

< i h'UV. 'K Ufi a ']W\ 'a]W\ 'Yb hgW\]YXYb \ UVYž'a]h'XYa ' F Y]hYb 'Ui Zni \ ÒfYb

B UW\ XYa 'g]Y 'U\ fY'Ub ['[Yf]hhYb ']ghž'Yf_`Àfh?']Už'k Ufi a 'g]Y
g]W\ 'Yb hgW\]YXYb '\ Uhž'XUa]h'Ui Zni \ ÒfYb 'A Y]b 'YfghYf
9]bXfi W_`j ca ' F Y]hYb'k Ufž'k]Y'j YfXUa a h'`Ub [gUa 'U`Yg
k Uf" '5`g]W\ '&\$%('UbZ]b ['ni 'YfbYbž'\ UVYb'k]f'a cbUhY'Ub [
bi f'GW\ f]hh'i bX'HfUV ['Ya UW\ h" `W\ 'XUW\ hYž'V]g'XU\]b'k ÀfY
]W\ 'Ui Z]Y]bYa ' [i hYb'K Y ['ni a ' ; U`cdd" 'GhUhhXYggYb'k Uf']W\
]b'X]Y '8 YhU]`g'XYf'HYW\ b]_`j Yfghf]W_h" '5`g]W\ 'Y]b 'VYggYfYf
: U\ fYf'k i fXYž'k i fXY'a]f'YXcW\ '_`Ufž'XUgg'Yg'ØVYf\Ui dh
_Y]bY'?`Y]b][_Y]hYb'k UfYbž'gcbXYfb'Y]b [fi bX'Y [YbXYf'HY]
XYg'@YfbYbg" '9g'k]fX'cZh [YgU [hž'XUgg'X]Y 'VYghYb : U\ fYf'gc
Ui ggY\Ybž'U'g'k ØfXYb'g]Y'ØVYf\Ui dh'b]W\ hg'hi bž'i bX']W\
/ Ua d^Y`]d/

B UW\ XYa 'g]Y 'U\ fY'Ub ['[Yf]hhYb ']ghž'Yf_`Àfh?']Už'k Ufi a 'g]Y'g]W\
Yb hgW\]YXYb '\ Uhž'XUa]h'Ui Zni \ ÒfYb

A Y]b 'YfghYf'9]bXfi W_`j ca ' F Y]hYb'k Ufž'k]Y'j YfXUa a h'`Ub [gUa
U`Yg'k Uf" '5`g]W\ '&\$%('UbZ]b ['ni 'YfbYbž'\ UVYb'k]f'a cbUhY'Ub [
bi f'GW\ f]hh'i bX'HfUV ['Ya UW\ h" `W\ 'XUW\ hYž'V]g'XU\]b'k ÀfY']W\ 'Ui Z
Y]bYa ' [i hYb'K Y ['ni a ' ; U`cdd" 'GhUhhXYggYb'k Uf']W\]b'X]Y '8 YhU]`g
XYf'HYW\ b]_`j Yfghf]W_h"

5`g]W\ 'Y]b 'VYggYfYf': U\ fYf'k i fXYž'k i fXY'a]f'YXcW\ '_`Ufž'XUgg
Yg'ØVYf\Ui dh'_Y]bY'?`Y]b][_Y]hYb'k UfYbž'gcbXYfb'Y]b
[fi bX'Y [YbXYf'HY]'XYg'@YfbYbg" '9g'k]fX'cZh [YgU [hž'XUgg'X]Y
VYghYb : U\ fYf'gc 'Ui ggY\Ybž'U'g'k ØfXYb'g]Y'ØVYf\Ui dh'b]W\ hg'hi bž
i bX']W\ '\ UVY [Y'Yfbhž'XUgg'X]Yg'k U\ f']gh" 'A]f'k i fXYb'`Ub [gUa
i bX'gc f [ZÀ`h] ['j]Y'Y'_Y]bY'8]b [Y'VY] [YVfUW\ hž'XUa]h'Ui W\ ']W\
a]W\ 'Y]bYg'HU [Yg'F Y]hYf'bYbbYb'_ÒbbhY"

