

G]W\ Yf\ Y]hgf]g]\_Yb`VY]a`@B; !HYfa ]bU`  
A i \_fUb`!`5bhfU[ `Ui Z`I bhYfgU[ i b[ `XYf  
`bVYhf]YVbU\ a Y

9fZU\ fYb`G]Y`b`X]YgYa`5fh]\_Y`a Y\ f`ØVYf`XYb`5bhfU[ `Ui Z`  
I bhYfgU[ i b[ `XYf`bVYhf]YVbU\ a Y`XYg`@B; !HYfa ]bU`g`]b  
A i \_fUb`"9bhXYW\_Yb`G]Y`X]Y`gW\k Yfk ]Y[ YbXYb  
G]W\ Yf\ Y]hgf]g]\_Yb`i bX`X]Y` ; i hUW\ hYbž`X]Y`X]YgY`6YXYb`\_Yb  
c ZYbVUfYb`"@YgYb`G]Y`Ui W\`ØVYf`k Y]hYfY`5bhf`[ Yž`X]Y  
[ YghY`h`k i fXYbž`i a`XYb`6Yhf]YV`XYg`HYfa ]bU`g`ni`ghcddYb`  
`>hnh]bZcfa ]YfYb`°



5a`&`"A U]'&\$&(<`\Uh`X]Y` ; Ya Y]bXY`C ghgYVUX`6]bn`j cf`XYa  
6i bXYgj Yfk U`hi b[ g[ Yf]W\h`Y]bYb`5bhfU[ `Ui Z`I bhYfgU[ i b[ `XYf  
`bVYhf]YVbU\ a Y`XYg`@B; !HYfa ]bU`g`A i \_fUb`[ YghY`h`"G]Y  
VYUbfU[ hY`Ui W\`Y]bY`Nk ]gW\Ybj YfZØ[ i b[ ž`i a`X]Y`[ Yd`Ub`hY  
`bVYhf]YVbU\ a Y`V]g`ni f`YbX[ Ø]h[ Yb`9bhgW\Y]Xi b[ `XYg` ; Yf]W\hg  
ni`ghcddYb`"

`b`XYa`5bhfU[ `[ Y\h`Yg`i a`X]Y`6Yhf]YVg[ YbY\ a ][ i b[ `XYg`@B; !  
HYfa ]bU`gž`X]Y`Ua`&-`"5df]`&\$&(<`j YfØZYbh]W\h`k i fXY`"8 Ug  
HYfa ]bU`VYghY\h`Ui g`nk Y]F Y[ Ug]Z]n]Yfi b[ ggW\]ZYb`fl GF I gžž  
Y]bYa`HUb\_gW\]Z]i bX`k Y]hYfYb`UbXgY]h[ Yb`5b`U[ Yb`"

8 Yf'5bhfU[ 'VUg]Yfh'Ui Zj ]Yf': UWX [ i hUWX hYb''9]bYg'XUj cb']gh'Y]b  
G]WX Yf\Y]hgVYf]WX h'XYf'6YhfY]VYf]b'8Yi hgWX Y'F Y; Ugž'XYf'j cb'XYf  
fYbca a ]YfhYb' ð [ Yb]Yi f[ YgY''gWX UZh'5ei UXch'VY[ i hUWX hYh  
k i fXY''8]Y'; YgY''gWX UZh'Z0f'G]WX Yf\Y]hghYWX b]\_#GWX ]ZZgg]WX Yf\Y]h  
C ghgY'f] GGCŁ'k i fXY'VYUi ZhFU[ hž'XUg'F ]g]\_c'gWX k YfYf' i bZÀ''Y  
gck ]Y'X]Y'A Ò[ 'WX \_Y]hYb' ]\fYf'6Y\_Àa dZ b[ 'ja ' < UZYb'A i \_fUb'ni  
df0ZYb"

