&DUVRQ	0RQWDQD	0RQWDQD :KLWQH\	%DFKHORU RI 6FLH	
&DUWZULJKW	6KDQHDG	6KDQHDG &DUWZU	%DFKHORU RI $UW	
&DUWZULJKW	6KDU\Q	6KDU\Q &DPLHOOH	%DFKHORU RI $UW	
&DUXVR	6DYHULR	6DYHULR -RVHSK &	%DFKHORU RI 6FLH	
&DU\	6KDQQRQ	6KDQQRQ 1RHO &D	%DFKHORU RI $UW	
&DVFDULQR	0DULD	0DULD & &DVFDUL	%DFKHORU RI $UW	
&DVFLR	2ZHQ	2ZHQ &DVFLR	%DFKHORU RI 6FLH	
&DVR	&DUVRQ		%DFKHORU RI 6FLH	
&DVVDWD	'RPLQLF	'RPLQLF -RHVSK &D	%DFKHORU RI 6FLH	
&DVWUR	0HJDQ	0HJDQ &DVWUR /R	0DVWHU RI %XVLQ $GPLQLVWUDWLRQ	
&DVWUR	/LQGVD\	/LQGVD\ (OLVH &DV	0DVWHU RI 6FLHQFH LQ	
&DWDOGR	/LQGVH\	/LQGVH\ 5RVH &DW	0DVWHU RI $UWV L (PHUJLQJ 0HGLD	
&DWLQR	&KORH	&KORH 0DG\VHQ &D	%DFKHORU RI $UW	
&DYDOLHUH	&KDUORWWH	&KDUORWWH 5RVH	%DFKHORU RI 6FLH	
&DYDOOR	0D[	0D['DYLG &DYDOO	%DFKHORU RI $UW	
&DZWKRQ	$OL]D	$OL]D 0DULH &DZW	%DFKHORU RI $UW	
&HGHQR	/DXULH	/DXULH 5XE\ &HGH	%DFKHORU RI 6FLH 1XUVLQJ	
&HOLR	7RUUHQ	7RUUHQ -RVHSK &H	%DFKHORU RI 6FLHQFH	
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&KDOOD	%DEML	%DEML &KDOOD	0DVWHU RI 6FLHQF &\EHUVHFXULW\	
&KDPDN	%HQMDPLQ	%HQMDPLQ /DZHUD	%DFKHORU RI 6FLH	
&KDWODQL /LQGU	6DMDQ	6DMDQ &KDWODQL	%DFKHORU RI 6FLH	
&KDYNLQ	0D\D	0D\D &KDYNLQ	%DFKHORU RI 6FLH	
&KHFNRZD\	-RUG\Q	-RUG\Q $OH[D &KH	%DFKHORU RI $UW	
&KHUU\	-DFNVRQ	-DFNVRQ &KHUU\	%DFKHORU RI $UW	
&KHYDOLHU	$OH[DQGUD	$OH[DQGUD &KHYD	0DVWHU RI 6FLHQFH LQ ,QVWUXFWLRQDO ' 7HFKQRORJ\	

'LIIOH\	-RVHSK	-RVHSK %HQHGLFW	0DVWHU%XVLQHVV $GPLQLVWUDWLRQ	
'L)LOLSSR	-RKQ	-RKQ $QWKRQ\ 'L)L	%DFKHORU RI 6FLH	
'L*LDPPR	(OLVD	(OLVD -DQH 'L*LDP	%DFKHORU RI $UW	
'L*LRUJLR	9LQFHQW	9LQFHQW 3DXO 'L*L	%DFKHORU RI 6FLHQFH L 1XUVLQJ	
'L,OLR	,VDEHOOD	,VDEHOOD *UDFH 'L	%DFKHORU RI $UW	
'LOORQ	$YHU\	$YHU\ (ODLQH 'LOO	%DFKHORU RI 6FLH	
'L0DUH	7HVVD	7HVVD 7KRPSVRQ '	%DFKHORU RI 6FLH	
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'LQK	/LOLDQ		%DFKHORU RI 6FLH	
'L3DWUL]LR	%ULWWQL	%ULWWQL $O\QQ 'L	0DVWHU RI 6FLHQF	
'L3LHWUDQWRQLR 'L5REHUWR	0HOLVVD 1DWDOLH		%DFKHORU RI $UW	

