

K K 9 'F cUX 'hc '6Ug\ . 'C VYf\Ui gYb 'k ]fX  
ni a 'K fYgh`]b[ !A Y\_\_U°

9f'YVYb 'G]Y 'K K 9 'F cUX 'Hc '6Ug\ 'b '6Yf`]b 'Ua ' &+''5i [ i gh  
&\$&( ' ]b 'C VYf\Ui gYb ° 'GY\Yb 'G]Y 'Hcd!Gi dYfghUfg'i bX  
gdUbbYbXY 'A UhWYg`'j Y"

| 'K K 9

8 Ug 'K fYgh`]b[ !GdY\_hU\_Y`XYf 'K K 9 'VYfY]hY'hg]W`Ui Z'Y]b  
Ui ZfY[ YbXYg'9j Ybhj cfž'XUg'Ua ' &+''5i [ i gh&\$&( ' ]b 'XYf'Fi Xc`Z  
K YVYf!5fYbU` ]b 'C VYf\Ui gYbž'BcfXf\Y]b!K YghZU`Ybž'ghUhhZ]bXYb  
k ]fX''9]b '9j Ybhž'XUg'Ui Z'XYa 'K Y[ 'ni a 'YfghYb '[ fc» Yb '@] Y!9j Ybh  
]b '8 Yi hgW`UbX'ghY\hi bX'X]Y 'K fYgh`]b[ !; Ya Y]bXY`Y`Y\_hf]g]Yfh"  
8]Yg`]gh'XYf'Xf]hhY '< U`h'Ui Z'XYf'gc[ YbUbbhYb 'F cUX 'hc '6Ug\ `]b  
6Yf`]bž'i bX'X]Y': Ubg'XØfZYb'g]W`Ui Z'nU\`fY]WY`GhUfg'i bX  
gdUbbYbXY '8 i Y`Y`ZfYi Yb"

≠ 'X]YgYf'Y]bXfi W\_gj c`Yb '5fYbUž'X]Y 'ZØf`\fY`\Yfj cffU[ YbXY  
5\_i gh]\_i bX'5ha cgd\ÄfY`VY\_Ubbh]ghž`\_ca a Yb 'K fYgh`]b[ !  
9bh\i g]UghYb 'Ui Z']\fY'?cghYb" 'BYVYb 'XYa 'K K 9 'K cf`X  
< YUj mk Y][ \h'7\Ua d]cb'; i bh\Yfž'XYf'a ]h'gY]bYf  
VYY]bXfi W\_YbXYb '?ØfdYfgdFUWY'i bX'HYWb]\_`X]Y`Ni gWUi Yf  
VY[ Y]ghYfb'k ]fXž'g]bX'Ui W`k Y]hYfY '[ fc» Ufh][ Y`Gi dYfghUfg'Ub  
6cfX''8Yf'K Y[ 'ZØ\fh'X]Y`G\ck `Xi fW`a Y\fYfY`Gh`XhYž'XUfi bhYf  
Ui W`Ghi hh[ Ufhi bX': fUb\_Zi fhž'VYj cf'XUg'[ fc» Y': ]bU`Y`]b '6Yf`]b  
VYj c fghY`h"

K Yhh\_Äa dZY'i bX '9f[ YVb]ggY

⇒a 'YfghYb '5i ZY]bUbXYfhfYZZYb 'XYg'5VYbXg'hfUh'XYf'Ua h]YfYbXY  
K K 9'i "G''7\Ua d]cb '@5'?b][ \h]b'Y]bYa 'Ui ZfY[ YbXYb': UhU`(`

K Um!A UhW\ [ Y[ Yb`VY\_UbbhY`BUa Yb`k ]Y`G\YUa i gZ`G\]bgi \_Y  
BU\_Ua i fU`i bX`@ Xk ][ `?U]gYf`Ub"BUW\Y]bYa `gdUbbYbXYb  
JYf`Ui Z`\_cbbhY`@5`?b][ \h`g]W\Xi fW\gYhnYb`i bX`gY]bYb`H]hY`  
YfZc`[ fY]W\`j YfhY]X][ Yb"

