

5i gg]W\ hgdi b_h'6i _]h'A YfYgY' <]`g'VY]
GcbbYbi bhYf[Ub[' ? i hU'@ca Vc_

6i _]h'A YfYgY'cXYf'A YfYgY' <]`g'ghY]b'Yd]gW\Yf
5i gg]W\ hgdi b_h'Ui ZXYb'GcbbYbi bhYf[Ub[' j cb'?i hU
@ca Vc_žXYf'X]Y' I ZYf'XYg'HUb↑ b['5Ub'6YUW\ 'i bX'X]Y
ZY`g][Y' ? ØghY']b' F]W\hi b[' ? i hU' ØVYfv`]W_h" ð'6Yni ['Ui ZX]Y
5i gg]W\ hgdi b_h'Y'Ui ZXYb'GcbbYbi bhYf[Ub[']b' ? i hU'@ca Vc_
]gh'6i _]h'A YfYgY'VY]'k Y]hYa 'XYf'VY`]YVhYghY' C fh" @UggYb'G]Y
g]W\ 'XUXi fW\ 'YXcW\ 'b]W\h'j cb'Y]bYa '6Ygi W\ 'UV\U'hYb"'8]Y
' ? `]ddYb'g]bX'gY\ f'VfY]h'a]hj]Y`D`Uhn'ZØf'U`Yž'i a 'Y]bYb
Zf]YX`]W\Yb'6`]W_ 'Ui ZX]Y' i bhYf[Y\YbXY'GcbbY'j cb'@ca Vc_
ni '\UVYb"'Gc' [Y`Ub[Yb'G]Y'ni a 'A YfYgY' <]`g'Gi bgYh
J]Yk dc]bh' i a 'bUW\ '6i _]h'A YfYgY' <]`g'ni ' [Y`Ub[Ybž
a ØggYb'G]Y'X]Y'%) !a]bØh][Y' / Ua d^Y``]d/

6i _]h'A YfYgY'cXYf'A YfYgY' <]`g'ghY]b'Yd]gW\Yf'5i gg]W\ hgdi b_h
Ui ZXYb'GcbbYbi bhYf[Ub[' j cb'?i hU'@ca Vc_žXYf'X]Y' I ZYf'XYg
HUb↑ b['5Ub'6YUW\ 'i bX'X]Y'ZY`g][Y' ? ØghY']b' F]W\hi b[' ? i hU
ØVYfv`]W_h"

ð'6Yni ['Ui ZX]Y'5i gg]W\ hgdi b_h'Y'Ui ZXYb'GcbbYbi bhYf[Ub[']b
' ? i hU'@ca Vc_]gh'6i _]h'A YfYgY'VY]'k Y]hYa 'XYf'VY`]YVhYghY' C fh"
@UggYb'G]Y'g]W\ 'XUXi fW\ 'YXcW\ 'b]W\h'j cb'Y]bYa '6Ygi W\
UV\U'hYb"'8]Y' ? `]ddYb'g]bX'gY\ f'VfY]h'a]hj]Y`D`Uhn'ZØf'U`Yž'i a
Y]bYb'Zf]YX`]W\Yb'6`]W_ 'Ui ZX]Y' i bhYf[Y\YbXY'GcbbY'j cb'@ca Vc_
ni '\UVYb"

Gc' [Y`Ub[Yb'G]Y'ni a 'A YfYgY' <]`g'Gi bgYh
J]Yk dc]bh

I a 'bUW\ '6i _]h'A YfYgY' <]`g'ni ' [Y`Ub[Ybž'a ØggYb'G]Y'X]Y
(%) !a]bØh][Y' F c`YfZU\fhj cb'?i hU'@ca Vc_'YbhUb['XYf'?ØghY'ni a

VY`YVhYb`HUB↑ b[`5Ub`6YUW`a UWXYb" `GcVU`X`G]Y`]b`HUB↑ b[
5Ub`Ub[Y_ca`a`Yb`g]bXž[Y\Yb`G]Y`Y]bZUW`Y]b`GhØW_`k`Y]hYfž`k`c
G]Y`Ui`ZY]bY` ; fi`ddY`j`cb`HmdYb`hfYZZYbž`X]Y`Duf_[Y`X`gUa`a`Y`b"
BUWXYa`G]Y`VYnU\`h`\UVYbž`Zc`[Yb`G]Y`XYa`GUbXk`Y[`ni`a`i`i`»
XYf`6i`_]h`A`YfYgY`<`]`gž`k`c`G]Y`≠f`A`c`h`c`f`f`U`X`U`V`g`h`Y`Y`b`_`Ø`b`b`Y`b`"

6i`_]h`A`YfYgY`<`]`g`9]bhf]hgdYf]g.`%\$"\$\$\$`F`i`d]U\`d`f`c`A`c`h`c`f`f`U`X`ZØf`
XUg`Duf`_`Y`b`

