

A close-up photograph of a car's headlight assembly, showing a silver chrome trim and a yellow indicator light. The car's body is painted a deep red color. The image is used as a background for the text.

NEW  
**CAR**  
GUIDE

# The Buying Climate

If you've been holding out for the perfect time to buy a new vehicle, now might be your moment to act.

New and used automobile sales are up thanks to improvements in the availability of financing as well as some of the lowest interest rates we have ever seen.

Americans also are choosing to replace their aging cars, something many have waited to do as jobs and the economy have slowly dusted themselves off after the Great Recession.

But even with so many positive factors in today's auto-buying climate, no one knows how long credit will be so easily available or for how long interest rates will remain this low.

All of this adds up to one simple fact: It's a great time to buy your next vehicle.

## THE NUMBERS

If you need proof that car sales are on the rise, look no further than December 2014. General Motors reported that it sold more than 274,000 vehicles that month, securing its best December in seven years.

Toyota also reported a strong December and predicted 2015 sales of 16.7 million vehicles.

Car loan debt increased from \$795 million in 2011 to more than \$918 million in 2014, according to a recent report by Bankrate. This sta-



© FOTOLIA

tistic is likely due to the rising number of Americans opting for new models.

In fact, the average age of cars grew from 10.1 years in 2007 to 11.3 years in 2012, reports the Bureau of Labor Statistics.

## EASIER FINANCING

Lenders have slowly but

steadily loosened their belts on consumer loans as the economy continues its resurgence.

And while interest rates are low across the board, you may find the best deal at your local credit union.

Rate comparisons show that credit union auto loan rates are consistently lower than other lending sources.

According to a 2014 report by the market research firm Informa, the average rate on a new car loan of \$30,000 from a commercial bank was around 4.16 percent, while the average rate on the same loan from a credit union is 2.82 percent.

Check today's rates by conducting an online search or by sitting down with your car

loan professional to discuss the market.

The first step to finding out which source can provide you with the best loan is getting pre-approved. Lenders will gather and analyze all of your financial information, including current debt, income and credit scores, to make their decision.

# Turbochargers and Diesels

It's no secret that fueling the automobile industry's resurgence are improvements in gas mileage. Turbochargers and diesels are helping launch fuel efficiencies to new levels, even in larger SUV and truck models.

Technologies such as variable valve timing and direct fuel injection can improve performance while reducing fuel consumption.

And many V8 engines are now being built with cylinder deactivation, which lets you coast in six-cylinder or four-cylinder mode, then firing up all eight cylinders when full power is required.

## TURBOCHARGING AND DIRECT INJECTION

A turbocharger adds power without substantially decreasing gas mileage by forcing in more air than a normal engine would receive.

This process is created by the turbocharger, a device that pushes the air through the fuel system.

The direct injection advantage means the process known as the intake tract to inject fuel is eliminated. This leads to a simplified version of fuel injection, improving overall efficiency.

More air and fuel mean more engine power.

### FORD

Ford has enjoyed major



© FORD

success with its turbocharged engines. The company announced its EcoBoost technologies in 2010 and introduced them into the 2011 F-150 to international acclaim.

Nearly all Ford models now offer an EcoBoost engine option, which uses the process of turbocharging and gasoline direct injection to boost its performance and save gas.

### LEXUS

Luxury brands also are jumping onto the turbo bandwagon, with Lexus adding a turbo four-cylinder engine to the NX 200t. The brand's D-4S fuel injection system has bolstered the acceleration without sacrificing major fuel efficiency.

The stated output is 235 horsepower and 258 pound-feet of torque. The D-4S sys-

tem combines port and direct injection systems to differentiate it from the competition.

According to Toyota, the new turbo is the company's first such engine since the Supra's 2JZ-GTE that was eliminated in 2002.

### RAM 1500 ECODIESEL

Hailed as the most fuel-ef-

ficient half-ton on the market, the 2015 Ram 1500 EcoDiesel boasts a 3.0-liter that delivers 240 horsepower via an eight-speed automatic transmission.

Ram reports that the truck performs on 19 miles per gallon around town and 27 on the highway. Most impressive of all, those numbers are complemented by towing capacity of 7,650 pounds and hauling capacity of 1,040.

# Van Wars

**C**ommercial vans have never looked so good. And with a buyer base seeking specific features to help get the job done, manufacturers are pulling out all the stops.

