

UNIT OF TRUST: SECTION #1 THE EXHIBITION

In this imagestream I wish to address the dichotomy between industrial thinking and sustainable thinking. Many have been brought up in the industrialized world and find it hard to imagine alternatives. And yet alternatives are needed; industrialization cannot go on forever. In industrialized thinking you are a worker, you own a house maybe, shares or funds. You are a citizen and can vote. To maintain your lifestyle you have to consume.

If someone wanted to use their money to invest in an organization or opportunity that would give them a sustainable return on investment what would be available to them?

I imagine this particular investment would be in real assets, generate energy, housing and food or transport in a sustainable way. Possibly, their value increases over time compared to fossil fuel powered alternatives or your investment would give a dividend in the form of these services.

Anyway, investing in these organizations and or instruments would give you food, housing or transport (energy) as well as an asset that increased in value over time.

After investigating possibilities through imagestreaming I would like to make a proposal to several organizations about cooperation to create eco-units. These units consist of combined agriculture and eco-village in one self-supporting system.

THE QUEST is to visit a place where these kinds of opportunities, instruments and schemes are used successfully to offer individuals, though individual investment, the opportunity to sustainably generate their living standards and constitute an

investment for their kids and the future. These investments themselves have monetary value that should increase over time.

TAPESCRIPT I am in the arrival hall, looking for a lift. I'm attracted to a dark red exhibition stand. An exhibition booth. A sign over the entrance says "Investing in the Future".

I go in, a man is standing at a table, he hands me a brochure.

"Are you interested in investing in the future?" he asks.

"I certainly am" I say. He chuckles a bit, which makes me feel uneasy.

The brochure contains pictures of wind power, water power etc. He invites me to proceed further into the stand. A few people are milling around with drinks and snacks. Screens are showing pictures of sustainable ventures.

I get a cheese on a stick to nibble and a glass of non-alcoholic cider. It's all very informal - it seems the idea is to entice passers-by into the stand. Investment in the future - a DVD playing talks about oil, its depletion and the effects on everyone's economy, about population pressure on the planet etc.

... However, there IS a way using renewable solutions, but we must construct them now while there is still time, for your children's sake. Before it is too late ... We already have this place going and more examples. You are being invited to join, if you like.

I feel a sense of mistrust ... maybe it's too good to be true ... or the way the guy laughed. An oxymoron to invest in the future isn't it - what about now?

Still, it seems to be well grounded. A paper talks about number of working hours, your work, how you use your time, what you can get from this use of time, with many tables and graphs. In fact, it looks rather like an investment brief.

I browse though it, looking at graphs of future price of oil contra renewables. (I know from experience that trying to read documents in an image stream is rather difficult so I concentrate on the pictures.) Another shows the number of hours you have to work to get your daily bread and the role oil plays in that. The higher oil prices rise, the less you can buy with your hour. And then it asks you what sort of life you want, and looks at the available choices.

I suppose this is a chance to browse the material and look at the videos showing places already functioning along these lines.

You can just simply sign up. I look at a paper, which says you can buy a unit or a number of units. The accompanying application form asks for your name, address and other details, and your signed request to purchase. That is all you need to get in the system.

I wonder what I would do with my unit when I have purchased it. Someone takes me aside to explain.

“What will I get for my money?” I ask. “You become a unit holder, sir. The stands in the next part of the exhibition explain what unit holders get back from their investment.”

This stand extends into a larger, white exhibition space behind the red one. I take the investment brief and the form and move on. Each exhibitor has a table and exhibition space behind them, arranged around the outside and in the centre of the area.

People are milling around handing out brochures for various things.

At the first table someone is planning an eco unit. Depending on the number of units you have invested you can do different things in the eco unit. (Editor’s note see link to explain what an eco-unit is – an ecological village self sufficient in food.) You buy a unit for a certain amount of money. From there on there is no counting in money. You can always compare to monetary value, though. In this case, to put myself in the queue to live on an eco-unit I have to have a certain number of units saved.

