

6`]b_Yb`Ui Z`8]d`ca Uh]Ya]gg]cb. `< cZZbi b[
Ui Z`K UZZYbfi \Y`]a `; UnU_cbZ`_h

I G!5i »Yba]b]ghYf`6`]b_Yb`gYhnh`gY]bY`FY]gY`]b`XYb`BU\Yb
CghYb`Zcfh`i a `Y]bY`K UZZYbfi \Y`]b`; UnU`i bX
; Y]gY`j Yf\UbX`i b[Yb`j cfUbni hfY]VYb"

HY`5j]j`fXdUŁ` `8Yf`I G!5i »Yba]b]ghYf`5bhc`bm`6`]b_Yb`]gh`Ui Z
gY]bYf`XYfnY]h][Yb`FY]gY`Xi fW`XYb`BU\Yb`CghYb`]b`gfUY`i bX
Ÿ[mdhYb`Ub[Y_ca a Yb`"GY]b`N]Y`]gh`Ygž`X]Y`GdUbbi b[Yb`ni
YbhgW`ÅfZYb`i bX`Y]b`5V_ca a Yb`ØVYf`Y]bY`K UZZYbfi \Y`]a `; UnU!
?cbZ`_h`igck]Y`X]Y`; fY]`Uggi b[`j`cb`; Y]gY`b`ni `Yfa`Ò[`]W`Yb`"`≠
XYb`Y`hnhYb`HU[Yb`\UVYb`g]W`X]Y`<cZZbi b[Yb`Ui Z`Y]bY`9]b][i b[
Yf\`Ò\hž`bUW`XYa `gfUY`Y]bYb`j`cb`XYb`I G5`i bhYfgh`ØhnhYb
J`cf`gW`U[`ZØf`Y]bYb`K UZZYbgh]`gh`UbX`Ub[Ybca a Yb`\Uh`5i Z`Y]bYf
DfYggY_cbZYfYbn`Yf`_`ÅfhY`6`]b_Yb`ž`XUgg`Yg`bi b`Ub`XYf`<Ua`Ug
`Y[Yž`XYa `J`cf`gW`U[`ni`ni`gh]a a Yb"

6`]b_Yb`VYhcbhY`X]Y`8f]b[`]W`_Y]h`X]YgYf`G]hi Uh]cb. `K`Ybb`X]Y
<Ua`Ug`i bX`]fY`; Ø\fi b[`k`]f`_]W`Ua`K`c`Yf[Y\Yb`XYg
dU`Àgh]bYbg]gW`Yb`J`c`_Yg`]bhYfYgg]Yfh`g]bXž`gc`hYb`g]Y`X]YgYa
5V_ca a Yb`ni`gh]a a Yb`" `9f`g]Y\h`X]Yg`U`g`XYb`gW`bY`ghYb`i bX
YZZY`_h]j`ghYb`K`Y[ži a `XUg`@Y]X`XYf`N]j`]VYj`Ò`_Yfi b[`]a
; UnUghfY]Z]b`ni`"bXYfbž`X]Y`gY]h`XYa `5b[f]ZZ`j`cb`<Ua`Ug`i bX
UbXYfYb`]g`Ua`]gh]gW`Yb`; fi`ddYb`Ua`+`"C`_hc`VYf`Y]XYh`Hf`chn`XYf
dcg]h]j`Yb`9bhk`]W`_i`b[`V`]YV`Y]bY`gcZcfh][Y`FYU`_h]cb`Ui`g`; UnU
Ui`gž`k`Ug`X]Y`I`bg]W`Yf\Y]h`k`Y]hYf`j`Yfgh`Åf`_h"

: c`_i`g`Ui Z`X]Y`; Y]gY`b`i bX`J`Yf\UbX`i b[Yb

9]b`nYbhfU`Yg`5b`]Y[Yb`6`]b_Ybg`]gh`X]Y`G]hi Uh]cb`XYf`; Y]gY`b`"J`cf`
gY]bYf`DfYggY_cbZYfYbn`hfUZ]g]W`XYf`I G!5i »Yba]b]ghYf`a`]h

5b[Y\Öf][Yb'j cb'; Y]gY`bž'k Ug'X]Y`HfU[]_`XYf`U_hi Y``Yb`@U[Y
j YfXYi h]W'h" B UW'6Yf]W'hYb']gfUY`]gW'Yf`A YX]Yb`k]f`hY`6`]b_Ybg
9]bXfi W`XUfUi Z`\]bž`XUgg`XYf`]gfUY`]gW'Y`F`Y[]Yfi b[gW'YZ
6Yb`Ua]b`B`YhUb`U\i`Yfbgh`UžY`5Vg]W'hYb`\Uhž`Y]b`5V`ca`a`Yb`ni
Yfn]Y`Ybž`a`Ö[]W'Yfk`Y]gY`]bbYf`U`V`k`Yb][Yf`HU[Y"

6`]b_Yb`VYf]W'hYhY`Ui`W`ØVYf`XYb`\c`Yb`8fi`W_ž`XYf`Ui`ZXYb
<Ua`Ug!:`Ø`fYf`ž]\]U`U`!G]bk`Uf`Ui`g[YØVh`k`]fXž`i`a`Ni`gh]a`a`i`b[
ni`a`i`,`VYfVfØW`i`b[gj`cfgW`U[`ni`Yf`U`hYb" `A`YX]Uhc`fYb`Ui`g
Ÿ[mdhYb`i`bX`?`UhUf`i`bhYfgh`Ø`hYb`X]YgY`6Ya`Ø\i`b[Yb`i`bX`nY][Yb
g]W`Y`VYbZU`g`VYgc`f[h`ØVYf`XYb`j`Yf`Ui`ZXYf`G]hi`Uh]cb"

8]Y`6YX]b[i`b[Yb`X]YgYg`,`VYfVfØW`i`b[gj`cfgW`U[g`g]bX`j`]Y`Ž`h][
i`bX`i`a`ZUggYb`Y]bY`YfghY`:`Yi`YfdUi`gY`ØVYf`Y]bYb`NY]hfUi`a`j`cb
gW'g`K`c`W'Ybž`k`Å`fYb`XXYggYb'; Y]gY`b`ZfY][Y`UggYb`i`bX
; YZUb[YbY`Ui`g[YhUi`gW'h`k`YfXYb`gc``Yb" `5i`»`YfXYa`gc``Yb
; Ygdf`ÅW'Y`ØVYf`X]Y`6YX]b[i`b[Yb`ZØf`Y]bYb`XUi`Yf`UžYb
K`UZYbgh]`ghUbX`Ui`Z[Ybca`a`Yb`k`YfXYb" `6`]b_Ybg`5i`ggU[Yž`XUgg
X]Y`j`Yf`U`bX`i`b[Yb`_ca`d`Yi`g]bX`i`bX`gW`k`]Yf][Y
9bhgW`Y]Xi`b[Yb`YfZc`fXYfbž`gd]Y[Y`h`X]Y`<`YfUi`gZc`fXYfi`b[`k`]XYfž
X]Y`]b`X]YgYb`j`Yf`U`bX`i`b[Yb`ghY`W`h"

