



# Student Research

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Industry: Real Estate



**Ticker: MRVE3**

**Price: \$10.30**

**Recommendation: BUY**

**Price Target: \$25.65**



October 24<sup>th</sup>, 2008

	Earnings/Share					P/E Ratio
	Mar.	Jun.	Sept.	Dec.	Year	
2007A	R\$0.088	\$0.172	\$0.28	\$0.336	\$0.876	43.33x
2008E	0.375	0.491	0.41	0.50	1.78	13.45
2009E	0.49	0.65	0.54	0.66	2.34	10.94
2010E	0.7	0.91	0.76	0.93	3.30	9.29

## Highlights

**MRV Engenharia** is the major home building company in the lower income segment. Since 1979, when the company initialized its operations, MRV holds a large experience in this segment, which permits a consistent planning and a deep knowledge of the many stages of productive process. With the shortest construction cycle of the segment in Brazil: based on a modular construction model, building cycle reduces dramatically, followed by a reduction in costs, which permits that the unit can be delivered in a shorter length of time.

**We recommended a BUY Rating for MRV with a fair target price for 2009 of R\$ 25.65 based on a DCF Analysis.** The MRVE3, a stock with high liquidity in the *BM&F Bovespa* Market comparing to other companies in the same segment, has a potential upside of 149%, since its current price is R\$ 10.30. With the target price for end 2009, MRV would trade at 2009e EV/EBITDA of 7.10 times and 10.94 times for P/E.

**The company made an important capitalization** with a R\$ 300 million debenture emission just before the Credit Crisis hit the Brazilian Market. With this cash the company was able to finance construction, diversify the geographical presence and keep in track to accomplish the MRV 40,000 project. Having in mind the great housing deficit in the lower income segment, it is possible that MRV continue to expand its launches for certain period of time.



Market Profile	
52 Week Price Range (R\$)	9.35 - 45.48
Average Daily Volume (In R\$ thousands)	860.735
Beta	1.2
Dividend Yield (Estimated)	4.31%
Shares Outstanding (thousands)	135,994
Market Capitalization (In R\$ thousands)	1,400,738
Institutional Holdings	20.35%
Insider Holdings	9.5%
Book Value per Share (12/31/07)	\$10.09
Debt to Total Capital (12/31/07)	1.6%
Return on Equity (12/31/07)	3.12%

## Important disclosures appear at the back of this report

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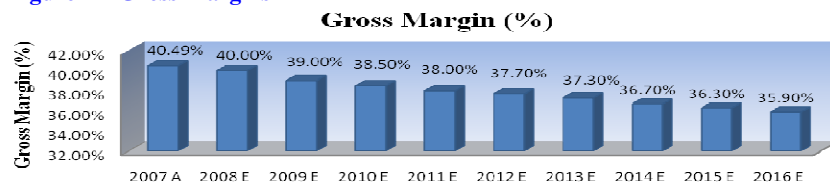
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## Investment Summary

We are placing a BUY rating on the MRVE3 stock. We calculated the valuation for MRV Engenharia using the DCF Analysis. This shows that our target price for 2009 is R\$ 25.65, higher than the actual price, R\$ 10.30, revealing a potential upside of 149%.

A competitive advantage held by MRV is the integrated business model that not only allows the company to have a consistent growth in construction and sales, but also holds the highest margins in the sector. Even with a standardized construction process, a strong supply chain and experience in the lower income home building sector, we believe that the gross margin of 40.49% in 2007 and 41.0% in the 2S08 cannot be sustained in the long run. Hence, we assumed these margins would decline until they reach 35.9%, the sector average in 2007.

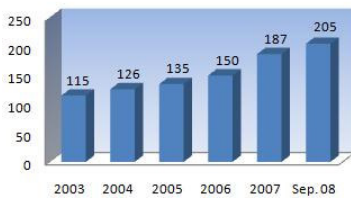
**Figure 1 – Gross Margins**



Source: Students Estimates

**Figure 2: SBPE**

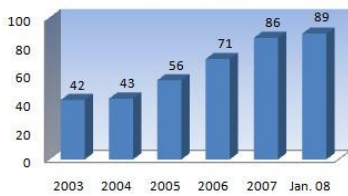
Savings Accounts (SBPE) - R\$ billions



Source: Company Documents

**Figure 3: FGTS**

FGTS - R\$ billions

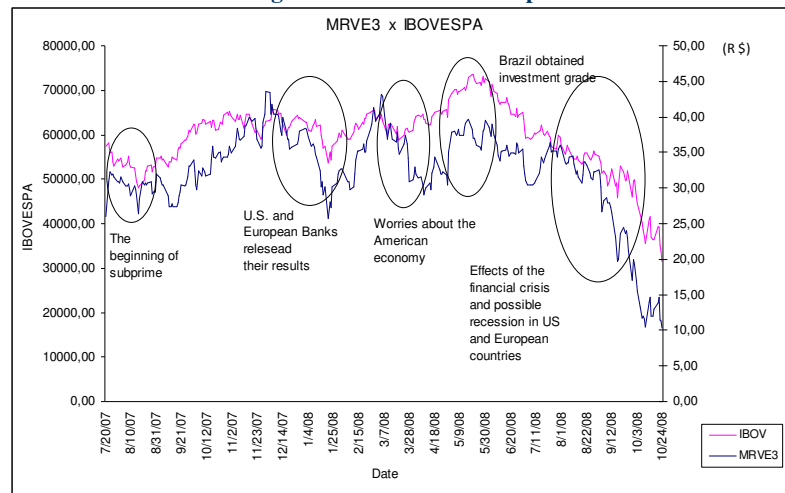


Source: Company Documents

The company has a launch target of 40 thousand units annually by the end of 2010. For 2008, MRV launch guidance is between 23 and 25.5 thousand units, considering an average unit price of R\$ 108 thousand. So from now until 2010 the units launched should increase by 60% in order to accomplish its target. This aim is structured in a project called MRV 40,000, and looking at the company growth rates, it is expected that MRV reaches this target despite the slowdown in the growth rate of the home building sector caused mainly by the Credit Crisis.