U`h1` 6I`?`#`H`A`9F`9G9`GC`BB`9BI`BH9F` ;`5B` ;`GG`≠`<`HGDI`B`?`H`?`I`H5`
@CA`6C`?`2`

I`a`Y`g`≠`b`Y`b`Y`]bZUW`Yf`ni`a` UWXYbž`\UVY`]W`X]Y`[YbUi`Y`Dcg]h]cb`
XYg`GcbbYbi`bhYf[Ub[g!5i`gg]W`hgd`i`b`_`hg`6i`_]h`A`YfYgY`<`]`g`Ui`Z`
XYf`?`Ufh`Y`i`bhYb`a`Uf_]Yfh`"

@9G9B`G`≠`A`9`<`F`.`%&`69GH9`GHF`Y`B`8`9`≠`B`8`9F`B`Y`<`9`J`C`B`?`I`H5`
@CA`6C`?` `8`9F`?`CA`D@9HH9` ;` ,`<`F`9F`NI`8`9B`6`9GH9B`GHF`Y`B`8`9B`
J`C`B`G` ,`8!`@CA`6C`?

6YghY`5i`gg]W`h`Ui`Z`XYb`GcbbYbi`bhYf[Ub[
Ua`5i`gg]W`hgd`i`b`_`h`6i`_]h`A`YfYgY`<`]`g`

:`c`[Yb`G]Y`j`ca`Duf`_`d`Uhn`Ui`g`XYa`K`Y[`XYb`<`Ø[Y`V`]bUi`Zž`V]g`G]Y`
XYb` ;`]dZY`YffY]WXYb" `J`cb`\]Yf`Ui`g`\UVYb`G]Y`X]Y`A`Ø[`]W`_`Y]hž`
XYa`<`Ø[Y`V]g`ni`XYb`\Ø\YfYb`5i`gg]W`hgd`i`b`_`h`Yb`Ui`Z`XYf`]b`_`Yb`
GY]hY`c`XYf`XYb`b`Y]Xf][YfYb`<`Ø[Y`b`Ui`Z`XYf`fY`W`h`Y`b`GY]hY`ni`
Zc`[Yb`"

6Y]XY`GY]hYb`X]YgYg`5i`gg]W`hgd`i`b`_`hg`VY]`GcbbYbi`bhYf[Ub[
V]YhYb`Y]b][Y`gdY`_`hU`i`ÅfY`5i`gV`]W`_`Yž`UVYf`X]Y`]b`_`Ybž`\Ø\YfYb`
GY]hYb`\Ø[Y`V]YhYb`≠`b`Y`b`Ui`W`Y]b`Yb`6`]W`_`Ui`Z`HUB↑ b[`5Ub`"

J`cb`6i`_]h`A`YfYgY`<`]`g`[Y`h`X]Y`GcbbY`ZUgh`X]fY`_`h`b`VYVb`XYb`
j`YfghfYi`hYb`?`]ddYb`]b`XYf` :`YfbY`ja`C`ghYb`i`bhYf" `<`]Yf`_`Ø`b`b`Y`b`G]Y`
VYcVUW`hYbž`k`]Y`X]Y`GcbbY`Ub[gUa`]b`XYb`A`YYfYg`c`f]nc`b`h`
[`Y]hYhž`VY]`c`f`g]Y`]fY`b`Å`W`h]W`Y` :`Yi`Yfg`c`k`n`Y][`h`"

U`h1` 6I`?`#`H`A`9F`9G9`GC`BB`9BI`BH9F` ;`5B` ;`GG`≠`<`HGDI`B`?`H`?`I`H5`
@CA`6C`?`2`

U`h1` <`5M@95`69`≠`6I`?`#`H`A`9F`9G9`

GCBB9BI BH9F; 5B; G5I GG=><HGDI B?H?I H5`@CA 6C? 2

B=><H`J 9F D5GG9B.`A 5@A 6I`< @G I BG9H`J =>K DC -BH/
A 5K I B`6957<`?I H5`@CA 6C?

5i gg]W hgd i b_h`Z0f`5 ZZY b 3`

5i ZXYb`b_Yb`<0[Y`b`Z]bXYb`G]Y`cZha Y\fyfY`; fi ddYb`j cb
5 ZZYbž`X]Y`Ui ZXYb`?`]ddYb`W`Yb`i bX`j Yfgi WYbž`\fyb
bAW`h]WYb`GcbbYbi bhYf[Ub[`ni`Z]]Yfyb"8]YgY`ž b[g`g]bX
n]Ya`]W`Ub`A YbgWYb`[Yk 0\bž`gc`gY`fž`XUgg`g]Y`Z0f`: chc`g`Ui Z
XYf`?`]ddY`ni`dcg]Yfyb`gWY]bYb"

