

B Uhc!6 Ug]g'; Y]`Yb\_]fWk Yb.  
G]Wk Yf\Y]hgghi ZY`7\Uf`]Y`i bX  
J c fg]Wk hga U» bU\ a Yb

B Uhc`fi Zh]b'; Y]`Yb\_]fWk Yb`X]Y`nk Y]h\ ÒWk ghY  
G]Wk Yf\Y]hgghi ZY`7\Uf`]Y`Ui g"J c fg]Wk hga U» bU\ a Y`bUWk  
6YXfc\i b[ g]bZcfa Uh]cb"

⊕; Y]`Yb\_]fWk Ybž`BcfXf\Y]b!K YghZU`Ybž`\Uh`X]Y`B5HC`]\fY  
nk Y]h\ ÒWk ghY`G]Wk Yf\Y]hgghi ZY`Ui g[ Yfi ZYbž`k Ug`Ui ZY]bY  
dchYbn]Y`Y`6YXfc\i b[ `]\bk Y]gh"8Yf`@ Zhk UZZYbghØhndi b\_hž`]b  
XYf`BÅ\Y`j cb`5UWk Ybž`k i fXY`\Yi hY`ni a`GWk Ui d`Uhm`Yf\ Ò\hYf  
J c fg]Wk hga U» bU\ a Ybž`bUWk XYa`bUWk f]Wk hYbX]Ybgh]Wk Y  
⊕Zcfa Uh]cbYb`j cf`U[ Ybž`X]Y`Ui Za Ò[ `]Wk Y`hYffc]g]gWk Y  
5\_hj ]hÅhYb`\]bXYi hYhYb"9]b`GdfYWk Yf`XYf`5]f`6UgY`VYghÅh][ hYž  
XUgg`U`Y`A ]hUfVY]hYfž`X]Y`U\_hi Y`b]Wk h`a`9]bgUhm]g]bXž`bUWk  
<Ui gY`[ YgWk]W\_hk i fXYbž`i a`X]Y`G]Wk Yf\Y]hni`[ Yk Å\`fY]ghYb"

8]Y`G]Wk Yf\Y]hgghi ZY`7\Uf`]Y`k i fXY`U\_hj ]Yfhž`k Ug`]b`XYf  
Bca Yb\_`Uhi f`XYf`B5HC`VYXYi hYhž`XUgg`Y]b`Nk ]gWk YbZU`cXYf  
⊕Zcfa Uh]cbYb`ØVYf`Xfc\YbXY; YZU\Yb`[ Y[ Yb`XUg`6ØbXb]g  
j cf`]Y[ Yb`Hfchn`XYf`YfbghYb`@U[ Y`k i fXY`VYhcbhž`XUgg`X]Yg`\_Y]b  
; fi bX`ni f`6Ygcf[ b]g`gY]ž`gcbXYfb`Y]bY`J c fg]Wk hga U» bU\ a Yž`i a  
XYb`i bg]Wk YfYb`l a ghÅbXYb`Ybh[ Y[ Ybni k ]f\_Yb`i bX`i bX`X]Y  
\_f]h]gWk Yb`CdYfUh]cbYb`i b[ YghØfh`Zcfhni gYhmYb"

### 5\_hi Y`Y`G]hi Uh]cb`i bX`Dc`]nY]Y]bgUhn

Dc`]nY]Y]bgUhm\_fÅZhY`g]bX`]bnk ]gWk Yb`]a`i bX`i a`XYb  
@ Zhk UZZYbghØhndi b\_h]U\_hj ""5a`8cbbYfghU[ UVYbX`VYghÅh][ hY`X]Y  
Dc`]nY]ž`XUgg`g]Wk`X]Y`@U[ Y`]b; Y]`Yb\_]fWk Yb`]b`Y]bYf`\_f]h]gWk Yb  
D\UgY`VY]bXYhž`k c`hY`YXcWk`\_Y]bY`gdYn]Z]gWk Yb`8YhU]`g`ni`XYb

9fa ]hhi b[ Yb'cXYf'ni f'5bnU\`XYf'Y]b[ YgYhnhYb'6YUa hYb  
VY\_Ubbh[ YVYb"8]Yg'`Àggh'F Ui a `ZØf'GdY\_i `Uh]cbYb'i bX'VYhcbh  
X]Y' Bc h k YbX][ \_Y]hž'X]Y'G]WXYf\Y]h]a `5i [ Y'ni `VY\U'hYbž  
]bgVYgcbXYfY'Ub'Y]bYa `gYbg]hj [ Y`Y[ YbYb' B 5 HC ! GhUbXcfh"