9]b`k Y]hYfYg`<][ \`][ \h`k Uf`XUg`HU[ `HYUa `A UhW\`nk ]gW\Yb` , 8`Mf  
VYghY\YbX`Ui g`æ\bbmi; Uf[ Ubc`i bX`Hca a Ugc`7]Ua dUž`i bX`XYa  
HYUa `j cb`DfYhmi8YUX`mž`k cni `9`hcb`Df]bW`i bX`?`]h`K `]`gcb  
[ Y\`ŌfYb" `<]Yf`nY][ hYb`U`Y`6YhY`][ hYb`[ fc» Ufh][ Y`@Y]ghi b[ Yb`ž`i bX  
XUg`Di V`]\_i a `† VY`hY`ZŌf`X]Y`G]Y[ Yf`; Uf[ Ubc`i bX`7]Ua dU"

8Yf`5VYbX`\Y`h`bcW\`k Y]hYfY` , VYffUgW\i b[ Yb`VYfY]h" Gc`\_Ua `Yg  
]a`G]b[ `Yg`A UhW\`i a `XYb`K K 9`F`5K `K ca Yb`g`7\Ua d]cbg\]d`ni  
Y]bYf`8]gei U`]Z[\_Uh]cbž`U`g`H]ZUbm`GhfUhhcbž`X]Y`ZŌf`B]U`šI  
\_Aa dZhYž`]bg`; YgW\Y\Yb`Y]b[ f]ZZ`k Ug`XUni `ZŌ\fhYž`XUgg`6Um`Ym  
XYb`G]Y[ `]b`Y]bYa `; c`[ Ya UhW\`Yff]b[ Yb`\_cbbhYž`]b`XYa `g]Y  
[ Ya Y]bgUa `a ]h`BUca `][ Y[ Yb`X]Y`VY]XYb`; Y[ bYf]bbYb`UbhfUH"

6YgcbXYfg`VYa Yf`\_Ybgk Yfh`k Uf`XUg`5i ZY]bUbXYfhfYZZYb`nk ]gW\Yb  
; i bh\Yf`i bX`≠U`8fU[ i bcj `i a `XYb`K K 9`K cf`X`<YUj mk Y][ \h  
7\Ua d]cbg\]d" `8]YgY`6Y[ Y[ bi b[ `nY][ hY`VYY]bXfi W`\_YbXY  
hYW\`b]gW\Y` : Å\[\_Y]hYb`i bX`Y]b`\c\Yg`A U» Ub`5h\`Yh]\_ž`XUg  
gW\`]Y» `]W\`]b`Y]bYa ` \_`Ugg]gW\Yb`K fYgh]b[ !A UhW\`a ØbXYhY"

- @5`?b][ \h`fW\`VYg]Y[ h`G\YUa i gZ`G\]bgi \_Y`BU\_Ua i fU`i bX  
@ Xk ][ `?U]gYf` `K K 9`i "G"7\Ua d]cbg\]d
- , 8`Mfæ\bbmi; Uf[ Ubc`/ `Hca a Ugc`7]Ua dUŁ`VYg]Y[ Yb  
DfYhmi8YUX`mi f9`hcb`Df]bW`/ `?`]h`K `]`gcbŁ` `HU[ `HYUa  
A UhW\
- 6Um`Ym`VYg]Y[ h`B]U`šI `j ]U`8E` `K K 9`F`5K `K ca Yb`g  
7\Ua d]cbg\]d
- 6Um`Ym`/ `BUca `]`VYg]Y[ Yb`B]U`šI / `H]ZUbm`GhfUhhcb`  
HU[ `HYUa `A UhW\
- ; I BH<9F`fW\`VYg]Y[ h`≠U`8fU[ i bcj ` `K K 9`K cf`X  
<YUj mk Y][ \h`7\Ua d]cbg\]d
- 6]UbW\`6Y`U]f`/ `šXY`7Uf[ `]`VYg]Y[ Yb`7UbX]W\`@YFUY`/  
`bX]`< Ufhk Y` `HU[ `HYUa `A UhW\
- H\Y`6`ccX`]bY`fHUa U`Hcb[ U`/ `Hcb[ U`@cUŁ`fW\`VYg]Y[ Yb`5!

