

J YfXYb#C ghYf\c`n. 'J Yf\_Y\fgi bZÄ`Y`i bX  
J UbXU`]ga i g`VYgWÄZh][ Yb`Dc`]nY]

I bZÄ`Y`]a `@UbX\_fY]g`J YfXYb. : U\fyf`j Yf`Ymhž`F UXZU\fyf`]b  
; YZU\fž`i bX`GUWVYgWÄX][ i b[ `]b`C ghYf\c`n" `Xmh`YgYb`°

⊕`XYb`@UbX\_fY]gYb`J YfXYb`i bX`C ghYf\c`n`\UVYb`j YfgWÄ]YXYbY  
J Yf\_Y\fgi bZÄ`Y`i bX`J UbXU`]ga i g`ZØf`5i ZfY[ i b[ `] Ygcf[ h`  
6YgcbXYfg`Ua`GcbbhU[ `\_Ua`Yg`ni`a`Y\fyfyb`J cfZÄ`Ybž`X]Y`b]WÄh  
bi`f`GWÄXYb`Ub` : U\fnYi [ Ybž`gcbXYfb`Ui`WÄ`J Yf`Yhni b[ Yb`j`cb  
DYfgcbYb`ni`f` : c`[ Y`UhhYb`"8]Y`Dc`]nY]`k`i`fXY`]b`a`Y\fyfyb` : Ä`Yb  
hÄh][ `i`bX`Y]hYhY`9fa`]h`i`b[ Yb`Y]b`"

9]b`a`Uf\_UbhYf`J cfZU`Yfy][ bYhY`g]WÄ`]b`J YfXYb`[ Y[ Yb`\*`.&\$`I` \fž  
U`g`Y]b`&\*`!`Ä`f][ Yf` : U\fyf`Y]bYg`?`Y]bhfUbgdcfhYfg`Ui`g  
I bUWÄhgUa`\_Y]h`Ui`ZY]bYb`5i`X]`Ui`Zi` \f`"8Yf`5i`X]ž`[ Y`Yb`\_h]`cb  
Y]bYa` `&(!`Ä`f][ Ybž`\UhhY`Ub`XYf`9]bZU\fh`XYg`?`fY]gj`Yf\_Y\fg`Ua  
C ghYf\_fi [ `\_U`h[ Ya`UWÄhž`i`a`XYb`J Yf\_Y\fgVYX]b[ i b[ Yb  
FYWÄbi b[ `ni`hfU[ Yb`"8]Y`K`i`WÄh`XYg`5i`ZdfU`g`k`Uf`gc`ghUf`ž`XUgg  
XYf`5i`X]`]b`XYb`?`fY]gj`Yf\_Y\f`[ YgWÄcVYb`k`i`fXYž`k`c`Yf`a`]h`Y]bYa  
6AK`Y]bYg` ` \$!`Ä`f][ Yb` : U\fyfg`\_c``X]YfhY`"8]YgY`?`c``]g]cb`ZØ\fhY  
ni`Yf\YV`]WÄYb`GWÄXYb`Ub`U`Yb`XfY]`]bj`c`j`]YfhYb` : U\fnYi [ Ybž  
i`bX`XYf`&(!`Ä`f][ Y`5i`X]! : U\fyf`nc[ `g]WÄ`XUVY]`Y]WÄhY  
J Yf`Yhni b[ Yb`ni`" `⊕`Zc`[ YXYggYb`Y]hYhY`X]Y`Dc`]nY]`Y]b  
GhfUž`YfZU\fyb`k`Y[ Yb`ZU\f`Ägg][ Yf`?`ÖfdYfj`Yf`Yhni b[ `] [ Y[ Yb`XYb  
&\*`!`Ä`f][ Yb`Y]bž`k`Ug`X]Y`?`cbgYei`YbnYb`gY]bYg`i`bUWÄhgUa`Yb  
 : U\fj`Yf\U`hYbg`j`YfXYi`h]WÄh`"

