

* `]b hYfY ggUb hY `: U_hYb `ØVYf `X]Y
C ghYf]bgY`

K]f'i bhYfgi W\Yb`X]Y`; YgW\W\hY`XYf`ϕgY`i bX`Yf_`ÀfYb`
Y]b][Y`XYf`]bhYfYggUbhYghYb`: U_hYb`ni f`C ghYf]bgY`"8]YgY
UV[Y`Y[YbY`dUn]Z]gW\Y`ϕgY`]gh`b]W\h`bi f`k i bXYfgW\Òbž
gcbXYfb`Ui W\`j c`Yf`; Y\Y]a b]ggY`8 Ug`K]W\h][ghY`ni Yfghž
X]Y`C ghYf]bgY`]gh`k Y]h`GY`fž`gY`f`k Y]h`
U`h1 / Ua`d/ , &&\$/? UfhY`XYf`C ghYf]bgY` / Ua`d/ , &&\$// [h/
HUhgÀW\`]W\`]gh`Yg`Y]bY`XYf`UV[Y`Y[YbghYb`; Ya`Y]bXYb`XYf`
K`Y`h`GY]b`b`ÀW\ghYf`VYk`c`b`hYf`B`UW\`VUf`]gh`D]hWU]fbž`&`\$\$\$
_a`f%`&\$\$\$`A`Y]`Yb`É]a`K`YghYbž`k`À`fYbX`XUg`b`ÀW\ghY`
_cbh]bYbhU`Y`@UbX`]b`7\]Y`]b`Y]bYf`9bhZYfbi`b[`j`cb``"+\$\$\$
_a`f&""`\$\$\$`A`Y]`Yb`É]Y[`h`?i`fn`[`YgU[`hž`Yg`]gh`_Y]b`_i`fnYf`
Gdfi`b[``8]Y`: fU[`Yž`X]Y`a`Ub`g]W\`ghY`Yb`a`i`ggž`Ui`hYh`U`gc.
G]bX`X]Y`GhUhi`Yb`XYf`C`ghYf]bgY`X]Y`A`Ø`Y`k`Yfh3
/ Ua`d^Y``d/

K]f'i bhYfgi W\Yb`X]Y`; YgW\W\hY`XYf`ϕgY`i bX`Yf_`ÀfYb`Y]b][Y`XYf`
]bhYfYggUbhYghYb`: U_hYb`ni f`C ghYf]bgY`"8]YgY`UV[Y`Y[YbY`
dUn]Z]gW\Y`ϕgY`]gh`b]W\h`bi f`k i bXYfgW\Òbž`gcbXYfb`Ui W\`j c`Yf`
; Y\Y]a b]ggY`

8 Ug`K]W\h][ghY`ni Yfghž`X]Y`C ghYf]bgY`]gh`k Y]h`GY`fž`gY`f`k Y]h`

`U`h1 `? UfhY`XYf`C ghYf]bgY` 2

HUhgÀW\`]W\`]gh`Yg`Y]bY`XYf`UV[Y`Y[YbghYb`; Ya`Y]bXYb`XYf`K`Y`h`
GY]b`b`ÀW\ghYf`VYk`c`b`hYf`B`UW\`VUf`]gh`D]hWU]fbž`&`\$\$\$`_a`f%`&\$\$\$
A`Y]`Yb`É]a`K`YghYbž`k`À`fYbX`XUg`b`ÀW\ghY`_cbh]bYbhU`Y`@UbX`]b`
7\]Y`]b`Y]bYf`9bhZYfbi`b[`j`cb``"+\$\$\$`_a`f&""`\$\$\$`A`Y]`Yb`É]Y[`h`?i`fn`
[`YgU[`hž`Yg`]gh`_Y]b`_i`fnYf`Gdfi`b[``

8]Y`: fU[`Yž`X]Y`a`Ub`g]W\`ghY`Yb`a`i`ggž`Ui`hYh`U`gc.`G]bX`X]Y`

GhUhi Yb`XYf`C ghYf]bgY`X]Y`A Ø\Y`k Yfh3`G]bX`X]YgY`[fc» Yb
: Y`gVfcW_Yb`X]Y`?cghYb`Y]bYf`Ub[Yb`FY]gY`k Yfh3

B UWX Ya`k]f`ZØbZ`HU[Y`Ui Z`XYf`U hYa` VYfUi VYbX`gW`ØbYb`ϕgY`
j YfVfUW`h`UVYbž`_ØbbYb`k]f`a`]hY]bYa` _`UfYb`ϕ`U`b`hk`cfhYb`"

