



# **The Tr-Ac-Net Organization**

**Transparency and Accountability Network**

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# **Community Accountancy**

**PUTTING ACCOUNTANCY TO  
WORK FOR ALL OF SOCIETY**

# **VALUE CHAIN**

**FOR DISCUSSION ONLY**

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**The Tr-Ac-Net Organization**

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# VALUE CHAIN

## Value chain analysis

Value chain analysis shows who are the winners and losers. The result of value chain analysis can be very powerful ... but because of this it is not always easy to get the data that are needed.

Community Accountancy sets the stage for having much more data on the record that are useful ... and though the data will not be good enough to satisfy legal criteria for criminal guilt ... the data will be good enough to make it quite clear what is going on.

## Value chain analysis for profit maximization

It can be argued that the most powerful tool that MBA training has given to their students is the spreadsheet mathematics to take the inherent costs, prices and values of the value chain and optimize the value chain to maximize profit for organization. These experts know how to move value from various pieces of the value chain and move it into the optimizing organization.

This is a very powerful concept and has facilitated a very rapid and efficient concentration of wealth into large organizations and entities with a minimum of investment.

## Value chain for maximum social benefit

The accounting used for corporate profit maximization does not include social costs nor social benefits. These are both important and are brought into account with Community Accountancy. The costing is not obvious ... but it is pretty clear that some cost needs to be attributed to the consumption or destruction of social value.

### Replacement cost of fossil fuel resources

In the energy industry the fossil fuels that are being extracted originated millions of years ago ... the replacement cost of these resources is unimaginable ... so it gets ignored! This is easy and convenient ... but not a good approach.

We know a lot ab

Cost and price determine profit.

Price for the seller becomes cost for the buyer. This next buyer sells for a new price, and profit is again the difference between cost and price.

Where are the big profits? Where are the losses?

How do valuable raw materials create profit with little benefit to the community of origin?

Value chain analysis shows who are the winners ... those that have small cost and high price. But costs are usually based on simple GAAP concepts and not on Community Accountancy analysis.

When cost is based on the consumption of Community Accountancy value rather than the consumption of GAAP cost and value adding and value destruction instead of profit, there are different results.

## **Value chain and the market economy**

Value chains flow through markets ... but the market is more a fiction than a reality, which is part of why they are so valuable in value chain manipulation and also so dangerous. It is not easy to tell when a market transaction is driven by supply and demand for physical goods, or whether the market is being driven by speculation about future market values, or whether the driver is legitimate hedging against future price movements.

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## Price data

There is a considerable body of data about prices going back a very long time ... but rather less about what these prices mean.

### Learning about prices

When I became the CFO of Continental Seafoods I needed to get an understanding of the dynamic of the industry ... I needed this to be a deep understanding that was likely to be right ... and I needed to get this quickly. I asked a lot of questions and did my best to mine the knowledge of everyone in the company ... and friends of the company, and that was a good start.

I also plotted shrimp prices in the US market month by month from 1946 to 1974. The data were available in a government produced market report ... but taking the data out of a table and plotting it on graph paper told a story. Four weeks into my new job, I knew more than most about shrimp prices ... and this gave me a good insight into the potential for the company as we went forward.

This time series plot told me a lot about the long term trends ... and it told me about price behavior month by month during the year, and how different industry conditions impacted this behavior.

We know a lot about some prices, and rather little about other prices. Some prices seem to be hidden from public view ... and one has to wonder why?

### What prices should be

It is relatively easy to make a judgment about what something should be priced at. From this it is reasonably easy to judge that a transaction reflects a fair price ... and is probably an honest transaction. But that presupposes that it is possible to see the price of a transaction ... and this is usually not the case.

A colleague had a job in one country (around 1988) where he had to review big contract pricing to help reduce corruption and kick backs ... and he did his work very conscientiously. He refused to OK one big contract because the pricing was way too high ... only to have the contract resubmitted again some months later with the price even higher. The explanation turned out to be that now it was going to take even more bribery to get the contract approved!

These are big numbers and the temptation is huge. With very weak accounting and no accountability it is not at all surprising that corruption is endemic and financial control a shambles.

And even where there is publicity about prices, it is not always clear what the information really means ... price disinformation is as common as price information.

#### **Example**

Government data about prices is often obtained using a crude system of telephone questioning ... while it gets the information reasonably right it is not perfect by a long shot. It certainly does not have accounting precision.