This queue is not yet full, they are building a total of 80 houses. One of these trust units would give me a certain number of points which I could redeem for a share in their excess food produce for example. However, it is not enough to have purchased a trust unit. I must have it placed with this organization.

Depending on how many units I place, I get points back which I can redeem against holiday, produce and way in to buy and own a house on the eco-unit. I could also save points to contribute towards retiring to an eco-unit.

The next one is a sailing boat, a big beautiful boat. To join the scheme you place one unit with this organization. Its main purpose is to carry freight sustainably. This scheme is already going- The boat is long, wind powered, and if you invest in it you can join the crew. You can have a holiday on her or help out for good, physical, fun, If you crew you get points. These can be redeemed for produce from other organizations. A video is showing the boat ... come on board... it’s beautiful ... wonderful investment ... just have a holiday ... travel ...crew .. we all need boats.

Continuing though the exhibition I am drawn to a table behind me about growing food.

A person on the stand explains the scheme provides a system for growing vegetables close to your home. Place in this scheme and you get a whole kit of pots and stuff.

If you invest in this scheme you get **utilitas** – that is to say, you do not own the equipment but you get the right to use it. (I have difficulty snapping up the phrase is it **utitas** or **ulitas**?) If you invest in the organisation you get the opportunity to enjoy some of the capital.

Over the other side of the hall, a wind farm catches my attention. You place your unit in the wind farm and get the right to have a wind turbine. You do not own the turbine but you have a right to use it.

I am picking up a principle here that seems to apply throughout the examples I have seen so far– one of not actually owning anything but having a right to use things.

In this case with the wind turbines, I will earn points by putting energy back to the grid. They install the machine in your house, on your property. The energy goes back to the grid for points.

The system is simple: a wind turbine and solar panels on your roof produce electricity. The electricity you do not use feeds into the grid to earn you points.

I start to grasp the significance of the whole unit trust set-up. One unit costs about 10,000 SEK (say 900 Euros). That is quite a bit of money, but many pay that for a TV so it is affordable. It is not as if you pay once and the money is gone. This is a very secure way of investing. Because if you remove your unit from the organization then they remove the things from your house, but you can still place the unit elsewhere.

That brings me to muse about the food bit, how home growing works. I notice a stand presenting “Local Food Schemes” and walk over to it.

The stand looks like a market stall and demonstrates how the points system works across local organizations. If you invest in a Local Food Scheme, as a grower, you can sell your produce for points in the market. If a Local Food Scheme is effective and produces a lot of food, many points will accumulate. These can be swapped with the Local Housing Scheme. I start to see that although the Unit Trust organization is national, it is the local network of organizations that must “join up the dots”.

A Local Housing Scheme (LHS) can buy an apartment block, and instead of paying rent you redeem points. The reason for this is, in the future you may not have the money to pay rent or energy bills.

Or if you all own flats in an apartment block you can place units in the LHS and they will help to convert the block to low energy and take over everyday running, maintenance and upgrades.

Some advisors are walking around, I ask one:

“So can I check I have this right? I buy units, and then I have to choose where I place them. Placing my units gives me back sustainable goods and services.”

“That is correct,” she replies.

“But I never ever loose my unit. I can take it out and put it in another one?”

She smiles: “Where you place units depends on your state of life. You can buy units with points or use the points for consumption.”

I ask about tax but she thinks I should come back another time for that one.

She adds: "It is the unit trust (as she calls it), this organization, that puts on these events."

"So you market yourselves this way in these exhibitions?"

She explains that they put on these exhibitions and market via traditional channels. They talk to existing organizations, cooperatives or companies and explain the benefits to them of joining. They these organisations join the scheme by purchasing units in the unit trust.

I ask for an idea of how my organization would go about joining.

She explains: "You get a number of points related to the number of people who want to invest in you. The unit trust does not invest in your company. Your organization gets a chance to meet a number of investors via us. You invest in us, and keep your unit placed with us. Our role then is one of matchmaker."

