

Wells Fargo Bank and sustainability

- July 2005: 10-point environmental commitment, creates the Environmental Affairs Team
- My role: Primary appraisal manager for LEED, Energy Star and solar PV loan collateral, risk analysis, trends
- \$5.8 billion in loans LEED designed real estate
- \$30 Billion commitment loans and investments by 2020

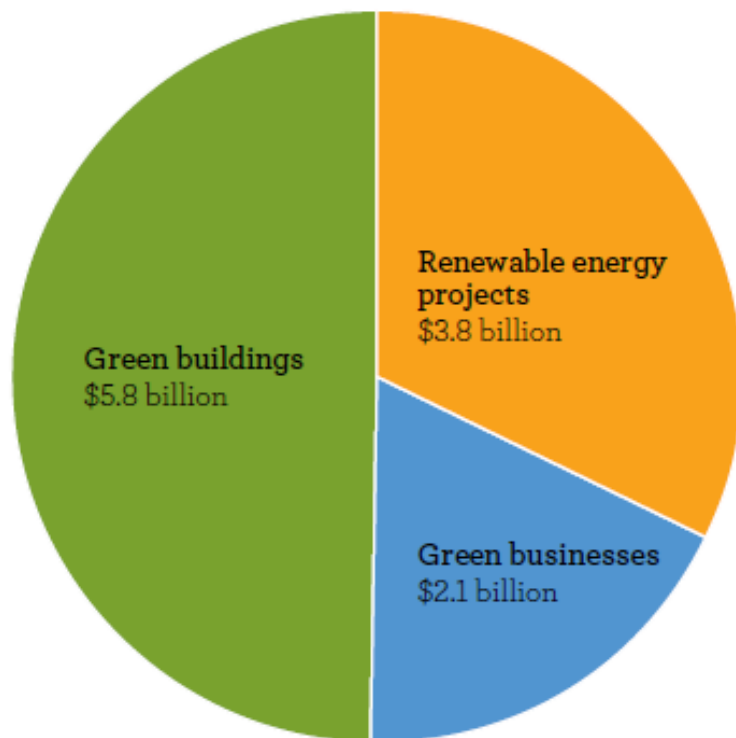
WELLS
FARGO

Together we'll go far



Wells Fargo Environmental Loans, Investments

Environmental Loans & Investments by Sector
Over \$11.7 billion invested through 2011



Cumulative Environmental Loans and Investments
Investment increased by over \$2.8 billion in 2011



What's holding up energy efficiency investment?

- Deconstruct specific problems by asset class
To help model policy and program design
- **7 Tribes of Real Estate:** specialist clusters by property asset type
- Owner's, buyer's & seller's behaviors are the market
- Behavior is part brain, part gut and not always rational
- Compare various influences that impact EE investing
Equity, debt access, split incentive, risk culture, etc
- Find the issues: ask the right people
the right questions



The 7 Tribes – Investment Risk Cultures, Clusters



1. SFR / 1-4 units
Generally owner-occupied



2. Small C & I:
SBA mom & pop/owner-user < \$2MM



3. Medium C & I:
Larger owner-user/part owner-user, local investor
– \$2MM to \$10MM



4. Large C & I:
Multi-tenant leased investment > \$10MM



5. Multifamily:
Medium/large, affordable/market, investor grade apartments, condos



6. Special purpose:
Gas station, fast food, hotel/motel, theater, data centers



7. MUSH:
Municipal, University, Schools, Hospitals

Buyers and Sellers [people] drive the market, not banks and appraisers

- Financing is not the problem,
poorly defined risk is the problem
- Compelling motivation by owners is lacking
There is always owner risk, “skin in the game”
- Rewards for investing in upgrades are:
 1. Hard, quantifiable – Simple cost savings
 2. Soft Qualitative - Risk, quality, reputation; health + productivity
 3. Reversion - Added value at sale
- EE risks/benefits are complex,
tools and experts lacking,
specific hurdles vary by tribe



THE BIG QUESTION

- Can EE payback and reliability risk ever be defined at the precision needed to motivate deep retrofit investment?
 - On a large scale
 - Natural market without incentives
 - With utility energy pricing complex, erratic

Deep Retrofits engage different risks tiers

Energy Efficiency (EE) – find the value today of a series of future events that do not happen.

“Prediction is difficult, especially if it’s about the future.”

