

B Yi ni [ Ub [ '≠Ub ' < ØhYf. '5GJ ' < Ua a !  
K YghZU`Yb `Ui Z`XYa `K Y[ `ni a  
C `ma d]UhfU]b]b [

I G! ? Ud]hÀb`≠Ub` < ØhYf`gd]W\h`ØVYf`gY]bYb`K YW\gY`ni a `5GJ  
< Ua a !K YghZU`Yb`i bX`X]Y` < YfUi gZcfXYfi b [ Yb`XYf`bYi Yb  
GU]gcb"

8 Yf`Ua Yf]\_Ub]gW\Y` < UbXVU`gd]Y`Yf`≠Ub` < ØhYf`ž`XYf`]b`XYb`Y`hnhYb  
≠\fYb`VY]a `HGJ `6UmYf`8cfa U [ Yb`j YfVfUW\hY`ž`U`h]g]W\`ZØf`Y]bY  
bYi Y` < YfUi gZcfXYfi b [ `VY]a `5GJ ` < Ua a !K YghZU`Yb`Yb`hgW\]YXYb"  
< ØhYf`Vf]b [ h`gck c`X`Yi hgW\Y`U`g`Ui W\`Ua Yf]\_Ub]gW\Y`K i fnY`b`]b  
gY]b`Gd]Y`Y]b`i bX`U`h`Y`f [ Y]n][ Y`N]Y`Y`ž`XUfi bhYf`Y]bY`HY]`bU`a Y  
Ub`XYb`C`ma`d]gW\Yb`Gd]Y`Yb`&\$&, ž`X]Y`]b`@cg`5b [ Y`Yg`ghUhhZ]bXYb  
k YfXYb"A`h`Y]bYf`K`]X!7UfX`ZØf`XUg`Ua Yf]\_Ub]gW\Y  
< UbXVU`h`Y`Ua `U`h`Y`f`VYfY]hg`Y]bY`j`]Y`j`YfgdfYW\YbXY`5i`gg]W\h`Ui`Z  
X]Y`\_ca`a`YbXYb`VY]XYb`K`Y`ha`Y]ghYfgW\UZhYb`&\$&)`i`bX`&\$&+"`

B UW\`Y]bYa`U`Ub [ `À`f][ Yb`9b [ U [ Ya`Ybh]b`8cfa U [ Yb`ž`k`c` < ØhYf  
nk`Ö`Z`≠\fY`U`b [ `gd]Y`hY`ž`k`Uf`gY]b`K`YW\gY`ni`a`5GJ`Y]b  
,`VYffUgW\i`b [ ggW\]hž`XYf`VY]`gY]bYa`Y`Y`a`U][ Yb`J`YfY]b`\_Ui`a  
Yfk`UfhY`h`k`i`fXY`"Hfc`hn`XYf` < YfUi gZcfXYfi b [ Yb`i`bX`XYf  
I`a`ghY`i`b [ Yb`ž`X]Y`Y]b`J`YfY]b`gk`YW\gY`a`h`g]W\`Vf]b [ hž`nY][ h`g]W\  
XYf`&`\*!`≠\f][ Y`c`d`h]a`]gh]gW\`ž`k`Ug`gY]bY`5bd`Uggi`b [ `VYhf]Zž`B`UW\  
XYb`YfghYb`K`c`W\Yb`]gh`Yf`ØVYfnYi [ hž`XUgg`XYf`GW\]h`h`XYf`f]W\h][ Y  
k`Uf`Yf`ZØ`h`g]W\]b`gY]bYf`bYi`Yb`A`UbbgW\UZh`i`bX`I`a [ YVi`b [   
gY`f`k`c`"

