

6Ua VYf[ 'ghUfhYh'C dYb'8 UhU'DcfhU`.  
8 UhYb'XYf'Ga Ufh'7]hm'ZØf'U`Y`ni [ Åb[ `]WÅ

6Ua VYf[ 'ghUfhYh'Y]b'C dYb'8 UhU'DcfhU`ž'i a`Ubc bma ]g]YfhY  
Ga Ufh!7]hm!8 UhYb'ni`hY]Yb'i bX'HfUbgdUfYbn'ni`ZØfXYfb"

⊕XYf'\]ghcf]gWÅYb'GhUXh'6Ua VYf[ ž'VY\_Ubbh'ZØf']\fY  
VYY]bXfi W\_YbXY'5fWÅ]hY\_hi f'i bX'fY]WÅY`?i`hi fž'k ]fX'Y]b'bYi Yf  
GWÅf]h'h]b'F]WÅhi b[ 'X][ ]hU'Y`HfUbgdUfYbn'i bhYfbca`a`Yb"'8]Y  
GhUXhj Yfk U`hi b[ '\Uh'Y]b'C dYb!8 UhU!DcfhU`']bg`@YVYb'[ Yfi ZYbž  
XUg'XYb'6Øf[ Yfb'i bX'XYf'² ZZyb'h]WÅ\_Y]h'Ni [ Ub[ 'ni`Y]bYf'J ]Y`nUÅ`  
Ub'Ubc bma ]g]YfhYb'8 UhYb'V]YhYh"'8]YgY'⊕]h]Uh]j`Y`]gh'HY]'XYg  
Ga Ufh!7]hm!? cbnYdhgž'XUg'XUg'N]Y`j YfZc`[ hž'X][ ]hU'Y`DfcnYggY`ni  
cdh]a ]YfYb'i bX'ghÅXh]gWÅY'8]Ybgh'Y]ghi b[ Yb'ni`j YfVYggYfb"

8 Ug'C dYb!8 UhU!DcfhU`X]Yb'h'U`g'nYbhfU`Y'5b`Ui ZghY`Yž'Ui Z'XYf  
b]WÅh'bi f'8 UhYb'ØVYf'XUg'6Ygi WÅYfUi Z\_ca`a`Yb'i bX'XYb  
Hci f]ga`i`g']b'6Ua VYf[ 'VYfY]h[ YghY`h'k YfXYbž'gcbXYfb'Ui WÅ  
⊕Zcfa Uh]cbYb'ni f'; YVi fhYb'fUhYž'6Yj Ò`\_Yfi b[ gYbhk ]W\_`i b[ 'i bX  
gc[ Uf'8 UhYbž'X]Y`j cb'a`cXYfbghYb'GYbgcfYb'ni f  
6cXYbZYi WÅh][ \_Y]h[ YgUa`a`Y'h'k YfXYb"'8]YgY'8 UhYb'g]bX  
Ubc bma ]g]Yfhž'k Ug'VYXYi hYhž'XUgg'\_Y]bY'dYfgØb`]WÅYb  
⊕Zcfa Uh]cbYb'Y]bnY'bYf'DYfgcbYb'dfY]g[ Y[ VVYb'k YfXYbž'i bX'g]Y  
k YfXYb']b'fY[ Y'a`Å»][ Yb'5VghÅbXYb'U\_hi U`]g]Yfhž'i a`a`Ò[ `]WÅgh  
U\_hi Y`Y`⊕Zcfa Uh]cbYb'Ubni V]YhYb"

6YhY]`][ hY'5\_hYi fY`i bX'HYWÅb]gWÅY  
I a gYhni b[

8]Y'hYWÅb]gWÅY'I a gYhni b[ 'XYg'DcfhU`g`]Y[ h]b'XYb'< ÅbXYb'j cb  
6mhYž'XYf'VUmYf]gWÅYb'5[ Ybhi f'ZØf'8][ ]hU'Yg"'8]YgY'⊕]h]Uh]j`Y  
k i fXY'Xi fWÅ'XUg'VUmYf]gWÅY'8][ ]hU'a ]b]ghYf]i a`Ub[ Yghc»Ybž'XUg