8]Y`GhUhi Yb`XYf`C ghYf]bgY`g]bX`b]W`h`bi`f`[fc» Ufh][`Ubni`gY`Ybž
]\fY`ZUgn]b]YfYbXY` ; YgW`]W`h`Y`a` UW`h`g]Y`Ui`W`ni`Y]bYa`XYf`
V`Y]VYbXYb`FY]gY[Y`Y]a`b]ggY`XYf`A`YbgW`Y]h`<]Yf`g]bX`gYW`g
]bhYfYggUbhY` : U`hYb`ØVYf`X]Y`C ghYf]bgY`"

%`B]Ya` UbX`k`Y]» ž`k`]Y`X]Y`GhUhi Yb`VYk`Y[h
k`i`fXYb`

J`cb`U`Yb`]bhYfYggUbhYb` : U`hYb`ØVYf`X]Y`C ghYf]bgY`[]`h`XYf`
HfUbgdcf`h`XYf`GhUhi Yb`XYf`ϕgY`fl`a`cU]`É`U`g`VYa`Yf`_Ybgk`Yfhž`XU
g]Y`c`b`Y`XYb`9]bgUhn`j`cb`F`ÀXYfbž`?`f`ÀbYb`c`XYf`[fc» Yb`H]YfYb`%
_a`f`%`A`Y]Yb`É`ØVYf`X]Y`ϕgY`VYk`Y[h`k`i`fXYb`"

K]ggYbgW`UZh`Yf`\UVYb`a`Y`fYfY`H`Y`cf]Yb`[YhYghYhž`X]Y`Ua
\`Ai`Z][`ghYb`ni`XYa`GW`i`gg`_Ua`Ybž`XUgg`X]Y`ϕgY`VYk`c`b`Yf`Y]bY
?ca`V]bUh]cb`Ui`g`<c`nfc`Ybž`GY]Yb`i`bX`<c`ngW`]hYb
j`Yfk`YbXYhYb`"

⇒a`ϕ`Y`f`&`\$`%`UfVY]hYhYb`HYffm`<i`bhj`cb`XYf`l`b]j`Yfg]hmic`Z`<Uk`U]]
i`bX`7Uf`@]dc`j`cb`XYf`7U]Zcfb]U`GhUhY`l`b]j`Yfg]hmi`@cb[`6YUW`
YXcW`a`]h`B`Uh]cb`U` ; Yc[fUd`\]Wni`gUa`a`Ybž`i`a`ni`VYk`Y]gYbž
XUgg`bi`f`%`DYfgcbYb`Y]bY`a`f`%`\$` : i`»`É`Ub[Y`A`cU]!`FYd`]`_`a`]h
Y]bYa` ; Yk`]W`h`j`cb`)`H`cbbYb`a`]h`bi`f`k`Yb][Yb`\i`bXYfh`A`YhYfb
VYk`Y[Yb`_`cbbhYb`XfY]`ghUf`_Y`GY]Y`i`bX`Yhk`Ug` , Vi`b[`"

9g]ghi`b`_`Ufž`cV`X]YgY`A`Yh`c`XY`VY]`DUfc`Zi`b`_h]cb]Yfh`\`À`hhYž`XYa
\`ØW`ghYb`A`cU]ž`XYf`a`]h`Y]bYf`<`Ø`Y`j`cb`ZUgh`%`\$`a`f`l`'` : i`»`É`i`bX
Y]bYa` ; Yk`]W`h`j`cb` , &`H`cbbYb`Yff]W`h`Y`h`k`i`fXYž`c`XYf`hUhg`ÀW`]W`
XYf`gW`k`YfghY`A`cU]ž`XYf`gUhhY` , *`H`cbbYb`k`]Y[`h`"

&"`8]Y `f]Yg][Yb `? Òd ZY ` \ UVYb `f[fÒ» YfYŁ
? ÒfdYf

5fWÀc`c[Yb`k]ggYb`gY]h`XYb`ZfØ\YghYb`5i g[fUVi b[Yb`]a `>\f
%- %(ž`XUgg`X]Y`GhUhi Yb`Ui Z`XYf`C ghYf]bgY`? ÒfdYf`\ UVYb" `8]Y
² ZZYbh]W`_Y]h`VYnY]W`bYhY`g]Y`YXcW`k Y]h\]b`U`g
C ghYf]bgY`_ÒdZY `ž`k Y]`X]Y`Ua ` \Ài Z[ghYb`Zc hc [fUZ]YfhYb`A cU]
X]Y`Yb][Yb`k UfYbž`X]Y`V]g`ni `]\fYb`GW`i `hYfb`Y]b[Y[fUVYb`k UfYb"

