

%&' [fc » Ufh][Y ``Ub [Y '@Y_hØfY `ØVYf`XUg
VYf`YVYb`]a `: fY]Yb` `i bX`? Ud]hi `Uh]cb

9]bY`UbXj Yf`YgYbY`5i gk U\`Y]b][Yf`XYf`XfUa Uh]gW`ghYb
i bX`ZYggY`bXghYb`Ub[Yb`@Y_hØfY`ni a `: VYf`YVYb`]a `: fY]Yb
Ui g`XYb`YhnhYb`ZØbZ`š\`fYb`"G]Y`UVYb`j]Y`Y]W`h'gW`cb
YffUhYb`ž`XUgg`k]f`VY]`5h`Ug`/ Ua d/Ua d`/6cchg`bi f`Y]b
V]ggW`Yb`VYgYggYb`j`cb`; YgW`]W`hYb`ØVYf`5i gXUi Yf`g]bX`"
J`cb`XYb`VYghYb`6ØW`Yfb`ØVYf`XUg`; VYf`YVYb`V]g`\\]b`ni
Yd]gW`Yb`9bhXYW`i b[gfY]gYb`UVYb`k]f`ØVYf`Y]b][Y`XYf`
XfUa Uh]gW`ghYb`6YghfYVi b[Yb`]b`XYf`; YgW`]W`hY`XYf`
9fZc`fgW`i b[`[YgW`f]YVYb`" ð`XYb`YhnhYb`š\`fYb`k UfYb`k]f`
ZUgn]b]Yfhj`cb`Y]bYf`FY`\\Y`Vf]`Ub`hYf`Ub[Yf`@Y_hØfY`ØVYf`
XUg`; VYf`YVYb`]a `: fY]Yb`fi bX`? Ud]hi `Uh]cb`Ě`"J`ca `:]gW`Yf`ž`
XYf`Y]b`š\`f`Ub[`Ui`Z`GYY`j`YfgW`c`Yb`k`Uf`ž`V]g`\\]b`ni`XYb`
<Ø`YbhUi`W`Yfb`ž`X]Y`/ Ua d`^Y`]d`/`

9]bY`UbXj Yf`YgYbY`5i gk U\`Y]b][Yf`XYf`XfUa Uh]gW`ghYb`i bX
ZYggY`bXghYb`Ub[Yb`@Y_hØfY`ni a `: VYf`YVYb`]a `: fY]Yb`Ui g`XYb`
YhnhYb`ZØbZ`š\`fYb`"

G]Y`UVYb`j]Y`Y]W`h'gW`cb`YffUhYb`ž`XUgg`k]f`VY]`5h`Ug`/ `6cchg`
bi f`Y]b`V]ggW`Yb`VYgYggYb`j`cb`; YgW`]W`hYb`ØVYf`5i gXUi Yf`g]bX`"
J`cb`XYb`VYghYb`6ØW`Yfb`ØVYf`XUg`; VYf`YVYb`V]g`\\]b`ni`Yd]gW`Yb`
9bhXYW`i b[gfY]gYb`UVYb`k]f`ØVYf`Y]b][Y`XYf`XfUa Uh]gW`ghYb`
6YghfYVi b[Yb`]b`XYf`; YgW`]W`hY`XYf`9fZc`fgW`i b[`[YgW`f]YVYb`"

ð`XYb`YhnhYb`š\`fYb`k UfYb`k]f`ZUgn]b]Yfhj`cb`Y]bYf`FY`\\Y`
Vf]`Ub`hYf`Ub[Yf`@Y_hØfY`ØVYf`XUg`; VYf`YVYb`]a `: fY]Yb`fi bX`
? Ud]hi `Uh]cb`Ě`"

J`ca `:]gW`Yf`ž`XYf`Y]b`š\`f`Ub[`Ui`Z`GYY`j`YfgW`c`Yb`k`Uf`ž`V]g`\\]b`
ni`XYb`<Ø`YbhUi`W`Yfb`ž`X]Y`ZØf`]`fY`: fYi bXY`ni fØW`[Y`Y`\\fh]g]bXž`

