

## HUi WXYb ]b`XYf`6`i Y`6Um`Ui Z`A Ui f]h]i g

8 Ug`HUi WXYb ]b`6`i Y`6Um`Ui Z`A Ui f]h]i g`[ UV`i bg`i bgYfY YfghY`9fZU\fi b[ `a ]h`XYa` HUi WXYb ]b`ghUf`\_Yb`Ghf0a i b[ Yb`a ]h`Y]b][ Yb`\_b]ZZ][ Yb`Hi bbY`b`ni a`BUj ][ ]YfYb`°BUW i bgYfYa`YfghYb`HUi W [ Ub[ `gY]h`ØVYf`Y]bYa``J\fi bX i bgYfYa`5ddYh]h[ Yk YW\_hž`k c`hYb`k ]f`i bVYX]b[ h`k ]YXYf`]b A Ui f]h]i g`i bhYf`K UggYf`[ Y\Yb`"BUWXYa`k ]f`j ca`BcfXYb XYf`ϑgY`]b`X]Y`fi` \][ YfY`i bX`fY`Uh]j`i bYfgW`cggYbY ; Y[ YbX`i a`6`i Y`6Um]a`GØXYb`[ Ync[ Yb`k UfYbž`cf[ Ub]g]YfhYb`k ]f`i bgYfYb`nk Y]hYb`HUi W [ Ub[ `ØVYf`i bgYf`<chY`" `a`GØXYb`[ ]Vh`Yg`k Yb][ Yf`K fUW\_gž`UVYf`XUg`A YYfYg`YVYb`fi bX`i a`6`i Y`6Um`k ]fX`j ca`6`i Y`6Um`A Uf]bY`DUf`\_ [ YgW`Øhnh`i bX`[ ]`h`U`g`XUg`i fgdf0b[ `]W`ghY`i bX`j ]Y`ZÀ`h][ ghY`/ Ua`d^Y`"d/

8 Ug`HUi WXYb ]b`6`i Y`6Um`Ui Z`A Ui f]h]i g`[ UV`i bg`i bgYfY`YfghY`9fZU\fi b[ `a ]h`XYa` HUi WXYb ]b`ghUf`\_Yb`Ghf0a i b[ Yb`a ]h`Y]b][ Yb`\_b]ZZ][ Yb`Hi bbY`b`ni a`BUj ][ ]YfYb`°

BUW`i bgYfYa`YfghYb`HUi W [ Ub[ `gY]h`ØVYf`Y]bYa``J\fi bX i bgYfYa`5ddYh]h[ Yk YW\_hž`k c`hYb`k ]f`i bVYX]b[ h`k ]YXYf`]b A Ui f]h]i g`i bhYf`K UggYf`[ Y\Yb`"BUWXYa`k ]f`j ca`BcfXYb`XYf`ϑgY`]b`X]Y`fi` \][ YfY`i bX`fY`Uh]j`i bYfgW`cggYbY ; Y[ YbX`i a`6`i Y`6Um]a`GØXYb`[ Ync[ Yb`k UfYbž`cf[ Ub]g]YfhYb`k ]f`i bgYfYb`nk Y]hYb`HUi W [ Ub[ `ØVYf`i bgYf`<chY`"

`a`GØXYb`[ ]Vh`Yg`k Yb][ Yf`K fUW\_gž`UVYf`XUg`A YYfYg`YVYb`fi bX`i a`6`i Y`6Um`k ]fX`j ca`6`i Y`6Um`A Uf]bY`DUf`\_ [ YgW`Øhnh`i bX`[ ]`h`U`g`XUg`i fgdf0b[ `]W`ghY`i bX`j ]Y`ZÀ`h][ ghY`Ui Z`A Ui f]h]i g`"K ]f`UffUb[ ]YfhYb`Y]bYb`9]bnY`hUb`\_hUi W [ Ub[ `Z0f`Yhk Ug`Ui » Yf`U`V`XYf`6i W`h]b`Y]bYa` ; YV]Yhž`XUg`U`g`F`cW`Y`Ncnc`VY`\_Ubbh`]gh`i bX`Z0f`gY]bY`Hi bbY`i bX`GW`i W`hYb`VY`\_Ubbh`]gh"