K Y]hYfY`I bZÄ`Y`]a `@UbX\_fY]g`J YfXYb

9]b`k`Y]hYfYf`J cfZU`Yfy][ bYhY`g]WÄ`]b`@Ub[ k`YXY`ž`k`c`Y]b  
 `(!`Ä`f][ Yf`F UXZU\fyf`Ua`GcbbhU[ `CdZYf`Y]bYg`J Yf\_Y\fgi bZU`g

k i fXY"9]b') \$!`Å\ f][ Yf': U\ fYf'Y]bYg'?`Y]bhfUbgdcfhYfg`Vc [ `bUW  
`b\_g]b`Y]bYb`DUf\_d`Um`UV`i bX`ØVYfgU\`XUVY]`XYb  
\YfUbbU\YbXYb`F UXZU\ fYf"5i W\`]\Yf`a i gghY`XYf`F UXZU\ fYf`a ]h  
`Y]W\hYb`J Yf`Yhni b[ Yb`VY\UbXY`h`k YfXYb"8]Y`Dc`]nY]`bU\`a`Ui W  
]b`X]YgYa` : U`9fa ]h`i b[ Yb`k Y[ Yb`ZU\ f`Ågg][ Yf`?`ØfdYfj Yf`Yhni b[  
[ Y[ Yb`XYb': U\ fYf`XYg`HfUbgdcfhYfg`Ui Z`k Ug`XUfUi Z`\]bk Y]ghž`k ]Y  
k ]W\h][`Yg]ghž]a`GhfU»Ybj Yf`\_Y\`f`Ui Za Yf\_gUa`ni`gY]bž  
VYgcbXYfg]b`XYf`BÅ\Y`j cb`F UXZU\ fYfb"

Ni gÅh`]W`ni`XYb`J Yf`\_Y\`fgi bZÅ`Yb`[ UV`Yg`Ui W`Y]bYb  
Nk ]gWYbZU``]b`C ghYf\`c`n!GWUfa VYW`"5a`j Yf[ Ub[ YbYb  
K cWYbYbXY`k i fXYb`Ub`XYf`GhfU»Y`5a`Di`a`dY`VYf[ `Y]b  
5b\Åb[ Yf`Y]bYf`6ÅW\_YfY]`gck ]Y`Y]b`5`h`\_Y]XYfW`b`hU]bYf`j`cb  
i bVY`\_UbbhYb`HÅhYf`i`a [ Y\_]ddh"8]YgY`GUW`VYgW`ÅX][ i b[ `ZØ\`fhY  
ni`Y]bYa`Yf\`YV`]WYb`GW`UXYb`Ua`5b\Åb[ Yfž`i`b`X`X]Y`Dc`]nY]  
gi W`h`bi`b`bUW`a`Ø[`]WYb`NYi [ Yb`"<]bk Y]gY`\_ØbbYb`i`bhYf`XYf  
HY`Y`Zcbbi`a`a`Yf`\$`(+`-`%#`\$`+`\$`[ Ya`Y`XYh`k`YfXYb" `Gc`W`Y  
k ]`\_Øf`]WYb`<`UbX`i`b[ Yb`k`YfZYb': fU[ Yb`ØVYf`X]Y`G]WYf\`Y]h]b  
XYf`FY [ ]cb`Ui`Zi`bX`Yf\`Ø`Yb`XYb`8fi`W`Ui`Z`X]Y`Øfh]WYb  
6Y\`ØfXYbž`A`U»bU\`a`Yb`ni`a`GW`i`hn`XYg`9][ Ybhi`a`g`ni`Yf[ fY]ZYb"

8]Y`K`]W\h][`\_Y]h`j`cb`J`Yf`\_Y\`fgg]W\Yf\`Y]h`i`b`X  
;`Ya`Y]bgW`UZhggW`i`hn

8]Y`J`cfZÅ`Y`]b`J`YfXYb`i`b`X`C`ghYf\`c`n`nY][ Ybž`k`]Y`k`]W\h][`Yg]ghž  
]a`GhfU»Ybj Yf`\_Y\`f`gck ]Y`]a`l`a [ Ub[ `a`]h[ Ya`Y]bgW`UZh]WYa  
9][ Ybhi`a`j`YfUbhk`cfh]W`ni`"\`UbXYb"J`Yf`\_Y\`fghY]`bY\`a`Yf  
a`ØggYb`g]W`ghÅbX][`]\`fYf`l`a [ YVi`b[ `VYk`i`ggh`gY]b`i`b`X`J`cfG]W`h  
k`U`hYb`U`ggYbž`i`a`l`bZÅ`Y`ni`j`Yfa`Y]XYb"X`XYf`X]YgYf`J`cfZÅ`Y  
i`bhYfghfY]W`h`X]Y`B`ch`k`YbX][`\_Y]hž`Ui`Za`Yf\_gUa`Yf`ni`gY]bž  
]bgVYgcbXYfY`]b`6YfY]WYbž`k`c`F`UXZU\`fYf`i`b`X`UbXYfY  
j`Yf`Yh`]WY`J`Yf`\_Y\`fghY]`bY\`a`Yf`c`Zi]b`;`YZU\`f`g]b`X"

