

? i bghZYgh'K Y]a Uf.' K cZØf'k]f'_Äa dZYb
'9]b'_i`hi fY`Yg'9f`YVb]g'ZØf'U`Y

9fZU\ fYb'G]Y'a Y\ f'ØVYf'XUg'?i bghZYgh'K Y]a Uf'&\$&' i bX
XUg'A chhc' K cZØf'k]f'_Äa dZYb 'Y]b'6Y_Ybhb]g'ni f
8Ya c_fUh]Y'i bX'?i`hi f"

⇒'K Y]a Uf'k i fXY'XUg'?i bghZYgh'a]h'Y]bYa 'gdUbbYbXYb'bYi Yb
A chhc'YfØZbYh' K cZØf'k]f'_Äa dZYb "'Fc'Z'7"'<Ya _Yž'XYf
⇒hYbXUbh'XYg'?i bghZYghgž'VYgWfY]Vh'X]Yg'U'g'Y]bYb'_fUZh]c`Yb
5i gXfi W'_ZØf'X]Y'Bchk YbX][_Y]h'Y]bYf'_UfYb'Dcg]h]cb]Yfi b[']b
XYf'; YgY`gWUZh'A]h'5bgd]Y'i b[Yb'Ui Z'X]Y'8]g_i fgfY]\Y'j cb
Jc`_\UfX'?b][[Y'n]Y'h'XUg'A chhc'XUfUi ZUVž'VYk i ggh'<U`hi b['ZØf
X]Y'8Ya c_fUh]Y'Y]bni bY\ a Yb"'8]YgY'<U`hi b['k]fX'U'g
i bj Yfn]W hVUf'YfUW hYhž'k Ybb'a Ub'VYXYb_hž'XUgg'8Ya c_fUh]Yž
k]Y'K]bghc b'7\ i fW]`Y]ba U`ZYghghY`hYž'b]W h'X]Y'VYghY
GhUUhgZcfa ']ghž'UVYf'g]Y']gh'X]Y'VYghY'i bhYf'XYb'5'hYfbUh]j Yb"

8Ug'H\Ya U'XYg'?i bghZYghg'nY][h'g]W' b]W h'bi f']b'XYb'K cfhYbž
gcbXYfb'Ui W']b'XYb'Dfc[fUa a Yb'i bX'J YfUbgH'hi b[Ybž'X]Y'ZØf
X]Y'_ca a YbXYb'HU[Y' [Yd'Ub'h]g]bX"'8]Y'9bhgW'Y]Xi b[ž'g]W'Ui Z
X]YgY'd\`cgc d\]gW'Yb', VYf'Y[i b[Yb'ni 'ghØhYbž'gW'Y]bh'VYfY]hg
YfghY']bhYfYggUbhY'J YfV]bXi b[Yb'ni 'ZfØ\YfYb'J YfUbgH'hi b[Yb'ni
n]Y\Yb"'6Y]gd]Y'gk Y]gY'nY][h'XUg'A chhc' GY\bgi W'h'bUW' A cf[Yb
Ui g'XYa 'J cf'U\ f'5bnY]W'Yb'Y]bYf'h]YZYb'FYZYI]cb'ØVYf
_cb]h]bi]Yf']W'Y' [YgY`gWUZh]W'Y'9bhk]W'_i b[Yb"'6YgcbXYfg
Ui ZÄ`][']ghž'XUgg'Y]bYf'XYf'nYbhfU'Yb'?ØbghYf'XYg'j Yf[Ub[YbYb
'?i bghZYghg'bi b']a '@Y]hi b[ghYUa 'XYg'Fi \fhf]YbbU'Yg'UfVY]hYhi bX
Xcfh'Ui W'XUg'X]Yg'Ä\ f][Y'A chhc' @cb[]b['Zcf'Hca cffck 'dfÄ[hY"