- 'U`h1 2
- 'U`h1 2
- 'U`h1 2

?]U`ZÄ\fh]b`A cbhYbY[fcž`9W UXcf`i bX`B Ua]V]U

5`g`j]W`XUg` ; U`cdd]YfYb`YfbhYž`VUH`a]W`a Y]b`@Y\ fYfž`X]Y
 GW`f]hhY`a Y]bYg`DZYfXYg`ni`nÄ`Ybž`i bX`j]W`Yf]bbYfY`a]W`ž`XUgg
]W`XUW`hY.` ÆW`j Yfgi`W`Y`VYfY]hgž`a Y]bYb`F ØW`Yb`[YfUXY`fUUVYf
 Ui`W`Yb`hgdUbb`h`ni` \U`hYbž`a Y]bYb`?cdZ`\cW`ž`a Y]b`6Y]b`Ubž
 a Y]bY` : YfgYb`i bhYb`ž`a Y]bY`NY`Yb`\]bY]bž`X]Y`NØ[Y``cW`Yfž
 k Ä`fYbX`]W`[`Y]W`nY]h][`XUfUi`ZUW`hYhYž`XUgg`]W`Ub`XYf
 f]W`h][Yb`@Y]bY`cg[]b[``Gc``]W`Ui`W`GW`f]hhY`nÄ`Yb3

9fZU`fYbY`FY]hYf`hi b`U``X]Yg`a Ø`Y`cg`i bX`cV`k c`\``]W`b]Y`Ub
 X]YgYa`Di b`h`Ub[Y`ca`a Yb`V]bž`\UVY`]W`YbX`]W`[Y`Yfb`h`ni
 [U`cdd]YfYb`i bX`ni`gd`f]b[Yb``5i`ZXYa`K`Y[`Xcf`h\]b`[UV`Yg`a Y`f
 U`g`Y]b`dUUf`i bZÄ``Y`` ÆW`V]b`Y]b`dUUf`A U`j`cb`a Y]bYa`DZYfX
 [YZU``Ybž`k`i fXY`nk`Y]a U``[YhfYhYb`i bX`Y]ba U``[YhfYhYb`fU``Yg`a]h
 Y]b][Yb`\Yff`]W`Yb`V`Ui`Yb` : `YW`Yb`Ě``@Y`h`hYg` ÆU`f`\UVY`]W`a]f
 Y]bYb`?bcW`Yb`]b`XYf`fYW`hYb`<UbX`[YVfcW`Yb`i bX`_`cbb`hY`nk`Y]
 A`cb`UhY``Ub[`b]W`h`fY]hYb``K`jY`VY]`YXYa`[i`hYb` : U`fYf`gh]Y[`]W`
 Y`XcW`k`jYXYf`Y]bž`gcVU`X`Yg`a]f`VYggYf`[]b[``

ÆW``]YVY`FY]hYb`` ÆW``]YVY`XYb`BYfj`Yb_]`h`Y`ž`X]Y` : fY]\Y]h`i bX`X]Y
 F`ca`Ubh]_`XUj`cb`` ÆW``]YVY`XUg`fi`\][Y`HYa`dYfUa`Yb`h]`cb
 DZYfXYb`` ÆW`V]b`VYY]bXfi`W`hž`k`jY`X]YgY`i b[`Ui`V`]W`a`ÄW`h][Yb
 ?fYUhi`fYb`Ui`W`g`UbZ`hi`bX`gW`Yi`gY]b`_`ÖbbYb``

