

# ***“Accounting and Auditing: New Market Requirements from the Investor’s Perspective”***

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Part of the material in this presentation is based on a series of analyses, presentations and reports developed and published at Morgan Stanley

# What do Managers & Investors Need to Decide On?

## *Some Basic Questions/Decisions*

How does the entity create or provide value?

What resources does it have?

How are they being used (sustainability, growth, prospects)?

What obligations exist, and more generally how is the entity funded?

How (and when) are the obligations being paid and serviced, are there (cash) liquidity risks?

How is revenue generated, is it sustainable, are their growth opportunities in volume or price?

What is the service/product being provided, who is the actual customer?

How are the products and services provided/distributed and paid for?

What costs are incurred to create and deliver the products or services?

How well is management performing, and how should they be compensated?

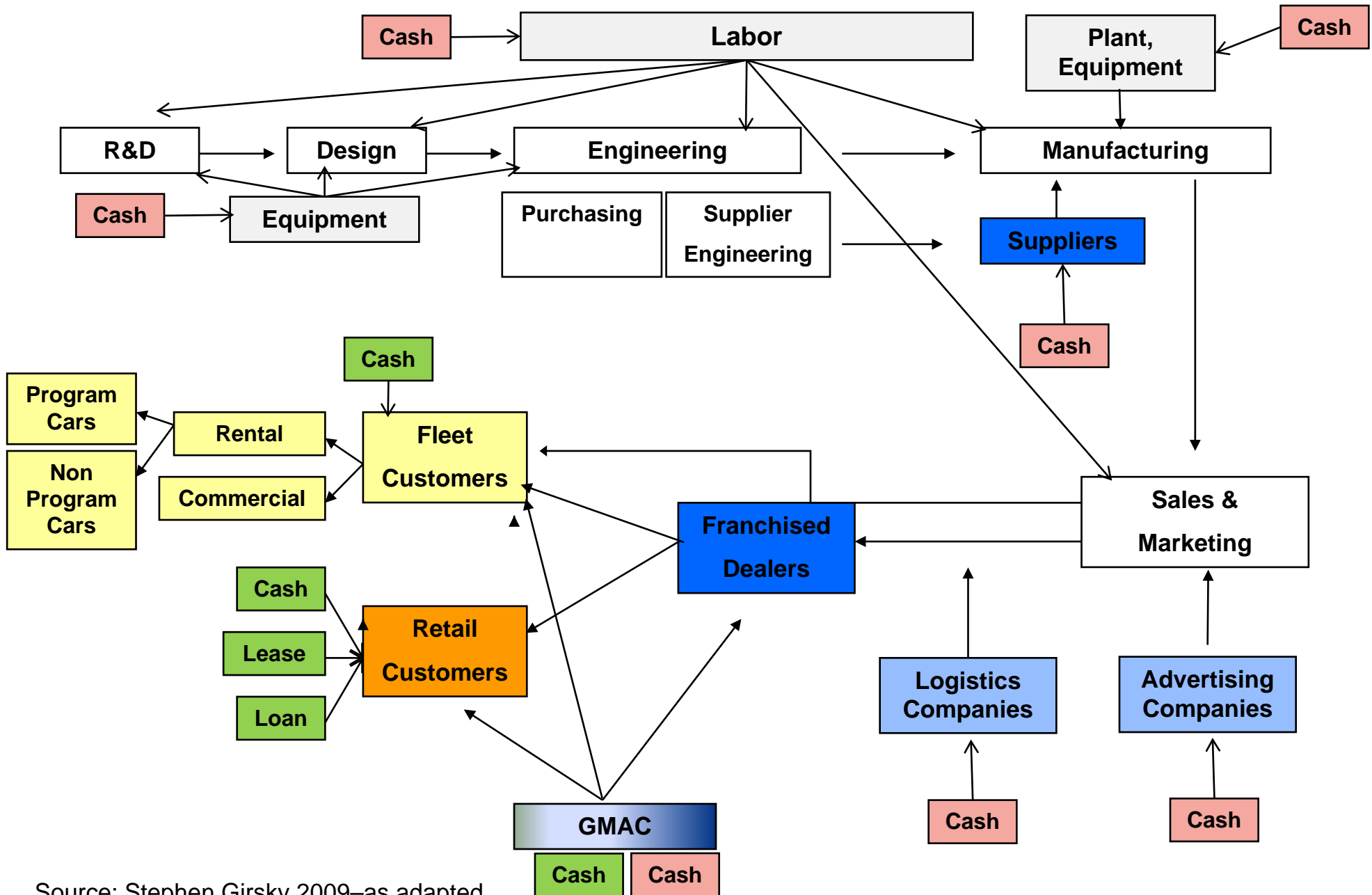
Where should the incremental capital resources be allocated?

