

## D\Ubhc a g`ZY]Yfb`A Y]ghYfgW\ UZh`]b`XYf F Y[ ]cbU``][ U`a ]h`\_`UfYa`G]Y[

8]Y`K ]YgVUXYb`D\Ubhc a g`g]W\Yfb`g]W`a ]h`Y]bYa`(`).\$.ØVYf  
X]Y`D]\_Yg`X]Y`A Y]ghYfgW\ UZh`XYf`F Y[ ]cbU``][ U`i bX`ghY][ Yb`]b  
X]Y`; : @&`Ui Z`

⊕`Y]bYa`dUW\_YbXYb`A UhW` \ UVYb`X]Y`K ]YgVUXYb`D\Ubhc a g`Ua  
K cW\YbYbXY`Y]bY`ØVYfk`À`h][ YbXY`@Y]ghi b[ `[ YnY][ hi bX`X]Y  
?U]gYfg`Ui hYfb`D]\_Yg`a ]h`(`).\$.bUW`<Ui gY`[ YgW\]W`h`8]YgY  
Y]bXfi W\_gj c``Y`B]YXYf`U[ Y`ZØf`X]Y`D]\_Yg`]gh`b]W`h`bi f`Y]b  
F ØW\_gW`U[ `ZØf`XUg`HYUa ž`gcbXYfb`a Uf\_]Yfh`Ui W`Y]bYb  
\]ghcf]gW\Yb`A ca Ybh`ZØf`X]Y`D\Ubhc a g`ž`X]Y`g]W`Xi fW`X]YgYb  
G]Y[ `j cfnY]h][ `X]Y`A Y]ghYfgW\ UZh`]b`XYf`F Y[ ]cbU``][ U`[ Yg]W\Yfh  
\UVYb`i bX`bi b`Ui ZXYb`5i Zgh]Y[ `]b`X]Y`; : @&`V`]W\_Yb`\_ØbbYb"

8]Y`6Y[ Y[ bi b[ `ZUbX`]b`?U]gYfg`Ui hYfb`ghUhh`i bX`k i fXY`j cb`XYb  
D\Ubhc a g`j cb`5bZUb[ `Ub`VY\YffgW`h`8]Y`D\Ubhc a g`C ZYbg]j Y  
gYmhY`g]W`gcZcfh`]b`GnYbY``9]b`\_fUZh] c``Yf`@Ui Zj cb`<Ua`]hcb`i bX  
Y]b`k Y]hYfYf`@Ui Zj cb`8Ybb]g`; c`n`ZØ`fhYb`XUni ž`XUgg`X]Y  
K ]YgVUXYbYf`gW`bY``a ]h`&+.\$]b`; Ø`fi b[ `[ ]b[ Yb``6YgcbXYfg  
VYY]bXfi W\_YbX`k Uf`XYf`) - !MfX!@Ui Zj cb`6UfbYgž`XYf`XUg`HYUa  
ØVYf`X]Y`; Y[ Ybgd]Y`Yf`\]bk Y[ `]b`X]Y`9bXncbY`VfUW`hY`i bX`X]Y  
J YfhY]X][ i b[ `XYf`D]\_Yg`]b`6YXf`Àb[ b]g`VfUW`hY"

## 8 Ug`Gd]Y``]a`8 YhU]`

8]Y`D\Ubhc a g`gYmhYb`]fYb`Xfi W\_j c``Yb`Gd]Y`gh]`\_cbgYei Ybh  
Zcfh`E i UfhYfVUW`\_@YbbUfX`Hi fhi f]W`i bhYfghf]W`gY]bYb`K Yfh`ZØf  
XUg`HYUa ž`U`g`Yf`8Uj ]X`H]Vc`a ]h`Y]bYa`(`) &!MfX!DUgg`Ubgd]Y`hYž  
k Ug`XUg`GW`cfYVcUfX`Ui Z` (.\$`Yf\Ø`hY``5i W`X]Y`C ZYbg]j Y`XYf  
D]\_Yg`\UhY`A ca YbhYž`]b`XYbYb`g]Y`g]W`Yhk Ug`FUi a`Yf`\_Åa`dZYb