J YfhfUi Yb`]b`XUg`HYUa`hfc`hn`gW\`k`]Yf][ Yf  
5bZUb [ gd`UgY

6YfY]hg`ni`6Y [ ]bb`XYf`GU]gcb`k`Uf`XUg`GY`Vghj`YfhfUi`Yb`j`cb` < ØhYf

VYa Yf\_Ybgk Yfh" Hfchn XYf VY]XYb B]YXYf U[ Yb ja J cfZY X \ Uh Yf  
XYa 5GJ < Ua a !K YghZU Yb j c`ghYg J YfhUi Yb Ui g[ Ygd fcW Yb"  
8]Y A UbbgW UZh \ Uh Yg a J f'g Y \ f' Y]W h[ Ya UW h" 8 Ug g]b X W c`Y  
ž b[ g ž Yf\_ `À fh Yf" 8 Yf ? Ud]h Ā b XYg i G! HYUa g \ Uh]b XYb Y fgh Yb  
HYghgd]Y Yb [ Y[ Yb gY]b Yb Y \ Ya U][ Yb J YfY]b i b X Y]b Yb k Y]h Yf Yb  
? cb\_i ffYb hYb ž XYb Hi G: Yfb Xcf Zz Y]b Y B]YXYf U[ Y Y]bgh YW Yb  
a ØggYb" 8 Yb bcW [ `Ui Vh Yf ZY gh X Uf Ub ž X Ugg a ]h\_c bgYe i Yb hYa  
HfU]b]b [ i b X HYUa UfVY]h XYf 5GJ Ub X]Y [ i hY @Y]ghi b [ XYf  
j Yf[ Ub[ Yb Yb GU]gcb Ub\_b Ød ZYb \_Ubb ž k c`a Ub XYb Xf]h hYb D`Uhn  
VY Y[ hY" K ]f a ØggYb bcW c fXYb h]W XUZØf h fU]b]Yf Yb ž X Ugg Yg  
gc \_ca a h" K ]f g]b X Y]b Y ni gUa a Yb [ Yk ØfZY hY Hfi ddY ž XU \_Ubb  
a Ub b]W h gc Y]b ZUW gU[ Yb ž X]Y < Ua a Yf k Yf XYb Y hnh  
Ui ZghY][ Yb ž gc < Øh Yf k Y]h Yf"

I a g]W VYggYf]b X]Y A UbbgW UZh ni ]bhY [ f]Yf Yb ž \ Uh < Øh Yf Ui W  
gY]b Yb K c \ bg]h n[ Y Ā b XYfh" 9f \ Uh g]W ni gUa a Yb a ]h gY]b Yf  
: fYi b X]b ž X]Y Ui g < Ua Vi f[ \_ca a hž]b A Øbgh Yf b]YXYf[ Y UggYb ž  
VYg]hnh Y XcW Ui W Y]b Y \_Y]b Y K c \ bi b [ ]b < Ua a " ÆW bi hY  
X]Y NY]h]a 5i hc ž i a a ]h: fYi b XYb i b X: Ua ]]Y ni hY Y Zcb]Yf Yb  
cXYf Gd]Y nØ[ Y b UW ni VYfY]h Yb ž ZØ[ h Yf \ ]b ni "

⇒ b h Y b g]j Y J c f V Y f Y]h i b [ `]a HfU]b]b [ g`U[ Yf

8]Y [ Ya Y]bgUa Y NY]h]a HfU]b]b [ g`U[ Yf]b < U VYfgh UXh k Uf ZØf  
X]Y B Yi ni [ Ā b [ Y i b X X]Y HYUa XmbUa ]\_j cb Yb hgW Y]XYb XYf  
6YXYi hi b [ " 8 U \ UVYb k ]f j ]Y Ub XYf 5Vgh]a a i b [ [ Y UfVY]h Y hž  
i a i bgYf GmghYa ni Z]b XYb ž Yf\_ `À fh < Øh Yf" 8]Y 7 \ Ya ]Y nk ]gW Yb  
] \ a i b X gY]b Yb A ]hgd]Y Yfb ž]bgVYgcb XYf Y a ]h XYb ? c`Y [ Yb  
McbUhUb 8 UmUb i b X ž `]i g A YmYf!G]YVYfhž]gh Y]b nYb hfU Yf Di b\_hž  
i a ]a 5b [ f]Zi b X]b XYf 5Vk Y \ f Yf Zc [ fY]W ni gY]b" GY]b Y  
J cfZYi XY Ui ZXUg Ni gUa a Ybgd]Y nY][ h g]W . ÆW ZFYi Y a ]W ž  
a ]h x \ b b m Ui ZXYa : Y X ni gh Y \ Yb"

I a X]Y N]Y Y ZØf X]Y VYj c fgh Y \ Yb XY GU]gcb ni YffY]W Yb ž a i gg  
XUg HYUa g]W gW b Y` Z]b XYb i b X X]Y Ni gUa a Yb UfVY]h Ui ZXYb  
D`Uhn Vfb [ Yb " < Øh Yf]gh g]W XYf < YfUi gZc fXYfi b [ Yb VYk i gghž  
UVYf Yf Vfb [ h Y]b Y d c g]h j Y 9]bgh Y` i b [ a ]h 9f \ Uh g]W Ui W  
; YXUb\_Yb ØVYf X]Y ? cb\_i ffYbn]a 5i ZghY [ [ Ya UW h" ÆW