Where are the risks and opportunities (volume, price, cost, supply, credit, competition, ..)?

Is the entity a going concern?

All these require us to look ahead and make a forecast → Uncertainty

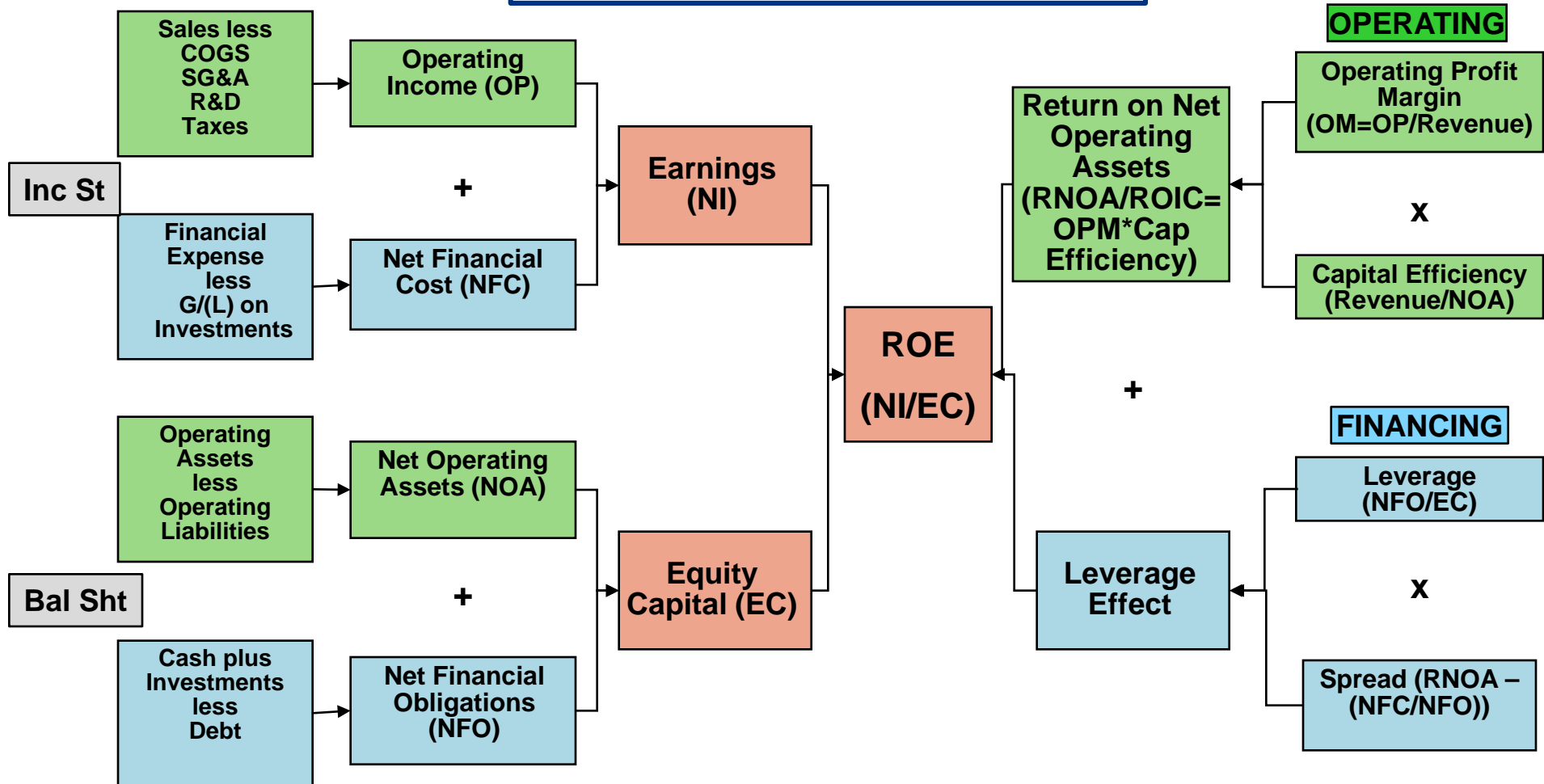
# General Motors Operating Cycle: The Picture we are Trying to Measure and Understand