She explains that organizations come away from an exhibition with a local contact person, address to the website, and already an idea of how to place their unit.

I thank her and leave.

REFLECTIONS UNIT OF TRUST SECTION #1 THE EXHIBITION

Review

Things that surprised me

- The simplicity of structure of the funds
- The need for marketing – to have a good story to tell individuals about how peak oil will affect them and what they can do about it.

APPLICATIONS UNIT OF TRUST SECTION #1 THE EXHIBITION

Things I could use immediately

- Marketing – the argument for sustainable investing is rather clear and compelling.
- DVD films and brochures could work well.
- Important that working examples really exist.

VERIFICATIONS UNIT OF TRUST SECTION #1 THE EXHIBITION

Things to verify

UTILITAS There must be a concept of Utilitas somewhere. It sounds like Latin. Maybe something to do with law.
UNIT TRUST I have heard this before, sounds like something like a British building society.

SIDEBANDS UNIT OF TRUST SECTION #1 THE EXHIBITION

Sidebands

The "story" – how to explain the investment potential of renewables. The points counting I suspect I have a kind of economics going on here, but based on what people need rather than money or other units. Things that might make up the system include number of hours in a year as working hours, food requirements, shelter and security.

QUESTIONS UNIT OF TRUST SECTION #1 THE EXHIBITION

Further questions

- How an organization can use the unit placements
- Taxation
- Legal structure
- Relationship to legal tender – if I want to sell units
- Understanding the arguments deeper – for example number of

hours worked to be able to purchase living accommodation

- Point counting administration
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RESEARCH RESULTS UNIT OF TRUST SECTION #1 THE EXHIBITION

Research

Utilitas.

From Wikipedia: In [economics](#), **utility** is a measure of the happiness or satisfaction gained consuming goods and services.

util (*plural* [utils](#))

1. (*economics*) a hypothetical unit measuring satisfaction

Dominum utile is the right to use something, often used in connection with [feudal law](#) in which the King held [dominum directum](#) over the land and granted this right to the [lords](#) or [vassals](#).

I found an expression similar called USUFRUCT - The right of enjoying a thing, the property of which is vested in another, and to draw from the same all the profit, utility and advantage which it may produce, provided it be without altering the substance of the thing.

The obligation of not altering the substance of the thing, however, takes place only in the case of a complete usufruct.

Usufructs are of two kinds; perfect and imperfect. Perfect usufruct, which is of things which the usufructuary can enjoy without altering their substance, though their substance may be diminished or deteriorated naturally by time or by the use to which they are applied; as a house, a piece of land, animals, furniture and other movable effects. Imperfect or

quasi usufruct, which is of things which would be useless to the usufructuary if he did not consume and expend them, or change the substance of them, as money, grain, liquors.

USUFRUCTUARY - One who has the right and enjoyment of an usufruct.

The duties of the usufructuary are, 1. To make an inventory of the things subject to the usu-fruct, in the presence of those having an interest in them. 2. To give secur-ity for their restitution; when the usufruct shall be at an end. 3. To take good care of the things subject to the usufruct. 4. To pay all taxes, and claims which arise while the thing is in his possession, as a ground-rent. 5. To keep the thing in repair at his own expense.

From Wikipedia

A **unit trust** is form of [collective investment](#) constituted under a [trust](#) deed. Found in the [UK](#), [Ireland](#), [Australia](#), [New Zealand](#) and [British Isles offshore](#) jurisdictions, unit trusts offer access to wide range of securities for all types of investors.

Unit trusts are open-ended investments; therefore the underlying value of the assets is always directly represented by the total number of units issued multiplied by the unit price. Each fund has a specified *investment objective* to determine the management aims and limitations.

UNIT OF TRUST SECTION #2 MEETING THE MANAGEMENT

PREAMBLE .

The background to these sessions is my interest in investing in sustainability. In earlier sessions I visited one place that has been successful using a system called Unit Trusts. These can be placed in organizations providing for a standard of living in a sustainable way.

