

GW\ i `ghUfh`]a ` < c W\ gh]Zh. `( ) "\$\$\$ `GW Ø`Yf  
ghUfhYb `]bg`bYi Y`GW\ i `^U\ f

A cf[ Yb`VY[ ]bbh`X]Y`GW\ i `Y`ZØf`(") ) \$; ; fi bXgW\ i `\_]bXYf`]a  
<cW\ gh]Zh" Dc`nY]`V]hhYh`5i hcZU\ fYf`i a `Yf\ Ò\ hY`J c fg]W\ h"

8]Y`F ØW\_`Y\ f`XYf`GW\ Ø`Yf`]b`XYb`<cW\ gh]Zh`\Uh`X]Y`F Y[ ]cb`k ]YXYf  
ZYgh`]a `; f]ZZ" B UW\ `XYb`Ub[ Yb`Gca a YfZYf]Yb`Yfk UW\ h`X]Y  
GW\ i `nY]hni `bYi Ya `@YVYbž`i bX`XUa ]h`\_ca a Yb`j ]Y`Y  
J Yf`ÅbXYfi b[ Yb`i bX`<YfUi gZcfXYfi b[ Yb`ZØf`X]Y`GW\ Ø`Yf`]bbYb`i bX  
GW\ Ø`Yfž`]bgVYgcbXYfY`ZØf`X]Y`B Y i `]b[ Y`Ub`XYb`; fi bXgW\ i `Yb"  
8]YgY`k YfXYb`Ua `a cf[ ] [ Yb`&&"5i [ i gh`(") ) \$`bYi Y`9fgh`\_`Àgg`Yf  
k ]`\_ca a Yb`\Y]» Ybž`k `À\ fYbX`ZØf`X]Y`UbXYfYb`GW\ Ø`Yf`XYf  
I bhYff]W\ h`VYfY]hg`\Yi hYž`Ua `&%"5i [ i ghž`VY[ cbbYb`\Uh"

8]Y`@U[ Y`nY][ h`Y]bY`]bhYfYggUbhY`J YfhY`]i b[ .`9hk U`Y]b`8f]hhY`XYf  
bYi Yb`; fi bXgW\ Ø`Yf`k ]fX`]a `?fY]g`< Òi hYf`Y]b[ YgW\ i `hž`k `À\ fYbX  
X]Y`A Y\ f\ Y]hž`fi bX`nk Y]`8f]hhY`ž`]a `?fY]g`DUXYfVc`fb`ni f`GW\ i `Y  
[ Y\ h"8]YgY`NU\ `Yb`gd]Y[ Y`b`b]W\ h`bi f`X]Y`XYa c[ fUZ]gW\ Y  
G]hi Uh]cbž`gcbXYfb`Ui W\ `X]Y`i bhYfgW\ ]YX`]W\ Yb  
J Yf`\_Y\ fgVYX]b[ i b[ Yb`k ]XYfž`X]Y`]b`XYf`F Y[ ]cb`VYcVUW\ hYh  
k YfXYb`\_`ÒbbYb"

## J Yf`\_Y\ fgg]W\ Yf\ Y]h`]a `: c`\_i`g

A ]h`XYa `GW\ i `ghUfh`Ua `a cf[ ] [ Yb`HU[ `fi Zh`X]Y`Dc`nY]`X]Y  
5i hcZU\ fYf`XUni `Ui Z`VYgcbXYfg`j c fg]W\ h[ ] `ni `gY]b"8]Yg`]gh  
[ YfUXY`ZØf`X]Y`GW\ i `UbZ`Ab[ Yf`j cb`[ fc» Yf`6YXYi hi b[ ž`XYbb`j ]Y`Y  
j cb`]bYb`g]bX`ni a `YfghYb`A U`U`Y]bY`Ui Z`XYa `K Y[ `ni f`GW\ i `Y"  
8]Y`#hY[ fUh]cb`]b`XYb`J Yf`\_Y\ fgU`hU[ `]gh`ZØf`?]bXYf`cZh`Y]bY  
<YfUi gZcfXYfi b[ ž`X]Y`a ]h`VYgcbXYfYf`5i Za Yf`gUa`\_Y]h`i bX  
Gcf[ ZU`h`VY[ `Y]hYh`k YfXYb`gc`hY"

