

Ni fØW_]a 'GUhhY`. 'F Y]hYb]b Gk U_cda i bXž'B Ua]V]U

B UW`Y]bYf`J Yf`Yhni b[]a `ſ\`f`&\$%+`VYgW`Y» h'?]Už`XUgg
F Y]hYb]b`Gk U_cda i bX`XYf`dYfZY_hY`K Y[]ghž`i a `k]YXYf`]b
XYb`GUhhY`ni`ghY][Yb`Gk U_cda i bX`]gh`Y]bY`gY`hgUa Y`_`Y]bY
GhUXh`"6Y_Ubbh`U`g`B Ua]V]Ug`5VYbhYi Yf`Ui dghhUXhž`\Uh`Yg
Y]bY`YbhgdFYW`YbX`XfUa Uh]gW`Y`?i`]ggY`"5i Z`XYf`Y]bYb`GY]hY
gW`À[h`Y]b`VYgcbXYfg`k]`XYf`5h`Ubh]_`Ui Z`X]Y`?ØghY`/5i Z`XYf
UbXYfYb`GY]hY`YfghfYW`hg]W`X]Y`f]Yg][Yž`_Uf[Y`B Ua]V!
K ØghY`]b`hØX`]W`Yf`6YXfc`i b["Nk]gW`Yb`X]YgYb
j YfV`ØZYbXYb`GnYbYb`]Y[h`X]Y`GhUXh`gY`Vgh`"A]h`gY]bYb
gUi VYfYb`GhfU» Ybž`XYf` : UW`k Yf_UfW`]hY`_hi`f`i bX`XYb
Ui g[YgdfcW`Yb`XYi hgW`Yb`B Ua Yb`_ØbbhY`Gk U_cda i bX`Y]bY`
: Yf]YbghUXh`Ub`XYf`XYi hgW`Yb`B cfXgYY`gY]bž`X]Y`Ui Z
UZf]_Ub]gW`Yb`6cXYb`hfUbgdcfh]Yfh`k]fX`"Gk U_cda i bX`k]fX`
/ Ua d^Y`]d/

B UW`Y]bYf`J Yf`Yhni b[]a `ſ\`f`&\$%+`VYgW`Y» h'?]Už`XUgg`F Y]hYb
]b`Gk U_cda i bX`XYf`dYfZY_hY`K Y[]ghž`i a `k]YXYf`]b`XYb`GUhhY`ni
ghY][Yb

Gk U_cda i bX`]gh`Y]bY`gY`hgUa Y`_`Y]bY`GhUXh`"6Y_Ubbh`U`g`
B Ua]V]Ug`5VYbhYi Yf`Ui dghhUXhž`\Uh`Yg`Y]bY`YbhgdFYW`YbX`
XfUa Uh]gW`Y`?i`]ggY`"5i Z`XYf`Y]bYb`GY]hY`gW`À[h`Y]b`VYgcbXYfg
k]`XYf`5h`Ubh]_`Ui Z`X]Y`?ØghY`/5i Z`XYf`UbXYfYb`GY]hY`YfghfYW`h
g]W`X]Y`f]Yg][Yž`_Uf[Y`B Ua]V!K ØghY`]b`hØX`]W`Yf`6YXfc`i b["
Nk]gW`Yb`X]YgYb`j YfV`ØZYbXYb`GnYbYb`]Y[h`X]Y`GhUXh`gY`Vgh`

A]h`gY]bYb`gUi VYfYb`GhfU» Ybž`XYf` : UW`k Yf_UfW`]hY`_hi`f`i bX`XYb
Ui g[YgdfcW`Yb`XYi hgW`Yb`B Ua Yb`_ØbbhY`Gk U_cda i bX`Y]bY`
: Yf]YbghUXh`Ub`XYf`XYi hgW`Yb`B cfXgYY`gY]bž`X]Y`Ui Z
UZf]_Ub]gW`Yb`6cXYb`hfUbgdcfh]Yfh`k]fX`"Gk U_cda i bX`k]fX`U`g