J cf' C fh' \_cbbhYb' F YdcfhYf' Dc`nY]k U[ Yb'VYcVUW hYbž'X]Y' ØVYf'XUg  
; Y`ÀbXY' Z \ fYbž'k À\ fYbX'Y`Y\_hfcb]gWXY'5bnY][ YhUZ'`b'X]Y  
G]WXYf\Y]hgghi ZY'7\Uf'Y'XYi h]W`a UW hYb"8]Yg'nY][ hž'XUgg'X]Y  
B 5 HC 'i bX'X]Y'Dc`nY]'YbhgW`cggYb'g]bXž'Y[ `]WXY'6YXfc\i b[  
gcZcfh'ni `Yf[ fY]ZYb'i bX'ni `VY\_Àa dZYb"

9]b'9`Ya Ybhž'XUg'ni f'Yf\Ø\hYb'5`Ufa VYfY]hgW UZh'VY][ YhfU[ Yb  
\UVYb'\_ØbbhYž']gh'X]Y'6]'Ubn'j cb'GUVchU[ Yj cfZÀ`Ybž'X]Y'j cf'Yhk U  
Y]bYf'K cWY'Ub'a Y\ fYfYb'6i bXYgk Y\ fghUbXcfhYb' ]b  
8Yi hgW`UbX'VYZØfW hYh'k i fXYb"5i W`k Ybb'X]Y'6YXYb\_Yb' ]b  
X]YgYb': À`Yb'U'g'i bVY[ fØbXYh'Y]b[ Yghi Zh'k i fXYbž'V'Y]Vh'X]Y  
5ha cgd\ÀfY' ]b'g]WXYf\Y]hgdc`h]gWYb'?fY]gYb'Ub[ YgdUbbh"

Ni gÀhn`]W`k i fXYb'6Yf]W hY'VY\_Ubbhž'XUgg' ]a `I a ZY`X'XYg  
@ Zh'k UZZYbghØhndi b\_hg'j YfXÀW h][ Y'6YcVUW hi b[ Yb' [ Ya UW h  
k i fXYb"9g' [ UV'Y]bY': YghbU\ a Y'ni f'6YZfU[ i b[ ž'XcW`Ui W` \ ]Yf  
]gh'XYf'J YfXUW h'b]W h'VYghÀh][ h'k cfXYbž'k Ug'X]Y'bYfj ØgYb  
I a ghÀbXY'bcW`j YfghÀf\_h"

5K 57G. '9]bY'k ]W h][ Y'F c`Y' ]a `B 5 HC!  
? cbhYI h

8Yf'B 5 HC ! GhØhndi b\_h]b'; Y]Yb\_]fWYb'VY\Y]a UhYh'XUg'Z]Y[ YbXY  
: fØ\k UfbgmghYa `5K 57Gž'XUg'ZØf'X]Y', VYfk UW i b[ 'XYg  
@ ZhfUi a g'ni ghÀbX][ ' ]gh"8]YgY'gdYn]Y``i a [ YVUi hYb  
6cY]b[ !+\$+!A UgW ]bYb'g]bX'XUZØf'\_c b n]d]Yfhž'dchYbn]Y``Y  
; YZU\ fYb'ZfØ\ nY]h][ 'ni `Yf\_YbbYb" A ]h'Y]bYf'F Y]W`k Y]hY'j cb'ØVYf  
- \$\$\$?' ]ca YhYfb'i bX'XYf': À\][ \_Y]hž'CV`Y\_hY' ]b'Y]bYf'9bhZYfbi b[  
j cb'a Y\ f'U'g' ( \$\$\$?' ]ca YhYfb'ni ` ]XYbh]Z]n]YfYbž'\UVYb'g]Y'Y]bY  
YbhgWY]XYbXY'F c`Y'Ui ZXYa `a cXYfbYb'GW`UW hZY`X"

5K 57G'ghY\h'ZØf' 5]fVcYbY'9Uf`m'K Ufb]b[ `UbX'7cbhfc`GmghYa  
f@ Zh[ YghØhnhYg': fØ\k Ufb!'i bX'?cbhfc`gmghYa Ł"8]Y'A UgW ]bYb