U`h1 HUi WXYb!]b!6`i Y!6Um!A Ui f]h]i g!Fi \Y!: `YXYfa Ui g 2 5hUg/ 6cchg`6`i Y`6Um]gh`Y]b`fi \][ Yg`i bX`[ YgW\ØhnhYg`K UggYf[ YV]Yhž XUg`j cb`Ub[ Yb`GUbXghfÅbXYb`Y]b[ YfU\`a h`k ]fX

6`i Y`6Um]gh`Y]b`fi \][ Yg`i bX`[ YgW\ØhnhYg`K UggYf[ YV]Yhž XUg`Ui Z U`Yb`GY]hYb`j cb`Ub[ Yb`GUbXghfÅbXYb`Y]b[ YfU\`a h`k ]fX" GcVU`X a Ub`YXcW`X]Y`6i W`h]j Yf`Aggh`i bX`]bg`cZYbY`K UggYf`Y]bhf]hž ÅbXYfh`g]W`X]Y`I a [ YVi b[ `gW`bY`" `9g`XUi YfhY`b]W`h`Ub[ Yž`V]g i bgYf`\_Y]bYg`GW`]ZZ]b`XYf`6fUbXi b[ `Ui Zi bX`UV`ni `K UggYf [ Y`UggYb`k i fXYžU`g`k ]f`Ui Zg`A Yf`\_`]bUi gZ `fYb"

B]W`h`k ]Y`XUg`A Yf`\_ja `BcfXYbžcXYf3 `i bgYf`8]j Ya UghYf`[ f]bghY i bg`Ub" <U`hY`X]W`b]W`h`Ub`XYf`C VYfZÅW`Y`Ui Z`GcVU`X`k ]f`Xf]b g]bXžghY][ Yb`G]Y`gc`gW`bY`k ]Y`a Ò[ `]W`UV"

9f`U[ `b]W`h`ZU`gW`" `9g`k Uf`k ]f`\_]W`b]W`h`k ]Y`XUg`A Yf`\_ja BcfXYb`5b`XYf`C VYfZÅW`Y`k i fXYb`k ]f`k ]Y`GhfUbX[ i h \Yfi a [ YgW`Yi XYfh`i bX`i bhYf`XYf`C VYfZÅW`Y`k Uf`Yg`b]W`h Y]bZUW`Yf`GcVU`X`k ]f`UVgh]Y[ Ybž`hfUZb`k ]f`Ui Z`ghUf`\_Y Ghf`Òa i b[ Ybž`X]Y`XUg`A Ub`Òj f]YfYb`VYgcbXYfg`gW`k ]Yf][ `a UW`hYb `b]W`h`X]YU`ZØf`Y]bYb`HUi W`[ Ub[ `Xi fW`GW`i W`hYb`i bX`Hi bbY`

9g`k Uf`g]W`Yf`]W`Y]b`Ubgdfi W`gj c`YfYf`HUi W`[ Ub[ `U`g`i bgYf`]b Hfci `Ui I `6]W`Yg`K Å`fYbX`i bgYf`YfghYf`HUi W`[ Ub[ `]b`Hfci `Ui I 6]W`Yg`fi \][ ž`Ub[ gUa`i bX`ØVYf`Y[ h`k Ufž`k Uf`XUg`HUi W`Yb`]b 6`i Y`6Um`\Y`\_h]gW`ž`gW`bY`i bX`]a dfcj ]g]Yfh`C Vk c`\`X]Y`Hi bbY` bi f`k Yb][ Y`A YhYf`Ub[ `k UfYbžYfgW`k YfhYb`X]Y`ghUf`\_Yb Ghf`Òa i b[ Yb`X]Y`6YZU`fVUf`\_Y]h"

5`X]Y`5ba i hi bX`; YgW`a Y]X][ \_Y]hž`X]Y`k ]f`k Å`fYbX`i bgYfYg YfghYb`HUi W`[ Ub[ g]a `BcfXYb`bYi `Yf`Yfbh`UhhYbžj YfZc[ Yb gW`bY`" `W`a i gghY`a ]W`ghUf`\_XUfUi Z`\_cbnYbhf]YfYbž`a Y]bY 5ha i b[ `ni `\_cbhfc`]YfYbž`i a `b]W`h`Xi fW`X]Y`ni gÅ`h`]W`Y 5bghfYb[ i b[ `XYg`? Ua dZYg[ Y[ Yb`X]Y`Ghf`Òa i b[ Yb`Xi fW`a Y]bY @ Zh`ni `gh`Øfa Yb"