? i`hi fY`Y'I bhYf\ U`hi b['ZØf'U`Y

9]b`k Y]hYfYg`<][\`][\hž`XUg`XUg`?i bghZYgh`ni `V]YhYb` \Uhž`]gh`X]Y
DfYa]YfY`XYg`Fi a dY`!Di a dY`!H\YUhYfg"8]YgY`J c fghY`i b[ž`X]Y
i bhYf`XYa `H]hY` 8 Ug`<chY`]a `?Ufi ggY` `Ai Zhž`Z]bXYh` \Yi hY`i a
&%"%) `I \f`Ui Z`XYa `H\YUhYfd`Uhn`ghUhh`K Ug`X]Y`5i ZØ\fi b[
VYgcbXYfg`a UW\hž`]gh`XUg`Ui ZÄ`][Y`6Ø\ bYbV]`X. `Y]b`YW\hYgž
Zi b`_h]cb]YfYbXYg`?]bXYf`_Ufi ggY`"8]YgY`?ca V]bUh]cb`Ui g`?i `hi f
i bX`I bhYf`U`hi b[`gc`nY][Ybž`XUgg`[i hYf`ϕ\U`hi bX`GdU» `g]W
b]W\h`Ui ggW`Y]» Yb"8]Y`Ni gW`Ui Yf`k YfXYb`Y]b[Y`UXYbž`Ua `9bXY
XYf`J c fghY`i b[`gc[Uf`Y]bY` : U\fh`Ui Z`XYa `?Ufi ggY`ni ` [Yb]Y» Yb"
9]b`gdUbbYbXYg`9f`YVb]g`ZØf`ž b[`i bX`5`h`

: Øf`U`Yž`X]Y`Yg`b]W\h`V]g`ni f` \Yi h][Yb`DfYa]YfY`gW\UZZYbž`[]Vh`Yg
a cf[Yb`Y]bY`nk Y]hY`5i ZØ\fi b[`]b`K Y]a Uf!GW\ÖbXcfZž`X]Y`i a `%+
I \f`VY[]bbh"8]Yg`nY][h`X]Y`i a ZUggYbXY`F]Y]W\k Y]hY`XYg
?i bghZYghg`i bX`X]Y`6YghfYVi b[Ybž`?i `hi f`ZØf`YXYb`ni [Åb[`]W`ni
a UW\Yb` `X]fY`_hj cf`XYf`<Ui ghØf`XYf`K Y]a UfYf`6Øf[Yf`

⇒a `F U\ a Yb`XYg`?i bghZYghg`k]fX`YXcW`b]W\h`bi f`I bhYf`U`hi b[
[YVchYb"Fc`Z7" <Ya _Y`i bhYfghfY]W\h`X]Y`k]W\h][Y`6chgW\UZh
\]bhYf`XYb`J YfUbgH`hi b[Yb. `ϕ`NY]hYbž`]b`XYbYb`[YgY`gW\UZh]W\Y
K YfhY` \]bhYfZfU[h`k YfXYbž`]gh`Yg`YbhgW\Y]XYbXž`g]W`a]h`XYa
D`Uhn`XYf`?i bgh]a ` [YgY`gW\UZh]W\Yb`8]g`_i fg
Ui gY]bUbXYfni gYhnYb"Ni XYa `]gh`Yg`j cb`6YXYi hi b[ž`X]Y
6Ygi W\Yf`U`_hj `]b`X]YgY`8]g`_i gg]cbYb`Y]bni VYn]Y\Ybž`k Ug`XUg
?i bghZYgh`a]h`gY]bYf`VfY]hYb`DU`YhhY`Ub`H\Ya Yb`i bX` : cfa UhYb
YfZc`[fY]W`ni `YffY]W\Yb`j Yfgi W\h`

9]b` : Ygh`XYf` ; YXUb`_Yb

8 Ug`?i bghZYgh`gc`Y]b`F Ui a `gY]bž`]b`XYa `⇒XYb`i bX` ; YXUb`_Yb
F Ui a `Z]bXYb`_ÖbbYb" <Ya _Y`gY`Vgh` \Uh`VYhcbhž`XUgg`XUg
?i bghZYgh`b]W\h`bi f`ni f`I bhYf`U`hi b[`X]Ybž`gcbXYfb`Ui W`U`g
D`UhhZcfa `ZØf`_f]h]gW\Yg`8Yb`_Yb`i bX`5i ghUi gW`Zi b[]Yfh"8Yf
U`_hi Y`Y`h\Ya Uh]gW\Y`GW\k Yfdi b`_h`Ui Z`8Ya c`_fUh]Y`i bX
[YgY`gW\UZh]W\Yb`K YfhYb`gh`hnh`g]W`Ui Z`X]Y`k]YXYf`_Y\YbXY
Gi W\Y`bUW`Y]bYa `ghUV]`Yb` : i bXUa Ybh`]b`Y]bYf`g]W`k UbXY`bXYb
K Y`h`