By sustainable investment, I mean putting money into activities and organizations that create and operate infrastructure that produces living standard. After construction they should require very little input of fossil fuel.

Last time, I met the system and the scheme in an introduction exhibition stand and acquainted myself with the trust organization and the organizations it supported.

Questions raised from that include:
How is an organization that has something to offer supported by the Unit trust scheme?

THE QUEST: To revisit the place to find out more about how an organization with a sustainable concept can be supported by the fund.

TAPESCRIPT On a bench in the departure lounge, I watch people dropping into the stand. A young man in a grey suit comes out and offers to tell me more. I accept and follow him out of the waiting area up an escalator to their offices in a skyscraper similar to the LETS building in an earlier stream.

The lift takes us to the fourth floor. He shows me into a rather ornate wood paneled conference room, He offers me a mineral water.

I explain I have an organisation that fits their profile but I need the finance, could he tell me what the trust provides?

One main activity is the yearly marketing system, where they go out and raise money by selling units. This increases the total number of units. Directly after this activity they have a higher proportion of unplaced units.

Unplaced units create a demand for sustainable products and services. Every unit that is purchased removes demand from counter sustainable operations and switches to sustainable investment.

The unit trust organizes these exhibitions and different kinds of activities which participating organizations get the right to use . That is, they can attend as exhibitors.

Interested organizations can sign up on the trust's website.

Some rules:

- You must be a registered company or cooperative.
- Energy intensive organisations are not allowed.

He also explains you must make your own profile of what you are offering. I see graphs with investment, maintenance costs etc. and professionally written descriptive texts.

So how do I learn all that?

“Maybe I should get your help.” I ask “Once you have placed with us. you can go on courses,” he replies.

I feel anxious about understanding the point system too, which does not seem accessible.

“It is part of the course.” he reassures me,

How can you start up with the same number of units you end up with? It is as if the money is used and not used. Or are

there systems with points. 10,000 points or 1000 points?

(I feel agitated trying to get everything at the same time)

I calm down and ask; "Perhaps you could explain to me the benefits of joining the trust scheme."

His reply contains two unarguable essentials.

- 1) Capital
- 2) Customers

The scheme plugs entrepreneurs into the system and it only requires one unit to get going.

Furthermore, if it does not work out I can move the unit over to the sustainable development section.

I remark.: "It seems like a good idea. I get my marketing done, get my customers and get my capital."

"Exactly! You have to provide the activities and set the infrastructure and organization up. Along these lines."

I just commit to a unit and at any time I can take it back.

About the prices of units; Nominal value is 10,000 Swedish crowns.

This can go up and down. depending on the economic climate in general.

But that is not to do with what you get from you investment. Everything is relative to units and points. Even if the value of units go down, they still generate the same services. This is essentially how the scheme decouples production of living standard from economic climate.

If you buy a house and house prices go up then you can get more for your house. then you have made money. If you sell your unit placed in housing when prices have fallen then you will get less for it. But through the rise and fall of the economy you get the same housing service.

"So how do you work the unit price out?"

"We make an aggregate that follows the consumer price index "

The cost of units goes up and down with the economy.*

"Can I buy more units? " I ask.

More units give more exposure in more local areas.

One unit is enough to get a small organisation started.

I wonder: "Can a company earn points?"

"Yes if it does activities that earn points with other companies in the scheme. Otherwise they can't."

"It seems organizations can take this at different speeds. Once I have placed a unit with the trust I can go on courses and be developing for ever, can't I?"

"That's true." Some things take time. Some things go fast. Business plans and stuff are required, you need to describe what you will do in terms of what your organization is going to give unit holders. Then you get a team of people who will help you create a sustainable business plan.

My question then is - what's the best way to start so I can use the Trust's services most effectively.

He explains. If you just got an idea, then you need to describe it in terms of contribution to sustainable development and use the same description methods they use. This is so people can understand what it is they are going to invest in.

He senses I am very wary of this sort of thing. I explain I lost some money in investments before.

He says I can let it take its own time, in small steps. He points out that 10,000 is a small investment risk.

