NOVA SCHOOL OF BUSINESS & ECONOMICS

Applied Corporate Finance

Continental Cablevision, Inc./ Fintelco Joint Venture

Class-Case Discussion

Rui Silva

Plan Of Attack

- Background
- Proposed Solution/Discussion of the Case
- What Happened?

Background Of Case

- The case is set in February 1994.
- Continental is considering acquiring 50% of Fintelco for $80m.
- Fintelco is the 3rd largest cable-TV operator in Argentina.
- Main issue: Cross-Border Valuation
  - What is the effect of the exchange rate forecasts?
  - What is the effect of country risk on value?
- **Question:** Should Hostetter recommend the joint-venture?

How To Proceed?

Continental's Analysis Can Be Divided In Two Questions

- Question I:
  - Would the entry into Argentina be consistent with Continental's expansion approach?
    - Parties involved in the case.
    - Continental's strategic evaluation.
    - Risks/returns of investing in a foreign country.
    - Proposed structure of joint venture.

- Question II:
  - Is $80m reasonable for 50% of Fintelco?
    - Perform valuation analysis.

Would The Entry Into Argentina Be Consistent With Continental's Expansion Approach?

The Main Players in the Case (1)

Continental Cablevision

- Privately held US company seeking international expansion.
- Two reasons for overseas growth:
  - Domestic market maturing.
    - 62% penetration in 1994.
    - Slowing growth
      - 20% in 1981
      - 7% in 1987
  - 1992 Cable Act: Regulation
    - Limited the cable industry's ability to raise cable rates in US.
- 3m subscribers in 16 states.
- Revenues of $1.2B and Net Loss of $211m in 1993 **[Ex.2]**.

The Main Players in the Case (2)

Fintelco

- Formed in 1980 by Samuel Liberman.
  - One of the first cable companies in Buenos Aires.
  - VCC (largest subsidiary) grow to become one of the 3 largest Multiple System Operators (MSOs) in Buenos Aires.
  - 390K subscribers with revenues of $137m in 1993 [**Ex.14**].

- Experienced non-acquisition related growth of 116% from 1992 to 1993 [**Ex.12**].

- One obstacle Fintelco faced to continue its growth strategy is the lack of a well-developed market.
  - Difficulties in obtaining long-term financing on reasonable terms.

Proposed Structure Of Joint Venture (1)

- 50/50 Partnership:
  - Continental not interested in becoming a system operator.
  - Fintelco did not want to lose control of the company.
- $80m Price Tag:
  - Continental to pay $80m for 50% equity interest in Fintelco.
  - Both companies agreed to provide additional capital to fund acquisitions.
    - An additional $70m would be invested by each partner.
- Technical Assistance:
  - Continental offered to provide Fintelco with technical assistance in the operating, programming and financial areas of the business.
  - Fintelco would be charged for the costs of the assistance.

Proposed Structure Of Joint Venture (2)

- Right of Acquisition/Divestiture:
  - Exit agreement: after 4 years the partners could either:
    - Sell to one another
    - Cause the outright sale of the company to a third party.
  - If Hostetter leaves Continental, Liberman would have the option of buying back Continental's shares or selling his own shares to Continental.

Continental's Strategic Evaluation (1)

Why An International Project?

- Growth Potential:
  - Domestic (US) cable market is matured/saturated.
  - Rising regulation in US.
    - Limits placed on raising cable rates.

- Diversification

Continental's Strategic Evaluation (2)

Why Argentina?

- Good growth opportunities due to:
  - Largest and most developed cable market in Latin America.
  - Deregulation of Argentina's cable TV market.
  - Telephone services deregulation offers additional growth potential in the nearby future.
  - Cheap cost of access/investment.
    - Much lower cost/subscriber relative to up to $2,000 in US.

Continental's Strategic Evaluation (3)

Why Fintelco As a Partner?

- Fintelco seems to potentially be the right partner:
  - Trust: Mutual Friend.
  - Strong local player with similar clustered strategy.
  - Strong entrepreneur: Samuel Liberman
  - Similar culture and trust for each other.

- CEOs share a similar vision and developed mutual trust.

- Reasons for joint-venture structure:
  - Need local market-knowledge.
  - Need assistance with technology transfer.