A`Uh\`XY`7cc`Yb

?]U`g`FY]hi`f`Ui`V`]b`A cbhYbY[fc

5`g`j]W`Y`XcW`YfbhYž`a]h`\bYb`i`a`ni`[Y`Ybž`VY[Ubb`]W`ni
 nk`Y]Z`bž`k`Ug`]W`h`UH``K`Ybb`G]Y`_Y]b`FY]hYf`g]bXž`g]bX`G]Y
 k`U`f`gW`Y]b`]W`bi`f]a`i`f`Ui`V`cXYf`Ui`Z`Y]bYa`5i`gZi`[`Ui`Z`Y]bYa
 DZYfX`[Yf]hhYb`` Æ`X]YgYb` : Ä``Yb`g]bX`X]Y`DZYfXY`]b`XYf`FY[Y`
 [YgUhY`h`i bX`k`Uf`hYb``G]Y`gY`Yb`b]W`hž`k`jY`XUg` ; YV]gg`fY]bY
 X]W`Y`A`Y`hU``gh]Ub[YĚ`]b`]fYb`A`i`bX`[YghY`W`h`k`]fX`cXYf`XYf` ; i`fh

i a `]\fYb`C VYf_ÖfdYf`ZYgh[Ync[Yb`k]fXž`k Ug`cZh`Y]bY`9]b_YfVi b[\]bhYf`Ägghž`k Ybb`Yf`UV[Ybca a Yb`k]fX"

⇒W`ghY`hY`a]f`j cfž`k]Y`Yg`g]W`UbZØ`hž`Y]bY`X]W_Y`A YhU`ghUb[Y]a`A i bX`i bX`Y]bYb`Nui a`i a`XYb`?cdZ`ni` \UVYbž`XUa]h`a Ub XYb`8fi W_ž`XYf`Xi fW`XYb`NØ[Y`XYg`FY]hYfg`XUfUi ZUi`g[YØVh k]fXž`b]W`hj`Yff]b[Yfb`_Ubb`"9g`[]Vh`[YV]gg`cgY`NØ[Y`ž`UVYf`g]Y ØVYb`]a a Yf`bcW`8fi W_`Ui ZXYb`?cdZ`Ui`g`"9g`gh]a a hž`XUgg`X]Y a`Y]ghYb`FY]hYf`gUbZh`g]bXž`UVYf`Yg`gh]a a h`Ui W`ž`XUgg`k]f`g]Y VY]a`FY]hYb`Vi W`ghÄV`]W`]b`: YggY`b`Y[Yb`"

- `U`h1` 8 Ug`6]h`Yf`_`Äfh`hY`]k`Y]gY`Yf`_`Äfhž`k`Ufi`a`?`]U`XUg`FY]hYb`Ui`Z`Y[YVYb` \Uh`2
- `U`h1` ?`]U` \Uh`g]W`Yb`hgW`]YXYbž`a`]h`XYa`FY]hYb`Ui`Zni` \ÖfYb`2

G\i`hhYf`ghc`W_

8 Ug`;`YV]gg`k]fX`]b`XUg`A`Ui`Y]bYg`DZYfXYg`Y]b[YZØ`fhž`XUa]h`XYf`FY]hYf`Yg`a`]h`XYb`NØ[Y`b`_cbhfc`"]YfYb`_Ubb

5bZUb[g`][bcf]YfhY`]W`X]YgY`?`Y]b][_Y]hYb`"J]Y`YfZU`fYbYfY`FY]hYf`U`g`]W`k`ØfXYb`a`]f`gU[Ybž`XUgg`DZYfXY`[YfbY`[Yf]hhYb`k`YfXYb`/`XUgg`]fY`?`ÖfdYf`ZØf`A`YbgW`Yb`[YgW`UZZYb`g]bX`"⇒W`k`c`hY`i`bVYX]b[h`k`Y]hYfZU`fYbž`U`gc`Yb`hgW`]YX`]W`a`]W`ž` \bYb`ni`[`Ui`VYb`"

