO %XUHDX RI (FRQRPLF 5HVHDFK ,QF

\*LOFKULVW 6 9 <DQNRZ ( =DNKRMNDQG (FRQRPLF  
)OXFXDWLRQV (YLGHQFH IURP & RUSRU DSWH 3% RQGV

.DVK\DS \$ DQG / =LQJDOHV 7KHHVVRQV)LQDF  
&RUSRU DWH )LQDQFH' -RXUQDO RI 6)LSWDHFEHO (\$QRP

,YDVKLQD 9 DQG ' 6FKDUIVWHLWKH ILQD%DFQNOOFILQ  
' -RXUQDO RI )LQDQFLDO (FRQRPLFV (OVHYLHU  
6HSWHPEHU

'XFKLQ 5 2 2JEDV DQG % \$ 02pÀ' )OXFWXE-ÁÉpG \$Àp€

ROX,°P )LQDT `À@ð0 (FRQRP



ii) *Europe*

\$OEHUDJL 8 DQG ' - ODUFKHWW WR 4X<sup>3</sup> & OIHGLWQ





6FKLYDUGL ) ( 6HWWH \* 7DEB00RQL'XULQJ W&UHGLV

)RUEHV . 3+RZ 'R /DUJH 'HSUHRFUPDQVFRHQV , \$)IH FV  
6WDII 3DSHUV SS

'HVDL 0 ) )ROH\ DQG . )RUEHV V DQG) LQBQWIKDO  
0XOWLQDWLRQDO DQG /RFDO )LUPV 5HZ/ SRIQ)VLQ DQFF L&XQ  
6WXGLHV SS

.DOHOPL 2JFDQ 6 .DPLO + & 9LOOHUJQG HSDQFKH  
, QYHVWPHQW LQ WKH \$IWHUPDWK ROL)VLQ DQFF L&XQ &RULV  
\$FFHVV WR )LQDQFH' PLPHR 1%(5

0DQRYD . 6 - :HL = =KDQJ D)VLURPQ D)S R\$FWWL YDLQ  
XQGHU &UHGLW &RQVWUDLQWV' 1%(5 :RUNLQJ 3DSHU

0LQHWL 5 DQG 6 & =KX 3&UH(SRW W&RQVWU  
0LFURHFRQRPLF (YLGHQFH IURP , WDR'PL-RXUQDO SS , Q

\$PLWL 0 DQG ' ( :HLQVWHLQ FN(SRUW%(5DQG )  
:RUNLQJ 3DSHU

%), 1\$1&, \$/ '(9(/230(17 ) , 1\$1&, \$/ 6758&785( \$1' (&2120, &  
\*52:7+

0RGHOV DQG 2YHUYLHZ

/HYLQH 5 3)LQDQFLDO 'HYHORSPLHQW DQG (FR  
\$JHQGD' -RXUQDO RI (FRQRPLF /LWHUDWXUH -XQH

/HYLQH 5 3)LQDQFH DQG \*URZWKIU\$IR&WLVQDFDQF 6  
+DQGERRN RI (FRQRPL\$FKURQVQDQG 6 'XUODXI HGV (O  
KWWS ZZZ HFRQ EURZQ HGX IDF 5RQYB RHUWLQB%3XFENBL F  
'XUODXIB)LQ1\*URZWK SGI

7UHZ \$ : 3)LQDQFH DQG \*URZWKIU\$IR&WLVQDFDQF 6  
0DFURHFRQRPLF \$QDO\VLV &'0\$ IRUGWKFRPLQJ LQ (O  
KWWS ZZZ VW DQGUHZV DF XN HFRQRPLFV &'0\$ SDSHU

