EX.1

1.1

Since we know that the yield curve represents a curve that plots all the yield of a bond, with x>y, we can say that an increasing yield curve tells us that the yield that comes from investing in a bond with maturity of x years are greater than the yield that comes from a bond with maturity of y years. This is the image of an healthy economy. Instead if the yield curve is flat, or worse, decreasing, the image that we have is that the returns of long period are less than returns of short period if we invest in a bond. This is not a good economic scenario because it’s telling us that in the future there will happen some bad things.

![Immagine che contiene screenshot

Descrizione generata con affidabilità molto elevata](data:image/jpeg;base64,/9j/4AAQSkZJRgABAQEAYABgAAD/4RCORXhpZgAATU0AKgAAAAgABAE7AAIAAAAJAAAISodpAAQAAAABAAAIVJydAAEAAAASAAAQdOocAAcAAAgMAAAAPgAAAAAc6gAAAAgAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAFZpbmNlbnpvAAAAAeocAAcAAAgMAAAIZgAAAAAc6gAAAAgAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAVgBpAG4AYwBlAG4AegBvAAAA/+EKYWh0dHA6Ly9ucy5hZG9iZS5jb20veGFwLzEuMC8APD94cGFja2V0IGJlZ2luPSfvu78nIGlkPSdXNU0wTXBDZWhpSHpyZVN6TlRjemtjOWQnPz4NCjx4OnhtcG1ldGEgeG1sbnM6eD0iYWRvYmU6bnM6bWV0YS8iPjxyZGY6UkRGIHhtbG5zOnJkZj0iaHR0cDovL3d3dy53My5vcmcvMTk5OS8wMi8yMi1yZGYtc3ludGF4LW5zIyI+PHJkZjpEZXNjcmlwdGlvbiByZGY6YWJvdXQ9InV1aWQ6ZmFmNWJkZDUtYmEzZC0xMWRhLWFkMzEtZDMzZDc1MTgyZjFiIiB4bWxuczpkYz0iaHR0cDovL3B1cmwub3JnL2RjL2VsZW1lbnRzLzEuMS8iLz48cmRmOkRlc2NyaXB0aW9uIHJkZjphYm91dD0idXVpZDpmYWY1YmRkNS1iYTNkLTExZGEtYWQzMS1kMzNkNzUxODJmMWIiIHhtbG5zOmRjPSJodHRwOi8vcHVybC5vcmcvZGMvZWxlbWVudHMvMS4xLyI+PGRjOmNyZWF0b3I+PHJkZjpTZXEgeG1sbnM6cmRmPSJodHRwOi8vd3d3LnczLm9yZy8xOTk5LzAyLzIyLXJkZi1zeW50YXgtbnMjIj48cmRmOmxpPlZpbmNlbnpvPC9yZGY6bGk+PC9yZGY6U2VxPg0KCQkJPC9kYzpjcmVhdG9yPjwvcmRmOkRlc2NyaXB0aW9uPjwvcmRmOlJERj48L3g6eG1wbWV0YT4NCiAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAKICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgIAogICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgCiAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAKICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgIAogICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgCiAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAKICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgIAogICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgCiAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAKICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgIAogICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgCiAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAKICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgIAogICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgCiAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAKICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgIAogICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgCiAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAKICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgICAgIAogICAgICAgICAgICAgICAgICAgICAgICAgICAgPD94cGFja2V0IGVuZD0ndyc/Pv/bAEMABwUFBgUEBwYFBggHBwgKEQsKCQkKFQ8QDBEYFRoZGBUYFxseJyEbHSUdFxgiLiIlKCkrLCsaIC8zLyoyJyorKv/bAEMBBwgICgkKFAsLFCocGBwqKioqKioqKioqKioqKioqKioqKioqKioqKioqKioqKioqKioqKioqKioqKioqKioqKv/AABEIAqsEjgMBIgACEQEDEQH/xAAfAAABBQEBAQEBAQAAAAAAAAAAAQIDBAUGBwgJCgv/xAC1EAACAQMDAgQDBQUEBAAAAX0BAgMABBEFEiExQQYTUWEHInEUMoGRoQgjQrHBFVLR8CQzYnKCCQoWFxgZGiUmJygpKjQ1Njc4OTpDREVGR0hJSlNUVVZXWFlaY2RlZmdoaWpzdHV2d3h5eoOEhYaHiImKkpOUlZaXmJmaoqOkpaanqKmqsrO0tba3uLm6wsPExcbHyMnK0tPU1dbX2Nna4eLj5OXm5+jp6vHy8/T19vf4+fr/xAAfAQADAQEBAQEBAQEBAAAAAAAAAQIDBAUGBwgJCgv/xAC1EQACAQIEBAMEBwUEBAABAncAAQIDEQQFITEGEkFRB2FxEyIygQgUQpGhscEJIzNS8BVictEKFiQ04SXxFxgZGiYnKCkqNTY3ODk6Q0RFRkdISUpTVFVWV1hZWmNkZWZnaGlqc3R1dnd4eXqCg4SFhoeIiYqSk5SVlpeYmZqio6Slpqeoqaqys7S1tre4ubrCw8TFxsfIycrS09TV1tfY2dri4+Tl5ufo6ery8/T19vf4+fr/2gAMAwEAAhEDEQA/APoCiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiise98T6fYXzW0/nEx7RLIkZMcW7gbm7ZoA2KKAcjI6UUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUVn6rrumaIiPq17DarIcKZXC5P40mla/peuCQ6TfQ3Yj+/5Thtv5UAX5JEiQvIwVR1JpDKisqlwGf7oz1qK/KCwl8yEzqVx5YGS1Y2kWN5YXyf2kDcGRSIXHzC3H9w//Fd/WgCHxj4uPhu1H2azkurgkE4GEjUnGSf6Cp9X1nURrcekaFbwS3PkG4ledyqooOAOAeSSKj8fW0934QuYbWGSaUsuEjUsTz6CoNTnk0Pxp/ak1pc3FpcWZiLW0LSsjgggEKCcEA80AWLHWdT1vQ4rnS4reK6WRo7iOZzhWU44IB+v41leLbqO6tp7F2ube9jMbCNIiyXR3ZAyOCBjvitbwVYT2WiyS3UbQyXdw8/lOMFATwD+AB/GuioAitTIbOEzIEkMa70H8JxyKloooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigDL8RXVvp+hXV7cQxzGGMmNXUHLnhRz6kgVV8IaMmk6Ijsii6uz59wwGMs3b8BgfhWnqmmWusWJs75C8LOjkBiMlWDD9QKtKAqhV4AGBQBzms3etz+LrHRtEvbWyE1nNcySXFsZs7HRQAAy4+/wDpU39h+NP+hk0v/wAFTf8Ax6mn/kq+mf8AYIuv/RsNdjQByH9h+NP+hk0v/wAFTf8Ax6j+w/Gn/QyaX/4Km/8Aj1dfRQByH9h+NP8AoZNL/wDBU3/x6j+w/Gn/AEMml/8Agqb/AOPV19FAHIf2H40/6GTS/wDwVN/8eo/sPxp/0Mml/wDgqb/49XX0UAch/YfjT/oZNL/8FTf/AB6j+w/Gn/QyaX/4Km/+PV19FAHIf2H40/6GTS//AAVN/wDHqP7D8af9DJpf/gqb/wCPV19FAHIf2H40/wChk0v/AMFTf/HqP7D8af8AQyaX/wCCpv8A49XX0UAefa1F4z0eOyY69pcv2q9htMf2Yw2+Y2N3+t5x6Vpf2H40/wChk0v/AMFTf/Hq39Y0hNXjtFklaP7LeRXQ2jO4xtkD6GtCgDkP7D8af9DJpf8A4Km/+PUf2H40/wChk0v/AMFTf/Hq6+igDkP7D8af9DJpf/gqb/49R/YfjT/oZNL/APBU3/x6uvooA5D+w/Gn/QyaX/4Km/8Aj1H9h+NP+hk0v/wVN/8AHq6+igDkP7D8af8AQyaX/wCCpv8A49R/YfjT/oZNL/8ABU3/AMerr6KAOQ/sPxp/0Mml/wDgqb/49R/YfjT/AKGTS/8AwVN/8err6KAOQ/sPxp/0Mml/+Cpv/j1H9h+NP+hk0v8A8FTf/Hq6+igDhtT0/wAaadpN3e/8JDpcn2aB5tn9lsN21ScZ832pdO07xpf6Xa3n/CQ6Wn2iFJdv9lsdu5QcZ833rr9Rs11HS7qydyi3MLxFgOVDKRn9aWwtBYabbWaMXW3iSIMRyQoAz+lAHMf2H40/6GTS/wDwVN/8eo/sPxp/0Mml/wDgqb/49XX0UAch/YfjT/oZNL/8FTf/AB6j+w/Gn/QyaX/4Km/+PV19FAHIf2H40/6GTS//AAVN/wDHqP7D8af9DJpf/gqb/wCPV19FAHIf2H40/wChk0v/AMFTf/HqP7D8af8AQyaX/wCCpv8A49XX0UAch/YfjT/oZNL/APBU3/x6j+w/Gn/QyaX/AOCpv/j1dfRQByH9h+NP+hk0v/wVN/8AHqP7D8af9DJpf/gqb/49XX0UAch/YfjT/oZNL/8ABU3/AMerN0SLxnrMF3INe0uH7NezWuP7MY7vLcru/wBb3xnFeg1n6NpCaPDdRxytKLm7muiWGNpkcsR9BmgDA/sPxp/0Mml/+Cpv/j1H9h+NP+hk0v8A8FTf/Hq6+igDkP7D8af9DJpf/gqb/wCPUf2H40/6GTS//BU3/wAerr6KAOQ/sPxp/wBDJpf/AIKm/wDj1H9h+NP+hk0v/wAFTf8Ax6uvooA5D+w/Gn/QyaX/AOCpv/j1H9h+NP8AoZNL/wDBU3/x6uvooA5D+w/Gn/QyaX/4Km/+PUf2H40/6GTS/wDwVN/8err6KAOQ/sPxp/0Mml/+Cpv/AI9R/YfjT/oZNL/8FTf/AB6uvooA5D+w/Gn/AEMml/8Agqb/AOPVm3cXjO18Rabpf9vaW326Od/M/sxhs8vZxjzec7/0r0Gs+60hLrXtP1RpWV7GOZFQDhvM25z9Nn60AYH9h+NP+hk0v/wVN/8AHqP7D8af9DJpf/gqb/49XX0UAch/YfjT/oZNL/8ABU3/AMeo/sPxp/0Mml/+Cpv/AI9XX0UAch/YfjT/AKGTS/8AwVN/8eo/sPxp/wBDJpf/AIKm/wDj1dfRQByH9h+NP+hk0v8A8FTf/HqP7D8af9DJpf8A4Km/+PV19FAHIf2H40/6GTS//BU3/wAeo/sPxp/0Mml/+Cpv/j1dfRQByH9h+NP+hk0v/wAFTf8Ax6j+w/Gn/QyaX/4Km/8Aj1dfRQByH9h+NP8AoZNL/wDBU3/x6srxEPGegaZHeHXdLn33UFvt/sxlx5sqx5z5vbdn8K9ErM1/RY9e05LSWZoVS5huNyjJJjkWQD8SuKAMP+w/Gn/QyaX/AOCpv/j1H9h+NP8AoZNL/wDBU3/x6uvooA5D+w/Gn/QyaX/4Km/+PUf2H40/6GTS/wDwVN/8err6KAOQ/sPxp/0Mml/+Cpv/AI9R/YfjT/oZNL/8FTf/AB6uvooA5D+w/Gn/AEMml/8Agqb/AOPUf2H40/6GTS//AAVN/wDHq6+igDkP7D8af9DJpf8A4Km/+PUf2H40/wChk0v/AMFTf/Hq6+igDkP7D8af9DJpf/gqb/49R/YfjT/oZNL/APBU3/x6uvooA5D+w/Gn/QyaX/4Km/8Aj1RXeleNLWzmn/4SLS28qNn2/wBlMM4Gcf62u0qK6gFzaTQMSolRkJHbIxQBxGi2njPWNBsNSHiDS4vtltHP5f8AZbHZuUNjPm89au/2H40/6GTS/wDwVN/8ero9I05dI0Sy02OQyJZ26QK7DBYKoXP6VcoA5D+w/Gn/AEMml/8Agqb/AOPUf2H40/6GTS//AAVN/wDHq6+igDkP7D8af9DJpf8A4Km/+PUf2H40/wChk0v/AMFTf/Hq6+igDkP7D8af9DJpf/gqb/49R/YfjT/oZNL/APBU3/x6uvooA5D+w/Gn/QyaX/4Km/8Aj1H9h+NP+hk0v/wVN/8AHq6+igDkP7D8af8AQyaX/wCCpv8A49R/YfjT/oZNL/8ABU3/AMerr6KAOQ/sPxp/0Mml/wDgqb/49R/YfjT/AKGTS/8AwVN/8err6KAPPtGi8Z6s2oAa9pcX2K9ktP8AkGMd+0A7v9bx16Vpf2H40/6GTS//AAVN/wDHq39J0hNJa/McrSfbbx7ptwxtLADA9uK0KAOQ/sPxp/0Mml/+Cpv/AI9R/YfjT/oZNL/8FTf/AB6uvooA5D+w/Gn/AEMml/8Agqb/AOPUf2H40/6GTS//AAVN/wDHq6+igDkP7D8af9DJpf8A4Km/+PUf2H40/wChk0v/AMFTf/Hq6+igDkP7D8af9DJpf/gqb/49R/YfjT/oZNL/APBU3/x6uvooA5D+w/Gn/QyaX/4Km/8Aj1H9h+NP+hk0v/wVN/8AHq6+igDkP7D8af8AQyaX/wCCpv8A49R/YfjT/oZNL/8ABU3/AMerr6KAOL0u41208XTaRrd9aXqfYVuke3tTCVJkK4OXbPSujrDuP+Spyf8AYGT/ANHvW5QAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQBz5/5Kvpn/YIuv/RsNdjXHH/kq+mf9gi6/wDRsNdjQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFAHJXH/JU5P+wMn/o963Kw7j/kqcn/AGBk/wDR71uUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAc+f+Sr6Z/2CLr/0bDXY1xx/5Kvpn/YIuv8A0bDXY0AFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQByVx/yVOT/sDJ/6PetysO4/5KnJ/wBgZP8A0e9blABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFAHPn/kq+mf9gi6/9Gw12Nccf+Sr6Z/2CLr/ANGw12NABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRmgAooyPWjI9aACik3D1FNMsYOC6j8aLgPoqE3lsv3p4x/wACph1KyBwbqIH/AHhU80e4ros0VRbWtNX719AP+BimN4g0hPv6jbD6yCp9pBdUF0aNFZn/AAkmj/w6jbt9JAaP+Ei0s/dukb0wc5pe2p/zIOZdzTorM/4SHT+0jN9FzR/b9ofupO30iJzR7Wn3DmRp0Vmf29B2trxvpbtR/ban7un6gfrbMKftYdw5kadFZn9ssfu6de/jCRR/a05+7plz+K4/pS9rDuHMjTorM/tO8P3dLm/Fsf0o/tHUT93SW/GYD+lHtY/0mHMjTorM+3aqemkAe5ul/wAKPtern/mGxr9ZwaPaR7P7mF0adFZfn6yelnAv1kzijzNaPSG2HuST/Wj2i7P7gualFZf/ABPD3sx/wBuP/HqNmvH/AJeNPH1hc/8As1HtP7rC5qUVl/Z9bPW8tB9IW/8AiqT7Fqx+9qKD/djo9o/5X+H+YX8jVorK/s7UW+9qsg/3UX/Cj+yLxvva1eD/AHRH/wDE0c8v5X+H+YXfY1aKyv7Fm/i1e9b67P8A4mj+wwfv31031cf0FHNP+X8Qu+xq0Vl/2Bbn781w31lP9KP+EesD/rFmf6zuP5Gjmqdvx/4AammWUdSB+NMM8K9ZUH1YVRHh/TR/ywf8Zn/xp40PTh0t/wA3Y/1ovU7L7/8AgBqWTeWw63EQ+rimHUbFet5bj6yr/jUY0fTx/wAuqfjk08aXYj/l0h/FAaP3nkGoh1bTx/y+25+kgNMOs6eP+XpD9Dmphp9mOlpAP+2YpwtLYdLeIf8AABR+88g1Kp1zTx/y3z9EY/0pp8QaeP8AlpKfpA5/pV4QQjpEg/4CKcEQdFUfhRap3X3f8ENTN/4SKwP3ftB/7dpB/wCy0f2/bn7kFy3/AGxYfzFalFHLU7/h/wAENTK/tzP3bG6b0+TFH9szn7mk3bfig/ma1aKOWf8AN+AWfcyf7Wvj93Q7v2Jkj/8AiqX+0dSbppEi/wC9In9DWrRRyS/mf4f5Cs+5l/bNWPTT0H+9IKPP1o9LS2H+9Ia1KKPZv+Z/gFvMzN2unpFYKPeR/wDCjbrh6tZL9Cx/pWnRR7PzY7GZ5Osnrc2w+in/AAo+y6ueuoRr9Iga06KPZru/vCxnfYtS/wCgsf8AwHSj7FqX/QWP/gOlaNFP2cfP73/mFkZpsdSPTV2H/bslJ9g1T/oMt/4DJWnRR7OPn97/AMwsjM+wap/0GW/8Bko/s/Uz97WGP0t0FadFL2UfP73/AJhZGZ/Z2o/9Bh/+/C0f2dqP/QYf/vwtadFP2UfP73/mHKjM/s2/P3tXkP0hUUf2Ze/9BaX/AL9itOil7KPn97DlRmf2Ze/9BaX/AL9ik/su7P3tVmP0UCtSij2Uf6bDlRl/2Vdf9BSf8hR/ZV1/0FJ/yFalFHso/wBNhyoy/wCybjvqdwfocUv9kT/9BK5/OtOij2UP6uHKjM/sif8A6CVz+dJ/Y8h66jdZ9nI/rWpRR7KAuVGX/Yz/APQRu/8Av4f8aP7Gf/oI3f8A38P+NalFHsodh8qMv+xfXULz/v8AN/jR/Yn/AE/3n/f9v8a1KKPZQ7Byoy/7E/6f7z/v+3+NH9hJ3vr7/wACX/xrUoo9lDsHKjL/ALCT/n+vv/Al/wDGj+wo/wDn9vv/AAKf/GtSij2UOwcqMv8AsCD/AJ/NQ/8AAx/8aP7Ag/5/NQ/8DH/xrUoo9jT7Byo42O3Wy+JEtujySKdJR90zl2z5zDG4849q6GsO4/5KnJ/2Bk/9HvW5WiioqyHsFFFFMAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKAOfP/ACVfTP8AsEXX/o2Guxrjj/yVfTP+wRdf+jYa7GgAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKRnVFy7BR6k4qpLq+nw8SXsAP93zBn8qlyS3YXLlFZbeILMcRLcTH/AKZQMw/MCgardSf8e+lzv7uwT+dR7WHRi5kalFZnm6zJ9y3tof8AroxbH5Gk+yatL/rNRSH/AK4xg/8AoQo9p2TC5qUx5o4/9ZIq/wC8wFZp0Qy/8fWoXU3rh9mf++cU+PQNPTrE8v8A11lZ/wCZNHNUey/EWpPJqtjF9+5j/wCAnd/Kq58QWTcQebMfRIz/AFxVuPT7OH/U2kCf7sYFWAMdKLVH1Q9TL/tW7k/1Gk3Q95dqg/kTSebrkvS2tIVPQmZmI/Db/WtWijkk95P8BWfczUtdVbmXUI1B6okGcfjmk/sq6PXVLj8OP61p0U/ZR6/mx2Rmf2PKfvanee+JMUf2Ln72pah+FwRWnRS9lDsHKjM/sOPve3x+s5o/sG2P3prlvrLWnRT9lDsHKjM/4R+x7iQj0L0f8I9pp+9Bu+prTopeyp9g5UZn/COaR3sIm+opw8PaSOmnwf8AfNaNFP2VP+VfcHKuxRGiaavSyhH/AAGnjSrEDAtYsf7tW6Kfs4dgsiuLC1Xpbxj/AIDUi20KfdiQfhUlFVyrsMb5af3F/KjYn91fyp1FMBNi/wB0flRtHoPypaKADA9KKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKAOSuP+Spyf9gZP/R71uVh3H/JU5P+wMn/AKPetygAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACisrXdcXRo7dEt5Lu6upPLgt4sbnOCT1IAAAJ/Cl0TWJdUSdbqwnsbi3k2PHKBg8A5UjII59aAKZ/5Kvpn/YIuv/RsNdjXHH/kq+mf9gi6/wDRsNdjQAUUjOqLl2Cj1JxVaTU7GLO+7hBHYOCfypOSW7C5aorNfX7BThGlkPokLn9cYpn9s3D/APHvpN1KPXKKB+ZFZ+1h0d/xFzI1aKyxcazL/q7S3h/67SH+maX7Nq8v37+KD/rlEG/mKPaX2T/r1C5p01pEX7zqPqazf7Hlk/4+dSun9fLcx/yNKPD9gf8AXo9x6+e5fP50c1R7R/ELssy6nZQZ825jXAz1qt/wkFg3+pd5v+uaZqzDpljb48izhjwcjbGBVqi1R9Ug1Mv+1riT/UaXdH/rqNn+NBn1qX7tnbwDsWm3/pgVqUUcknvJ/gFn3Mr7JrMn+t1CBFP8McBBH47qX+xnfm41G8c9wHAX8sVqUUeyj1/NhyozV0DTw254TI3953Jq1FYWkP8Aq7eMf8BzViiqVOC2QWQioqfdUL9BS0UVYwooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKAOSuP+Spyf9gZP/R71uVh3H/JU5P+wMn/AKPetygAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKAOH8eWsba3od3qE0kOmRyulzIjbQoKNjLDkAnAznvU/gaTdeatHp073GjJMBaSM5cZ2jcFY8kZ9+ua7BlVhhgGHoRQqqgwihR6AYoA47xFodt4g+IGl2dz5isNOuJA6SsmAJIh/CQe/0rZ0jwFZaNJJJa31/ukGGD3LOMe27OKgP/JV9M/7BF1/6NhrsazdOMndismZqaBYKcukkjerysf0zirMem2Uf3LWHPqUBP51ZopqnBbILIRUVBhFCj0AxS0UVYwooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACsvV/Dmma7JE+pwySNECE2XEkeAev3GGfxrUooA4Ow0Sw0P4lzw6bFJHHJpCOweZ5MnzmHVyTXV1h3H/JU5P+wMn/o963KACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKAOfP/ACVfTP8AsEXX/o2Guxrjj/yVfTP+wRdf+jYa7GgAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKAOSuP8Akqcn/YGT/wBHvW5WHcf8lTk/7Ayf+j3rcoAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooA58/8AJV9M/wCwRdf+jYa7GuOP/JV9M/7BF1/6NhrsaACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooA5K4/wCSpyf9gZP/AEe9blYdx/yVOT/sDJ/6PetygAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigDnz/wAlX0z/ALBF1/6Nhrsa44/8lX0z/sEXX/o2GuxoAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigDkrj/AJKnJ/2Bk/8AR71uVh3H/JU5P+wMn/o963KACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKAOfP/ACVfTP8AsEXX/o2Guxrjj/yVfTP+wRdf+jYa7GgAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKAOSuP8Akqcn/YGT/wBHvW5WHcf8lTk/7Ayf+j3rcoAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAorlfHWt3Gj2dhHaXYs3u7nyjOYjJ5YClido69Kt+Ers3ljLIdcXWMPjeLfyTHwOCpJNACH/kq+mf8AYIuv/RsNdjXAavrNhonxN0q51OfyIm0u5QNsZufMhOMKCexrqtI8TaTrs0kWlXRneNdzjynTA/4EBQBq0UUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFZer+JNK0KSJNVujA0oJQeU75A6/dB9aAMa4/5KnJ/wBgZP8A0e9blcpYa3p+u/EuebS5/Pjj0hEY+WyYPnMf4gPWuroAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigDH1wakk1ncaZYw3wilJlicqr7SCMqzcA5P5Zql4a0q9g1jVdW1C3Wza+kXbbBwxUKAMkrxk/4V0tFAHPn/AJKvpn/YIuv/AEbDXY1xx/5Kvpn/AGCLr/0bDXY0AFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQByVx/yVOT/sDJ/wCj3rcrDuP+Spyf9gZP/R71uUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAc+f8Akq+mf9gi6/8ARsNdjXHH/kq+mf8AYIuv/RsNdjQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFAHJXH/JU5P+wMn/AKPetysO4/5KnJ/2Bk/9HvW5QAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQBz5/wCSr6Z/2CLr/wBGw12Nccf+Sr6Z/wBgi6/9Gw12NABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAclcf8lTk/7Ayf8Ao963Kw7j/kqcn/YGT/0e9blABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFAHPn/AJKvpn/YIuv/AEbDXY1xx/5Kvpn/AGCLr/0bDXY0AFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQByVx/yVOT/sDJ/wCj3rcrDuP+Spyf9gZP/R71uUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAc+f8Akq+mf9gi6/8ARsNdjXHH/kq+mf8AYIuv/RsNdjQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFAHJXH/JU5P+wMn/AKPetysO4/5KnJ/2Bk/9HvW5QAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABSKysMqQR7GsDxTrf9nww2NvKsd5fHZGzHAjX+Jz9BnHviqXw4kT/hGWhW5Ny8U8gZy2SfmPNAF0/wDJV9M/7BF1/wCjYa7GuA1e51G1+JulPpOnx38x0u5BikuPJAXzIed20+3GO9dVpF7rV1NIusaPDp6KuUaO9E+4+mNi4oA1aKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiisvV73WLWSIaPpEOoKwPmGS8EGw9uNrZoAxrj/kqcn/YGT/0e9blcpYXWp3XxLnbV9Nj0+UaQgVI7nzgw85uc7Rj6V1dABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAUr/R9O1QodSsYLop93zYw2Pzqp4d8M2Phq1lhsUQeZIzsyxhScnOOPStiigDnz/yVfTP+wRdf+jYa7GuOP/JV9M/7BF1/6NhrsaACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooA5K4/5KnJ/2Bk/9HvW5WHcf8lTk/wCwMn/o963KACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKAOfP/JV9M/7BF1/6Nhrsa44/8lX0z/sEXX/o2GuxoAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigDkrj/kqcn/YGT/0e9blYdx/yVOT/ALAyf+j3rcoAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooA58/8lX0z/sEXX/o2Guxrjj/yVfTP+wRdf+jYa7GgAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKAOSuP+Spyf9gZP/R71uVh3H/JU5P8AsDJ/6PetygAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigDnz/yVfTP+wRdf+jYa7GuOP/JV9M/7BF1/6NhrsaACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooA5K4/5KnJ/2Bk/9HvW5WHcf8lTk/wCwMn/o963KACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKAOfP/JV9M/7BF1/6Nhrsa44/8lX0z/sEXX/o2GuxoAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigDkrj/kqcn/YGT/0e9blYdx/yVOT/ALAyf+j3rcoAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigCG6vLaxhM15PHDH03O2BRbXdvewia0mSaM9GRsiqWr6fZXz2xu4o554WZ7eKVvlZ9pHI6Hqa5/wGXgvtds7uNbe8F55r28X+rjUooGz0HH55oA0z/yVfTP+wRdf+jYa7GvPta0+61L4maVDZarc6XINLuWM1sqMxHmQ/L86sMc+naup0XRr/TJpXvvEF9qquuFS6jiUIc9RsRT+dAGxRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUVka1o99qkkTWOv3ukiMEMtrHEwkz3O9G6e1AGTcf8lTk/wCwMn/o963K5LTdNu9M+JVxHfavdaq7aQjCS5SNSg85uBsVRjvXW0AFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQBm6vodtrIgNw80Mtu/mRTQPtdDjHB+hIo0jQrTRhObdpZZbh980077nc4xyfoK0qKAOfP8AyVfTP+wRdf8Ao2Guxrjj/wAlX0z/ALBF1/6NhrsaACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooA5K4/5KnJ/wBgZP8A0e9blYdx/wAlTk/7Ayf+j3rcoAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooA58/wDJV9M/7BF1/wCjYa7GuOP/ACVfTP8AsEXX/o2GuxoAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAoooJA6nFABRUL3ltH9+4iX6uKgfWLJP8AlsWP+yjN/IVShJ7Ih1ILdl2is46vv/497K5m9NqgfzIoF3qUn+qsVj/67SY/lmq9nLqR7aHTX5M0aKz/AC9Vk+9PBD/uLu/mKP7OuX/1+ozN/wBcxs/lRyLqx+0k9osvlgOpAqKW7t4f9bMi/U1V/sW2b/XNNP8A9dZC386li0mwg/1NpCh9QgotDuxXqvovvIv7csDxHOJT6JzR/ajv/qbG6b0LJtBrQAA6Cii8Oi/EfLUe8vw/4c49Xeb4kyyTx+TJ/ZKAR5zlfObnPbntW/WHcf8AJU5P+wMn/o963Khu7NIppWbuFFFFIYUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFAHPn/AJKvpn/YIuv/AEbDXY1xx/5Kvpn/AGCLr/0bDXY0AFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRnHWgAoqNriFPvSoPqwqtJq9jF9+4XPsCapRk9kQ5wjuy7RWf8A2vG3/Hvb3E/+4n+JpDe38n+o0/Hp50m3+QNV7OXUn20Ompo0VnAavL1a3t/pmTH8qX7BeP8A67UW/wC2SbP6mjkS3aD2je0WaFRS3MEAzNKiD/abFVP7Hhb/AF01xN/10kzUkek2MPMdsgNFoLqF6j2S+8Y2taeCQlykpHURnd/Kk/tYP/qbS6f6wso/MirqxRoMKij6Cn0Xh2DlqPd/gZ/2vUH/ANXp+wf3nlH8qNurSdXtYh7KSR+uK0KKOddEg9m3vJ/16Gb/AGdeScy6pMPVUVAP5Zpw0W2PMzTSn1aVh+gNaFFHtJdA9jDqr+uv5lVNMsk6W0Z/3l3fzqwkUcf+rRV/3RinUVDk3uy1GMdkFFFFIoKKKKACiiigAooooA5K4/5KnJ/2Bk/9HvW5WHcf8lTk/wCwMn/o963KACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKAOfP/JV9M/7BF1/6Nhrsa44/8lX0z/sEXX/o2GuxoAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiimtIi/edR9TQA6iqUmsWETbXuow3pnk0z+143/1FvcTH1WPj86v2c+xk61NdTQorP8AteoSf6rTwo9ZJcfpik8rVpfvT28K+gjJP55p+z7tB7VfZTfy/wAzRpGdUGXYKPUnFZ/9mSyc3F/cP6qpAX+WacujWQOWjZ27sznn9aOWC3Yc1R7R+9/8OSvqllHkG6iJHZXBP5CoP7agdtsEVxK3tCwH5kYq2lpbxgBIIxj/AGRUwAHQYovBdAtVfVL5FBry/LER6cw/2mkXH6Gk/wCJtJ/z7Qj8Sf8ACtCijnXRIPZt7yZn/Yr6T/W6iyjuqRr/ADxmk/sWJjma4upD/wBd2A/IGtGij2kumgexg99fXUpLpFgvW1jc+si7j+tWo4YoRiKNE/3VAp9FS5Se7KjCMdkFFFFSWFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFAHJXH/JU5P+wMn/AKPetysO4/5KnJ/2Bk/9HvW5QAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQBz5/wCSr6Z/2CLr/wBGw12Nccf+Sr6Z/wBgi6/9Gw12NABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUVFNcwW65nmSMerNimk3sJtJXZLRVA63YH/AFU3nn0hG/8AlSf2o8n+osbh/wDfQp/Or9nPsZ+2p9GaFFZ/n6pJ9y0ih/66Pux+RpDbalL/AK29SL/rinT/AL6zRyd2g9p2i/69TRqN7iGL/WTRp/vMBVIaOr/8fN1cT+uX25/75xUsek2UfSBX/wCuhL/zzRaC6hzVHsrfMJNWsY+s+f8AcUt/IVEdXDf8e9ncT+m1QM/mRV6OCKL/AFUSJ/uqBT6LwXQOWo93b5GcLnU5f9VZRx/9dpMfyzS+Rqcv37uKH/rmm7+eK0KKOfskHs+8n/XoZ/8AZbP/AK+9uX9lcqP0pRomn5zJbJKfWQbjV+ij2k+4exp9URxW8MC4hjVB6KMVJRRUXbNEktgooopDCiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigDkrj/kqcn/YGT/0e9blYdx/yVOT/sDJ/wCj3rcoAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigDL1rXI9HWBPs811cXL7IYYFyWOCT9BgGk0TXodZ+0RiCa2ubV9k0EwAZTgEdD0wap+LPE9n4bgtzL5JvLl/LtllcIu7HUseAAM1H4Pt7NY7u6j1O21K/upPNupbeVXCnAAUYPAAAoAW4uIbb4qaW9xLHEp0m6AZ2CjPmw+tdfBeW1yxFtcRSkDJEbhsflXFalpdhq3xQ0uDVLK3vYV0q5YR3EQkUHzYecHvya6vTtA0jR5Hk0nS7OyeQbXa3gWMsPQ4HNAGhRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUySeKEZmlSMf7TAUbibS3H0VRfWLFOk3mf9clL/wAqYNUkl/49bCeUerAJ/wChYrT2c+xn7antf9TRorP8zVZfuxW8I/22JI/Kj7Fey/67UGA/uxoAPz60ci6tB7RvaL/r1L5YL94gfWonvLeP78yD/gVVRosBOZpbiVu+6ZsflnFTR6XYx4KWkO7+8UGfzotBdRXqvol8yI61ZZxHIZG/uoppDqc0n/HvYTt7uAoP86vhQowoAHoKWjmgtkPlqPeX3L/hzO83VpOlvbwjsTIWP5YFL9j1CT/XagB7RxbcfjmtCij2nZIXsk/ibfz/AMrGf/Y8Tf6+e4m/35M1JFpVjCcx2yA1cope0m+pSpU1rYaI0X7qKPoKdRRUGgUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFQz3dtbEC5uIoS3QSOFz+dTVQ1HQtJ1ho21bTLO+aMEIbmBZCoPXGRxQBzpuYLn4oStbzRyqNGQExsGAPnP6V0FcxbaTp2kfE2aLSrC2so30dGZLeJYwx85hkgDrXT0AFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQBDcWVrd4+1W0M+3p5kYbH50W9nbWgItbeKAN18tAufyqaigDnz/AMlX0z/sEXX/AKNhrsa44/8AJV9M/wCwRdf+jYa7GgAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKCcdajNxCOssY+rCgCSioTeWw63EQ+rimm/sx1uoB9ZBTsx2ZYoqsdSsR1vbcf9tV/xpp1bTgeb+1H/AG2X/GizCzLdFUv7a0v/AKCVn/3/AF/xpv8Abulf9BG1/wC/oo5X2DlfYv0VnHxDpI/5iEH4PTD4l0cD/j/i/X/Cnyy7D5ZdjUorJ/4SfRv+f5P++W/wpp8V6KB/x+/lE5/pRyS7Byy7GxRWKfF+iDrdt+FvIf8A2WmHxnoY63Uv4Wkp/wDZafJPsPkl2N2iuefxzoKdbqX3zbSjH5rToPGmkXTAWsk02f7sD/1FP2VR/ZZEvd+LQ36KwbzxZb2pAWzvJj/sQms3/hM72b/VaRPGv951OfyqlRmzNTT+FN/I7CgkDqcVx/8AwkF5Ly8Wo7fSK3UfruzR/aKv/wAfGj6zce0jIQfw3U/ZW3ZVqr2j97X/AATqJr+1t/8AXTxp9TVf+2bd/wDj3Sa49PKTdmsWHVlt/wDj38Iagh7bUhH/ALPVn/hJdQ7eFNWB9zBj/wBGUckV0/FB7Os92kaP22+k/wBRp5A9ZZNv6YpPL1aX709vCvoIyT+eaz/+Eh1Q8DwxqAPqXix/6HR/busngeHLkH1aRMf+hUarZIPYSfxS/FL8jQ/spn/199cyeo3AD9BUsek2URyIdx9WYtn86y/7Z1w/d0Bwf9qVcfzo/tXxC33dEQf709F6nf8AEFh4rojdSGJPuRov0UCn1z/9o+JW+7pFqP8AeuD/AIUv2zxS33dM08f71y/9FqOR9/xNOS3Y36KwPtHi08rYaQB/tXcmf/QKcZvFeziy0jd6fapMf+gUuR9x8j7m7RWB9q8Vr97TtLP+7dSf1Sk/tDxKv3tItT/u3B/wo5GHIzoKK5/+1vEC/f0NW/3Jgf50n9uayv3vDtwf92RP/iqORhyM6Giue/4SPU1+94X1M/7rQ/8AxdH/AAk94Pv+GdVT6+V/R6PZyDkkdDRXP/8ACVMPv6JqS/VE/o1L/wAJbAPv6ffJ65izj8jR7OQckjforA/4TCwH34btfrbt/QUv/CZ6MPvy3CD1NrL/AEWj2c+wckuxvUVhjxloZ6Xcn42so/8AZaePFminpeH8YXH/ALLRyS7C5JdjZorKHifRmxi+T8VYf0p48RaQemoQ/i2KXLLsHLLsaVFUBrmlHpqVr+Myj+tPGr6aemoWp/7br/jS5X2FysuUVWGpWJ6XtufpKv8AjThe2rfduYT9JBRZhZk9FRi4hPSWM/RhTwynowP0NIQtFFFABRRRQAUUUUAFFFFABRRRQAUUU15Y4/vuq/U4oAdRVZ9SsY/9ZeW6/wC9Ko/rUD6/pMYy2o25/wB2QN/KnysdmaFFY0ni3RI/vXhP+7BI38lqI+MdNb/j2S6uD6JbuP8A0ICq5JdiuSXY3qK58+Knb/j20PUp/TaqDP8A30wpP7d1iT/VeHLpP+u0kY/kxo5JByM6Giuf+2+KJf8AU6XYx/8AXe5YfyU0u3xVJ986bB/uOz/zUUcnmHJ5m/RWD/Z/iOXl9bgt/aO0D/qSKP7D1V/9d4hnJ/2IQn8jRyruHKu5vUhZR1YD8awv+EYZ/wDX61qrf7l0yfyo/wCEP05v9fLeXH/Xa4LfzotHuFo9zbaeJRlpUA92FVJda02Btst7Ch9C9UB4K8OZBk0i1lI6GSMMRVqLw5o0C7YdMtUHosYFHuB7hBL4w8PxHD6tbZ9A/NR/8JlpDf6mSSf/AK5R7q2YrWCAYhiRB/srUm0eg/Ki8OwXj2ML/hKo2/1Ok6tL7raHH50f8JBfv/qdAvCO3mfJ/St6ijmj2C8exg/2n4ik/wBXoESDsXvhn8ttIZfFMv3baxt/95i+PyIrfoo5l2DmXY577L4tk66lpcQ9BZuSPx8yl/sbXJP9frzL6+REF/nmugoo53/SDnZgf8IzcP8A67xFqr+o3xgf+gUv/CI2bf666vJR3DTdfyAreoo55BzyOHtdMtdJ+JU0FkjKj6QjtucsSfOYZ5PtXT1h3H/JU5P+wMn/AKPetypbb1ZLberCiiikIKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigDnnIX4raYWOB/ZF1yf+usNda93bx/fmjXvywritR0601T4m6XbahAs8I0u5cI3TcJIhn9TXQr4R0FPu6ZCPz/AMapcvUpcvUutq+nIcNfW4PvIKifxDo0f39Us17czL/jTV8OaOowNPh/KpU0TTU+7ZQj/gNP3PMfuFV/Fvh6PPma3YLj1uF/xpn/AAmXhz+HWrFv92dT/WtJNOsk+7awj/gAp4s7YdLeL/vgUe55h7hk/wDCZaF/Dfxt/unNJ/wmOkfwySt7LCxrZFvAOkMf/fIpRDEOkaf98ii8OwXh2MT/AITDTv4YL9/TbZuc/pSf8Jfan7unau3oRp0uD+OK3gijoo/KlovHsF49jA/4StD9zSdUP1s3H9KP+Emnb7miagfrEV/mK36KLx7BePYwf+Egv2+5oF2fTLAUf23rLf6vw3MfTddIv863qKOZdg5l2MH+1fEB6eHNvsb2M0f2h4jbposSf71yp/ka3qKOZdg5l2MH7V4mPTT7MfWTp+tHm+KT0g01fY7j/wCzVvUUc3kHN5GDjxYekmjr9YpT/wCzUeR4qb715pi/7sL/ANTW9RRz+Qc3kYH2HxK33tVtlz/dh6fnSf2V4gb72u7f9yFf6iugoo52HOzn/wCw9bb73ia6X/dhi/qlJ/wjmqH7/irUWH/XGAfySuhoo53/AEkHO/6Rz3/CMXTf63xBqD+vEYz+S0v/AAimfv6vfsf+ugH8hXQUUe0kHPI5/wD4RC0P37y+Y/8AXy4/kaX/AIQvST/rDev/ANv0w/k1b9FHtJ9w55dzEXwhpK4wt3wMc30x/wDZ6B4Q0Yf8u8h+txIf/Zq26KOeXcOeXcxh4T0Yf8uhP1lc/wBacPC2jD/lxQ/Vif61r01pET7zqv1NHNLuLnl3MweGdGH/ADD4T9VzTh4b0YD/AJBlqfrEDViXVbKHiS4XPoMn+VRf2sr/APHva3E3oVQY/nVWqPuZOvFacwf8I/o3/QJsf/AZP8Kd/Yek/wDQLs//AAHT/CmfaNUl/wBXaRRL/eeU5/LH9aPsmoyf66+VB/djixj8c0+VreQvbSfwpv8AD8yUaPpg6adaDH/TBf8ACopodGtuZ4rKLHdkUUv9jwv/AMfM09x6iR8ipodNs4P9Vbov4Zpe6t2w5qr2Vvn/AF+ZRN1pJ/1Fms/vDbbh+YFOEjuf9G0dR/tOFXH4GtVVVfuqB9BS0uaPRC5aj3l939MzBbahJzi0gB/ux5Yfj0pRpUr/APHxfzOP7qhVA/IZrSoo9o+geyi9238yjHo9kn/LIv8A9dHZ/wCZq1Hbwxf6qKNP91QKkoqXKT3ZUacI7IKKKKksKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigBCit95QfqKjNrA33oIz9UFS0UAVzp9m2d1pAc9cxD/AAph0nTm+9p9qfrCv+FW6Kd2O7KB0LSG+9pdkfrbp/hTD4d0Y/8AMLtB9IVH9K0qKfNLuPmfcyj4Z0Y/8w+EfQYph8KaMc/6GB/uyMP61sUUc8u4c0u5iHwhox/5d5B9LiQf+zUw+DNGP/LO6H0vph/7PW9RT559x88u5z//AAhmlj7r3q+n+mynH/j1H/CIWg+5eXy/9vLn+ZroKKPaT7hzy7nP/wDCKAf6vVb9PT97nH50f8IvcD7mvago/wCAH+a10FFHtJBzyOe/4RzUh9zxRqKn/rlCf5pR/YOsjp4ovT9YIef/AByuhoo53/SQc7/pHP8A9j66v3fEMjf70Mf9Fpf7N8RL93WYn/34R/QVv0Uc7/pBzs586Tr8n+s14xf9cYU/qDSf8I3qD/8AHx4m1GUdxsiX+SCuhoo52HOzn/8AhEbZ+Lm+vpl9DcMv/oJFSJ4O0ZP+WNw3+/dyt/Nq3KKPaS7hzy7mUnhjRk/5h8L/APXQbv51YTRdLiOYtNs0P+zAo/pV2ilzS7i5n3I47eGL/VQxpj+6oFSUUVJIUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAclcf8lTk/7Ayf8Ao963Kw7j/kqcn/YGT/0e9blABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFAHPn/AJKvpn/YIuv/AEbDXY1xx/5Kvpn/AGCLr/0bDXY0AFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFIWVfvED6mgBaKpy6tYwtta4Qv2UHJNR/2o0n/HtZ3En+0V2qfxq/Zz7GTqwWlzQorOLarN9xILYf7eX/AJEUf2bcS83WoTH1WIBVP5gn9afIluw9o3tF/kX3ljiGZXVB6scVUk1eyT7svmn0iUvn8qI9IskOTEXbuzsTmrSQRR/6uNF/3VAo9xd2H719l+P+RSXUbiZh9nsJSpP33IUD8Cc0rLqrscPbRr2K5J/UVfoo510Qezb3kzPOnXEv/HzqErD0QBP1FKui2Q++jzf9dnL5/Or9FHtJ9GHsafVX9dSKG2gtxiCGOMf7CgVLRRUNt7miSSsgooopDCiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKAOSuP+Spyf8AYGT/ANHvW5WHcf8AJU5P+wMn/o963KACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKAOfP8AyVfTP+wRdf8Ao2Guxrjj/wAlX0z/ALBF1/6NhrsaACiiigAooooAKKKKACiiigAooooAKKgnvba2z588ceP7zAVWOswMcW8c0/oY4yV/PpVqEnsjOVSEXZs0KKz/ALVqMv8AqrERg9GkkB/Qc0httSm/1t6kP/XBP/is0+Tu0L2l9k3/AF52NAkKMkgD3qvJqNpFnfcJx2U7j+lQDR4WObiWac/7UhH6DFWYrK1hx5dvGpHcIM/nRaC63C9V9EiqdYR/+PW2uLj/AHE2/wDoWKPP1Sb/AFdtDCO5kc5H4AGtGijmitkHJN7y+4z/ALFey/8AHxflQeqxLjH40f2LZt/x8K9z/wBd23/zrQoo9pLpoHsYdVf11I4baG3XbDEqD0UYqSiiobb3NEktEFFFFIYUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFAHJXH/JU5P8AsDJ/6PetysO4/wCSpyf9gZP/AEe9blABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFAHPn/kq+mf9gi6/wDRsNdjXHH/AJKvpn/YIuv/AEbDXY0AFFMkljiXMsioPVmxVWTWLKPpN5v/AFxUv/6DmqUZS2REpxj8TLtFZ39pTy/8ethM4/vOQoH4Hmlxqs3U29uvtlm/wqvZtb6E+1T2TfyNCo5LiGIZklVfqapHSnl/4+764l/3G8v/ANBqSPSLGMgm3SRh/FIN5/M0Wgt2HNUeyt6sa2s2YYrG7SsOojXNNN9eS/8AHrp7D3nbZ/LNaCoqKFRQoHQAUtHNFbIOWb3l9y/4czvJ1Wbl7mGAf3Vj3H88j+VL/ZKv/wAfN1cTeoZ/l/KtCij2kumgexj11KsOm2dvjyrdFx+NWQoUYUAD2FLRUOTe5cYxjsgoqtfajbacsDXknliedLeP5Scu5wo49TVmkUFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFRXVzFZ2c11cNshhjaSRsZwoGSfyFLbXEd3axXEDbopkEiNjGVIyDQBJRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRVax1G21KOZ7OTzFhne3kO0jDodrDn0IoAs0UUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUVWm1G2g1K2sJZNtxdK7QptPzBMbuegxuFAFmiiigAooooAKKKKACiiigAooooAKKKKACiiqmpanaaTarcX8vlRNLHCG2k/O7BFHHqzAUAW6KKKACiiigAooooAKKKKACiiigAooooAKKKZNKkELyynCRqWY46ADJoAfRUFjeQajp9ve2b+Zb3EayxPgjcrDIOD7Gp6ACiiigAooooAKKKKACiiigAooooAKKKKACiq1lqNtqBuBaSb/ALNO1vL8pG11xkc/UVZoAKKKKACiiigAooooAKKKKACiiigAooooA5K4/wCSpyf9gZP/AEe9blYdx/yVOT/sDJ/6PetygAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKAM7W9QuNN015rKzkvJ8EJGnQHHVj2FVvCGp3Ws+FbO/v1VbibfvCdAQ7DH6VrXKl7WVVGWZCAPXisfwbY3Om+E7S1vYjDPGZNyEg4zIxHT2IoAoa/cXWmeMtP1O1sry5C2U0DNb2pmC7njPIBH92n/wDCUvL/AMfNj4kx3WLTSoP55rqKKtTaVkZypqTu/wAzm4/EemI25vDviCRu7PYOc/hnFWk8Z2cX+r8O64n+7phFbVFJyk92OMIx2Rkf8J1B/wBAHX//AAXN/jR/wnUH/QB1/wD8Fzf41r0VJZkf8J1B/wBAHX//AAXN/jR/wnUH/QB1/wD8Fzf41r0UAZH/AAnUH/QB1/8A8Fzf40f8J1B/0Adf/wDBc3+Na9FAGR/wnUH/AEAdf/8ABc3+NH/CdQf9AHX/APwXN/jWvRQBkf8ACdQf9AHX/wDwXN/jR/wnUH/QB1//AMFzf41r0UAcf4l8TNqkOmra6BrpNvqVvcybrBh8iPlvxxWz/wAJ1B/0Adf/APBc3+Na9FAGR/wnUH/QB1//AMFzf40f8J1B/wBAHX//AAXN/jWvRQBkf8J1B/0Adf8A/Bc3+NH/AAnUH/QB1/8A8Fzf41r0UAZH/CdQf9AHX/8AwXN/jR/wnUH/AEAdf/8ABc3+Na9FAGR/wnUH/QB1/wD8Fzf40f8ACdQf9AHX/wDwXN/jWvRQBkf8J1B/0Adf/wDBc3+NH/CdQf8AQB1//wAFzf41r0UAZH/CdQf9AHX/APwXN/jR/wAJ1B/0Adf/APBc3+Na9FAHN614vW+0DULSDQNeMtxbSRJnT2A3MpA7+ppdI8YpZaHY2s+ga8JILeON8aexGQoB7+1dHRQBkf8ACdQf9AHX/wDwXN/jR/wnUH/QB1//AMFzf41r0UAZH/CdQf8AQB1//wAFzf40f8J1B/0Adf8A/Bc3+Na9FAGR/wAJ1B/0Adf/APBc3+NH/CdQf9AHX/8AwXN/jWvRQBkf8J1B/wBAHX//AAXN/jR/wnUH/QB1/wD8Fzf41r0UAZH/AAnUH/QB1/8A8Fzf40f8J1B/0Adf/wDBc3+Na9FAGR/wnUH/AEAdf/8ABc3+NH/CdQf9AHX/APwXN/jWvRQBkf8ACdQf9AHX/wDwXN/jWL4Z8TNpVtqCXega6GuNSublNtgx+R5Cy/jg12NFAGR/wnUH/QB1/wD8Fzf40f8ACdQf9AHX/wDwXN/jWvRQBkf8J1B/0Adf/wDBc3+NH/CdQf8AQB1//wAFzf41r0UAZH/CdQf9AHX/APwXN/jR/wAJ1B/0Adf/APBc3+Na9FAGR/wnUH/QB1//AMFzf40f8J1B/wBAHX//AAXN/jWvRQBkf8J1B/0Adf8A/Bc3+NH/AAnUH/QB1/8A8Fzf41r0UAZH/CdQf9AHX/8AwXN/jR/wnUH/AEAdf/8ABc3+Na9FAGR/wnUH/QB1/wD8Fzf41jah4ma58X6NqMWga79ns4blJSbBsguI9uB3+6a7CigDI/4TqD/oA6//AOC5v8aP+E6g/wCgDr//AILm/wAa16KAMj/hOoP+gDr/AP4Lm/xo/wCE6g/6AOv/APgub/GteigDI/4TqD/oA6//AOC5v8aP+E6g/wCgDr//AILm/wAa16KAMj/hOoP+gDr/AP4Lm/xo/wCE6g/6AOv/APgub/GteigDI/4TqD/oA6//AOC5v8aP+E6g/wCgDr//AILm/wAa16KAMj/hOoP+gDr/AP4Lm/xo/wCE6g/6AOv/APgub/GteigDI/4TqD/oA6//AOC5v8awvF/iR9a0SK1sdA10yLfWs53WDAbY50dv0U12lFAGR/wnUH/QB1//AMFzf40f8J1B/wBAHX//AAXN/jWvRQBkf8J1B/0Adf8A/Bc3+NH/AAnUH/QB1/8A8Fzf41r0UAZH/CdQf9AHX/8AwXN/jR/wnUH/AEAdf/8ABc3+Na9FAGR/wnUH/QB1/wD8Fzf40f8ACdQf9AHX/wDwXN/jWvRQBkf8J1B/0Adf/wDBc3+NH/CdQf8AQB1//wAFzf41r0UAZH/CdQf9AHX/APwXN/jR/wAJ1B/0Adf/APBc3+Na9FAGR/wnUH/QB1//AMFzf41Bf+NI7jTbmGPQdf3yRMi509upBHrW9RQByvhvxX/ZfhXSrC60DXhPa2cUMgXT2I3KgBwfqK0/+E6g/wCgDr//AILm/wAa16KAMj/hOoP+gDr/AP4Lm/xo/wCE6g/6AOv/APgub/GteigDI/4TqD/oA6//AOC5v8aP+E6g/wCgDr//AILm/wAa16KAMj/hOoP+gDr/AP4Lm/xo/wCE6g/6AOv/APgub/GteigDI/4TqD/oA6//AOC5v8aP+E6g/wCgDr//AILm/wAa16KAMj/hOoP+gDr/AP4Lm/xo/wCE6g/6AOv/APgub/GteigDI/4TqD/oA6//AOC5v8aP+E6g/wCgDr//AILm/wAa16KAOP8ADviZtMbVzdaBro+16lLcxbbBj8jBQM+/BrZ/4TqD/oA6/wD+C5v8a16KAMj/AITqD/oA6/8A+C5v8aP+E6g/6AOv/wDgub/GteigDI/4TqD/AKAOv/8Agub/ABo/4TqD/oA6/wD+C5v8a16KAMj/AITqD/oA6/8A+C5v8aP+E6g/6AOv/wDgub/GteigDI/4TqD/AKAOv/8Agub/ABo/4TqD/oA6/wD+C5v8a16KAMj/AITqD/oA6/8A+C5v8aP+E6g/6AOv/wDgub/GteigDI/4TqD/AKAOv/8Agub/ABo/4TqD/oA6/wD+C5v8a16KAOZ0+9l1jx7PqKabf2lsumJBuvLcxbn81mwM9eCK6aiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigAooooAKKKKACiiigDlNP8UXt/46OlPYNa2f2R5o3lGHkKsozjsPmrq65t7C6PxKhvxA32VdOkiMvYMXQgfkD+VdJQAUUUUAFFFFABRRRQAUUUUAFFFFABXPeMPEF3oGkSzadYSXc4jLA4wiAd2P9K6GsnxTazXvhXUba1jaWaSBlRF6scdKALunXDXel2lxJgPNCjtj1Kg1xUvi2/uvE95Y2us6NYpb3P2dYLonzZCDzjmursZJrLTdLtntZWZoESQqOIiFH3q5XV7e6urDUtLHhtxdXFxmK6iQGNgWB3luoPHpQB3i52jfgtjnHrS1BZQvb2FvDK2944lRm/vEDBNT0AFFFFABRRRQAUUUUAFFFFABRRRQBi6tJrsmoJbaOtvBAIy8lzOCwznhQB+f4UeFdZm1zRvtFzGiyxyvE5j+45ViMr7cVj+Mb3V5NQg02107UX0113XVxZRh2f8A2BlhjPc/hW/oDQ/2RFHbadcafFH8qw3CBWHvgE0AadFFFABRRRQAUUUUAFFFFABRRRQAUjHapIGSBnA70tMlcxwu6ozlVJCr1b2FAHIXOt+ItMFpfanHaLBdXIg+xqD5igk4IOeTxW34p1dtC8NXeoIYw8QUKZPugswUE+3NcppV3f3uurqHiPQdYa4WQrbRCBTDbLn72d3JPriul1uW5u9HuhFpJuTDMoEE3/LZQw5X14GRQBT8I6tfatJK9zrOkahGqjKWBJaNv9rk11NchpVrPfeNV1WHS5tMtYbTyXWZAjSsST0BPAz1rr6ACiiigAooooAKKKKACiiigAooooAQkhTgZPpXHvr+uWGqWC6kLMfbrgRCxjyZY0J+/nPI9fqK7Bt2w7MbscZ9a4DUodR12WxVtDntNYgugWvdo8pEB6hs5ORjjFAHoFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAYmu3WrxTRJpn2a3t9jPPd3J+VMYwuM98nn2pfCmsza7oS3lzEqSCWSLKZ2ybWK719jjI+tR6/d3cF1FDJpMmo6ZNGwmEA3OrcbeCRwee/pWf4Qtr7RtMMc1hNHDc3kjQ24xm2jJJG70oAzr7xdfSeKb3TrTWdG0+O2lEIjvSfMkbAJxyPUV3se4Rr5hBfHJHTNcNrUNzNa6xpv/AAjTyXF1IfIuYUBjcEABmY8gjHPHpXYaVay2Wk2ttPJ5ssMSo7/3iB1oAt0UUUAFFFFABRRRQAUUUUAFFFFABVXUtQh0vT5bu5bCRj8z2FWqw/EegXGttaNb6h9k+zSeZtMW9WbsSMjpz+dAEXg7W73XdNuLjUoFt5Y7mSMRD+EBiAD78V0Ncn4H0jVdLXUf7WnLiW6kZAY9ucsTu6nr1/GusoAKKKKACiiigAooooAKKKKACiiigArlb/xXKvjCx0mwiWS3aQx3U5/hbbkKPfBB/GunmRpIXRHKMykBh/Ccda8/m8G63Y6lpIs9U86GO6eWR/s3KbuSSd3OaAOw8R6odE8OXuojbm3j3Df0zkDn86xfCOs6hq87Nc6zo98ixgvFYkl4z78mtHWJLq70a+hi0s3LxEBYp+FuAOpFZVhaz6j4ztdTt9Kn0u2trZkl8+MIZWPRQATnGevtQB2NFFFABRRRQAUUUUAFFFFABRRRQAUUUjZKnHXHGaAOA07xdqGr69JDb6zotvGt00KWkpPnuFbacDPU4NegDOOeted6jZXmpaX/AGRF4cezvPtu77UiDylXzN3mBuucc4x1r0KJSkKKxyVUAn1oAdRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFABRRRQAUUUUAFFFFAH//2Q==)