⇒gfUY`Yfk`Å[h`?`c`b`nYgg]c`b`Yb

9]bY`XYf`[fUj`]YfYbXghYb`:`fU[Yb`]b`XYb`j`Yf`U`bX`i`b[Yb`VYhf]Zž
X]Y`a`]h`Åf]gW'Y`?`cbhfc``Y`⇒gfUY`g`ØVYf`XYb`D\]`UXY`d\]!`?`cff]Xc`fž
XYf`X]Y`:`fYbnY`nk`]gW'Yb`XYa`i`:`UnUghfY]ZYb`i`bX`Ÿ[mdhYb`V]`XYh"
K`Å`fYb`X`X]Y`<`Ua`Ug`Y]bYb`j`c`gh`Å`bX][Yb`5Vni`[`⇒gfUY`g`Zc`fXYfž
Xf`Åb[h`B`YhUb`U\i`XUfUi`Zž`XUgg`X]Y`]gfUY`]gW'Yb`GhfY]h`f`ÅžY`Ui`W
bUW`Y]bYf`K`UZYbfi`Y`Xc`f`h`d`f`Åg`Yb`h`V`Y]VYb`a`ØggYbž`i`a`XYb
K`UZYbgW`a`i`[[Y`ni`j`Yf`U]bX`Yfb" `a`U_hi`Y``Yb`?`cbhYi`h`\Uh`⇒gfUY`
Y`Xc`W`Ui`h`6Yf]W'hYb`Ub[YXYi`hYhž`XUgg`Y]bY`F`YXi`n]Yfi`b[`XYf
A`]h`Å`d`f`Åg`Ybn`Yb`h`Ub[`X]YgYg`?`cff]Xc`fg`a`Ö[]W`k`Å`fY"

Ni`g`Å`h`]W`[]Vh`Yg`:`c`fhgW`f]hhY`]b`XYb`:`Ygdf`ÅW'Yb`ØVYf`X]Y
²`Zžbi`b[`XYg`:`fYbnØVYf[Ub[g`F`UZU`" `8]d`ca`UhYb`Ui`g`?`U]fc
\UVYb`VYfY]hg`HfY`ZYb`Ub[YgYhnhž`i`a`gdYn]Y``Y`H`Y`a`Yb`ni
Yf`Ö`fhYfbž`VYj`c`f`Ua`i`Gc`bb`hU[`Y]b`ØVYf[fY]ZYbXYg`:`j`dZY`hfY`ZYb

ghUhhZ]bXYh" B YhUb 'U\i 'd`Ubhž`Y]bY`9I dYfhYb[fi ddY`bUWk`?U]fc
cXYf`8c\U`ni`YbhgYbXYbž`i a`X]Y`J Yf\UbX`i b[Yb`ni
i bhYfghØhnYb"

8]Y`<Ua Ug`\À`h`bUWk`]gfUY`]gWYf`NÀ`\i b[`bcWk`%%) `; Y]gY`b`ZYghž
j cb`XYbYb`=gfUY``a Y\fyfy`U`g`hc`h`VYhfUWk`hYh`"8]Y`K U\fi b[`XYg
@VYb`g`X]YgYf`; Y]gY`b`ghY`h`i]b`X]fY`_hYa`Ni gUa a Yb\Ub[`a`]h
XYa`J Yf`Ui ZXYf`J Yf\UbX`i b[Yb`i bX`XYa`K UZZYbgh]`ghUbX"

K À\fybX`g]Wk`X]Y`X]d`ca Uh]gWk`Yb`6Ya Ø\i b[Yb`]bhYbg]j`]Yfybž
gYhnh`=gfUY``gY]bY`a`]`]hÀf]gWk`Yb`C dYfUh]cbYb`]a` `; UnUghfY]ZYb`Zcfh"
6Yf]Wk`hYb`ni Zc`[Y`\Uh`XUg`]gfUY`]gWk`Y`A`]`]hÀf`Y]bYb`Yhk`U`%ž)
?]`ca YhYf`Ub[Yb`Hi`bbY`XYf`<Ua Ug`nYfghØfhž`XYf`U`g`K UZZYb`U[Yf
X]YbhY`"8]Yg`nY][hž`XUgg`hf`ch`X]d`ca Uh]gWk`Yf`6Ya Ø\i b[Yb`XYf
a`]`]hÀf]gWk`Y`8fi W`_Ui ZX]Y`<Ua Ug`Ui ZFYWk`hYf\U`hYb`k`]fXž`i a`]\fy
<UbX`i b[gZÀ\][_Y]h`ni`VYY]bhfÀWk`h][Yb"