%HQFLYHQJD 9 DQG % ' 6PLWK DQG) (QDQFHQDQX, Q  
\*URZWK' 7KH 5HYLHZ RI (FRQRPLF 6WXGLHV \$SULO SS

%HUKKHOHP\ - & \$QD 9DURFKBQREVRQ\*URZWKIQF& &OXEV  
DQG WKH 5ROH RI )LQDQFLDO 'HYHORSPLHQW' 2[IRUG

\*UHHQZRRG - DQG % -RYDQRYLF 3)LQDQFWLH 'HYH  
'LVWULEXWLRQ RI ,QFRPH' -RXUQDO R\$S3ROLWLFDO (FR

/HYLQH 5 36WRFN 0DUNHWV QDROZVRK )DQGQ7FH  
6HSWHPEHU SS

.LQJ 5 DQG 5 /HYLQH D 3)LQ\*URZWK(Q7KHRSUHQH  
(YLGHQFH' -RXUQDO RI 0RQHWDU\ (FRQRPLFV 'HFHPEH

6DLQW 3DXO \* 37HFKQRORJLFDQG&KRBRPDEQD  
'HYHORS~~PHQW~~' (XURSHDQ (FRQRPLF 5HYLHZ SS

\$JKLRQ 3 DQG 3(QRZUMQVXV \*URZWK 3KHVRV\FK

\$JKLRQ 3 0 'HZDWULSRQW DQG 3DQFLDO 'LVF&LSPSLH  
DQG \*URZWK' 5HYLHZ RI (FRQRPLF 6WXGLHV

\$FHPRJORX ' DQG ) =LOLERWWL E\ &K:DDVF3UR5PLWVKH  
'LYHUVLILFDWLRQ DQG \*URZWK' -R\$UQDO RI 3ROLWLFDO

'H OD )XHQWH \$ DQG - 0 0DULQ WRUEQQQDQWL  
(QGRJHQRXV )LQDQFLDO 'HYHORS~~PHQW~~' -R\$S3QDO RI 0

0RUDOHV 0 ) 3)LQDQFLDO ,QWRZWKGLDWRXJK L  
&UHDWLYH 'LVWUXFWLRQ' 0DFURHFRQRPLF '\QDPLFV

\$JKLRQ 3 \* 0 \$QJKHOHWRV \$ %DQDWHHLW\ DQGF  
\*URZWK &UHGLW &RQVWUDLQWV DQGXWKDIO&RPSRQHWWIDF  
(FRQRPLFV SS

\*UHHQZRRG - - 6DQFKHJ DQG & RDSQJHQW W3)HQ5DROF  
RI ,QIRUPDWLRQ &RVWV 1%(5 :RUNLQJH3DSDQ  
(FRQRPLF 5HYLHZ

0LFKDORSRXORV 6 / /DHYHQ DQG, Q5R/YDWWQRQ DQG  
(QGRJHQRXV \*URZWK' PLPHR %URZQ 8QLYHUVLV\

%LDQFKL ) + .XQJ DQG \* 0RUDOHVQ 5HFYWRZWK'V  
1%(5 : 3



(DVWHUO\ : ,VODP 5 DQG 6WJLJLW]G - ([SODLQ6LQDN  
\*URZWK 9RODWLW\ \$QQXDO %DQNP&RQIHRUHQGFH RQ '  
%DQN :DVKLQJWRQ ' &

%HFN 7 %X\XNNR(WDED)FDNQ% 9D50HKYR 1HWV WKH FUHG  
DQG GRHV LW PDWWHU" KRXVHKROG3R0LFL5PHVHDDUGFLKQJ  
:RUNLQJ 3DSHU 6HULHV 7KH :RUOG %DQN

'HPHWULDGHV 3 2 DQG /DZXWFRQV DQG )HQRQRPLFC  
'HYHORS~~PHQW~~' ,QWHUQDWLRQDO -RXUQDO RI )LQDQFH

E ,QG~~XVWU~~\ DQG )LUP /HYHO (YLGHQFH

5DMDQ 5 \* DQG =LQJDOHV / G \*)LRZWK' LDO '  
\$PHULFDQ (FRQRPLF 5HYLHZ -XQH

'HPLUJXF .XQW DQG 9 0DNVLP~~RYLF~~ \*URZWK' )LQDQ

&HWRUHOOL 1 DQG 0 \*DPEHUD )L<sup>3</sup>%DQNLQJ 0  
'HSHQGHQFH DQG \*URZWK ,QWHUQDDWZRXQD(XYQGEGRFH  
)LQDQFH YRO SS

/HYLQH 5 <sup>3</sup>%DQN %DVHG RUHOPUN:HKWF%DLVHG )  
%HWWHU' -RXUQDO RI )LQDQFLDO ,QWHUPHGLDWLRQ 'V

'HPLUJXF .XQW DQG 5 /HYLQH <sup>3</sup>%DQND%DLVHG R  
6\VWHPV &URVV FRXQWU)LQDQFLDO V6RQVXFWLXUH DQG  
\*URZWK \$ &URVV &RXQWU\ &RPSDULVRQRIP%QNV 0D  
(GV \$VOL 'HPLUJXF .XQW DQG 5RVV /HYLQH &DPEULGJ

%HFN 7 DQG 5 /HYLQH <sup>3</sup>6WRFN 0DUNH(WLVGH%QNV  
-RXUQDO RI %DQNLQJ DQG )LQDQFH

%HFN 7 DQG 5 /HYLQH <sup>3</sup>1HZ )LUP )RUPDWLRQ D

I )LQDQFLDO 'HYHORSPHQW DQG &RQYHUJHQFH

\$JKLRQ 3 3 +RZLWW DQG ' 0D\HURR)00BQFLDO  
'HYHORSPHQW RQ &RQYHUJHQFH 7KHRUQDQGRI(YLGH  
(FRQRPLFV SS

\$JKLRQ 3 3,0FWWUDDWLRQ ZHQWURQWKLSDQHW  
)LQDQFH' &DSLWDOLVP DQG 6RFLHW\

J )LQDQFLDO /LEHUDOLJDWLRQ )LQDQFLDO05HMRMORISPH  
\$OORFDWLRQ

:XUJOHU - 3)LQDQFLDO 0DUNSLWDDQG-RXKHQDQ  
)LQDQFLDO (FRQRPLFV SS

\*DOLQGR \$ ) 6FKLDQWDUHOOL DQDQ\$/LEHUDOLJDWL  
,PSURYH WKH DOORFDWLRQ RI ,QYHRSLFQWRXQWURHW  
DUNHWEP° rQ`0P€p G- )