The funding for the home building financing system is mostly guaranteed by the FGTS (Service Time Guarantee Fund) and by the SBPE (Brazilian System of Savings and Loans), whose funding is obtained internally in the Brazilian market. Moreover, the greatest part of MRV customers financing is provided by the CEF (Caixa Econômica Federal), a federal bank, which has declared that it will not raise the interest rates in the short run. Even if the financing interest rates increase by a small amount the impact in the demand for MRV would not be significant since in the lower income segment the major concern is if the payments fit their budget.

**Figure 4: MRVE3 x Ibovespa**



Source: *Econômica* (10/24/2008)

In order to sustain the high growth rates, MRV capitalized before the crisis, making a R\$ 300 million debenture emission in July 2008 and contracted R\$ 120 million in debt to finance construction (*Plano Empresário*). This can be seen as a competitive advantage for MRV since the actual credit restriction will not have a strong impact in MRV launches, which is a signal that the company has cash to conclude the units still in construction process.

Even though there is an entrance of new competitors in the lower income home building sector, MRV tends to suffer only a slight impact in its sales, given that these companies need to go through a learning curve process to deal with this market segment. MRV works with standard products, a short construction cycle, a strong supply chain and great experience obtained in almost 30 years in this specific market.

## Valuation

### Target Price for 2009e: R\$ 25.65<sup>1</sup>

With the target price for the end of 2009, MRV would trade at 2009e EV/EBITDA of 7.10 times and 10.94 times for P/E. Our valuation is based on a DCF Analysis with a forecast period of 9 years, opting to not use a Relative Valuation because with the Credit Crisis most of the current stock prices are not reflecting the fundamentals, which could cause an unwanted effect on our estimations.

Before the crisis, in late August, MRVE3 was being traded at R\$ 32.20, yet the current price is R\$ 10.30. As can be verified, it lost approximately 68% of its value, and if we consider the highest historical price of R\$ 43.70 in November 2007, this means a loss of 77%.

### DCF Analysis

The market cap is calculated from the sum of the discounted free cash flows to firm minus the present value of company's net debt. Thus, in order to get the target price, we divided the market cap by the number of shares.

**Table 1: WACC**

<b>WACC Calculation</b>	<b>14,64%</b>
<b>Cost of Equity</b>	<b>16,45%</b>
Beta	1,20
Risk Free Rate	3,9%
Country Risk	5,5%
Equity Risk Premium	5,9%
<b>Cost of Debt</b>	<b>10,1%</b>
Before Tax CoD	15,3%
Marginal Tax Rate	34,0%

Source: Market Data, Students Estimates, Company Data

The WACC assumed was 14.64%. The Cost of Equity (CoE) of 16.45% was reached with a risk-free rate of 3.9%<sup>2</sup>, a risk-premium of 5.9%<sup>3</sup> for the U.S. Market, a country risk-premium for Brazil of 550 b.p. and a Beta of 1.2. The latter was estimated by getting the home building Brazilian sector unleveraged Beta<sup>4</sup> and leveraging it for the company's capital structure. Finally, the Cost of Debt used was 10.1%, discounting the tax benefit, based on the interest rate of the recent debenture emission, assumed to be the greatest part of the company debt.

### Key Assumptions

MRV intrinsic value is R\$ 25.65. Our Key Assumptions is that the company will finish project MRV 40,000 by the end of 2010, which means launching at least 40,000 units annually. Considering that the ratio Contracted Sales/Launches (actual is 0.6) tends to rise given that the company has amassed a high level of inventory and also intends to improve its sales channel, the overall net revenue will be increasing during the analyzed period. For perpetual growth we opted for a 4% growth rate, a conservative choice once there is huge potential in the lower income market given the great housing deficit.

**Table 2: Target Price Sensitivity to WACC and Perpetual Growth**

In R\$		WACC				
LT gr	13%	14%	14,64%	15,00%	16%	
2%	27.45	24.54	22.94	22.09	20.01	
3%	29.28	25.97	24.18	23.23	20.93	
4%	31.52	27.69	<b>25.65</b>	24.58	22.01	
5%	34.31	29.79	27.42	26.20	23.27	
6%	37.90	32.42	29.61	28.17	24.80	

Source: Students Estimates

<sup>1</sup> If we assume that the Gross Revenue is 15% less than the estimated or 2,5% more than the estimated the price will be, respectively, R\$15.89 and R\$27.28

<sup>2</sup> Historical Geometric Average of T-Bills (Bloomberg)

<sup>3</sup> Historical Geometric Average of the S&P 500 (Bloomberg) minus the risk-free rate

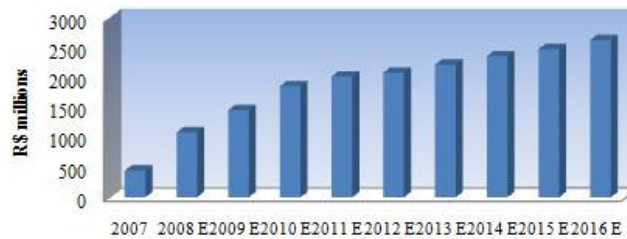
<sup>4</sup> Source: *Econômica* – October, 2008

**Risks to Price Target**

We see as the main challenge for MRV as being the ability to manage the great number of development sites given the rapid geographic diversification throughout Brazil. Holding a large amount of projects implies in high risk seeing that MRV has to coordinate the supply chain and cost efficiency in a lot of building areas.

We are assuming MRV will be able to raise the Working Capital necessary to reach the launches projected. This can be a risk to our Price Target since the credit market can continue to be quite restricted in future periods.