Source: Stephen Girsky 2009—as adapted

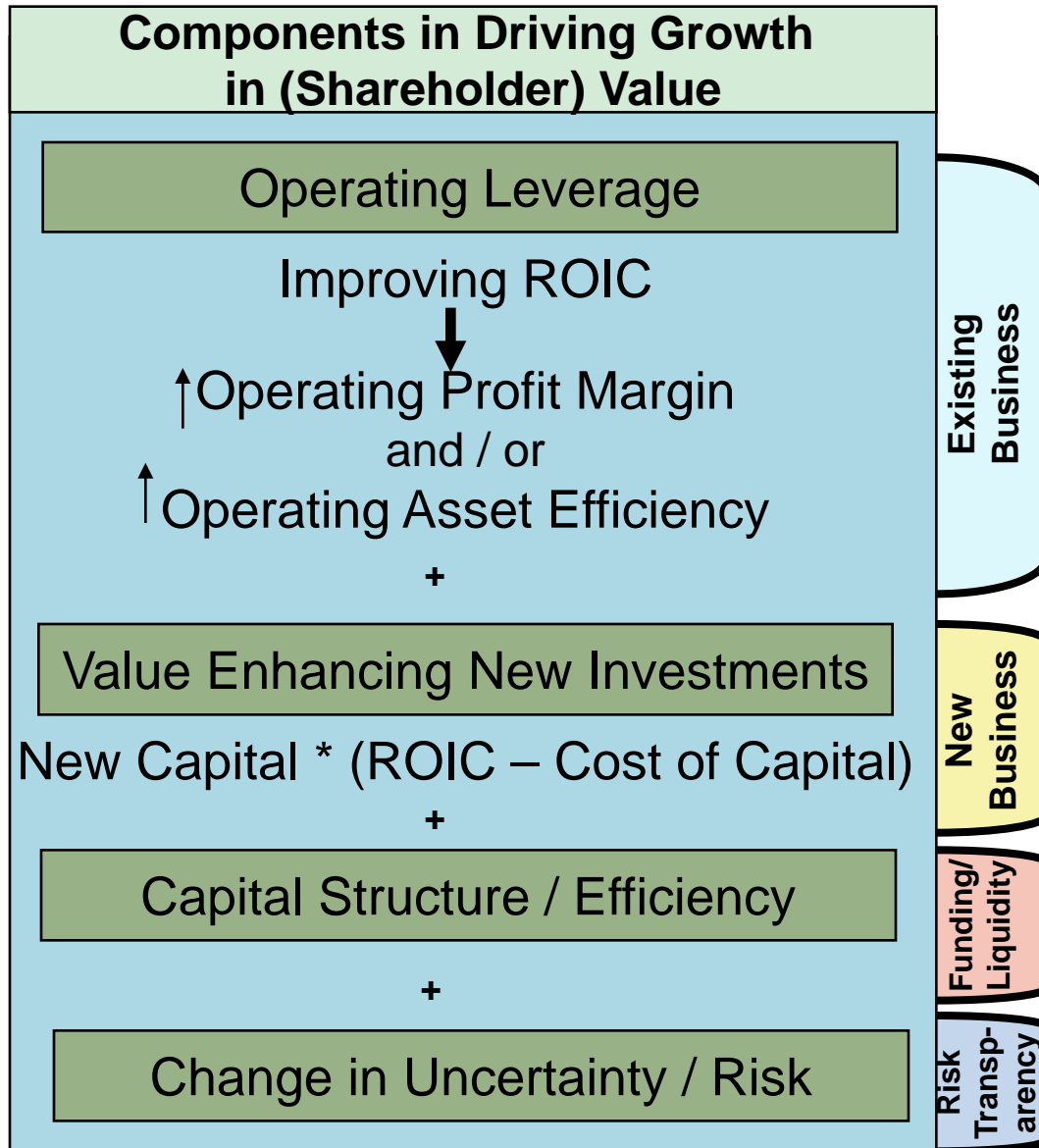
# The Basic Connection Between Financial Statements and Performance Metrics