1. Envelop – conservation, windows, door, insulation
2. Super efficient – fuel cell, gas co-gen/ tri-gen turbine
3. Energy offsets – solar thermal, geothermal
4. Distributed electric Generation (DG) - solar PV, wind

Sun up every day, warranties, no moving parts, exactly priced

- Influences from behavior & weather, are unreliable
- EE savings are like a tenant whose rent depends on the weather and staffing
- *Conclusion:* All upgrade risks not equal



Construction lending/investment is “special”

- *As Proposed* value is about the future
- *As-Is* value is about now and past performance

The Mortgage/Investment Chain - all of tribe must agree



The As-Proposed “Risk Ladder”

Risk rungs during the development cycle

1. Idea in the shower
2. Ink on paper *Appraisal Values*
3. Entitlements - - - - - *As-Is Value*
4. Vertical construction - - - - - *At Completion Value*
5. Stabilized occupancy
6. Stabilized history (3 years) - - - *Stabilized Value*

Information and experts assist value decisions

- Good information = better managed risk
“risk adjusted return”; low OK , high OK, “don’t know” not OK
- Certified 3rd party experts interpret data if needed:
Appraisal, ESA Phase 1, Property Condition Assessment
- Market Value in exchange vs Investment Value at initiation
- It is still early, owners need to engage and manage the documentation process (don’t forget the baseline)
- Prudent investment/lending for “green” is the same as everything else, no “creative” banking or appraisals
- Goal: Identify the Tribe hurdles, overcome with due diligence

Comments on the appraisal process

- Market value (should) always consider three approaches : Sales Comparison, Income and Cost
- Some Tribes rely on Income others Sales others Cost or mix
- “Simple payback” or ROI ignores reversion (value at sale) so not really value in exchange, i.e. Market Value
- Market value states “*parties are well informed or well advised*” which allows expert reports (like an ESA Phase 1)
- Energy reports are key: HERS, ASHRAE, COMNET, BEPA
- Residential appraisal business is in turmoil due to AMCs, can lack background with Income Approach

8 Major investment decision influences/hurdles

1. Holding Period

C&I short or long ,SFR & SBA long, MUSH market very long

2. Equity/cash

SFR, small commercial very limited

REITS, large corps huge, but do not want on balance sheet

3. Debt/loan availability

SBA is rules driven, credit enhanced

Multifamily super cheap and plentiful

4. Owner/tenant split incentive

SFR, Small & Middle Market commercial owners

Large C&I and Multifamily big issue

Major investment decision influences/hurdles

5. Investment analysis sophistication

Low for SFR & SBA; high for Large C&I; Multifamily depends

6. Local project incentives & energy pricing

Some areas have low energy costs and limited incentives

Other locations or property types have high energy costs

7. Risk appetite

Small business owners might be entrepreneurial or rigid

Large commercial OK with risk adjusted, Special Purpose no

8. Location green sophistication level

E and W coasts advanced, inland not

Pockets exist - Austin, Minneapolis,

Quick Recap of risk so far

- Seven Tribes – real estate asset classes
- Three Value types – hard, soft, reversion
- Four upgrade risk tiers – EE, super eff., off-set, DG
- Six rungs of As-Proposed to Stabilized Risk Ladder
- Twelve people in Mortgage/Investment Chain
- Eight Major Investment influences (+others)
- What does it mean? One size does not fit all!
- Some Tribes need help – SFR, small C&I
- Some Tribes doing OK – MUSH, large C&I