8]Y'; i hUWX hYb'\UVYb'Yf[ YVYbž'XUgg'X]Y'Gh0fZU''f]g]\_Yb'XYg'@B; !  
HYfa ]bU'g'b]WX h'U\_nYdh]Yfh'k YfXYb'\_0bbYb''9g[ ]Vh'Y]b'\c\Yg  
?c''g]cbgf]g]\_c'VY]a 'B Uj ] [ ]YfYb'XYf'GWX ]ZZY' ]a 'Yb[ Yb' < UZYb'j cb  
A i \_fUb''8]Y'6Y\_Àa dZ b[ 'j cb'6fÀbXYb'cXYf'9l d'cg]cbYb'Ui Z'XYb  
GWX ]ZZYb']gh'gck c\''UbX! 'U'g'Ui WX 'gY'gY]h[ ' \_Ui a 'a Ò[ 'WX''8]Y  
: c'[ Yb'gWX k Yfk ]Y[ YbXYf' i bZÀ''Y \_0bbhYb'ni 'J YfVfYbbi b[ Yb' i bX  
9l d'cg]cbYb' ]b'Y]bYa ' [ fc» Yb' i a \_fY]g'Z0\ fYb"

8 Ug[ Yd'UbhY'HYfa ]bU'\_c b nYdh'a ]h'X]YgYb'G]WX Yf\Y]hgf]g]\_Yb' ]b  
i ba ]hhY'VUfYf'BÀ\Y'ni 'K c\ b! 'i bX'? i f[ YV]YhYb'j Yfgh0» h[ Y[ Yb  
XYi hgWX Y' i bX' ]bhYfbUh]cbU'Y'G]WX Yf\Y]hgghUbXUfXg'Z0f  
gWX k ]a a YbXY'Gh0fZU''Ub'U[ Yb"

B YVYb'XYa '5bhfU[ 'XYf'; Ya Y]bXY' C ghgY'YVUX'6]bn'k YfXYb' ]b'XYf  
\_ca a YbXYb'K cWX Y'j ]Yf'k Y]hYfY'5bhfÀ[ Y'[ YghY''h''8Ufi bhYf'g]bX  
5bhfÀ[ Y'j cb'5bk c\ bYfb'j cb'B Yi !A i \_fUbž'X]Y' ]b' i ba ]hhY'VUfYf  
BÀ\Y'XYg'6Yhf]YVgVYfY]WX g''YVYbž'i bX'Y]b'5bhfU[ 'XYg  
9][ Ybh0a Yfg'Y]bYf': Yf]YbUb'U[ Y' ]b'B Yi !A i \_fUb''5i WX 'XUg  
8Yi hgWX Y' ð [ YbX\YfVYf[ gk Yf\_ž'@bX Yg] YfVUbX'A YW\_ YbVi f[ !  
J cfdca a Yfb'Y"J "ž'ghY''h'Y]bYb'5bhfU[ 'Z0f'X]Y'VYhfc ZYbY  
ð [ YbX\YfVYf[ Yž'X]Y'g]WX 'Ua ' C ghgY'YghfUbX' bU\Y'XYg' < UZYbg  
A i \_fUb'VYZ]bXYh"

8]Y''c\_U'Y'5i gk ]f\_i b[ 'X]YgYg'5bhfU[ g'Ui Z'XUg'@B; !HYfa ]bU'  
A i \_fUb' ]gh'Yf\YV' ]WX''8]Y'; Ya Y]bXY' C ghgY'YVUX'6]bn' i bX' ]\fY  
6Yk c\ bYf'g]bX'VYgcf[ h'0VYf'X]Y'G]WX Yf\Y]h'XYg'HYfa ]bU'g' i bX  
X]Y'a Ò[ 'WX Yb'5i gk ]f\_i b[ Yb'j cb' i bZÀ''Yb'cXYf'Gh0fZÀ''Yb'Ui Z  
]\fY'K c\ b! 'i bX'? i f[ YV]YhY''8]Y'5bhfÀ[ Y'XYf'5bk c\ bYf' i bX'XYg  
ð [ YbX\YfVYf[ gk Yf\_g'nY][ Ybž'XUgg'b]WX h'bi f'X]Y'; Ya Y]bXYž  
gcbXYfb'Ui WX 'UbXYfY''c\_U'Y' ð hYfYggYbj YfhfYhYf'VYgcf[ h'g]bX"

9]bY`HUVY`Y`a ]h`fY`Yj UbhYb`ϕZcfa Uh]cbYb`\_ÖbbhY  
Zc`[ YbXYfa U»Yb`Ui ggY`Yb.

