

2014

UNDERGRADUATE SMF  
EQUITY RESEARCH REPORT

**DIRECTV**™



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## DIRECTV (NASDAQ: DTV)

### Company Summary

DIRECTV is a television provider that operates through the use of satellites. The company purchases orbit slots, giving it the right to broadcast signals over a specific region. It currently operates in the United States and Latin America, including Brazil, Mexico, Argentina, Chile, Ecuador, Puerto Rico, Venezuela, and Colombia. The company has exclusive rights through multiple sports divisions to offer special packages. DIRECTV also has the largest selection of high-definition and three-dimensional channels.

### Key Financial Metrics

<b>Intrinsic Value</b>	\$100.11	<b>ROIC</b>	16.61%
<b>Beta</b>	0.97	<b>ROA:</b>	15.63%
<b>52 Week Range:</b>	53.50 – 80.77	<b>Price/Book:</b>	N/A (Negative Equity)
<b>Price/Earnings:</b>	14.30	<b>Profit Margin:</b>	9.00%
<b>Dividend Yield:</b>	N/A	<b>Free Cash Flow Yield:</b>	6.43%
<b>Market Cap:</b>	\$37.67 billion	<b>Earnings Per Share:</b>	\$5.19
<b>ROE:</b>	N/A (Negative Equity)	<b>Shares Outstanding:</b>	530,000,000

### Recommendation

<b>Rating:</b>	Buy	<b>Exp. Annual Return:</b>	14.69%
		<b>Margin of Safety</b>	29.44%

### Rationale

DIRECTV has a large domestic customer base, with 20.3 million subscribers, and has started to focus on offering high margin technology and channel packages. In Latin America, the digital television industry is poised to see drastic growth over the next decade and DIRECTV has the scalability to expand in the region quickly. Management has shown commitment to returning the company's strong cash flow to shareholders through share repurchases, having bought back 60% of the shares outstanding in the past seven years.

### DTV vs. S&P 500 (5 years)



## Business Analysis

DIRECTV is a leading provider of television services, which it offers through the use of satellites. The company purchases and leases satellites and holds the exclusive rights to certain orbital slots giving it the ability to broadcast signal over a designated region. In order to receive television service, customers lease satellite receivers from the company and only need to mount the small receivers to the outside of their homes.

Currently, the company operates in nine countries, including the United States, and has three major divisions:

- DIRECTV U.S.
- DIRECTV Latin America
- DIRECTV Sports Networks

### **DIRECTV U.S.**

Domestically, DIRECTV has a subscriber base of 20.3 million customers, the largest of all satellite providers. DIRECTV is also the second largest provider of multichannel video programming in the United States, behind Comcast. The company has strong brand presence in the U.S., with over 95% of consumers being familiar with the DIRECTV brand.

#### *Competitive Advantage*

DIRECTV's competitive advantage in the United States stems from its unique channel and technology offerings. The company has multiple agreements with major sports leagues to offer exclusive broadcasting rights to sports devoted channels. As a result, DIRECTV has packages of premium sports channels, such as NFL Sunday Ticket, which are not available through any other service. Consumers, who are strong devotees to a certain sports league, must buy the DIRECTV packages. These packages also command a high premium; the NFL Sunday Ticket package costs consumers an extra \$100 per month.

The company values producing technology products and services. As a result, DIRECTV offers consumers the highest number of high-definition and three-dimensional channels of any digital television provider. The rights to broadcast many of these channels are granted exclusively to DIRECTV through multi-year contracts. There is also the option to purchase extra features for television service, such as "The Genie", which is a high-end digital video recorder. DIRECTV's channel packages and technological offerings are all locked in as contracts, and are nearly impossible to replicate by their competitors.

#### *Growth*

The domestic digital television industry is not a growing industry. Most of the consumers who desire to have digital television have already purchased the service. New subscribers in this industry are most likely previous customers of a competitor. DIRECTV understands that significant growth in this market will not come from gaining new customers.

Instead, DIRECTV is focusing on retaining their current customer base, and aiming to have those customers purchase higher premium packages and services. This growth opportunity stems from DIRECTV's premium package and technology offering. The company is looking to increase the amount of options each consumer undertakes and as a result increase revenues. DIRECTV measures this amount by average revenue per unit (ARPU), which is the amount of money each household spends on television services per month. Currently, the company's ARPU is \$102.18, up 5% year-over-year.

