

## Why Do Mortgage Rates Change?

To understand why mortgage rates change we must first ask the more general question, "Why do interest rates change?" It is important to realize that there is not one interest rate, but many interest rates!

- **Prime rate:** The rate offered to a bank's best customers.
- **Treasury bill rates:** Treasury bills are short-term debt instruments used by the U.S. Government to finance their debt. Commonly called T-bills they come in denominations of 3 months, 6 months and 1 year. Each Treasury bill has a corresponding interest rate (i.e. 3-month T-bill rate, 1-year T-bill rate).
- **Treasury Notes:** Intermediate-term debt instruments used by the U.S. Government to finance their debt. They come in denominations of 2 years, 5 years and 10 years.
- **Treasury Bonds:** Long-debt instruments used by the U.S. Government to finance its debt. Treasury bonds come in 30-year denominations.
- **Federal Funds Rate:** Rates banks charge each other for overnight loans.
- **Federal Discount Rate:** Rate New York Fed charges to member banks.
- **Libor:** : London Interbank Offered Rates. Average London Eurodollar rates.
- **6 month CD rate:** The average rate that you get when you invest in a 6-month CD.
- **11th District Cost of Funds:** Rate determined by averaging a composite of other rates.
- **Fannie Mae-Backed Security rates:** Fannie Mae pools large quantities of mortgages, creates securities with them, and sells them as Fannie Mae-backed securities. The rates on these securities influence mortgage rates very strongly.
- **Ginnie Mae-Backed Security rates:** Ginnie Mae pools large quantities of mortgages, secures them and sells them as Ginnie Mae-backed securities. The rates on these securities influence mortgage rates on FHA and VA loans.

Interest-rate movements are based on the simple concept of supply and demand. If the demand for credit (loans) increases, so do interest rates. This is because there are more buyers, so sellers can command a better price, i.e. higher rates. If the demand for credit reduces, then so do interest rates. This is because there are more sellers than buyers, so buyers can command a lower better price, i.e. lower rates. When the economy is expanding there is

a higher demand for credit, so rates move higher, whereas when the economy is slowing the demand for credit decreases and so do interest rates.

**This leads to a fundamental concept:**

- **Bad news** (i.e. a slowing economy) is good news for interest rates (i.e. lower rates).
- **Good news** (i.e. a growing economy) is bad news for interest rates (i.e. higher rates).

A major factor driving interest rates is inflation. Higher inflation is associated with a growing economy. When the economy grows too strongly, the Federal Reserve increases interest rates to slow the economy down and reduce inflation. Inflation results from prices of goods and services increasing. When the economy is strong, there is more demand for goods and services, so the producers of those goods and services can increase prices. A strong economy therefore results in higher real-estate prices, higher rents on apartments and higher mortgage rates.

Mortgage rates tend to move in the same direction as interest rates. However, actual mortgage rates are also based on supply and demand for mortgages. The supply/demand equation for mortgage rates may be different from the supply/demand equation for interest rates. This might sometimes result in mortgage rates moving differently from other rates. For example, one lender may be forced to close additional mortgages to meet a commitment they have made. This results in them offering lower rates even though interest rates may have moved up!

There is an inverse relationship between bond prices and bond rates. This can be confusing. When bond prices move up, interest rates move down and vice versa. This is because bonds tend to have a fixed price at maturity—typically \$1000. If the price of the bond is currently at \$900 and there are 10 years left on the bond and if interest rates start moving higher, the price of the bond starts dropping. The higher interest rates will cause increased accumulation of interest over the next 5 years, such that a lower price (e.g. \$880) will result in the same maturity price, i.e. \$1000.

Effect of economic data on rates

Number of arrows indicates potential effect on interest rates. 1 arrow=least effect, 5 arrows=max. effect

Economic Event	Effect on Interest Rates	Significance of event
Consumer Price Index (CPI) Rises	▲▲▲▲▲	Indicates rising inflation.
Dollar Rises	▼	Imports cost less; indicates falling inflation.
Durable Goods Orders Increase	▲▲▲	Indicates expanding economy
Gross National Product Increases	▲▲▲▲▲	Indicates strong economy
Home Sales Increase	▲▲▲	Indicates strong economy
Housing Starts Rise	▲▲▲	Indicates strong economy
Industrial Production Rises	▲▲▲	Indicates strong economy
Business Inventories Rise	▼▼▼	Indicates weak economy
Leading Indicators (LEI) Increase	▲▲▲	Indicates strong economy
Personal Income Rises	▲	Indicates rising inflation
Personal Spending Rises	▲	Indicates rising inflation
Producer Price Index Rises	▲▲▲▲▲	Indicates rising inflation
Retail Sales Increase	▲▲	Indicates strong economy
Treasury Auction Has High Demand	▼	High demand leads to lower rates
Unemployment Rises	▼▼▼▼▼	Indicates weak economy