

The Flow of Fuel

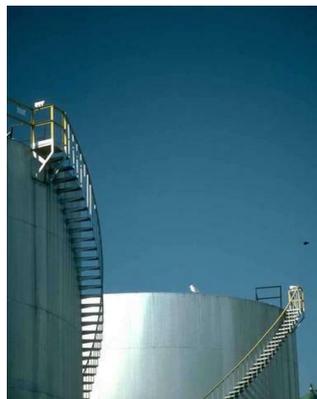
"America is Motivated by the Fuel that Drives Us"

By Lance Winslow – 2001

Without it, without the ***Flow of Fuel***, our very mobile society comes to a complete stand still. When the supplies get low and the free-markets dictate higher prices; every one of us feels the pain in some way. We are effected no matter where we live, what we do, where we go, what we drive, where we live or who we are. This is because the economics of supply and demand affect every flow that we know.

The price of fuel in the transportation sector that delivers to us the things we need and desire is added on to the prices of those items effects every item that we purchase, buy, beg, borrow, steal or trade. Why, because it was delivered by a truck, train, plane, automobile, ship or other form of transportation and many times a combination, all of which use fuel. Please read ***The Flow of Transportation*** essay in this series.

In the future when new innovative types of transportation will not require such fuels, and yet, this will still affect us in some way. This could be in a negative or in a positive way, of course all this will be due to future transportation options becoming obsolete and therefore less competition in the sector. This again will be due to the supply and demand of the fuel that the new innovative transportation vehicles do not need. When a vehicle can deliver its products or services without fuel, then it's place in the transportation mix will go up in demand. This is because; when the price of fuel for competing transportation goes up, more usage will be placed on it to meet such demand.



We see today a fierce unspoken competition between trucks and trains. It is well known in those industries and with those who ship the products, components, parts, natural resources, produce and event the fuel itself. After all, the fuel competes for the cheapest mode of delivery as well; whether it is a pipeline, rail car, tanker truck, ship, barge, etc.



In the case of military, you can add in all the squadrons of flying gas stations too. The price of fuel can be the savior to an industry which is hammered by overseas competition or is trying to find a little more room to cut costs to appease a persnickety union with greater health care costs, safer working conditions (at least they often claim that), less working hours, more paid vacation time, bonuses, higher pay, etc. The money has to come from somewhere and the price of fuel and the supply will often determine the viability of a large corporation. Those companies, which use lots of fuel will be very much affected by these trends for instance; Airlines, Trucking Companies, Railroads, Manufacturing Companies, and Service Companies of every shape and size.

When these companies pay more for fuel those prices are figured into the price to the customer. When such companies have long term contracts to a customer and the price moves upward to quickly then these companies have to eat that cost. This causes huge operational losses and poor quarterly earnings, which effects their market valuations due to hammering by the gambling casino stock markets when they report these losses.

This in turn leads to massive lay-offs, which is not a good thing. If you have been laid off recently, you may wish to look at your companies supply chain and distribution both too and from and the use of vehicles which use fuel and determine if high fuel prices is a part of the reason or another large factor in the fact you were laid off. Even companies you might not even think of are very much affected by fuel; Telecommunication, Cable, Garbage, Utility and even Pharmaceutical companies have vast fleets of vehicles.

Today we see two massive Labor Union disputes in the fire-ridden state of California. One is the RTD - Rapid Transit District, which uses tons of diesel fuel per minute. So where will the RTD get the money to pay the workers more if the fuel prices are so high? Well last time they went on strike for five weeks and the RTD wanted to slow down talks because they were saving 5 million dollars in fuel every day the strike was on.

Therefore, the longer it lasted the easier it would be to meet the demands of the striking workers. This leads to even more problems since the entire flow is disrupted by those who are suppose to be insuring the safe flow of transportation. Please read *The Flow of Transportation* essay in this series.



Of course when people cannot get to work, buy things or go to school, other things suffer too. For instance; the store owners in lost revenue and the cities, counties and state in lost sales tax revenue; the State of California Franchise Tax board in lost income tax of the workers who did not work; the schools who are reimbursed for their budgets based on attendance and enrollment numbers by the state and the colleges which derive income from tuition which now have more drop outs; the student loan programs because people who do not go to school obviously do not feel they should be paying for it; and we all pay in increased time stuck in traffic causing increased poor air quality because many of the people riding the buses now drive or pile into other peoples cars which make more trips.