**DIRECTV Latin America**

Latin America has been an area of major focus for DIRECTV over the past few years. The company currently services 17.6 million customers in both Central and South America. DIRECTV operates through a subsidiary called PanAmericana and with an affiliate called SKY.

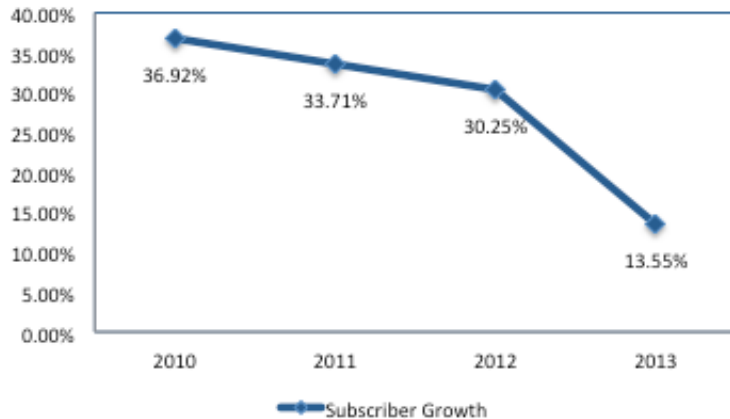
*Competitive Advantage*

Since DIRECTV is a satellite provider, the company’s business model is extremely scalable in a rapidly growing market, such as Latin America. Cable or telecommunication companies have to invest significant infrastructure in order to be able to expand into a region. A cable company, for example, would need to lay cabling to each house in the region. DIRECTV, on the other hand, only requires launching one satellite to expand into a new region. With their current satellites, DIRECTV has the capabilities to service the majority of Latin America. As a result, DIRECTV does not require new investments in order to be able to expand into new areas.

Competitors for DIRECTV in the area are often small companies, which do not compete internationally. DIRECTV has the advantage of operating in multiple Latin American countries, and has access to international programming options that its competitors do not have access to. Since many of these competitors are cable or telecommunication companies, it would be difficult for DIRECTV’s competition to expand into new regions at a faster pace than DIRECTV. The highly scalable nature and the ability to offer international Latin American programming is a strong competitive advantage for DIRECTV.

*Growth*

DIRECTV’s focus for growth in the Latin America market is different from the domestic market. The company is actively attempting to increase the amount of subscribers. The digital television market in Latin America is undergoing significant growth, and DIRECTV is attempting to gain market share during this stage. As consumers across this region continue to demand access to digital television at breakneck pace, DIRECTV is the company that is best poised to rapidly expand and meet this new high-level demand.



DIRECTV has seen significant growth in terms of subscribers over the past five years in Latin America. The company has nearly tripled their subscribers from 6.5 million in 2009 to 17.5 million in 2014. Growth rates for subscribers in the region has been over 30% for the past four years, and was just over 13% in 2013. As a result of this subscriber growth, DIRECTV has been able to record annual revenue growth of over 25% for Latin America.

**DIRECTV Sports Networks**

This segment of DIRECTV’s business represents the production of off-season and non-game programming offerings to their sport channel packages. This is a small segment of DIRECTV’s revenues, generating less than 1%. This segment of the business is not expected to see any focus on growth generation. It is maintained as a means of subsisting programming on the sports devoted channels, and there are no plans to expand this offering.

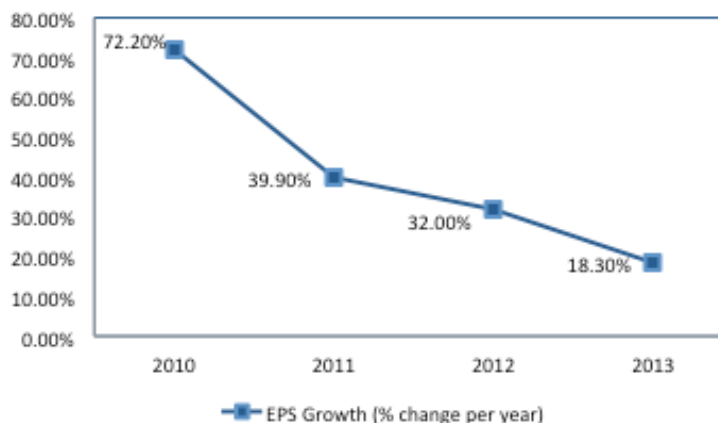
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### Financial Performance

For 2013, DIRECTV recorded revenues of \$31.8 billion. This represents a year-over-year growth of about 7%. Net income for 2013 was about \$2.9 billion, representing earnings per share of \$5.22. DIRECTV U.S. reported \$24.7 billion, or 77.71% of total revenues. The Latin America region represents 21.6% of DIRECTV's revenues. The domestic business remains the largest portion of its overall revenues, but is an even larger portion of the company's bottom-line.