⇒W`Z` \f`bcW`nk`Y]A`cbUhYž`V]g`]b`;`fc`»`Vf]hUbb]Yb`XYf`@c`W_Xck`b`Y]bgY`h`hY`"5`g`X]Y`6YgW`fÄb`_i`b[Yb`U`a`Ä` \]W`[Y`c`W`Yfh`k`i`fXYbž`gh]Y`»`]W`Ui`ZY]b`⇒ghU[fUa`!J]XYc`Y]bYg`†`b[Yb`DZYfXYg`a`]h`gY]bYa`6Yg]h`nYf`"9g`k]fX`gØ`»`i`bX`k`]h`n][`XUf[YghY`hž`UVYf`]W`_cbbhY`b]W`hi`a` \]b`ni`ZØ`Ybž`XUgg`XUg`DZYfX`j`Yfnk`Y]ZY`h`i`bX`j`Yfk`]ffh`k`Uf`"HUi`gW`Yb`G]Y` \b`[Y[Yb`Y]b`_Y]bYg`?`]bX`Ui`gž`i`bX`X]YgY`6Y` \UbX`i`b[`k`ÄfY`b]W`h`U`_nYdhUVY`"

A`Y]bY`Nk`Y]ZY`k`i`W`gYbž`U`g`]W`a`]f`Y]b`⇒hYfj`]Yk`a`]h`XYa`YVYb`g`Ub[Yb`:`U`fYf`i`bX`HfU]bYf`FYb`<`i`fgh`UbgU`"8`Uf]b`Yf`_`Äfh`FYbž`k`Ufi`a`g]Y`X]Y`gW`k`]Yf][Y`9b`hgW`Y]Xi`b[`[Yhfc`ZZYb` \Uhž`XUg`FY]hYb`Ui`Zni`[YVYbž`b`UW`XYa`g]Y`Y]b`@YVYb`_Ub[`a`]h`DZYfXYb`

j YfVfUW h\ UhY"

F Yb < i fghYf_`Àfhž`k Ufi a `g]Y`XUg`F Y]hYb`Ui Z[Y[YVYb` \ Uh

F Yb`Yf_`Àfhž`XUgg`X]Y`Yb][Ybž`X]Y`VY`Ui dhYbž`]\f`DZYfX`ni`]YVYbž`
_Y]bY`5`bi b[` \UVYbž`XUgg`X]Y`H]YfYž`a`]h`XYbYb`g]Y`NY]h
j YfVf]b[Ybž`g]W`]b`Y]bYa` UVgc`i hYb`Ni ghUbX`Yf`YfbhYf
<]`Zcg][_Y]h`VYZ]bXYb"

9]b][Y`F Y]hYf`Uf[i a Ybh]YfYbž`XUgg`DZYfXY`Xca` Ygh]n]Yfh`g]bX`i bX
XUgg`l bhYfk YfZ` b[`]b`]\fYf`BUhi`f`]Y[h`Ni`]\bYb`gU[h`F Yb.
BUhi`fU`<`cfgYa` Ubg`]\d`Ui ZXYf`bUhØf`]W`Yb`8`mbUa`]_`j`cb
DZYfXYbž`gc`k`]Y`g]Y` \Yi`hY`g]bXž`Ui`Zni`VUi`Ybž`k`ÀfY`gcž`U`g`k`ØfXY
a`Ub`bUhØf`]W`Yg`a`YbgW`]W`Yg`J`Yf`U`hYb`XUfUi`ZUi`ZVUi`Ybž`Y]bYb
; YZ`b[b]g`c`Z`ni`VYc`VUW`hYb"

