

A Øb hYdUf_]b`8]Yd\c`n. :đ [YbX`]WXY [YghU`hYb`XYb`DUF_XYf`; YbYfUh]cbYb

8]Y`8]Yd\c`nYf`Dc`h]_`X]g_i h]Yfh`b`XYf`D`Ubi b[`XYg` DUF_g
XYf`; YbYfUh]cbYb `X]Y`9]bVYn]Y\i b[`j cb`K UggYfž`GD8`j`g`
78I # 8D"

⇒ <YfnYb`j`cb`8]Yd\c`n`k`]fX`XYfnY]h`ØVYf`XYb` DUF_XYf`
; YbYfUh]cbYb `X]g_i h]Yfhž`k`cVY]`X]Y`D`ÀbY`ZØf`X]YgYb`DUF`Ui`Z
Y]bY`bYi`Y`8]a`Ybg]cb`UVn]Y`hYb"; Yd`Ubh]gh`Y]bY`bUW\U`h][`Y
5i`Zk`Yfhi`b[`XYg`A`Øb hYdUf_gž`i`a`X]Y`5`hfU`_h]j`]h`h`ZØf`đ`[`YbX`]WXY
ni`Yf\`Ø`Yb"8]Y`GhUXh`U`h`X]Y`B`chk`YbX][`_Y]h`Yf`_Ubbhž`a`Y`f`
:fY]nY]ha`Ò[`]W`_Y]hYb`ni`gW`UZZYb`i`bX`k`YbXYh`g]W`XUVY][`Yn]Y`h`
Ub`XYb`B`UW`k`i`W`gž`i`a`XYfYb`K`ØbgW`Y`ni`VYfØW_g]W`h][`Yb"

8]Y`8YVUhhYb`]a`gh`AXh]gW`Yb`đ`[`YbXUi`ggW`i`ggž`X]Y`Ua
8`cbbYfghU[`]ja`f`Uh\Ui`g`ghUhhZUbXYbž`nY][`hYb`X]Y`?`cbhfcj`YfgYbž`
X]Y`i`a`X]YgYg`Dfc`Y`h`_fY]gYb"K`À`fYbX`X]Y`GD8`Y]bY
9fk`Y]hYfi`b[`XYf`D`Ubi`b[`Yb`j`cfgW`À[`hž`i`a`Ui`W`K`UggYfUb`U[`Yb
ni`]bhY[`]f]YfYbž`ghY\Yb`78I`i`bX`:`8D`XYa`D`Ub`g`_Ydh]gW`
[`Y[`YbØVYf"8]Y`Gcn]U`XYa`c`_fUhYbž`j`YfhfYhYb`Xi`fW`F`U`Z
đW`VgYbž`VYhcbYb`X]Y`K`]W`h][`_Y]hž`XUg`; Yk`ÀggYfž`X]Y
<]bhYf`c`b`Yž`g]W`hV`UfYf`i`bX`Yf`YVV`UfYf`ni`[`YghU`hYb"G]Y
gW`U[`Yb`i`bhYf`UbXYfYa`Y]bY`?`Ubi`Y]bgU`hghY`Y`i`bX`[`Ya`Øh]W`Y
5i`ZYbh`U`hga`Ò[`]W`_Y]hYb`]b`K`UggYfb`À`Y`j`cfž`X]Y`XUg`9f`YVb]g
ZØf`X]Y`đ`[`YbX`]W`Yb`VYfY]W`Yfb`gc`Yb"

đ [YbXVYhY]`][`i`b[`i`bX`d`c`]h]gW`Y K`Y]W`YbghY``i`b[

8Ug`đ`hYfYggY`XYf`GhUXhž`X]Y`đ`[`YbX`]W`Yb`]b`X]Y`9`bhk`]W`i`b[`XYg
DUF_g`U`_h]j`Y]bni`V]bXYbž`k`i`fXY`Xi`fW`Y]bY`đ`[`YbXVYhY]`][`i`b[