Generally the pollution of cars carbon monoxide from the burning of gasoline is twice as bad for people than the CO2 from the bus burning diesel fuels. Many city buses today burn natural gas, some are electric, ethanol and believe it or not hydrogen. The beef with the bus drivers is they want more money? Yes so does everyone, but we are all in the same economic ball of wax so now, we destroy the credibility of the transportation system and hurt the taxation input of a strapped for cash state.

Although this is only one of the more recent strikes, the other being the grocery union. Grocery stores have huge distribution centers and some of the largest fleets in the nation. Safeway, now Safeway-Vons stores had at one time the second largest fleet in the nation hauling its own product. Ten years ago; Safeway had 3600 trucks and Vons had over 2500 making a total of 6100 trucks or units, now Wal-Mart blows away that number. When the grocery stores stop, the trucks stop, the stores close, which is okay because no one can get to work on the bus anyway?



Who is going to use all that fuel of the buses and grocery trucks, which are parked? Will this lower fuel costs, due to oversupply? Yes, but this is only temporary as the crude oil, refining capacity and the commodity markets are all other components of the supply and demand issues. The reason we bring this up is to demonstrate that the flow of fuel affects everything we do in life; our jobs, families, school, work and safety; not to mention our food, shelter and clothing.

If you will think for a second everything you eat, every piece of plywood in your house and piece of clothing you wear was transported to you and folks that took fuel. The cost of that fuel is figured into the price of your new sweater, nails and roofing material over your head and the Starbucks coffee you drank and the McDonalds Hamburger you ate.

Generally when the average person on the street thinks of fuel, they think of gasoline in their car and the prices at the pump and how much it takes to put the hand of the dial on "F." One Oil Man we recently interviewed from Texas, with wells in Oklahoma, Texas and natural gas wells in Louisiana was blown away after driving around in LA. He said;

"I cannot believe the amount of cars in Los Angeles and Southern California, I did not realize that we had that much oil to make into gasoline for all those people to drive around like that!"

Think about it for a second; he is in the oil business. There are many types of fuels besides that gasoline we put in our cars and use to cruise around. It is only the first that come to mind when we think of fuel; "Gasoline" for my car. We mentioned a little bit about the Diesel Fuel for trucks. It is a huge amount of fuel. Think how many trucks there are on the road? All the independent truck drivers with those fancy rigs getting just about 5 mile per gallon depending on terrain, speed and wind.

Then of course the huge fleets of the grocery chains and giant companies like Wal-Mart; you have Publix, Albertson's, HEB, Kroger and Piggly Wiggly, which all with enormous fleets of their own. Then you have the large contract carriers like Swift, JB Hunt, Werner, Covenant, US Express, Dick Simon, etc. and the LTL Carriers- Less then Load Companies with gargantuan fleets and even with all the consolidation of companies like; Fed Ex Ground buying up Viking, American Freightways and others to form the third largest LTL; the mega merger of Roadway and Yellow Freight; the bankruptcy of Consolidated Freightways; these fleets have continued to buy fuel to get the products to market, deliver the materials and components to keep the world's economies turning.

All this is made possible because the fuel is readily available at price threshold that is livable. Without it America stops. There is a saying in the trucking industry with those that accuse the truckers from getting on the freeways and holding up traffic;

"If you take the trucks off the road the shelves in the stores will be empty in four days,"

This makes truck drivers and the trucking industry feel good about themselves, so it serves a purpose. The truth is the shelves would be totally empty in 5.5 days and people would starve within the week. Three weeks and there would be anarchy in the streets, yes even the middle class suburbs. At that point you might just wish to have a friend who drives a truck, because the new world order would be that of *Road Warrior*. If you look at the huge moving company trucks with this latest housing rocket ship, layoffs causing people to move to other accommodations, enrollment peaks as those laid off go back to school, you a large market sector using more fuel. And really we are just scratching the surface of trucking and surface transportation where the tires meet the road.