*LDUUDWDQD	6HEDVWLDQ	6HEDVWLDQ -RKQ *	%DFKHORU RI 6FLH	
*LEEV	6\GQH\	6\GQH\ +RSH *LEEV	0DVWHU RI (GXFDW	
*LOH	&KDVH	&KDVH0DPLOWRQ *LO	%DFKHORU RI 6FLH	
*LOOHUDQ	0HJDQ	0HJDQ $VKOH\ *LO(	%DFKHORU RI 6FLH	
*LRYDQQLQL	0LFKDHO	0LFKDHO *LRYDQQ	%DFKHORU RI)LQH	
*LSLVNLV	-RQDV	-RQDV *LSLãNLV	%DFKHORU RI 6FLH	
*LXVWR	0\D	0\D 0DUOHQH *LXV\	0DVWHU RI $UWV L (PHUJLQJ 0HGLD	

*UDKDP	(GLVRQ	(GLVRQ -RVHSK &D *UDKDP	%DFKHORU RI 6FLH	
*UDQW	(OOLRWW		%DFKHORU RI 6FLHQFH	
*UDYHV	6DPDQWKD	6DPDQWKD (OL]DEH	%DFKHORU RI 6FLH	
*UD\	'HVLUHH	'HVLUHH)UHHGRP	%DFKHORU RI $UW	
*UHF]HN	0LFKDHOD	0LFKDHOD &DWKHU	%DFKHORU RI 6FLH	
*UHHQH	3DWULFN	3DWULFN -DPHV *U	%DFKHORU RI $UW	
*UHHQH	5DFKHO	5DFKHO *UHHQH	%DFKHORU RI 6FLH	
*UHHQOHDI	'\ODQ	'\ODQ 0LFKHOOH *U	%DFKHORU RI $UW	
*UHHQZDOG	-DGHQ	-DGHQ :HVW *UHHQ	%DFKHORU RI 6FLH	
*ULE	(NDWHULQD	(NDWHULQD *ULE	0DVWHU RI 6FLHQF	
*ULIILH	/XNH	/XNH :LOOLDP *ULI	%DFKHORU RI 6FLH	
*ULIILQ	0DU\	0DU\ *UDFH *ULIILQ	%DFKHORU RI $UW	
*ULPDOGL	$OIUHGR	$OIUHGR *ULPDOG	%DFKHORU RI 6FLH	
*ULPHV	/LVD	/LVD *ULPHV	%DFKHORU RI 6FLH	
*ULPVKDZ	0F.HQ]LH	0F.HQ]LH (OL]DEHW	%DFKHORU RI 6FLH	

+HUWHQVWHLQ	5REHUW	5REHUW 'HDQ +HUW	%DFKHORU RI /LEH	
+HU]RJ	7RQL	7RQL %HYHUO\ +HU	%DFKHORU RI 6FLH	
+HVGUD +HVV	5LFKDUG	5LFKDUG 6WHSKHQ	%DFKHORU RI 6FLH	

+XSS	-RVLH	-RVLH 0D\ +XSS	%DFKHORU RI 6FLH	
+XUGXV	6HDQ	6HDQ +XUGXV	%DFKHORU RI 6FLH	
+XUOH\	&DLWO\Q	&DLWO\Q 6KDQQRQ	0DVWHU RI $UWV LQ 3U &RPPXQLFDWLRQ	
+XWFKLQJV	0DGHO\Q	0DGHO\Q 'HODQH\ +	%DFKHORU RI 6FLH	
+XWVRQ	$GDP	$GDP $WKRV +XWVI	0DVWHU RI %XVLQI $GPLQLVWUDWLRQ	
,EDUUD	6DELQD	6DELQD $QDKL ,ED	%DFKHORU RI $UW	
,EHJEX	-RUGDQ.OH\	-RUGDQ.OH\ &KLGLI ,EHJEX	%DFKHORU RI $UW	
,JHO	=Rs	=Rs ,VDEHOOD ,JH	%DFKHORU RI $UW	

[redacted]

LVWO

.DNDORV	(OOHQD	(OOHQD .DNDORV	%DFKHORU RI 6FLH	
.DOH\LDV	9DVLOLNL	9DVLOLNL .DOH\LD	[redacted]	
.DOZD\	,VDEHOOH	,VDEHOOH) .DOZD	%DFKHORU RI 6FLH	
.DQLD	$QGUHZ		%DFKHORU RI 6FLH	