I was not told about this until after I left the company ... but it turned out that whenever we had a large stock of a specific item we advised the price surveyors that this particular product was selling at a particularly high price ... and when we had low stocks, we reported that the market price was low. In the real world we were then able to discount the one item below market and move the product and overprice the product we did not have, and not be embarrassed by the lack of inventory.

It did not distort the price statistics that much ... but it certainly was a clever little ruse to help keep product moving!

## **Transfer prices**

Prices are critical to corporate profit ... which in turn has a disproportionate impact on value as measured by capital markets.

But price is transient ... and just a part of the data needed to understand and record an economic transaction. It does not matter much if one barrel of crude oil sells for \$200 a barrel ... but it matters very much if 100 million barrels of crude oil sell for this price.

In value chain analysis, the transfer price determines how the value adding is shared between the entities in the chain it is very important. Because of its importance very little information is available about transfer prices. The idea that the “market” determines the price assumes a high degree of information and this is rarely the case. Transfer pricing serves those that have the control.

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## Profiting from the value chain

One of the ways in which profits are maximized is by using the value chain to get profits domiciled where they most benefit the company.

Outsourcing from a high cost location to a low cost location results (rather obviously) in lower costs and therefore higher profit.

### Example

In a practical situation, however, lower costs may be offset by some inefficiencies and other issues. In the 1970s, I pulled back production that had been outsourced to South Korea from the USA. Production cost savings were offset by the costs associated with unmanageable supply chain logistics and rapidly changing consumer tastes.

Value chain can be used to move profits from one legal entity to another ... this may have tax or other financial advantages.

### Tea auction – Malawi (as of 1989)

If you are a tea grower in Malawi, your product is sold for export through the Tea Auction. The idea is that this auction price is a market determined price that will maximize the amount paid to the tea industry in Malawi. Up to a point, this is right ... but there is a substantial part of the Malawi production that originates from estates owned by international tea companies. These companies have to sell at the auction ... but they also want to have tea for their international business. As tea distributors they want low prices ... and if low prices mean that the estates get less profit it does not matter much ... in fact it helps because they get less problem with local taxes and with the repatriation of profits.

Value chain can be used to make profit performance look good but not mean much

### **\$200 Sneakers (as of 2002)**

It costs about \$2 to make a pair of sneakers in China and a number of other low wage countries. Manufacturers make a good profit by selling a lot of them at (say) \$4.

But the profit made by manufacturing is tiny compared to the profit made by the marketing organization and the wholesale and retail system in North America or Europe. Retailers have a very comfortable markup ... and so do the wholesalers and the marketers. They have expenses to keep their "brand" popular ... like sponsoring high profile stars ... but everything in this part of the value chain is about perception and not about the essential substance.

The added value substance happens at the manufacturing stage ... only value perception gets added subsequently. Over time perception loses its value and at the limit there is not much left.

### **Substantial wealth versus perceived wealth**

It used to be said that the UK was a nation of shopkeepers ... a sort of back handed compliment meaning that everything could be found somewhere in the shops in Britain. But in fact, it was manufacturing and trade that made the nation's wealth ... and a very aggressive spirit of enterprise and willingness to make investments.

Much of Britain's wealth was generated from end to end value chains that added up to deliver profit ... and a growing pool of capital to invest. The value chains were global, even though, compared to today, the technologies of transport and communications were primitive.

The industrial revolution also created wealth in United States ... in some ways bigger than in Europe ... but the country was still relatively small. Certainly bigger than say, the UK, but not bigger than the British Empire. The pound sterling was a much bigger international influence than the US dollar.

Modern macro-economic measures do not differentiate adequately between the GDP at the manufacturing level and GDP at the pre- and post manufacturing stages. With the prevailing system of metrics the sneaker contributes more to the global economy while it is sitting on a ship, or on trucks or in warehouses and retail stock-rooms than during the manufacturing process. This is patently absurd.

# Value Chain – Oil and Gas

Land  
Mineral rights  
Establishing a legal framework  
Geological data  
Exploration concession auction  
Exploration

Production concession auction  
Test drilling  
Production drilling  
Pipelines  
Storage  
Royalties  
Flares  
Air pollution (flares, gases)  
Water and ground pollution (oil)  
Oil field supplies  
Drill casing  
Drill mud  
Drill pipe  
Drill bits  
Pumps  
Derricks  
People  
People services – hotels / entertainment  
People services – food / water / clothing  
Oil storage  
Oil export terminals  
Crude oil transport – tankers  
Crude oil transport - pipelines  
Oil import terminals  
Oil storage  
Pollution  
Refining  
Refined product storage  
Refined product transport – pipeline  
Refined product transport – tanker truck  
Refined product transport – tanker ship