## The Profitability Tree



Source : Morgan Stanley Research; "The Apples to Apples Earnings Monitor" Trevor Harris, December 10, 2000

# What Drives Value and Price: Related to Questions Managers and Investors Should Address



## Some Key Questions to Consider:

1. What are the primary sources of revenue and revenue growth?
2. How sustainable is the revenue and growth?
3. Where and how can costs be reduced or fixed costs leveraged?
4. What activities are most effectively using existing capital?
5. Where should we invest new capital or release trapped capital?
6. How do liquidity needs and tail-risks impact the capital structure, and risk?
7. What is the impact of existing or new businesses on firm profitability and risk (marginal analysis matters)?

# Examples Using YPF SA: Assets

## YPF SOCIEDAD ANONIMA AND CONTROLLED AND JOINTLY CONTROLLED C CONSOLIDATED BALANCE SHEETS

AS OF DECEMBER 31, 2010, 2009 AND 2008

(Amounts expressed in million of Argentine pesos – Note 1.a)

	2010	2009
<b>Current Assets</b>		
Cash .....	570	669
Investments (Note 3.a) .....	1,957	1,476
Trade receivables (Note 3.b).....	3,322	2,831
Other receivables (Note 3.c) .....	3,089	2,490
Inventories (Note 3.d).....	3,865	3,066
	<hr/>	<hr/>
Total current assets .....	12,803	10,532
	<hr/>	<hr/>
<b>Noncurrent Assets</b>		
Trade receivables (Note 3.b).....	28	22
Other receivables (Note 3.c) .....	1,587	527
Investments (Note 3.a) .....	594	661
<u>Fixed assets (Note 3.e) .....</u>	<u>31,567</u>	<u>27,993</u>
Intangible assets.....	10	12
	<hr/>	<hr/>
Total noncurrent assets .....	33,786	29,215
	<hr/>	<hr/>
Total assets.....	<u>46,589</u>	<u>39,747</u>

**YPF SOCIEDAD ANONIMA AND CONTROLLED AND JOINTLY CONTROLLED CO**  
**CONSOLIDATED STATEMENTS OF INCOME**  
**FOR THE YEARS ENDED DECEMBER 31, 2010, 2009 AND 2008**  
(Amounts expressed in million of Argentine pesos, except for per share amounts in Argentine pesos)

	2010	2009
Net sales (Note 3.k).....	44,162	34,320
Cost of sales (Note 15.d).....	(29,899)	(23,177)
<b>Gross profit</b> .....	<b>14,263</b>	<b>11,143</b>
Selling expenses (Note 15.f).....	(3,015)	(2,490)
Administrative expenses (Note 15.f).....	(1,429)	(1,102)
Exploration expenses (Note 15.f) .....	(344)	(552)
<b>Operating income</b> .....	<b>9,475</b>	<b>6,999</b>
Income (loss) on long-term investments .....	79	(9)
Other (expense) income, net (Note 3.i).....	(155)	159
Financial income (expense), net and holding gains (losses):		
Gains (losses) on assets		
Interests .....	118	109
Exchange differences .....	202	182
Holding gains (losses) on inventories.....	676	(11)
Losses on liabilities		
Interests .....	(931)	(958)
Exchange differences .....	(444)	(564)
<b>Net income before income tax</b> .....	<b>9,020</b>	<b>5,907</b>
Income tax (Note 3.j) .....	(3,230)	(2,218)
<b>Net income</b> .....	<b>5,790</b>	<b>3,689</b>