\_cbbhYbž'YXcW\ 'V'YVYb'g]Y' ]b'XYb'YbhgW\Y]XYbXYb'A ca YbhYb  
ghÅbX][ '\ ]bhYf'XYb'D\Ubhca g'ni fØW\_"

A ]hgca a Yf'W\Y'HYa dYfUhi fYb'hfi [ Yb'ni f'5i ZfY[ i b[ 'VY]ž'U'g'X]Y  
nk Y]hY' < U'VnY]h'VY[ Ubb" '8 ]Y'K ]YgVUXYbYfž'bi b'a ]h'Y]bYf  
?ca V]bUh]cb'Ui g'YfZU\ fYbYb'Gd]Y'Yfb'i bX'I &\$!HU'YbhYbž'ZØ\fhYb  
XUg'Gd]Y'Zc fhž'k cVY]'E i UfhYfVUW\_ '5>Gdf]b[ Yf'Y]bYb'ghUf\_Yb  
9]bXfi W\_ '\ ]bhYf' ]Y» " '9f'nY][ hY' b]W\h'bi f'gY]bY'K i fZ\_fUž'gcbXYfb  
Ui W\gY]bY'6Yk Y[ '\W\ \_Y]hž'U'g'Yf'gY'Vgh'Y]bYb'Hci W\Xck b'a ]h  
Y]bYa 'GbYU\_ 'Yfn]Y'hY"

8]Y'd\Åbca YbU'Y'8YZYbgY'XYf'D\Ubhca gž'Ub[ YZØ\fh]j cb'Gd]Y'Yfb  
k ]Y'6Yf[ \Åi gYf'i bX'FYgW\ \_Yž'j Yf\ ]bXYfhY'YXYb'Ub[ YghfYVhYb  
Jcfghc» 'XYf'D]\_Yg'i bX'ghY'hY'g]W\Yfž'XUgg'X]Y'Di b\_hY'ZØf'X]Y  
; Y[ bYf'Ui gV'YVYb" '5a '9bXY'XYf'DUfh]Y'gYhnhY'5a VYf[ 'a ]h  
Y]bYa ' ' )!MjFX!: ]Y'X!: cU'XYb'GW\ 'i ggdi b\_hi bX'a UW\hY'XUg  
9f[ YVb]g'dYfZY\_h"

## 5i Zgh]Y[ ' ]b'X]Y'; : @&

A ]h'X]YgYa 'G]Y[ 'g]W\Yfb'g]W\ 'X]Y'D\Ubhca g'b]W\h'bi f'X]Y  
A Y]ghYfgW\Už'gcbXYfb'\_ØbbYb'g]W\ 'bi b' ]bhYbg]j 'Ui Z'X]Y  
\_ca a YbXY'GU]gcb' ]b'XYf'; : @&'j c fVYfY]hYb" '8 Ug'HYUa '\Uh'g]W\ ' ]b  
X]YgYf'GU]gcb'U'g'Åi » Yfgh'k YhVYk YfVgZÅ\ ][ 'Yfk ]YgYbž'i bX'X]Y  
: fYi XY'ØVYf'XYb'5i Zgh]Y[ ' ]gh' ]b'XYf'[ YgUa hYb'Gd]Y'Yf!'i bX': Ub!  
; Ya Y]bgW\Už'ini 'gdØfYb"

8 Ug'YhnhY'GU]gcbgd]Y'ghY'h'bcW\ 'VYj cfž' ]b'XYa 'X]Y'D\Ubhca g  
VY]'XYb'FØggY'g\Y]a '7fi gUXYfg'UbhfYhYb'k YfXYb" '8 ]YgYg'8i Y'ž  
XUg'Ua 'GcbbhU[ ž'XYa '%'"GYdhYa VYfž'a 'GhUX]cb'Ua  
Gca a YfXUa a 'ghUhz]bXYhž'k ]fX'a ]h'GdUbbi b[ 'Yfk UfhYh" '8 ]Y  
D\Ubhca g\UVYb' ]b'XYf'J Yf[ Ub[ Yb\Y]h'VYfY]hg'VYk ]YgYbž'XUgg  
g]Y'Ui W\ '[ Y[ Yb'X]Y'7fi gUXYfg'ghUf'\_gd]Y'Yb'\_ØbbYb" '8 Yf'? ]W\_!cZZ  
]gh'ZØf'%) 'I '\f'Ub[ YgYhnhž'i bX'X]Y': Ub'g'ZfYi Yb'g]W\ 'XUfUi Žž'\f  
HYUa 'Ui W\ 'Xcfhi bhYfghØhYb'ni '\_ØbbYb"