I ask if I can get stuck in the scheme and then can't get out of it.

"You already are." he says. You are always in a scheme. You need to choose which one. "We are giving you a chance to choose."

I agree.

.I sigh "I need to do all that work – not so appealing."
"Look. It's fun once you get into it."

I sort of feel uncomfortable and ask for the next step.

He suggests I attend an exhibition of the point system and go through the materials explaining how it all works.

REFLECTIONS UNIT OF TRUST SECTION #2 MEETING MANAGEMENT

Reflections

I was doing Internet research into how Unit Trusts advertise their investment opportunities. I was struck by how far away the organizations that benefit from my money are from me. I just get barely a piece of paper from the bank or building society advisor. In the Unit Trust scheme I met in the image stream you get to be close to the organization and get together personally with them. And it was useful stuff. Much better and more human!

UNIT OF TRUST SECTION #3 FIRST DAY ON COURSE- BASICS

Third visit –day 1 of course

PREAMBLE

This is the third investigation into Unit of Trust. The first one visited an exhibition of the organization and the organizations offering placement opportunities. These visits raised several questions in me, including how a 10,000 SEK investment would provide anything useful, as 4% gives 400 SEK (what you might get as yearly dividend from conventional placements) equivalent to one carrier bag of food. Not much per year.

On the other hand, 10,000 SEK is the equivalent of the quarter of your food bill for one year. You would want to see a reasonable result for your money. Of course, if you were to eat up the 10,000 SEK we are talking of a food bill for 3-4 months!

This goes to show I cannot get my head around economics. It seems to be a system that allows you to compare apples and pears with each other.

In contrast however, Units of Trust are dealing with realities – the number of days in a year, hours you can work, calories you need to eat, etc. I can't see how systems that *aren't* anchored in simple realities like that can be useful.

From an investor's point of view you come close to the organizations, you make a commitment. They get capital and customers - an incredible benefit for them.

QUEST: My quest is to understand how an involved organization is expected to serve

its customers and investors in the scheme. I need to be clearer about how it all works.

My quest, then, is to visit such an organization again to learn how they teach starting up organizations to use their facilities best. To join in the training, or process, or see the process where these organization that join, how they are trained and developed, as well as what units of trust offer.

TAPESCRIPT: UNIT OF TRUST SECTION #3 FIRST DAY ON COURSE- BASICS

I am walking over the cobblestones of the square I visited earlier, towards the small town hall where I met the facilitator group. I get the feeling this group is heavily involved.

A sign on the door invites you into the "Introduction to Units of Trust - entrepreneurs' day."

People are sitting at round tables in groups of four or so.

I sit down, collect a notepad, pencil and file.

One person welcomes us.
"This is the start of your journey towards providing sustainable services as an entrepreneur. I congratulate you on your choice, you are doing a good thing for society and lot of people are counting on you, and waiting to invest in your offering."

"This is not like anything else. Many really want to support you and see it works well because they want what you have to offer. The purpose of these first sessions is to explain the principles behind how this can work. So that was my introduction. Any questions?"

"I know nothing about business."

- "No problems we'll help you with that."

"I am not sure what I want to do, just something."

- "OK. You can still go on the course. You are welcome, something will come up while you are on the process."

The first exercise to do he calls the Basic Frameworks of Life.

What we have to do is write down what we think they are. On a square, the group have to put everything around that framework.

I am in a group of four. We get started.

"Human life?" someone asks.

- "Yes."

We start to list what we consider are essentials:

- Shelter
- Food
- Social security
- Health care
- Education
- Transport
- Culture
- Clothing
- Household goods

Then we are asked to identify a maximum, minimum and a reasonable standard.

For water, I venture 50 litres a day, but do we need 2 litres a day – or hour – I realize I am unsure.

Maximum is 70000 litres a year, equivalent to the average US citizen or household.

We note these down on the square.

Shelter.

Minimum square meters 13 square meters.

Largest = say 50 per person.

Reasonable, lower quartile.

