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Investment Newsletter – March 2006

Using Innovation to Boost Development Profits

As rising real estate prices collide with rising interest rates, expected profits on real estate investments get squeezed. In this environment investors must look for investments with an edge: opportunities to add value that have not already been built into the price of the property. This month's newsletter explains how newly emerging building technology can reduce risk and increase profits on even small scale residential development. I'll also outline a specific investment opportunity that will be open to my clients.

The Economics of Development and Land Prices

Ultimately developers compete for land based on their operating efficiency. If they pay so much that they cannot make a profit, they will eventually be driven out of business. Therefore, the most basic thing they must do is determine what quality of product to build so as to maximize value for a particular piece of land. For expensive land, this usually means building a very high quality house that can be sold for a very high price so as to profit despite the large investment in land.

In a competitive market, land values are determined by the bids of developers who can maximize the spread between final value and total costs, i.e. profits. By this I mean that the price of land is the value as-if developed, less the costs of development, plus the developer's required returns (usually 15-25% of costs). The developer who has the best plan for maximizing profits on a particular piece of land will be able to outbid competing developers.

Developers have two ways to compete in maximizing profit:

1. Build houses that are worth more to the buyers (per square foot), and

2. Reduce costs of producing the houses

Developers who do one or both of these better, make extraordinary profits, grow their business, and drive out competitors by buying up land that others cannot afford at their inefficient spreads.

Developers producing < 100 houses per year have higher costs than larger

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developers. Therefore they must focus on the upscale segment of the market by buying more expensive (typically smaller) land parcels and building higher quality houses than the mass production builders. High costs, the need to build quickly, and the difficulty of managing on-site construction quality make this niche strategy difficult to execute. Because of competitive pressure on margins they must look for an edge to maintain profitability. Although superior design would provide that edge, their low production volumes do not justify the necessary investment.

The World is Flat – Lessons for Developers

Thomas Friedman wrote a book called "The World is Flat" that currently sits at #5 on the list of best selling non-fiction books. According to a recent debate I attended on this topic, the author argues that the world has fundamentally changed over the last ten years or so in a way that reduces the geographic barriers in production of goods and services. The point is that U.S. productivity is being driven upward by focusing our resources on the pieces of the production value chain where we can capture the most value while outsourcing those pieces others can do cheaper. Businesses that do not figure out how to organize their processes to maximize their value added will fall behind the competition and eventually be driven out of business. Despite the popular press doom and gloom headlines about outsourcing, the U.S., with the most advanced financial and technology development sectors in the world, is a huge beneficiary of this trend.

Up until now, the construction industry has lagged other industries in reorganizing its production processes to cut costs and increase quality. Although developers are looking for ways to improve their competitive positions, changes have been incremental rather than revolutionary. Normally developers put a relatively small amount of money into design and a large amount is spent on the hard hats doing the construction. The problem is that this allocation of resources tends to limit the potential for adding value. In this new "flat" world, this cannot persist. Just as in other industries, the construction industry will have to fundamentally rethink its processes and organize production globally to maximize value creation.

Changing the Paradigm: Offshore Prefabrication

For the past nine months I have been working to set up a new company that will revolutionize higher end residential development. By combining smart design and lower labor costs offshore, PrefabLAB will use commercial building technology to reduce risk, improve quality, and cut costs for residential developers in its target markets.

The big idea is to shift the focus to value added design that allows the developer to improve quality and access lower cost Chinese labor via prefabrication. Substituting design dollars for hard-hat dollars increases the value

of the final product while simultaneously reducing costs - thus providing a very high return on the investment in design.

It is important to understand that the prefabrication of components will be undetectable to end users. The end result will be a high-end modern home with no indications of how the house was produced. We are not talking about mobile homes or modular homes or anything else anyone has ever seen.

The first applications of this new method of building will be for higher-end homes in high cost locations like California and Hawaii. It will not replace lower end construction methods for quite a long time. Still, the opportunity for profit is huge. In Hawaii, the cost of building custom homes will be cut by 15-30%. By developing high end vacation (rental) homes in Hawaii using this technology a developer will earn much higher profits until competitors adopt the same techniques. The diagram below illustrates the economic analysis of the impact of the new business model.



The diagram illustrates that the prefabrication technology enables the developer to compete more effectively both by simultaneously moving up the

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value line and by reducing costs. The result in the near term is extraordinary profits. In the long run, as the technology is adopted by the market, competition will drive up land prices so that builders competing in the high-end niche, who are not using the technology, will be driven out of the market. Eventually this may spread to the rest of the market as well.