8Ua]h[Y\h'XUg?i bghZYgh'K Y]a Uf'ØVYf'X]Y'; fYbnYb'XYf?i 'hi f
 \]bUi g'i bX'ZcfXYfh'X]Y'HY]'bY\ a YbXYb'Ui Z'g]W\ 'U_h]j 'a]h'XYb
 ð\U'hYb'Ui gY]bUbXYfni gYhnYb''9g']gh'Y]b'5ddY''ž'X]Y'Y][YbY
 A Y]bi b['ni 'Z]bXYb'i bX'X]YgY'Ui W\ 'ni 'Äi » Yfbž'c\ bY'XUVY]'XUg
 K YgYb'h]W\ Y'Ui g'XYb'5i [Yb'ni 'j Yf']YfYb' 'i bX'XUg']gh'X]Y
 6YXYi hi b['XYf'8Ya c_fUh]Y"

ð'5bVYhfUW\ h'X]YgYf', VYf'Y[i b[Yb']gh'Yg' _'Ufž'XUgg'XUg
 ?i bghZYgh'b]W\ h'bi f'Y]b': Ygh'XYf'? ØbghY']ghž'gcbXYfb'Ui W\ 'Y]bY
 VYXYi hYbXY'D'UhhZcfa 'ZØf'[YgY''gW\ UZh]W\ Y'8]g_i gg]cbYb''9g']gh
 Y]bY'9]b'UXi b['Ub'U''Yž'hY]'ni \UVYbž'ni ni \ØfYb'i bX']\fY
 DYfgdY_h]j Yb'Y]bni Vf]b[Ybž'k Ä\ fYbX'g]Y'ni ['Y]W\ 'i bhYf\U'hYb
 k YfXYb"

9]b'k Yfhj c''Yg'9fY][b]g'ZØf'K Y]a Uf'i bX XUfØVYf'\]bUi g

8Ug?i bghZYgh'K Y]a Uf''YZYfh'gca]h'b]W\ h'bi f'_i 'hi fY''Y
 <Ø\Ydi b_hYž'gcbXYfb'Ui W\ 'VYXYi hYbXY'8Yb_UbghØ» Yž'X]Y'k Y]h
 ØVYf'X]Y'j YfUbghU'hi b['gY'Vgh'\]bUi g'k]f_Yb'_ØbbYb''9g'gW\ UZh
 ; Y'Y[Yb\Y]hYb'ZØf'FYZYI]cb'i bX'5bfY[i b[Ybž'X]Y']b'X]Y
 ; YgY''gW\ UZh[YhfU[Yb'k YfXYb''8]Yg'j Yfk UbXY'h'K Y]a Uf']b'Y]bYb
 Cfh'XYg']bhYfU_h]j Yb'5i ghUi gW\gž'k c'X]Y'6Øf[Yf'Y]b[Y'UXYb'g]bXž
 g]W\ 'ni 'Yb[U[]YfYb'i bX']\fY'Gh]a a Yb'ni 'Yf\YVYb' '[Ubn]a
 G]bbY'XYg'U_hi Y''Yb'A chhcg.' K cZØf'k]f'_Äa dZYb "