8]Y'9]bgWxi`i b[`\Uh'b]Wxh'bi f'Z0f'X]Y`bYi Yb'GWx0'Yf'Y]bY  
: Ugn]bUh]cbz'gcbXYfb'Ui Wx'Z0f'X]Y'9'hYfbz'X]Y'\Ai Z][`[Ya ]gWxhY  
; YZ0\`Y'Yf'YVYb'"5i ZXYf'Y]bYb'GY]hY'X]Y': fYi XYz'\f'?]bX'Ui Z  
X]YgYa`bYi Yb'@YVYbgUVgWx]h'h'ni`VY[`Y]hYbž'Ui Z'XYf'UbXYfYb  
GY]hY'X]Y'6YXYb\_Yb'VYn0[`]Wx'XYf'G]WxYf\Y]h'Ui Z'XYa`GWxi`k Y["  
J]Y'Y'\UVYb'g]WxYf\Y]hgZ0fXYfbXY`A U» bU\`a Yb'k ]Y  
GWxi`k Y[ d`AbY'i bX'[ Ya Y]bgWxUZh]WxY'6Y[`Y]hghfi`\_hi fYb`]b  
6YhfUWxh[ Ync[ Ybž'i a`XYb`K Y[`ni f'GWxi`Y'g]WxYfYf'ni`[ YghU'hYb"

## GWxi`k YWxgY`i bX`J YfAbXYfi b[ Yb

8]Y'F0W\_Y\`f]b`X]Y`GWxi`Y`Vf]b[ h'Ui Wx'Z0f'X]Y`A'hYfYb'GWx0'Yf  
J YfAbXYfi b[ Yb'a ]h'g]Wx'"<Yi hY'\UVYb`Yhk U`%"\$\$\$`GWx0'Yf']a  
?fY]g<0i hYf'i bX`&") \$\$\$`ja`?fY]g'DUXYfVcfb`XUg`bYi Y`GWxi`^U\`f  
Ub'k Y]hYfZ0\`fYbXYb'GWxi`Yb'VY[`cbbYb'"6YgcbXYfg'Ui ZZA`][`g]bX  
X]Y`HfYbXg`VY]a`GWxi`k YWxgY`.`a`?fY]g'DUXYfVcfb`Yb'hgWxY]XYb  
g]Wx'a Y\`f'GWx0'Yf'Z0f'; ma`bUg]Yb'i bX`; YgUa`hgWxi`Ybž'k`A\`fYbX  
]a`?fY]g<0i hYf'XYf`HfYbX'ni`F YU`gWxi`Yb'[ Y\`h"8]YgY  
9b'k ]W`i b[ Yb`\_0bbYb`<]bk Y]gY'Ui Z'XYb`6]`Xi b[ gk Y[`i bX`X]Y  
gWxi`]gWxYb`DfAZfYbnYb`XYf'9'hYfb`[ YVYb"

8Yf`,`VYf[ Ub[`ni`Y]bYf`bYi Yb'GWxi`Zcfa`]gh'cZh'\YfUi gZc'fXYfbX  
i bX`\_Ubb'Z0f'j ]Y`Y`GWx0'Yf'a ]h`Yb[ ghYb'i bX`i ]bg]WxYf\Y]hYb  
j YfVi bXYb`gY]b"9g]gh'XU\`Yf`k ]Wx'h[ ž'XUgg'GWxi`Yb'i bX`@Y\`fYf  
X]Yg`VYf0W\_g]Wx'h[ Yb'i bX`bYi Y`@Yfba`Yh\`cXYb`cXYf  
i bhYfgh0hnYbXY`Dfc[ fUa`a Y`UbV]YhYbž'i a`?]bXYfb`Y]bYb  
fY]Vi b[ g`cgYfYb`GhUfh]b`X]Y`bYi Y`gWxi`]gWxY`i a [ YVi b[`ni  
Yfa`0[`]WxYb"