Major Considerations of Investing Abroad

Return/Risk Of Investing In a Foreign Project

Factor	Positive or Negative
Economies of Scale	+
Transfer of Skills	+
Access to New Market	+
Access to Funds	+
Diversification	?
Tax Benefits	?
Inflation Risk	-
Currency risk	-
Political risk	-
Control / Governance	-

Potential Risks (1)

- Project Risk
- Industry/Competitive Risks:
  - New entrants.
- Country-Specific Risks:
  - Inflation.
  - Other macroeconomic shocks/instability.
- Institutional/Regulatory Risks:
  - Poor investor rights.
  - Poorly defined or enforced contracts.

Potential Risks (2)

- Currency Risks:
  - Both investment and future cash flows are highly exposed.
  - Current fixed exchange rate vs. PPP implied forward rate.
- Sovereign/Political Risks:
  - Argentina less economically and politically stable than US at this time.
  - Regulatory environment is uncertain.
- Operational/Execution Risks:
  - Dependent on quality of local technology and management.
  - Ability to achieve projected growth and face local competition.
- Financial Risks:
  - Ability to raise additional financing.
    - Continental already highly levered

Is $80m Reasonable For 50% Of Fintelco?

Cash Flows: USD or Pesos

- Ultimate shareholders are US → Cash Flows in USD

4 alternatives for conversion of the Peso cash flows into USD:

1. Using the rate based on administered parity 1:1.
   - "Ley de Convertibilidad Del Austral"; Ley 23,928. 27/03/1991
2. Using future spot rate, based on relative PPP.
   - Identify inflation differential across countries [Ex.8].
3. Using a specific forecast for each future spot rate (UIP).
   - Identify interest rate differential across countries.
   - Synthetically construct forward rate.
4. Using the forward rate (CIP).

Discount Rate: WACC or APV

- We can use WACC or APV.
  - We need the discount rate for both.
  - I will use both methods and see how the differences might impact the final value of the joint-venture.

- In this type of project, the flexibility of APV is very appealing since it helps isolate value effects of (here we won't have data on many of these):
  - Remittance taxes.
  - Tax deductions generated by the project.
  - Subsidies on debt.

Discount Rate: Global or Local CAPM

- The valuation is done from the point of view of US investors, who can hold a (nearly) global portfolio.
  - Benchmark portfolio should not be just the US market, but the world market portfolio
  - Use the global CAPM.

$$E(r_i) = r_f^{us} + \beta_i^{w} \left(E(r_r^{w}) - r_f^{us}\right)$$

- Questions:
  I. What is β^w?
  II. What is the risk free rate?
  III. What is the market risk premium?
  IV. How to adjust for currency risk?
  V. How to adjust for country risk?
  VI. How to adjust for business risk?

I. What Is The Beta? (1)

- *We need* β for Fintelco cash flows (in USD terms) with respect to the world (benchmark) portfolio.
  - We do not have enough information to compute the beta of Fintelco with respect to the world portfolio.

- However, *we can get* the β of cable-firm cash flows with respect to the US market.

- From [Ex.15] we can use the information on US comparable companies to compute β_A.

- Assume:
  - Risk of the tax shield is as risky as the debt.
  - Tax rate for comparable US companies is 34%.

I. What Is The Beta? (2)

- Assume risk of tax shield = risk of debt, $\tau = 34\%$

Exhibit 15: Information on Comparable US Companies	Book Value of Debt ($mil.)	Market Value of Equity ($mil.)	Beta (Levered)	TS risk: r_tx = r_d D/E	Beta (Unlevered)
Viacom	2,532	5,798	1.20	0.44	0.93
Cable and Wireless	1,750	16,016	0.95	0.11	0.89
Tele-Communications, Inc	10,256	10,775	1.65	0.95	1.01
CBS, Inc	492	4,092	0.95	0.12	0.88
AT&T	16,376	78,880	0.95	0.21	0.84
AH Belo Corp	282	920	0.80	0.31	0.67
				mean	0.87
				median	0.88
				Via & TCI	0.97

- Average of all comparables → $\beta_A = 0.87$
- The closest pure-plays are Viacom and TCI → $\beta_A = 0.97$

- How would the results change if we assume that the risk of the tax shields is equal to the risk of the assets?