Hck b'8ck b'l bXYf' / 'H\Y'GhfYYh'DfcZ]hg' 'K K 9'HU[ 'HYUa  
7\Ua d]cbg\]d

- 7cXmF\cXYg'fW'VYg]Y[ h'5>Ghm'Yg' 'l bX]gdi hYX'K K 9  
7\Ua d]cbg\]d

8]Y'Ni gWUi Yf'k i fXYb'j cb'9a ch]cbYb'i bX'gdUbbYbXYb  
A ca YbhYb'a ]h[ Yf]ggYbž'b]W'h'ni 'Ynh'Ui W'U'g'6]UbWU'6Y'U]f'i bX  
XXY'7Uf[ ]''b'6J 6!Hf]\_chg'X]Y'5fYbU'VYhfUhYb'i bX'bUW' ]\fYa  
G]Y[ 'a ]h'XYf'XYi hgW'Yb': 'U[ [ Y'ZY]YfhYb"'8]Y': fYi XY'k Uf'gdØfVUf  
i bX'j YfUbgW'Ui 'W'hYž'k ]Y'Gdcfh'i bX'bUh]cbU'Y'X'Ybh]hÅh  
a ]hY]bUbXYf'j YfVi bXYb'g]bX"

## J cfZfYi XY'Ui Z'XUg'[ fc» Y'9j Ybh

8Ug'6i nn'i a 'X]Y'K K 9'F cUX'hc'6Ug\ ]b'6Yf' ]b' ]gh'i bØVYfgY\VUf"  
8]Y'A UhW'UfhYb'ZØf'6Yf' ]b'j YfgdfYW'Yb'Y]b'gdY\_hU\_i 'ÅfYg  
5i ZY]bUbXYfhfYZZYb"' ; fØbXi b[ gdfca ]g'k ]Y' ; i bh\Yf'k YfXYb  
[ Y[ Yb' ; fØ» Yb'k ]Y'F UbXm'C fhcb'UbhfYhYbž'i bX'Ui W'XYf  
7\Ua d]cb'7cXmF\cXYg'\Uh'g]W'XYb'<YfUi gZc'fXYfi b[ Yb'j cb  
?Yj ]b'c'k Ybg'ni 'ghY''Yb"'8]Y': Ubg'\_ØbbYb'g]W'XUfØVYf'\ ]bUi g'Ui Z  
]bhYfYggUbhY'A ]l YX!HU[ !HYUa !A UhW'Yg'i bX'gdUbbYbXY'GhfUd!  
A UhW'Yg'ZfYi Ybž'X]Y'Y]b][ Y'XYf'VYghYb'5h\ 'YhYb'XYf'K fYgh]b[ !  
K Y'h'nY][ Yb'k YfXYb"

8]Y'K K 9'\Uh'g]W'Zygh'j cf[ Ybca a Ybž'Y]b'9fY][ b]g'XYf  
9l hfU\_'UggY'ni 'V]YhYbž'i bX'X]Y': Ubg'XØfZYb'g]W'Ui Z'hc''Y  
l bhYf\U'hi b[ 'ZfYi Yb"'A ]h'Y]bYf''YVYbX][ Yb'5ha cgd\ÅfY'i bX  
nU\ 'fY]W'Yb' , VYffUgW'i b[ Yb'j Yfgdf]W'h'X]YgYg'9j Ybh'b]W'h'bi f  
Y]b[ 'fc» Yg'K fYgh]b[ !GdY\_hU\_Yž'gcbXYfb'Ui W'Y]bY': Y]Yf'XYg  
Gdcfhg]b[ 'Ubn'8Yi hgW'UbX"

6YgcbXYfg'Ui ZfY[ YbX'k ]fX'Yg'gY]bž'XUg': Ub!9b[ U[ Ya Ybh'i bX'X]Y  
A Ø[ 'W'U'Y]hž'a ]h'gi dYfghUfg'XYf'K K 9''j Y'ni ' ]bhYfU[ ]YfYbž'ni  
gY\Yb"'9g' ]gh'Y]bY'\Yfj cffU[ YbXY' ; Y'Y[ Yb\Y]h'ZØf'K fYgh]b[ !  
: Ubgž'HY]'XYf' ; YgW]W'hY'ni 'k YfXYbž'k Å\YbX'X]Y'K K 9'Ui Z]\fYf  
F Y]gY'ØVYf'XYb'[ 'fc» Yb'HY]W'8Yi hgW'UbX'YffY]W'h"