XYi h]Wž`X]Y`VYfY]hg`]b`XYb`J`cfZY`X`ni`f`D`Ubi`b[`ghUhhZUbX`"8UVY]
cbbhYb`X]Y`đ [YbX`]WXYb`]fY`→XYb`Ai`»Yfbž`k`cVY]`g]W``UfY
J`cf`]YVYb`ZØf`Gdcfh`i`bX`:`fY]nY]h[`YfÅhY`k`]Y`Di`a`dhfUW_g`i`bX
7U`]gh\Yb]Wg!5b`U[`Yb`UVnY]W`bYhYb`"@Ui`h`DYhfU`<U[`Yž`XYf
:UW`X]Ybgh`Y]hYf]b`ZØf`C`fXbi`b[`i`bX`Gcn]U`Ygž[`Y`Ub[`Yb`X]Y
5bfY[`i`b[`Yb`XYf`↑`b[`Yb`:`YbYfUh]cb`gca`]h]b`X]Y`8YhU]`d`Ubi`b[`"

<U[`Y`ghY``hY`]a`f`U\`a`Yb`XYg`đ [YbXZcfi`a`g`ZYghž`k`]Y`k`]W`h[`i`Yg
]ghž`X]Y`K`ØbgW`Y`i`bX`6YXØfZb]ggY`XYf`đ [YbX`]WXYb`]b`XYf
dc`]h]gW`Yb`9bhgW`Y]Xi`b[`gZ]bXi`b[`ni`VYfØW_g]W`h[`Yb`"8]YgY
:cfYb`\UVYb`[`YnY][`hž`XUgg`đ [YbX`]WXY`gY`f`k`c`\`Ub`dc`]h]gW`Yb
Dfc`nYggYb`]b`hYfYgg]Yf`h`g]bXž`gcZYfb`g]Y`]b`_`cb`_`fYhYb`Dfc`Y`_`hYb
HY`]UVY`YfZU`fYb`"i`bX`[`YbUi`XUfUb`j`Yfgi`W`h`8]Yd`\`c`n
Ubni`_`bØdZYbž`]bXYa`X]Y`GhUXh`Y]bY`cZZYbY`?ca`a`i`b]_`Uh]cb`j`]U
gc`n]U`Yf`A`YX]Yb`i`bX`dYfgØb`]W`Ya``?cbhU`_`h`dZY[`h`"

6Y]`XYf`:`fU[`YghY``i`b[`i`a`X]Y`9]bV]bXi`b[`j`cb`K`UggYf`]b`X]Y
D`Ubi`b[`[`]Vh`Yg`i`bhYfgW`]YX`]W`Y`5bg]W`hYb`"K`]`\`Y`a`f`YW`_`a`Ubb
j`cb`XYf`:`8D`nY][`hg]W`ØVYffUgW`h`ØVYf`XYb`GD8!J`cfgW`U[`i`bX
\`À`h`Yg`ZØf`g]b]bj`c``Yfž`g]W`Yfgh`gd`ÅhYf`a`]h`Y]bYf`ϕ`hY[`fUh]cb`j`cb
K`UggYffYggci`fW`b`ni`VYgW`ÅZh[`Yb`"8]Y`8]g`_i`gg]cb`j`YfXYi`h]W`hž
XUgg`X]Y`9]bVYn]Y\`i`b[`Y]bYg`:`Yk`ÅggYfg]a`D`Ubi`b[`gd`fc`nYgg
YbhgW`Y]XYbX`]gh`ZØf`X]Y`A`Ò[`]W`_Y]hž`Y]b`Y]b`UXYbXYg`i`a`ZY`X`ZØf
:`fY]nY]hU`_`h]j`]h`ÅhYb`ni`gW`UZZYb`"8Yf`GD8!GdfYW`Yf`↘W`VgYb
VY`ZØfW`hYhž`XUgg`c`\`bY`Y]bY`ZfØ`Y`D`Ubi`b[`XUg`H`\`Ya`U`K`UggYf
a`Ò[`]W`Yf`k`Y]gY`]b`J`Yf[`YggYb`\`Y]h[`Yf`Å`h`"