I. What Is The Beta? (3)

- Assume risk of tax shield = risk of assets, $\tau = 34\%$

Exhibit 15: Information on Comparable US Companies	Book Value of Debt ($mil.)	Market Value of Equity ($mil.)	Beta (Levered)	TS risk: r_tx = r_a D/E	Beta (Unlevered)
Viacom	2,532	5,798	1.20	0.44	0.84
Cable and Wireless	1,750	16,016	0.95	0.11	0.86
Tele-Communications, Inc	10,256	10,775	1.65	0.95	0.85
CBS, Inc	492	4,092	0.95	0.12	0.85
AT&T	16,376	78,880	0.95	0.21	0.79
AH Belo Corp	282	920	0.80	0.31	0.61
				mean	0.80
				median	0.84
				Via & TCI	0.84

- Average of all comparables → $\beta_A = 0.80$
- The closest pure-plays are Viacom and TCI → $\beta_A = 0.84$
- I will use the assumption that the tax shields are as risky as the debt.

II. What Is The Risk Free Rate?

- Since we are looking at the US shareholders point of view and valuing the project in USD, we should use the US risk-free rate:
  - r_f^{US} = 6.39% US Treasury Securities 20-year rate [**Ex.5**].

III. What is the Market Risk Premium?

- If appropriate benchmark is global index, then we need global risk premium.
  - $E(r_f^w) - r_f^{us} \approx 5.4\%$ [See Stulz (1995)]

- Recall that:
  - $E(r_f^{us}) - r_f^{us} \approx$ 6.0% to 7.5% depending on the relevant time period of analysis chosen.

Local vs Global CAPM beta

- I recommend not using local-market (foreign) based betas here for the following reasons:
  - A small number of large corporations often dominate small equity-markets.
    - This biases the computed betas for all companies in that market.
  - Most global companies operate in open, integrated markets.
    - Need substantial amounts of capital which need to be raised from worldwide investors.
  - Most local equity markets have limited sectoral representation.
    - Significant percentage of their capitalization is concentrated in a few large companies in a specific sector.
    - These indices tend to be more volatile than broad markets. This is not necessarily an indication that capital investment is riskier.

IV. How To Adjust For Currency Risk?

- In theory, we would need to use a world CAPM with exchange rate risk.

- In the presence of exchange rate risk, investors living in different countries, are exposed to real exchange rate risk.
  - Will not face the same efficient frontier of risky assets.
  - Will not have the same tangency portfolio.

- Investors will not care about just the world-market risk, but also about exchange rate risk.

$$E(r_i) = r_f^{us} + \beta_i^{w}[E(r_r^{w}) - r_f^{us}] + \gamma_i[E(s^*) - s]$$

- In practice, $\widehat{\gamma_i}$ = 0 in most studies, and so the effect of the exchange rate risk on the discount rate is ignored.

V. How To Adjust For Country Risk?

- Three different methods to adjust for country risk:
  1. Adjust Free Cash Flows.
  2. Use Market Information to Adjust APV.
  3. Adjust Discount Rate.

- Which is the most convenient method in our case?

VI. How To Adjust For Business Risk?

- One way to correct the off-shore project β is:

$$\beta_{Fintelco} = \beta_{Argentina} * \beta^{L}_{US\ Cable\ Industry}$$

  - $\beta_{Argentina}$ = 1.96 [page 6],
    - Recall, this contains both country and business risk.
  - If you are adding the country risk premium then you can reduce the country β by 40% to avoid double counting of political risk.

$$\beta_{Fintelco} = \beta_{Argentina} * \beta^{L}_{US\ Cable\ Industry}(1 - 0.40)$$

  - With more data, you could reduce it by the degree of correlation between the local equity and bond market.

- Bottom Line: I will use the country risk premium and the Beta of Fintelco computed in this way in order to calculate the discount rate.

Additional Issues

- Taxes
  - Tax rate averages about 30-34% in the US.
    - Continental tax rate ~ 27.3% [**Ex.14**].
  - Lower taxes in Argentina.
    - It is the US tax rate that applies to Continental.
    - You typically get a tax credit for taxes already paid abroad.