	Revenue (mm)	% of Total Revenue	Operating Profit (mm)	% of Total Operating Profit
<b>DIRECTV U.S.</b>	24,676	77.71%	4,444	86.29%
<b>DIRECTV Latin Am.</b>	6,844	21.55%	776	15.07%

DIRECTV is one of the most profitable television providers. The company reported a profit margin of 9% for 2013, the highest in the industry. The major satellite competitor, DISH Network only reported a profit margin of 5.8% for 2013. Over the past few years, DIRECTV has been consistently able to increase earnings per share. The company underwent significant share repurchase programs over the past few years, which when coupled with bottom-line growth, made EPS growth exceed 70%. For 2013, EPS continued to grow at 18.3%. EPS for DIRECTV has more than doubled since 2010, and is projected to continue to sustain strong growth.



The company has a significant debt load, with about \$19.5 billion in debt outstanding. DIRECTV has been taking out debt over the past few years in order to make significant share repurchases. As a result, the company has negative shareholder equity value. The return on assets was 15.6% in 2013. The return on invested capital was 16.6%, when calculated without goodwill, the ROIC increases to 22.6%.

### Industry Analysis

#### North America

##### Consumer

A customer's standards for television experience are no longer what they used to be. With so many alternatives to traditional television service, providers must be constantly in pursuit of innovating ways to improve the customer's television experience. In recent years, customer preferences have been focused on convenience and universal accessibility. These preferences are especially relevant in the North American market, where customers have become accustomed to convenience and universal accessibility when it comes to entertainment.

To stay on top of changing consumer preferences domestically, DIRECTV is primarily focused on ensuring that the customer base is engaged in the product experience. The company views the service provided as an ongoing relationship with the customer, rather than a product that is sold for volume and then ignored. To ensure that this relationship continues to be satisfactory, DIRECTV is always looking

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for ways to improve the customer experience. This includes investments in developing technology, customer service, and expansion of the ways in which the service can be used.

For example, a recent investment in technology is the introduction of the DIRECTV Genie in 2012. This high-definition, whole-home DVR service allows customers to record five different programs simultaneously. Recorded programming is stored on one DVR and can be accessed and controlled in up to four different locations in the house.

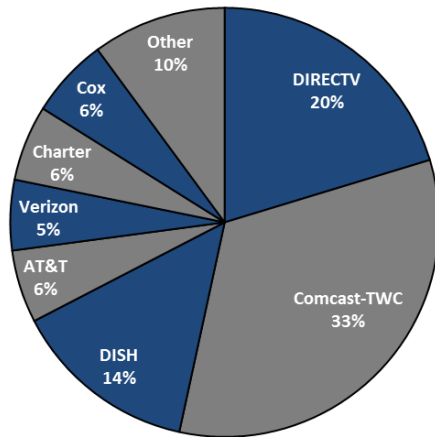
One of the primary ways in which DIRECTV maintains high customer satisfaction levels is the company's focus on continuing to invest in the existing customer base. In 2013, the company launched a transparent upgrade program, which allows existing customers to receive upgrades to the latest product features and functionality every two years.

With the television experience expanding outside of the home, DIRECTV is also focused on offering customers the option to access the service on other devices, such as smartphones, laptops and tablets. The company has recently been expanding their DIRECTV Everywhere service, which allows customers to stream a wide array of programming on multiple devices.

### *Competition*

The North American television industry has grown to become extremely competitive over the last several years with new viewing capabilities being developed every year. Not only does DIRECTV face

#### **Share of Domestic Subscriber Base**



competition from other television providers such as DISH, Comcast, AT&T, and Verizon, but also from less traditional services such as Netflix and Hulu. With so many alternatives, each provider must always be mindful of the competitiveness of the service being offered.