Seven Tribes and EE Investment Risk Grid

| <u>Investment influence</u> | <i>Homes-SFR</i> | <i>Small C&I/SBA</i> | <i>Middle Market</i> | <i>Large C&I</i> | <i>Multifamily</i> | <i>Special Purpose</i> | <i>MUSH</i> |
|--|----------------------------|-----------------------------------|------------------------------------|--------------------------------|------------------------------|--------------------------|----------------------|
| <i>Holding period</i> | 8-10 yrs | like homes, perhaps longer | varies | short or long | short or long | Long | Long |
| <i>Equity available</i> | limited | very limited | varies | good, but balance sheet issues | good | good | good |
| <i>Debt availability (size, cost & access)</i> | fair-good | poor to fair | varies | good, but balance sheet issues | very good | depends on credit | good |
| <i>Owner-tenant split incentive</i> | limited impact | limited impact | significant | very significant | very significant | varies | limited impact |
| <i>Investment analysis sophistication</i> | very limited | very limited | limited to good | very good | very good | very good | limited to very good |
| <i>RE/EE Incentives</i> | limited to some impact | limited to some | significant | significant | significant-very significant | varies | varies |
| <i>Risk appetite</i> | adverse | adverse | mixed | sophisticated | aggressive | varies | non-market |
| <i>Influences to act</i> | Economic, social, personal | economic, small social/reputation | economic, some social/reputational | economic, social, corporate | economic, social | depends | social, economic |
| <i>Influencers to act</i> | advisors, personal, social | peers, advisors | advisors, C suite | C suite, asset mngrs, | asset mngr, variable | corporate and asset mngr | politicos |
| <i>Location (relative to other impacts)</i> | high impact | medium impact | high impact | high impact | medium impact | low impact | low impact |
| <i>Stage of EE market penetration (1 to 5)</i> | 1 to 2 | 1 to 2 | 2 | 3 | 2-3 | 2 | 3 to 4 |
| <i>Primary hesitation</i> | resale value, equity | equity | mkt value, payback | split incentive | split incentive | too complex | CapEx cycle |

Applications of the 7 Tribes Investment Risk Grid

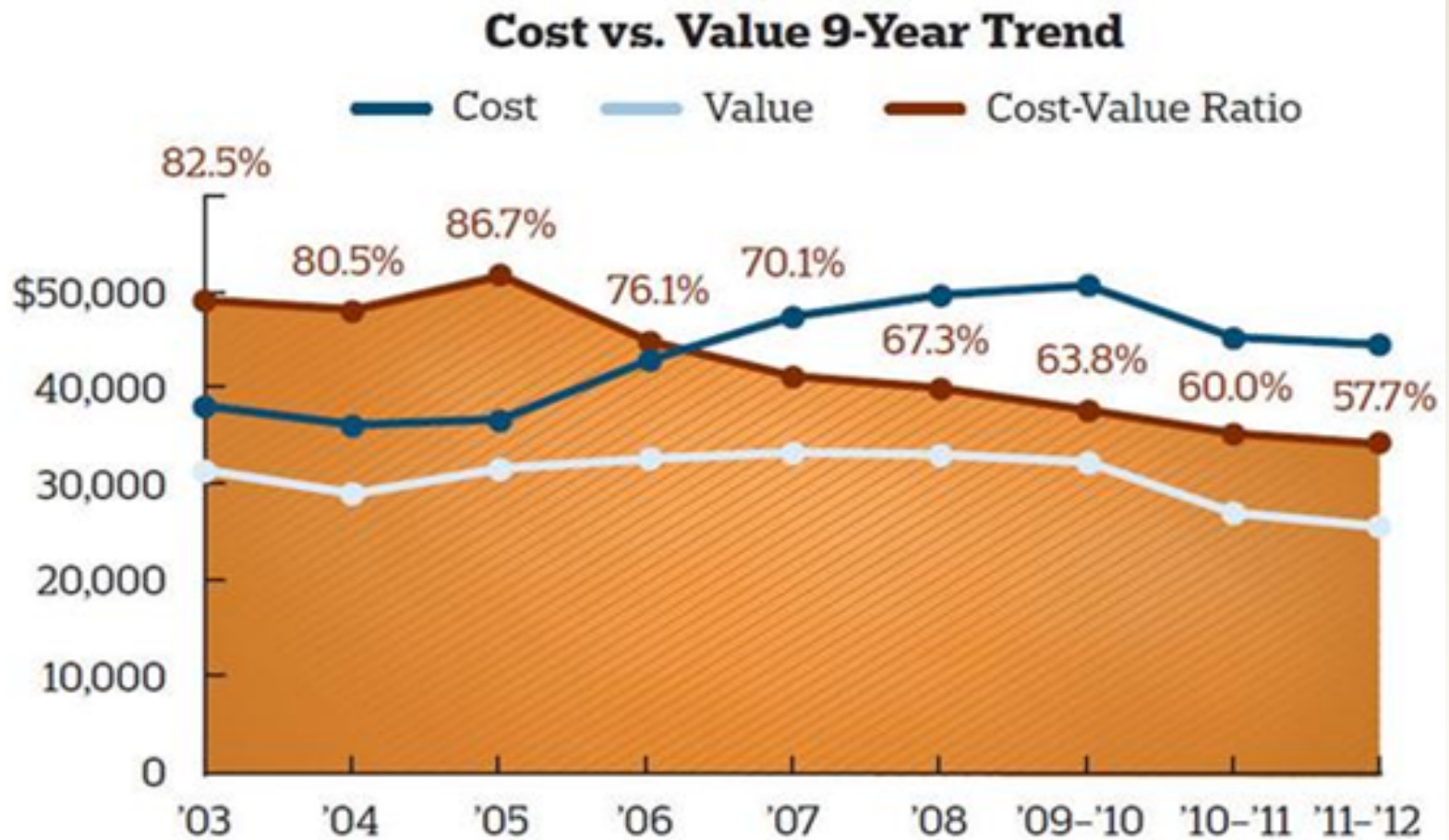
- Merchant builders & high performance home appraisals
Linchpin is Appraisal Management Firm's Scope of Work
- Los Angeles PACE Commercial financing
Loan size, sales culture & debt access = middle mkt sweet spot
- UC Davis EE Center focus on small multi-tenant CRE
Research focus on cracking this large, underfinanced niche
- Multifamily student housing split-incentive behavior
Exploits particular characteristics of this segmented market
- Large Commercial & Investment
Green leases, ESCOs, Energy Service Agreements
- LIHTC solar PV successes and failures
Cost basis increases with solar PV, but no maintenance budget