## Value Chain – Oil and Gas

Item	Community	National Interests	Local Investors	External investors
Land	Traditionally an assets of the community and the people ... now the basis of a culture of property rights based on new laws			
Mineral rights	Under modern law are deemed to belong to the nation			
Establishing a legal framework				
Geological data				This is the key to getting results from investment in exploration and drilling.
Exploration concession auction		This is the key to getting wealth flows accruing to national interests . How is this received? How is this accounted for?		A necessary investment. How is this paid?
Exploration				A necessary investment
Production concession auction		This is a second key to getting wealth flows accruing to national interests . How is this received? How is this accounted for?		A necessary investment. How is this paid?
Test drilling				A necessary investment
Production drilling				A necessary investment
Pipelines				A necessary investment
Storage tanks				A necessary investment

<b>Item</b>	<b>Community</b>	<b>National Interests</b>	<b>Local Investors</b>	<b>External investors</b>
Royalties		How is this received and accounted for?		How is this calculated? How is this paid?
Flares – air pollution	Pollutes the local area			Cheapest way of handling gas that cannot be processed
Water and ground pollution (oil)	Pollutes the land, pollutes the water. Kills the fish. Destroys livelihood.			
Oil field supplies Drill casing Drill mud Drill pipe Drill bits Pumps Derricks			Opportunity for others to be suppliers	Need to be purchased and used all the time
People	Few local people have training and experience needed for the available work		Some employment generated in the services and support businesses	Most critical staff are international and very well paid
People services – hotels / entertainment			Opportunities for local business to provide services	
People services – food / water / clothing			Opportunities for local business to provide services	
Oil storage				A necessary investment
Oil export terminals				A necessary investment
Export taxes, fees		How is this received?		How is this paid?
Crude oil transport – tankers				A necessary investment
Crude oil transport - pipelines				A necessary investment
Oil import terminals				A necessary investment
Oil storage				A necessary investment
Pollution	Local pollution a matter of course ... nobody cares			Expensive ... very low public tolerance of pollution in any

<b>Item</b>	<b>Community</b>	<b>National Interests</b>	<b>Local Investors</b>	<b>External investors</b>
				form
Refining				A necessary investment
Refined product storage				A necessary investment
Refined product transport – pipeline				A necessary investment
Refined product transport – tanker truck				A necessary investment
Refined product transport – tanker ship				A necessary investment
Distribution depots				A necessary investment
Gas stations				A necessary investment

## Profiting from the Value Chain – Oil and Gas

Item	Community		National Interests		Local Investors		External investors	
	Case A	Case B	Case A	Case B	Case A	Case B	Case A	Case B
Land								
Mineral rights								
Establishing a legal framework								
Geological data								
Exploration concession auction								
Exploration								
Production concession auction								
Test drilling								
Production drilling								
Pipelines								
Storage								
Royalties			100					
Flares								
Air pollution (flares, gases)	-10		0		0		+10	
Water and ground pollution (oil)	-10						+10	
Oil field supplies								
Drill casing								
Drill mud								
Drill pipe								
Drill bits								
Pumps								
Derricks								
People								
People services – hotels / entertainment								
People services – food / water / clothing								
Oil storage								
Oil export terminals								

Item	Community		National Interests		Local Investors		External investors	
	Case A	Case B	Case A	Case B	Case A	Case B	Case A	Case B
Crude oil transport – tankers								
Crude oil transport - pipelines								
Oil import terminals								
Oil storage								
Pollution								
Refining								
Refined product storage								
Refined product transport – pipeline								
Refined product transport – tanker truck								
Refined product transport – tanker ship								

### **Monopoly control**

Everyone has heard of the story of John D. Rockefeller and Standard Oil. It is amazing how much money can be made when an organization gets monopoly control of the value chain. And amazing also, that so little has been learned from that experience.

One of the lessons is that monopoly is powerful ... and laws do not work very well unless they are very carefully crafted. Most statutory laws are notable not for what they control, but what they allow ... whether this is because of sloppy lawmaking or because the lawmakers know exactly what they are doing is a matter of opinion.

### **1970s – new oil and old oil**

The oil shock of 1973 was a wake up call ... and not surprisingly Washington went to work to legislate a solution. Part of the solution was going to be the profit incentive and removal of price controls over domestic production of oil and gas.

Oil from oil wells that were already producing was to keep the old price. Oil from new wells could be sold at the (then much higher) prevailing market price.