[ `Ui VYž'X]Y `5VghY][ Yf'6Yf[ ]gWXYf' < 7`i bX'6U`b[ Yb'k YfXYb` \cW  
[ Y\UbXY`hž'XYf' < 7`9`VZcfYbn`\Uh'g]W\ [ i h'j YfghÅf\_h ž'bYbbh'Yf  
Y]b][ Y`XYf'dchYbn]Y``Yb'5i Zgh]Y[ g\_UbX]XUhYb`bYVYb`XYb' < Ua a "   
 K ]f'g]bX` \cZYbh]W\ `Ui W\ XUVY]ž `ZØ[ h'Yf'cdh]a ]gh]gW\ `]bni ž  
VYhc.bh'UVYfž'XUgg'X]Y `A UbbgW UZh'XUZØf'U`Yg'f]W h][ `a UWYb  
a i ggž'XYbb` ]b`X]YgYf'GU]gcb` [ ]Vh'Yg`\_Y]bY`K ]`X!7UfX`ZØf'XYb  
5i Zgh]Y [ `]b`X]Y`YfghY`@[ U"

≠b' < ØhYf'nY][ h'XUa ]h'b]W\ h'bi f'YbhgW\`cggYbYg'9b[ U[ Ya Ybh'ZØf  
XYb'5GJ` < Ua a !K YghZU`Ybž'gcbXYfb`Ui W\ `5a V]h]cbYbž'g]W\ `]b`XYf  
< UbXVU``k Y`h'k Y]hYfni Ybhk ]W\_Y`b`i bX`U`g'Gd]Y`Yf'ni `k UWgYb"  
GY]b'9\ f[ Y]n'i bX`X]Y`@[YVY`ni a ` < UbXVU``\_ØbbhYb'g]W\ `U`g  
k Yfhj c``ZØf'XUg`HYUa `Yfk Y]gYbž'k Å\ fYbX'g]Y`Ui ZXYa `K Y[ `g]bXž  
bYi Y` < Ø\Yb`ni `YffY]W\Yb"

## 8 ]Y`9b hk ]W\_`i b[ `XYg' < UbXVU``g`]b 8 Yi hgW\`UbX

< UbXVU``\Uh]b`8Yi hgW\`UbX`Y]bY``Ub[ Y`HfUX]h]cb`i bX`YfZfYi h  
g]W\ `[ fc» Yf'6Y`]YVh\Y]hž'gck c`\`Ui Z'5a UhYi f!`U`g`Ui W\ `Ui Z  
DfcZ]VYbY``8]Y`8Yi hgW\Y` < UbXVU``!6i bX`fB < 6Ł`k i fXY`%- \$)  
[ Y[ fØbXYh'i bX`ZØfXYfh'gY]hXYa `X]Y`GdcfhUfh'Ui Z`bUh]cbU`Yf  
9VYbY``6YgcbXYfY` < Ø\Ydi b\_hY`k UfYb`X]Y`9fZc`[ Y`XYf  
B Uh]cbU`a UbbgW UZhž'X]Y`&\$+\$`i bX`&\$%- `X]Y`K Y`ha Y]ghYfgW UZh  
[ Yk UbbYb`i bX`&\$%\* `C`ma`d]Ug]`VYf`YffUb[ Yb"

≠`XYb`YhnhYb`≠\ fYb`\Uh'g]W\`X]Y`?cb\_i ffYbn`]b`XYf' < UbXVU``!  
6i bXYg`][ U`fk @Ł`k Y]hYf'j YfgW ÅfZh`J YfY]bY`]bj Ygh]YfYb`j YfghÅf\_h  
]b`HU`YbhY`i bX`]bhYfbUh]cbU`Y`Gd]Y`Yfž'i a `Ui Z`\ØW ghYa `B]j YUi  
a ]h\U`hYb`ni `\_ØbbYb" 8]Yg`\UhXUni` [ YZØ\fhž'XUgg'X]Y`@[ U  
UhhfU\_h]j`ZØf`Ni gW\Ui Yf'i bX`GdcbgcYb`[ YV`]YVYb`]gh"