- Debt/Value ratio of about \$133m/V_x, where V_x depends on the total value of the project.
  - Under fixed exchange rate scenario: value = V_1
  - Under relative PPP: value = V_2
  - Under explicit forecast of future spot rate (UIP): value = V_3
  - Under forward rate: value = V_4

Valuation

Three Approaches

A. DCF using WACC
   1. Assuming exchange rate stays at administered parity 1:1.
   2. Assuming steady depreciation of the Peso following relative PPP.
   3. Assuming future spot rate follows relative PPP.
   4. Assuming explicit forecast for each future spot rate (UIP).
   – Using the forward rate → Not Available

B. DCF using APV
   5. Assuming explicit forecast for each future spot rate (UIP).

C. Multiples.
   6. Get a sense of whether DCF values are reasonable.

Valuation: Assumptions

Assumptions for Valuation	
Investment in Fintelco	
Equity, USD mil.	140
Debt of Fintelco, Peso mil. [Ex. 13]	133
Assumed terminal value growth	5.0%
Riskiness of tax shield	
Same as debt?	Yes
Same as assets?	No
Corporate rax rates	
Continental's tax rate	27.3%
Tax rate for comparable firms	34.0%
Macroeconomic data	
Peso interest rate [Ex. 6]	8.99%
USD interest rate [Ex. 6]	7.10%
US inflation rate [Ex.8]	2.5%
Fixed Peso/USD ER 1992 [Ex.8]	0.999
Parity-implied ER in 1993 [Ex.8]	1.077
Cost of capital data	
Risk-free rate (20 years) [Ex. 5]	6.39%
Pre-tax cost of US debt (At average of BBB & BB yields) [Ex. 5]	8.65%
Equity Market Risk Premium (Assumed)	5.4%
Country risk premium [Ex. 7]	3.5%
Beta of Argentina relative to US	1.96
Reduction in country beta to avoid double-counting political risk, in relative terms	40.0%
Insurance premium	1.00%

Valuation: Free Cash Flows

- From **Exhibit 14** we get the FCF in Pesos:

Discounted Cash Flow valuation of Fintelco (in thousands)										
	Actual	Forecast Assumptions								
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Free Cash Flow	-	-8,488	-42,409	16,345	45,327	75,208	100,529	105,370	125,113	133,101
Implied growth rate					177.31%	65.92%	33.67%	4.82%	18.74%	6.38%
Average					**51.14%**					

- Notes:
  - To compute WACC we need debt and equity weights. The problem is we do not know what the equity value is.
    - Use a recursive method using Solver or allowing circularity in Excel.
    - The value that comes from the discounted DCF is the value to use.
  - To compute APV we use the country spread and/or the insurance premium.

Valuation: Discount Rates

Estimation of discount rate for Continental's investment in Fintelco		Panel 1	Panel 2	Panel 3	Panel 4	Panel 5
Basic assumptions						
Discount rate to be used (WACC or all-equity rate)		**WACC** 1:1 convertability	**WACC** Steady Depreciaton	**WACC** Relative PPP	**WACC** Synthetic Forward Rate	**APV** Synthetic Forward Rate
Assumption about exchange rate for converting peso cashflows to USD						
Estimate of levered beta						
Tax rate of Continental	27.3%					
Unlevered beta (average of Viacom and TCI)	0.972					
Debt shield riskiness assumed as that of	**Debt**					
BV of debt, thousands of USD at spot rate	133,133	133,133	133,133	133,133	133,133	133,133
MV of equity assumed (***to be found by equation solve* r - see below**)*		*428,023*	*174,921*	*266,902*	*325,009*	*343,050*
Mix assumed in analysis:						
% Debt		0.237	0.432	0.333	0.291	**0.00**
% Equity		0.763	0.568	0.667	0.709	1.000
Levered beta of equity		**1.19**	**1.51**	**1.33**	**1.26**	**0.97**
Cost of equity						
Argentine country beta relative to US	1.96	1.96	1.96	1.96	1.96	1.96
Reduction in country beta to avoid double-counting	40.0%	0.40	0.40	0.40	0.40	0.00
Beta for Fintelco, adjusted for country betas		**1.40**	**1.78**	**1.56**	**1.48**	**0.97**
Market equity risk premium	5.4%	5.4%	5.4%	5.4%	5.4%	5.4%
Add country risk premium [Ex. 7)]	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
Add risk-free rate (20 years) [Ex. 5]	6.4%	6.4%	6.4%	6.4%	6.4%	6.4%
US-based cost of Fintelco equity		**17.5%**	**19.5%**	**18.3%**	**17.9%**	**15.1%**
Cost of debt						
Pre-tax cost of US debt (at average of BBB and BB)	8.65%	8.6%	8.6%	8.6%	8.6%	-
Add country risk premium (Ex. 7)	3.5%	3.5%	3.5%	3.5%	3.5%	-
Pre-tax US dollar cost of Argentine debt		12.1%	12.1%	12.1%	12.1%	-
Tax rate of Continental	27.3%	27.3%	27.3%	27.3%	27.3%	-
After-tax cost of debt		**8.8%**	**8.8%**	**8.8%**	**8.8%**	-
Discount Rates for Continental's investment in Fintelco		**15.4%**	**14.9%**	**15.2%**	**15.3%**	**15.1%**