Not surprisingly production of old oil declined and production of new oil increased ... never mind the timeline for creation of new wells was months and years, but the change took place in days. Did the legislators know this was going to happen and give great profit to (their friends) the oil industry? Clearly this was good popular legislation because the old price controls were kept in place, and high price incentive was only allowed for incremental new production that was needed ... or was this just a sham?

### **1970s – Foreign Corrupt Practices Act**

In the aftermath of the 1970s oil shocks, a new era of international profit opportunities emerged. For the first time in history there were many governments that had previously unimaginable wealth ... the oil exporting countries ... and the world's entrepreneurs wanted to tap into this market.

Bribery, kickbacks, etc. emerged as the marketing modality of the era ... but it was found offensive by much of the public when the media started to tell stories. Stories about Lockheed were everywhere ... but not much about Boeing. The American press has all sorts of stories ... but not so much in the European press.

Washington had to do something ... and this something was the Foreign Corrupt Practices Act. I am not a lawyer but I get the impression that this law, like so many others is big on PR, but rather irrelevant in terms of addressing the underlying core problem ... and it is relatively easy to step around.

Getting control of a value chain is enormously valuable ... this is true with the oil value chain ... it is true with any market where there are a limited number of competing entities.

# Value Chain – Coffee

## **Production**

Land  
Prepare land  
Plant coffee  
Tend growing trees  
Harvest coffee

## **Post harvest activities**

Transport coffee  
Wash coffee beans  
Dry coffee  
Transport coffee  
Store coffee  
Process coffee  
Grade coffee  
Store coffee  
Taste coffee  
Store coffee  
Auction coffee – physical auction  
Auction coffee – futures  
Transport coffee  
Export coffee  
Insure coffee  
Ship coffee  
Coffee market futures  
Store coffee  
Roast coffee  
Grind coffee  
Package coffee  
Wholesale coffee  
Transport and distribution  
Retail coffee – coffee shop  
Retail coffee – store  
Consume coffee

# Value Chain ... Fair Trade Coffee

The Fair Trade movement has become popular ... but is it a value adding initiative of something that merely adds to the complexity, adds to the cost and really does not do very much good.

## The Fair Trade Value Chain

I watched a TV documentary about Fair Trade (probably in 2005) which followed some foreign buyers as they toured through Central America on a Fair Trade buying trip. The narrator pointed out that this was very important to the villages being visited, because if their quality was acceptable to the buyers they would get the higher Fair Trade prices.

So far so good ... but the narrator did not answer the question about what price the village would get if the quality was not good enough! The data included in the documentary seemed to suggest that Fair Trade was mainly marketing PR and hardly relevant for farmers.

### Production

Land  
 Prepare land  
 Plant coffee  
 Tend growing trees  
 Harvest coffee

### Post harvest activities

Transport coffee  
 Wash coffee beans  
 Dry coffee  
 Transport coffee  
 Store coffee  
 Process coffee  
 Grade coffee  
 Store coffee  
 Taste coffee  
 Store coffee  
 Auction coffee – physical auction  
 Auction coffee – futures  
 Transport coffee

	Fair Trade ... how much of the post harvest value chain is Fair Trade?
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Export coffee  
 Insure coffee  
 Ship coffee  
 Coffee market futures  
 Store coffee  
 Roast coffee  
 Grind coffee  
 Package coffee

	Fair Trade ... Fair Trade certification fees ... who gets this money and what is it used for?
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Wholesale coffee  
 Transport and distribution

Retail coffee – coffee shop	Fair Trade ... higher prices
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Retail coffee – store	
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Consume coffee



# Value Chain – The Housing Business

Land  
Land acquisition for development  
Planning approval  
Development permits  
Impact studies  
Utilities – electricity  
Utilities – water  
Utilities – sewage  
Utilities – solid waste disposal  
Infrastructure – roads  
Infrastructure – drainage  
Services to properties  
Services to people – education  
Services to people – health  
Services to people – transport  
Services to people – unemployment insurance  
Services to people – retirement insurance  
Land as lots  
Building permits  
Build house  
Finance house building  
Buy house  
Finance house purchase / ownership  
Legal work around real estate transactions  
Title search  
Title insurance  
Attorney for the bank  
Attorney for the developer  
Attorney for the owner  
Certificate of occupancy  
Inspections  
Sales of mortgage to another financial institution  
Bundling of mortgages into another financial instrument  
Bond rating agency  
Bond insurance  
Resale of mortgage bundle to another financial institution

