

[I sent this letter to a friend who had questions about real estate appraisal when he encountered a property tax issue a few years ago. JWT]

Dear Richard,

The traditional real estate appraisal process involves three “approaches” to valuation:

1) Sales comparison. Find similar or “comparable” properties that sold recently in arm’s length sales in the same neighborhood, and then make appropriate adjustments from those verified sales prices to get indications of what the “subject” property is worth. (The idea of a “neighborhood” can be somewhat fluid. Someone appraising a house typically tries to choose as comparables recent sales of houses located in close proximity to – ideally within a few blocks of – the subject property. But if recent sales activity has been limited and/or the house has unusual features the appraiser’s defined “neighborhood” might expand to areas a little farther away on the map but that market participants generally would view as similar in key features like local government jurisdiction, age/style of improvements, and access to things people prefer being close to, such as schools or shopping.)

Let’s say the subject house you are appraising has three regular above-ground bedrooms. A house just a few doors up the street sold a week ago for \$126,000. That comparable house is generally quite similar to the subject (things including age and condition, architectural style, yard size, garage size, basement), but the comparable has only two regular above-ground bedrooms (and accordingly less square footage). Your knowledge of the market tells you that an extra bedroom, with its accompanying square footage, in that neighborhood is worth about \$30,000. So the evidence suggests the subject property should be worth about  $\$126,000 + \$30,000 = \$156,000$ . It makes sense that you add the \$30,000, right? A two-bedroom house in that neighborhood would be worth \$126,000 but a bigger, three-bedroom house would be worth \$156,000. Then another comparable house a few blocks away sold last month for \$159,000; it is just like the subject property with respect to most major features but it has a nicely finished basement, while the subject’s basement is just bare concrete block walls. You feel that having the basement finished adds \$5,000 to value, thus indicating that the subject property should be worth  $\$159,000 - \$5,000 = \$154,000$ . So this information suggests the house being appraised is worth something in the \$154,000 to \$156,000 range.

You want to examine enough comparables to convince yourself that you really understand the sector of the market you are dealing with, but you’d always want at least three to work with (standard appraisal forms usually call for three comparables). Let’s say that after making adjustments to three comparables (and feeling that those three “comps” have truly given you meaningful insights into the market for the particular type of house involved) you ended up with indicated values of \$154,000; \$156,000; and \$156,500. You could try to build a case for any final value estimate in that range (like saying \$154,000 since minor basement improvements might be easier to adjust for than something major like a bedroom, so your judgment might be that the second comparable gives the best insights), but if an appraiser just picked a round number close to the midpoint of the range it’s unlikely that anyone would question it. There is always uncertainty because all houses, buyers, and sellers – and the transactions themselves –

Trefzger FIL 260 & 360

are a little bit different, so there will always be imponderables when you compare one transaction to another. (An appraisal is an *estimate of market* value, based on market evidence. Market value is essentially the price a sensible buyer and seller would agree on if they knew the local market, were looking out for their own best interests, and were not acting under unusual time or financial pressure.)

If the appraiser estimates the house above to have a market value of \$156,000 and two weeks later it sells for \$163,000 it does not mean the appraiser did a bad job; maybe someone came in from out of town and did not know the local market and was desperate to buy a house before the new school year started, and they just plain overpaid. But questions should certainly arise if the appraiser intentionally picks (or doctors) comparables to reach a particular outcome. Example: once I appraised a house in a secluded little neighborhood in an unincorporated area some distance west of Peoria, in the Brimfield school district. The owner was being transferred, and a relocation company retained by the employer hired two appraisers to estimate the value of the house so the employer could buy it from the employee, at a fair price, as part of the relocation process. All the comparables I chose were served by Brimfield schools, since to me that location issue was the most important determinant of value, but because there were no recent nearby sales of homes just like that house I had to adjust the comparables for things like age and size of the improvements, and the lot size. The other appraiser chose comparables that were very similar physically to the house in question, but were located in other areas. Whether similar location/different styles is a better tradeoff than similar style/different locations could make for an interesting philosophical debate when you have to pick one of the two (though “location, location, location” typically would win).