Yf_]a a hi bgYfY`5i gk U\`gWk]bXY`YffY[YbXY` ;]dZY`ž` Yfgi Wk h
[Yk U[hY`?i bghghØW_Y`i bX`VYgWk fY]hYh`XYb`gY\`f`gWk a U`Yb` ; fUh
nk]gWk Yb`@YVYb`i bX`HcX"

8]Y`< Ø\`Yb hUi Wk Yfž`X]Y`ZØf`]\ fY` : fYi bXY
ni fØW_[Y_Y\ fh`g]bX

K YVg]hY. `667@]b_. `VVWw`"i _5i hcf. `K]`]Ua `?fYa Yf

`U`h1 `9]bY`j]gi Y`Y`8 UfghY`i b[`XYf`D`i fU!< Ø\`Ybž`Y]bY`Ub[Y
@Y_hØfY`ni a ` , VYf`YVYb`]a ` : fY]Yb `2 J ; /: U]fY`Bi hni b[`9]bY
j]gi Y`Y`8 UfghY`i b[`XYf`D`i fU!< Ø\`Yb

⇒ : YVfi Uf`&\$%(`ghUfVYb`nk Y]`HUi Wk Yf`]b`a Y\`f`U`g`%\$`\$`a `H]YZ
]b`Y]bYa `f]Yg][Yb`< Ø\`Yb gmgHya `]b`Bcfk Y[Yb``8]Y`6Y\`ØfXYb
gU[hYbž`Yg`gY]`ni `[YZ\`f`]Wk ž`\fY`@Y]Wk Yb`ni `VYf[Ybž`UVYf`j]Yf
: fYi bXY`XYf`A`ÀbbYf`VYgWk`cggYbž`XUg`F]g]_c`Y]bni [Y\`Yb`i bX
g]YVYb`K`cWk Yb`gd`ÀhYf`gh]Y[Yb`g]Y`]b`XUg`Xi b_Y`i bX`Y]g][Y
K`UggYf`\]bUV``8Ug`]gh`\fY`i b[`Ui`V`]Wk Y` ; YgWk]Wk hY"

J YfgWk c`Yb`Ui Z`GYY. `XYf`A`Ub bž`XYf`%(
A`c`b`UhY`j`YfgWk`k`Ub`X

GY]hY. `h\Y` ; i UfX]Ub@]b_. `h\Y[i UfX]Ub`Wka`5i hcf. `æbUh\Ub
: fUb_]b

⇒ `Bcj`Ya`VYf`&\$%&`[]b[`GU`j`UXcf`5`j`UfYb[`U`j`cf`XYf`?ØghY
A`Yi]_cg`Z]gWk Yb``Nk`Y]`HU[Y`gd`ÀhYf`_Ua`Y]b`Ghi`fa`i`bX`Yf`a`UWk`hY
Y]b`j`Yfnk`Y]ZY`hYg`GC`G``9g`k`Uf`XUg`Y`hnhY`A`U`ž`XUgg`Ya`Ub`X`j`cb
]a` \`ØfhY` `ZØf`(` , `HU[Y``æ`X]YgYf`ZUgn]b]YfYbXYb`@Y_hØfY
YfZ\`fh`F`YdcfhYf`æbUh\Ub` : fUb_]b`Ui`g`YfghYf`<`Ub`X`ž`k`Ug
5`j`UfYb[`U`Ui`Z`gY]bYf`YfgWk`ØhYfbXYb`F`Y]gY`k`]XYfZU\`fYb`]gh"

K]Y`%`*`\$\$`A`YbgWk`Yb`gdi`f`cg`Ui`g`i`bgYfYa
ØZZYb`h`]Wk`Yb`@Ub`X`j`YfgWk`k`Ub`X`Yb