Profiting from Change

PrefabLAB will sponsor and manage development of 24,000 square feet of residential developments in Hawaii. While the exact configuration of this space will depend upon the land entitlements, the idea is to build eight 3,000 square foot luxury vacation rental homes on four land parcels. This splits the development investment into four pieces and reduces development risks. Note that this is the implementation of the investment thesis presented in the August 2005 newsletter for big island land development.

Building such homes using traditional building methods would cost \$300 per square foot. By diverting dollars to design and buying the components in China, we can build for \$255 per square foot. Such houses should sell for \$500 to \$800 per square foot. For all four parcels, the total costs are roughly \$9.2 million and gross sales value, at \$500/s.f., would be \$12 million. Bank loans will cover 61% of costs; \$3.6 million in equity will cover the other 39%. Netting out sales commissions, the return on equity should be at least 60%. This project will take 13 months to build and 3 months to sell. See Appendix A for the financial analysis details pertaining to one of the four parcels that will be developed.

Investors in these projects will also have the right to invest in PrefabLAB itself and therefore earn additional returns on future projects using their technology. Appendix B is a competitive space diagram showing how this company's products will fit into the overall housing market in California. If this diagram were done based on Hawaii costs, the PrefabLaB products would be shifted to the left (less expensive) relative to everything else.

Conclusion

Investors looking for value added opportunities, to reduce risk and increase profits, should consider investing in projects using the new prefabrication technology being developed by PrefabLAB. The competitive edge provided by combining superior designs with less expensive offshore labor, should result in higher than normal development profits. In addition, getting in on the ground floor of this new building paradigm has the potential to provide extraordinary returns over a number of years.

Stock Market Notes

March 17th marks the one year mark for our money management services. It has been a great year. The chart below shows the performance of the main portfolio over the first year.



The Long Term Value portfolio returned about 30% after fees compared to 12% for the S&P 500 index. While there is no guarantee that I can match past performance, I intend to do my best to beat the market again this year.

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Analysis of Project in Dollars			
PrefabLAB design and mgmt. fees		500,000	
Common Area Costs		50,000	
Hard Costs for units		900,000	
Holding Costs estimate (interest)		79,000	_
Total Development Costs		1,529,000	
Land Price		750,000	
Total Costs (without contingency)	\$	2,279,000	-
			-
value per s.f.	\$	500	
price per unit	\$	1,500,000	
Sales Cost %		6%	
Net Sales Value Total	\$	2,820,000	_
Profit in Dollars	\$	541,000	excluding contingency
Investor Profit as % of Costs		24%	-
Acquisition Loan	\$	375,000	
Construction Loan	\$	1,035,000	
Minimum Equity Required	\$	869,000	
Contingency Equity	\$	31,000	
Equity Required	\$	900,000	
Profit as % of Equity		60%	
Annualized internal rate of return		76%	*
Equity as a % of costs	_	39%	_

Total Cash to Investors at Sale

* This takes into account the timing of $\overline{\text{cash flows in and}}$ out by month.

\$

1,441,000

Per Square Foot Financial Analysis

Sales Price per s.f.	\$ 500
Less Costs:	
Sales Commissions per s.f.	\$ 30
Hard Costs per s.f. for units	\$ 150
Hard Costs of amenties per unit s.f.	\$ 8
Land Costs per buildable s.f.	\$ 125
Interest Costs per s.f.	\$ 13
Costs per s.f. Excluding Prefab Fees	\$ 327
Prefab fees per square foot	\$ 83
Profit per square foot	\$ 90
All in development cost per s.f.	\$ 255

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Housing	Plan	Energy		Design		California
Туре	Flexibility	Efficiency	Durability	Quality	Ranking	Costs
PrefabLAB	***	*****	*****	*****	00	0000
Economy Custom Home	***	****	****	****	80 85	\$5\$ \$\$\$ \$\$\$\$\$\$
Niche Production Home	***	**	**	**	65	\$\$\$\$
Production Home Wood Papelized	**	**	**	**	45	\$\$\$
Modular Home	*	*	*	*	20	\$\$
Mobile Home	-	-	-	-	0	\$

Categories are equally weighted. (i.e. 5 points for each star for each category for a total of 100 possible points.)

Housing Type

PrefabLAB Custom Home Custom Modular Niche Production Home Production Home Wood Panelized Modular Home Mobile Home

Description

Metal frame panelized prefabricated homes. Unique architect designed homes, custom for each individual client. Higher quality design using standard modular home technology. Higher-End conventional wood frame homes built by small and medium sized developers. Conventional wood frame home built with economies of scale. Production built wood home with wall panels prefabricated off site. Homes built of integrated building modules. Homes can be relocated from site to another. Meets HUD code.