How about companies like UPS and Fed Ex Air, talk about market power and vehicles. Fed Ex and Ups are approaching 35,000 vehicles each. How much fuel is that? It is so much they can afford to look at alternative sources and fund R and D projects to reduce their costs in fuel. UPS recently decided to put in Hydrogen stations at every terminal for their double and triple truck units. Fred Smith, Chairman of the Fed Ex Companies said that if a company could deliver a vehicle that would use 50% less fuel and 90% less emissions he would order 19,000 of them. He lied they are now ordering 35,000.

The company grew a little between the offer and the accomplishment. Just in case this does not impress you, we will be glad to be impressed for you. The free market is finding ways to deal with the issues in the flow of fuel. It does not take long on a busy corner in a busy city to see that one in three vehicles is a business or a government vehicle. A school bus, cable installer pick-up, limousine, post office LLV (new jeep), dog groomer, meter reader, taxi, car wash guy, telephone company van, garbage truck, shuttle bus, pizza delivery car, package delivery van, rent-a-car, police car, armored car or a hot dog car towing a cart. This is before we even discuss the fact that in many households there are as many registered vehicles as members of their family, including the family dog or cats.



America's love of the automobile comes with issues of fuel and this is why the supply and the flow of the fuel should be among some of our top priorities. Recently in Arizona an old pipeline owned by Kinder Morgan sprung a leak and left the city of Phoenix in a problem situation. No fuel for cars. The problem went from serious to critical in less than two days. We saw first-hand that service businesses stopped, people could not get to work, school, doctors office, etc. It certainly got the attention of every man, woman and child within in that period.

The problem lasted a week. Trains, trucks loaded with fuel tried to keep up the supply, but they started from behind the curve and could not possibly keep up. Many gasoline stations had already run out of fuel and people were running out of gas, while looking for a gas station still open. The sides of the freeways were full of parked cars, yes you guessed it with scribbled signs written on note book paper, pieces of car board and backs of hand bills set between the windshields and wiper blades; "out of gas." Still think the flow of fuel is funny?

In the buffet of essays on the *Flow of All We Know*, fuel rates up there at the top, doesn't it? The other heavy users of fuel are not as often thought of. But let's look at them for a second. While we are talking about surface transportation, let's talk about trains. The railroad has always been a big part and played an even larger part in the flow of fuel even before the locomotives used fuel. Even back when the trains were steam driven from coal.

The Flow of Fuel is very important and no one can argue that, better than Rockefeller. As you know he was a master of the flow, all the way down to controlling his cost and his competitor's costs on the rail lines. By forcing restrictions on the distribution systems it was hard to compete and many an Oilman sold their companies to the "streamline by the numbers former accountant with the impeccable books."

Before you continue this discussion please go read the life story of Rockefeller and Standard Oil Company, then you may continue. Now let's continue, today the railroad is a big user of fuel and the railroad is responsible for much of the major movement of fuel as well as the natural resources in our country. The railroad delivers fuel to terminals for trucking companies, without the railroads it would be difficult to supply the trucks with the needed fuel. Pipelines only go to so many places. The railroads move chemicals out of the refineries, compete with them and their vendors to deliver the fuel and deliver to the trucking terminals, which are not near pipelines, while the railroad competes with the trucking companies to deliver products to the market or manufacturing companies.



Then in the last decade or so you have seen an increasing amount of piggy back trailers from trucks on the flat bed railcars moving across the country due to high fuel costs, insurance costs, interstate trucking regulations, trucking unions, driver hour restrictions, road construction destroying equipment or slowing the traffic flow and shortage of qualified drivers. As all these methods compete in the market and for fuel, they also complement each other providing our great nation with much redundancy, which at times seems wasteful, but in this newest era of the treat of International Terrorism, makes it nearly impossible to stop the turning wheels of industry, energy and commerce. The entire system moves on the flow of fuel.

The railroad companies can buy large amounts of fuel and store it and move it cheaper and has an inherent edge on the trucking industry and whereas the railroad is more efficient than the trucking industry, the tracks do not go everywhere. Also the loads need to be larger to make it worthwhile. So even if the railroads are more efficient the shipments must be broken down to get to their final destinations. Thus you will always need both forms of transportation, which are the two of the largest private users of fuel.