8]Y'J cfVYfY]hi b[ Yb''Ui ZYb'Ui Z'<cW'hci fYb'/X]Y': Ubg'\_ØbbYb'g]W'

Ui ZY]bY`a ]hfY]» YbXY`G\ck`ZFyi Ybž`X]Y`bcW\`Ub[ Y`]b`9f]bbYfi b[ V`Y]VYb`k ]fX"

## J`c`f`V`Y`f`Y]hi`b[ Y`b`Z`Ø`f`X`U`g`9`j`Y`b`h`]b`6`Y`f`]b

8]Y`J`c`f`V`Y`f`Y]hi`b[ Y`b`Z`Ø`f`X`U`g`Y`f`g`h`Y`K`K`9`D`f`Y`a` ]i`a`@]Y`9`j`Y`b`h`]b`6`Y`f`]b`Ui`Z`Y`b`Ui`Z`<c`W`h`c`i`f`Y`b`"8]Y`C`f[ Ub]g`U`h`c`f`Y`b`X`Y`f`K`K`9`g`Y`h`n`Y`b`j`Y`f`g`h`Å`f`\_`h`Ui`Z`@`\_`U`]g]Y`fi`b[ ž`i`a`X`U`g`9`j`Y`b`h`Z`Ø`f`X`Y`X`Y`i`h`g`W`Y`b`: Ub`g`i`b`j`Y`f[ Y`g`g`]W`ni`a`U`W`Y`b`"8`U`n`i`[ Y`Å`Ö`f`Y`b`b`]W`h`b`i`f`Ui`g[ Y`\_`Ø[ Y`h`Y`A`U`f`\_`Y`h]b[ g`h`f`U`h`Y`[ ]Y`b`ž`g`c`b`X`Y`f`b`Ui`W`X`Y`6`Y`f`Ø`W`\_`g`]W`h][ i`b[ `c`\_`U`Y`f`h`Y`f`Y`g`g`Y`b`i`b`X`J`c`f`]Y`V`Y`b"

8]Y`F`i`X`c`Z`K`Y`V`Y`f`!`5`f`Y`b`U`ž`X]Y`Z`Ø`f`X]Y`J`Y`f`U`b`g`h`U`hi`b[ `Ui`g[ Y`k`Å`h`k`i`f`X`Y`ž`V]Y`h`Y`h`Y]b`Y`?`U`d`U`n]h`Å`h`j`c`b`Ø`V`Y`f`%`"\$`\$`\$`N`i`g`W`U`i`Y`f`b`i`b`X`]g`h`V`Y`\_`U`b`b`h`Z`Ø`f`]`f`Y`a`c`X`Y`f`b`Y`5`i`g`g`h`U`h`i`b[ "I`a`g]W`Y`f`n`i`g`h`Y`Y`b`ž`X`U`g`g`g`c`k`c`X`Y`Ni`g`W`U`i`Y`f`U`g`Ui`W`X`Y`?`Å`a`d`Z`Y`f`Y]b`Y`f`g`h`\_`U`g`g][ Y`g`9`f`Y`V`b]g`U`V`Y`b`ž`k`]f`X`]b`X`Y`b`\_`c`a`a`Y`b`X`Y`b`K`c`W`Y`b`]b`j`Y`f`g`W`]Y`X`Y`b`Y`h`Z`f`U`g`h`f`i`\_`h`i`f`Y`b`]b`j`Y`g`h]Y`f`h`ž`X`U`f`i`b`h`Y`f`X]Y`9`f`Z`f]g`W`i`b[ X`Y`f`[ U`g`h`f`c`b`c`a`]g`W`Y`b`5`b[ Y`V`c`h`Y`i`b`X`X]Y`J`Y`f`V`Y`g`g`Y`f`i`b[ `X`Y`f`G]W`Y`f`Y]h`g`a`U»`b`U`a`Y`b"