/RHKU /ROOR	$QQPDULH)DLWK	$QQPDULH /RHKU	%DFKHORU RI $UW %DFKHORU RI 6FLH

0DPLGHOD $EKLODVK

0DWNLQ	=DFKDU\	=DFKDU\ 7KRPDV 0I	%DFKHORU RI 6FLH	
0DWVRQ	$XGUH\	$XGUH\ *UDFH 0DW	%DFKHORU RI $UW	
0DWWHU	0F.HQQD	0F.HQQD -HDQ 0DW	%DFKHORU RI 6FLH	
0DWWVRQ	/DQJOH\	/DQJOH\ 0DWWVRQ	0DVWHU RHU6FLHQFH LQ &ULPLQRORJ\ DQG -XVWLFH	
0DXOGLQ	1LFNRODV	1LFNRODV 0DXOGL	%DFKHORU RI 6FLH	
0DXOGLQ	+XQWHU	+XQWHU 6 0DXOGL	%DFKHORU RI 6FLH	
0DXOGLQ	*DEULHOD	*DEULHOD +DOOXP	%DFKHORU RI 6FLH	
0D[ZHOO	5REHUW		%DFKHORU RI 6FLH	
0D\	'HODQH\	'HODQH\ 5RVH 0D\	%DFKHORU RI 6FLH	
0D\ILHOG	2OLYLD	2OLYLD %ULHQQD (	%DFKHORU RI 6FLH	
0D\R	0RQLFD		0DVWHU RI 6FLHQF	
0D]UL	6RSKLD		%DFKHORU RI 6FLH	
0F$GDP	$QGUHZ	$QGUHZ 0F$GDP	%DFKHORU RI 6FLH	
0F$QGUHZV	2OLYLD	2OLYLD /HH 0F$QG	%DFKHORU RI $UW	
0F&D\	7KRPDV	7KRPDV)UDQNOLQ	%DFKHORU RI 6FLH	
0F&OHPHQWV	5HFH	5HFHDPHV 0F&OHPH	%DFKHORU RI 6FLH	
0F&ORVNH\	0HJKDQ	0HJKDQ 6DUD 0F&O	%DFKHORU RI 6FLH	
0F&ORVNH\	&DOHLJK	&DOHLJK $QQH 0F&	%DFKHORU RI 6FLH	
0F&XH	-DNH	-DNH %ULGJHV 0F&	%DFKHORU RI 6FLH	

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0RQGODQH	.HYLQ		0DVWHU RI $UWV L &RPPXQLFDWLRQ	
0RQWHUR	(VWH\OHQ	(VWH\OHQ 0RQWHU	%DFKHORU RI 6FLH	
0RRG\	*DYLQ		%DFKHORU RI 6FLH	
0RRQH\	7UHQW	7UHQW 0RRQH\	%DFKHORU RI 6FLH	
0RRUH	7KRPDV	7KRPDV $LGDQ 0RR	%DFKHORU RI 6FLH	
0RRUH	0LFKDHO	0LFKDHO :DOWHU 0	%DFKHORU RI 6FLH	
0RRUH	5DHJDQ	5DHJDQ 0RRUH	%DFKHORU RI 6FLH	
0RRUH	0LFKDHO	0LFKDHO 0RRUH	0DVWHU RI 6FLHQF &ULPLQRORJ\ DQG -XVWLFH	
0RUD	9LQFHQW	9LQFHQW $QJHOR (	%DFKHORU RI 6FLH	
0RUDGLHOORV	6WHSKHQ	6WHSKHQ 0RUDGLH	0DVWHU RI 6FLHQF	
0RUDOHV	$QL\DK	$QL\DK 0RUDOHV	%DFKHORU RI 6FLH	
0RUDOHV	-XVWLQ		%DFKHORU RI 6FLH	
0RUDQ	&RQQRU	&RQQRU 3DWULFN (	%DFKHORU RI 6FLH	
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0RUJDQ	,DQ	,DQ 0RUJDQ	%DFKHORU RI 6FLH	
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0RUUL3VURQH	7ULVWRQ	7ULVWRQ -DFN 0RU	%DFKHORU RI 6FLH	
0RVDYL	)DWHPHK	)DWHPHK 0RVDYL	%DFKHORU RI 6FLH	
0RVFDWHOOR	%LOO\	:LOOLDP 0RVFDWH	%DFKHORU RI 6FLH	
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1GRQJ	$PLQDWD	$PLQDWD *XHW 1GH	%DFKHORU RI 6FLH
1HDO	%UHQQDQ	%UHQQDQ 1HDO	%DFKHORU RI $UW
1HDO	6DPXHO	6DPXHO :DOODFH 1	