Traditional cable companies, such as Comcast, primarily challenge DIRECTV's offer with their ability to bundle multiple services. With their investments in infrastructure, cable companies are able to bundle cable services with HD channels, broadband Internet access, and telephone services. It is difficult for DIRECTV to compete with the competitive pricing of bundling and thus have to compete with premium product offerings.

Internet video providers also pose a significant challenge to DIRECTV's success. Services such as Hulu and Netflix allow customers access to a large library of content for a flat monthly fee. This method caters to the demand for convenience and universal accessibility and has been steadily growing in popularity over the past several years.

### **Latin America**

#### *Consumer*

In contrast to the North American market, which is saturated with alternatives and is at a more mature stage, the Latin American market has shown more promising growth prospects. There has been continuing growth in household formation, as millions of people are becoming a part of the Latin American middle class. With new middle class households comes a larger pool of disposable income, and television providers are in pursuit of a share of that disposable income.

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In the North American market, television providers, DIRECTV included, have limited prospects for growth of their current subscriber bases because of the large number of alternatives and the maturity of the market. However, the Latin American market is entering into a growth phase. This means that television providers have the opportunity to capture many new customers.

Because there is customer volume available in the Latin American pay television market, television providers are willing to adjust their North American strategies of pushing premium products to existing high-end customers in order to capture volume. For example, to take advantage of the low pay television penetration rate among the emerging middle class in Latin America, DIRECTV is offering simpler television service packages to value-focused customers. These value-focused packages offer fewer channels and limit the number of set top receivers in each home. This is a strategy the company would normally not pursue domestically, but is implementing in Latin America because the current state of the market's status calls for such an offer.

### *Competition*

The promising growth prospects of the Latin American pay television market are naturally creating a lot of competition amongst providers. A lot of the competition is related to the fact that newly formed middle class households are looking for pay television but at a value-focused price. This means that cable television providers are targeting these households with their ability to lower prices through bundling. By offering television, broadband Internet access, and telephone services as a bundle, cable television providers are able to offer the television service at a lower price than providers such as DIRECTV.

DIRECTV, for example, is only selling the television service and therefore cannot be as flexible on pricing. In the North American market, they have traditionally battled this challenge through the development of premium products exclusive to the DIRECTV experience. However, the demand for value-focused offers by the Latin American middle class poses a significant challenge for DIRECTV in competing with the bundled pricing tactics of traditional cable television providers.

## Risk

### **“Cutting the Cord”**

A recent threat to the pay television market has been “cord-cutting.” In other words, consumers are cancelling their traditional pay television subscriptions to stream content exclusively over the Internet. Industry critics have built this trend up to be an immediate threat to the health of the pay television industry. While this is a real trend and poses some kind of challenge to pay television providers, the severity of the threat has been overly exaggerated.

In reality, only one million households have “cut the cord” and cancelled their traditional pay television subscriptions. To put this into context, the size of the industry is roughly 100 million households. While the threat is currently not very serious, it is a trend that pay television subscribers should continue to monitor.

### **Rising Programming Costs**

DIRECTV is dependent on the programming provided by various third parties. As those third parties are also looking to remain competitive, rates charged for content have been rising recently. This puts pressure on DIRECTV's bottom line. This pressure may force DIRECTV to pass on the costs to subscribers through price increases, and these increases may in turn cause some customers to cancel their subscriptions with the company.

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Rising programming costs are especially prevalent in sports programming. ESPN, for example, receives over \$5 per month per subscriber in affiliate fees from pay television subscribers. As there is currently no alternative viewing option to threaten the success of live sports on pay television, the pricing power remains with those companies who offer highly demanded sports programming, such as ESPN. DIRECTV's large subscriber base can help mitigate this risk. The company can leverage its size in order to prevent rising programming costs.

### **Debt Load**

DIRECTV carries a significant amount of debt on its balance sheet. With approximately \$19.5 billion in debt, the company is exposed to the risk of lacking sufficient cash flow to service this large liability. However, management is well aware of this liability and is comfortable with the company's ability to pay off this debt.

In fact, this debt load was taken on with a specific strategy in mind. DIRECTV is dedicated to maintaining its large share repurchase programs. Much of this debt load was taken on to boost the company's implementation of these programs.