U`h1 @CA 6C?!5:: 9`5A`GHF 5B 8 2 5:: 9`7< @B; `5A
5I GG=><HGDI B?H`6I ?`H`A 9F 9G9

9D=>`@CA 6C?`GHF 5B 8 F 9G9.`D-B?`6957<`@CA 6C?`
?CA D@9HH9F`GHF 5B 8: , < F 9F

? i hU`@ca Vc_`I bhYf_`i bZh`

K c`]b`? i hU`@ca Vc_`0VYfbUW hYb

A 9-B 9`I BH9F?I B: H` `6UbUbU`<ca YghUm 0f` - `dfc`B UW`h`_Ubbgh
Xi`Y]b`8cddY`n]a a Yf`a]h`?`]a UUb`U[Y`i bX`_cghYb`cgYa
: f0\gh0W`VY`_ca a Yb"8 Ug`K]:]\]Yf`]gh`gW`bY`i bX`XYf`6Yg]hnYf
]gh`gY`f`ZfYi bX`]W`i bX`ni j cf`_ca a YbX"9f`[UV`a]f`YXYb`HU[
Y]bY`_cghYb`cgY`DUdUmU`Ui g`gY]bYa` ; UfhYb"CVk c\`Yg`Yhk Ug
UVgY]hg`XYf`<Ui dhghfU>Y`]Y[hž`k]fX`XYf`6Yg]hnYf`G]Y`a]h`Y]bYa
A chc`ffUX`Z0f`) "\$\$\$`dfc`HU[`Ui ggc`fh]Yfyb"

U`h1 65B 5B 5`<CA 9GH5M-B`?I H5`@CA 6C?`-B 8CB 9G=>B 2
69GH`J 5@ 9`<C GH9@`A YfybXYb[`<cghY`K Ybb`G]Y`<cghY`!
5ha cgd\`AfY`gi WYbž`XUbb`g]bX`G]Y`VY]a`A YfybXYb[`<cghY`
[YbUi`f]W`h]["": 0f`bi f`*`~`dfc`B UW`h`_0bbYb`G]Y`g]W`]b`Y]bYa
_]a Uh]g]YfhYb`GW`UzgUU`a]h`K @5B`i bX`6`]W`_Ui ZXYb`; UfhYb
k]YXYfZ]bXYb"8]Y`I bhYf_`i bZh`]Y[h`bi f`*`\$\$`a`j ca`?i hU`6YUW
YbhZYfb`hi bX`]b`XYf`B`À`Y`j]Y`Yf`F`YghUi fUbhgž`c`_U`Yf`K Ufi b[g
i bX`Gi dYfa`Àf`hY"

U`h1 A 9F 9B 8 9B; `?I H5`@CA 6C?`<C GH9@ 2

?I H5 '@CA 6C? : 5J CF #H9' 'C f][]b'@ca Vc_C f][]b'j YfZ0[h'ØVYf
Y]bYb'Gk]a a]b[dcc`a]h'GcbbYbhYffUggY'gck]Y'Ødd][Y'; ÀfhYb
ni a '9bhgdUbbYb"8]YgYf'C fh]gh'nYbhfU`[Y`Y[Yb'i bX'j YfZ0[h'ØVYf
Y]b`Y][YbYg'F YghUi fUbh"A]h'G]W\Yf\Y]h`Y]bY`XYf'VYghYb'D]W_g]b
?i hU'@ca Vc_`

U`h1 <9F?I B: H?I H5 '@CA 6C?`B8CB9G=9B 2

K Y]hYfY': chc g'j ca 'A YfYgY'<]`g'Gi bgYh
J]Yk dc]bh

K À\fybX'a Y]bYf'NY]h]a 'GØXYb\UVY'jW\X]YgYb
GcbbYbi bhYf[Ub[g!5i gg]W\hgdi b_h'j cb'?i hU'@ca Vc_`" 'A U'
VYgi W'h'`JžYg'k Uf'k]f_]W'gc'gdY_hU_i `Àf"CVk c\`Yg'n]Ya `]W
VY`jYVh]ghž]gh'Yg'Y]b`C fhžXYf'gY]bYb`B Ua Yb`U`g`VYghYf
5i gg]W\hgdi b_h'Z0f'XYb`GcbbYbi bhYf[Ub[]b'?i hU'@ca Vc_
XYZ]b]h]j]j YfX]Ybh`Uh"

U`h1 6I ? #H'A 9F 9G9'GC BB 9BI BH9F; 5B; GG=7 < HGDI B?H'?I H5
@CA 6C? 2

U`h1 6I ? #H'A 9F 9G9'GC BB 9BI BH9F; 5B; GG=7 < HGDI B?H'?I H5
@CA 6C? 2

U`h1 C6GHJ 9F?YI : 9F'?I H5 '@CA 6C?`GC BB 9BI BH9F; 5B; 2

U`h1 6I ? #H'A 9F 9G9'GC BB 9BI BH9F; 5B; GG=7 < HGDI B?H'?I H5
@CA 6C? 2

U`h1 6I ? #H'A 9F 9G9'GC BB 9BI BH9F; 5B; GG=7 < HGDI B?H'?I H5
@CA 6C? 2

U`h1 6I ? #H'A 9F 9G9'?I H5 '@CA 6C? 2

69JCF'G=9'; 9<9B.'JC @@GHYB8 ÷ 9'@GH9'89F'8 ÷; 9ž8=9'5I :
89F'÷BG9@@CA 6C?'NI`HI`B`G=8

U`h1 6i _]h'A YfYgY'<]`g'5i gg]W\hgdi b_h'VY]'GcbbYbi bhYf[Ub[2
"

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