Food

4000 KWh per year for a family

“If you were going to invest in an organisation what level of services would you want it to be offering?”

We did not agree about what was reasonable – in fact, we had difficulty quantifying a lot of the dimensions.

Someone comments they find this strange as we have done research for so many years so why is it not available?

(“And what has this got to do with investment?” Someone wonders sceptically)

“We’ll come to that. Let’s have a break.”

Coffee and biscuits are available, and we mill around chatting.

One guy is into aviation. I tell him of my exploits into trying to invent a flying saucer

I also meet a farmer; he is into corn and wheat growing for bread making.

People seem to be engaged in what they are doing, mostly one man or mom and pop operations.

A guy from a large bank is present. I ask what he is doing here. “We need to change,” he says “that is why we are on the course.”

We are called back to our groups.

I sit at the same table, the banker is with us.

Time for a DVD. A film of points. The point of points. Numbers flash on the screen

The presenter is walking through a field.

”Here I am in this field, what is behind all this? How many hectares is it? How long did it take to plant? How many people will

it feed? How many hours do I need to work?”

He continues as he starts to walk across the field. “It’s a very simple equation. That is the basis of all human activity. How can we achieve what is reasonable for everyone with what we have?”

He presents a numerical framework for us. A hectare is an area of land, there are 1 600 working hours in one year and 365 days.

We have 1.2 or 1.5 hectares of agricultural land per person and a certain number of hectares of forest and other land to include water and stuff.

It is very simple.

He reminds me of David Attenborough.

The film continues. Lorry driving. Machines have similar limits. Based on fuel, man-hours to manufacture, and the lifetime of the machine and maintenance hours, and the fuel to drive them, related to amount of work that has to go into make the fuel plus the agricultural land or land needed. Back to hectares/ or calories and working hours.

And for an organization. On this simple basis, this way of accounting and counting, we can describe how we create a standard of living. And also to equate the standard with the areas of land involved.

Then you know how many hours and hectares and the machine and organization. You always come back to the same measurements and units.

The DVD shows pictures of ships and boats carrying freight.

The Presenter: “each boat has a capacity to carry in terms of volume and tonnes. And there is an effort in terms of man-hours and fuel required to carry the freight to another area. Easy to work out if you include the

speed of transport. All these simple things are the basis of points system. But what does this have to do with organizations?"

The facilitator asks if we understood the film...

"I still don't get what a point is, just what the basis is," says someone.

"True, but let's not jump the gun."

We are given a new exercise; a pyramid.

You have to put things in order. You have to choose one of the things from the square like 4000 calories of food. Then you have to break the service down into the things that are needed make up these basics.

See if you can identify different levels but at the bottom you have to come down to the basics - to man hours, land area and water etc.

My group discusses – and decides to choose - the apartment example, 13 m2 for all. Someone else means it is difficult but agrees anyway.

We get sticky labels and start to discuss levels.

At the bottom is the land the building is on. Then there is the required to produce energy.

Then the materials. How much land do you need for that?

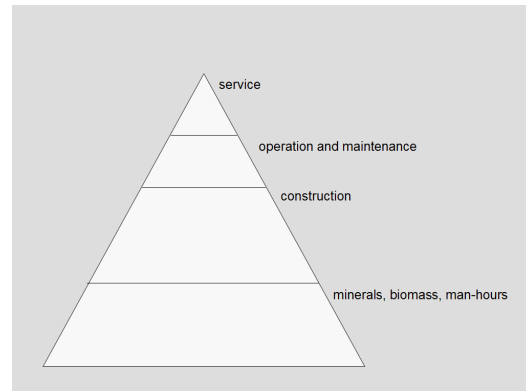
We park that question.

Then there are man-hours to build and then maintenance, upgrades etc.

There is metal for pipes etc. That has a man-hour component.

For materials there are the man-hours required to get materials out of the earth. The only thing that is not clear about this is the minerals taking from the land. You

need land to take it from. Non-productive land, I had not thought of that.



We seem to have identified a lot of layers to work on.