K YVg]hY. 'Ci hg]XY@]b_. 'ci hg]XYcb`]bY"Wca 5i hcf. 'æb'6]`a Ub

5`g:XYf%, !A\ f][Y'æY?Y`Yf'j cb`Y]bYf'8i XY`F UbW`ja `F]c
; fUbXY`BUh]cbU`': cfYgh]b`7c`cfUXc`j YfgWk UbXž'gW`cgg`Yf'g]W
XYb`FY\Yb`XYf`JYfa `]gghYb`Ui Z`ÖZYbh]WYa `@UbX`Ub" `9g[]Vh
_Y]bY`cZZ]n]Y`Y`NÄ\`i b[ž`UVYf`]\fY`NU\`k ÄWgh`I bX`k Ybb`Y]bY
YfghY`Gi WY`b]Wghg`Yf[]Vhž`k Yf`gi W`h`XUbb`k Y]hYf3`8fUi » Yb
Yfa `]hY`h`

8]Y `hfU[]gW`Y `; YgW`]W`hY `XYf`VYfØ\`a hYghYb
@Y]W`Y `XYg`A`h" `9j YfYgh

K YVg]hY. '667@]b_. 'VVW`ca 5i hcf. 'FUW`Y`Bi`k`Yf

`U`h1 `9j YfYgh`\Uh`XUg`@YVYb`j`cb`ØVYf`&-`\$`A`YbgW`Yb`[`YZcfXYfh/
Y]bY`[`fc»`Ufh][`Y`Ub[`Y`@Y`_hØfY`ni`a`',`VYf`YVYb`]a
: fY]Yb `2`HfUi`a`nY]h`8Yf`9j YfYgh`VY\`YfVYf[`h`a`Y`f`U`g`&\$\$
@Y]W`Yb

8Yf`A`ci`bh`9j YfYgh`VY\`YfVYf[`h`a`Y`f`U`g`&\$\$`@Y]W`Yb" `FUW`Y`
Bi`k`Yf`i`bhYfgi`W`h`X]Y`hfUi`f][`Y`i`bX`k`Yb][`VY`_`Ubb`hY`;`YgW`]W`hY
\]bhYf`]\fYa`dfca`]bYbhYghYb`6Yk`c`bYfž`;`fYYb`6cchg` `i`bX
YbhXYW`_`h`X]Y`j`YfghØfYb`XYb`5i`gk`]f`_i`b[`Ybž`X]Y`X]YgYf`hØX`]W`Y
6Yf[`Ui`Z;`Y]ghi`bX`?`ØfdYf`\UVYb`_`Ubb"

8 Yf`B`Y`c`d`f`Y`b`U`b`n`i`[

GY]hY. '8 U[V`UXYh@]b_. 'XU[V`UXYh"bc5i hcf. '5bXYfg': Y`VYf[

æa` `Ubi`Uf`&\$%)`k`i`fXYb`nk`Y]`@Y]W`Yb`]b`B`c`f`k`Y[`Yb`i`bX`XYb
B]YXYf`UbXYb`[`YZ`bXYb" `G]Y`hfi`[`Yb`]XYbh]gW`Y`B`Y`c`d`f`Y`b`U`b`n`Ø[`Y"
8]Y`Dc`nY]`]b`XfY]`@AbXYfb`k`Uf`]b`XYb`:`U`j`Yfk`]W`Y`hž`_`c`b`b`h`Y`g]Y
UVYf`b]Y`XYbh]Z]n]YfYb" `8]Yg`]gh`X]Y`Ui`»`Yf[`Yk`Ø\`b`]W`Y`;`YgW`]W`hY
XUfØVYfž`k`Yf`g]Y`k`UfYb"