K Y]a Uf''F c'Z7''<Ya _Y'ØVYf'X]Y'<][\'] [\hg'ni '6Y[]bb

8Ug?i bghZYgh']gh'YfØZbYh' l bgYf'X]Yg'Ä\ f][Yg'A chhc' K cZØf'k]f
 _Äa dZYb' \UVYb'k]f'j cb'XYf' ['Y]W\ bUa] [Yb'8]g_i fgfY]\Y'j cb
 Jc'_\UfX'?b][[Y'ØVYfbca a Yb' 'ni 'gW\ 'U[_fÄZh][ž'ni 'dc]bh]Yfh
 YfgW\]Yb'i bg'X]Y'H]hY'k U\ ''i bgYfYg'j YfY\fhYb'DfcZYggc'fgž'U'g'XUgg
 k]f'XUfUb'j cfVY][Y_cbbh'\ÄhhYb''8Ybb [YbUi 'XUfi a' [Y\h'Yg']b
 X]YgYa 'Dfc[fUa a' 'i a'Y]bYb'_'UfYb'GhUbXdi b_hž'i a' <U'hi b[
 ZØf'i bgYfY' [fi bX[YgYhn']W\ 'j YfUb_YfhY'8Ya c_fUh]Y''K c\
 k]ggYbXž'XUgg'X]Y'8Ya c_fUh]Y'a]h'XYb'K cfhYb'j cb'K]bghcb
 7\i fW\]'' X]Y'gW\ 'YW\ hYghY'U''Yf'GhUUhgZcfa Yb'f]ghž
 Ui g[Ybca a Yb'U''Yff'U'UbXYfYb' ''

8 Yf`B Yk g`YhhYf`ZØf`K Y]a Uf

5`Y`k]W h][Yb`ϕZcfa Uh]cbYb`Ui g`XYf`?`Ugg]_YfghUXh`K Y]a Ufž
Y[U`cV`Dc`h]_ž`K]fhgW UZhž`Gdcfhž?i`hi f`cXYf`[YgY`gW UZh]W Yg
@VYyb"

A]h`a Y]bYf`5ba Y`Xi b[`ni a`B Yk g`YhhYf`gh]a a Y`]W`XYf
K YfVYj YfY]bVUfi b[`ni "

„ Vf][Ybg`gW Y]bh`X]Y`A chhc`k U\`XYf`j Yf[Ub[YbYb`ϕ\`fY`b]W h`X]Y
gW`YW`hYghY`[Yk YgYb`ni`gY]b"i`bgYfY`&\$&&Yf!A chhc` GY\bgi W`h
bUW`A cf[Yb`gd]Y[Y`hg]W`XcW`i bj Yfa`i hYh`a`X]Yg`Å\`f][Yb
Fi`f`hf]YbbU`Yb!A chhc` @cb[]b[`Zcf`Hca`cffck`k`]XYf"
ϕgVYgcbXYfY`k Ybb`a Ub`VYXYb`hž`XUgg`Y]bYf`i`bgYfYf`nYbhfU`Yb
?i`bghZYgh!`ØbghYf`j`cb`j`cf`nk`Y]`ϕ\`fYb`Y`mh]a`@Y]hi b[ghYUa`Ub
XYf`Fi`f`k`]f`h`K`]f`ZØ\`Yb`i`bg`[`YY`fh"

Ni a`6Ø\bYbV]`X`XYg`Fi`a`dY`!Di`a`dY`!H\YUhYfg`[`Y\`Øfh`Y]b
Ž`b_h]cb]YfYbXYg?`]bXYf_Ufi`ggY`f`Gma`Vc`V]`XŁ"i`X`dU`p
GYVUgh]Ub`GhYbnY`

A]hZU\`fYb`]a`<`c`hY`]a`?`Ufi`ggY`

8 Yb`6Yk Y]gž`XUgg`_i`hi`fY`Yg`9b[U[Ya`Ybh`i`bX`Xi`fW`Ui`g`_bU`][`Y
l`bhYf\`U`hgUa`_Y]h`_Y]b`K`]XYfgdfi`W`g]bXž`hf]hh`XUg`?i`bghZYgh
ØVf][Ybg`\`Yi`hY`a`]h`XYa`Fi`a`dY`!Di`a`dY`!H\YUhYf`Ubž`UV`&%`%)
l`f`Ui`ZXYa`H\YUhYfd`Um`_cghYb`cg`i`bX`XfUi`»`Yb`"8]Y`DfYa`]YfY
i`bgYfYg`a`cV]`Yb`Dfc`Y`_hg`8Ug`<`chY`]a`?`Ufi`ggY``\`Uh`U`g
nYbhfU`Yg`6Ø\bYbV]`X`Y]b`j`Yf]hUV`Ygž`Ž`b_h]cb]YfYbXYg
?`]bXYf_Ufi`ggY`i`bX`X]Y`Hfi`ddY`Å`Xh`Ua`9bXY`XYf`J`cfghY`i`b[`ni`f
:`U\`fh`Y]b`A`cf[`Ybž`fY]hU[`i`a`%+`l`f`Zc`[`h`X]Y`nk`Y]hY`5i`ZØ\`fi`b[
gW`cb`]b`K`Y]a`Uf!GW`ØbXcfZž`Ub`XYf`A`U!`FY]W`d]YhgW`ghf`"(