Valuation: Conversion Of Cash Flows

PANEL I:

WACC Using 1:1 Convertibility

Panel 1: Valuation assuming no devaluation (fixed exchange rate)										
WACC (DiscRates Panel 1)	15.4%									
TV Wacc	15.4%									
Equity investment in Fintelco, USD 000	140,000									
Debt of Fintelco, USD 000	133,133									
Spot exchange rate (Peso/USD)	0.999	**0.999**	**0.999**	**0.999**	**0.999**	**0.999**	**0.999**	**0.999**	**0.999**	**0.999**
FCF (USD)		0	-8,496	-42,452	16,362	45,373	75,283	100,629	105,475	125,238	133,234
Debt & equity Investment and Terminal value		-273,133								1,343,358
FCF +investment + TV		-273,133	-8,496	-42,452	16,362	45,373	75,283	100,629	105,475	125,238	1,476,592
PV of each FCF		-273,133	-7,361	-31,870	10,643	25,572	36,763	42,577	38,667	39,781	406,385
Total PV	**561,157**										
NPV	**288,023**										
IRR	**25.6%**										
% of PV from TV	**65.9%**										
Value of equity	**428,023**										

Valuation: Conversion Of Cash Flows

PANEL II:

WACC Using PPP Steady Depreciation

Panel 2: Valuation Assuming Steady Depreciation										
Peso inflation	10.0%									
US inflation	2.5%									
Spot rate	0.999									
WACC (DiscRates Panel 2)	14.9%									
TV Wacc	14.9%									
Equity investment in Fintelco	140,000									
Debt of Fintelco	133,133									
Spot exchange rate (Peso/USD)		**1.077**	**1.155**	**1.240**	**1.331**	**1.428**	**1.532**	**1.645**	**1.765**	**1.894**	**2.033**
FCF (USD)		0	-7,346	-34,204	12,284	31,742	49,076	61,126	59,701	66,054	65,480
Debt & equity Investment and Terminal value		-273,133									695,997
FCF +investment + TV		-273,133	-7,346	-34,204	12,284	31,742	49,076	61,126	59,701	66,054	761,478
PV of each FCF		-273,133	-6,395	-25,917	8,103	18,225	24,529	26,595	22,611	21,777	218,528
Total PV	**308,054**										
NPV	**34,921**										
IRR	**16.5%**										
% of PV from TV	**64.8%**										
Value of equity	**174,921**										

Valuation: Conversion Of Cash Flows

PANEL III:

WACC Using Relative PPP

Panel 3:										
Valuation Using Relative PPP										
US inflation	2.5%									
Spot rate	0.999									
WACC (DiscRates Panel 3)	**15.2%**									
TV Wacc	15.2%									
Equity investment in Fintelco	140,000									
Debt of Fintelco	133,133									
Argentina inflation forecast		**11.0%**	**7.0%**	**8.0%**	**12.0%**	**10.0%**	**6.0%**	**2.5%**	**2.5%**	**2.5%**	**2.5%**
Expected exchange rate (Peso/USD)		**1.077**	**1.124**	**1.184**	**1.294**	**1.389**	**1.436**	**1.436**	**1.436**	**1.436**	**1.436**
FCF (USD)		0	-7,552	-35,814	12,632	32,643	52,373	70,006	73,377	87,126	92,688
Debt & equity Investment and Terminal value		-273,133									958,708
FCF +investment + TV		-273,133	-7,552	-35,814	12,632	32,643	52,373	70,006	73,377	87,126	1,051,396
PV of each FCF		-273,133	-6,558	-27,009	8,273	18,566	25,868	30,027	27,332	28,183	295,353
Total PV	**400,035**										
NPV	**126,902**										
IRR	**20.4%**										
% of PV from TV	**67.3%**										
Value of equity	**266,902**										