U`h1 HUi WXYb!]b!6`i Y!6Um!A Ui f]h]i g!- 2 5hUg/ `6cchg`9]b a Ui f]gW`Yf`≠c`Z]gW`Z]hnhj cf`X]Y`? Ua YfU

8 Ug; Y`AbXY`k Uf`∅[ Y`][ `i bX`j YfAbXYfhY`g]W`ghAbX][ .: Y`g][ Y  
; ]dZY`Yf`cVYb`g]W`j ca`A YYfYgVcXYb`i bX`ghY]`Y`GW`i W`hYb  
gW`b]hhYb`]b`Xi b`\_Y`5V[ f∅bXY`"5`g`XYf`A YYfYgVcXYb`ZUW`Yf  
k i fXY`i bX`X]Y`Ghf∅a i b[ Yb`gW`k Ub`\_hYb`ž`VYghUb`X`X]Y  
A ∅[ `]W`\_Y]h`ž`Y]b][ Y`XYf`VYf∅`a hYb`A YYfYg`YVYk YgYb`XYf`6`i Y  
6Umini`VYcVUW`hYb"

A Uf`\_Ub`hY`[ Y`VY`i bX`gW`k UfnY`a Ui`f]gW`Y`; ∅hnYb`Z]gW`Y`gW`cggYb  
i a`XUg`F]Z`\_Yfi a`ž`k`Å`fYb`X`∅][ Y`A Ub`hUfc`W`Yb`gY]X][ `∅VYf`XYb  
A YYfYgVcXYb`nc[ Yb`"5VYf`Yg`k UfYb`b]W`h`XUg`?`cfU`Ybf]Z`cXYf  
X]Y`i b`hYfk UggYfk Y`h`ž`X]Y`U`Yb`X]Y`G`ck`ghU`\_Yb"

A Y]b`Y`9f]bb`Yfi b[ Yb`Ub`XUg`HUi`W`Yb`]b`6`i Y`6Um`g]b`X`X]Y`ghUf`\_Yb  
Ghf∅a i b[ Yb`ž`X]Y`Ui`Z[ Yk`∅`h`Y`GY`i bX`X]Y`\_`Ågh][ Yb`Hi`bb`Y`ž`X]Y`]b  
ghUf`\_Ya`?`cbhfUgh`ni`i bgYfYa`\_`Ub[ gUa`Yb`i bX`fi`\_][ Yb  
HUi`W`[ Ub[ `]a`B`cfXYb`XYf`\_`bgY`ghUb`XYb`"9g`k Uf`Y]b`Yf`XYf  
VY`VYb`XghYb`HUi`W`[ Åb[ Y`ž`Ub`XYb`Yb`k`]f`Y`hY][ Yb`ca`a`Yb  
\_UVYb`ž`i bX`Y]b`Y`W`hYg`HfU]b]b[ "

5`g`i bgYfY`NY]hj`Yf[ ]b[ `i bX`i bgYf`@`Zhj`cffUh`b`UW`\_Y]»`ž`k Uf`]W`  
Yhk`Ug`Yf`Y]W`hYfh`ž`U`g`Yg`Ub`XYf`NY]hk`Uf`Ui`Zni`ghY][ Yb`ž`Y]b`Y  
DUi`gY`Z∅f`i bgYfYb`G]W`Yf`\_Y]hgW`YW`\_Y]bni`\_Y[ Yb`i bX`k`]YXYf  
Ui`Zni`hUi`W`Yb`"8Yf`HUi`W`[ Ub[ `\_UhhY`[ fc»Yb`GdU»`[ Ya`UW`h`ž`UVYf  
]W`k Uf`Ui`g`XYf`,`Vi`b[ `i bX`a`∅XY`"

K ]Y`k Uf`XUg3`ZfU[ hY`i bgYf`8]j`Ya`UghYf`ž`U`g`k`]f`k`]YXYf  
Ui`ZhUi`W`hYb"

B]W`h`k`]Y`]a`B`cfXYb`ž`Ub`hk`cfhYhY`]W`a`]h`Y]b`Ya`\_`@`W`Y`b"