- The actual delivery of the service is at the top.
- Operation and maintenance.
- Then there is the set-up.
- Underneath that, basic materials at the bottom in two sections Land to produce bio material and land where we extract materials from the crust

So the group concludes we have three separate levels under this particular service.

"Are we getting there?" The facilitator asks. I wonder, but the facilitator seems pleased anyway.

The facilitator: "What have we learnt from this?"

I venture: "This about minerals ...it is not land area but it is in tonnes."

"Yes, it explains the boat bit," he replies.

"You have tonnes of minerals, not originating from the biosphere."

"Are we agreed it is working?" He asks.

"We identify that all services originate from fields, water and minerals. There are three basic levels: extraction, construction and maintenance and running."

Every group has identified the same levels, we just have not thought of it before like that.

So, we have come to a juncture. Homework is to take the service we are thinking of offering and to break it down into the pyramid. Thinking of what is required in the context of maximum, minimum and reasonable.

Obviously, the time-frames for construction and running are different, as construction effort would be divided over time, so the different levels need to be treated differently. We are just required to map them out. The facilitator closes the session for today.

Everyone starts to pack up, I go over to chat to the facilitator.

I was expecting more open space type exercises. He replies it is not always useful for training. We must start up with the basics.

You are seeing the point now of developing the facilitator group. I like the ideas of the facilitation team. I realize I could set up a separate facilitation organization myself.

He leaves me I continue wandering around, not much is going on. I think it is time to go. As I leave I see a lemonade stall. I find this amusing as business courses always use lemonade stalls as examples.

I take the lift back to the departure hall; I see the exhibition stand is still there. I sit next to a woman on the bench I started from.

She says: "I'm wondering if I should invest in unit trusts."
"I recommend it," I say.

Farmyard – geese – ducks - this is what I associate with her.

I ask her about her impression from visiting the stand.

She feels it is a good idea, almost too good to be true, she always mistrusts things like that!

FOLLOW-UP: UNIT OF TRUST SECTION #3 FIRST DAY ON COURSE- BASICS

Reflections

I feel we are living off the work done by our forefathers to create systems and structures. Today we are using metal, machines, materials put together by those who came before us. Yet we are using them in a non-sustainable way. You could say we are not working in the same way.

I am also surprised that the figures for what is reasonable living standard are hard to find. And that to work out from a systems perspective how much materials are needed by us – I believe society is looking the wrong way somehow. Suppose a train is coming from the other direction?

Questions

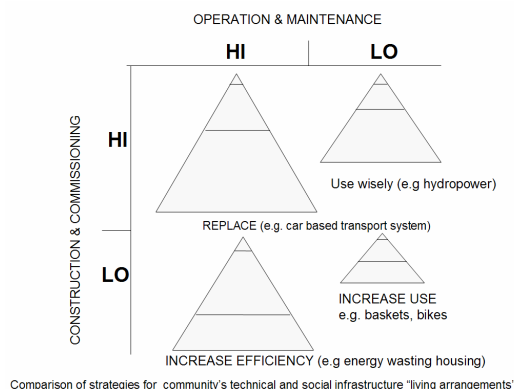
None just yet – I would like to understand points better.

Immediate uses

I like the DVD idea. Maybe I'll try it if I can borrow a camera – and write the script.

I think the comparisons I learned about could be used immediately to show the way forward for various systems or collection of systems. The diagram below shows the difference between different operations that require different inputs for construction and operation. A double Hi is an operation that should be replaced (Road transport system) a Hi on construction and Lo on running should be kept (Rail network). Lo on construction and hi on running costs should be replaced. And Lo

on construction and lo on running costs (basket making) should be kept.



TAPESCRIPT: UNIT OF TRUST SECTION #4 SECOND DAY ON COURSE DESCRIBING INFRASTRUCTURE

My quest is to return to take part in the next part of the training to understand how an organization interested in providing a sustainable service can benefit by working with the Unit of Trust organization.