But the other appraiser simply misstated the locations of his comps, showing them as much closer to the subject house being appraised than they were. One was in a developed neighborhood near the Peoria airport; it was more than fifteen miles from the subject but in his report he stated that it was two blocks away. The relocation company called and complained that I had overlooked such a great comparable. They liked the other appraiser’s value estimate better – it was lower than mine; less to have to pay the home owner. Since the relocation people were from far outside the area the difference between rural Brimfield and something right by the airport did not register with them; they paid no heed to my point that our competitor had lied about the location. (This incident occurred at a time before the existence of something like Google Maps would have proven my case.) They never called us again, but the other appraiser was probably at the top of their list.

Sales comparison is used with income-producing properties as well. For small, simpler commercial properties it would be used in a way similar to that described above. Let’s say you are appraising Weber’s Corner Market. Similar building Walter’s Corner Market a mile or so away sold recently for \$170,000. But Weber’s has a few parking spaces and is on a more heavily traveled street, good things for a retail business that the appraiser thinks are worth a total of \$20,000, so this particular comparable suggests the market value of Weber’s to be \$190,000. (Of course as with the house example above the appraiser would want to examine enough comparable sales to be convinced he/she truly understands the local market for that type of property. One recent transaction alone might have involved a price or other conditions that were inconsistent with our market value definition, but the appraiser could not know.)

For more complicated income-producing properties the appraiser might use a “units of comparison” technique. Quick example: several smaller, 12-15 year old apartment buildings with generally similar amenities and generally similarly-sized units in the Northtown neighborhood have recently sold in clearly arm’s length transactions. (No cases of father selling to son, for example.) A 6-unit building sold for \$474,500; a 7-unit building sold for \$565,000; and a 9-unit building sold for \$718,000. On a per-unit basis that comes out to \$79,083; \$80,714; and \$79,778; around \$80,000 per unit. The appraiser would estimate the market value of an 8-unit building, generally similar to those comparables and in the same neighborhood, to be 8 units of comparison x \$80,000 per unit = \$640,000.

Sales comparison works best when there are several comparables that truly do not call for much in the way of adjustments. (True with houses and income properties alike.) Let’s say another comparable relied on by the apartment appraiser is a 9-unit apartment building in the same part of town that sold recently for \$760,000, but it had a pool. Say the appraiser thinks the pool is worth \$40,000; he subtracts \$760,000 minus \$40,000 and gets \$720,000 as the value of the comparable aside from the pool, and then divides by 9 units and gets – *voila* – \$80,000 per unit. But the question that arises is: did the appraiser have independent information indicating that a pool of that type with that kind of building in that location is really worth \$40,000? Or did he just unconsciously, or consciously in order to tell a good and consistent numerical story, treat the pool as being worth \$40,000 so that the indicated value per apartment unit came out to be the same nice \$80,000 that some other comparables showed?

2) The second approach is Cost. Figure out what a brand new replica of the subject would cost to build, and then penalize it for not being brand new. You are appraising a 25-year old house with 2,000 square feet of living space above ground and a full basement below, plus a two-car garage. It sits on a lot that is 75 feet wide and 100 feet deep. You feel someone could theoretically buy a similar vacant lot in that area for \$50,000 and then hire a contractor to build a 2,000 square foot house plus two-car garage for another \$150,000, yielding a land plus improvements total of \$200,000. (You get that construction cost estimate by knowing the market for having things built; take a contractor to lunch once in a while and pick their brain. There are published construction cost manuals too, but they can be less reliable than local contractor estimates.) But that’s for a brand new house similar in size and with generally similar features; here the subject property is 25 years old. The land does not wear out over time, but buildings do. Let’s say the appraiser thinks the house itself suffers “depreciation” of \$35,000 from being 25 years old – it has some physical wear and tear, and is a bit functionally obsolete in lacking some fancy features put into houses today. (Estimating that depreciation amount for an older house or other type of building is quite difficult; appraisers try not to rely much on the cost approach for older improvements unless there are no good recent nearby sales to use as comparables for a sales comparison approach estimate.) So the market value estimate per the cost approach would be \$50,000 land + \$115,000 depreciated improvements (the \$150,000 cost to build new minus \$35,000 depreciation) = \$165,000. A brand new 2,000 square foot house could be had for \$50,000 + \$150,000 = \$200,000, but one on similar land with 25 years of wear and tear under its belt is estimated by the appraiser here to be worth only \$165,000.