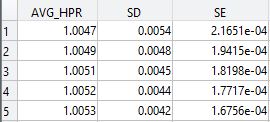
The image is took from matlab script of ex. 1. It shows 3 different yield curve:

1. The blue one is an image of a really good economic scenario because it is increasing, so tells us that the things in the future will be great.
2. The purple one is a really bad curve, it decrease until 4 years an than starts to increase a little, this means that the economic scenario for the next years will not be great.
3. The green one Is increasing until 2 years, and we know that this is a good thing, but after it starts to increasing left and then to becoming flat. This could be seen as a “middle scenario” economy.

1.2

The interpretation of a forward rate is like a forecast that the market do for the next rates, for example the forward rate for 1 to 2 periods is the forecast that the market does for the spot contract that there will be in a period.

1.4



In this table we have the different average holding period returns for different years in the first column, the standard deviations in the second and the standard errors in the third. We have an average holding period return that is increasing with the standard errors and standard deviations that are decreasing. It is more convenient to invest in the major time horizon bond, this because it has a return that Is higher than other with less standard deviation and standard error, that means less risky and more accurate target of forecast.

The term structure of interest rates is respected by the table, because it’s telling us that more time means more return, and this is perfectly aligned with the theory of impatient of agents, that tells us that an agent to don’t see his money for a longer time need a major premium for impatience.

1.5

This regression tells us that the difference between the yield from t+N and the actual yield depends on a constant a, and a difference between the expected forward rate in N+1 at time t and the yield at time t, all this second part multiplied by a constant b. If the difference between F(N+1) and yt is zero we have that the yield will increase only of value of constant a (the epsilon is the value of error of forecast). This happen for the same “premium for impatience” that we saw in the previous point. If there is a difference between the forward rate and the actual yield the actual yield will increase of this difference times a multiplicator b. This means that if the operators thinks that there will be an increase of forward with respect to actual return, this increase will be projected on yield of previous period of that increase. The same holds if the operator think that there will be a decrease.

1.6

This regression has the same aspect of the previous one, this time it tells us that the increase of the forward rate with respect to actual yield will be projected on the single year holding period return.