**Figure 5: Net Working Capital**  
Net Working Capital



Source: Students Estimates

During the crisis MRV shares had lost great part of its value, not reflecting its fundamentals. Because of that, the upside projected is quite high, approximately 149%, since the actual price is R\$ 10.30 and the expected for 2009 is R\$ 25.65. Along the next year the stock market can still be reflecting leftovers of the crisis, and the volatility caused by this movement can be an obstacle for the target price for 2009e.

**Business Description**

**The Company**

MRV Engenharia e Participações S.A., headquartered in Belo Horizonte – Brazil, is a player in the homebuilding sector, more specifically in the following activities: incorporation, construction and commercialization of housing units for the Brazilian middle class. MRV is highly recognized for being the major homebuilder focused in the low-income segment. Since 1979, when the company initialized its operations, MRV holds large experience in this segment, which permits a consistent planning and deep knowledge of the many stages of productive process.

Operating in more than 60 cities in Brazil (13 states and the Federal District), MRV utilizes a system of modular construction, offering standardized products that diminish the productive cycle, permitting a low cost of production and a high specialization of process. Targeting the low-income segment, MRV supplies housing units ranging between R\$70.000 and R\$220.000 per unit, with the area related to each unit ranging between 40m<sup>2</sup> and 120m<sup>2</sup>. MRV has a project called MRV 40,000 that intends to launch at least 40,000 units annually by the end of 2010, with the help of its 6.000 collaborators (belonging to MRV).

**Products**

MRV offers 3 lines of products:

- *Parque*: constituted by vertical condominiums with a maximum of 5 floors. They have no elevators and a usable area of 40 to 55 m<sup>2</sup> per unit. This line offers units with a small recreational area, one uncovered parking space per unit and two or three bedrooms, few having a master bath and balcony. The maximum sales price is R\$77,000 per unit.
- *Spazio*: constituted by vertical condominiums with a maximum of five floors. They include designs with or without elevators and a usable area of 42 to 70 m<sup>2</sup> per unit. This line includes more elaborated recreational areas, an average of 1.5 covered parking spaces per unit and 2 to 4 bedrooms, which may include a master bath. The price per unit varies between R\$77,000 and R\$140,000.

- *Village*: constituted by horizontal condominiums with a usable area of 70 to 120 m<sup>2</sup> per unit. MRV's Village lines offer more elaborated and complete recreational areas, two parking spaces per unit and 2 to 4 bedrooms with a master bath. The price per unit varies between R\$100,000 and R\$220,000.

**Modular Construction**

In its projects, MRV utilizes a system of modular construction. This type of construction is characterized by a combination and replication of models in a variety of developments. MRV's modules are composed of groups of 50 to 200 units, which allow product developments of up to 5,000 units, depending on the size of the city, the land and the local demand. Economies of scale are also obtained with the inputs. Almost 90% of the inputs are used in the three different projects.

**Business Model and Customer Financing**

MRV utilizes an integrated business model, which is constituted by the following activities: incorporation, construction and sales. This model implies in integrated operations, allowing MRV to control all stages of development, including the search for land parcels, the design and construction of units and sales to final customers.

The company offers 2 financing possibilities in home purchasing to its clients:

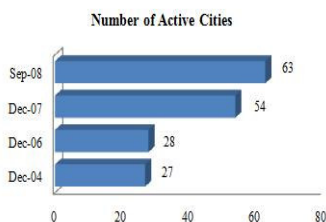
- **Direct financing**: constitutes financing realized by MRV, in which the client pays, approximately, 30% of the total in the down payment or in the key delivery occasion, while the remainder is parceled into a 60-month-term payment. The monthly interest rate varies between 1.2% and 2.0%. The contract payments are adjusted in a monthly basis according to INCC (National Civil Construction Index) until the time of delivery. Afterwards, the installments are supposed to be adjusted according to IGP-M (General Price Index) raised by 12% interest rate per year. At the end of the construction, MRV's financing activities are guaranteed by fiduciary alienation of the unit.
- **Bank financing and CEF**: in this modality, MRV receives the contract payments value from the customer only at the time of delivery, and the remainder the customer finances directly with the financial institution, which pays MRV the total amount of the balance due. This type of financing brings advantages to MRV as much as to the customer, since the customer can use his/her FGTS (Service Time Guarantee Fund) to pay the balance due and MRV benefits from the liquidity gain, eliminating the client credit risk and, consequently, the receivables in the balance sheet.

**Competitive Advantages**

MRV is considered as a reference in low-income homebuilding sector, presenting competitive advantages such as:

- **Long experience in the sector**: since 1979 MRV has been operating in the low-income segment, which represents the major part of demand for new homes in Brazil. This long experience implies that MRV benefits from huge knowledge of the stages of productive process and the establishment of accurate construction planning.
- **The shortest building cycle of the segment in Brazil** (approximately 2 times faster than the traditional model): based on a modular construction model, the building cycle reduces dramatically, followed by a reduction in costs, which allows the unit to be delivered in a shorter length of time.
- **Flexibility in developing projects**: the modular construction utilized by MRV enables the combination and replication of the modules in different types of developments. Modular construction provides MRV with flexibility, since the company can replicate standardized projects in different regions, adjusting the size of developments to the characteristics of specific locations, including the size and layout of pieces of land.
- **Standardized construction models**: Utilizing modular construction, MRV is allowed to simultaneously replicate a uniform construction standard in various sites, which provides MRV with great economies of scale.
- **Large geographical presence**: Currently, MRV operates in 63 Brazilian cities in 13 states (Minas Gerais, São Paulo, Rio de Janeiro, Paraná, Santa Catarina, Goiás, Espírito Santo, Rio Grande do Sul, Bahia, Ceará, Rio Grande do Norte, Mato Grosso and Mato Grosso do Sul) and the Federal District. MRV benefits from lower risk attributed to the local law.