5i g[Ub[gdi b_hZ0f'X]Y'9f_i bXi b['XYf'G_Y'Yhh_0ghY'i bX'XYf
BUa]V!K 0ghY '[Ybi hnh'i bX'V]YhYh'U''Y'hci f]gh]gWYb
5bbY\ a `]W_X]hYb"

'U'h1 GY`VghZU\ fYf!GUZUf]Xi fW`BUa]V]U'Gk U_cda i bX 25h'Ug/
6cchg'8 Ug'GW]Zgk fUW_XYf'NY]U'Ub'XYf'G_Y'Yhh_0ghY

I bgYfY`%+!hA[][Y'GY`VghZU\ fYf!GUZUf]Xi fW`BUa]V]U'Z0\ fhY'i bg
Z0f'nk Y]B`AW`hY`bUW`Gk U_cda i bX"8]Y'gh0fa]gWY`GhUXh'k Uf
UbXYfg'U`g]f[YbXk c'gcbgh]b'BUa]V]U"'8Yf'VYk 0`_hY`<]a a Y`i bX
XUg`Y]bgW 0W`hYfbXY`A Yf'ghUbXYb`]b`XYi h]WYa `?cbhfUgh'ni a
fi \][Ybž'ghfU\`YbXYb'6`Ui `j cb`Gcggi gj `Y]i bX`9hcg\U"

: 0f'a]W`Vch'X]Y`XfUa Uh]gWY`?i `]ggY`X]Y`dYfZY`hY`; Y`Y[Yb\Y]hž
k]YXYf`]b`XYb`GUhhY`ni `ghY][Yb"'GY]hY]bYf`J Yf`Yhni b[`]a `X\ f
&\$%+`gU» `]W`b]W`h'a Y\`f`Ui ZY]bYa `DZYfX`i bX`k c`hY`i bVYX]b[h
k]YXYf`a]h`XYa `F Y]hYb`VY[]bbYb"'HUhg`W`]W`_c`bb`hY`]W`b]W`h
[`Ui VYbž`XUgg`Yg`Y]b`[UbnYg`X\`f`\Yf`k Uf"

K]f`f]YZYb`Y]b`c`_U`Yg`i bhYfbY\ a Yb`Ubž`XUg`F Y]hYb`]b
Gk U_cda i bX`UbV]YhYhž`i bX`Vi W`hYb`Y]bYb`nk Y]gh0bX][Yb`5i`gf]hh
Ub`Y]bYa `A cbhU[a cf[Yb"

5`g`k]f`Ua `C`_U`Ua VY`F]X]b[`7YbhYf`Ub`Ua Ybž`ZUbXYb`k]f`Y]b
[YdZY[hYg; Y`AbXY`j cfž`Ui ZXYa `Y]bY`F Y]\Y`j cb`H]YfYb`YVYb.
b]W`h`bi f[Ygi bXY`DZYfXYž`gcbXYfb`Ui W`K Y`dYbž`< UgYbž
A YfYfgW`k Y]bW`Yb`i bX`a Y\`f"'a `; fi bXY`k Uf`Yg`DYhYfg`]XYU`Yf
5fVY]hgd`Uhn"

K]f`k A\`hYb`i bgYfY`<Y`a Y`Ui gž`j YfghUi hYb`i bgYfY`HUgW`Yb`i bX
i bhYfgW`f]YVYb`X]Y`bchk YbX][Yb`DUd]YfY"'8 Ug
Cf[Ub]gUh]cbgb]j YUi `i bhYfgW`]YX`g]W`ghUf`_j cb`XYa `; i Yf`]U!
: U\`fYb`]b`9W`UXcfž`XUg`k]f`j cf`XfY]`X\`fYb`[Ya UW`h`\UVYb"'`b
X]YgYa `6Y]hfU[`V]b`]W`Y\`Yf`i bVY`0a a Yfhž`k Ybb`Yg`XUfi a `[Y\`hž
Y]b`k]XYfgdYbgh][Yg`DZYfX`ni `fY]hYb"'`W`\UVY`gY]hXYa
ni f0W`_ [YgW`Ui h`i bX`gW`Ui XYfhY`XUf0VYfž`XUgg`]W`c`\bY`<Y`a
[YZU\`fYb`V]b`"K]Y`]W`]b`XYb`F Y]hh]ddg`Z0f`X]Y`YfghY`Hci`f`gU[Yž`]gh
Yg`XUg`F]g]_c`Y]bZUW`b]W`h`k Yfh"