## K`K`9`]b`8`Y`i`h`g`W`U`b`X.`9`]b`Y

### 9`f`Z`c`[`g[`Y`g`W`]W`h`Y

K`K`9`U`h`Y]b`Y`Ub[ Y`i`b`X`V`Y`a`Y`f`\_`Y`b`g`k`Y`f`h`Y`;`Y`g`W`]W`h`Y`]b`8`Y`i`h`g`W`U`b`X`ž`X]Y`V]g`]b`X]Y`%`-,`\$`Y`f`h`Y`f`Y`n`i`f`Ø`W`\_`f`Y]W`h`h`h`X`Y`b`Y`h`h`Y`b`h`Y`f`Y`b`]g`h`X`U`g`h`Y`f`Y`g`g`Y`U`b`K`f`Y`g`h`]b[`]b`8`Y`i`h`g`W`U`b`X`g][`b]Z]\_`U`b`h`[`Y`k`U`W`g`Y`b`"8]Y`g`Y`9`b`h`k`]W`\_`i`b[ `U`h`g]W`U`i`W`]b`X`Y`b`Ni`g`W`U`i`Y`f`n`U`Y`b`V`Y`]@]Y`!`9`j`Y`b`h`g`k`]X`Y`f`g`d]Y[ Y`h`8]Y`5`f`Y`b`U`]b`C`V`Y`f`U`i`g`Y`b`U`h`]b`X`Y`b`Y`h`h`Y`b`h`Y`f`Y`b`V`Y`]K`K`9`!`9`j`Y`b`h`g`f`Y[ Y`a`Å»][`Ui`g]Y`f`\_`Ui`Z`h`Y`<`U`Y`b`j`Y`f`n`Y]W`b`Y`h"

9]b`[`i`h`Y`f`h`X]\_`U`h`c`f`Z`Ø`f`X`U`g`h`Y`f`Y`g`g`Y`U`b`K`f`Y`g`h`]b[`]b`8`Y`i`h`g`W`U`b`X`g]b`X`X]Y`H`J`!`E`i`c`h`Y`b`"8]Y`G`Y`b`X`i`b[ Y`b`X`Y`f`K`K`9`Y`f`f`Y]W`Y`b`c`c`Y`N`i`g`W`U`i`Y`f`n`U`Y`b`ž`]b`g`V`Y`g`c`b`X`Y`f`Y`V`Y`]X`Y`f`Ø`b[ Y`f`Y`b`N]Y`[`f`i`d`d`Y`"8]Y`g`n`Y][`h`ž`X`U`g`g`K`f`Y`g`h`]b[`]b]W`h`b`i`f`Y]b`B]g`W`Y`b`U`b[ Y`V`c`h`]g`h`ž`g`c`b`X`Y`f`b`U`g`V`Y`X`Y`i`h`Y`b`X`Y`i`b`h`Y`f`U`h`i`b[`g`Z`c`f`a`]b`X`Y`f`X`Y`i`h`g`W`Y`b`

A YX]Yb`UbXgW\ UZh`YhUV`]Yfh]gh" `K Y]hYfY` ðZcfa Uh]cbYb`ni f  
; YgW\]W\hY`XYf`K K 9`]b`8Yi hgW\`UbX`Z]bXYh`a Ub`Ui ZXYf`K K 9!  
K YVg]hY"

8]Y`GhUfg`XYf`K K 9.`9]b`6`]W`Ui Z`X]Y  
?`Åa`dZYf`

8]Y`K K 9!F`cghYf`gYhnYb`g]W\`Ui`g`Y]bYf`J]Y`nU\`j`cb`hU`Ybh]YfhYb  
K`fYgh`Yfb`ni`gUa`a`Ybž`X]Y`Ui`g`j`YfgW\]YXYbYb`@`AbXYfb`i`bX  
?`i`h`i`fYb`ghUa`a`Yb`"6YgcbXYfg`\Yfj`cfni`\YVYb`g]bX`X]Y`5h\`YhYbž  
X]Y`VYfY]hg`Y]bY`ØVYffU[`YbXY`]bhYfbUh]cbU`Y`?`Uff]YfY`\]b[`Y`Y[`h  
\UVYb`"GhUfg`k`]Y`;`i`bh\Yf`i`bX`7cXmF`\cXYg`g]bX`b]W\h`bi`f`]b`XYf  
K`K`9`YfZc`[`fY]W\ž`gcbXYfb`\UVYb`Ui`W\`Ui`»`Yf\U`V`XYf`I`G!  
Ua`Yf]\_Ub]gW\Yb`GnYbY`]fYb`K`Y[`i`[`YZ`bXYb"