`U`h1 `]bhYfYggUbhY` : U`_hYb`ni f`C ghYf]bgY`! : U`_h1 & 2

⇒ `>\f`&\$%&`VY[UbbYb` : chc`g`Y]bYf`5i g[fUVi b[ž`X]Y`j ca `9UghYf
⇒`UbX`GhUhi Y`Dfc`YWh`[Y`Y]hYh`k i fXYž`ni gUa a Yb`a]h`Y]bYa ` : chc
Ui g`XYb`%-) \$Yf`>\fYb`ni `n]f`_i `]YfYbž`XUg`nY][hž`k]Y`[fc» `X]Y
GhUhi Yb`hUhg`ÀW`_]W`_g]bX" `8 Yf`5bV`_]W`_k Uf`gc`VYY]bXfi W`_YbXž
XUgg`a Y`fYfY`bUh]cbU`Y`Di V`_Uh]cbYb`Y]bY` ; YgW`_W`hY`XUfØVYf
VfUW`hYb"

GY`Yb`G]Y`g]W`_U`Y` : chc[fUZ]Yb`j cb`XYf`5i g[fUVi b[`Ui Z`XYf
K`YVg]hY`XYg`9UghYf`⇒`UbX`GhUhi Y`Dfc`YWh`Ub"

' ``9]b`Z]bb]gW`Yf`Hci f]gh`\ Uh`Y]ba U`Y]b`A cU]!
C \ f`[Yghc \ `Yb

⇒ `>\f`&\$\$, `k i fXY`Y]b`Z]bb]gW`Yf`Hci f]gh`Ua `GhfUbX`j cb
5bU`_YbU`[YZ] bXYbž`XYf`Y]bYa `A cU]Y]b`C \ f`UV`UW`_hY" `9]b
⇒bgY`VYk c`bYf`gU`ž`k]Y`A Uf`_c`?i`^ ž`&*`ž`a]h`Y]bYa `GhØW`_XYf
GhUhi Y`]b`XYf`< UbX`j ca `HUhc`fh`Zc \ "G]Y`a Y`XYhY`XYb`J c fZU`XYf
Dc`nY]ž`X]Y`?i`^ `Ub`UbX`XYf`H`Àhck]Yfi b[Yb`Ui Z`gY]bYa `? ÒfdYf
]XYbh]Z]n]YfhY"

8Yf` :]bbY`k i fXY`i bhYf`<Ui gUffYgh`[YghY`h`i bX`a]h`Y]bYf
; Y`XghfUZ]`j cb`ZUgh`%+"\$\$\$`I G!8c`Uf`VY`Y[h`i`Y]bY`Y]W`_hY`GhfUZ]ž
XU`]\a `V]g`ni `g]VYb`>\fY` ; YZ`Àb[b]g`Xfc`hYb" `?i`^
YbhgW`i`X][hY`g]W`_i fn`bUW`_gY]bYf` : YghbU`a Y`ÒZZYbh]W`_]b
Y]bYf`W`]Yb]gW`Yb`NY]hi b["

5`g': c`[Y`XYg`J cfZU`g`k]fX`XYf`Ni [Ub[`ZØf`Hci f]ghYb`ghfYb[Yf
_cbhfc`Yfhž`k cVY]`Y]b`GhY]bVfi W`k Y]h`YbhZYfbh`j cb`XYf
<Ui dhUhfU_h]cb`UV[YgdYffh`k]fX"

J]Y`Yb`8Ub`_A Uf_c`

("`8]Y`GhUhi Yb`_ÖbbhYb`Y]b` ; Y[Yba]hhY`
[Y[Yb`@YdfU`[Yk YgYb`gY]b

8f"5bbY`YgY`Dcbh]i gž`Ui » YfcfXYbh]W`Y`_]b]gW`Y`DfcZYggcf]b`ZØf
DgmW`Uhf]Y`Ub`XYf`<Ufj UfX`A YX]W`G`W`cc`ž`U`h`X]Y`H`Y`cf]Y`ž`X`Ugg
`gY`VYk c`b`Yf`X]Y`GhUhi Yb`[YgW`UZYb`UVYbž`i a`XYb
5i gk]f_i b[Yb`XYf`@YdfU`Ybh[Y[Ybni k]f_Yb"