The other huge user of fuel is the airlines. Fuel costs are higher than even the cost of the aircraft. Airline tickets and airlines live and die on their ability to number one fill up planes and number two, manage their fuel costs. Discount Airlines have been able to keep flights full in order to order to cover costs and keep prices low, but are hurt in quarterly earnings every time fuel prices increase. <http://www.parthe.net/cwg0703/0000004f.htm> When fuel prices stay high, you often see massive downward spirals and negative sector rotations in Airline Stocks. Again it is all about the flow of fuel. It is of interest when we hear talk of our National Debt and how important that is. "A Nation is not in danger of financial disaster merely because it owes itself money."

The flow of fuel is several times more important than that, because with proper flow and economies of scale, everything works better and everyone wins. Consumers have lower prices and more choices; governments have greater tax revenues due to more commerce and more jobs paying into the system; industry has higher profits and more money to expand; the stock market moves upward provided greater benefits for those who bet on a strong America and therefore greater investment in new companies which provide innovation and research and development to improve the flow of everything we know.

Speaking of the benefits of the flow of fuel to government in the tax revenues, just think of all the fuel the government uses at all levels? Incredible amounts at every level; so incredible that they along with private enterprise spend millions of dollars trying to figure out more efficient methods. The military uses so much fuel it has its own reserves and oil fields and contracted out refineries. It has about enough supply for the entire country for 60-90 days depending on our conservation levels in a crisis situation. Fighting a war takes a tremendous amount of fuel. The modern Aircraft carriers use nuclear power, like the submarines, but the rest of the world's greatest arsenal uses fuel of various types. And they are always testing different fuels to increase performance in different situations.



These reserves have been used when OPEC plays hardball creating fuel prices above our ability to operate our industries and businesses and keep America employed and the wheels of commerce turning. Opening up the floodgate of supply, lowers the prices and puts the cartel in check. If not certain businesses become un-viable when fuel prices go too high. Often people will say that certain wars are only about oil. Obviously this is not the only reason, but even if it were, judging by our need for the proper supply and flow of fuel and the fact that if America stops, America starves, it would appear such a war over resources is justified no matter how you slice it.

Wars have been fought over land, slavery, gold, arms, drugs, trade, religion, territory, practice, race, currency, food, water, resources and fuel. Killing of your own species seems like the wrong way to go about such a situation, but since only one percent of the total humans who have lived on the planet, the flow of fuel is surely a better reason for a war than many of the previously mentioned. Although it certainly is no way to run a world filled with neighbors, friends and trading partners. Many a culture has been accused of goosing another in trade disputes and even this week we see our friends and allies trying to play the upper hand in questionable trade tactics over all kinds of important commodities. Please read *The Flow of Trade* essay in this series.

It is interesting the OPEC Nations and the cartel, which affects the quality of our daily lives, personal success, the number of people who can enter our middle class, and all of our businesses and industries including your job. In our country we have rules about monopolies that we enforce on every large super heavy weight business in every industry. Above we asked that all those continuing this discussion read the book on Rockefeller. If you have already read that book then you understand the remaining points and why we bring up the importance of flow and we are discussing it and comparing it to OPEC.



Rockefeller was beholden to the market place and the supply and demand issues of the day. If his price got too far out of line, then others would jump into the game. OPEC constantly screws with our supply, much worse than the anti-trust issues of yester year. If it is okay today for OPEC to play these games then certainly Rockefeller did nothing wrong, as a matter of fact, I have never heard of such an important concept such as Anti-Trust, which has so little reality based thinking and has undergone so few changes in the past 200 years. With all the ridiculous patch work within is regulations, it throws out the entire idea of capitalism and competition. The laws are vague, utterly preposterous and reward the weak. The notion that bigness is automatically evil, dangerous to the welfare of free men or bad for the society as a whole makes no sense in a free market economy.

The attack on Gate's Microsoft by the FTC, after the consumer made them number one by buying their products was beyond me. People vote with their dollar, they chose a company that fulfills their desires, purchase products and services from that company and this is bad? It appears that the FTC only attacks the visionaries and market winners, Jealousy? The theory that Monopolies, which started small and grew big due to the consumer choosing them over the competition is a testament of a strong free market system with tough competition forcing the best athlete forward for the gold medal and is merely survival of the fittest.