5`Y]b`Ui`Z`XYa` `9]g

K YVg]hY. 'Ci hg]XY@]b_. 'ci hg]XYcb`]bY"Wca 5i hcf. '9f]W@UfgYb

&\$%) 'VY\Ui dhYhY 'XYf'XYi hgWXY '9bhXYW_Yf'A Ufh]b'Gnk YXž'XYb
; YgWk]bX][_Y]hgfY_cfX'Z0f'Y]bYb'Gc`c!G_]`ni a 'G0Xdc`
[YVfcWXYb'ni '\UVYb" '9f'\Uh'_Y]bY'; DG!8 UhYb'dfY]g[Y[YVYbž
_Y]bY': chcg' '_Y]bYf'Y]'6Yk Y]gY'XUZ0fž'XUgg'Yf'X]Y'F'Y]gY
0VYf\Ui dhj Yfgi W'h'\Uh"BUW'gY]bYf'F0W__Y\`f'j ca 'Y]g][Yb
?cbh]bYbhj Yf'cf'Yf'<Ui gž'æV'i bX'GdcbgcfYb'i bX'k i fXY
; Y[YbghUbX'nk Y]Yf'9fa]h'i b[Yb'XYf'6i bXYgfY[]Yfi b["'Gc`hY
]Na ']f[YbX'Ya UbX'[`Ui VYbž'ZfU[h'9f]W@UfgYb`]b'X]YgYf
ZYggY`bXYb`Ub[Yb`@Y_h0fY"

6i ``]gWXY '9bhgW`cggYb\Y]h

GY]hY. '?YhhYfb@]b_. '?YhhYfb"Wca 5i hcf. '8ci [U`X`A UW8cbU`X

'U`h1 '8Yf']a dcgUbhY'HchYa dZU\``]b'HUGa Ub]Ybž'5i ghfU`]Ybž'k]fX
]b'Y]bYf'[fc»Ufh][Ybž`Ub[Yb`@Y_h0fY'0VYf'XUg', VYf'YVYb']a
: fY]Yb'j cf[YghY`h 2: U]fY'Bi hni b['8Yf']a dcgUbhY'HchYa dZU\``]b
HUGa Ub]Ybž'5i ghfU`]Yb

%- - +'\UhhY'XYf'Vf]h]gWXY?'YhhYfYf'DUi ``Df]hWUfX'[YfUXY'XYb
6cUfXa Ub'HUG_Yf'Df]nY'Z0f'gY]b'6i W' '8YYd'D`Um '[Yk cbbYbž
i bX'Yf'i bX'gY]bY'XUa U`][Y': fYi bX]b'7Y`]U'6i ``[UVYb'XUg
DfY]g[Y'X'Z0f'Y]bY?'YhhYffY]gY'i a 'X]Y'K Y'h'Ui g" `b'5i ghfU`]Yb'k Uf
Df]hWUfXg[fc»Yg'N]Y`Y]bY'ZfY]Y'6YghY][i b['XYg'HchYa 'Dc`Yž
Y]bYf'gW`Ub_Yb'Gd]hnY'Ub'XYf'G0Xcgh_0ghY'XYf'`bgY`HUGa Ub]Yb"
8]Y'Gd]bXY'ž'bi f'%&: i »'X]W`i bX'0VYf'&\$\$: i »'\cW'Ui g'XYf
HUGa Ub]gWYb'GY'ž'k 0fXY']\b'ZUgh'h0hYb"

8Yf'5Vgh]Y['j cb'g]YVYb'K UbXYfYfb']bg J YfXYfVYb']a 'N]cb'B Uh]cbU`DUf_

K YVg]hY. '@5'H]a Yg@]b_. ``Uh]a Yg"Wca 5i hcf. 'K]``]Ua 'MfX`Ymž'A Uhh
DYUfWž'B][Y`8i UfU

9]bY'; fi ddY'j cb'g]YVYb'K UbXYfYfb'\UhhY'a cbUHY'Ub[']\fYb

5Vgh]Y[']b`XYb`?Ym\c`Y`7Ubmc b`[Yd`Ubh"9]b][Y`\UhhYb
i a ZUb[fY]WXY`K UbXYfYfZU\fi b["5`Y`V]g`Ui ZY]bYb`bU\ a Yb`Ub
Y]bYa`ZØbZghØbX][Yb`7Ubmc b]b[!?i fg`hY]`ž`XYf`j`cb`XYf`Øfh]WXYb
N]cb`5Xj Ybhi fY`7ca`dUbm`Ub[YVchYb`k`i`fXY``k`Ufi`a`U`gc
gWUZZhY`Yg`_Y]bYf`j`cb`]\bYb`YVYbX`\YfUi`g3