ÀfYf`<mdch`YgY`ni Zc`[Y`_ÖbbhY`XYf`G`W`c`W`ž`A]ggV]`Xi b[Yb`Ub
XYb`ZØf`X]Y`gcn]U`Y``hYfU_h]cb`k]W`h][ghYb`A Yf_a U`Yb`fi Yg]W`hž
<UbXž:]b[Yfž`5fa Y`ni`g`Y`Ybž`X]Y``gY`VYk c`b`Yf`X`Uni
j YfUb`Uggh`UVYbž`XYb`G`W`UXYb`f]hi Y` fØW_[Àb][]ni`a U`W`Yb`ž
]bXYa`g]Y`A`cU]a]h`ØVYf_cff][]YfhYb`A Yf_a U`Yb`YfgW`i ZYb"

8]YgY`6Ya Ø`i b[Ybž`@YdfU`i a ni _Y`fYbž`k UfYb`a Ø[`]W`Yfk Y]gY
ghUhi`XYf`J YfV`Ubbi b[`XYf`6Yhfc`ZYbYb`Ui Z`UbXYfY``gY`bž`k]Y`g]Y
Yg`UbXYfgk c`fh`"6" <Uk U]]ž`A`c`c`_U]`k`UfYb"

8]Y`Gma`dhca Y`j`cb`@YdfU`]a`J Yf[`Y]W`ni`i`fYb`ØVYf_cff][]YfhYb
A`cU]!`Y`ei]j U`Yb`hYb`g]bX`i`bhYb`Ui Z[YZØ`f`hž`k]Y`]b`8f" `Dcbh]i`g
5fh]_Y`9UghYf`g`UbX`g`G`h`c`b`Y` ;]Ubhg`5`B`Y`i`fc`!`DgmW`Uhf]WJ]Yk
VYgW`f]YVYb"

- 8Yf`NYfgh`Øfi b[`XYg`B`UgYb`_bcfdY`g`Xi fW`X]Y`@YdfU`k]fX
Xi fW`Ui g[Ydf`À[hY`B`UgYb`i`bX`gh]`]g]YfhY`B`UgYb`ØW`Yf
Ybh[Y[Yb[Yk]f_h"
- 5Vk`ÀfhgghY`i b[`XYg`A`i`bXYg`a]h`Àb[YbXYf`i`bhYf`]ddY
i`bX`Yb`hV`Ø`hYb`N`À`bYb`fUi Z[fi`bX`Y]bYf
; Yg]W`hgbyfj Yb`À`a`i`b[`k]a`J Yf[`Y]W`ni`A`cU]`g
5i`Zk`ÀfhgghY`i b[`XYf`@]ddYb`"Y]bY`N`À`bY`g]W`hVUf"
- @]ddYb`Y]b[Ync[Yb`i`bX`[YgW`k`c`Yb`j`g"bUW`cVYb
[Ygd]hnh`i`bX`X`Øbb"

- ?`Ui Yb\UbX`j g"[YghfYW_hY':]b[Yf`b'[YfUXYf': cfa "'8]Y`
`Àb[`]WXYb':]b[Yf``Y[Yb`]b`Y]bYf`\cf]ncbhU`Yb`@]b]Y`ØVYf`
XYa`6Ui W`"
- GhØfi b[Yb`j cb':]b[Yfb`i bX`BÀ[Y`b`]a`J Yf[`]W`ni`A cU]g`
[i h`UV[Y[fYbnhYb':]b[Yfgd]hnYb`i bX`BÀ[Y`b`"

) "'9g`[]Vh`Y]b`\`Àgg`]W`Yg`9bh`Y]b`ž`XUg`
b]Ya`UbX`Yf`_`ÀfYb`_`Ubb`

`U`h1` ?]U!C ghYfb!&!\$) 2`

8]Yg`]gh`j]Y``Y]W`h`X]Y`a`Yf`_k`ØfX][ghY`U``Yf`]bhYfYggUbhYb': U_hYb`
ØVYf`X]Y`C ghYf]bgY``5``Y`GhUhi`Yb`Ui`Z`XYf`C`ghYf]bgY``\`UVYb`
W`UfU_hYf]gh]gW`Y``Àb[`]W`Y`A`Yf`_a`U`Y`i`bX`Zc`[Yb`Y]bYf`
VYgh]a`a`hYb`ÿgh\Yh]_``Hi`_i`hi`f]`k`]f`_h`YXcW`k`Y]hUi`g`
a`YbgW`]W`Yf``9f`]gh`j]Y``_`Y]bYf`U`g`X]Y`UbXYfYb`A`cU]i`bX`gW`Y]bh`
a`h`XYb`<`ÀbXYb`Ui`Z`XYb`6Y]bYb`]b`Y]bYf`_b]YbXYb`Dcg]h]cb`ni`
gY]b`"