If growing big is evil then and anti-trust laws are to be enforced upon bigness then the entire government, by the people and for the people should be immediately shut down, because it was voted for by us, we chose it over other forms of government and it is now huge, talk about out of control with regulations. This alone would make it ready for anti-trust lawsuits, with its finger on the flow of everything. When our Oil Companies here in the US wish to merge to create the economies of scale to compete, they go through months of regulatory review. Then these same oil companies are told they must divest themselves of certain pipelines, retail outlets, subsidiaries, trading rooms, etc., but this reduces choices and raises prices.

It is interesting that we allow foreign competitors more latitude than our own companies and then we create a hostile environment in the regulatory bureaucracy and cause our companies to move jobs, factories, refineries, etc to those same foreign lands. One might have to ask exactly whose team are we on? Let's face it, the growth of a business from small to large is a testament of commitment and hard work by the team running that company and their value to the consumer and my friends that is merely survival of the fittest and best prepared to take advantage of opportunities to serve the desires of the customers.

Just like a Republic or Democracy government voted into power by the people is a sign of the strength, trust and will of the people. John D Rockefeller was a great man and delivered fuel to the people and enabled us to move the ball forward as we modernized our civilization. J. Paul Getty once said;

"I believe that the able industrial leader who creates wealth and employment is more worthy of historical notice than politicians or soldiers."

Well I support our troops and believe they are top notched so would not make that statement in public, but I definitely agree about the politicians, very well said Sir. The flow of fuel is related to every decision we make and every step we take and as the song says; "Every breath we take." This brings me to the next fuel to be discussed; "Natural Gas."

We use Natural Gas for heating and running appliances at home. Industries use Natural Gas to help the environment. Many companies switched to Natural Gas in the last decade due to tax breaks given by government agencies. Now it appears there will be a huge price spike due to supply shortages, which will cause many business failures in industries whose jobs have for the most part already left the country due to union demands, over regulations, costs and WTO and NAFTA deals.

Why is there a shortage of Natural Gas? We have been converting to cleaner burning fuels and there is plenty of Natural Gas in the world. Unfortunately drilling has been hampered due to Sierra Club lawsuits, such as the one off the New England coast, which stated that the drilling, which would only last a month or so might hurt the extremely low frequencies that dolphins and whales use to communicate. Then there have been hundreds of lawsuits filed against offshore oil drilling, natural gas pipelines and refineries.

There has been discussed about the need for hydrogen economy and it's desirable attributes for the environment. All well and good, but right now we have issues with fuel and oil which are critical with regards to the reserves available and the amount at any one time in the pipeline, both actually and figuratively. Hydrogen is a wonderful future choice, but only through incremental change. Many say ethanol is the answer. Maybe but let's not forget that it takes water to grow corn and many of the areas where corn grows well have gone through some rather harsh drought times lately.



If we subsidize farmers to grow corn, use up all the water and then the price of the ethanol is close to that of gasoline then why not use the same money to lower the taxes placed on gasoline now? It is the same money and we get some of the water back and still have something to eat, make plastics out of and export. There needs to be some clear headed thinking about these issues and all too often it is political and not reality based. It is going to require some non-linear thinking and deep thought.

Renewable energy is a fine 'Buzz word' but it should not be applied to everything that comes along. There are many issues to the flow of energy so, please read *The Flow of Energy* essay in this series. One thing to consider is that oil in the ground and the natural gas is sitting there and it is free, all you have to do is grab it, or refine it and distribute it. Please read *The Flow of Raw Materials* essay in this series. If the refining process of ethanol and the decaying leftovers that are tilled put out pollution and green house gases in the atmosphere, then where have we really saved?

It has to work all the way around in the environmental circle and still be produce for the same price point without subsidies, otherwise it is defeating the purpose and therefore it is not reality based. A very skeptical eye needs to be watching these movements and if it makes sense, move it forward incrementally. Today, there is are comments about the scarcity of oil or natural gas on this planet, but really there is only a scarcity of the easy to get reserves.



We have certainly come a long way since the old stories of the Permian Basin originals. If you have studied some of the incredible stories and histories of the Texas Wild Cat'ers, then you can see what an incredible distance we have really come in keeping up with the World's thirst for oil and the refined products such as Jet Fuel, Diesel and Gasoline and ancillary chemicals left over during the refining process.

The Flow of Fuel is a key to the Health and Wealth of a Nation.