**Figure 6: Geographic Diversification**

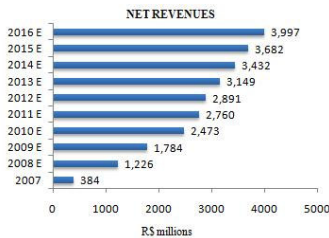


Source: Company Documents – 2T08

### Market Perspective

In the last few years, the Brazilian homebuilding sector has extraordinarily increased. A favorable economic situation (credit expansion, real salary increase) has propitiated a strong growth of demand for homes in Brazil, which owns a current housing deficit of 7.8 million of units, proving a notable potential of growth for the civil construction sector.

Figure 7: Net Revenues



Source: Students Estimates

MRV has presented an increase of 322% in its revenues from January 2006 to January 2007. Following the potential growth of demand in the Brazilian market, MRV, in January 2007, sold 16.7% participation to a British investment fund Autonomy Capital Research LLP. In July of the same year, the company issued an IPO of 45.9 million common stocks in the market, by the price of R\$26, raising R\$1.193 billion. Since then, MRV is introduced in the Bovespa's *Novo Mercado*, which constitutes the highest level of corporate governance.

Worries about the market potential appear based on inflationary pressure verified in civil construction components, reflected by a 9%-year accumulated INCC, which suggests a slow in the sector markups. Another worry is related to the current crisis, initialized in the American mortgage market. There is a worrying question about the perspectives of the various sectors in the global economy and, in the matter of this report, about the Brazilian homebuilding sector. Although a possible slowdown in revenue growth rate, the perspectives for the future still positive.

## Other Headings Relevant to Company

### Construction Financing

In July 2008 the company issued R\$300 million in two debentures series with 5-year duration and amortization in the third, fourth and fifth year by equal amounts. The value of the first series was R\$271.4 million with the following remuneration, payable semiannually: CDI (Brazil's Interbank lending rate) plus 1.5% per year. The value of the second series was R\$28.6 million with the following remuneration, payable annually: 10.8% per year plus IPCA (a Brazilian consumer price index).

### Credit Crunch and Financial Crisis Impact

The current crisis initialized in the American mortgage market can influence the segment growth due to a reduction in the credit offering, followed by an increase in the cost of capital. Since MRV operates in the low-income segment, which is highly dependent on financial support, a slowdown of the growth rate of contracted sales could possibly be noticed. Some heading related to the crisis are reported in the following lines.

### Government Intervention

The Brazilian government announced in 10/22/2008 the approval of a *Medida Provisória* (it has the value of a law) in order to allow *Caixa Econômica Federal* to buy shares of real estate companies facing difficulties in obtaining credit. The purpose of this law is to provide credit to the real estate industry to avoid a scarcity of available financing and stimulate the industry to keep growing even at lower rates. Another possible action taken by the government consists in permitting the use of financial resources from the FGTS as a funding instrument for working capital to real estate companies.

### Attempts to reduce taxes

The ABRAMAT (Brazilian Association of Construction Materials Industry) sent a document to five ministers of the government requiring support in order to remove a tax called *IPÍ* (Industrialized Products Tax) from construction materials. Their argument is based on the fact that it will avoid the growth of the unemployment rate in case of a possible slowdown in the real estate industry in the short run and in the middle term the loss of tax revenues would be compensated by an increase in the economic activity level.

## Industry Overview

### Homebuilding sector: an attractive market

In the past, the real estate industry was concentrated on players focused on high and middle income segments due to mortgage constraints caused by high interest rates and double-digit inflation. From six years until now Brazil has acquired economic stability with inflation under control, lower interest rates and acceptable growth rates. This created conditions for the rebirth of the mortgage markets and also expanded the lower-income segment, a segment usually left aside. The stability provided a huge foreign investment in the construction industry, which led to a development of new and existing companies in this segment. The construction industry in Brazil is composed of approximately 70 thousand companies, 94% of those being small business, and it represents about 3% of Brazilian GDP.

### Brazilian real estate market

Brazil is currently considered one of the most exciting emerging growth countries and as a result, global investment is at an all time high. Brazil is internationally rated to have great potential market in the real estate industry, being attractive to international investors. The Brazilian real estate market has many growth opportunities just by using the increasing demand. According market research, Brazilian housing needs has a demand surplus of approximately 7.8 million, including construction, rebuilding, maintenance and landing acquisition. According to recent data Brazil has conditions to attend 23% of its demand. Meanwhile to answer this demand Brazil will have to provide large amounts of credit to the real estate industry and its financial activities. It is estimated that out of all Brazilian housing deficit, approximately 7.8 million, just 1.2 million is the MRV market focus, which represent 15.38% of the total. Almost 85% of the housing deficit, 6.6 million, is composed by people who earn less than three minimum wages, according to IBGE (Brazilian Institute of Geography and Statistics) resources from 2005. This latter market can only be reached if the government helps, as is done in Mexico with government subsidies, noting that Mexico is a developing country with many economic similarities with Brazil.

**Figure 8: Brazilian Housing Deficit**



Source: IBGE, 2005, Students Estimates

### Entry of new competitors

The low-income segment proved to be a highly profitable segment which attracted larger builders into this economic segment by joint ventures or by creating their own lower-income brands. This segment is composed of people who have an average of four minimum wage income. Moreover, each company has its unique approach and strategy to this segment. While some companies are concentrated in the low-income segment other companies have subsidiaries and joint ventures. They also differ in their geographic approach, where some companies focus on big cities and others on the countryside areas.

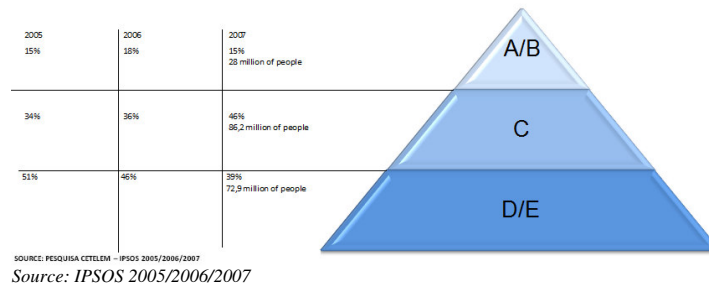
### Working capital – a key factor

The main concern for construction and the real estate industry is working capital management, especially at this moment when credit is becoming difficult to obtain, and when obtained comes at a very high cost. The homebuilding operational cycle for the lower-income segment is shorter than that of middle-and high income and this implies in a lower necessity of working capital.