8]Y`<c`Zbi`b[`Ui`Z:`ØfXYf[`Y`XYf`ni`f`:`]bUbn]Yfi`b[`XYg`DUf`_g`V`Y]Vh
VYghY`Ybž`Ui`W`k`Ybb`X]Yg`i`bg]W`Yf`\`Y]hYb`V]f[`h`<U[`Y`_ØbX][`hY
Ubž`XUgg`Yhk`U`,`)`\$`\$\$`\$`9i`fc`j`YfUb`gW`U[`hg]bX`ZØf`X]Y
I`a`gYhni`b[`ž`XcW`X]Y`hUhg`ÅW`]W`Yb`?cghYb`Ui`Z[`fi`bX`XYf
a`ca`YbhUbYb`A`Uf`_hYb`hk`]W`_i`b[`gW`k`Ub`_Yb`_ØbYb`"N]Y`gY]`Ygž
Y]bY`VfY]hY`DU`YhY`Ub`:`ØfXYfdfc[`fUa`a`Yb`Ubni`nUdZYbž`i`a`X]Y
?cghYb`ni`a`]b]a`]YfYb`i`bX`X]Y`:`]bUbn]Yfi`b[`ni`g]W`Yfbž`k`cVY]
,`VYf`Y[`i`b[`Yb`Ub[`YghY``h`k`i`fXYbž`5bhf`Å[`Y`Yfgh`&`\$`&)`ni`ghY``Yb`"

Hfc`hn`K`]XYfghUbX`Ui`Z`?`i`fg`V`Y]VYb

8]Y`GD8`i bX`X]Y`5b`Åb[Yf`XYg`Yfk`Y]hYfhYb`D`Ubg`nY][hYb`g]W
bUW`XYa`YbX[Ø`h][Yb`J`chi`a`]a`5i`ggW`i`gg`Yb`h`Åi`gW`h`ØVYf`X]Y
UV`Y`b`Yb`XY`<`U`hi`b[`j`cb`78I`i`bX`i`8D`"@Y`h`h`Y`b`X`]W`k`i`fXY`XYf`
Y`b`XYfi`b[`gj`c`fgW`U[`UV[`Y`Y`b`h`ž`k`Ug`VY]`XYb`Gcn]U`XYa`c`_`fU`h`Yb`
6Ygc`f[`b]g`ØVYf`X]Y`U`b[`Zf]gh][`Y`G]W`h`Ui`Z`X]Y`D`U`bi`b[`Y`f`j`c`ff]Y`Z`
K`]f`Å`h`h`Y`b`X]Y`7`U`b`W`bi`h`Y`b`_`Ø`b`Y`b`ž`i`bg`Y`f`?`cb`n`Y`d`h`Xi`f`W`
Yi`h`Y`fb`Y`≠`Y`Y`b`ni`V`Y`f`Y]W`Y`fb`ž`Åi`»`Y`fh`Y`G`cb`U`G`mf`b]_`j`cb`XYf`GD8`"