8`Ug`J`Yf\`U`hYb`XYf`HÅhYf`]a` :`U`Y`XYg`i`a [ Y\_]ddhYb`5b\Åb[ Yfg  
i`b`X`XYg`5`h`\_Y]XYfW`b`hU]bYfg`YfZcfXYfh`YVYbZU`g  
5i`Za`Yf\_gUa`\_Y]h" `Gc`W`Y`J`UbXU`]ga`i`gU`hY`VYY]bhfÅW\h][`Yb`b]W\h  
bi`f`X`Ug`9][ Ybhi`a`ž`gcbXYfb`Ui`W`XYb`;`Ya`Y]bgW`UZhg[ Y]gh"8]Y  
Dc`]nY]`gc`hY`k`Y]hYf\`]b`U`\_h]`i`b`UW`NYi [ Yb`gi`WYb`i`b`X`X]Y

DfAj Ybh]cb [ Y[ Yb`gc`WXY`GhfUZhUHYb`Yf\O\Yb" `bg[ YgUa`h]gh`Yg  
YbhgWXY]XYbXž`XUgg`gck`c`X]Y`J`Yf`\_`Y`fgg]WXYf\Y]h`U`g`Ui`W`X`Yf`  
GW`i`hn`XYg` ; Ya`Y]bgW`UZhY][`Ybhi`a`g`Yfbgh[`Ybca`a`Yb`k`YfXYbž  
i`a`XUg`J`Yfhf`Ui`Yb`]b`X]Y`OZZYbh]WXY`G]WXYf\Y]h  
Ui`ZfY`W`hni`Yf\U`hYb"

## < ]ghc f]gWXY`DUfU`Y`Yb

æa`<]bV`]W`\_`Ui`Z`J`Yf`\_`Y`f`gi`bZ`Ä`Y`i`bX`X`Y`f`Y`b`i`f`g`U`W`X`Y`b`\_`U`b`b`a`U`b`  
DUfU`Y`Y`b`ni`\_`U`b`X`Y`f`Y`b`N`Y]h`d`Y`f`c`X`Y`b`i`b`X`[`Y`g`Y`g`W`X`U`Z`h`]W`X`Y`b`  
6Yk`Y`[`i`b`[`Y`b`n`]Y`f`Y`b`" `æ`X`Y`b`%`-` ,`\$`Y`f`\_`J`f`Y`b`g`h]Y`[`Y`b`X`Y`  
l`b`Z`U`n`U`X`Y`b`]b`8`Y`i`hgW`X`U`b`X`U`i`Z`[`fi`b`X`j`c`b`]a`a`Y`f`g`W`X`b`Y`Y`f`Y`b`  
:`U`f`n`Y`i`[`Y`b`i`b`X`i`b`ni`f`Y]W`X`Y`b`X`Y`f`J`Y`f`\_`Y`f`fgg]W`X`Y`f`Y`h`g`h`U`f`\_`U`b`" `æ`  
F`Y`U`\_`h]c`b`X`U`f`U`i`Z`k`i`f`X`Y`b`A`U`»`b`U`a`Y`b`Y`f`[`f]Z`Y`b`ž`k`]Y`X`Y`  
9]b`Z`Ø`f`i`b`[`j`c`b`D`f`c`a`]`Y`[`f`Y`b`n`Y`b`i`b`X`j`Y`f`g`h`Ä`f`\_`h`Y`  
;`Y`g`W`X`k`]b`X`][`\_`Y]h`g`\_`c`b`h`f`c`Y`b`" `Y`b`]W`X`g]b`X`U`i`W`X`Y`i`h`Y`ž`U`b`[`Y`g]W`X`h`g`  
X`Y`g`5`b`g`h]Y`[`g`j`c`b`J`Y`f`\_`Y`f`gi`bZ`Ä`Y`b`X`i`f`W`X`5`V`Y`b`\_`i`b`[`i`b`X`  
l`b`U`W`X`h`g`U`a`\_`Y]h`ž`b`Y`i`Y`G`h`f`U`h`Y`[`Y`b`Y`f`Z`c`f`X`Y`f`]W`X`" `8`Y`f`9]b`g`U`h`n`j`c`b`  
A`U`»`b`U`a`Y`b`ni`f`G`Y`b`g]V`]g]Y`fi`b`[`X`Y`f`:`U`f`Y`f`[`Y`[`Y`b`Ø`V`Y`f`X`Y`b`  
;`Y`Z`U`f`Y`b`j`c`b`5`V`Y`b`\_`i`b`[`Y`b`ž`Y`h`k`U`X`i`f`W`X`G`a`U`f`h`d`c`b`Y`g`ž`k`]f`X`  
]a`a`Y`f`X`f`Ä`b`[`Y`b`X`Y`f`" `9]b`J`Y`f`[`Y`W`X`n`Y][`h`ž`X`U`g`g`U`i`W`X`X`U`a`U`g`X`U`g`  
6Yk`i`g`g`h`g`Y]b`Z`Ø`f`J`Y`f`\_`Y`f`fgg]W`X`Y`f`Y`h`Y`f`O`h`k`Y`f`X`Y`b`a`i`g`g`h`Y`ž`i`a`  
X]Y`N`U`X`X`Y`f`i`bZ`Ä`Y`ni`g`Y`b`\_`Y`b`"