8]Y'FY]gY'XYf'D\Ubhca g' ]b'XYf'FY[ ]cbU''[ U' ]gh'Y]b'hc''Yg'6Y]gd]Y'  
XUZØfž'k ]Y'HYUa [ Y]ghž'\UfhY'5fVY]hi bX'\Yfj cffU[ YbXYg'7cUW\ ]b[

ni [ fc» Ufh][ Yb`9f[ YVb]ggYb`Z0\fyb`\_0bbYb"9g`k ]fX`gdUbbYbX`ni  
gY\Ybž`k ]Y`g]Y`g]W`ja`b`ÅW`ghYb`š\`f`]b`Y]bYf`\0\YfYb`@[ U  
gW`U[ Yb`k YfXYb" : Ubgž`Gd]Y`Yf`i bX`HfU]bYf`g]bX`cdh]a`gh]gW  
i bX`VYfY]hž`XUg`5VYbhYi Yf` ; : @&`Ubni hfYhYb"

## 9]b`6`]W`\_`]b`X]Y`Ni`\_i`b`Zh

8]Y`D\Ubhca`g`\UVYb`]b`X]YgYf`GU]gcb`b]W`h`bi`f`Y]bY  
A Y]ghYfgW`UZh`[ Yk`cbbYbž`gcbXYfb`Ui`W`X]Y`K`Y]W`Yb`Z0f`Y]bY  
gdUbbYbXY`Ni`\_i`b`Zh`[ YghY`h"8Yf`5i`Zgh]Y`[ ]b`X]Y` ; : @&`k`]fX`bYi`Y  
<YfUi`gZcfXYfi`b`[ Yb`a`]h`g]W`Vf]b`[ Ybž`UVYf`Ui`W`X]Y`7\`UbW`ž`g]W  
[ Y`[ Yb`gh`Åf`\_YfY` ; Y`[ bYf`ni`VYk`Y]gYb`i`bX`X]Y`Y`][ YbY  
@Y]ghi`b`[ gZÅ\`][ \_Y]h`ni`ghY`][ Yfb"8]YgYg`HYUa` \`Uh`XUg`DchYbn]U`ž  
ni`f`ZYghYb` ; f0»`Y`]a`XYi`hgW`Yb` : cchVU`ni`k`YfXYbž`i`bX`X]Y  
b`ÅW`ghYb`GW`f]hY`k`YfXYb`Yb`hgW`Y]XYbX`XUZ0f`gY]b"

8Yf`\_0fn`]W`Y`G]Y`[ `XYf`D\Ubhca`g`0VYf`X]Y`D]\_Yg`a`Uf`\_]Yfh`Y]bYb  
VYXYi`hgUa`Yb`A`ca`Ybh]b`XYf`FY`[ ]cbU`][ Už`j`cf`U`Ya` ]b  
5bVYhfUW`h`XYf` ; YgW`]W`hY`XYg`HYUa`g"8]Y`D\Ubhca`gž`U`g`Y]bYg  
XYf`Å`hYfYb`HYUa`g`]b`XYf`@[ Už`\UVYb`g]W`0VYf`X]Y`š\`fY`\]bk`Y`[  
Y]bY`ghUV`]Y` : UbVUg]g`i`bX`Y]bYb`fYgdY`\_hUV`Yb`F`i`Z`YfUfVY]hYh" ð  
XYb`Y`hYb`š\`fYb`\UVYb`g]Y`\_cbh]bi`]Yf`]W`]b`XYf`@Y]ghi`b`[  
ni`[ Y`Y`[ hi`bX`]fY`Gd]Y`Yf`Xi`fW`[ Yn]Y`hY`HfU]b]b`[ gdfc`[ fUa`a`Y  
i`bX`9bhk`]W`\_i`b`[ ga`0`[ `]W`\_Y]hYb`[ YZ0fXYfh"8]Y`9bhgW`Y]Xi`b`[ ž  
a`Y`f`6UW`!i`dg`i`bX`!`&\$!Gd]Y`Yf`]bg`Gd]Y`ni`Vf]b`[ Ybž`nY][ h`Y]b  
9b`[ U`[ Ya`Ybh`Z0f`X]Y`\_0bZh][ Y` ; YbYfUh]cb`i`bX`X]Y`B`UW`\`U`h][ \_Y]h  
XYg`J`YfY]bg"