*How Useful are These?*

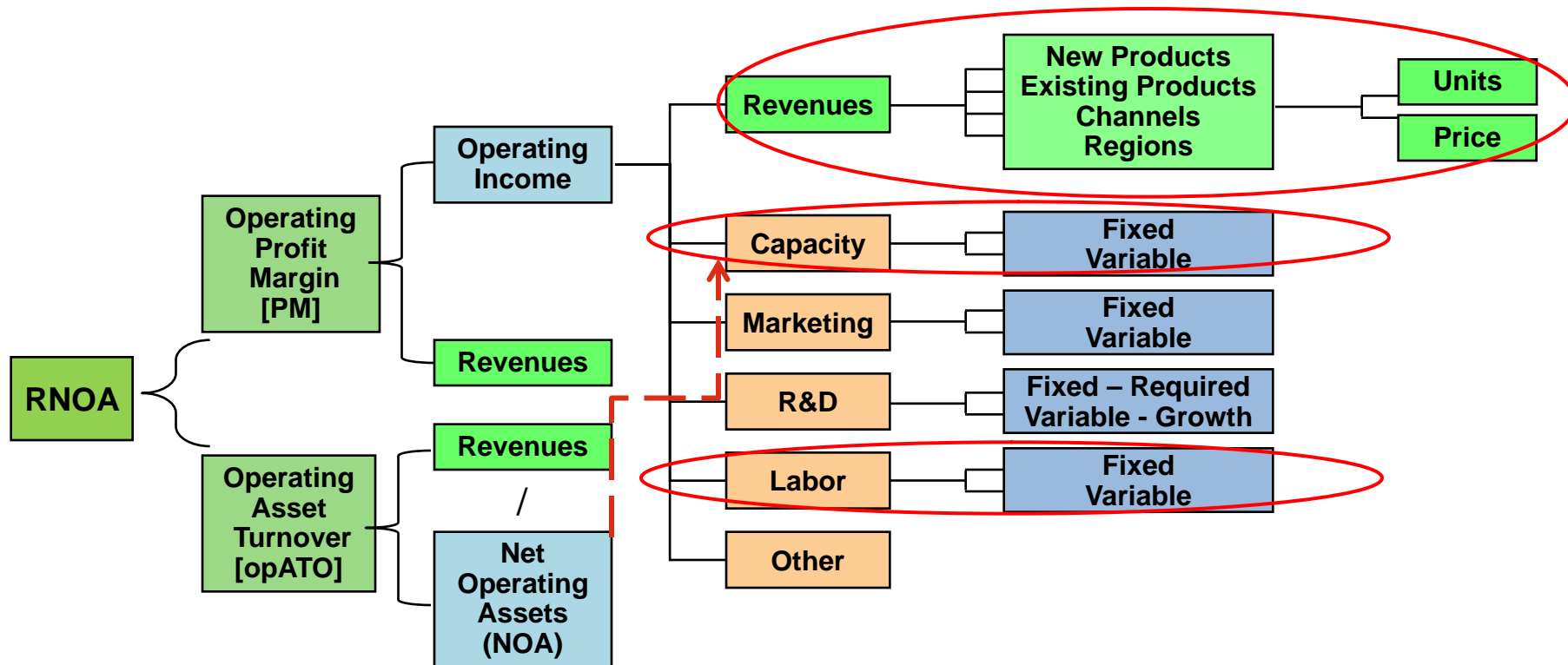
*Or These?*

# Key Questions to Ask When Analyzing Expenses

- **What** are the key costs?
  - **How/Where** are they sourced?
  - What is the **mix** of capacity, labor, materials and technology?
  - How do these **compare** with others in the industry?
  - For each cost what portion is **fixed**: over what period &/or volume (capacity)?
  - How are costs expected to change and why (productivity versus price)?
- **The Key in analyzing costs is to understand how to get operating efficiency which feeds into operating margins and/or greater efficiency (revenue per \$ spent) in the use of resources (operating assets)**