The cost approach thus works best with newer improvements, and sometimes it is best used as a reasonableness check on the value of new-ish improvements. Let’s say someone has a 2,000 square foot

Trefzger FIL 260 & 360

house, not too far from the house described above and on a similar lot, it is four years old, and the owner insists that it is worth \$225,000. Based on cost approach logic we would ask: how could your four-year old model be worth \$225,000 if someone could get a brand new one just like it built for \$200,000? We actually use cost approach logic in all used goods situations. You go to a garage sale, they are asking \$5 for an MP3 music player, and the first thing you think is: what does a new one cost? And how much depreciation has this one suffered (through use and through lacking some of the fancy features a new one would have)?

3) The third approach is Income. Because real estate can be purchased to generate income for its owner, we can ask: what would it cost to create the same income stream through some other, but equally risky, means? Or stated more simply: what should a sensible person pay for the property if their goal is to earn income from it? The income approach obviously is useful with traditional income-producing real estate: office buildings, shopping centers, apartment buildings, even farm land. Just like with the other two approaches you are estimating market value, so you get your information from understanding the market – here, the appropriate rental market. Simple application: let's say that recently there were a few sales of small strip shopping plazas in the same general part of a midsized city. One generates an annual net income (total rent collected minus all holding and management costs) of \$83,000 and it sold for \$840,000; another generates annual net income of \$75,000 and it sold for \$762,000; and a third generates annual net income of \$68,000 and it sold for \$675,000. The ratios of price to income (called net income multipliers) for the three are 10.12, 10.16, and 9.92, clustering at around 10. So it looks like a small shopping center in the relevant neighborhood is worth about 10 times its annual income-generating potential. Thus if you are asked to appraise a small shopping center in that area you will first figure out the rent potential and all related operational costs to get the annual income estimate, and then will multiply the income figure by 10 to estimate the property's value. (Or we could divide the annual income estimate by the reciprocal of that net income multiplier, which is called the capitalization rate.)

Applying a version of the income approach to single-family houses can be more controversial. Note that you need good market-based information to base a market value estimate on, so there has to be some meaningful market activity. If you are appraising a house in a newer upscale neighborhood with a reasonable number of houses completed you will surely find recent nearby sales to use as comparables for a sales comparison analysis, and with fairly new improvements you would feel some confidence in a market value estimate from the cost approach. But what income would a house like that generate; how many houses in that neighborhood are rented out – enough that you can convince yourself of a true arm's length rental value there? Probably not; you might find a house that's rented for a year by one executive at the local big company to another while the one is spending a year overseas and the other is doing a brief home office stint. But one example does not a market make; it is unlikely that many potential buyers would look at houses of that type planning to rent them out. If there pretty much is not a rental market in that area, then trying to use an income-based analysis to get a market value estimate for such a house is likely a waste of time.

In a neighborhood of older, modestly-priced houses, on the other hand, an open house might as easily attract potential landlords as potential owner-occupants. A lot of houses in that type of neighborhood

Trefzger FIL 260 & 360

tend to be rented out, such that there really is a rental market that an appraiser could figure out. Let's say there were three recent sales of reasonably similar houses (all bungalows between 60 and 80 years of age) in the Westside area that were rented out at the time they were sold: one sold for \$65,000 and had a monthly rent of \$550; another sold for \$51,000 and had a monthly rent of \$450; and a third sold for \$59,000 with monthly rent \$505. With houses we typically deal with gross rent rather than subtracting out expenses to get a net income, because past expenses can be hard to verify for individual houses, and can vary considerably depending on who has done the work and how, and there is less access to rule-of-thumb figures of a type that property manager professional groups publish for apartment and office properties. Thus we settle for a more imprecise relationship between gross income and value, rather than the more precise relationship between net income and value. And we use monthly rent as the income figure to get a "gross monthly rent multiplier." The gross monthly rent multipliers here are 118.18, 113.33, and 116.83, which the appraiser might round to 116. (The numbers will never come out perfectly; there are always things in transactions that we can't account for, or can't quantify, anyway.) The appraiser now feels that a house of that general type in that neighborhood should be worth approximately 116 times the monthly gross rent it could generate.