3DVFHUL	(PLO\	(PLO\ <YRQQH 3DVF	%DFKHORU RI 6FLHQFH L 1XUVLQJ	
3DVULFKD	1HHO	1HHO <XYUDM 3DVU	0DVWHU RI $UWV L (PHUJLQJ 0HGLD	
3DVVHUDOOR	5DFKHO	5DFKHO /\QQ 3DVVH	%DFKHORU RI 6FLH 1XUVLQJ	
3DV]NLHZLF]	*UDFH		%DFKHORU RI $UW	
3DWDGLD	-LOO +LWHQGUD		0DVWHU RI 6FLHQF DQG 1XWULWLRQ 6	
3DWHO	=LQHO 3DUHVK		0DVWHU RI 6FLHQF DQG 1XWULWLRQ 6	

5DFKR	&DVH\	&DVH\ 5DFKR	%DFKHORU RI 6FLH	
5DLQH\	%U\QOH\	%U\QOH\ 5DLQH\	%DFKHORU RI 6FLH	
5DMDZDOD	0DQLVK 5HGG\	0DQLVK 5HGG\ 5DM	0DVWHU RI 6FLHQF ,QIRUPDWLRQ DQG 0DQDJHPHQW	
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5DPXQGR	*DEULHO	*DEULHO /XNH 5DP	%DFKHORU RI 6FLH	
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5DQGL	5\DQ	5\DQ 5DQGL	%DFKHORU RI $UW	
5DQNLQ	-D\VRQ	-D\VRQ 1HHO\ 5DQ	%DFKHORU RI 6FLHQFH	
5DSS	-DFN	-DFN ' 5DSS	%DFKHORU RI 6FLH	
5DSSD	0DULVVD	0DULVVD 7HUHVH 5	%DFKHORU RI 6FLH	
5DWWL	'HOLODK	'HOLODK 5DWWL	%DFKHORU RI 6FLH 1w LQ	

6KRUH	$YD	$YD (LOHHQ 6KRUH	%DFKHORU RI)LQH	
6KUHVWKD	6DXP\DWD	6DXP\DWD 6KUHVW	%DFKHORU RI 6FLH	
6LFNOHU	2OLYLD	2OLYLD 6LFNOHU	%DFKHORU RI 6FLH 1XUVLQJ	
6LHJHO	$ELJDLO	$ELJDLO 6LHJHO	%DFKHORU RI 6FLH	
6LOYD	-RVH	-RVH 5DPRQ 6LOYD	%DFKHORU RI 6FLH $WKOHWLF 7UDLQL	
6LOYD\	*LOOLDQ	*LOOLDQ 0DULH 6L	%DFKHORU RI 6FLHQFH	
6LOYHU	*LD	*LD 5RVH 6LOYHU	%DFKHORU RI 6FLH	
6LPHRQ	6FRWW		%DFKHORU RI 6FLH	
6LPPRQV	+D\GHQ	+D\GHQ 'DQLHO 6LP	0DVWHU RI (GXFDW	
6LULJQDQR	0LFKDHO	0LFKDHO 6WHYHQ 6	%DFKHORU RI 6FLHQFH	
6LX	7RPPLH	7RPPLH 6LX	%DFKHORU RI 6FLH	
6LYLJOLD	-DPHV	-DPHV &KULVWRSKH	%DFKHORU RI 6FLH	
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6L]LQJ	5HLOO\	5HLOO\ -RVHSK 6L]	0DVWHU RI %XVLQHVV $GPLQLVWUDWLRQ	
6MRVWURP	0DU\NDWKHULQH	0DU\.DWKHULQH)U 6MRVWURP	%DFKHORU RI $UW	
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6NRJOXQG	$OH[DQGUD	$OH[DQGUD 6NRJO	%DFKHORU RI 6FLH	
6ODFKHWND	6KHOE\	6KHOE\ *UDFH 6OD	%DFKHORU RI 6FLH	
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6RIRFOL 6RKQ	'HPHWUD 7\OHU	'HPHWUD 6RIRFOL 7\OHU 0LFKDHO 6R	%DFKRORUHWWH L 1XUVLQJ

:HVVOLQJ	0DGHO\Q	0DGHO\Q)UDQFHV	%DFKHORU RI)LQH