With all of the competition on the market, how can you decide which commercial van is right for your needs? Choosing one will come down to a variety of factors including gas mileage, interior cargo space and, of course, the price tag.

Ford, Chevy, Dodge, Nissan and Mercedes-Benz all have models on the market, so be sure to research all of the pertinent factors for each when making your final buying decision.

Here is a brief breakdown of how the Ford and Dodge Ram models stack up.

## FORD TRANSIT & CONNECT

Replacing the E-Series for the 2015 model year, the Ford Transit is available in regular wheelbase and long wheelbase options. Its 81.5 inches of interior cargo height separates it from the competition in the commercial van space.

The Transit offers three engines: a 3.7-liter V6 with 266 horsepower, a turbo-charged EcoBoost V6 and a 3.2-liter turbo-diesel five-cylinder. Ford lists its fully equipped, top-of-the line models at around \$40,000.

The Ford Transit Connect is designed to handle inner-city traffic because of its higher



gas mileage capabilities. Ford lists the Connect's miles per gallon at 21 in the city and 29 on the highway. The Connect is definitely not equipped to handle heavy loads, with Ford listing its payload capacity at 1,600 pounds and towing capacity at 2,000 pounds.

## RAM PROMASTER

The ProMaster offers a 1500, 2500 and 3500 to meet the payload capacity and interior space needs of all drivers. Pricing for the basic 1500 comes in around \$29,500 but obviously

increases based on the amount of bells and whistles added.

Dodge lists the ProMaster's interior height at 76 inches and its payload capacity at 4,417 pounds.

This extra torque compared to other competing vans is

due to the 280-horsepower, 3.6-liter V6 engine that boasts a six-speed automatic transmission.

Buyers also could opt for the 3.0-liter EcoDiesel V6 that Dodge promotes as one of the best towing options on the market.

# Cabin Internet Services

The luxuries of modern technology have found their way into the cabin of our vehicles. And they're here to stay.

Technological advances don't just make for a more enjoyable driving experience but a safer one, as well. And with every new vehicle that hits the market, the features available for connectivity in your car are rapidly evolving.

General Motors is the first carmaker to offer 4G LTE connectivity in the United States, meaning technology in your car is now as fast as in your home.

You can drive down the road while streaming music and receiving incoming calls, all without having to take your hands off the steering wheel.

You can use Internet-based services in your car to search for the best driving directions and spot upcoming traffic congestion.

## MESSAGING

One of the most exciting emerging features of connected cabins is voice-activated messaging. You can compose text messaging and emails using in-vehicle technology, as well as have your car listen and broadcast messages from your inbox.

As with any new technology feature that is integrated into the driving experience, you are cautioned to use common sense when using it, as to not endanger you, your passen-



© CHEVROLET

gers or fellow drivers.

Keep your eyes on the road and avoid using these systems in heavy traffic, experts warn. Distraction is a leading cause of auto accidents, underscoring the importance of remaining focused behind the wheel.

## APPLICATIONS

Another trend is the exten-

sive use of mobile applications, both in the car and through your phone. Many cars can run these apps through the car's digital display, helping you stream music, check weather and even perform online searches.

Some car companies are developing their own smartphone apps, too, that let you interact with your car through

your phone. They might remind you when your car needs service, for example, or help you report an accident.

## WEATHER & TRAFFIC

As wireless data becomes more integrated into our vehicles, so does the ability for your

car to use that data to make your life easier — and safer.

Some new cars use real-time traffic data in their navigation systems to help you find the fastest route possible to your destination. Others incorporate updated weather information into their systems. Both can help you avoid congestion and unsafe travel hazards on your trip.

# Staying in Your Lane

**D**rifting into the lane next to you can be a treacherous mistake that poses a threat to you and other drivers sharing the road. New technology is helping drivers avoid these dangers by keeping them in the correct lane.

According to data from the National Highway Traffic Safety Administration, 37 percent of all transportation fatalities in the United States are caused by drivers running off the road.

Some lane-keeping technology works in conjunction with the on-board cruise control system to help the driver steer and keep the vehicle on course.

## HOW DOES IT WORK?

These lane-keeping systems depend on sensors and cameras to detect cars in the driver's blind spot — to the left and right rear of the vehicle, where it's hard for a driver to see when changing lanes — and will alert you when they sense you might hit a vehicle in the next lane.