## Competitive Positioning

MRV is a Brazilian homebuilder entirely focused on the lower-income segment. This segment proved to be very attractive due to Brazilian economic growth in recent years that created conditions for people to move from Brazilian classes “E/D” to class “C” as we can see in the graph below.

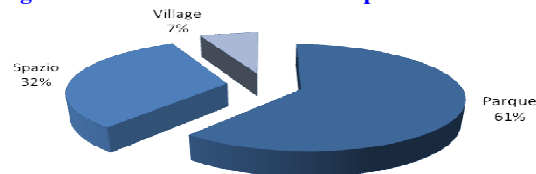
**Figure 9: Brazilian Population Distribution per Income Class**



The company boasts its consistent growth based on an integrated business model plus a shorter operational cycle resulting in solid growth in development, sales and homebuilding leading MRV to solid operating indicators and high margins. MRV has an integrated business model in which it develops the products, the construction and the sales, resulting in a good profit margin. MRV is also the first homebuilder in the country to be certified as a CEF Real Estate Correspondent. Its main competitors are Tenda (recently sold 60% of its shares to Gafisa to avoid going bankrupt because it had spent a lot of money buying land and has no money for working capital), FIT Residencial (belongs to Gafisa – is the Gafisa’s company for low-income segment), Cury, Concyma, Plano&Plano, Cytec, (Cyrela’s joint ventures companies for low-income segment in São Paulo), Rodobens, Company and Trisul.

MRV has a great and strategic land bank, almost equally divided between capitals and secondary cities, which has a value of R\$9,548.4 million. As a result of its great land bank and large number of projects, MRV will need to control the development and the supply chain of all projects, which implies more risk to the company. MRV uses swaps to reduce the cost of land acquisition, in September 2008 swaps percentage was 28%, and the company intention is to increase this percentage in the following years to reduce its need of working capital. It is estimated that the duration of MRV’s land bank is something around 3 years. Analyzing the land bank distribution per product, shown in the graph below, we can infer that MRV is focusing on their cheapest products for the following years.

**Figure 10: Land Bank Distribution per Products**



Source: Company Documents – 2T08

There are around twenty-five companies in the real estate and construction industry which are open corporations and negotiate their shares in the Brazilian stock market. This sector looks very attractive for mergers and acquisitions because the companies have some similarities and can obtain scale and scope gains, but MRV has no intention and no plans of buying medium-large corporations. MRV has the intention of buying small companies, following the example of 2007 when it bought 50% (R\$1,89 million) of Prime Incorporações e Construções Ltda. and 49% (R\$7,37 million) of Blás Engenharia e Empreendimentos S.A.

As mentioned above, the homebuilding operational cycle for the lower-income segment is shorter than that of middle-and high income and this implies in a lower necessity of working capital. In the case of MRV, its

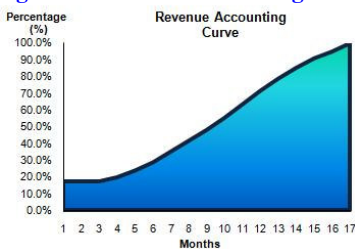
homebuilding operational cycle is from 12 to 33 months while the industry average is from 30 to 60 months, which results in a great competitive advantage – especially now with the Credit Crisis. The Brazilian mortgage financing system has some protection like SBPE and FGTS to avoid the impact of the financial markets turmoil. Another key point here is that MRV capitalized itself before the crisis got worst, by emitting R\$300 million in debentures and obtaining R\$120 million from *Plano Empresário*, which gave the company more flexibility and capacity to achieve its goals.

## Financial Analysis

### Summary of Revenue Forecast

The gross revenue in our model is calculated as a percentage (28.5%) of the past year contracted sales and a percentage (71.5%) of the contracted sales of the current year. We opted for this method because this is approximately the way MRV accounts its revenue.

**Figure 11: Revenue Accounting Curve**



To forecast the Possible Sales Value (PSV) we assumed that the company will accomplish the target project MRV 40,000 by the end of 2010 and, will then grow at a lower rate. We also considered that the average sales price will be increasing due to the inflation rate minus the decrease in the real price, in order to follow the company strategy to focus in the *Parque* apartments.

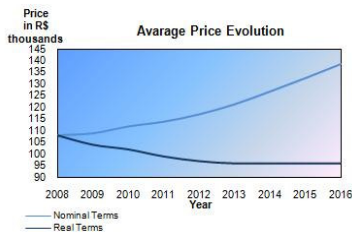
In view of raising the Revenue, the company also will improve its sales channel, so we smoothly increased the ratio of Contracted Sales/Launches.

### Earnings

The MRV net income forecast grows quite fast until 2010, grows especially fast in 2008. However, in subsequent periods after 2010 the net profit shows a moderate growth due to a slow down in units sold growth.

By analyzing the income statement it is possible to observe that even though the gross margin is decreasing as stated above, the EBITDA margin is sustained at the same level mostly due to economies of scale as the launches grow.

**Figure 12: Average Price**



### Cash Flow

The cash flow is expected to be negative in 2008 and 2009. Even though the EBITDA is increasing rapidly, a large amount of investments in working capital, caused by the fast growth of the operations, is required. In 2010 the FCFE turns to positive, especially because the necessity of WC investments is not as big as in the previous years, and the EBITDA continues to grow at a fast pace.