U`h1 : U\fvYfY]hVY]a`F Y]hYb`]b`Gk U_cda i bX 2 5hUg/`6cchg
6YfY]hni a`fY]hYb

⊕`C_U_Ua VY`hfUZb`k]f`i bgYfYb` : Ø\fyf`?Y`j]b`i bX`i bgYfY
VY]XYb`DZYfXY.`a`Y]bgž`<]XU`[cž] Yfa`i`h]W`VYbUbbh`bUW` : fUb_
<cd_]bg`VYfØ\`a`hYa`A`i ghUb[ž`i bX`DYhYfgž`GUa`gi b[ž`k`Y`Y`f
Y]bZUW`ni` \UbX\UVYb`]gh`"6U`X`VfYW`Yb`k]f`Ui`Z"

F Y]hYb`]b`Gk U_cda i bX`k Uf`XYf`dYfZY`_hY`K`Y[ž`i`a`k`]YXYf`]b`XYb
GUhY`ni`ghY][Yb`"K`]f`Z` \fYb`Ua` :`i`ggVYhh`j`cb`Gk U_cd`Ybh`Ub[ž
Y]bYf`_U\`Ybž`ZUW`Yb`@UbXgW`UZh`a`]h`k`Yb][`Ghi`fn!`cXYf
J`Yf`Yhni`b[g[YZU`f`"9g`k`Uf`b]Ya`UbX`i`bX`b]W`hg`]b`XYf`B`A`Y`
?Y`j`]b`j`Yf[`]W`Yg`a`]h`Y]b`Yf` : U\fh`Ui`Z`XYa`A`cbX`"

U`h1`F Y]hYb`]b`Gk U_cda i bX`]gh`k`]Y`Y]b`Y` : U\fh`Ui`Z`XYa`
A`cbX`2`5hUg/`6cchg`F Y]hYb`]b`Gk U_cda i bX`]gh`k`]Y`Y]b`Y` : U\fh
Ui`Z`XYa`A`cbX`

8U`]W`]b`XYf`J`Yf[Ub[Yb`Y]h`i`bhYff]W`h[Ybca`a`Yb`\UVYž`Xi`fZ`Yb
k`]f`hfUVYb`fk`Ybb`G]Y`9fZU`fi`b[\UVYbž[YVYb`G]Y`X]Yg`VY]`XYf
6i`W`i`b[`Ub`£`"6YgcbXYfg`j`]Y`GdU»` \Uh`Yg[Ya`UW`hž`k`Y`]F Y]hYb
k`U`fg`W`Y]b`]W`XYf`Y]bn][Y`Gdc`fh]ghž`]b`XYa`]W`VYgg`Yf`V]b`U`g
DYhYf`"≠W` \UhY`Dfc`V`Ya`Y`a`]h`XYa`D58`≠HUi`W`Yf`_i`fgž`U`g`Yf
Xi`fW`gY[Y`hYž`]W`c`Y`i`bgYfY` \YfUi`gZc`fXYfb`XYb`K`Ub`XYfi`b[Yb
]a`a`Yf`k`]YXYf`Ui`Z`i`bX`V]b`Ö`ZhYf`j`ca` : U\ffUX`[YZU`Ybž`U`g`]W
n`A`Yb`_Ub`bž`UVYf`]W`V]b`XYf`YfZU`fYb`YfY` : U\fyf`"

- U`h1`2`
- U`h1`2`
- U`h1`2`
- U`h1`2`
- U`h1`GY`VghZU`fYf!GUZUf]`Xi`fW`B`Ua`]V]U`F`Y]hYb`]b`
Gk`U_cda`i`bX`2`
- U`h1`2`
- U`h1`2`
- U`h1`2`