;`i`bh\Yfž`XYf`U`\_hi`Y`Y`K`K`9`K`cf`X`<`YUj`mk`Y][`\h`7`Ua`d]cbž`\Uh  
g]W\`Xi`fW\`gY]bY`VYY]bXfi`W`\_YbXYb`@Y]ghi`b[`Yb`i`bX`Uh\`Yh]gW\Yb  
:`Å\][`\_Y]hYb`Y]bYb`BUa`Yb`[`Ya`UW\h`7cXmF`\cXYg`\]b[`Y[`Yb`\Uh  
b]W\h`bi`f`U`g`K`fYghYfž`gcbXYfb`Ui`W\`U`g`Dfca`chYf`i`bX`DfcXi`nYbh  
ZØf`:`i`fcfY`[`Ygcf[`hž]bXYa`Yf`j`YfgW\]YXYbY`:`cfa`UhY`i`bX  
Dfca`ch]cbg`k`]Y`X]Y`k`L`k`i]b`8Yi`hgW\`UbX`i`bhYfghØhnhY`"Gc`W\Y  
?`Åa`dZYf`hfU[`Yb`ni`f`ðhYfbUh]cbU`]g]Yfi`b[`i`bX`8]j`Yfg]Z]n]Yfi`b[  
XYf`K`K`9`VY]ž`k`Ug`ni`bY\`a`YbX`a`Y\`f`:`Ubg`Ubn]Y\`h"

5`\_hi`Y`Y`GhUh]gh]\_Yb`]a`K`fYgh`]b[

8]Y`6Y`]YVh\Y]h`j`cb`K`fYgh`]b[`nY][`h`g]W\`Ui`W\`]b`VYY]bXfi`W`\_YbXYb  
GhUh]gh]\_Yb`"@Ui`h`Y]bYf`Ghi`X]Y`j`cb`GhUh]ghU`Ui`g`XYa`Y\`f`&\$\$&  
\UVYb`a`Y\`f`U`g`+`A`j`]cbYb`A`YbgW\Yb`]b`8Yi`hgW\`UbX  
Ub[`Y[`YVYbž`K`fYgh`]b[`fY[`Y`a`Å»][`ni`j`YfZc`[`Yb`"8UfØVYf`\]bUi`g  
k`i`fXY`ZYgh[`YghY`hž`XUgg`]a`GW\`b]hh`Yhk`U`&\$i`XYf`Ni`gW\`Ui`Yf`VY]  
[`fc»`Yb`9j`Ybhg`k`]Y`K`fYgh`YA`Ub]U`cXYf`XYb`@j`Y!Hci`fYb`XYf`K`K`9  
Ui`g`8Yi`hgW\`UbX`\_ca`a`Yb"

Ni`g`Åhn`]W\`VYf]W\hYh`X]Y`K`K`9`ØVYf`\_cbh]bi`]Yf`]W\`ghY][`YbXY  
H]W`\_Yhj`Yf`\_Ai`ZY`i`bX`A`YfW\`UbX]g]b[`!NU\`Yb`"I`a`X]Y`B`UW\`ZfU[`Y  
VYX]YbYb`ni`\_ØbbYbž`d`Ubh`X]Y`K`K`9ž`\fY`G\`ck`Ub[`YV`chY`]b`XYb

\_ca a YbXYb`ϰ\ fYb`Ui gni k Y]hYb"8]Y`ghY][ YbXYb  
Ni gWUi YfnU\`Yb`i bX`XUg`k UWgYbXYg`ϰhYfYggY`Ub`K fYgh`b[ `]b  
8Yi hgW`UbX`j YfgdfYW`Yb`Y]bY`Ui ZfY[ YbXY`Ni \_i bZh`ZØf`X]Y`K K 9  
]b`X]YgYf`F Y[ ]cb"

J Yf`Àggh`X]Y`K K 9`XUa ]hY]bY`bYi Y`ÿfU`]b`8Yi hgW`UbX3`Bi f`X]Y  
NY]h`k ]fX`nY][ Ybž`k ]Y`g]W`XYf`A Uf`\_h`k Y]hYfYbhk ]W\_Y`hž`XcW`X]Y  
J cfnY]W`Yb`ghY\`Yb`dcg]hj` "

8YhU]`g

6Ygi W`Yb`G]Y`i bg`Ui Z.`a Y]b!VYf`]b"bYh