Default on mortgage payments  
Cash flow from mortgage payments drops  
Value of mortgage paper drops  
Contact between mortgage owner and borrower / homeowner  
Attorney contact  
Courts  
Foreclosure  
Move out  
Property empty  
Auction ... sheriff sale  
Owner in new place

# FUND FLOW PROBLEMS

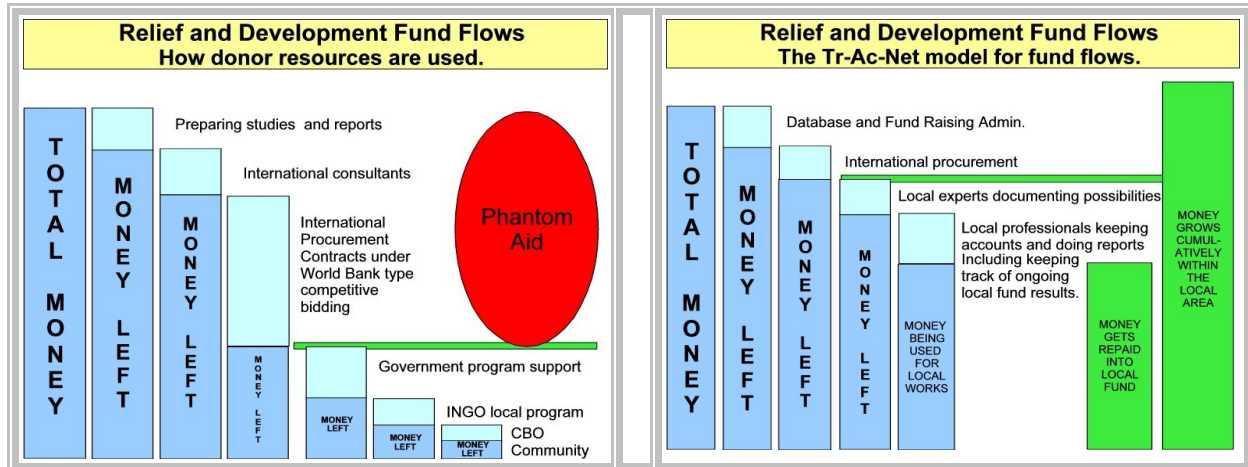
## Phantom Aid

The amount of money being raised for international relief and development assistance is huge.

Fund raising in the aftermath of natural disaster is impressive, and shows how supportive many people are of development initiatives.

But sadly the relief and development industry is less than candid about how the resources are used and what is being accomplished.

In 2003 a well know UK based NGO named this Phantom Aid. Some years before the phenomenon had been described as “Black Hole Development” implying that no matter how much fund flow there was, the results would still be the same!



## Value destruction

The amount of money that gets spent and the amount of good that gets done seems to be more and more unrelated. Five decades or more of teaching MBA students about ways to maximize profit without teaching much about society has created a very large community of experts in profit maximization and hardly anyone that has a deep understanding of the social costs and value destruction associated with this economic paradigm. The problem, however, is worse, because the relief and development industry has many people well trained in various other disciplines, but with rather little training in this dimension of economics ... and even less trained in accountancy..

## Focus on disbursement ... on activity

Metrics ought to serve the needs of society ... but the easy metric that has been important in the Breton Woods institutions and their development clones has been disbursement. While there are cases where disbursement is a useful proxy for results, this is not so when it is used to the exclusion of almost anything else. Disbursement serves as a fairly good proxy for activity ... but neither can stand in for result other than in a very controlled and stable environment. Development, when it is successful, is not stable, but progressing ... and the only metric worth having is a measure of the results.

## Sovereignty ... anything goes

The idea of sovereignty that embraces the independence of a people from a foreign power is good ... but the use of the idea of sovereignty to allow a regime of “anything goes” is not. People are being treated abominably by governments and elite leaderships ... and external interference is constrained by the idea of sovereignty. At what point does doing right become the driver of meaningful action?