8Yf`NY]hfU`a`Yb`ZØf`X]Y`I`a`g`Y`h`ni`b[`XYg`Dfc`Y`_`hg`g]Y`h`j`c`f`ž`X`U`gg`
Y]b`d`cg]h]j`Yf`6YgW`i`gg]a`GhUXhfUh]a`GYdhYa`VYf`[`Y`Z`U`gg`h`k`]f`X`ž`
[`Y`Z`c`[`h`j`cb`Y]b`Yf`5i`ggW`f`Y]Vi`b[`bc`W`i]b`X]Y`g`Y`a``š`Å`f`"F`Y`U`]gh]g`W`
VYhfUW`h`Y`h`_`Ø`b`b`h`Y`XYf`6Ui`X`U`b`b`]a`Xf]h`h`Y`b`E`i`U`f`h`U`&`\$`&)
VY[`]b`b`Y`b`ž`k`c`X]Y`GhUXh`X`U`f`Ui`Z`g`Y`h`h`ž`X`U`gg`X`U`g`Dfc`Y`_`h`a`]h`Y]b`Y`f`
`U`f`Y`b`J`]g]cb`i`b`X`XYb`K`Ø`b`g`W`Y`b`XYf`š`[`Y`b`X`]W`Y`b`]b`9]b``U`b[`g`h`Y`h`"

8]Y`d`U`b`Y`f]g`W`Y`b`8]g`_`i`gg]cb`Y`b`i`a`XYb`D`U`f`_`XYf`;`Y`b`Y`f`U`h]cb`Y`b`
k`Y`f`Z`Y`b`Y]b`Y`b`6`]W`_`Ui`Z`X]Y`ni`_`Ø`b`Z`h][`Y`;`Y`gh`U`hi`b[`Ø`Z`Y`b`h]W`Y`f`
F`Åi`a`Y`ž`X]Y`g`ck`c`Å`XYb`6YXØfZb]gg`Y`b`XYf`š`[`Y`b`X`[`Y`f`Y`W`h`k`Y`f`X`Y`b`
U`g`Ui`W`i]b`b`c`j`U`h]j`Y`5`b`g`Å`h`Y`ZØf`X]Y`9]b`V]b`Xi`b[`j`cb`K`U`gg`Y`f`i`b`X`
B`U`h`i`f`V]Y`h`Y`b`<`Y`f`k`]f`X`Ui`W`X`Y`i`h]W`ž`k`]Y`k`]W`h][`Y`g`]gh`ž`X`U`gg`X]Y`
G`h]a`a`Y`b`U`Y`f`6Y`h`Y]][`h`Y`b`;`Y`Å`Ø`f`Z]b`X`Y`b`ž`i`a`U`b[`Zf]gh][`Y`V`Y`b`X][`Y`
i`b`X`Z`i`b`_`h]cb`U`Y`D`U`f`_`g`ni`g`W`U`Z`Y`b`"

9b`h`k`]W`_`i`b[`XYg`A`Ø`b`h`Y`d`U`f`_`g`]a`?`c`b`h`Y`I`h`
XYf`GhUXhYb`hk`]W`_`i`b[

8Yf`A`Ø`b`h`Y`d`U`f`_`b]a`a`h`Y]b`Y`n`Y`b`h`f`U`Y`F`c`Y`]b`XYf`GhUXh[`Y`gh`U`hi`b[
8]Y`d`c`n`Y]b`"8]Y`H`f`U`b`g`Z`c`f`a`U`h]cb`ni`Y]b`Ya`D`U`f`_`XYf`
;`Y`b`Y`f`U`h]cb`Y`b`_`U`h`i`b]W`h`i`b`i`f`h`ci`f]gh]g`W`Y`5a`V]h]cb`Y`b`ž`g`cb`X`Y`fb`
gd]Y[`Y`h`Ui`W`i[`Y`g`Y`g`W`U`Z`h]W`Y`H`f`Y`b`X`g`k`]X`Y`f`ž`X]Y`XYb`i`c`_`i`g`Ui`Z`
X]Y`6YXØfZb]gg`Y`j`cb`š`[`Y`b`X`]W`Y`b`Y`[`Y`b`"8]Y`g`Y`5i`Z`k`Y`f`hi`b[`]gh`
H`Y]`Y]b`Y`g`[`f`O»`Y`f`Y`b`gh`Å`X`h`Y`V`Ui`]W`Y`b`F`U`a`Y`b`g`ž`]b`X`Y`a`i`f`Y]n`Y]h`i`
i`b`X`B`U`Y`f`c`i`b[`g`U`b[`Y`V`ch`Y`ni`b`Y`Å`a`Y`b`X`U`b`6Y`X`Y`i`hi`b[
[`Y`k`]b`b`Y`b`"Gh`Å`X`h`Y`k`]Y`8]Y`d`c`n`g]b`X`[`Y`Z`c`f`X`Y`f`h`ž`F`Åi`a`Y`ni`
g`W`U`Z`Y`b`ž`X]Y`XYb`i`b`h`Y`fg`W`]Y`X`]W`Y`b`5`h`Y`fg[`fi`d`d`Y`b`[`Y`f`Y`W`h`
k`Y`f`X`Y`b`i`b`X`XYb`g`cn]U`Y`b`Ni`g`U`a`a`Y`b`Å`U`h`ZØf`X`Y`fb`"