8 Yf`HcX`XYg`Hcd!HUi WXYfg`k`]fZh`Y]bYb
`Ub[Yb`GWX UhhYb`Ui`Z`X]Y`h]YZY`GWX Øb`Y]h`XYg
6`i`Y`<c`Y

GY]hY.`H\Y` ; i UfX]Ub@]b_.`h\Y[i UfX]Ub"Wca`5i`hcf.`9Xa`i`bX`6ck`Yf

8]Y`I`bhYfk`UggYf`Uh\YXfU`Y`Ua`F`UbXY`XYg`F`chYb`A`YYfYg`]gh
k`c`\`XYf`[`YZ\`f`]W`ghY`HUi`W`d`U`h`X`Yf`K`Y`h`g`Y`V`gh`ZØf`9I`d`Y`fh`Yb`"
B`U`W`X`Y`a`H`c`X`Y`]b`Y`g`Y`f`Z`U`f`Y`b`Y`b`H`U`i`W`X`Y`f`g`i`b`h`Y`f`g`i`W`h`X`Y`f`
æ`i`f`b`U`]gh`9`X`a`i`b`X`6`c`k`Y`f`X`Y`b`Z`f`W`h`Y`f`f`Y`[`Y`b`X`Y`b`F`i`Z`X`Y`g`
H`U`i`W`d`U`h`n`Y`g`"

F`Y`h`h`i`b`[`U`i`Z`X`Y`a`?`]`Y`f`A`c`i`b`h`U]b

K`Y`V`g]hY.`C`i`h`g]X`Y@]b_.`c`i`h`g]X`Y`c`b`]b`Y"W`c`a`5`i`h`c`f.`A`U`f`W]b
æ`j`a`_`c`k`g`_]

`U`h`1`B`U`b`[`U`D`U`f`V`U`h`]b`Y`]b`Y`f`X`Y`f`V`Y`g`h`Y`b`U`b`[`Y`b`@`Y`_`h`Ø`f`Y`b`n`i`a`
,`V`Y`f`Y`V`Y`b`]a`:`f`Y]Y`b`2`æ`a`f`U`b`?`\`U`_`k`U`b]/`7`7`6`M`G`5`(`"\$`8`Y`f`B`U`b`[`U`
D`U`f`V`U`h`]g`h`U`g`?`]`Y`f`V`Y`f`[`V`Y`_`U`b`b`h`

æ`a`æ`j`b`i`U`f`&`\$`%,`g`h`f`U`b`X`Y`h`Y`b`n`k`Y`]`6`Y`f`[`g`h`Y][`Y`f`]b`X`Y`f`B`A`\`Y`X`Y`g`
;`]d`Z`Y`g`X`Y`g`B`U`b`[`U`D`U`f`V`U`h`]G]Y`g`Y`b`X`Y`h`Y`b`Y]b`Y`b`j`Y`f`n`k`Y]Z`Y`h`Y`b`
5`b`f`i`Z`U`i`Z`]f`Y`a`G`U`h`Y`]h`Y`b`[`Y`f`À`h"9]b`\`i`b`X`Y`f`h`A`Y]Y`b`Y`b`h`Z`Y`f`b`h`
Z`c`[`h`Y`Y]b`d`c`b]g`W`X`Y`g`H`Y`U`a`U`i`»`Y`f`[`Y`k`Ø`\`b`]W`X`Y`f`?`Y`h`h`Y`f`Y`f`X`Y`a`F`i`Z`
i`b`X`j`Y`f`U`b`U`g`g`h`Y`Y]b`Y`X`Y`f`[`Y`k`U`[`h`Y`g`h`Y`b`F`Y`h`h`i`b`[`g`U`_`h]c`b`Y`b`]b`X`Y`f`
;`Y`g`W`X]W`X`h`Y`X`Y`g`6`Y`f`[`g`h`Y][`Y`b`g`"