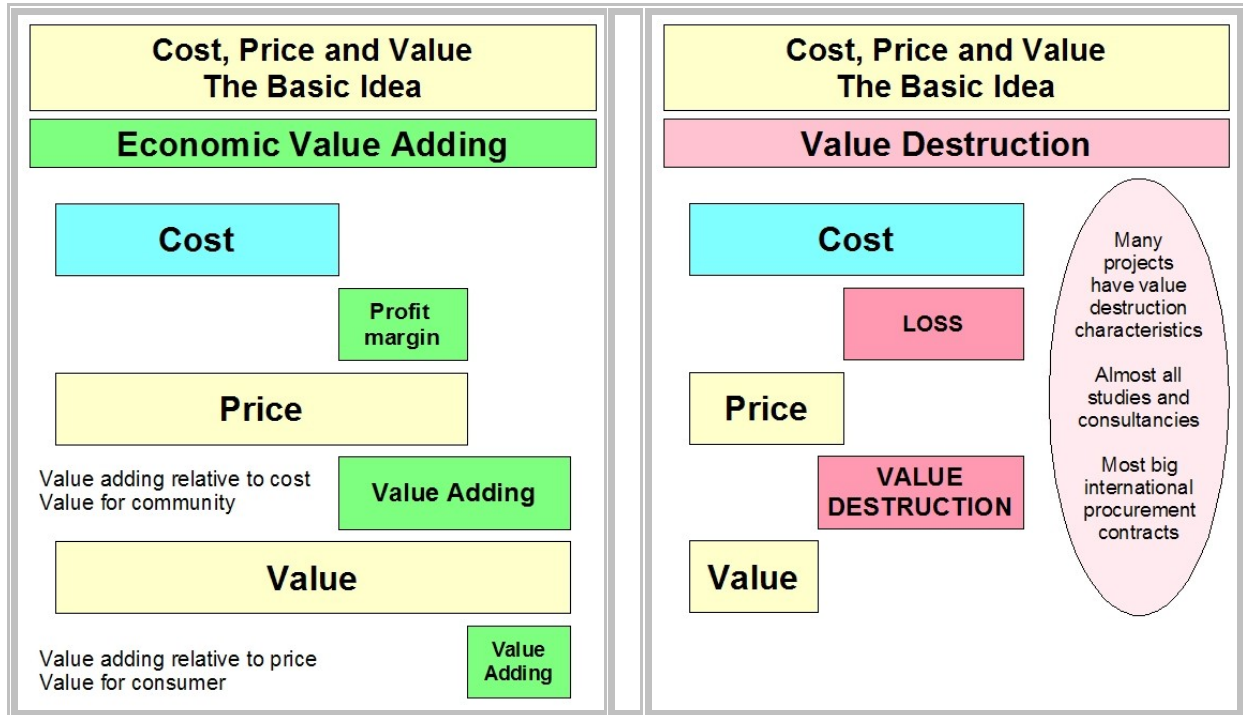
## Weak financial controls

Weak financial controls has been endemic and as a result all sorts of resources have gone missing ... stolen money ... stolen inventory ... over invoicing ... under delivering. Embezzlement of all sorts ... petty corruption and grand corruption.

# UNDERSTANDING COST AND VALUE BEHAVIOR

## COST, PRICE AND VALUE AND VALUE CHAIN

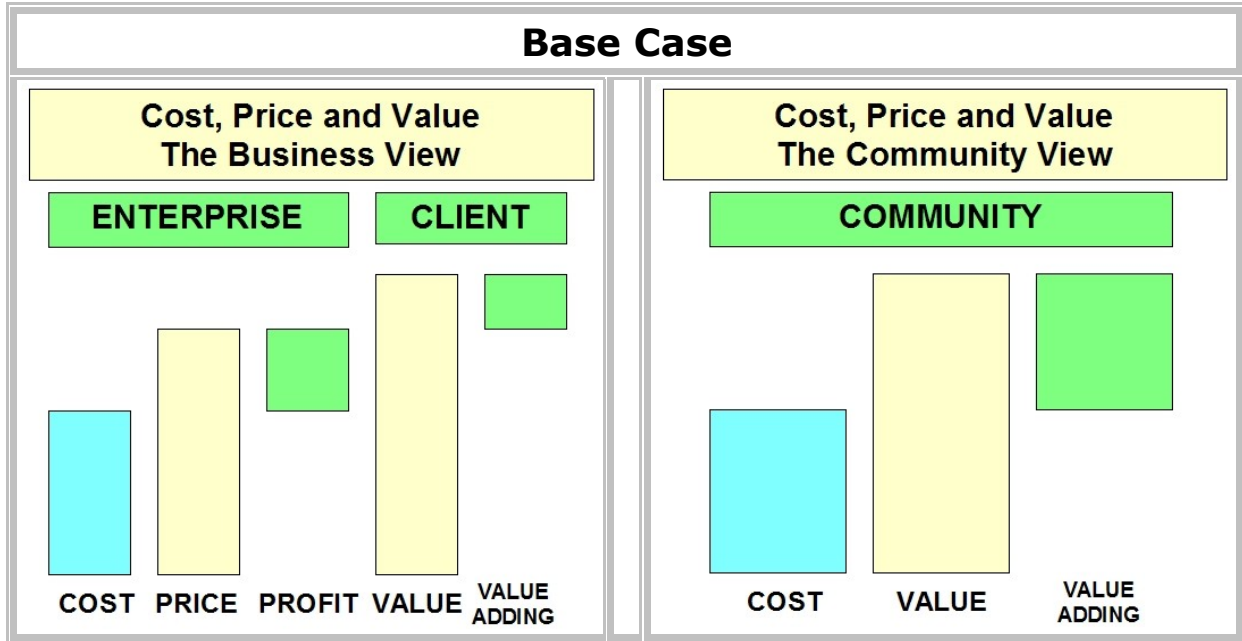
Price has an important role in the matter of economic incentive ... and the question of sustainability. The value chain works and is efficient when the transfer pricing through the value chain provides a reasonable rate of return on capital employed within each piece of the value chain. If any of the links in the chain become unprofitable, the value chain becomes dysfunctional.