↵ž`XUg`gU[ Yb`g]Y`U`Y`"

- `U`h1` HUi`W`Yb`]b`6`i`Y`6Um`A`Ui`f]h]i`g!`%`2`
- `U`h1` HUi`W`Yb`]b`6`i`Y`6Um`A`Ui`f]h]i`g!`%`2`
- `U`h1` HUi`W`Yb`]b`6`i`Y`6Um`A`Ui`f]h]i`g!`\*`2`
- `U`h1` HUi`W`Yb`]b`6`i`Y`6Um`A`Ui`f]h]i`g!)`2`
- `U`h1` HUi`W`Yb`]b`6`i`Y`6Um`A`Ui`f]h]i`g!`(`2`
- `U`h1` HUi`W`Yb`]b`6`i`Y`6Um`A`Ui`f]h]i`g!`'`2`

- 'U`h1 HUi W\Yb`]b`6`i Y`6Um`A Ui f]h]i g!& 2
- 'U`h1 HUi W\Yb`]b`6`i Y`6Um`A Ui f]h]i g!% 2

## HUi W\Yb`]b`6`i Y`6Um`8 Ug`K YgYb`h`]W\Y

K Ug.`HUi W\Yb`]b`6`i Y`6Umž`A Ui f]h]i g"

K c.`K ]f`j YfvfUW\hYb`XfY]`B`ÅW\hY`]a`G\UbXfUb]`6YUW\Wc`a VYf F Ygcfh/`GdU``8 Ug`<chY``]Y[ h`Ui Z`Y]bYf`df]j UhYb`<U`V]bgY`ž`X]Y j ca`6`i Y`6Um`A Uf]bY`DUf`\_`i a gdØ`h`k ]fXž`k Ug`Yg`ni`Y]bYa`X`Yf VYghYb`; YV]YhY`X`Yf`b`gY`ZØ`f`A Y`YfYg`Y`VYk YgYb`a UW\h"

8 Ug`<chY``V]YhYh`XfY]`YI`\_`i g]j Y`Ghf`ÅbXY`ni f`5i gk U\`i bX`j ]Y`Y K UggYfgdcfhUfhYb`ž`X]Y`]b`≠fYf`6i W\i b[ `Yb`h`U`hYb`g]bX" K ]f`g]bX a ]h`X`Yb`\_`Y]bYb`<cV]Y!`?UhUa UfUbYb`a Y\fa U`g`i a`X]Y`<U`V]bgY` [ YZU\`fYb``9g`k YfXYb`Ui W\`?U`U`\_gž`HfYhVcchY`i bX GW\bcfW\Y`Ui gZØ[ Y`Ub[ YVchYb"

- 'U`h1 2
- 'U`h1 HUi W\Yb!]b!6`i Y!6Um!A Ui f]h]i g!F i \Y!:`YXYfa Ui g 2
- 'U`h1 2
- 'U`h1 2
- 'U`h1 2

5h`Ug`/`6cchg

8 Ug`<chY``\Uh`Ui W\`j ]Yf`F`YghUi fUbhgž`j cb`XYbYb`i bgYf`Uj cf]h XUg`™!`U!W\fhY!F YghUi fUbh`@Y`G]f]i g`k Ufž`XUg`]bhYfbUh]cbU`Y`i bX a Ui f]h]gW\Y`GdYn]U`]h`ÅhYb`gYfj ]Yfh" J ca`<Ui dh[ Y`ÅbXY ni fØW\_[ YgYhnhž`ZØ\`h`Yg`g]W\`]bh]a Yf`Ub`i bX`X]Y`7U`Ua Uf]`k UfYb`\_`Øgh]W\`