DZYfXY`g]bX`]bhY`i`bX`Ya`dUh`]\gW`Y`H]YfYž`X]Y`g]W`XUZØf
YbhgW`Y]XYb`k`ØfXYbž`]b`XYf`BUhi`f`i`bX`]b[`fc`»`Yb` ;` fi`ddYb`ni
`YVYb`"G]Y`k`ØfXYb`g]W`XUZØf`YbhgW`Y]XYbž`Ui`Z`K`]YgYb`ni`]`fUgYbž
ni`fYbbYbž`ni`gd]Y`Yb`i`bX`Ub[Y`GhfYW`Yb`ni`fØW`ni`Y[Yb`"9g`]gh
k`U`fž`XUgg`Xca` Ygh]n]YfhY`DZYfXY` [YZØhhYfh`i`bX` [YgW`Øhnh`k`YfXYb
i`bX`XU`Yf`]b[Yk`]ggYf`K`Y]gY`j`ca` `a`YbgW`]W`Yb`6`Yg]hn
dfc`Z]h]YfYb` `UVYf`k`ØfXYb`g]Y`g]W`XUZØf`YbhgW`Y]XYbž` [Yf]hhYb`ni
k`YfXYb3

`U`h1` DZYfXY`YVYb`]b` ;` fi`ddYb.`6`YbXYb`G]Y`XUg
F Y]hYb` 2`8`Uj`]XMc`i`b[#G` \i`hhYfghc`W`DZYfXY`YbhgW`Y]XYb`g]W`
XUZØfž`]b` ;` fi`ddYb`ni`YVYb`

9]b][Y`F Y]hYf`gU[Ybž`XUgg`]\fY`DZYfXY`Yg`]YVYbž` [Yf]hhYb`ni
k`YfXYb`/`XUgg`g]Y`XUfi`a` `V]hhYb`"F Yb`]gh`]b`X]YgYa` `Di`b`_`h`gY`f`_`Uf"
`8`Ug`]gh`K`U`bg]bb`ž`gU[h`g]Y`" `8`Ug`]gh`UVgc`i`hYf`K`U`bg]bb`"K`Ug
bcW`gW`]a`a`Yf`]ghž`XUgg`j`]Y`Y`XYf`DZYfXYž`X]Y`X]YgYg`J`Yf`U`hYb
nY][Yb` `XUgg`g]Y`Yg`a` Ò[Ybž`a`]h`XYb`hc`hYb`?`ÒfdYfhY`Yb`Y]bYg
UbXYfYb`H]YfYg`ZYgh[YgW`bU`h`ni`k`YfXYb`i`bX`Y]bYb`A`YhU`ghUV
]a`A`Ui` `ni` \UVYb` `k`U`fgW`Y]b`]W`ž`k`Y`]\fY`@YVYbgYfZU`fi`b[`gc
VY[fYbnh`]ghž`XUg`XUg`g]Y`h`bUW`GdU`»`Ui`g`]a` `J`Yf[`Y]W`XUni`ž
XYb` [Ub`nYb`HU[`]b`Y]bYf`?`UV]bY`ni`ghY`Yb"

F Yb`Z0[h`\\bni .` 9g`[]Vh`Y)bY`gc`WXY`8]g_fYdUbn`nk]gWXYb`X]YgYf
J Yfk YbXi b[`XYg`K cfhYg` @]YVY `i bX`XYa ž`k Ug`k]f`hUhg`W`]W
a]h`X]YgYb`H]YfYb`a UWXYb`" ÆW`k Y]» ž`XUgg`X]YgY`A YbgWXYb`@]YVY
ni `]`fYb`DZYfXYb`Ya dZ]bXYbž`UVYf`k Ybb`Yg`X]Y`[`Y]WXY`@]YVY`]ghž
X]Y`G]Y`ni `ÆfYb`:`Ua]`Yba]h[`]YXYfb`Ya dZ]bXYb` ` <U`hYb`G]Y
ÆfY`:`Ua]`Yba]h[`]YXYf`]b`?bYWXhgWUZhž`j Yfk U`hYb`G]Y`YXYb
5gdY`_h]`fYg`@YVYbg`]a `A]_fca UbU[Ya Yb`hi bX`ghY][Yb`G]Y`Ui Z
g]Yž`k Ubb`]a a Yf`G]Y`k c`Yb`i bX`V]hhYb`G]Y`g]Y`XUfi a `X]W
`Yfi a Z0`fYb3`8]Y`5bhk cfh]gh`bY]b"