æ ?cbhYI h'XYf'XYa c[fUZ]gWXYb'J YfÅbXYfi b[Yb']b'8Yi hgW`UbX
k]fX'XYi h]WžXUgg']a a Yf'a Y\ f'A YbgWXYb']b'i fVUbYb'FÅi a Yb
'YVYb'i bX'X]Y'5bgdfØWXY'Ub'ÒZZYbh]WXY'D`ÀhnY'ghY][Yb'"HY]`UVY
i bX'A]hVYgh]a a i b[ž[YfUXY'XYf'Øb[YfYb'; YbYfUh]cbž'g]bX
YggYbh]Y`Y': U_hcfYbž'X]Y'ni a 'gcn]U'Yb': f]YXYb'i bX'ni f
@VYbgei U'hÅh']b'Y]bYf'GhUXh'VY]hfU[Yb'"8 Ug'Dfc'Y_h]a
A ØbhYdUf'_`ØbbhY'gca]h'Y]b'A cXY`ZØf'ni _ØbZh][Y
GhUXhYbhk]W_ i b[gdfc'Y_hY']b'UbXYfYb'; Ya Y]bXYb'k YfXYb"

GhUh]gh]gWXY'8 UhYb'ni f'ž [YbXVYhY]`][i b[
i bX'ni] YfXYW_hYb'6YXØfZb]ggYb

@Ui h'Y]bYf'i a ZFU[Y'XYg'8Yi hgWXYb'ž [YbX]bgh]hi hg]a 'U\ f'&\$&
ZØ\`Yb'g]W`YX][`]W`' +i 'XYf'ž [YbX']WXYb']b'8Yi hgW`UbX'U_hj]
]b'_ca a i bU'Y'9bhgWXY]Xi b[gdfcnYggY'Y]b[YVi bXYb'"8]YgYg
b]YXf][Y'9b[U[Ya Ybh'nY][hžXUgg'j]Y'Y'† b[Y'@Yi hY'XUg'; YZØ\
\UVYbž'XUgg']\fY'Gh]a a Yb'b]W'h[Y\ Òfh'k YfXYb'"8]Y'GhUXh
8]Yd\c'n'\Uh'Xi fW'X]Y'ž [YbXVYhY]`][i b[`]a 'FU\ a Yg'XYg' DUF_g
XYf'; YbYfUh]cbYb'5bgÀhnY'[YgWUZZYbž'i a 'X]YgYb'HfYbX
i a ni _Y\ fYb"