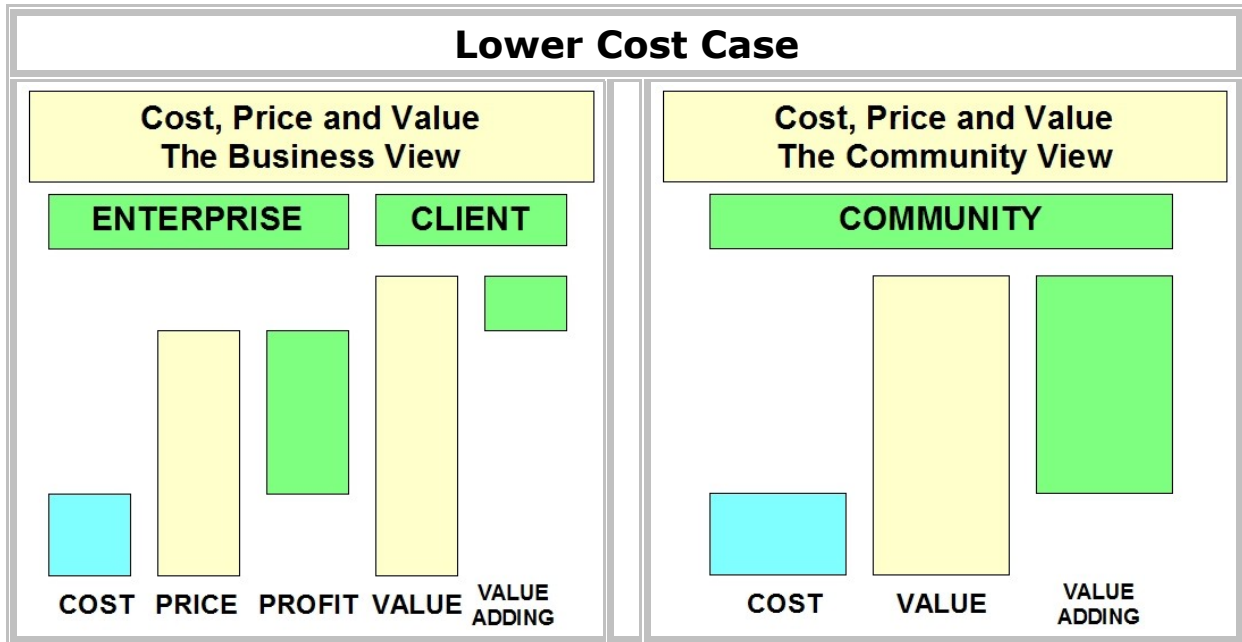
## HOW PRICE IMPACTS COMMUNITY

Price is a key variable in the performance of society. It is not as important as cost, but the way price is used in society determines the way value is shared between the various economic actors. The following graphic shows how an economic transactions that has costs and value is shared between the enterprise and the client depending on the price being applied to the transaction.

For society as a whole the value adding is the difference between the value and the cost. For the client the value adding is what is left of value adding after the enterprise has taken out its profit. In the profit maximizing enterprise the goal is to have profit as much as possible, and the amount left in the hands of the client is of little consequence.