A modest proposal for EE investment risk analysis

The Cost Approach

- One of the three classic appraisal approaches
- Most applicable with new construction, used by HUD
- Strong behavioral history – MSRP, anchors
- *Remodeling Magazine's* annual *Cost vs Value Report*
 - Hanley Wood, 10 yr history, 35 projects, 9 regions, 88 cities
- Basis of 1999 *Appraisal Journal* by Rick Nevin et al article on market value of window upgrade
- Sets a quick baseline minimum value of 50% of cost
- Most valid first 3 years, cuts simple ROI in half
- Rule of thumb – in a crash invest @ 60% replacement cost

Hanley Wood Cost vs Value Report Sample



Cost line – Aggregate cost of a collection of renovations (national averages)

Value line – Aggregate market value of the collection of renovations

Cost-Value Ratio line – Market value as a percentage of cost

Used with permission, see report link - www.costvsvalue.com

Thank You!!

James F. Finlay
VP, Commercial RE Appraisal Manager
Wells Fargo Bank – RETECHS
612 Victoria Ave, #A
Venice, CA 90291
310-821-8111



James.F.Finlay@WellsFargo.com

I'm LinkedIn



Additional information on finance, value:

- Commercial RE & Finance Committee – USGBC LA
Transaction professionals: finance, law, brokerage, etc
LinkedIn page – in progress
- My LinkedIn page has PowerPoint decks on:
 - *Green 14* – value parsing in high performance comm RE
 - *Resource Appraisal* – model for due diligence reporting
 - *Solar PV Appraisal* – techniques for building mounted sys.
 - *Retrofit Triangle* – technology, operations and finance
 - *High Performance Bldg Finance Topics*

Definition of “market value” used in appraisals and bank lending

The most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and **knowledgeably**, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

1. buyer and seller are typically motivated;
2. **both parties are well informed or well advised**, and acting in what they consider their own best interests;
3. a reasonable time is allowed for exposure in the open market;
4. payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto;
5. the price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.

- *Office of Comptroller of the Currency (OCC), 12 CFR Part 34, Subpart C – Appraisals, 34.42 (g);*
- *Office of Thrift Supervision (OTS), 12 CFR 564.2 (g);*
- *Appraisal Institute, The Dictionary of Real Estate Appraisal, 5th ed. (Chicago: Appraisal Institute, 2010).*
- *This is also compatible with the RTC, FDIC, FRS and NCUA definitions of market value as well as the example referenced in the Uniform Standards of Professional Appraisal Practice (USPAP).*

“Investment value” definition

- **Investment value** - is the value to one particular investor, based on a particular buyer's situation and may or may not be higher than the market value of a property.

International Valuation Standards (IVS) define:

- **Investment value** - the value of an asset to the owner or a prospective owner for individual investment or operational objectives.[2]