K UWk`gYbXY`GdUbbi b[Yb`]a`B U\Yb`C ghYb

8]Y`[Ycdc`h]gWk`Y`@U[Y`V`Y]Vh`Ub[YgdUbbhž`b]Wk`h`bi`f`]a` `; UnU!
GhfY]ZYbž`gcbXYfb`Ui Wk`Ub`UbXYfyb`:`fcbhYb`"9]b`8fc`bYbUb[f]ZZ
Ui g`XYa`@VUbc`b`\Uh`XUg`@VYb`Y]bYg`]gfUY`]gWk`Yb`Gc`XUHYb
[YZcfXYfhž`k Ug`X]Y`G]hi Uh]cb`ni gÀh`]Wk`_ca`d`]n]Yfh`@Ui h`5b[UVYb
XYg`]gfUY`]gWk`Yb`A`]`]hÀfg`k`i`fXYb`VY]`X]YgYa`J c`fZU``a Y\fyfy
Gc`XUHYb`j`Yf`Yhnh`Ni XYa`Zc[Yb`]gfUY`]gWk`Y`?Ua dZZi [nYi [Y
5b[f]ZZY`Ui ZN]Y`Y`XYf`<]gVc`U\!A`]`nž`k Ug`k`Y]hYfy`J Yf`YhnhY`ni`f
:`c`[Y`\UhhYž`XUfi bhYf`Ui Wk`?`]bXYf"

≠X]YgYa`?`cbhYI`h`V`Y]Vh`UVni`k`UfhYbž`k`]Y`YfZc`[fY]Wk`6`]b`_Ybg
J Yfa`]h`i`b[gj`Yfgi`Wk`Y`gY]b`k`YfXYb`i`bX`c`V`X]Y`Yf\`c`ZZhY
K UZZYbfi`Y`hUhgÀWk`]Wk`fYU`]g]Yfh`k`YfXYb`_Ubb`"8]Y`b`ÀWk`ghYb
HU[Y`XØfZhYb`YbhgWk`Y]XYbX`ZØf`X]Y`Ni`_i`b`Zh`XYf`J Yf\UbX`i`b[Yb
i`bX`XUg`GWk`]W`_gU`XYf`; Y]gY`b`]a` `; UnUghfY]ZYb`gY]b"

8Yf`?`cbZ]_h`ink`]gWk`Yb`=gfUY``i`bX`XYf`<Ua Ug`\Uh`Y]bY`Ub[Y`i`bX
_ca`d`]n]YfhY`; YgWk`]Wk`hYž`X]Y`]b`j`YfgWk`]YXYbY`dc`]h]gWk`Yž
[YgY`gWk`UZh`]Wk`Y`i`bX`[YgWk`]Wk`h`]Wk`Y`?`cbhYI`hY`Y]b[VYVhYh`]gh"
8Yf`U`_hi`Y`Y`GhUbX`XYf`; YgdfÀWk`Y`ZØf`Y]bY`K UZZYbfi`Y`]gh`XUg

F Ygi `hUh`U\`fY`Ub[Yf`GdUbbi b[Ybž`X]Y`cZhj cb`[Yk U`hgUa Yb
5i gY]bUbXYfgYhni b[Yb`VY[`Y]hYh`k i fXYb""8]Y`<Ua Ugž`X]Y`%- , +
[Y[fØbXYh`k i fXYž`g]Y\`h`g]W\`U`g`K]XYfghUbXgVYk Y[i b[`Y[Yb
X]Y`]gfUY`]gW\`Y`6YgUhni b[`i bX`\`Uh]b`XYf`J Yf[Ub[Yb\`Y]h]a a Yf
k]YXYf`5b[f]ZY`Ui Z`=gfUY`j YfØVh""8]YgY`5b[f]ZY`i bX`X]Y`XUfUi g
fYgi `h]YfYbXYb`]gfUY`]gW\`Yb`A]]hÅfcdYfUh]cbYb`\`UVYb`ni `Y]bYa
HYi ZY`g`fY]g`j cb` ; Yk U`hUi gVfØW\`Yb`[YZØ\`fhž`XYf`c`Zh`\`i a Ub]hÅfY
?f]gYb`\`Yfj`c`ff]YZ`