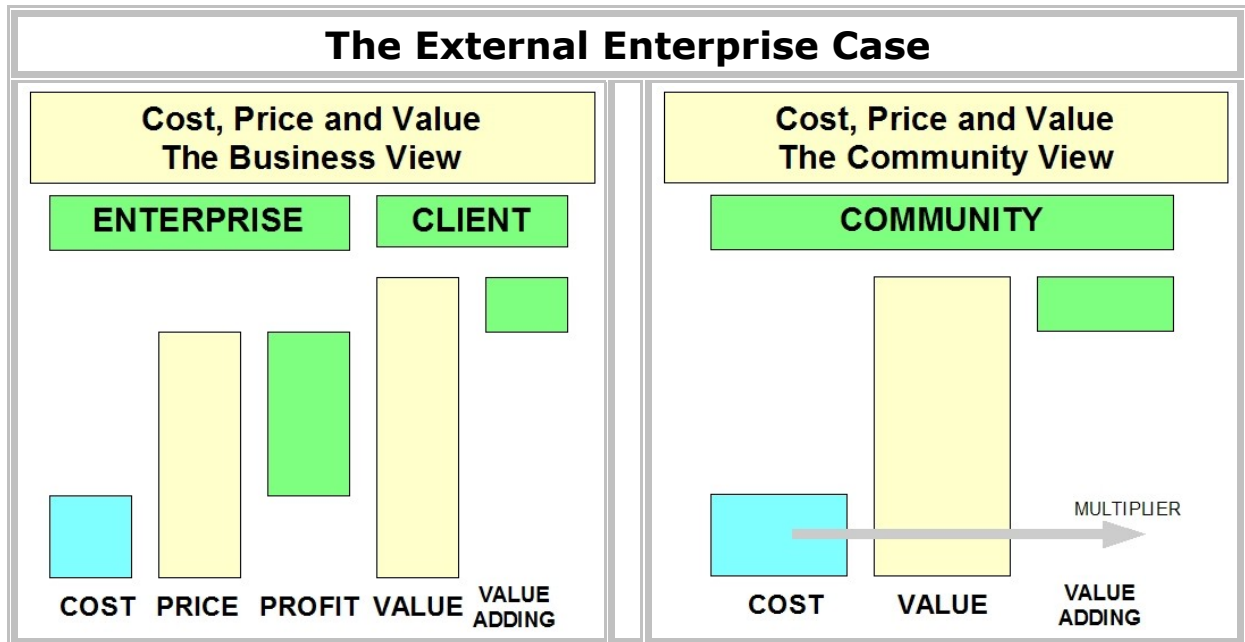


In a lower cost case the enterprise profit increases at the same price point ... and the amount of value derived by the client stays the same.



If the client and the enterprise are in the same community it does not matter so much whether the client or the enterprise has what share of the value added ... but where the enterprise is from outside the community it matters a lot. In the case where the enterprise is external ... the case of Foreign Direct

Investment (FDI) for example ... the value adding for the community is small because the profit leaves the community. If the costs are incurred in the community there is some multiplier effect ... but typically local disbursements are small and most of the costs, as for example in mining are equipment, fuel, expatriate payroll .... with rather little value for the community.



## Value chain

The value chain is very well understood in the corporate sector, and there has been very effective profit improvement for the corporate sector by taking advantage of all sorts of cost improvement opportunities in manufacturing to improve the profit bottom line.

But the deep knowledge of the corporate value chain is not matched by anything like the same amount of understanding of the value chain as it impacts social value and the impact of corporate activities on society.

### Example

The relocation of manufacturing from the United States to China has been very profitable ... but what are the costs to society that do not figure in the corporate accountancy. Nobody has been doing Community Accountancy and nobody knows. We do know corporate profits increased as more and more manufacturing was outsourced to low cost areas. We do know something of the job creation in these low cost areas and we do know something of the job losses in the places where manufacturing plants were closed ... but what we know is far less than what we need to know. We do not really know very much at all about the impact on the communities --- this is not part of a system of metrics, and only part of what we need to know is on the record.

### Value Chain

Al Gore on July 17th, 2008

"We're borrowing money from China to buy oil from the Persian Gulf to burn it in ways that destroy the planet," he said. "Every bit of that has to change."

### Example

Over the past 30 years the USA has taken apart most of the regulatory framework around banking and the capital markets, with very good results reported by the institutions in the sector over this period of time. The good results do not, however, take into account the costs of the periodic failures of big institutions in the sector (Continental Illinois) and whole segments of the sector (Savings and Loan). But worse they do not take into account the wealth that is merely removed from one segment of society to become profit in the banking and finance sector. The sub-prime mortgage crisis is just the latest in a series of moves over the years by the banking and capital market industry to concentrate wealth in their sector at the expense of society as a whole.