K]f'Z \fYb'ØVYf'X]Y'k]bX][Y'9VYbY'i bX'cVk c\`X]Y '@UbXgWUZh
hfcgh'cg'k Ufž'ZØ[hY'g]Y'XYf': U\fh'Y]bY'VYgcbXYfY'8]a Ybg]cb
\]bni "'FY]hYb']b'Gk U_cda i bX'ZØ\hY'g]W'Ub'k]Y'FY]hYb']b'gY]bYf
fY]bghYb': cfa . 'bi f'k]f'Ui Zi bgYfYb'DZYfXYb'i bX'b]W'hg'UbXYfYg
ni 'gY\Yb"'9g'k Uf'XYf'dYfZY_hY'Cfhž'i a 'k]YXYf']b'XYb'GUhY`ni
ghY][Yb"

9g'gh]a a hž'XUgg'9W UXcf'Ui ZfY[YbXYf'i bX'X]Y '@UbXgWUZh]b
A cbhYbY[fc'j]Y'UhYa VYfUi VYbXYf'k Ufž'UVYf'VY]a 'FY]hYb']b
Gk U_cda i bX'_cbbhY']W'Y]bY'UbXYfY'GY]hY'BUa]V]Ug'gY\Yb"'9g
Yf]bbYfhY'a]W'XUfUbž'k Ufi a 'W'XUg'FY]hYb'ØVYf\Ui dh`']YVY'i bX
k]Y'DYhYf']b'gY]bYa '6Y]hfU['ØVYf'9hcg\U'gU[hYž'X]Y'NY]hž'X]Y'a Ub
a]h'H]YfYb'j YfVf]b[hž']gh'[i h']bj Ygh]YfhY'NY]h' 'VYgcbXYfg'k Ybb'Yg
g]W'VY]'X]YgYb'H]YfYb'i a 'fi \][Yž'ghUf_Y'i bX'gW'ØbY'DZYfXY'k]Y
GUa gi b['i bX'<]XU`[c'\UbXY`h"

F Y]hYb']b'Gk U_cda i bX. 'XUg'K YgYbh']W'Y

K Ug.'FY]hYb']b'Gk U_cda i bX']b'BUa]V]U'U'g'HY]'Y]bYf'%+!hÀ[][Yb
GY'VghZU\fyf!GUZUf]'j cb'K]'X'8c['GUZUf]g"

K c.'8]Y'I bhYfVf]b[i b['Ui ZXYf'Hci f'i a ZUggh%* 'BÀW'hY']b'Y]bYf
FY]\Y'j cb'<chY`gž'@cX[Yg'i bX'GUZUf]WJa dgž'XUfi bhYf'XUg'Dfcgh
<chY`']b'Gk U_cda i bX"

8]Y'Hci f'_Ubb'Ybhk YXYf'U'g'I bhYf_i bZh'fgc'k]Y'k]fłž'7Ua d]b[
cXYf'Y]bY'?ca V]bUh]cb'Ui g'VY]XYa '[YVi W'h'k YfXYb"' : fØ\ghØW_
i bX'a Y\fyfY'5VYbXYggYb'g]bX']b'XYf', VYfbUW'h' b[gcdh]cb
Ybh\U'hYb'/7Ua d]b[']gh'k Y]h[Y\YbX'GY'Vghj Yfgcf[Yf"

K Ubb.'8]Y'VYghY'FY]gYnY]h'ZØf'BUa]V]U']gh'A U]!C_hcVYf'k À\fybX
XYf'HfcW_YbnY]h'fK]bhYfł'8]Y'BYVYbgU]gcbYb'A U]'i bX'BCj Ya VYf
g]bX'[i h'ZØf'[Øbgh][YfY'I bhYf_ØbZhY'a]h'\Ø\YfYf'J YfZØ[VUf_Y]h"
=a 'BCj Ya VYf'_Ubb'Yg'ni 'ghUf_Yb'FY[YbZÀ`Yb'_ca a Ybž'k Ybb
Ui W'\Ui dhgÀW']W']b'_i fnYbž']bhYbg]j Yb'5i gVfØW'Yb"