In other systems, cameras can recognize the lines on certain types of roads and help keep the vehicle within the painted boundaries. Some can even recognize the road structure and control the electronic power steering based on the car's driving situation.

## FORWARD COLLISION ALERT

Sometimes you can have an accident even when you're



© FOTOLIA

staying in your lane. One active safety feature that is rapidly gaining popularity is forward collision alert.

This system uses sensors in the front of the car to detect when a crash might be immi-

nent, then tries to take steps that will keep the crash from happening.

Some systems simply alert the driver with bright flashing lights and an alarm sound, essentially warning

the driver to take quick action.

Other systems actually take over the car's system by priming the brake pedal for an emergency stop or even trying to stop the car auto-

matically.

Even if the driver isn't paying attention, this type of system can help reduce the chances for a dangerous accident, all through the use of technology.

# Why LED?

**I**t has taken a few years, but carmakers have mastered the art of integrating LED headlights into their systems. From headlights to accent lighting, LEDs are taking over today's cars.

Light-emitting diodes use less energy, make less heat, last longer and weigh less than traditional headlights.

Luxury models such as Audi, Cadillac and Mercedes have used LED headlamps for years, while mass market makers are beginning to get on board.

By 2020, LED headlights will account for 20 percent of headlights produced globally, according leading lighting supplier Osram.

## DESIGN PURPOSES

LED headlights are much smaller than traditional bulbs, so they allow for more creative car designs. Many makers use LEDs to create jewel-like looks for their lighting structures, redefining how a light needs to be positioned and oriented.

Engineers can work around LED headlights better when forming both the front and back areas of the car, allowing for more creativity and sleeker aesthetics.

## DURABILITY & VERSATILITY

They also can last longer and use much less energy than ordinary bulbs. Osram reports that an LED headlight uses about 15 watts compared



© AUDI

to 65 from a traditional halogen bulb.

Many carmakers have started to incorporate LED lighting into their headlights, taillights and brake lights. General Motors has used LED lighting for daytime running

lights, while Ford and Mitsubishi have utilized them for fog lights.

## WHAT'S NEXT?

The next evolution in headlight design could be coming

soon from BMW. The German company has announced it is working on laser-powered lights that are even smaller and use less power than LEDs.

BMW showed off its future lighting capabilities with its M4 Concept Iconic Lights,

showing how the laser system will be able to project light up to 650 yards. The lights will use a fraction of the electricity of modern headlights and will be reflected through filters as to not blind or harm pedestrians.

# Family-Friendly Innovations

**A**utomakers are rolling out the red carpet treatment for one of their most important consumer segments: parents.

Family-friendly innovations can be found across various makes and models as manufacturers try to make life easier on parent-drivers. And thanks to the power of new technology, family safety has never looked so good.

## SMART POWER LIFTGATE

Kia's Sedona minivan has made opening the back hatch a hands-free task. Here's how it works: Stand within the one-foot detection range with the Sedona's key in your pocket or purse.

The vehicle will beep for three seconds and then beep faster, letting you know that the liftgate is opening. Simply stand back and load your groceries, all without having to dig for your keys and battle the handle.



© HONDA

## EASY SPEAK INTERCOM

Toyota is redefining the minivan driving experience and promoting its new model as the "Swagger Wagon" through social media.

The available Driver Easy Speak feature uses the vehicle's built-in microphone to amplify the driver's voice through the rear speakers. This

helps keep parents focused on the road instead of yelling to passengers in the back seat.

## BUILT-IN VACUUM

Perhaps one of the most useful advances in family-friendly technology has been Honda's addition of the built-in vacuum. The Odyssey's practical addition helps families keep their minivan clean

while they're cruising to soccer practice.

Spilled Cheerios? Dirt from shoes? No problem. The Odyssey's system can vacuum indefinitely while the engine is running or for up to eight minutes when the vehicle is turned off. Based in the rear cargo area, the system includes a replaceable filter and canister bag for easy cleanup and dirt removal.

## ADAPTIVE HEADLIGHTS

Every parent wants a safe driving experience for his or her family. Adaptive headlights can help by adjusting their direction and intensity in response to the driver's steering. This can help provide additional light on curves, turns, hills or to high-

light potential dangers.

The Insurance Institute for Highway Safety estimates that adaptive headlights are potentially relevant to 90 percent of crashes that occur on curves at night. Additionally, the institute reports that vehicles equipped with adaptive headlights are involved in fewer crashes with other vehicles than vehicles that are not.