8]Y`FY`[ ]cbU`][ U`gY`Vgh`\Uh`g]W`]a`@Ui`ZY`XYf`š\`fY  
k`Y]hYfYbhk`]W`Y`hž`k`cVY]`gck`c`\`X]Y`HU`h]\_`U`g`Ui`W`X]Y`5h`\`Yh]\_`  
XYf`Gd]Y`Yf`XYi`h]W`ni`[ Ybca`a`Yb`\UVYb"8]Yg`gd]Y`[ Y`h`g]W`b]W`h  
bi`f`]b`XYb`@Y]ghi`b`[ Yb`XYf`D\Ubhca`g`k`]XYfž`gcbXYfb`Ui`W`]b`XYf  
?cb`\_i`ffYbn`]bbYf`U`V`XYf`@[ Už`X]Y`ni`bY`a`YbX`\`ÅfhYf`k`]fX"8]Y  
ðhY`[ fUh]cb`0b`[ YfYf`Gd]Y`Yf`]gh`Y]b`ghfUhY`[ ]gW`Yf`GW`UW`ni`[ ž`XYf  
Ui`W`]b`UbXYfYb`A`UbbgW`UZhYb`ni`VYcVUW`hYb`]ghž`i`a`Zf]gW`Yg  
HU`Ybh`ni`Z0fXYfb`i`bX`X]Y`A`UbbgW`UZhghfi`\_hi`f`Ub`[ Zf]gh][ `ni  
g]W`Yfb"

## 8 ]Y`6YXYi hi b[ `XYf`A Y]ghYfgWk UZh

8]Y`j cfnY]h][ Y`A Y]ghYfgWk UZh`XYf`D\Ubhca`g`]b`XYf`F Y[ ]cbU``][ U  
 \Uh`k Y]hfY]Wk YbXY`?cbgYei`YbnYb`Z0f`XUg`HYUa`" < ]ghcf]gWk  
 [ YgY\Yb`ghY`h`XYf`5i`Zgh]Y[ ]b`X]Y` ; : @&`Y]bY[ ]fc»Y  
 <YfUi`gZcfXYfi`b[ `XUfž`XU`X]Y`gdcfh]Wk Y`i`bX`Z]bUbni]Y`Y`ϕhYbg]hÅh  
 XYf`@[ U`g]Wk`Yf\YV`]Wk`Yf\0\h`HYUa`g`]b`XYf` ; : @&`a`0ggYb`b]Wk`h  
 bi`f`Ui`Z]Y]bYa` \0\YfYb`B]j`YUi`gd]Y`Ybž`gcbXYfb`Ui`Wk`]b`XYf`@[ Y  
 gY]bž`Xi`fWk`Gdcbgcf]b[ `i`bX` : UbYb[ U[ Ya`Yb`h`a`Y`f`l`a`gUhn`ni  
 [ YbYf]YfYbž`i`a`k`YhVYk`YfVgZÅ\][ `ni`V`Y]VYb"