If the company were to exclusively use free cash flow to pay off its debt, DIRECTV's annual free cash flow of approximately \$3.5 billion would allow the company to pay off this debt load in just over five years. It is unlikely that the company would use free cash flow exclusively to pay off the debt load this quickly, but this observation displays that the company is in a comfortable position with regards to its debt.

### **Industry Consolidation**

The consolidation of the pay television industry could potentially threaten the competitive position of DIRECTV. A great example of this is the recent acquisition of Time Warner Cable by Comcast. Currently, Comcast has approximately 22 million subscribers and Time Warner Cable has approximately 11 million subscribers. This gives the merged company control over one third of the domestic subscriber base of 100 million.

This threatens DIRECTV's competitiveness because with one third of the domestic subscriber base, Comcast-TWC will potentially be able to negotiate with more bargaining power when discussing rates with programming providers. DIRECTV, while still having over 20 million of their own subscribers, would have comparatively less bargaining power.

### **Investment Thesis**

Our recommendation for DIRECTV as a buy stems from DIRECTV's:

- Scalable business model and growth prospects in Latin America
- Domestic growth through premium products
- Strong cash flows and returns to shareholders

### **Scalability and Growth in Latin America**

DIRECTV's business model is highly scalable, due to the low capital intensity required to expand to new regions. The company can quickly, and inexpensively, develop new regions of operation, which is highly beneficial in a rapidly growing market. With the Latin American market expecting to see rapid growth over the next few years, DIRECTV is well poised to take a large portion. By 2018, 84% of all households in Latin America are projected to subscribe to digital television, and DIRECTV is poised to be the largest provider in the region.



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DIRECTV currently services 37% of all pay-television consumers in Mexico and 30% in Brazil. Due to low investment costs, DIRECTV is also able to offer more inexpensive packages. Since the company is an international entity, DIRECTV also has access to programming options that many of its competitors do not. As the digital television market in Latin America grows at 5-7% over the next decade, we believe that DIRECTV will be able to grow at an even faster pace.

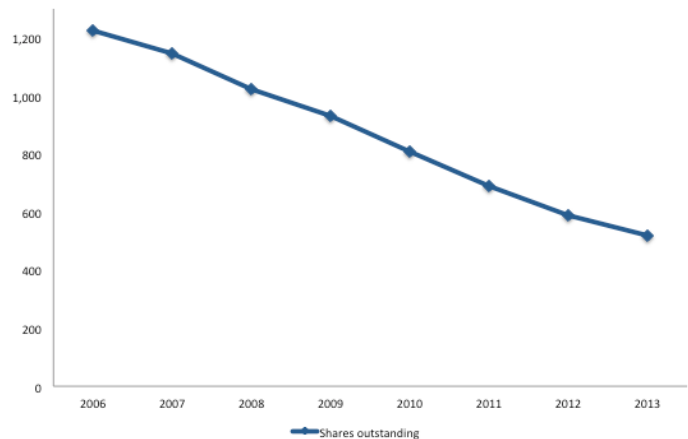
### Domestic Growth

DIRECTV has a superior set of channels and technology offerings that command a significant premium. These options are secured by multi-year contracts, and as a result DIRECTV is the only option for consumers desiring these products. Since the digital television market is very mature domestically, DIRECTV is focusing on having its current customer base purchase these premium packages as a means of increasing revenues. Consumer tastes domestically are heading toward high-end channels and programming coupled with increasing technological features. DIRECTV is the current market leader for these areas, and so it will be able to see steady growth in this area over the next ten years. DIRECTV has been able to consistently increase its ARPU over the past five years, from \$83.90 to \$102.18, indicative of the success it has had at implementing this business model.

### Strong Cash Flow

DIRECTV has a strong cash flow, stemming from its premium options in the domestic market. The company has one of the highest profit margins for the industry, at 9%. The company reported a net income of \$2.8 billion for 2014, but this includes incurring depreciation charges of \$2.8 billion. The large depreciation is concealing the fact that DIRECTV has a strong cash flow. With a free cash flow yield of 6.43%, DIRECTV produced \$3.5 billion in free cash flow for 2013.