X]YbYb`b]W h`bi f`U`g`Z]Y[ YbXY`? ca a UbXcnYbhfU`Yž`gcbXYfb  
`UVYb`]b`j`]Y`Yb`]bhYfbUh]cbU`Yb`9]bgÅhnYbž`i`bhYf`UbXYfYa``Ui Z  
XYa``6U`\_Ub`i`bX`]b`5Z[ `Ub]ghUbž`Y]bY`[ fc» Y`ghfUhY[ ]gWXY`F c`Y  
[ Ygd]Y`h`

8]Y`5bk YbXi b[ `X]YgYf`HYW bc`c[ ]Yb`i`bX`X]Y`Yf\`Ò\hY  
G]WXYf\Y]hgghi ZY`i`bhYfghfY]WXYb`X]Y`Yfbgh\UZhYb  
G]WXYf\Y]hgj cf`\_Y\fi b[ Ybž`X]Y`k`Å\`fYbX`k`UW`gYbXYf`[ `cVU`Yf  
GdUbbi b[ Yb`i`bX`6YXfc\i`b[ Yb`bchk`YbX][ ` [ Yk`cfXYb`g]bX`"8Yf  
@i`Zhk`UZZYbghØhndi`b\_h`]b` ; Y]`Yb\_]fWXYb`U`h`g]W`]b`X]YgYa  
?cbhYI`h`U`g`G`W`ØggY`fYggci`fW`Y`hUV`Yfhž`]bgVYgcbXYfY`bUW`XYf  
j`YfÅbXYfhYb`[ Ycdc`]h]gWXYb`@U[ Y`]b`9i`fcdU`Xi`fW`XYb`i`\_fU]bY!  
?cbZ]\_h`

## 9]b`6`]W`\_`Ui`Z`X]Y`[`Y`c`d`c`]h]gWXYb GdUbbi b[ Yb

8]Y` ; YgWY\`b]ggY`]b` ; Y]`Yb\_]fWXYb`g]bX`b]W`h`]gc`]Yfhž`gcbXYfb  
HY]`Y]bYg`[ fØ» YfYb`HfYbXg`]bhYfbUh]cbU`Yf  
G]WXYf\Y]hga`U»`bU`a`Yb`"8]YgY`9bhk`]W`\_`i`b[ Yb`\_`ØbbhYb`]b`XYf  
FY[ ]cb`ni` `Ò\`YfYb`GdUbbi b[ Yb`ZØ\`fYb`i`bX`XUg` ; YZØ\`XYf  
JYfi`bg]WXYfi`b[ `]b`XYb`Ub`]Y[ YbXYb` ; YV]YhYb`j`YfghÅ`\_`Yb`"8Yf  
B5HC!GhUbXcfh]b` ; Y]`Yb\_]fWXYb`i`bX`X]Y`XUa`]hj`YfVi`bXYbYb  
a`]hÅf]gWXYb`C`dYfUh]cbYb`k`YfXYb`k`Y]hYf\]b`i`bhYf`VYgcbXYfYf  
6YcVUW`hi`b[ `ghY\`Ybž`XU`X]Y`<YfUi`gZcfXYfi`b[ Ybž`X]Y`g]W`\_`Ui`g  
XYb`[ `cVU`Yb`g]WXYf\Y]hgd`c`]h]gWXYb`<YfUi`gZcfXYfi`b[ Yb`Yf[ YVYbž  
Ub`6YXYi`hi`b[ `[ Yk`]bbYb`

8]Y`XYfnY]h][ Y`G]hi`Uh]cb`fi`bX`i`a`XYb`@`Zhk`UZZYbghØhndi`b\_h`XYf  
B5HC`]b` ; Y]`Yb\_]fWXYb`]gh`b]W`h`]gc`]Yfhž`gcbXYfb`d`Ugghi]b`Y]bYb  
[ fØ» YfYb`?`cbhYI`h` `X`Yb`Y`hnhYb`X\`fYb`\`UVYb`g]W`k`Y`hk`Y]h`X]Y  
G]WXYf\Y]hg`U[ Yb`j`YfgW`ÅfZhž`k`cVY]`a`]hÅf]gWXY`GhØhndi`b\_h`Y`N]Y`  
j`cb`5bgW`Å[ Yb`i`bX`6YXfc\i`b[ Yb`[ Yk`cfXYb`g]bX`"6YgcbXYfg]b  
9i`fcdU`d`f`ÅgYbh]YfYb`g]W`X]Y`[ Ycdc`]h]gWXYb`GdUbbi b[ Yb  
nk`]gWXYb`XYf`B5HC`i`bX`F`i`gg`UbX`U`g`Y]b`k`YgYbh`]WXYf` : U`hcf`ZØf  
gc`WXY`9bhk`]W`\_`i`b[ Yb`"F`i`gg`UbXg` , VYfZU`"Ui`Z`X]Y`i`\_fU]bY`\`Uh  
XUg`G]WXYf\Y]hgVYk`i`gghY]b`]b`9i`fcdU`XfUgh]gW`j`YfÅbXYfhi`bX  
ZØ\`fhY`ni`Y]bYf`j`YfghÅ`\_`hYb`a`]hÅf]gWXYb`DfÅgYbn`XYf`B5HC`]b