# Relating the Profitability Tree to More Detailed Analysis



Source :Morgan Stanley Research; "The Apples to Apples Earnings Monitor" December 10, 2000

# GM Expenses Breakdown Summary

## PRODUCTION COSTS

	2005	2006	2007
Materials and parts	96,225	100,589	106,237
<i>per unit manufactured</i>	<i>\$ 10,631</i>	<i>\$ 10,956</i>	<i>\$ 11,441</i>
Labor	32,120	28,828	27,221
<i>per unit manufactured</i>	<i>\$ 3,549</i>	<i>\$ 3,140</i>	<i>\$ 2,931</i>
Depreciation (Capacity)	9,591	8,768	8,709
<i>per unit manufactured</i>	<i>\$ 3,549</i>	<i>\$ 3,140</i>	<i>\$ 2,931</i>
Warranty expenses	16,602	18,009	18,974
<i>per unit manufactured</i>	<i>\$ 1,834</i>	<i>\$ 1,969</i>	<i>\$ 2,013</i>
Other	666	906	5,140
<i>per unit manufactured</i>	<i>\$ 74</i>	<i>\$ 99</i>	<i>\$ 553</i>

## SELLING EXPENSES

	2005	2006	2007
Labor	880	713	684
<i>per unit sold</i>	<i>\$ 96</i>	<i>\$ 78</i>	<i>\$ 73</i>
Advertising	5,800	5,400	5,500
<i>per unit sold</i>	<i>\$ 632</i>	<i>\$ 594</i>	<i>\$ 587</i>
Depreciation (Capacity)	161	168	173
<i>per unit sold</i>	<i>\$ 18</i>	<i>\$ 18</i>	<i>\$ 18</i>
Bad Debt Expense	73	56	-
<i>per unit sold</i>	<i>\$ 8</i>	<i>\$ 6</i>	<i>\$ -</i>
Other	238	1,182	1,556
<i>per unit sold</i>	<i>\$ 26</i>	<i>\$ 129</i>	<i>\$ 168</i>

## G&A EXPENSES

	2005	2006	2007
Labor	5,720	3,563	3,420
<i>per unit manufactured</i>	<i>\$ 632</i>	<i>\$ 388</i>	<i>\$ 368</i>
Depreciation (Capacity)	107	112	115
<i>per unit manufactured</i>	<i>\$ 12</i>	<i>\$ 12</i>	<i>\$ 12</i>
Other	24	2,468	2,950
<i>per unit manufactured</i>	<i>\$ 3</i>	<i>\$ 269</i>	<i>\$ 318</i>

## LABOR EXPENSES

	2005	2006	2007
Wages:			
Hourly employees	14,256	14,317	13,376
Salaried employees	11,000	7,125	6,840
Pension/healthcare	2,214	1,815	4,921
Legacy costs	11,250	9,846	6,188
Total	38,720	33,103	31,325

	2005	2006	2007
Production Costs	155,203	157,100	166,280
<i>per unit manufactured</i>	<i>\$ 17,147</i>	<i>\$ 17,119</i>	<i>\$ 17,876</i>
Selling Expenses	7,152	7,508	7,927
<i>per unit sold</i>	<i>\$ 779</i>	<i>\$ 826</i>	<i>\$ 846</i>
G&A	5,851	6,143	6,485
<i>per unit manufactured</i>	<i>\$ 646</i>	<i>\$ 669</i>	<i>\$ 698</i>

Due to a huge reduction of over 30% in the salaried workforce between 2005 and 2006

# More Details on Cost of Sales

## d) Cost of sales

	<u>2010</u>	<u>2009</u>
Inventories at beginning of year .....	3,066	3,449
Purchases for the year .....	9,631	5,873
<u>Production costs (Note 15.f).....</u>	<u>20,391</u>	<u>16,932</u>
Holding gains (losses) on inventories .....	676	(11)
Inventories at end of year.....	<u>(3,865)</u>	<u>(3,066)</u>
Cost of sales .....	<u><u>29,899</u></u>	<u><u>23,177</u></u>