Hi`_i`hi`f]g`?cdZ]gh`fi`bX`i`bX`a`YbgW`]W`Yf`i`bX`gW`Y]bh`Y]bYb`
_`Y]bYb`6Ufh`ni`\`UVYb``K`À\fybX`X]Y`UbXYfYb`A`cU]Ub`XYf`
UhYa`VYfUi`VYbXYb`GhÀhhY`j`cb`F`Ubc`F`UfU`_i`[`YgW`b]hnh`k`i`fXYbž`
k`i`fXY`Hi`_i`hi`f]`Ui`g`Y]bYa`UbXYfYb`A`UhYf]U`fX`Ya`f`Øh]W`Yb`GhY]b`
j`cb`Di`bU`Di`UĚ`\Yf[`YghY`h`i`bX`XUbb`bUW`F`Ubc`F`UfU`_i`[`YVfUW`h`
B]Ya`UbX`k`Y]»`ž`k`Ufi`a`Yg`gc`UbXYfg`]gh`"

* "'8]Y`GhUhi`Yb`k`i`fXYb`j`cb`k`ØhYbXYb`
=bgY`VYk`c`bYfb`[`YghØfnh`

B]Ya`UbX`VY\Ui`dhYhž`XUgg`X]Y`C`ghYf]bgY``ni`Y]bYa`VYgh]a`a`hYb`
NY]hdi`b`_h]b`]fYf`;`YgW`]W`h`Y]bY`j`Yf\YYfYbXY`5V\c`ni`b[`
Xi`fW`[`Ya`UW`h`\`Uh``8]Y`j`cf\YffgW`YbXY`H\Ycf]Y`k`Uf``Ub[`Y`NY]hž`
XUgg`X]Y`=bgY`VYk`c`bYf`6Ài`a`Y`ZÀ`hYb`fcXYf`j`YfVfUbbhYbĚ`i`a`
@UbX`ni`fcXYb`i`bX`?`Ubi`g`ni`gW`b]hnYbž`i`a`X]Y`k`UW`gYbXY`
6Yj`Ø`_Yfi`b[`ni`j`Yfgcf[`Yb`i`bX`a`Ò[`]W`Yfk`Y]gY`X]Y`A`cU]ni`
hfUbgdcfh]YfYb`"

B Yi YfY`H\Ycf]Yb`XYi hYb`XUfUi Z`]bž`XUgg`X]Y` [fc» Z`ÀW`][Y
9bhk U`Xi b [`XUg`K Yf_`dc`mbYg]gW`Yf`F UhYb`k Ufž`X]Y`a]h`XYb
YfghYb`?Ubi g` \YfØVYf_Ua Yb`"5bh`fcdc`c [Yb`g]bX`g]W`Y]b][ž`XUgg
Yg`]f[YbXk Ubb`]a` "%+`" `š\`f\i bXYfh`ni`Y]bYf`F YVY``]cb`cXYf`Y]bYa
5i ZghUbX`XYf` ðgY`VYk c` \bYf`_Ua` "

A ØXY`j cb`gW`k]bXYbXYb`F Yggci fW`bž`VY [UbbYb`7`Ubg
Ui ZY]bUbXYf`ni` dfU``Yb`i bX`f]ggYb`g]W` [Y [YbgY]h][`X]Y`A`cU]g
b]YXYf`"9g`k]fX`VYf]W`hYhž`XUgg`Yg`V]g`%` *` ,` `_Y]bY`Ui ZfYW`hYb
GhUhi Yb`Ui ZXYf` ðgY`` [UVž`UV [YgY`Yb`j cb`XYb`hY]`k Y]gY
VY [fUVYbYb`Ub`XYb`Ài » YfYb`<`Àb [Yb`j cb`F Ubc`F UfU`_i` "J]Y`Y
k i fXYb`bUhØf`]W`]bnk]gW`Yb`k]YXYf`Ui Z [YVUi`h"

@cbY`miD`UbYh`7` \]Y` /` `C ghYf]bgY``Ybh`À`h`Y]bYb`i` a` ZUggYbXYb
F Y]gY`ZØ`fYf`ZØf`X]Y`C ghYf]bgY`ž`]XYU``ZØf`X]Y`Yb][Ybž`X]Y`gck`c`\`
X]Y`k]W`h][ghYb`GY`Yb`gk ØfX][`_Y]hYb`Yf`_i` bXYb`U`g`Ui W`X]Y
k Yb][Yf`VY`ZU`fYbY`GhfU» Y`bY`a` Yb`a` ØW`hYb`"

@Y]hV]`X.`5h`Ug`/`6c`chg

8YhU]`g

6Ygi W`X`Yb`G]Y`i`bg`Ui`Z.`Y]bY!fY]gY`"XY