8]Y`i bhYfgWx]YX`]WxYb`9]bgWxi`i b[ gnU\`Yb`i bX  
GWxi`k YWxgY`ghfUhY[ ]Yb`]b`XYb`VY]XYb`?fY]gYb`VY`Y[ Yb`ni XYa`ž  
k ]Y`j ]Y`ZA`h[`6]`Xi b[ gYb'hgWxY]Xi b[ Yb`]bbYf\U`V`XYf`F`Y[ ]cb`g]bX"  
8]Yg`\_Ubb`Y]bYb`h]YZ[ fY]ZYbXYb`9]bZi`gg`Ui Z'X]Y`[ YgUa`hYb  
6]`Xi b[ ggmghYa`Y`VY]XYf`?fY]gY'\UVYbž'k`Yg\U`V`X]Y  
; Ya`Y]bgWxUZh`XUfUi Z`UWx`hYhž'k ]Y`g]Wx`XUg`gWxi`]gWxY`i a`ZY`X  
0VYf`X]Y`X\`fY`Yb'k ]W`Y`h"

## 9]b`bYi Yf'GWxi`^U\`fYgVY[ ]bb

⊕XYb`bÅWghYb`HU[ Yb`k YfXYb`X]Y`YfghYb`GWXi`hU[ Y`ZØf`j ]Y`Y  
? ]bXYf`YbHgWXY]XYbX`gY]b`"8 Yf`YfghY`GWXi`hU[ `]gh`Y]b  
VYXYi hYbXYf`A Y]`YbghY]b`]a`@YVYb`Y]bYg`? ]bXYg`i bX`V]YhYh`b]W`h  
bi f`Y]bY`bYi Y`6]`Xi b[ gdYfgdY`h]j Yž`gcbXYfb`Ui W`X]Y  
A Ò[ `]W`\_Y]hž`bYi Y`: fYi bXgW`UZhYb`ni`gW`]Y» Yb`i bX`gcn]U`Y  
? ca dYhYbnYb`ni`Yb`hk ]W`\_Y`b`": Øf`9`hYfb`[ ]Vh`Yg`cZhj ]Y`  
Cf[ Ub]gUhc]gW`Yg`ni`VYk`À`h][ Ybž`k`À`fYbX`g]Y`XYb`bYi Yb  
@YVYbgUVgW`b]hh`]\fYf`? ]bXYf`VY[ `Y]hYb`"

8 Ug`VYj c fghY`YbXY`GWXi``U`f`]gh`b]W`h`bi f`Y]bY`< YfUi gZc`fXYfi b[  
ZØf`X]Y`? ]bXYfž`gcbXYfb`Ui W`X`ZØf`X]Y`@Y`fYf`i bX`GWXi`Ybž`X]Y`g]W`  
Ub`X]Y`bi b`ghY][ YbXY`5bnU`X`bYi Yf`GW`Ø`Yf`UbdUggYb`a`ØggYb`"9g  
V`Y]Vh`UVni k UfhYbž`k ]Y`g]W`X]Y`gW`i`]gW`Y`@UbXgW`UZh]b`XYb  
\_ca`a`YbXYb`A`cbUhYb`Yb`hk ]W`\_Y`b`k ]fX`i bX`k`Y`W`Y`dcg]h]j Yb  
J`Yf`Å`bXYfi b[ Yb`Xi fW`X`Ug`9b[ U[ Ya`Ybh`U`Y`f`6YhY`][ hYb  
i a [ YgYmh`k`YfXYb`\_ØbbYb`"

8 ]Y`F`ØW`\_Y`f`]b`X]Y`GWXi`Yb`YfZc`[ h]b`Y]bYa`?`cbhYi hž`XYf`j`cb  
j`YfgW`]YXYbYb`< YfUi gZc`fXYfi b[ Yb`[ Ydf`À`[ h]ghž`]bgVYgcbXYfy`]a  
< ]bV`]W`\_Ui Z`X]Y`B`UW`k ]f`\_i b[ Yb`XYf`7C`J`-8!%-!DUbXYa`]Y`"8]Y  
`YhnhYb`]X`fY`UVYb`XYi h`]W`X`[ Ya`UW`hž`k ]Y`k ]W`h][ `Y]b`ghUV`]Yf  
GWXi`VYhf]YV`ZØf`X]Y`dYfg`Øb`]W`Y`i bX`gcn]U`Y`9b`hk ]W`\_i b[ ]j`cb  
? ]bXYfb`]gh`"8`U`Yf`g]bX`j ]Y`Y`GWXi`Yb`cdh]a`U`j`cfVYfY]hYh  
k`cfXYbž`i`a`XYb`6YX`Øf`Zb]ggYb`XYf`GW`Ø`Yf`[ YfYW`h`ni`k`YfXYb  
i bX`XYb`i`bhYff]W`h`k ]YXYf`]b`Y]bYa`FY[ Y`VYhf]YV`Xi fW`ni ZØ`fYb`"