From Argentine GAAP disclosures and MD&A only

# What does the Company Tell Us?

## “**Cost of sales**

Our cost of sales accounted for 67.7%, 67.5% and 68.9% of our consolidated net sales in 2010, 2009 and 2008, respectively. *Our cost of sales increased between 2008 and 2010, mainly as a result of:*

**increased purchases of crude oil** from third parties, driven by our efforts to maintain our high refinery utilization rates in light of our declining production; **increased purchases of natural gas and diesel** from third parties; **higher labor costs; higher costs related to the renegotiation of certain service contracts; and inflation.**”

# Cost of Sales in Detail

From Argentine GAAP disclosures only

*Major Costs Related to Capacity*

	2010				Total
	Production costs	Administrative expenses	Selling expenses	Exploration expenses	
Salaries and social security taxes.....	1,710	442	293	67	2,512
Fees and compensation for services.....	222	431	57	8	718
Other personnel expenses .....	488	97	26	12	623
Taxes, charges and contributions .....	351	46	555	—	952
Royalties and easements .....	2,970	—	8	11	2,989
Insurance .....	150	7	20	—	177
Rental of real estate and equipment.....	487	4	80	—	571
Survey expenses.....	—	—	—	98	98
Depreciation of fixed assets ...	5,036	108	129	—	5,273
Industrial inputs, consumable materials and supplies .....	825	8	59	3	895
Operation services and other service contracts .....	2,228	70	172	—	2,470
Preservation, repair and maintenance.....	2,955	38	78	13	3,084
Contractual commitments .....	411	—	—	—	411
Unproductive exploratory drillings.....	—	—	—	112	112
Transportation, products and charges.....	1,037	4	1,346	—	2,387
Allowance (recovery) for doubtful trade receivables ..	—	—	24	—	24
Publicity and advertising expenses.....	—	98	94	—	192
Fuel, gas, energy and miscellaneous.....	1,521	76	74	20	1,691
<b>Total 2010 .....</b>	<b>20,391</b>	<b>1,429</b>	<b>3,015</b>	<b>344</b>	<b>25,179</b>

# Segment Data for the Major Components

	Exploration and Production	Refining and Marketing	Chemical
	<u>                    </u>	<u>                    </u>	<u>                    </u>
<b>Year ended December 31, 2010</b>			
Net sales to unrelated parties.....	4,611	34,209	2,445
Net sales to related parties.....	981	917	—
Net intersegment sales.....	17,428	1,668	1,871
	<u>                    </u>	<u>                    </u>	<u>                    </u>
Net sales .....	23,020	36,794	4,316
	<u>                    </u>	<u>                    </u>	<u>                    </u>
Operating income (loss)	6,210	3,313	874
Income on long-term investments ...	69	10	—
Depreciation .....	4,497	551	105
Acquisitions of fixed assets .....	6,790	1,826	712
Assets.....	26,245	14,043	2,779

*How can we relate this to the detailed disclosures?*

# What Can we Really Learn About Capacity?

Main account	Cost				Amounts at the end of year
	Amounts at beginning of year	Net translation effect <sup>(9)</sup>	Increases	Net decreases, reclassifications and transfers	
Land and buildings.....	3,206	—	17	162	3,385
Mineral property, wells and related equipment.....	61,501	14	936	4,079	66,530
Refinery equipment and petrochemical plants.....	10,847	—	7	588	11,442
Transportation equipment.....	1,973	—	9	15	1,997
Materials and equipment in warehouse.....	814	—	1,572	(1,069)	1,317
Drilling and work in progress.....	3,640	—	6,553	(4,619)	5,574
Exploratory drilling in progress.....	119	—	256	(137)	248
Furniture, fixtures and installations..	884	—	9	48	941