Valuation: Conversion Of Cash Flows

PANEL IV:

WACC Using Synthetic Forward Rate (UIP)

Panel 4:

Valuation Using Synthetic Forward Rate

r_{Peso}	8.99%									
r_{USD}	7.10%									
WACC (without exchange risk)	**15.3%**									
TV Wacc	15.3%									
Equity investment in Fintelco	140,000									
Debt of Fintelco	133,133									
Synthetic Forward ER (Peso/USD)		**1.077**	**1.096**	**1.115**	**1.135**	**1.155**	**1.175**	**1.196**	**1.217**	**1.238**	**1.260**
FCF (USD)		0	-7,747	-38,038	14,406	39,257	64,007	84,073	86,593	101,035	105,622
Debt & equity Investment and Terminal value		-273,133									1,080,152
FCF +investment + TV		-273,133	-7,747	-38,038	14,406	39,257	64,007	84,073	86,593	101,035	1,185,774
PV of each FCF		-273,133	-6,721	-28,629	9,407	22,238	31,455	35,844	32,029	32,421	330,099
Total PV	**458,143**										
NPV	**185,010**										
IRR	**22.5%**										
% of PV from TV	**65.6%**										
Value of equity	**325,010**										

Valuation: Conversion Of Cash Flows

PANEL V:

APV Using Synthetic Forward Rate (UIP)

Panel 5:											
APV Using Synthetic Forward Rate											
Pre-tax cost of US debt (avg. BB and BBB)	**8.65%**										
r_{Peso}	8.99%										
r_{USD}	7.10%										
Tax rate for Continental's debt	**27.3%**										
Tax shield riskiness as that of	**Debt**										
Insurance premium	1.20%										
All-equity rate (without exchange risk)	**15.1%**										
TV discount rate (all equity)	15.1%										
Equity investment in Fintelco	140,000										
Debt of Fintelco	133,133										
Fwd exchange rate (Peso/USD)		**1.077**	**1.096**	**1.115**	**1.135**	**1.155**	**1.175**	**1.196**	**1.217**	**1.238**	**1.260**
FCF (USD)		0	-7,747	-38,038	14,406	39,257	64,007	84,073	86,593	101,035	105,622
Debt & equity Investment and Terminal value		-273,133									1,093,584
FCF +investment + TV		-273,133	-7,747	-38,038	14,406	39,257	64,007	84,073	86,593	101,035	1,199,206
Tax shield from debt		0	3,142	3,142	3,142	3,142	3,142	3,142	3,142	3,142	3,142
Insurance premium = *book* equity value x	1.20%	0	-1,920	-1,920	-1,920	-1,920	-1,920	-1,920	-1,920	-1,920	-1,920
Final FCF		-273,133	-6,525	-36,816	15,628	40,479	65,229	85,295	87,815	102,257	1,200,429
PV of FCF from operations		-273,133	-6,728	-28,691	9,438	22,335	31,628	36,080	32,275	32,706	337,144
PV of tax shield from debt		0	2,892	2,662	2,450	2,255	2,076	1,911	1,759	1,619	1,490
PV of insurance premium at 1.20%		0	-1,668	-1,448	-1,258	-1,092	-949	-824	-716	-622	-540
PV *after* financial side-effects		-273,133	-5,504	-27,478	10,630	23,498	32,755	37,167	33,318	33,703	338,094
Total PV	**476,183**										
NPV	**203,050**										
IRR	**22.9%**										
% of PV from TV	**64.6%**										
Value of equity	**343,050**										