Since DIRECTV's business model is not capital intensive, it allows the company to return a significant portion of its free cash flow to shareholders. DIRECTV's reinvestment rate was 34.57%, meaning that it was able to return over 65% of its cash flow to shareholders. Management for DIRECTV has consistently used share-repurchasing programs as a means of increasing shareholder value. Over the past seven years, the company has removed 60% of all shares outstanding through repurchase programs. DIRECTV also just announced another \$3.5 billion repurchase program, demonstrating its consistent returning of cash flows to shareholders. As the company continues to grow and increase cash flows, we believe that DIRECTV will continue to repurchase shares, increasing shareholder value, and future expectations regarding earnings per share.



### Valuation

Using a discounted cash flow model, we valued DIRECTV at \$100.11 per share. This value represents a 29.44% safety margin from the current stock price of \$77.34. We then performed a sensitivity analysis on the model in order to determine the stock's valuation based on changes to the terminal growth rate and the discount rate.

### Discounted Cash Flow Method

Exhibit A shows the future cash flows projections we calculated for DIRECTV and the assumptions we made in our model. Exhibit B demonstrates the results of the DCF model, our valuation of DIRECTV,

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and a sensitivity analysis on the terminal growth rate and the discount rate assumptions. In order to value DIRECTV using the discounted cash flow method, we assumed:

- 7.80% growth rate for revenues
- 3.00% terminal revenue growth rate
- 10.00% WACC for a discount rate.

### *Revenue Growth*

We calculated a 7.80% growth rate based on the company's return on invested capital and reinvestment rate. We calculated a ROIC of 22.57%, based on invested capital of \$15 billion. The company increased invested capital by \$863 million for the year 2013. This increase represents a 34.57% reinvestment rate based on the company's NOPLAT. The amount of a company's income that becomes reinvested will see the same returns as the rest of the company's invested capital. Therefore, we used these figures to derive a 7.80% growth in revenues. Exhibits D and E demonstrate our calculations for these assumptions.

We believe that this figure is a conservative growth figure for DIRECTV. Exhibit E outlines our actual growth expectations. We believe that the company will be able to continue to grow domestic revenues by 4%, the annual rate it has seen over the past five years. DIRECTV Latin America will see a long-term growth rate of at least 6% over the next ten years, consistent with the 5-7% growth rate with the digital television market. As a result, DIRECTV will be able to meet our growth estimate of 7.80%, and has potential to see growth rates as high as 10%.

### *Terminal Growth Rate*

For a terminal growth rate, we assumed a rate of 3%. We expect that long-term inflation will represent a revenue growth of about 2% over time. Beyond the growth of revenues from inflation, we assumed that DIRECTV would continue to be able to grow revenues at 1% annually. This is a conservative figure, as the company has been able to consistently grow revenues over the past decade.

### *Discount Rate*

Exhibit C outlines our calculations regarding the company's weighted average cost of capital. DIRECTV has a number of debt securities outstanding, with an average rate at 3.88%. With a tax rate of 35.72% for 2013, this makes the cost of debt for DIRECTV only 2.49%. The total calculated WACC is 7.04%.

We felt that this cost was artificially low. With the extremely low interest rates that the market has seen over the past few years, DIRECTV has been able to secure inexpensive financing. We do not think that this WACC represents an accurate long-term value, and since our model is designed for long-term cash flow calculations, we decided to use the long-term average WACC for the market, 10.00%. This figure comes from the historical risk free rate of 6.25%, plus a 5.50% risk premium on the market's beta of 1, and an average weight of 70% equity and 30% debt. We believe that this figure is much more accurate to the WACC that DIRECTV will experience for the length of our model, and so we implemented this as our discount rate.

### **Sensitivity Analysis**

Following the valuation of DIRECTV, we performed a sensitivity analysis in order to see how our valuation changed if the terminal growth rate or the discount rate for DIRECTV varied. Exhibit B outlines the results of our analysis. The center blue region is the feasible region. This is the area that the outcome of DIRECTV is most likely to perform in over the life of the model. This region produces values ranging from \$82.85 to \$155.90. All of the values in the feasible region are above the stock's current market value.

The sensitivity model demonstrates that the stock is consistently undervalued, even if the terminal growth rate or discount rate changes. This analysis shows that if the assumptions of our model are not accurate to

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the company's performance, the stock will still produce an excellent return, and is still significantly undervalued.

### Conclusion

DIRECTV is a significantly undervalued company, with a margin of safety of about 30%. We are confident that the company will continue to provide attractive returns because of its Latin American growth prospects, close relationship with domestic customers, consistently strong cash flows, and commitment to building shareholder value.