Ui W\`UbXYfY`GhÅXhY`k ]Y`K ØfnVi f[ `i bX`9f`Ub[ Yb`XUni`Yfa i h][ h  
\\Uhž`]\fY`8UhYb`ÒZZYbh`jW\`ni [ `Àb[ `]W\`ni `a UW\Yb``8i fW\`X]YgY  
A U»bU\`a Y`k ]fX`Y]bY`bYi Y`: cfa`XYf`X][ ]hU`Yb`8Ya c`fUh]Y  
[ YZØfXYfhž`VY]`XYf`6Øf[ Yf]bbYb`i bX`6Øf[ Yf`]b`X]Y`@U[ Y`j YfgYhnh  
k YfXYbž`≠Zcfa`Uh]cbYb`gY`VghghÅbX][ `ni`bi`hnYb`i bX  
Ui gni`k YfhYb`"

9]b`VYgcbXYfg`VYa`Yf`\_Ybgk`YfhYf`5gdY`\_h`XYg`DcfhU`g`]ghž`XUgg`Yg  
Y]bZUW\Y`; fUZ`\_Yb`ni`f`J`]gi`U`]g]Yfi`b[ `\_ca`d`YI`Yf`8UhYbgÅhnY  
V]YhYh``8]Yg`Yf`Y]W\`hYfh`b]W\`h`bi`f`XUg`J`YfghÅbXb]g`ZØf`X]Y`6Øf[ Yfž  
gcbXYfb`ÒZbYh`Ui`W\`HØfYb`ZØf`]bbcj`Uh]j`Y`5bk`YbXi`b[ Yb``9]b  
U`hi`Y`Yg`6Y]gd]Y`Y`Ui`g`6Ua`VYf[ `]gh`XYf`X][ ]hU`Y`Nk`]`b[ `XYf  
GhUXhž`XYf`]b`XYf`?`Ufc`]bYbghfU»`Y`g]W\`hVUf`k`]fX``<]Yf`k`YfXYb  
j`YfgW\]YXYbY`8UhYbghf`Òa`Y`a`]hY]bUbXYf`j`Yf`\_bØdžh`i`a`Y]bYb  
i`a`ZUggYbXYb`,`VYfV`]W\`ØVYf`ghÅXh]gW\Y`9bhk`]W\`i`b[ Yb`i`bX  
D`Ubi`b[ Yb`ni`Yfa`Ò[ `]W\Yb`"

D]cb]Yfdfc`Y`\_hY`i`bX`ni`\_ØbZh][`Y  
9bhk`]W\`i`b[ Yb`

9]b`k`Y]hYfYg`gdUbbYbXYg`Dfc`Y`\_hž`XUg`Yb[ `a`]h`X]YgYa`C`dYb!8UhU!  
DcfhU`j`Yf`\_bØdžh]ghž`hfÅ[`h`XYb`BUa`Yb`GW\k`Ua`a`8fUi`Z`"  
8]YgYg`Dfc`Y`\_h`bi`hnh`X]Y`[`YgUa`a`Y`hYb`8UhYbž`i`a`X]Y  
5i`gk`]f`\_i`b[ Yb`XYg`?`]a`Uk`UbXY`g`Ui`Z`X]Y`GhUXh`6Ua`VYf[ `ni  
]bZcfa`]YfYb`i`bX`ni`YfnÅ`Yb``9g`nY][`hž`k`]Y`8UhYb`b]W\`h`bi`f`ni`f  
J`YfVYggYfi`b[ `XYf`J`Yfk`U`hi`b[ ž`gcbXYfb`Ui`W\`ni`a`VYggYfYb  
J`YfghÅbXb]g`ZØf`I`a`k`Y`hžfU[ Yb`[ Ybi`hnh`k`YfXYb`\_ØbbYb``K`Y]hYfY  
5bk`YbXi`b[ gVY]gd]Y`Y`g]bX`Ui`Z`XYf`K`YVgY]hY`j`cb`VmXUhU`ni  
Z]bXYb`i`bX`XYa`cbghf]YfYbž`k`]Y`8UhYb`]b`fYU`Yb`5bk`YbXi`b[ Yb  
[ Ybi`hnh`k`YfXYb`\_ØbbYb`"