Valuation Using Multiples

Valuation Using Multiples	1993 Annual Revenues ($mil.)	Subs-cribers (mil.)	Book Value of Debt ($mil.)	Market Value of Equity ($mil.)	MV_T	MV/ Revenue	MV/ Subscriber
Comparable US firms							
Viacom	2,035	1.2	2,532	5,798	8,330	4.09	6,942
Tele-Communications, Inc	4,140	10.2	10,256	10,775	21,031	5.08	2,062
Implied values of Fintelco							
Based on revenues	137		133	495	628	4.59	
Based on subscribers		0.382	133	654	788		2,062

- Valuation using multiples **overestimate** the true value.
  - Based on MV/Revenue → Equity Value = **$496M!**
  - Based on MV/Subscribers → Equity Value = **$655M!**

- **Question:** What are potential problems in comparing multiples **across countries**?

Valuation Using Multiples (2)

- Ignores differences in accounting treatment.
  - Definitions may differ across countries based on accounting rules
- Market structure may differ across countries.
  - Ignores relative size of the firms.
  - Ignores nature of firms and other sources of revenues.
  - Ignores different way to conduct business in that industry.
- Ignores differences in equity markets across countries
- Ignores country risk:
  - How do you adjust a multiple? By how much?
- Assumes Linearity
  - Will advertising revenue increase linearly with number of subscribers?

Valuation: Conclusions

- Using the recursive method using solver is sometimes not an easy task and it is cumbersome.

- APV is simpler and quicker to use.
  - Moreover APV allows to take into account different tax treatments.

Results of Valuation (thousands of USD)	Value of Equity
Valuation Using Multiples	
Based on revenues	495,253
Based on subscribers	654,498
DCF Valuation*	
WACC if 1:1 convertibility	428,023
WACC if Constant Inflation	174,921
WACC if Relative PPP	266,902
WACC if Synthetic Forward Rate	325,010
APV if Synthetic Forward Rate	343,050

Concerns About the Valuation

- The FCF in [Ex.14] is predicated on aggressive expansion:
  - Is this sustainable?
  - When Argentina opens the cable market, who will enter, and how aggressively?

- Some Questions To Ponder:
  - What is the relevant benchmark for computing equity beta?
  - How comfortable are we with the beta adjustments?
  - Can TCI and Viacom capture the business risk of a relatively immature firm in Argentina?
    - Both are healthy and established firms in the US

- Exchange Rate Forecasts:
  - How sensitive is the value to exchange rate?
  - Which is the best exchange rate to use?

Is $80m Reasonable For 50% Of Fintelco?

- Depending on the valuation assumptions we get 50%-equity values from $85m-$215m for DCF valuations.
- Valuations are even higher using Multiples
  - But, not sure how meaningful multiples are when shortcomings in this setting are considered.
- Overall, it seems that $80m for half of the project seems is a good investment.