K`U`g`\`U`h`X]Y`6`À`f`Y`b`X`U`a`Y`[`Y`h`Ø`h`Y`h`3

K`Y`V`g]hY.`C`i`h`g]X`Y@]b_.`c`i`h`g]X`Y`c`b`]b`Y"W`c`a`5`i`h`c`f.`6`f`U`b`X`c`b`G`b`Y`Y`X`

&, 'ſ\ſY`Ub[`YVhY`?Um; fUmgcb`GY]hY`Ub`GY]hY`a]h`k]`XYb
G\k UfnVÀſYb`]b`XYb`gi`a`dZ[Yb`?ØghYbk`À`XYfb`j`cb`Bcfh\
7Ufc`]bUž`ZØhhYfhY`g]Y`a]h`XYf`<UbXž`j`YfhY]X][hY`g]Y`[Y[Yb
K]`XYfYf`i`bX`]Y»`g]Y`]b`]ſ`<Ui`g`5`g`g]Y`&\$%)`j`Yfg\k`UbXž
_cbbhYb`X]Y`9fa`]h`Yf`bi`f`]ſY`gUi`VYf`[YdZØW`hYb`?bc\WYb
Z]bXYb`"i`bX`XUg`k`Uf`bi`f`XYf`5bZUb[`XYg`F`ÀhgY`g"

A`c`f`X`U`i`Z`X`Y`a`5`d`d`U`U`W`k`]`U`b`H`f`U``

K`Y`V`g`]`h`Y`.`C`i`h`g`]`X`Y`@`]`b`_`.`c`i`h`g`]`X`Y`c`b`]`b`Y`"W`c`a`5`i`h`c`f`.`9`U`f``G`k`]`Z`h`

J`c`f`&)`ſ\ſYb`g\k`c`W_]YfhY`Y]b`[fUi`gUa`Yf`8`c`d`d`Y`a`c`f`X`U`i`Z
5`a`Y`f`_]`U`g`V`Y`f`Ø`ſ`a`h`Y`g`h`Y`f`K`Ub`X`Y`f`f`c`i`h`Y`X]Y`B`U`h`]`c`b`i`b`X`j`Y`f`À`b`X`Y`f`h`Y`
ZØf`]a`a`Y`f`]ſY`K`U`ſ`f`b`Y`ſ`a`i`b`[`j`c`b`?`f`]a`]b`U`]h`À`h`ž`;`Y`k`U`h`i`b`X`
G]W`Y`f`ſ`Y`h`]a`:`f`Y`]Y`b`"8`Y`f`æ`i`f`b`U`]g`h`9`U`f``G`k`]Z`h`g`d`Ø`f`h`X`Y`a``B`U`W`ſ`U`
b`U`W`"

`U`h`1` 2`

8`Y`f`a`]`]`c`b`Y`b`Z`U`W`]`j`Y`f`_`U`i`Z`h`Y`k`Y`h`k`Y`]h`Y`6`Y`g`h`g`Y`Y`Y`f`G`5`G`G`i`f`j`]`j`U`
<`U`b`X`V`c`c`_]`j`c`b``æ`ſ`b``@`c`Z`h`m`i`K`]`g`Y`a`Ub`]`g`h`X]Y`X`Y`Z]b`]h`j`Y`
,`V`Y`f`Y`V`Y`b`g`f`Y`g`g`c`i`f`W`ZØf`7`U`a`d`Y`f`ž`K`Ub`X`Y`f`Y`f`i`b`X`C`i`h`X`c`c`f`!
5`V`Y`b`h`Y`i`f`Y`f`"

@Y]hV]`X.`8fYUa`gh]a`Y`

8`Y`h`U`]`g`

6`Y`g`i`W`k`Y`b`G]Y`i`b`g`U`i`Z.`Y`]b`Y`!`f`Y`]g`Y`"X`Y`