## < ]bhYf[ fi bX]bZcfa Uh]cbYb`ni`f` J`Y`f`\_`Y`f`fgg]W`X`Y`f`Y`h`

8]Y`J`Y`f`\_`Y`f`fgg]W`X`Y`f`Y`h`]b`8`Y`i`hgW`X`U`b`X`]gh`Y]b`V`Y`X`Y`i`h`Y`b`X`Y`g`  
H`Y`a`U`ž`X`U`g`g`c`k`c`X]Y`^`Z`Z`Y`b`h]W`X`\_`Y]h`U`g`U`i`W`X`Y`d`c`]h]g`W`X`Y`b`  
9b`hg`W`X`Y]X`i`b`[`gh`f`Ä`[`Y`f`V`Y`g`W`X`Ä`Z`h][`h`i`æ`\_`J`f`&`\$`&`&`j`Y`f`n`Y]W`X`b`Y`h`Y`  
8Y`i`hgW`X`U`b`X`a`Y`f`U`g`&`ž`A`J`]c`b`Y`b`i`bZ`Ä`Y`ž`k`c`V`Y]X]Y`N`U`X`X`Y`f`  
J`Y`f`Y`h`h`Y`b`V`Y]`Ø`V`Y`f`" `\$\$`\$\$`\$`U`["`8]Y`g`Y`N`U`X`Y`b`j`Y`f`X`Y`i`h]W`X`Y`b`X`Y`  
;`Y`Z`U`f`Y`b`U`i`Z`X`Y`b`G`h`f`U`»`Y`b`":`U`\_`h`c`f`Y`b`k`]Y`i`b`U`W`X`h`g`U`a`Y`g`:`U`f`Y`b`ž`  
;`Y`g`W`X`k`]b`X`][`\_`Y]h`g`Ø`V`Y`f`g`W`X`Y`h`i`b`[`Y`b`i`b`X`U`\_`c`X`c`]g]Y`f`h`Y`:`U`f`Y`f`  
g]b`X`X`Ä`i`Z`[`Y`i`f`g`U`W`X`Y`b`Z`Ø`f`g`W`X`k`Y`f`Y`J`Y`f`\_`Y`f`gi`bZ`Ä`Y`"

l`a`X]Y`g`Y`f`9`b`h`k`]W`\_`i`b`[`Y`b`h`[`Y`[`Y`b`ni`k`]f`\_`Y`b`ž`g]b`X`i`a`Z`U`g`g`Y`b`X`Y`