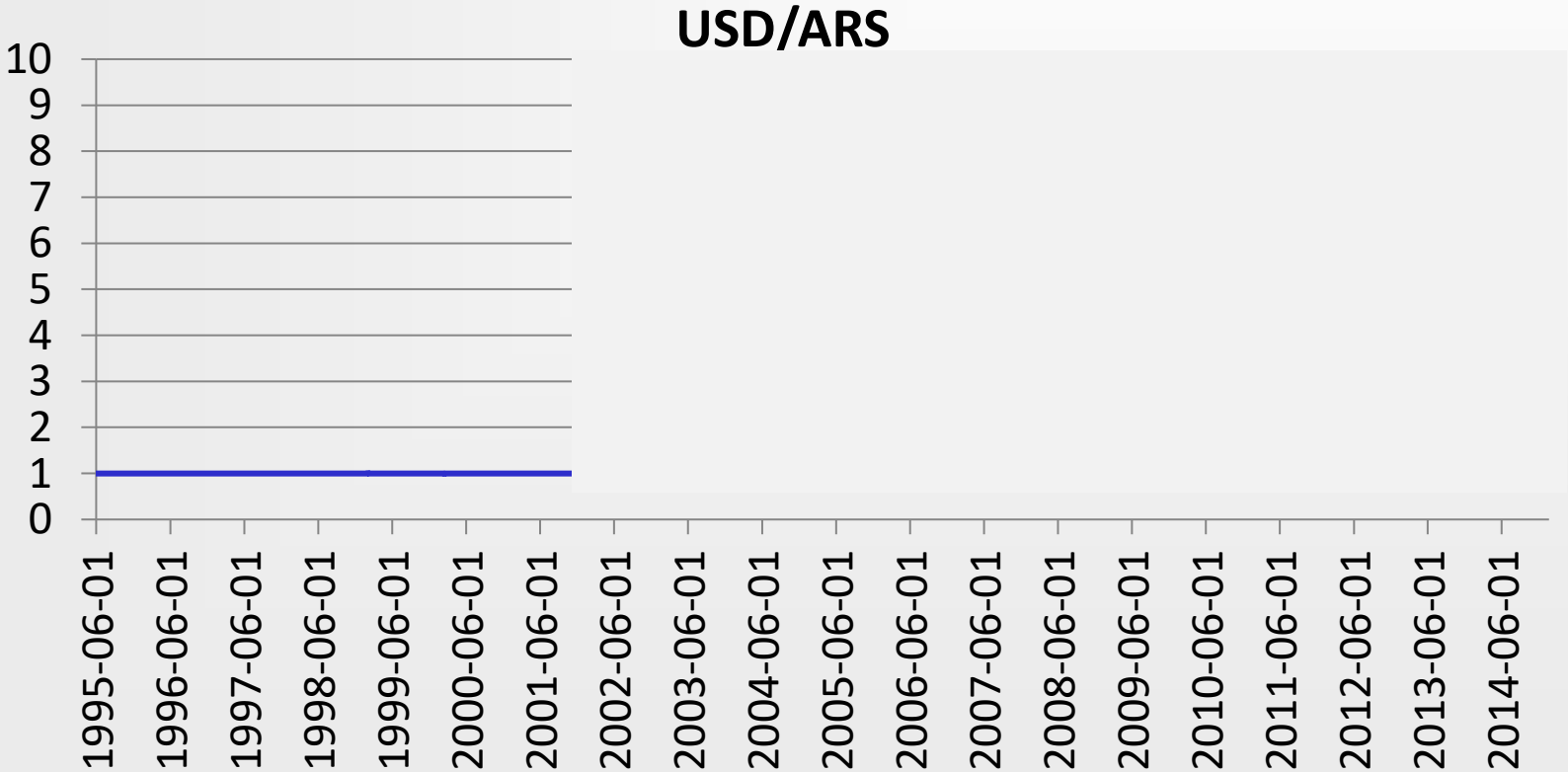
Thoughts on Deal Structure

- Phased Financing.
  - Prevents “theft” of cash.
- Higher Local Debt.
  - Limits political and currency risk.
- Political risk insurance from, e.g., Overseas Private Investment Corporation (OPIC) or private insurers.
  - OPIC is an independent agency that sells investment services to assist US companies investing.
- Which are some possible **concerns** or **modifications** you would add to the deal?
  - Family role in management at Fintelco.
    - Appointment of family members in management positions.
    - On the other hand better aligned incentives
  - 4-year exit option:
    - Is this option priced in the deal?

What Happened?

What Happened? (1)

- October 1994: Joint-venture agreement signed as described.
  - US-Argentina Investment Treaty signed in October 1994.
  - First non-recourse cable deal in Latin America.
- Argentine Peso/USD:



What Happened? (2)

- Financing was obtained only after 1.5 years
  - $80m in local loans
  - $50m OPIC insured.

- Value paid per subscriber was only $700, as opposed to $1500 by TCI for rival Cablevision.

- The first-movers advantage allowed Fintelco to increase subscriber base from 400K to 780K making it the largest cable operator in Argentina.

What Happened? (2)

- In 1997 US West acquired Continental:
  - As part of deal, it sold Fintelco for US$765M
  - It was unclear whether the sale price was for assets or equity.
  - Assuming the price was for equity → IRR = 56%!
  - Assuming the price was for assets → IRR = 32%!

$$\text{IRR}_{\text{Equity}} = \left(\frac{765}{160}\right)^{3.5} - 1 = 56\%;\ \text{IRR}_{\text{Assets}} = \left(\frac{765}{160+133}\right)^{3.5} = 32\%$$