9UghYfb`9i fcdY`i bX`XUgg`hfchn`XYf`<U`hi b[ Yb`XYf`C f[ Ub]gUh]cb  
X]Y`Gcf[ Yb`ØVYf`HYffcf]ga i g`i bX`GUVchU[ YUbnY][ Yb`ni bY`a Yb`

## 8]Y`F c`Y`XYf`B 5HC`i bX`XYf`5k UWg

8]Y`B 5HC`gd]Y`h`Y]bY`YbhgWXY]XYbXY`F c`Y`]b`XYf`  
5i ZfYWX`hYf`U`hi b[ `XYf`\_c`Y`\_hj] Yb`J`YfhY]X][ i b[ ``8 Ug  
ZfØ`k UfbgmgH`Ya`5k UWg`]gh`Y]b`nYbhfU`Yg`9`Ya`Ybhž`XUg`b]W`h`bi`f`  
ni`f`]XYbh]Z]n]Yfi b[ `j`cb`@`ZhVYXfc`i b[ Yb`X]Ybhž`gcbXYfb`Ui`W`ni`f`  
l`bhYfghØ`hni b[ `j`cb`A`]]h`À`fa`]gg]cbYb``8Yf`GhUbXcfh]b  
; Y]`Yb\_]fWXYb`]gh`ghfU`hY`[ ]gW`k`]W`h][ ž`XU`X]Y`@`ZhØVYfk UW`i b[  
Xcfh]b`XYf`@U[ Y`]ghž`dchYbn]Y`Y`5b[ f]ZY`ZfØ`nY]h][ `ni`Yf`\_YbbYb`  
`b`XYf`J`Yf[ Ub[ Yb`Y]h`U`h`XUg`GmgH`Ya`YfZc`[ fY]W`ni`f`  
; YZU`fYbUVk`Y`f`VY][ YhfU[ Ybž`]bXYa`Yg`bZcfa`Uh]cbYb`]b  
9W`hnY]h`VYfY]hghY`hž`X]Y`ZØf`X]Y`9bhgWXY]Xi b[ Yb`j`cb  
A`]]h`À`fZØ`fYfb`j`cb`YbhgWXY]XYbXYf`6YXYi`hi b[ `g]bX`

## 5`\_hi`Y`Y`G]WXYf`Y]hg`U[ Y`i`bX`FYU`\_h]cbYb

8]Y`9f`Ø`i b[ `XYf`K`Ufbghi`ZY`Ui`Z`7`Uf`]Y`i`bX`X]Y`UbgW`Y]Y`YbXYb  
A`U`bU`a`Yb`g]bX`X]fY`\_hY`FYU`\_h]cbYb`Ui`ZX]Y`[ Yk`UW`gYbY  
6YXfc`i b[ g`U[ Y``B`UW`X`Ya`J`cfZU``]b`; Y]`Yb\_]fWXYb`V`Y]Vh`Yg  
UVni`k`UfhYbž`k`]Y`X]Y`G]WXYf`Y]hga`U`bU`a`Yb`Vi`bXYgk`Y]h  
Yj`Ybhi`Y``Ub[ YdUggh`k`YfXYb``8]Y`Dc`nY]`U`h`VYfY]hg`VYgW`cggYbž  
X]Y`G]WXYf`Y]hg`U[ Y`\_cbh]bi`]Yf`]W`ni`VYcVUW`hYb`i`bX  
Ybhgd`fYWXYbXY`J`cf`\_Y`fi b[ Yb`ni`hfYZYb``G]WXYf`Y]hgVY`ØfXYb`]b  
8Yi`hgW`UbX`i`bX`9i`fcdU`g]bX`Ui`Z[ Yfi`ZYbž`a`]hY]bUbXYf`ni  
\_ca`a`i`b]n]YfYb`i`bX`bZcfa`Uh]cbYb`ØVYf`dchYbn]Y`Y`  
6YXfc`i b[ Yb`Ui`gni`hUi`gWXYb`