F`c`Z`7" <`Ya`_Y]gh`ϕ`hYbXUbh`XYg`?i`bghZYgh`K`Y]a`Uf

?`i`hi`fY`Y`J`YfUbghU`hi`b[`Yb`U`g`HY]`XYf
;`Ya`Y]bgW`UZh

?Øbgh`Yf]gWXY`J YfUbgH`hi b[Yb`k]Y`XUg`?i bghZYgh`gd]Y`Yb`Y]bY
YbhgWXY]XYbXY`F c``Y`]b`XYf`9bhk]W`i b[`i bX`GhÅf`_i b[`XYg
; Ya`Y]bgWUZh[YZØ`g" `b`K`Y]a`Uf`\Uh`?i bgh`hfUX]h]cbY``Y]bYb
\c\Yb`GhY``Ybk`Yfhž`b]W`h`ni`Y`h`h`Ui`Z[fi bX`]\fYf`fY]WXYb
; YgW]W`hY`]b`XYf`@]hYfUhi`f`i bX`D\`]cgc d\]Y" `8]Y`GhUXh`k`Uf`Y]b
NYbhfi`a`ZØf`X]Y`?`Ugg]`_i bX`\Uh`VYXYi`hYbXY`DYfgØb`]W`_Y]hYb
k`]Y`; cYh\Y`i bX`GW]`Yf`\Yfj`cf[YVfUW`h" `8]YgY`HfUX]h]cb`k`]fX`V]g
\Yi`hY`Xi`fW`_i`hi`fY``Y`J YfUbgH`hi b[Yb`k]Y`XUg`?i bghZYgh
Ui`ZfYW`hYf\U`hYb`i bX`[YZØfXYfh"

8i`fW`X]Y`HY]`bU\`a`Y`Ub`gc`WXYb`:`Ygh]j`U`g`\UVYb`X]Y`6Øf[Yf`X]Y
A`Ø[`]W`_Y]hž`a`]hY]bUbXYf`]b`?`cbhU`_h`ni`hfYhYbž`\fY``c`_U`Y`?i`hi`f
ni`ZY]Yfb`i bX`Gc`]XUf]hÅh`]b`XYf`; Ya`Y]bgWUZh`ni`ZØfXYfb"
Dfc[fUa`a`Yž`X]Y`ni`f`HY]`\UVY`Ub`fY[Ybž`ghÅ`_Yb`b]W`h`bi`f`XUg
gc`n]U`Y`; YZØ[Yž`gcbXYfb`Ui`W`XUg`6Yk`i`gghgY]b`ZØf`k`]W`h][`Y
[YgY`gWUZh]WXY`H\Ya`Yb"

8]Y`F`c``Y`XYf`?`i`hi`f`]b`XYf`8Ya`c`_fUh]Y

8]Y`6YXYi`hi`b[`j`cb`?i`bgh`i`bX`?i`hi`f`ZØf`Y]bY`Z`b`_h]cb]YfYbXY
8Ya`c`_fUh]Y`_Ubb`b]W`h`[`Ybi`[`VYhcb`h`k`YfXYb" `?i`hi`f`gWUZh
F`Ui`a`ZØf`_f]h]gWXY`FYZYI`]cb`i`bX`8]g`_i`gg]cb" `b`NY]hYb
[YgY`gWUZh]WXYf`I`a`VfØWXY`gY]Yg`dc`]h]gWXYfž`k`]fhgWUZh]WXYf
cXYf`gc`n]U`Yf`B`Uhi`f`_`Øb`Yb`_i`hi`fY``Y`J YfUbgH`hi b[Yb`U`g
D`Uhž`c`fa`X]YbYbž`i`a`A`Y]bi`b[Yb`Ui`gni`h`Ui`gWXYb`i`bX
XYa`c`_fUh]gWXY`K`YfhY`ni`ghÅf`_Yb" `8`Ug`?i`bghZYgh`i`bX`À`b`]WXY
J YfUbgH`hi b[Yb`Yb`hgd`fYWXYb`[Yb`Ui`X]YgYa`6YXØfZb]gž`]bXYa
g]Y`b]W`h`bi`f`I`bhYf\U`hi`b[ž`gcbXYfb`Ui`W`h]YZYfY`8]g`_i`gg]cbYb`ni
U`_hi`Y``Yb`H\Ya`Yb`Ub`gfc»`Yb"