### Balance Sheet

Keeping in mind that the contracted sales will raise by a large amount, the accounts receivable will also increase. The rate of this latter increase will be according to the Revenue Accounting curve and attached to the growth rate of contracted sales. Another important account in the balance sheet is the Land-Inventories necessary for future growth. At first, this account represents approximately 32% of the current assets, especially due to the large amount of investments made in 2007 in the land bank with the capital raised from the IPO. Along the projected period this ratio tends to decrease once the company intends a more efficient ratio between Land Bank/Launches.

The Long Term Financing will significantly grow in 2008 since MRV has concluded the R\$ 300 million debenture emission in mid 2008 and has also contracted an R\$ 120 million debt to finance construction (*Plano Empresário*) in order to sustain the strategy of fast growth. It is anticipated that the debentures will start to be amortized in 2011 and the company will begin to reduce its long term debt. We noticed that the company made an important capitalization right before the Credit Crisis started which can be considered a competitive advantage.

### Profitability

According to our projections for 2008 and 2009 the expected ROEs are 15.75% and 17.78 respectively, indicating a greater return to stockholders. It can be noticed that the better ROE is caused by an increase both

in net margin, asset turnover and higher leverage. These improvements seen in the Du Pont Analysis components can be explained by the economies of scale provided by MRV standard products policy, which results in an increase in the profitability as the revenue grows.

## Investment Risks

Execution Risk: The project MRV 40 thousand will encounter three threats: expected lower economic growth, higher interest rates and credit restrictiveness.

IMF's World Economic Report says that the growth rate of the world will be near 3% (0.9 lower than the previous report). The Brazilian Central Bank is concerned about the inflation target as the last report said (In the last Brazilian FOMC meeting 5 voted for a 0.75 points increase and 3 voted for a 0.5 points increase in the basic interest rate). Finally, even if Brazil's Credit/Gross Internal Product ratio is lower (38% by sep/08 on 09/26/08 Central Bank report) when compared to developed countries (hence there is a long way ahead), the scenario today points to a smoother or a decrease in the growth rate (because of the confident crises in global financial markets). This scenario may affect not only this new project, but also the general operations of the firm, since it is known the sensitiveness of the home building sector to those macro and microeconomic factors.

It is plausible to say that the higher than average Gross Margin of MRV will suffer pressures to decrease in the long run, as competitiveness and inflation rate are greater then in the later periods. The price of homebuilding materials rose 10.06% until sep/08 (higher than the cumulated rate of dec/07, 6.03%) and large companies are creating new divisions in the lower-income segment: Living (CYRELA), Tenda (GAFISA) and Bairro Novo (ODEBRECHT) are entering in the lower income segment (ROSSI is already in the segment).

Besides the great increment on net revenue observed in the last quarterly reports, it is coherent to take a look on the increasing number of launches and new projects of the company. With a 2006 and 2007 respectively PSV of 337,337k and 1,336,800k which represents a rise of 296.28%, and an expected PSV for 2008 of 2,700,000k, more than twice compared to the last year. By one hand MRV is expanding its operations to other regions, by the other the business administration could get more complicated *vis-à-vis* the increasing capillarity, underway projects, constructions and launches.

**Appendix 1: Income Statement**

IN R\$ THOUSANDS	2007	2008 E	2009 E	2010 E	2011 E	2012 E	2013 E	2014 E	2015 E	2016 E
Gross Revenue	441447	1362645	1981816	2747440	3066559	3212557	3499419	3813065	4091658	4440593
Deductions	57327	136265	198182	274744	306656	321256	349942	381307	409166	444059
<b>Net Revenue</b>	<b>384120</b>	<b>1226381</b>	<b>1783634</b>	<b>2472696</b>	<b>2759903</b>	<b>2891301</b>	<b>3149477</b>	<b>3431759</b>	<b>3682492</b>	<b>3996533</b>
Cost Of Properties Sold	230282	735828	1088017	1520708	1711140	1801281	1974722	2172303	2345747	2561778
<b>Gross Profit</b>	<b>153838</b>	<b>490552</b>	<b>695617</b>	<b>951988</b>	<b>1048763</b>	<b>1090020</b>	<b>1174755</b>	<b>1259455</b>	<b>1336745</b>	<b>1434755</b>
Operating Expenses	123357	123810	153447	188551	202761	209208	221332	234374	245723	259685
Sales Expenses	31024	95764	139278	193085	215512	225772	245932	267974	287553	312076
G&A Expenses	114494	68925	73623	77890	79247	79813	80383	80791	80919	80827
Others	-22161	-40879	-59454	-82423	-91997	-96377	-104983	-114392	-122750	-133218
<b>EBIT</b>	<b>30481</b>	<b>366742</b>	<b>542170</b>	<b>763437</b>	<b>846002</b>	<b>880813</b>	<b>953423</b>	<b>1025082</b>	<b>1091022</b>	<b>1175070</b>
Depreciation	852	3439	5937	7667	9599	10611	11714	17319	18608	20006
<b>EBITDA</b>	<b>31333</b>	<b>370182</b>	<b>548107</b>	<b>771105</b>	<b>855601</b>	<b>891424</b>	<b>965136</b>	<b>1042401</b>	<b>1109630</b>	<b>1195077</b>
Financing Expenses	-36681	-14639	38970	55401	41229	1099	-44553	-86524	-129415	-172306
Operating Income After Interest	67162	381381	503200	708036	804773	879714	997976	1111606	1220437	1347377
Non Operating Expenses	44	0	0	0	0	0	0	0	0	0
Earnings Before IT	67118	381381	503200	708036	804773	879714	997976	1111606	1220437	1347377
Taxes and Profit Sharing	23854	129669	171088	240732	273623	299103	339312	377946	414949	458108
Minorities	1812	10019	13220	18601	21142	23111	26218	29203	32062	35397
<b>Net Income</b>	<b>42803</b>	<b>241692</b>	<b>318892</b>	<b>448703</b>	<b>510008</b>	<b>557500</b>	<b>632446</b>	<b>704457</b>	<b>773426</b>	<b>853871</b>
Shares	135994	135994	135994	135994	135994	135994	135994	135994	135994	135994
<b>EPS</b>	<b>0.31</b>	<b>1.78</b>	<b>2.34</b>	<b>3.3</b>	<b>3.75</b>	<b>4.1</b>	<b>4.65</b>	<b>5.18</b>	<b>5.69</b>	<b>6.28</b>