ϕ`XYf`J`Yf[ Ub[ Yb\Y]h`\UVYb`nU\`fY]Wk Y`HYUa`gž`X]Y`]b`X]Y` ; : @&  
 Ui`Z[ Ygh]Y[ Yb`g]bXž`i`bhYfgWk]YX`]Wk Y`9fZU\fi`b[ Yb`[ Ya`UWk`h"  
 9]b][ Y`\UVYb`XYb`5i`Zgh]Y[ `U`g`Gdfi`b[ Vfyhh[ Ybi`hnhž`i`a`g]Wk`U`g  
 ZYghY` ; f0»Y`]b`XYf`@[ U`ni`YhUV`]YfYb`"5bXYfY`\]b[ Y[ Yb`\UVYb  
 Gk`k`]Yf][ \_Y]hYb`[ Y\UVhž`g]Wk`Ub`XUg`]bhYbg]j`YfY`Gd]Y`b]j`YUi  
 Ubni`dUggYbž`k`Ug`ni`Y]bYf`GhUV`]hÅh]\fYf`@]ghi`b[ ]b`XYf  
 F Y[ ]cbU``][ U[ YZ0\fh`\Uhž`X]Y`g]Y`]a`9bXYZY`\_h`b]Wk`h  
 Ui`ZfYWk`hYf\U`hYb`\_cbbhYb`"8]Y`D\Ubhca`g`ghY\Yb`U`gc`j`cf`Y]bYf  
 gdUbbYbXYbž`UVYf`Ui`Wk`\YfUi`gZcfXYfbXYb`F Y]gY`]b`X]Y` ; : @&"

## 5i gV`]W\_`Ui Z`X]Y`\_ca`a`YbXY`GU]gcb

A]h`XYa`6`]W\_`Ui Z`X]Y`\_ca`a`YbXY`GU]gcb`i`bX`XYa  
 VYj`cfghY\YbXYb`Gd]Y`[ Y[ Yb`X]Y`F`0ggY`g\Y]a`7fi`gUXYfg`\_0bbYb  
 X]Y`D\Ubhca`g`g]Wk`Ui`Z]Y]b][ Y]bhYfYggUbhY`6Y[ Y[ bi`b[ Yb`ZFYi`Yb"  
 8]Y`7fi`gUXYfg`\UVYb`]b`XYf`J`Yf[ Ub[ Yb\Y]h`VYk`]YgYbž`XUgg`g]Y  
 b]Wk`h`ni`i`bhYfgWk`Åh`Yb`g]bXž`i`bX`Y]b`gdUbbYbXYg`8i`Y`ghY`h  
 VYj`cf`"8]Y`D\Ubhca`g`k`YfXYb`U`Y`g`XUfUbgYh`Ybž`i`a`b]Wk`h`bi`f  
 ]\fY`Z0\Yb`GhY`i`b[ Yb`]b`XYf`F Y[ ]cbU``][ U`ni`ZYgh][ Ybž`gcbXYfb  
 Ui`Wk`i`a`g]Wk`Ui`Z]Y`5bZcfXYfi`b[ Yb`XYf` ; : @&`cdh]a`U`  
 j`cfni`VYfY]hYb"

8]Y`Gd]Y`Yf`k`YfXYb`g]Wk`gck`c\`]bX]j`]Xi`Y`U`g`Ui`Wk`]a`HYUa  
 k`Y]hYfYbhk`]W\_`Y`b`a`0ggYbž`i`a`X]Y`<YfUi`gZcfXYfi`b[ Yb`XYf  
 \0\YfYb`@[ U`YfZc`[ fY]Wk`ni`a`Y]ghYfb`"8Yf` : c`\_i`g`]Y[ h`Ui`Z]Y]bYf  
 gc`]XYb`J`cfVYfY]hi`b[ `i`bX`HYUa`Wk`Ya`]Yž`i`a`X]Y`VYghY`@]ghi`b[  
 Ui`Z`XUg` : Y`X`ni`Vf]b[ Yb`"Ni`XYa`k`]fX`X]Y`l`bhYfgh0hni`b[ ]`cb`XYb

: Ubgž'X]Y'ZØf'X]Y'HYUa g'j cb'YbhgW\Y]XYbXYf'6YXYi hi b[']ghž'Y]bY  
nYbhfU'Y'F c``Y'VY]'XYf': Ygh][ i b[ 'XYg'9fZc`[ g']b'XYf'\_ca a YbXYb  
GU]gcb'gd]Y'Yb"

8YhU]'g

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