GWXi`j`cfVYfY]hi b[ Yb`i bX

< m[ ]YbYa`U» bU`a`Yb

⊕XYb`YhnhYb`K`cW`Yb`UVYb`j ]Y`Y`GWXi`Yb`i`a`ZUb[ fY]W`Y  
J`cfVYfY]hi b[ Yb`[ Yhfc`ZYbž`i`a`Y]bYb`fY]Vi b[ g`cgYb`GWXi`ghUfh`ni  
[ Yk`À`f`Y]ghYb`"8`Uni`[ Y`ØfYb`b]W`h`bi f`X]Y`⊕ghUbX`U`hi b[ ]j`cb  
GWXi`[ YV`À`i`XYb`i bX`X]Y`5i`gghUhi b[ `a`]h`b`chk`YbX][ Ya  
@Y`fa`UhYf]U`ž`gcbXYfb`Ui W`X]Y`⊕a`d`Ya`Ybh]Yfi b[ ]j`cb  
< m[ ]YbYa`U» bU`a`Yb`"C`V`k`c`Y`g`X`Y`fnY]h`\_Y]bY`U`[ Ya`Y]bYb  
A`Ug`\_Y`bdZ]W`h`[ ]Vhž`UVYb`j ]Y`Y`GWXi`Yb`k`Y]hYf`]\b`X]Y  
9a`dZY`i`b[ ž`5VghUbX`ni`U`hYb`i bX`[ i`hY`< m[ ]YbYdfU`h]\_Yb

i a ni gYhnYb"8]Yg'gd]Y[ Y'h'g]W'Ui W' ]b'XYb'U'[ Ya Y]bYb  
G]WYf\Y]hgf]W'h']b]Yb'k ]XYfž'X]Y'j cb'XYb'; Ygi bX\Y]hgVY\ ÒfXYb  
j cf[ Y[ YVYb'k YfXYb"

Ni gÀhn]W' \UVYb'GWXi 'Yb']b'XYf'FY[ ]cb'gdYn]Y''Y'Dfc[ fUa a Y  
i bX'5b[ YVchY'Yb'k ]W\_Y'hž'i a 'XYb'GWØ'Yfb'ni '\Y'ZYbž'X]Y  
k À\fybX'XYf'DUbXYa ]Y'Y]b[ YgYhnhYb'X][ ]hU'Yb'@YfbZcfa UH  
VYggYf'ni ' ]bhY[ f]YfYb"8]Yg'VY]b\U'hYh'X]Y'GWXi 'i b[ 'j cb  
@Yf\_fÀZhYb'ja 'i a [ Ub[ 'a ]h'X][ ]hU'Yb'@Yfbk Yf\_nYi [ Yb'gck ]Y'X]Y  
6YfY]hghY''i b[ 'j cb'; YfÀhYb'ZØf'GWØ'Yfž'X]Y'\_Y]bYb'Ni [ Ub[ 'ni  
gc'WYb'A ]hhY'b'\UVYb"

## @YfbYb'k ]W\_'i b[ 'i bX'GWXi ''UbXgWUZh

9]b'k ]W'h][ Yf'5gdY\_hž'XYf'X]Y'9b'k ]W\_'i b[ 'XYf'GWXi 'Yb']a  
<cW'gh]Zh'VYY]bZi gghž'gh'X]Y'XYa c[ fUZ]gW'Y'9b'k ]W\_'i b[ 'i bX'XYf  
XUa ]h'j YfVi bXYb'Y'K UbXY''b'XYf'GWXi ''UbXgWUZh"@Ui h'U\_hi Y''Yb  
GhU]gh]\_Yb'g]b\_h'X]Y'; YVi fhYb'fUH' ]b'j ]Y'Yb'FY[ ]cbYbž'k Ug  
'Ub[ Zf]gh][ Y'5i gk ]f\_i b[ Yb'Ui Z'X]Y'GWØ'YfnU\ 'Yb'i bX'X]Y  
GWXi ' ]bZfUghfi \_hi f'\UVYb'\_ÒbbhY''; 'Y]W'nY]h][ '[ ]Vh'Yg'Y]bYb  
HfYbX'\ ]b'ni 'a Y\'; UbnhU[ ggWXi 'Yb'i bX']b'\_i g]j Yb  
6]Xi b[ gY]bf]W'hi b[ Ybž'k Ug'XYb'5bZc'fXYfi b[ Yb'Y]bYf  
X]j Yfg]Zn]YfhYb'GWØ'YfgWUZh'FYW'bi b[ 'hfÀ[ h"