%HNDHUW \* & 5 +DUYH\ DQG & /XQGEEDDGDOLJDWL'R  
6SXU \*URZWK"´ -RXUQDO RI )LQDQFLDO (FRQRPLFV YR

%HNDHUW \* & 5 +DUYH\ DQG & /XQGEEDDGD )LQDQFLD  
/LEHUDOLJDWL'RQ´ -RXUQDO RI ,QWHUQDWLRQDO ORQH

+HQU\ 3 % 3'R 6WRFN 0DUNHWWPBBWDORJDPWL'RQ  
-RXUQDO RI )LQDQFLDO (FRQRPLFV 2FWREHU 9RO

+HQU\ 3 3&DSLWDO DFFRXQW HQLEHUDDQGDWL  
6SHFXODWL'RQ´ -RXUQDO RI (FRQRPLF /LWHUDWXUH

/HYFKHQNR \$\$ 5 5DQFLHUH 0 7KRNHQWJWKH ,QGRV  
/HYHO 7KH 5HDO HIIHFWR RI )LQDQFLDOLHOLSHUHQWJD  
(FRQRPLFV SS

'HOO \$ULFFLD \* ' ,JDQ DQG / /DQDQ /HQGLQJ&UH  
6WDQGDUGV (YLGHQFH IURP WKH 6XPHSRULPH 0RUWJDJH

5DQFLHUH 5 7RUQHOO \$ DQG ) :HWWKHURIDQWV RI  
)LQDQFLDO /LEHUDOLJDWL'RQ \*URZWK DQDQ &LQDQFH -

3RSRY \$ 3&UHGLW FRQVWUDLQWV 3(QeÑ] @ 5H 5

\$QJNLQDQG \$ 3 : 6DZDQJQJRHQ\DQJ)LODQFLDO:LKQ  
/LEHUDOLJDWLRQ DQG %DQNLQJ &UQWHVUQ\$WUROD&BMO  
RI)LQDQFH SS

%DUWK - \* &DSULR -U 5 /HYLQH6XSHUY1%DRQ 5:HKDW  
:RUNV %HVW" -RXUQDO RI )LQDQFLDO ,QWHUPHGLDWL

%HQIUDWHOOR / ) 6FKLDQWDUHO DQG\$, QGHPYEDHQLHROO  
(YLGHQFH RQ ,WDOLDQ)LUPV' -RXUQD RYRIP EHQD QFS D C

%ODFN 6 DQG 3 6WUDKDKQ <sup>3</sup>(GLWU \$ \$ D H Q D H X I U / K W  
-RXUQDO RI)LQDQFH

.HUU : DQG 5 1DQGD <sup>3</sup>HPRFUDHWX D L Q W L R Q W U \  
)LQDQFLQJ &RQVWUDLQWV DQG (QWLWDS UFRQXPLVKLS  
IRUWKFRPLQJ

%HFN 7 /HYLð0

& (&2120(75,& 722/6 )25 '<1\$0,& 3\$1(/6

\$UHOODQR 0 DQG 6 5 %RQG 3RUP B D Q H W O W G D R W D  
0RQWHF DUOR (YLGHQFH DQG DSSOLF D W L R Q Z W R I (P S C  
(FRQRPLF 6WXGLHV

\$UHOODQR 0 DQG 2 %RYHU 3\$ Q P W D K W I U D F E R O  
(VWLPDWLRQ RI (UURU &RPSRQH Q W, 0RGHOV' -RXUQDO

\$UHOODQR 0 DQG % +RQRUH 33 D Q W O 'D W D  
'HYHORS PH Q W V' LQ -- +HFNP D Q Q D C E R R N R / H D P R H Q R P H G W U  
YRO 1RUWK +ROODQG

%RQG 6 5 3'\QDPLF 3DQHO GDWD W O R P H W O W K R S G V X I  
DQG 3UDFWLFH' &(00\$3 :RUNLQJ SDSHU &:  
KWWS FHPPDS LIV RUJ XN GRFV FZS SGI

%OXQGHOO 5 : DQG 6 5 %RQG H Q , Q L S W L D W O W I & F R W Q L G R L O W  
'\QDPLF 3DQHO 'DWD 0RGHOV,' -RXUQDO RI (FRQRPHWU