8]Y`6YfY]hghY``i`b[ `gc`W\Yf`8UhYb`]gh`ZØf`X]Y`GhUXh`6Ua`VYf[ `a`Y`f  
U`g`bi`f`Y]b`hYW\`b]gW\Yf`GW\`f]hh`g]Y`]gh`Y]bY`k`YgYb`h]W\Y  
J`cfUi`ggYhni`b[ `ZØf`X]Y`:`ØfXYfi`b[ `j`cb`≠bcj`Uh]cb`i`bX  
DUfh]n]dUh]cb`]b`XYf`X][ ]hU`Yb`Y`fU``8]Y`6Øf[ Yf`UVYb`bi`b`X]Y  
A`Ò[ `]W\`\_Y]hž`U`\_hj`Ub`XYf`;`YghU`hi`b[ `]\fYf`GhUXh`a`]hni`k`]f`\_Ybž  
]bXYa`g]Y`Ui`Z`k`Yfhj`c`Y`≠Zcfa`Uh]cbYb`ni`[`fY]ZYb`i`bX`X]YgY`]b  
]\fY`Y][`YbYb`≠XYb`i`bX`Dfc`Y`\_hY`Y]bZ]Y»`Yb`UggYb`\_ØbbYb`"

8 Ug`C dYb!8 UhU!Dc fhU`ghY`h`b]Wk`h`bi`f`Y]b`k` ]Wk`h][ Yg`f`ghfi`a` Ybh  
Z0f`X]Y`HfUbgdUfYbn`XUfz`gcbXYfb`Yg`\_Ubb`Ui`Wk`Y]bYb`dcg]h]j`Yb  
9]bZi`gg`Ui`Z`X]Y`K` ]fhgWk`UZhgghfi`\_hi`f`i`bX`X]Y`@YVYbgei`U`h`h`h`X`Yf  
GhUXh[ Ya`Y]bgWk`UZh`UVYb`"8i`fWk`X]Y`C`ZYb`Y[ i`b[ `j`cb`8`UhYb  
Yf`U`hYb`c`\_U`Y`i` bhYfbY`a` Yb`X]Y`A`O[ `]Wk`\_Y]h`z`Ui`Z`6`Ug]g`X]YgYf  
f`Zcfa`Uh]cbYb`]\fY`8]YbghY]ghi`b[ Yb`ni`c`dh]a` ]YfYb`i`bX  
a`U» [ YgWk`bY]XYfhY`@0gi`b[ Yb`Ubni`V]YhYb"

8]YgY`X][ ]hU`Y`HfUbgZcfa`Uh]cb`]b`6`Ua`VYf[ `]gh`Y]b`6`Y]gd]Y`Z0f  
j`]Y`Y`Gh`X`h`Y`z`X]Y`Xi`fWk`X]Y`Bi`hni`b[ `j`cb`8`UhYb`Y]bY`ga`UfhYfY  
i`bX`YVYbgk`YfhYfY`i`a` [ YVi`b[ `gWk`UZYb`a`O`Wk`hYb`"8Yf`]bbc]Uh]j`Y  
l`a` [ Ub[ `a`]h`f`Zcfa`Uh]cbYb`]gh`Y]b`G`Wk`f]h`]b`X]Y`Ni`\_i`b`Z`h`X`Yf  
gck`c`\`7`\UbWk`b`Z0f`X]Y`J`Yfk`U`hi`b[ `U`g`Ui`Wk`A`O[ `]Wk`\_Y]hYb`Z0f  
X]Y`6`0f[ Yf`Vf]b[ h`f`[ YbXk`]Y`nY][ h`X`Ug`Dc`fhU`z`X`Ugg`X`Yf`K`Y[ `]b  
X]Y`X][ ]hU`Y`Ni`\_i`b`Z`h`Ui`Wk`]b`\]ghc`f]gWk`Yb`Gh`X`h`Yb`k`]Y`6`Ua`VYf[  
[ YVYbYh`k`]fX`Y`Y]b`k`]Wk`h][ Yg`G][ bU`Z0f`X`Yb`k`Y]hYfYb`i`c`fhgWk`f]h`h  
]b`X`Yf`F`Y[ `]cb"