DfÅj Ybh]cbgdfc [ fUa a Y'bc h k YbX][ "'8]Y'8Yi hgWXY'J Yf\_Y\fgk UW h  
i bX'UbXYfY' bgh]hi h]cbYb'gYhnYb'g]W'Z0f'5i Z\_Àfi b[ 'i bX  
GW i 'i b[ 'Y]bž i a 'XUg'6Yk i gghgY]b'XYf'J Yf\_Y\fg hY]'bY\ a Yf'ni  
ghÅf\_Yb"'5i W' hYW b]gWXY': cfhgW f]hhYž'k ]Y'X]Y'9]bZ0\fi b[ 'j cb  
: U\ fUgg]ghY bngmghYa Ybž'hfU[ Yb'XUni 'VY]ž'X]Y'G]WXYf\Y]h'ja  
GhfU» Ybj Yf\_Y\ f'ni 'Yf\Ò\Yb"'8YbbcW'V'Y]Vh'X]Y'J YfUbhk cfhi b[  
'Yhh]W'VY]'YXYa 'Y]bnY'bYb': U\ fYfž'g]W'f0W\_g]W h g j c''i bX  
Ui Za Yf\_gUa 'ja 'GhfU» Ybj Yf\_Y\ f'ni 'j Yf\U'hYb"

## 5\_hi Y`Y'GhUh]gh]\_Yb'i bX'8UhYb

5\_hi Y`Y'GhUh]gh]\_Yb'i bhYfghfY]WYb'X]Y'K ]W h][ \_Y]h'j cb  
J Yf\_Y\fgg]WXYf\Y]h"@Ui h'XYg'GhUh]gh]gWYb'6i bXYgUa hYg'[ UV'Yg  
]a 'X\ f '&\$&%]'b'8Yi hgW'UbX'&ž\*'A ]''cbYb'dc`nY]'W'YfZUgghY  
J Yf\_Y\fgi bZÀ`Yž'k Ug]a 'J Yf[ 'Y]W'ni 'XYb'J cf'U\ fYb'Y]bYb  
F0W\_[ Ub[ 'XUfghY`h"'8YbbcW'V'Y]Vh'X]Y'NU\`XYf'J Yf\_Y\fg hchYb  
a ]h'Yhk U'&"+\$\$'i bj YfÅbXYfh'\cW"'5i » YfXYa 'nY][ Yb' l a ZfU[ Yb  
XYg'8Yi hgWYb'J Yf\_Y\fgg]WXYf\Y]hgfUhgž'XUgg'j ]Y'Y  
J Yf\_Y\fg hY]'bY\ a Yf'g]W'0VYf'X]Y'; YZU\ fYb'j cb'5V'Yb\_i b[ Ybž  
]bgVYgcbXYfY'Xi fW'<UbXmbi hni b[ ž'VYk i ggh'g]bXž'YXcW'VY]'XYf  
Y][ YbYb': U\fk Y]gY'cZhi bj cfg]W h][ 'V'Y]VYb"

I a 'X]YgY'<YfUi gZcfXYfi b[ Yb'Ubni [ Y\Ybž'g]bX'Ub\U'hYbXY  
5i Z\_Àfi b[ gUfVY]hi bX'ghf]\_hYfY'; YgYhn[ YVi b[ Yb'YfZcfXYf'W"  
5i W'X]Y'I bhYfgh0hni b[ 'Xi fW'HYW bc`c[ ]Ybž'VY]gd]Y'gk Y]gY  
Xi fW'a cV]'Y'5ddg'ni f', VYfk UW i b[ 'XYf': U\fk Y]gYž'\_0bbhY'Y]b  
\]ZfY]WYg'A ]hhY`gY]bž i a 'X]Y'J Yf\_Y\fgg]WXYf\Y]h'ni 'Yf\Ò\Yb"  
Gc`WY'Dfc[ fUa a Y'X]YbYb'b]W'h'bi f'XYf'DfÅj Ybh]cbž'gcbXYfb  
Ui W'XYf'5i Z\_Àfi b[ '0VYf'XUg'Y][ YbY': U\fj Yf\U'hYb"

8YhU]`g

6Ygi WXYb'G]Y'i bg'Ui Z.'b!U[ "XY