## 5 \_hi Y``Y`GhUh]gh]\_Yb`ni f' < UbXVU``! 6i bXYg`][ U

8]Y` < UbXVU``!6i bXYg`][ U]j YfnY]W\ bYhY`]b`XYf'GU]gcb`&\$&&#&'  
Y]bY`Ni gW\Ui YfnU\`j cb`Xi fW\gW\ b]h]W\`Yhk U`) "\*" \$ \$`dfc`Gd]Y`ž

k Ug`Y]bYb`Y]W hYb`F ØW\_[ Ub[ `]a `J Yf[ `Y]W ni `XYb`J cf`U\fyb  
XUfghY`h"8 YbbcW `V`Y]Vh`X]Y`@[ U`Y]bY`XYf`gh`f`ghYb`i bX  
VY`Y]VhYghYb`]b`9i fcdU"6YgcbXYfg`VYa Yf`Ybgk Yfh`]gh`X]Y`c`Y  
5bnU`Ub`Ui g`ÀbX]gW Yb`Gd]Y`Yfbž`X]Y`X]Y`@[ U`VYfY]W Yfb" `@Ui h  
XYa `8<6`g]bX`fi bX`(\$i `XYf`Gd]Y`Yf`]b`XYf`6i bXYg`][ U  
Ui g`ÀbX]gW Yf`<Yf`\_i bZhž`k Ug`X]Y`hYfbUh]cbU`]h`h`XYg  
K YhhVYk YfVg`i bhYfghfY]W h`

8]Y`A UbbgW UZh]j cb`5GJ`<Ua a`!K YghZU`Yb`U`h]b`XYf`Y`h`h`Yb  
GU]gcb`XYb`Xf]hYb`D`Um`VY`Y[ hž`i bX`X]Y`@Y]ghi b[ `XYg`HYUa g`VY]  
XYb`UbghY`YbXYb`K Yh`\_`Aa dZYb`k ]fX`a ]h`GdUbbi b[ `j YfZc`[ h"8]Y  
j Yf[ Ub[ YbY`GU]gcb`nY][ hž`XUgg]a `cVYfYb`8f]hY`XYf`HUVY`Y`XYf  
K YhhVYk YfV`gY`f`Yb[ `]ghž`a ]h`bi f`k Yb][ Yb`Di b`\_hYbž`X]Y`X]Y  
YfghYb`ZØbZA UbbgW UZhYb`j cbY]bUbXYf`hfYbbYb"

8]Y`F c`Y`XYf`C`ma`d]gW Yb`Gd]Y`Y`ZØf  
< UbXVU`gd]Y`Yf

8]Y`C`ma`d]gW Yb`Gd]Y`Y`ghY`Yb`Y]bYb`k ]W h][ Yb`<Ø`Ydi b`\_h]a  
Gdcfh`\_U`YbXYf`XUf": Øf`<UbXVU`gd]Y`Yf`V]YhYh`X]Y`HY]`bU`a Y`Ub  
XYb`Gd]Y`Yb`b]W h`bi f`X]Y`A Ø[ `]W`\_Y]hž`\fY`gdcfh]W Yb  
: `À][ `\_Y]hYb`Ui ZXYf`]bhYfbUh]cbU`Yb`6Ø`bY`ni`nY][ Ybž`gcbXYfb  
Ui W`X]Y`7`UbWž`]b`XYf`Gdcfhk Y`h`VY`\_UbbhYf`ni`k YfXYb" `Jb  
<ØhYfž`XYf`U`g`?Ud]h`Ab`XYg`i G!HYUa g`Ui ZX]Y`C`ma`d]gW Yb`Gd]Y`Y  
&\$&, `]b`@cg`5b[ Y`Yg`\]bUfVY]hYhž`ghY`h]b`Y]bYf`FY]\Y`j cb  
Gd]Y`Yfbž`X]Y`j cb`X]YgYf[ `cVU`Yb`6Ø`bY`dfcZ]h]YfYb`\_ØbbhYb"

h`XYf`; YgW]W hY`XYg`<UbXVU`g`\UVYb`X]Y`C`ma`d]gW Yb`Gd]Y`Y  
j YfgW]YXYbY`5i gk ]f`\_i b[ Yb`Ui ZX]Y`9bhk ]W`\_i b[ `XYf`GdcfhUfh  
i bX`Ui ZX]Y`?Uff]YfYb`j cb`GdcfhYfb[ Y`UVh" `Gd]Y`Yfž`X]Y`VY]`XYb  
Gd]Y`Yb`YfZc`[ fY]W`g]bXž`\_ØbbYb`cZh`k Y]hUi g`[ fØ» YfY`J YfhfÀ[ Y  
i bX`GdcbgcfYbj YfhfÀ[ Y`UVgW`Y]» Ybž`k Ug`g]W`dcg]h]j`Ui Z]\fY  
Z]bUb]Y`Y`G]hi Uh]cb`i bX`]\fY`6Y`\_Ubbh`Y]h`Ui gk ]f`\_h"

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