Main account	Depreciation				Accumulated at the end of year	Net book value
	Accumulated at beginning of year	Net decreases, reclassifications and transfers	Depreciation rate	Increases		
Land and buildings.....	1,219	(16)	2%	79	1,282	2,103
Mineral property, wells and related equipment.....	45,162	(5)	(4)	4,442	49,599	16,931
Refinery equipment and petrochemical plants.....	7,102	(1)	4 - 10%	513	7,614	3,828
Transportation equipment.....	1,433	(10)	4 - 5%	65	1,488	509
Materials and equipment in warehouse.....	—	—	—	—	—	1,317
Drilling and work in progress.....	—	—	—	—	—	5,574
Exploratory drilling in progress.....	—	—	—	—	—	248
Furniture, fixtures and installations..	674	—	10%	87	761	180
Selling equipment.....	1,176	(2)	10%	62	1,236	296
Other property.....	322	(8)	10%	25	339	683
Total 2010.....	57,088	(42) <sup>(1)</sup>		5,273	62,319	31,669

# Some Other Issues that Complicate Usefulness

- How Much Do Auditors Consider the Business vs. the Rules?
- Treatment of Significant Interests – Joint Ventures
  - Argentinian GAAP – Proportional
  - US GAAP – Equity Accounting
- How to Relate Details in MD&A to Reported Numbers and Where Uncertainties Lie especially re:

**Volume \* Price**

- Choice of Functional Currency
  - Argentinian GAAP – Peso
  - US GAAP – US Dollar



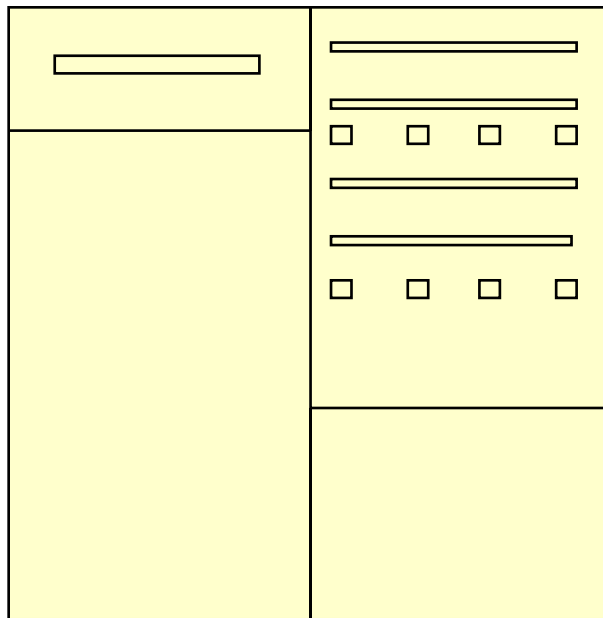
# What is “Real” Cash Flow for Multinationals?

<b>Date</b>	<b>Cash Euro (€)</b>	<b>Exchange Rate</b>	<b>Cash – US\$ Option 1: Δ \$ Cash</b>	<b>Cash – US\$ Option 2: Conversion</b>	<b>Cash – US\$ Option 3: Δ €Cash</b>
Jan. 1	€10,000	1.46	\$14,600		
Feb. 10	10,200	1.50		15,300	
Mar. 1	(10,500)	1.43		(15,015)	
Mar. 31 (actual)	€9,700	1.48	\$14,356		
<b>“Cash Flow”</b>	<b>€(300)</b>		<b>\$(244)</b>	<b>\$185</b>	<b>\$(444)</b>
Change in Cash	€(300)		\$(244)	\$(244)	\$(244)
<i>Exchange Gain/(Loss)</i>	<i>0</i>			<i>\$(429)</i>	<i>\$200</i>

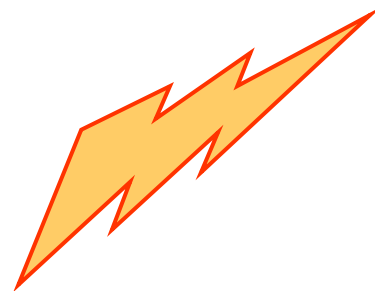
**Question: Which \$ cash flow measure should be used for evaluating the business (or a DCF based valuation)?**

# What Lies Ahead? Investor Analysis

## Speech in 1984: 2001 an Accounting Odyssey



**Company Ledger**



**Investor / Analyst**

# What Lies Ahead? Investor Analysis (cont'd)

## “e-Analysis” ⇒ Fundamental Analysis and Consistency