## 8]Y`J`c`fhY]`Y`j`cb`C`d`Y`b`8`UhU`Z0f`X]Y` GhUXhYb`hk`]W`\_`i`b[

8]Y`6`YfY]hghY`i`b[ `j`cb`C`d`Y`b`8`UhU`\`Uh`Ub[ Zf]gh][ Y`gc`n]U`Y`i`bX  
k`]fhgWk`UZh]Wk`Y`J`c`fhY]`Y`Z0f`Gh`X`h`Y`k`]Y`6`Ua`VYf[ "8i`fWk`X`Y`b  
ZfY]Yb`Ni` [ Ub[ `ni`8`UhYb`\_O`bbYb`6`0f[ Yfz`i`bhYfbY`a`Yb`i`bX  
:`c`f`g`Wk`Yf`k`YgYb`h]Wk`ni`f`GhUXhYb`hk`]W`\_`i`b[ `VY]hfU[ Yb`"8]Yg`Z0f`X`Y`fh  
b]Wk`h`bi`f`f`bc]Uh]cbYb`z`gcbXYfb`Ui`Wk`X]Y`HfUbgdUfYbn`]b`XYf  
\_ca`a`i`bU`Yb`J`Yfk`U`hi`b[ "i`bhYfbY`a`Yb`\_O`bbYb`VY]gd]Y`gk`Y]gY  
X]Y`8`UhYb`Ub`U`mg]YfYb`z`i`a`b`Yi`Y`8]YbghY]ghi`b[ Yb`ni`Yb`hk`]W`\_`Y`b  
c`X`Y`f`V`Y`gh`Y`Y`b`X`Y`ni`j`YfVYggYfb`"5i`»`YfXYa`\_`Ub`b`C`d`Y`b`8`UhU  
X`Un`i`V`Y]hfU[ Yb`z`X`U`g`J`Y`fhf`Ui`Yb`X`Y`f`6`0f[ Yf`]b`X]Y`J`Yfk`U`hi`b[ `ni  
gh`A`f`\_`Yb`z`X`U`b`U`Wk`j`c`n]Y`\`V`U`f`]gh`z`k`]Y`9`b`hg`Wk`Y]Xi`b[ Yb`[ Y`h`f`c`Z`Y`b  
k`Yf`X`Y`b`i`b`X`Ui`Z`k`Y`Wk`Yb`i`fi`bX`U[ Yb`g]Y`V`U`g]YfYb"

9]b`k`Y]hYfYf`VYXYi`hYbXYf`J`c`fhY]`]gh`X]Y`i`O`f`X`Y`fi`b[ `j`cb  
6`0f[ YfVYhY]][ i`b[ "Ghi`X]Yb`\UVYb`[ YnY][ h`z`X`U`gg`c`Z`Y`b`Y`8`UhYb  
X`Y`b`8]U`c[ `nk`]gWk`Yb`X`Y`f`GhUXh]Yfk`U`hi`b[ `i`b`X`X`Y`b`6`0f[ Yfb  
j`YfVYggYfb`\_O`bbYb`"6`0f[ Yf`\_O`bbYb`U`\_h]j`Ub  
9`b`hg`Wk`Y]Xi`b[ gdfc`nYggYb`hY`]b`Y`a`Yb`z`V`U`g]YfYb`X`Ui`Z`8`UhYb`z`X]Y

bUWj c`n]Y\ VUf'i bX'j YfghAbX'jW\Ui ZYfY]hYh'g]bX" `b'j ]Y`Yb  
: A`Yb`\_ObbYb`Yb[ U[ ]YfhY`6Øf[ Yf`cXYf`b]h]Uh]j Yb`Y][ YbY`Dfc`Y`\_hY  
Ybhk ]W\_Y`bž`X]Y`X]fY`\_h`Ui Z`X]Y`6YXØfZb]ggY`XYf`; Ya Y]bgW\UZh  
UV[ Ygh]a a`h'g]bX"

## 5\_hi Y`Y`HfYbXg`]b`XYf`Bi hni b[ `j cb`CdYb 8 UhU

`XYb`YmhYb`j\`fYb`\`Uh'g]W\`Y]b`XYi`h]W\Yf`HfYbX`ni`f`Bi`hni`b[  
j`cb`CdYb`8UhU`\`YfUi`g[ YV]`XYhž`XYf`Ui`W\`]b`6Ua`VYf[ `ni`gdØfYb  
]gh"@Ui`h`XYa`CdYb`8UhU` `bXYI`VYhfÅ[`h`XYf`[ `cVU`Y`:`cfhgW\]h`b  
XYf`6YfY]hghY`i`b[ `cZZYbYf`8UhYb`a`]h`Yfk`Y]`Y`ØVYf`+\$`DfcnYb`h`b  
j`]Y`Yb`Yb`hk`]W\_Y`h`Yb`@AbXYfb" ` `8Yi`hgW\`UbX`\UVYb`GhÅXhY`k`]Y  
6Yf`]bž`<Ua`Vi`f[ `i`bX`A`ØbW\Yb`VYfY]hg`Ub[ Y`CdYb`8UhU!  
D`Uhhžcfa`Yb`YhUV`]Yfhž`X]Y`U`g`J`cfV]`XYf`ZØf`UbXYfY`GhÅXhY  
X]YbYb"