K Ubb. '8]Y`VYghY`F Y]gYnY]h`ZØf`A Ui f]h]i`g`]gh]j`cb`C`\_hcVYf`V]g`5df]`ž  
k Ybb`X]Y`HYa`dYfUhi`fYb`\\Y]»`ž`k`Ybb`Ui`W`ZYi`W`hi`bX`fY[`bYf]gW  
g]bX``8]Yg`]gh`Y]bY`[`i`hY`NY]h`ni`a`'HUi`W`Yb`ž`UVYf`VYUW`hYb`G]Yž  
XUgg`Yg`j`cb``Jbi`Uf`V]g`i`YVfi`Uf`ni`'K`]fVY`ghØfa`Yb`\_ca`a`Yb`\_Ubb`"  
8Yf`K`]bhYf`Ui`Z`XYf``b`gY`XUi`Yfh]j`cb`A`U]`V]g`GYdhYa`VYf``8]Y  
HYa`dYfUhi`fYb`g]bX`]a`a`Yf`bcW`k`Ufa`ž`UVYf`Yg`]gh`b]W`h`X]Y  
]XYU`Y`NY]h`ni`a`'HUi`W`Yb`"

K ]Y.`K`]f`\\UVYb`i`bgYfYb`HUi`W`[`Ub[`'ØVYf`X]Y`HUi`W`VUg]g`]a  
G`UbXfUb]`6YUW`W`a`VYf`F`Ygc`fh`/`'GdU`cf[`Ub]g]Yfh`"

8 Ug`6`i`Y`6Um]gh`bi`f`%\$`i`U`fa`]bi`hYb`j`ca`i`i`[`\\UZyb`YbhZYfbhž  
k`Ug`XUg`G`UbXfUb]`ni`a`]XYU`Yb`<`chY`a`UW`hž`i`a`Y]bY`C`XmggYY  
Ui`ZA`Ui`f]h]i`g`ni`VY[`]bbYb`cXYf`ni`VYYbXYb`"

HfUbgZYfg`\_`ÖbbYb`ØVYf``f`<`chY`c`XYf`Y]bYb`c`\_U`Yb`i`U`fYf  
cf[`Ub]g]Yfh`k`YfXYb`fWU``(`\$`\$`A`I`F`#`%`&`I`G8`Ł`K`]f`Ya`dZY`\\Yb`GhY`]c  
fŽ`&`\$`i`&`i`\$`,`(`-`+`Ł`ZØf``Àb[`YfY`HfUbgZYfg`fi`bX`i`a`X]Y`b`gY``9]b  
6Y]gd]Y`hfUbgZYf`ni`XYb`b`ØfX`]W`Yb`Ghf`ÀbXYb`\_cghYh`Yhk`U`%)`\$\$  
A`I`F`#`(`) `I`G8`"

K ]f`\\UhhYb`Y]bYb`Ub[`Yb`Nk`]gW`Yb`ghc`dd`j`cf`i`bgYfYa  
5bgW`i`ggZi`[`j`cb`?`i`U`U`@`a`di`fž`U`gc`\\UVYb`k`]f`i`bg`ZØf`X]Y  
B`UW`h]b`Y]bYf`d]j`UhYb`F`i`\\Ygi`]hY`]b`XYf`D`UnU`DfYa`]i`a`@`ci`b[`Y  
]a`i`i`[`\\UZyb`b]YXYf[`Y`UggYb`i`Y]b`i`ØW`gZU`ž`k`Ybb`a`Ub  
VYXYb`\_hž`XUgg`DYhYf`g]W`j`cb`Y]bYa`V]fa`Ub]gW`Yb`J]fi`g`Yf`c`hY  
i`bX`X]Y`5`hYfbUh]j`Y`[`Yk`YgYb`k`ÅfY`UW`h`Ub[`Y`Ghi`bXYb`Ui`Z  
i`bVYe`i`Ya`Yb`GhØ`\\Yb`"

A`Ui`f]h]i`g`k`]fX`j`cb`a`Y`fYfYb`]bhYfbUh]cbU`Yb`i`i`[`[`YgY`gW`UZhYb  
Ub[`YZc[`Yb``6i`W`Yb`G]Y`ØVYf`g`\_mgWUbbYf`bYh`ni`XYb`VYghYb  
DfY]gYb`"

'U`h1` 2`

@`cbY`m`D`UbYh`A`Ui`f]h]i`gž`F`Åi`b]cb`/`GYmW`Y`Yb`]gh`Y]b  
i`a`ZUggYbXYf`F`Y]gY`ZØ`fYf`ZØf`A`Ui`f]h]i`gž`]XYU`ZØf`X]Y`Yb][`Ybž`X]Y  
gc`k`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`VYZU\ fYbY`GhfU» Y`bY\ a Yb`a ÖW`hYb`  
"

8YhU]`g

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