8]Y '@Y\fyf]bbYb'i bX'@Y\fyf']b'XYf'FY[ ]cb'g]bX'XUfUi Z  
j cfVYfy]hYhž'Ui Z'X]Y'j YfgW]YXYbYb'6YXØfZb]ggY'XYf'GWØ'Yf  
Y]bni [ Y\Ybž'k cVY]'XYf': c\_i g'\Ài Z][ 'Ui Z]bX]j ]Xi U']g]YfhYa  
@YfbYb'i bX'VYgcbXYfYb': ÒfXYfdfc[ fUa a Yb''Y[ h''gVYgcbXYfY  
XYf', VYf[ Ub[ 'j cb'XYf'; fi bXgWXi 'Y'ni 'XYb'k Y]hYfZØ\fybXYb  
GWXi 'Yb'k ]fX'Xi fW'[ Yn]Y'hY'6YfUhi b[ gUb[ YVchY'i bhYfghØ'hnhž'i a  
XYb'GWØ'Yfb'Y]bY'Zi bX]YfhY'9bhgW'Y]Xi b[ 'ØVYf'\fy'k Y]hYfY  
GWXi 'V]Xi b[ 'ni 'Yfa Ò[ ' ]WYb"

## 5i W'X]Y'9'hYfb'g]bX'[ YZfU[ h

8]Y'Fc''Y'XYf'9'hYfb'k ]fX'YVYbZU''g'U'g'Ài »Yfgh'k ]W'h][  
Ub[ YgY\Yb"8i fW'U\_h]j Y'6YhY][ ]i b[ 'Ub'gWXi ' ]gWYb  
J YfUbghU'hi b[ Yb'i bX': cfhV]Xi b[ gUb[ YVchYb'\_ÒbbYb'g]Y'b]W'h

bi f`XYb`6]`Xi b[ gk Y[ `]\fYf?]bXYf`i bhYfghØhnYbž`gcbXYfb`Ui W  
X]Y`GW i `[ Ya Y]bgW UZh`ghÀf`Yb"J]Y`Y`GW i `Yb`V]YhYb`]bnk ]gW Yb  
≠Zcfa Uh]cbgUVYbXY`Ubž`i a `9`hYfb`ØVYf`XYb`GW i `U`hU[ `i bX`X]Y  
@Y`fd`ÀbY`ni `]bZcfa ]YfYb"8]YgY`Yb[ Yb`?ccdYfUh]cbYb`nk ]gW Yb  
GW i `Y`i bX`9`hYfb`Ui g`g]bX`YbhgW Y]XYbX`ZØf`Y]bY`dcg]hj`Y  
6]`Xi b[ gi a [ YVi b[ "

≠g[ YgUa h`ghUfhYh`XUg`bYi Y`GW i `U`f`]a `<cW gh]Zhi bhYf`Y]bYa  
NY]W Yb`XYf`<cZbi b[ `i bX`JcfZfYi XY"8]Y`GhU`Y`c`XYf` `GW Ø`Yfž  
@Y`f`f`ÀZhYž`9`hYfb` `g]bX`VYfY]hž`X]Y`<YfUi gZcfXYfi b[ Yb  
[ Ya Y]bgUa `Ubni bY`a Yb`i bX`X]Y`@YfbVYX]b[ i b[ Yb  
\_cbh]bi ]Yf`]W `ni `j YfVYggYfb"8]Yg`k ]fX`b]W h`bi f`X]Y  
U`UXYa ]gW Y`9b`hk ]W`i b[ `XYf`?]bXYf`ZØfXYfbž`gcbXYfb`Ui W  
XYfYb`gcn]U`Y`i bX`Ya ch]cbU`Y`F`Y]Zi b[ `i bhYfghØhnYb"

8YhU]`g

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