K]Y.'K]f'\UVYb'X]fY_h'VY]a 'C_U_Ua VY'F]X]b['7YbhY'Y'[YVi W'h"
5bZÀb[Yf'XØfZYb'[fi bXgÀm']W'bi f'ja 'GW'f]hh[Y\Yb'fb]W'h'hfUVYb

cXYf'[U`cdd]YfYbŁ"K Ybb`G]Y`U`gc`9fZU\fi b[`UVYbž'a UWYb`G]Y X]Yg'ni a `NY]hdi b_h'XYf'6i Włi b[`XYi h]Wł"

9]bY`nk Y]ghØbX][Y': U\fh`_cghYh, &\$`B58`f) *`I G8Łdfc`DYfgcb`]b Y]bYf`Nk Y]!DYfgcbYb!; fi ddY`fg]Y\Y`bYi YghY`DfY]g`]ghYŁ"8]Yg'a U[]a`J Yf[`Y]Wł`ni `UbXYfYb`HY]Yb`XYf`K Y`h`Yhk Ug`hYi Yf`gY]bž`UVYf Yg`]gh`Yfk Å\bYbGk Yfhž`XUgg`X]Y`DZYfXY`\]Yf`Ui ZY]bYa`Yi hfYa \c\Yb`GhUbXUfX`[Y\U`hYb`k YfXYb`i bX`k]f`XYf`A Y]bi b[`k UfYbž XUgg`g]Wł`X]Y`?cghYb`[Y`c`b`h`\UVYb"8Yf`DfY]g`VY]b\U`hYh`X]Y 5V\c`i b[`j`cb`i bX`F`ØW`hfUbgZYf`ni`<chY`g]a`NYbhfi a`j`cb Gk U_cda`i bX`fY]bgWł`Y»`]Wł`Dfcgh<chY`Ł"

K]f`\UVYb`Gk U_cda`i bX`]a`F U\`a`Yb`i bgYfYf`GY`VghZU\fyf!GUZUf] VYgi Włh`K]X`8c[`GUZUf]g`Vi Włh`l bhYf_ØbZhYž`ghY`h`Y]bYb A]Yhk U[Yb`ni f`J YfZØ[i b[`i bX`cf[Ub]g]Yfh`Y]bY`F Y]gYfci hY`ZØf`X]Y F Y]gY"6Y]`XYf`5b`_i bZh]b`K]bX\cY`_k`i fXYb`k]f`j`cb`K]X`8c[GUZUf]g`Ya`dZUb[Ybž`X]Y`i bg`Y]bY`XYhU]`YfhY`F Y]gYfci hYž : U\Ubk Y]gi b[Ybž`?UfhYb`i bX`bZcfa`Uh]cbYb`ni f`J YfZØ[i b[ghY`h`Yb"

K]f`g]bX`a]h`6f]h]g\`5]fk Umg`ØVYf`æ\UbbYgVi f[`]b`GØXUZf]_U`bUW B Ua]V]U`[YZc[Yb"6i WłYb`G]Y':`Ø[Y`ni`XYb`VYghYb`DfY]gYb`ØVYf G_mgWUbbYf"

`U`h1 2

@cbY`m`D`UbYh`6chGk UbU`/`B Ua]V]U`]gh`Y]b`i a ZUggYbXYf F Y]gYZØ\fyf`ZØf`B Ua]V]U`i bX`Yb`h`Å`h`Y]b][Y`b`Ø`h`]Wł`Y`H]ddg`ZØf Y]bYb`6Ygi Wł`]b`Gk U_cda`i bX"

C ZYb`Y[i b[`K]f`g]bX`a]h`l bhYfghØhni b[`j`cb`K]X`8c[`GUZUf]g bUW`B Ua]V]U`[YfY]gh"5`Y`Di`V`_Uh]cbYb`gU[Yb`XUgž`UVYf`k]f [UfUbh]YfYb`k]f`_]Wł`_Y]bY`d`cg]h]Y`6Yf]Wł`hYfghUhi b["K]f`gU[Ybž k Ug`k]f`XYb`_Yb`_ [i h`i bX`gWł`YWł`h`XUa]h`G]Y`a]h`Y\`f`]Wł`Yf 6YfUhi b[`Z`bX]YfhY`9bhgWł`Y]Xi b[Yb`hfYZZYb`_ØbbYb"

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

8YhU]g

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