Source: Company Documents, Student Estimates

**Appendix 2: Balance Sheet**

IN R\$ THOUSANDS	2007	2008 E	2009 E	2010 E	2011 E	2012 E	2013 E	2014 E	2015 E	2016 E
<b>Current Assets</b>	<b>1,469,277</b>	<b>1,924,425</b>	<b>2,220,397</b>	<b>2,725,240</b>	<b>3,026,976</b>	<b>3,355,806</b>	<b>3,712,809</b>	<b>4,165,660</b>	<b>4,757,940</b>	<b>5,408,852</b>
Cash and Banks	605,232	348,959	190,905	181,096	290,589	525,644	700,290	964,284	1,390,094	1,830,066
Short Term Operating Assets	864,045	1,575,466	2,029,491	2,544,144	2,736,387	2,830,162	3,012,519	3,201,376	3,367,846	3,578,786
Land - Inventories	446,131	698,970	786,304	914,876	927,082	946,777	985,780	1,019,217	1,047,246	1,085,552
Accounts Receivable	210,148	541,145	856,241	1,182,733	1,348,732	1,412,768	1,538,185	1,676,596	1,799,531	1,952,449
Properties for Sale	157,021	221,070	241,508	267,385	268,938	273,509	280,886	286,726	292,639	300,667
Others	50,745	114,281	145,438	179,149	191,634	197,109	207,669	218,837	228,430	240,118
<b>Non Current Assets</b>	<b>416,937</b>	<b>613,251</b>	<b>677,615</b>	<b>766,509</b>	<b>776,612</b>	<b>789,838</b>	<b>815,871</b>	<b>838,416</b>	<b>857,221</b>	<b>882,526</b>
Accounts Receivable	183,545	414,704	457,452	519,163	524,877	534,076	552,227	567,681	580,560	598,079
Land Inventories	187,536	104,845	117,946	137,231	139,062	142,016	147,867	152,883	157,087	162,833
Others	45,856	93,701	102,217	110,115	112,673	113,745	115,777	117,852	119,574	121,614
Permanent Assets	18,389	56,339	86,075	103,135	121,134	124,980	129,014	191,769	191,574	191,550
Gross Permanent Assets	12,343	49,134	84,807	109,534	137,133	151,590	167,337	247,411	265,824	285,806
Accumulated Depreciation ( - )	(1,004)	(4,443)	(10,380)	(18,047)	(27,647)	(38,258)	(49,971)	(67,290)	(85,898)	(105,904)
Net Permanent Assets	11,339	44,691	74,427	91,487	109,486	113,332	117,366	180,121	179,926	179,902
Investments	7,050	11,648	11,648	11,648	11,648	11,648	11,648	11,648	11,648	11,648
<b>Total Assets</b>	<b>1,904,603</b>	<b>2,594,015</b>	<b>2,984,087</b>	<b>3,594,884</b>	<b>3,924,722</b>	<b>4,270,624</b>	<b>4,657,694</b>	<b>5,195,845</b>	<b>5,806,735</b>	<b>6,482,928</b>
<b>Current Liabilities</b>	<b>432,124</b>	<b>521,208</b>	<b>610,615</b>	<b>735,737</b>	<b>765,946</b>	<b>798,824</b>	<b>851,787</b>	<b>903,781</b>	<b>954,937</b>	<b>1,019,991</b>
Short Term Operating Liabilities	416,777	490,211	571,873	684,415	713,692	743,795	791,971	839,819	886,578	945,381
Land Acquisition	284,624	315,160	354,538	412,511	418,014	426,894	444,481	459,557	472,195	489,467
Accounts Payable	29,137	52,907	63,483	79,972	81,134	84,581	90,468.30	95,484	100,736	108,105.02
Salaries	14,386	18,889	20,176	21,346	21,718	21,873	22,029	22,141	22,176	22,151
Advances from Customers	41,500	49,055	71,345	98,908	110,396	115,652	125,979	137,270	147,300	159,861
Others	47,130	54,200	62,329	71,679	82,431	94,795	109,015	125,367	144,172	165,798
Financing	15,347	30,997	38,742	51,321	52,253	55,028	59,816	63,961	68,359	74,610
<b>Non Current Liabilities</b>	<b>82,207</b>	<b>462,253</b>	<b>508,605</b>	<b>632,290</b>	<b>537,389</b>	<b>432,288</b>	<b>292,060</b>	<b>238,484</b>	<b>218,149</b>	<b>188,884</b>
Long Term Financing	7,092	427,678	416,572	534,049	436,942	348,894	219,534	177,046	179,043	149,916
Others	75,115	34,575	92,033	98,241	100,447	83,394	72,525	61,438	39,105	38,968
Differed Income	8,893	8,893	8,893	8,893	8,893	8,893	8,893	8,893	8,893	8,893
Minorities	8,396	47,409	62,552	88,015	100,040	100,040	100,040	111,431	111,431	111,431
Shareholder's Equity	1,372,983	1,554,252	1,793,421	2,129,948	2,512,454	2,930,579	3,404,914	3,933,256	4,513,326	5,153,729
<b>Total Liabilities and Equity</b>	<b>1,904,603</b>	<b>2,594,015</b>	<b>2,984,087</b>	<b>3,594,884</b>	<b>3,924,722</b>	<b>4,270,624</b>	<b>4,657,694</b>	<b>5,195,845</b>	<b>5,806,735</b>	<b>6,482,928</b>