She is asked to appraise a 70-year old bungalow in the affected neighborhood. She does not know exactly why a house like that should be worth 116 times its monthly rent potential; she's just seen it happen consistently enough that she feels she knows the end point of a potential landlord's thought process – and a landlord might well be the most likely buyer of this house. Perhaps this is a little bigger house than most in the area; she feels that a landlord could rent it out for \$600 per month, suggesting a value of  $\$600 \times 116 = \$69,600$ , close to \$70,000. (Caution: maybe this house has been rented in the recent past for \$500 per month; that's fine as historical information, but the appraiser's concern in estimating market value is what it *should* rent for in an arm's length lease for a potential new owner in today's market. Of course if the current owner just gave a tenant a ten-year lease at \$500 per month then the appraiser has to take that into account: a sensible buyer should not pay \$70,000 since he or she could be contractually stuck collecting a below-market \$500 in rent per month for the next decade.)

Then after getting market value estimates independently from the three approaches (or whichever of the three were used – sales comparison almost always is used for houses, and for all types of property, really, but cost might be omitted if the improvements are really old such that estimating depreciation is pure guesswork, and income might be omitted for an upscale residence), the appraiser *reconciles* the estimates from the individual approaches into a final market value estimate. In some grand theoretical sense the three approaches should give identical market value estimates, but because they are based on different logic and information it is impractical to assume that the estimates they generate will tend to be really close in magnitude (unless the appraiser plays with the numbers to make them look good). The appraiser could just take an average or midpoint of the estimates that come from the individual approaches, but it is more typical to see the final estimate dominated by the estimate from the approach that the appraiser feels is most reliable under the circumstances. For a unique kind of office building it might be the income approach, for a newer house located out in the country such that there is not really an identifiable "neighborhood" to draw comparables from it might be the cost approach, and for the typical single-family home it would tend to be the sales comparison approach.

Telling the brief appraisal story turned out to be harder than I expected, and it's still just the brief story. The steps shown in the examples above are very mechanical: multiply  $a$  times  $b$  to get the market value estimate. That is a big over-simplification of course; the devil, as happens so often, is in the details. The hardest part of real estate appraisal is extracting the needed information from the relevant market, especially income and expense information for commercial properties. What percentage of annual rents collected should an apartment building owner expect, in advance, to pay for snow removal, roof repairs, and replacing broken refrigerators? The answer is not as simple as looking to what the current/prior owner was charging as rent or paying in bills; they may have been charging rents that are unrealistically low, or been overpaying for snow removal by not seeking bids. (As noted above, average cost figures might be available through information the managers of income-producing real estate share when surveyed by their trade associations.) But it's even a difficult process with single-family homes: how do we know what a third bedroom is worth in that mythical neighborhood, or what someone would expect to pay for a vacant lot in a neighborhood (for cost approach purposes) when no vacant lots have sold in that part of the city for 40 years? And some properties are so weird (think a church that is 135 years old and sits at the intersection of two sparsely traveled country roads 13 miles from the nearby town) that no appraiser would be confident in a "market value" estimate arising from any of the three approaches. Real estate appraisal success requires technical competence but also experience, reasoned judgment, and a nuanced understanding of the market in which the appraiser specializes. That "market" could range from "residential properties in the western suburbs of Chicago" to "large Victorian houses in central Illinois" to "farm land in the Upper Midwest" to "major manufacturing facilities in the United States."

Finally, the traditional three-approach method has been supplemented by sophisticated statistical tools in the computer era. I was part of the dinosaur age; we did everything on paper by hand when I dabbled in the appraisal world. Computers were just starting to be talked about for use in appraising individual properties when I left the bank in 1979. The three approaches still lie at the heart of appraisal practice, so I'm confident that the points discussed above are still good philosophically, even though technology has changed the way that appraisers manage information and do other aspects of their jobs day to day. Regulations have changed as well; long ago no one needed a license from the state to be a real estate appraiser – the logic was that an appraisal is an opinion of value, and if a person or a lending institution is willing to pay you for your opinion then it's none of anyone else's business. An appraiser proved special skill and competence to the world by obtaining a designation like Senior Residential Appraiser (SRA) or Member, Appraisal Institute (MAI) through a respected professional association. But then with widespread failures of savings and loans (once the biggest home mortgage lenders) in the late 1980s, Congress passed laws that require appraisers to be licensed by their states if their opinions of value are to be accepted when loans are made by banking institutions covered by FDIC insurance. The intent was to assure that even appraisers without professional designations would have to meet some meaningful education, experience, and ethical/professional practice requirements.

Hope that all helps.