5`_hi`Y``Y`GhUh]gh]`_Yb`ni`f`_i`hi`fY``Yb`HY]`\UVY

5`_hi`Y``Y`8`UhYb`nY][Ybž`XUgg`X]Y`_i`hi`fY``Y`HY]`\UVY`]b
8Yi`hgW`UbX`k`Y]hYf\]b`ghUf`_`[YZfU[h]gh" `@Ui`h`Y]bYf`Ghi`X]Y`XYg`
**6i`bXYgnYbhfU`Y`ZØf`dc`]h]gWXY`6]Xi`b[`Ui`g`XYa` `U\`f`&`\$`&&
\UVYb`Y`hk`U`+`\$i`XYf`8Yi`hgWXYb`Ub[Y[YVYbž`Ub`_i`hi`fY``Yb
J YfUbgH`hi b[Yb`]bhYfYgg]Yfh`ni`gY]b" `Ni`XYb`\Åi`Z[ghYb
5`_hj]`hÅhYb`[Y\ØfYb`6Ygi`WXY`j`cb`H\YUhYfUi`ZZØ`fi`b[Ybž**

?c b n Y f h Y b ' i b X ' 5 i g g h Y ' ' i b [Y b " ' 8] Y g ' i b h Y f g h f Y] W \ h ' X U g ' U b \ U ' h Y b X Y
h Y f Y g g Y ' X Y f ' 6 Y j Ò _ Y f i b [' U b ' _ i ' h i f Y ' ' Y b ' 5 b [Y V c h Y b ' i b X ' X Y f Y b
F Y ' Y j U b n ' Z Ø f ' X U g ' g c n] U ' Y ' i b X ' d c '] h] g W \ Y ' @ Y V Y b "

9] b Y ' k Y] h Y f Y ' i a Z f U [Y ' j c b ' G h U h] g h U ' U i g ' X Y a ' [' Y] W \ Y b ' ð \ f ' n Y] [h ž
X U g g ' f i b X ' *) i ' X Y f ' 6 Y Z f U [h Y b ' X] Y ' A Y] b i b [' j Y f h f Y h Y b ž X U g g ' ? i b g h
i b X ' ? i ' h i f ' Y] b Y b ' k] W \ h] [Y b ' 6 Y] h f U [' n i f ' : Ò f X Y f i b [' X Y g
[Y g Y ' ' g W \ U Z h '] W \ Y b ' N i g U a a Y b \ U ' h g ' ' Y] g h Y b " ' 5 b [Y g] W \ h g ' X] Y g Y f
N U \ Y b ' k] f X ' X Y i h] W \ ž X U g g ' J Y f U b g h U ' h i b [Y b ' k] Y ' X U g ' ? i b g h Z Y g h
Y] b Y ' V Y X Y i h Y b X Y ' F c ' ' Y ' V Y] ' X Y f ' : Ò f X Y f i b [' X Y f ' X Y a c _ f U h] g W \ Y b
K Y f h Y ' i b X ' X Y f ' ; Y a Y] b g W \ U Z h g V] ' X i b ['] b ' K Y] a U f ' i b X ' X U f Ø V Y f
\] b U i g ' g d] Y ' Y b "

F c ' Z ' 7 " ' < Y a _ Y '] g h i # h Y b X U b h ' X Y g ' ? i b g h Z Y g h g ' K Y] a U f "

8 Y h U] ' g

6 Y g i W \ Y b ' G] Y ' i b g ' U i Z . ' b ! U [" X Y