Source: Company Documents, Student Estimates

**Appendix 3: Statement of Cash Flows**

IN R\$ THOUSANDS	2007	2008 E	2009 E	2010 E	2011 E	2012 E	2013 E	2014 E	2015 E	2016 E
Net Revenue	384,120	1,226,381	1,783,634	2,472,696	2,759,903	2,891,301	3,149,477	3,431,759	3,682,492	3,996,533
EBITDA	31,333	370,182	548,107	771,105	855,601	891,424	965,136	1,042,401	1,109,630	1,195,077
Depreciation	852	3,439	5,936	7,667	9,599	10,611	11,714	17,319	18,608	20,006
Taxes	10,833	124,692	184,338	259,569	287,641	299,476	324,164	348,528	370,947	399,524
Investments in Working Capital	334,540	637,987	372,364	402,110	162,966	63,672	134,182	141,009	119,712	152,137
Investments	15,036	36,791	35,673	24,727	27,599	14,457	15,747	80,074	18,412	19,983
FCFF	(328,224)	(425,850)	(38,331)	92,367	386,995	524,430	502,757	490,108	619,166	643,440

Source: Company Documents, Student Estimates

**Appendix 4: Target Price for 2009**

	2009 E
Economic Value	R\$ 3,891,931
Debt - End of the following year	R\$ 404,274
Equity Value	R\$ 3,487,657
Shares	135,994
Fair Value per Share	<b>R\$ 25.65</b>

Source: Student Estimates

**Appendix 5: SWOT Analysis**

<p><b>STRENGTHS</b></p> <ul style="list-style-type: none"> <li>• Long experience and focus on the low-income residential development segment</li> <li>• Has one of the highest margins in the industry</li> <li>• Geographical diversity with significant expansion potential</li> <li>• High share liquidity</li> <li>• Standardized construction models</li> <li>• The most comfortable cash position among all the lower-income companies</li> <li>• Flexibility in developing projects through modular construction</li> <li>• Integrated business model</li> <li>• The diversified price range gives MRV more options in case of an unlikely economic turnaround</li> <li>• Excellent land bank and ability to identify new land parcels</li> </ul>	<p><b>WEAKNESSES</b></p> <ul style="list-style-type: none"> <li>• The Company is subject to risks normally associated with providing financing</li> <li>• MRV may be unable to sustain its historical growth rate</li> <li>• Increase in MRV's costs and expenses, including costs for the acquisition of land plots and construction of developments</li> </ul>
<p><b>OPPORTUNITIES</b></p> <ul style="list-style-type: none"> <li>• Governmental intervention that results in a change in the economy, taxes, or legislation in Brazil</li> <li>• Brazilian lower-income population, people with an income about R\$3,500 per month, increased in 20 million in the last two years – according to FGV's research</li> <li>• Brazil has a housing deficit of approximately 7.8 million units</li> <li>• Brazilian economy is improving and the Brazilian Central Bank is concerned about the credit necessity and importance for this industry</li> </ul>	<p><b>THREATS</b></p> <ul style="list-style-type: none"> <li>• Governmental intervention that results in a change in the economy, taxes, or legislation in Brazil</li> <li>• Developments and the perception of risk in other countries, especially emerging market countries, may adversely affect the market price of Brazilian securities, including the Company's common shares</li> <li>• Changes in real estate prices, customer demand and preferences and competitive conditions</li> <li>• Increasing cost of capital and difficulties to obtain credit can compromise companies financial activities</li> <li>• Obtain additional financing on reasonable terms and conditions</li> <li>• US and Europe economic recession reducing credit availability</li> <li>• Ability to manage efficiently a diversified number of building sites at the same time</li> </ul>

*Source: Company Documents, Student Estimates*

**Appendix 6: Key Assumptions**

	2008 E	2009 E	2010 E	2011 E	2012 E	2013 E	2014 E	2015 E	2016 E
<b>LAUNCHES (R\$ thousands)</b>	2,700,000	3,374,660	4,470,348	4,551,514	4,793,240	5,210,274	5,571,358	5,954,389	6,498,885
<b>Units (thousands)</b>	25	31	40	40	41	43	44	45	47
<b>Real Average Price (R\$ thousands)</b>	108	104	102	99	97	96	96	96	96
<b>Nominal Average Price (R\$ thousands)</b>	108	109	112	114	117	121	127	132	138
<b>Growth</b>	102%	25%	32%	2%	5%	9%	7%	7%	9%
<b>CONTRACTED SALES (R\$ thousands)</b>	1,620,000	2,126,036	2,995,133	3,095,029	3,259,403	3,595,089	3,899,951	4,168,072	4,549,220
<b>Growth</b>	126%	31%	41%	3%	5%	10%	8%	7%	9%
<b>Ratio CS/Launches</b>	0.60	0.63	0.67	0.68	0.68	0.69	0.70	0.70	0.70
<b>LAND BANK</b>	9,548,400	11,136,378	14,305,113	14,109,692	14,859,044	15,630,822	16,156,939	16,672,289	17,546,989
<b>Growth</b>	-4.6%	16.6%	28.5%	-1.4%	5.3%	5.2%	3.4%	3.2%	5.2%
<b>Inflation</b>	5.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%

Source: Company Documents, Student Estimates

**Appendix 7: Margins**

	2008 E	2009 E	2010 E	2011 E	2012 E	2013 E	2014 E	2015 E	2016 E
<b>Gross Margins (%)</b>	40.0%	39.0%	38.5%	38.0%	37.7%	37.3%	36.7%	36.3%	35.9%
<b>Net Margins (%)</b>	19.7%	17.9%	18.1%	18.5%	19.3%	20.1%	20.5%	21.0%	21.4%
<b>EBITDA Margin (%)</b>	30.2%	30.7%	31.2%	31.0%	30.8%	30.6%	30.4%	30.1%	29.9%

Source: Company Documents, Student Estimates

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