

10 Questions to Ask Your AVM Provider

Automated valuation models (AVMs) are a time-efficient and cost-effective valuation solution for lower-risk properties within home equity lending, portfolio valuation, pre-valuation decisions, and more.

When searching for an AVM provider, it's important to ask questions to learn more about the provider's process. By learning how an AVM is engineered and how it performs in different market conditions, you'll be able to make an informed decision on whether or not the AVM can provide the valuation accuracy you need.

Furthermore, determine if you're working with a marketing-grade or lending-grade AVM. Financial institutions should look for a highly-accurate, lending-grade AVM that combines quality data, valuation expertise, and machine learning. Additionally, it's beneficial to test the AVM yourself to ensure the AVM provider is not leveraging loopholes to game the test.

It's important to note that an AVM is not always suitable for lending decisions, and not every property can be valued with an AVM. AVMs certainly have their place in the lending workflow when the situation is right, but for now, conventional appraisals remain the gold standard in valuation accuracy. While AVMs do good most of the time, many situations require the input of a highly-skilled appraiser, and AVMs won't be replacing appraisers anytime soon. In fact, the best AVMs use machine learning to try and "think" like appraisers — their models are programmed in the same way a trained expert would approach a valuation.

If using an AVM is appropriate for your lending needs, we recommend asking your AVM provider the following questions to ensure you're working with a highly-accurate, lending-grade AVM.

1. Does the AVM combine quality data, valuation expertise, and machine learning?

INSIGHTS | The combination of all three creates a highly-accurate, lending-grade AVM. Marketing-grade AVMs often do not employ all three of these components, and many AVMs claiming to be "lending-grade" are still missing components of the formula.

2. Does it use data from multiple listing services (MLS)? If yes, how much coverage do they have? Do they source this information in a compliant manner?

INSIGHTS | Since an AVM can only be as good as the data it's built upon, simply having a large amount of data isn't enough, or even ideal. What matters more is the accuracy and timeliness of that data. The MLS is widely considered the gold standard of up-to-date property information. A highly-accurate, lending-grade AVM should be built upon a comprehensive and high-coverage set of ethically-sourced MLS information, in addition to public records and other sources.

3. Does it employ a data governance program to select the most reliable and accurate data for each property?

INSIGHTS | By doing so, in the event of data mismatch or inconsistency, the AVM can select the most reliable and accurate data source for each property.

4. Is it built (or informed) by humans with an existing and comprehensive understanding of the best way to complete a property valuation, like appraisers or companies with “boots on the ground” valuation experience? How many years of experience do they have?

INSIGHTS | While an AVM can quickly process an immense amount of data much faster and more accurately than a human, it can only be as good as the human minds who built it. The best AVMs are built — or at least informed — by humans with an existing and comprehensive understanding of the best way to complete a property valuation. The more years of that experience the better, to account for market cycles.

5. Is it built by economists or statisticians without much valuation expertise (“stats-only approach”) or by computer scientists with valuation expertise (“machine learning approach”)?

INSIGHTS | An AVM built by economists or statisticians may result in a model that is less accurate and much less scalable, since the intricacies in each housing market must be identified, built into the AVM, and updated manually, often involving years of ongoing research and fine-tuning. An AVM built by computer scientists with valuation expertise results in an incredibly accurate model that is also quickly scalable, since the AVM can teach itself the intricacies from the market level down to the property level, build them into the AVM, and keep them updated automatically, in near-real-time.

6. Does it use the sale price, contract price, or refinance appraisal as a benchmark for testing?

INSIGHTS | While there are pros and cons for each of these benchmarks, the ability to game the test results is the biggest concern. Most AVMs have access to sale prices, which allows for gaming of the test. Contract prices are more difficult for an AVM to game, since most AVM providers do not have access to these benchmarks and they are not yet reflected in the MLS (usually). Refinance appraisals are not easily gamed, as these properties are not typically for sale, so the AVM does not know what they are listed for, what they will sell for, or any MLS information. Most AVM providers do not have access to these appraised values, so their model is forced to be blind to the benchmark.

7. Does it provide mean absolute error (MAE) or median absolute error (MdAE) when reporting absolute error?

INSIGHTS | MAE is determined by calculating the percent variance between each AVM and benchmark, taking the absolute value of each, then averaging them over the whole test/sample set of benchmarks. A strong measure if using consistent benchmarks since it accounts for the times the AVM was very wrong and produces a large error. In other words, it accounts for the outlier predictions which are important when judging an AVM for day-to-day use. MdAE uses the median (instead of the mean) so it hides the instances where the AVM was really far off; i.e., the outliers. This is the most common measure for marketing-grade (not lending-grade) AVMs since it generally makes an AVM appear more accurate than it is.

8. How do they calculate forecast standard deviation (FSD)?

INSIGHTS | Since every AVM vendor typically builds a proprietary model to produce the FSD statistic, the communication of this measure can vary between AVMs. Right now, there is no standardized way to produce an FSD in the valuation industry. This means a 0.07 FSD from one AVM can have a very different measure of accuracy or confidence from another AVM. This makes it difficult to use multiple AVMs together, or to apply a framework for how to use AVMs in general.

9. What address standardization technique is used by the AVM provider?

INSIGHTS | A substantial number of “misses” — i.e., where the AVM cannot calculate a value estimate — are not the result of failures in the model itself, but rather simply a failure to properly identify the address within the AVM’s database. Addresses can be represented in many different ways, and even the slightest variations are confusing to an automated system. Knowing which address standardization technique is used by the AVM provider helps both the financial institution and the AVM provider ensure the best possible performance.

10. How often does the model get updated with fresh data?

INSIGHTS | An AVM is only as good as its data. Confirm if the AVM is updating fresh data automatically, in near-real-time, as this will provide more accurate results.