Ni XYa ']gh'XYf'6YXUfZ'Ub'Gdcfh'i bX': fY]nY]hUb[YVchYb'i bhYf
ž [YbX']WXYb'gY\ f'\cW""*, i 'XYf'6YZFU[hYb']b'Y]bYf'Ghi X]Y'XYg
² ghYffY]W]gWXYb'≠gh]hi hg'ZØf'ž [YbXZc'fgW'i b['[UVYb'Ubž'XUgg
Y]bY'J YfVYggYfi b['XYf'j c f\ UbXYbYb': fY]nY]hUb[YVchY'ZØf'g]Y'j cb
[fc» Yf'6YXYi hi b['k ÅfY'"8]Y'l a [YghU'hi b['XYg'A ØbhYdUf_g
_ØbbhY'U'g'X]fY_hYg'9f[YVb]g'X]YgYf'6YXØfZb]ggY']bhYfdYh]Yfh
k YfXYb'i bX'gca]h'Ui W'Y]b'G][bU'Ub'X]Y'ž [YbX'gYbXYbž'XUgg
\fY'5b']Y[Yb'Yfbgh[Ybca a Yb'k YfXYb'"8]Y'GhUXhj Yfk U'hi b[
d'Ubh'XU\Yfž'j YfgW]YXYbY'?ca a i b[_Uh]cbg_Ub`Y'ni 'bi hnYbž'i a
X]Y'ž [YbX']WXYb'U_hj]`]b'XYb'DfcnYgg'Y]bni V]bXYb"

?ccdYfUh]cbga Ò[`]W`_Y]hYb'a]h`c_U`Yb
≠bgh]hi h]cbYb

8]Y'@VYbg\`ZY'; fUZgWUZh'8]Yd\c'n'\Uh'VYfY]hg'≠hYfYggY
VY_i bXYhž'g]W'Ub'XYf'; YghU'hi b['i bX'l a gYhni b['XYg

6Ug_YhVU`ZY`XYg`ni`VYhY`][Yb"Gc`WXY`?ccdYfUh]cbYb`a`]h`c_U`Yb
gcn]U`Yb`ϕgh]hi`h]cbYb`g]bX`j`cb`[fc»Yf`6YXYi`hi`b[ž`XU`g]Y`b]W`h
bi`f`ni`f`:]bUbn]Yfi`b[`i`bX`l`a`gYhni`b[`XYg`Dfc`Y`hg`VY]hfU[Ybž
gcbXYfb`Ui`W`XUni`ž`6Uff]YfYb`UVni`VUi`Yb`i`bX`ϕ`_`i`g]cb`ni
Z0fXYfb`"8]Y`9]bV]bXi`b[`j`cb`C`f[Ub]gUh]cbYb`ž`X]Y`a`]h
⋈[YbX`]W`Yb`UfVY]hYbž`_Ubb`ni`XYa`g]W`YfghY`Ybž`XUgg`X]Y
5b[YVchY`Ui`ZX]Y`fYU`Yb`6YX0fZb]ggY`XYf`Bi`mYf`UV[Ygh]a`a`h
g]bX"

8]YgY`Ni`gUa`a`YbUfVY]h`_0bbhY`Ui`W`a`]h`k`Y]hYfYb`c_U`Yb
l`bhYfbY`a`Yb`i`bX`GW`i`Yb`Ui`g[YVUi`h`k`YfXYbž`i`a`XUg
; Ya`Y]bgW`UZhg[YZ0\`ni`gh`A`f`_Yb`i`bX`XUg`Dfc`Y`h`U`g`Y]b
[Ya`Y]bgUa`Yg`5b`]Y[Yb`XYf`GhUXh[Ya`Y]bgW`UZh`ni`YhUV`]YfYb`
6]Xi`b[gY]bf]W`hi`b[Yb`_0bbhYb`VY]gd]Y`gk`Y]gY`K`cf`g`l`cdg
UbV]YhYbž`VY]`XYbYb`GW`0`Yf]bbYb`i`bX`GW`0`Yf`U`_h]j`Ub`XYf
D`Ubi`b[`i`bX`; YghU`hi`b[`XYg`DUf`_g`a`]hk`]f`_Yb`i`bX`gca`]h
dfU`_h]gW`Y`9fZU`fi`b[Yb`]a`6YfY]W`GhUXhd`Ubi`b[`i`bX`6YhY`]][i`b[
gUa`a`Y`b`"

8YhU]`g

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