9]bY`Yb`hgW\`Y]XYbXY`F`c``Y`gd]Y`h`XUVY]`XUg`[Yc`dc`]h]gW\`Y`i a ZY`X
XYf`FY[]cb""8]Y`i G5ž`c`Zh`U`g`J Yfa]]h`Yf`Ui Z[YhfYhYbž`\`UVYb
hfUX]h]cbY``Yb[Y`6Yn]Y\`i b[Yb`ni `=gfUY`ž`k Å\`fYbX`g]Y`[`Y]W\`nY]h][
j Yfgi W\`Ybž`XYb`8]U`c[`a]h`XYb`UfUV]gW\`Yb`B`Uh]cbYbž
Y]bgW\`Y]»`]W\`Y`[mdhYb`i bX`?`UhUfž`ni `ZØfXYfb""8]YgY`@`ÀbXYf
\`UVYb`g]W\`]a a Yf`k]YXYf`U`g`J Yfa]]h`Yf`nk]gW\`Yb`=gfUY``i bX`XYb
DU`Àgh]bYbgYfb`\`Yfj`c`f[YhUb`i bX`gd]Y`Yb`Ui W\`k`Y]hYf\`]b`Y]bY
GW\`ØggY`fc``Y`]b`XYb`XYfnY]h][Yb`J Yf\`UbX`i b[Yb`"

5_hi Y``Y`GhUh]gh]_`ni f`\`i a Ub]hÅfYb`@U[Y`]a ; UnUghfY]ZYb

5_hi Y``Y`GW\`Åhni b[Yb`nY][Ybž`XUgg`X]Y`\`i a Ub]hÅfY`@U[Y`]a
; UnUghfY]ZYb`XfUa`Uh]gW\`]gh""@Ui`h`XYa`i`B!6Øfc`ZØf`X]Y
?ccfX]b]Yfi b[`i a Ub]hÅfYf`5b[Y`Y[Yb\`Y]hYb`fC`7<5Ě\`UVYb`ØVYf
%ž`i`A`]]cbYb`A`YbgW\`Yb`]a` ; UnUghfY]ZYbž`k`Ug`Yhk`U`*`\$`i` `XYf
6Yj`Ö`_Yfi b[`Yb`hgd]f]W\`hž`XYfnY]h`_Y]bYb`Ni`[Ub[`ni
[fi bX`Y[YbXYb`8]YbghY]ghi b[Yb`k]Y`K`UggYf`i bX`9`Y`_hf]n]hÅh""8]Y
[Ygi bX\`Y]h]W\`Y`J Yfgcf[i b[`]gh`ghUf`_Y]b[YgW\`f`Åb`hž`i bX`j]Y`Y
?fUb`_Yb\`Åi`gYf`g]bX`ØVYf`UghYh`c`XYf`VYgW\`ÅX][h""8]YgY
\`i a Ub]hÅfYb` : fU[Yb`ghY\`Yb`]a`X]fY`_hYb`Ni`gUa`a`Yb\`Ub[`a]h`XYb
`Ui`ZYbXYb`?`cbZ]_hYb`i bX`XYb`GW\`k]Yf][_Y]hYbž`X]Y`VY]a`Ni`[Ub[
ni`<`]Zg[ØhYfb`i bX`\`i a Ub]hÅfYf`<`]ZY`VYghY\`Yb`"

9]b`k`Y]hYfYg`k]W\`h][Yg`GhUh]gh]_i a`]gh`X]Y`NU\``XYf` ; Y]gY`bž`X]Y
bcW\`]b`XYf` ; Yk U`h`XYf`<Ua`Ug`g]bX""5_hi Y``Yb`6Yf]W\`hYb`ni`Zc`[Y
\`Å`h`X]Y`<Ua`Ug`%)` ; Y]gY`b`ZYghž`k`Ug`b]W\`h`bi`f`XYb`8fi`W`_Ui`Z
=gfUY`Y`f\`Ø\`hž`Y]bY`@Øgi`b[`ni`Z]bXYbž`gcbXYfb`Ui`W\`XUg`@Y]XYb
XYf`VYhfc`ZYbYb` : Ua`j]Yb`j`YfghÅf`_h""8]Y`]b`hYfbUh]cb`U`Y