pBUa Y`XYg`5bhfU[ ghY`Yfg`p`9bhZYfbi b[ `j ca`HYfa ]bU`p  
p !p p  
p; Ya Y]bXY`C ghgYYVUX`6]bn`p`p  
p5bk c`bYf`BYi !A i \_fUb`p`%&\$!%) \$`A YhYf`p  
p9][ YbhØa Yf`Yf]YbUb`U[ Y`BYi !A i \_fUb`p`\* \$\$`A YhYf`p  
p8Yi hgWXYg`ϕ [ YbX`YfVYf[ gk Yf`\_pUa`C ghgYYghfUbX`p

8]YgY`ϕZcfa Uh]cbYb`j YfXYi h]WXYb`X]Y`B`A`Y`XYf  
UbhfU[ ghY`YbXYb`DUfhY]Yb`ni a`@B; !HYfa ]bU`A i \_fUb`i bX`]\fY  
dchYbn]Y`Y`6Yhfc ZYb`Y]hj cb`a`Ö[ `]WXYb`i bZ`Yb`cXYf`GhÖfZ`Yb`"

9g`]gh`k ]W h][ `ni`VYUW`hYb`ž`XUgg`XYf`5bhfU[ `Ui ZI bhYfgU[ i b[ `XYf  
ϕVYhf]YVbU`a Y`XYg`HYfa ]bU`g`bcW`b]W`h`Yb`hgW`Y]XYb`]gh`i bX  
XUg`; Yf]W`h`Y]bY`YbX[ Ø`h][ Y`9bhgW`Y]Xi b[ `hfYZZ`b`k ]fX`"9g`V`Y]Vh  
UVni k UfhYb`ž`k ]Y`XUg`; Yf]W`h`Ui Z`X]Y`G]W`Yf`Y]hgVYXYb`\_Yb`XYf  
; Ya Y]bXY`i bX`XYf`5bhfU[ ghY`Yf`fYU[ ]YfYb`k ]fX`"

< ]ghcf]gW`Y` : U`\_hYb`\_ÖbbhYb`]b`XYb`5fh]\_Y`Y]b[ YZØ[ h`k YfXYb`ž`i a  
XYb`?cbhYI h`XYg`@B; !HYfa ]bU`g`]b`A i \_fUb`ni`VYhcbYb`"Ni a  
6Y]gd]Y`\_ÖbbhY`Yfk`À`b`h`k YfXYb`ž`XUgg`XUg`HYfa ]bU`HY`]`XYg  
[ Yd`UbhYb`5i gVUi g`XYg`< UZYbg`A i \_fUb`]ghž`XYf`VYfY]hg`]b`XYb  
%- - \$Yf`ϕ\`fYb`VY[ Ub`b`"8]YgYf`5i gVUi `n]Y`h`XUfUi Z`UVž`XYb`< UZYb  
ZØf`XYb`]bhYfbUh]cbU`Yb`< UbXY`ni`Yf`ÖZZ`b`Yb`i bX`X]Y  
k ]fhgW`UZh]W`Y`9bhk ]W`\_i b[ `XYf`fY[ ]cb`ni`ZØfXYfb`"

8]Y`5bhf`Ä [ Y`i bX`X]Y`XUfUi Zc`[ YbXY`9bhgW`Y]Xi b[ `XYg`; Yf]W`hg  
k YfXYb`nk Y]ZY`cg`5i gk ]f`\_i b[ Yb`Ui Z`X]Y`k Y]hYfY`9bhk ]W`\_i b[ `XYg  
@B; !HYfa ]bU`g`A i \_fUb`UVYb`"9g`V`Y]Vh`UVni k UfhYb`ž`k ]Y`XUg  
; Yf]W`h`X]Y`G]W`Yf`Y]hgVYXYb`\_Yb`VYk YfhYb`k ]fX`i bX`cV`XUg  
HYfa ]bU`Y`h`hYbX`]W`\_i b`6Yhf]YV`[ Ybca`a`Yb`k YfXYb`XUfZ`"8]Y  
6Øf[ Yf`j cb`C ghgYYVUX`6]bn`i bX`UbXYfY`c`\_U`Y  
ϕhYfYggYbj YfhfYhYf`k YfXYb`XUg`J YfZU`fYb`Ui Za Yf`\_gUa  
j YfZc`[ Yb`"

8YhU]`g

6Ygi W\Yb`G]Y`i bg`Ui Z.`a Y]b!VYf`]b"bYh