8]Y`GYbg]V`]g]Yfi b[ `XYf`6Yj`Ø`\_Yfi b[ `ZØf`a`Ø[ `]WXY`F]g]\_Yb`gY]  
YVYbZU`g`Y]bY`df`Àj`Ybhj`Y`A`U`bU`a`Y``8]Y`6Øf[ Yf`k`YfXYb`XU`Yf  
Ui`Z[ YZcfXYfhž`j`YfX`À`W`h][ Y`5`\_hj]`h`À`hYb`i`a`a`]h`À`f]gWXY  
9]bf]W`hi b[ Yb`ni`a`Y`XYb``8]Yg`\_ØbbhY`]b`XYf`Y`hn][ Yb`G]hi`Uh]cb  
YbhgWXY]XYbX`gY]bž`i`a`dchYbn]Y`Y`; YZU`fYb`ni`]XYbh]Z]n]YfhYb  
i`bX`X]Y`G]WXYf`Y]h`ni`[ Yk`À`f`Y]ghYb`

GhUh]gh]\_Yb`ni f`G]W\ Yf\ Y]hg`U[ Y`]b

8 Yi hgW\`UbX

@Ui h`Y]bYf`9f\YVi b[ `XYg`6i bXYg\_f]a ]bU`Ua hYg`f6?5E`Ui g`XYa  
>\f`&\$&&[ UV`Yg`Y]bYb`5bgh]Y[ `j cb`5b[ f]ZZYb`Ui Z`Dc`nY]VYUa hY  
i bX`G]W\ Yf\ Y]hg\_f`A`ZhY`]a `Ni gUa a Yb\Ub[ `a ]h`YI hfYa ]gh]gW\Yb  
5\_h]j ]h`AhYb``8]Y`ghY][ YbXY`NU\`gc`W\ Yf`J cfZ`A``Y`i bhYfghfY]W\h`XUg  
6YXØfZb]g`bUW\ `j Yfgh`A`f\_hYb`G]W\ Yf\ Y]hga U» bU`a Yb`i bX`Y]bYf  
Yf\Ø\Yb`K UW\gUa \_Y]h`]b`gYbg]V`Yb`6YfY]W\Yb`ž]bgVYgc bXYfY  
fi bX`i a `a ]]h`A`f]gW\Y`GhØhndi b\_hY``ϕ`XYb`Y`hnhYb`XfY]`>\fYb`\Uh  
X]Y`5bnU\`XYf`, VYf[ f]ZZY`Ui Z`g]W\ Yf\ Y]hgdc`nY`]W\Y  
9]bf]W\hi b[ Yb`i a `Xi fW\gW\ b]hh]W\`%) `i `ni [ Ybca a Yb"

Ni g`Ah`n`]W\`\_ØbbhY`X]Y`B5HC`XUfUi Z`Xf`A`b[ Yb`ž`Xi fW\`Ub[ YdUgghY  
GhfUhY[ ]Yb`ni f`Df`A`j Ybh]cb`[ Y[ Yb`HYffc fUb gW\`A[ Y`Y]bYb`bcW\  
VYggYfYb`G`W\i hn`XYf`a ]]h`A`f]gW\Yb`9]bf]W\hi b[ Yb`]b`8Yi hgW\`UbX  
ni `[ Yk`A`f`Y]ghYb``8]Y`j Yfgh`A`f\_hYb`G]W\ Yf\ Y]hgd f c hc`\_c``Y`\_ØbbhYb  
VY]gd]Y`gk Y]gY`Ui W\`ϕ`hYbg]j ]Yfi b[ Yb`XYf`DYfgcbYb`\_cb`hfc``Yb  
i bX`X]Y`9ff]W\hi b[ `ni g`Ah`n`]W\ Yf`, VYfk UW\i b[ gY]bf]W\hi b[ Yb`]b  
i bX`i a `A ]]h`A`fVUgYb`i a ZUggYb"

8YhU]`g

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