; Ya Y]bgW\UZh'VYcVUW\hYh'X]Y'9bhk]W_i b[Yb'a]h[fc>Yf
6Ygcf[b]g'i bX'ZcfXYfh'Y]bY'gW\by''Y'@Øgi b[ž'i a 'k Y]hYfYg'@Y]X'ni
j Yf\]bXYfb"

Ni gÀhn`]W\ []Vh'Yg'6Yf]W\hY'ØVYf'X]Y'5i gk]f_i b[Yb'XYg'?cbZ]_hg
Ui ZX]Y' ðZfUghfi _hi f'; UnU''@Ui hY]bYf'5bU'mgY'XYf'K Y'hVUb_'g]bX
]a ''Ui ZYbXYb'?cbZ]_h'nU\`fY]W\Y'GW\i`Yb'i bX'K c\ b[YVÀi XY
VYgW\ÀX][h'cXYf'nYfghØfh'k cfXYbž'k Ug'X]Y'@U[Y'ZØf'N]j]]ghYb
k Y]hYf'j YfgW\ÀfZn'8Yf'VYj c fghY\YbXY'K]YXYfUi ZVUi '_ØbbhY
>U\ fY']b'5bgdfi W\`bY\ a Yb'i bX'Yf\YV`]W\Y'Z]bUbn]Y''Y
I bhYfghØhni b[`YfZcfXYfb"

J YfgW\]YXYbY'5bgÀhnY'ni f'8YYg_U`Uh]cb

8]Y'8]g_i gg]cb'ØVYf'a Ø[`]W\Y'8YYg_U`Uh]cbgUbgÀhnY']gh
j]Y'gW\]W\h]["K À\ fYbX'Y]b][Y'5_hYi fY'Ui ZX]bY'gW\by''Y
K UZZYbfi \Y'XfÀb[Ybž'gY\Yb'UbXYfY'X]Y'B'chk YbX][_Y]h'ZØf'Y]bYb
i a ZUggYbXYfYb': f]YXYbgdfcnYggž'XYf'[fi bX'Y[YbXY'i bX
'Ub[Ub\U'hYbXY'@Øgi b[Yb'ZØf'X]Y'?Yfbi fgUW\Yb'XYg'?cbZ]_hg']b
6YhfUW\h'n]Y\h'' ðhYfbUh]cbU'Y' C f[Ub]gUh]cbYb'i bX'@ÀbXYf'V]YhYb
]\fY'I bhYfghØhni b[`Ubž'i a 'JYf\UbX'i b[Yb'ni `Yf'Y]W\hYfbž'UVYf
XYf'K Y['ni `Y]bYa `ghUV]Yb': f]YXYb'V'Y]Vh'k Y]hYf\]b'ghY]b]["

æa `FU\ a Yb'X]YgYf'6Ya Ø\i b[Yb'V`]W_Yb'j]Y'Y'5i [Yb'Ui ZX]Y
Fc''Y'j cb'GhUUhYb'k]Y'ÿ [mdhYbž'XUg'Gc`XUf]hÀh'a]h'XYb
DU`Àgh]bYbgYfb'[YnY][h'\Uh'i bX'[`Y]W\ nY]h]['j Yfgi W\hž'dc`]h]gW\Y
GdUbbi b[Yb'ja `Y][YbYb'@UbX'ni `a UbU[Yb''8]Y'fYW\h]W\Yb'i bX
dc`]h]gW\Yb'FU\ a YbVYX]b[i b[Ybž'X]Y'ZØf': f]YXYb'i bX'GhUV`]hÀh
]b'XYf'FY[]cb'bchk YbX]['g]bXž'g]bX'_ca d`YI `i bX'YfZcfXYfb'XUg
9b[U[Ya Ybh'U''Yf'GY]hYb''8]Y'bÀW\ghYb'HU[Y'i bX'K cW\Yb
_ØbbhYb'YbhgW\Y]XYbX'XUZØf'gY]bž'k]Y'g]W\`X]Y'G]hi Uh]cb
Ybhk]W_Y`b'k]fX"

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