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**Exhibits**

**Exhibit A (Free Cash Flow Calculations):**

Inputs	
Terminal Growth	3.00%
Revenue Growth Rate	7.80%
Discount Rate	10.00%
Total Debt	19,540
Shares Outstanding	530
Tax Rate	34.35%

Year	Cash Flow Projections (in Millions)											
	Historical	Projected										Terminal
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2022	
Sales	31,754	34,231	36,902	39,781	42,884	46,230	49,836	53,724	57,916	62,434	891,914	
EBIT	4,488											
Tax Expense	1,542											
Change in Deferred Income	(450)											
NOPLAT	2,496											
(+) Depreciation/Amortization	2,775											
(-) Change in LTD	1,094											
(-) Change in NWC	600											
(-) Change in PPE	130											
Free Cash Flow	3,447	3,716	4,006	4,319	4,656	5,019	5,410	5,833	6,288	6,778	96,831	

\*Free Cash Flow calculated on a percent of sales basis

**Exhibit B (Discounted Cash Flow Analysis & Sensitivity Analysis):**

Year	DTV DCF (in Millions)											
	Historical	Projected										Terminal
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2022	
Free Cash Flow	3,447	3,716	4,006	4,319	4,656	5,019	5,410	5,833	6,288	6,778	96,831	
PV of FCF	3,447	3,378	3,311	3,245	3,180	3,116	3,054	2,993	2,933	2,875	41,066	

Total Value	72,598.42
Long Term Debt	19,540.00
Total Shareholder Value	53,058.42
Shares Outstanding	530.00
Value per Share	\$ 100.11

Sensitivity Analysis								
WACC	Long Term Growth Rate							
	2.0%	2.5%	3.0%	3.5%	4.0%	4.5%	5.0%	
7%	\$ 169.54	\$ 185.00	\$ 204.32	\$ 229.17	\$ 262.29	\$ 308.67	\$ 378.23	
8%	\$ 134.27	\$ 143.96	\$ 155.59	\$ 169.81	\$ 187.58	\$ 210.43	\$ 240.90	
9%	\$ 109.17	\$ 115.64	\$ 123.19	\$ 132.11	\$ 142.82	\$ 155.90	\$ 172.26	
10%	\$ 90.42	\$ 94.94	\$ 100.11	\$ 106.07	\$ 113.02	\$ 121.24	\$ 131.10	
11%	\$ 75.91	\$ 79.18	\$ 82.85	\$ 87.02	\$ 91.78	\$ 97.27	\$ 103.68	
12%	\$ 64.35	\$ 66.78	\$ 69.47	\$ 72.49	\$ 75.88	\$ 79.72	\$ 84.12	
13%	\$ 54.94	\$ 56.78	\$ 58.81	\$ 61.05	\$ 63.54	\$ 66.32	\$ 69.45	

**Exhibit C (Weighted Average Cost of Capital):**

Cost of Debt	
Debt Rate	3.88%
Tax Rate	35.72%
Cost of Debt	2.49%

Cost of Equity	
Risk Free Rate	2.73%
Market Risk Premium	7.00%
Beta	0.97
Equity Cost (CAPM)	9.52%

WACC	
Total Cost of Debt	2.49%
Weight of Debt	35.30%
Total Cost of Equity	9.52%
Weight of Equity	64.70%
WACC	7.04%

**Exhibit D (Return on Invested Capital and Reinvestment Calculations):**

Invested Capital Calculation		
Year	2013	2012
PPE	6,650	6,038
Satellites	2,467	2,357
Other	1,945	1,711
Goodwill	3,970	4,063
Total Invested Capital	15,032	14,169
Change in Invested Capital	863	

Reinvestment and ROIC	
Change in Invested Capital	863.00
NOPLAT	2,496.37
Reinvestment	34.57%
ROIC w/Goodwill	16.61%
ROIC w/o Goodwill	22.57%

**Exhibit E (Revenue Growth Calculation vs. Expectation):**

Growth Rate (Calculated)	
Reinvestment Rate	34.57%
ROIC	22.57%
Revenue Growth Rate	7.80%

Growth Rate (Expected)	
US Revenue Growth	4.00%
Latin America Growth	6.00%
Revenue Growth Rate	10.00%