J`cb`XYf`@U[ Y`XYf`ØZZYb`h]W\Yb`J`Yf`\_Y`f`ga`]hY`V]g`\]b`ni  
 `Zcfa`Uh]cbYb`ØVYf`ghÅXh]gW\Y`; YVÅi`XY.`Gc`W\Y`8UhYb`\_ObbYb  
ZØf`nU`\`fY]W\Y`5bk`YbXi`b[ gZÅ`Y`[ Ybi`hnh`k`YfXYb" ` `6Ua`VYf[  
\_ObbYb`X]Y`j`YfØZZYb`h]W\hYb`8UhYbgÅhYž`k`]Y`ni`a`6Y]gd]Y`  
 `Zcfa`Uh]cbYb`ØVYf`6Ui`ZYfh][ ghY`i`b[ Yb`cXYf  
6Ygi`W\YfUi`Z`ca`a`Ybž`Ui`W\`ZØf`Y]bY`ga`UfhYfY`GhUXhd`Ubi`b[  
j`Yfk`YbXYh`k`YfXYbž`i`a`l`a`k`Y`hY`ZZY`\_hY`ni`a`]b]a`]YfYb`i`bX`XYb  
J`Yf`\_Y`f`gZi`gg`ni`cdh]a`]YfYb"

## Ni gUa a YbUfVY]h`nk ]gW\Yb`?ca a i bYb`]a X][ ]hU`Yb`6YfY]W\

8]Y`?`ccdYfUh]cb`nk`]gW\Yb`j`YfgW\]YXYbYb`VUmYf]gW\Yb  
?ca`a`i`bYb`]a`X][ ]hU`Yb`6YfY]W\`]gh`Y]b`Yb`hgW\Y]XYbXYf`: U`hcf  
ZØf`XYb`9fZc`[ `j`cb`CdYb`8UhU!`b]h]Uh]j`Yb" `8]Y`GhUXh`6Ua`VYf[ `\Uh  
g]W\`]b`X]YgYa`Ni`gUa`a`Yb`\Ub[ `ni`gUa`a`Yb`a`]h`UbXYfYb`GhÅXhYb  
k`]Y`K`ØfnVi`f[ `i`bX`9f`Ub[ Yb`Yb[ U[ ]Yfh" `8]YgY`Ni`gUa`a`YbUfVY]h  
Yfa`Ø[ `]W\h`Ygž`VYk`Å`fhY`J`YfZU`\fYb`Ui`gni`hUi`gW\Yb`i`bX  
GmbYf[ ]Yb`ni`bi`hYb"

9]b`\_cb\_fYhYg'6Y]gd]Y`Z0f`X]YgY`Ni gUa a YbUfVY]h]gh`XUg`Dfc`Y\_h  
VmXUhU ž`k Y`W`Yg`X`Yb`?ca a i bYb`\\]Zhž`\\fY`8UhYb`YZZ]n]Ybh`ni  
ghfi`\_hi`f]YfYb`i`bX`Ui`Zni`VYfY]hYb`"@YhnhYbX`]W`d`fc`Z]h]YfYb`X]Y  
60f[ Yf`j`cb`Y]bYa`fY]Vi`b[ g`cgYb`5i`ghUi`gW`i`bX`Ni`[ Ub[ `ni  
ei`U`]hUhj` `cW`k`Yfh][ Yb`8UhYbž`k`À`fYbX`X]Y`Gh`X`hY`Yfa`i`h][ h  
k`YfXYbž`k`Y]hYf`\\]b`]b`X][ ]hU`Y`ϕZfUghfi`\_hi`fYb`ni`]bj`Ygh]YfYb`"

8YhU]`g

6Ygi`W`Yb`G]Y`i`bg`Ui`Z.`b!U[ "XY