`U`h1 _]U`\\Uh`g]W`Z0f`[Ubni`fY]hYb`Yb`hgW]YXYb` 25h`Ug`/`6cc`hg
?]Už`UV[YV]`XYh]b`Hi f`_YmG]Y`\\Uh`g]W`Yb`hgW]YXYbž`a]h`XYa
F Y]hYb`Ui Zni `\\0fYb`

F Yb`Yf`_`Àfhž`XUgg`]`fY`Zf0`YfYb`?i bXYb`c`Zij`Yf`Àf[Yfh`k UfYbž`U`g
g]Y`]`fY`; YgW]W`hY`\\0fhYb`" G]Y`k`i`gghYbž`XUgg`Ya UbX`k]Y`]W
XUg`F Y]hYb`b]Ya U`g`Ui Z[YVYb`k`0fXYž`k Ybb`b]W`h`Yhk Ug`ni`h]Y`Zgh
K U`fYg`XUfUb`k`ÀfYž`k Ufi a `]W`Yg`[YhUb`\\UVY"

ÆW`\\UVY`j`Y`_0VYf`X]YgYg`ÆhYfj`]Yk`b`UW[YXUW`h`ÆW`[`Ui`VY`F`Ybž
k`Yg`\\U`V`]W`a`]W`[YZfU[h`\\UVYž`c`V`Yg`YbX`]W`Ub`XYf`NY]h]`ghž`a`]h
XYa`F Y]hYb`Ui`Zni`\\0fYb`" ÆW`\\UVY`XUg`;`0W`ž`XUgg`]W`Ub`XYfY
@]X`YbgW`UZhYb`\\UVY`fGW`fY]VYb`i bX`F Y]gYb`E`i bX`XUgg`F Y]hYb
Y`\\Yf`Y]b`<c`V`V`m]`gh`" ÆW`Z0`\\Y`a`]h`XYbYbž`X]Y`]`f`[Ubni`Yg`@YVYb
`Ub`[[Yf]hhYb`g]bX`i bX`X]Y`Yg`U`g`F`Y`h`i`b[g`Y]bY`gY`\\Ybž`X]Y`XYb
8fi`W`_XYg`5`h`U[g`Yf`Y]W`hYfh`" ÆW`ZfU[Y`a`]W`Y`X`c`W`ž`c`V`g]Y`NY]h
a`]h`DZYfXYb`j`YfVf]b[Yb`_0bbhYbž`c`\\bY`g]Y`fY]hYb`ni`a`0ggYb"

B`Uh0f`]W`[]Vh`Yg`G]h`Uh]cbYbž`]b`XYbYb`F Y]hYb`b`chk`YbX][[`]gh`
@`AbX`]W`Y`; Ya`Y]bXYb`g]bX`Z0f`XYb`HfUb`gd`c`f`h`i`bX`XUg
9]b`_ca`a`Yb`Ui`Z`DZYfXY`Ub[Yk`]YgYb`" ÆW`hi`Y`Yg`Y`X`c`W`Ui`g
J`Yf[b0[Yb`" ÆW`a`i`gg`b]W`h`fY]hYb`i bX`gc`\\UVY`]W`X]Y`g`W`k`]Yf][Y
9b`hgW`Y]Xi`b`[[Yhf`c`ZYbž`XUg`F Y]hYb`Z0f`]a`a`Yf`Ui`Zni`[YVYb`" Gc
gY`\\f`Yg`a`]W`g`W`a`Yfnhž`Yg`c`gni`UggYbž`]W`[`Ui`VYž`Yg`]gh`XUg
F`]W`h][`Y"

<Ui`dhV]`X.`G@7`\\Yb`#G`i`hhYfghc`W`

8YhU]g

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