I start in the departure hall as a few people are taking the Trust exhibition down. "It went well, we are getting a lot of interest," they comment.

After getting directions from them, I stride over to the tower and up to the fourth floor where the course is taking place.

Some of my old group buddies invite me over to join them again.

The facilitator: "Welcome everybody. This is for organizations who place capital in and join our organization. Last time we saw the pyramid and the framework of life."

"Let's start with a DVD."

Our presenter is standing in the field: "Last time we asked the question how much. Hopefully, you have had chance to quantify and qualify what is needed to support the framework of life and break it down into layers of activities materials, biomass and man-hours. You are probably wondering why it was so difficult to break it down into figures. It is difficult, because no-one has been keeping track."

He walks away and stands in front of a barn.

"This is an essential part of being able to look after crops. We need to be able to think of infrastructure like buildings in terms of their technical function."

"This infrastructure with technical function can be quantified in square meters and other measures. We need to add this to the model of what is required to produce the service you are interested in. Your next task is to identify all technical infrastructure needed."

The DVD stops. In addition, the facilitator asks us to consider the other side of the pyramid with technical infrastructure. We put a yellow post-it to represent each piece of technical infrastructure. For our apartment block we have construction machinery, heating system water heating water supply, electricity production, this needs generators,

Sawmill, wood, timber yard, timber mill, factory for pipes and things and mine. Glass, building firm.

The facilitator: "Are you all wondering where points come in? Be patient we will get there."

We take a break. I ask the bank person for reflections over a cup of tea.

"Not really, it's complicated; I thought we might eventually see the simple in the complicated"

The facilitator: “Any reflections so far?
“We are still confused how points come in.”

“We are starting to see what is needed to provide a service - it involves sooo much!”

Another participant: “If we can provide a service which is less involved, with less steps involved it will be more robust.

“The exercise helps you see the simplicity in what is going on,” replied another.

The facilitator brings reflections to an end with: “Let’s do the maths”.

Each technical unit is quantified with man-hours and material (kgs and volume).

“What about money?” Someone asks, “can money be used to quantify? Surely what is being produced can always be quantified in terms of money. An open market thing – market value.”

“Glad you asked that,” says the facilitator.

We go back to the film

Back in the field Presenter asks:” how do you value all of this?” If you have nothing to eat, it is invaluable. Yet, if you have sandwiches with you or there is restaurant down the road, a field is uninteresting. The evaluation of any production facility is subjective.

What we need to find is a way then, to relate a Unit of Trust to this production facility that is not based on money and with a minimum of subjectivity.

People can understand this field from the point of view of its role in their essential life support system, rather than from the point of view of any one crop.

They can understand it better as part of the pyramid. To set a service up – as described in the pyramid model – gives you safety and security. This is where Units of Trust come in. Each technical unit can be owned

and run by an organization that you own part of. A number organizations can run several different services.

The facilitator stops the DVD. “Are we making sense? Good. Go back to your exercises and the third side. Put down the organizations that could be part of the chain.”

Someone in our group suggests we continue on the service *housing*.

Under that comes units for administration, operation and maintenance.

Housing administration includes janitor services.

The third level comprises of building firms and main contractors for construction using components from suppliers.

“Banking?” someone asks

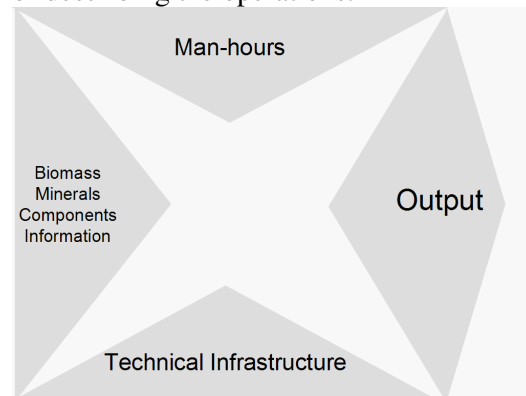
“And Electricity and stuff.”

That means organizations that supply water, energy and heat production

We are happy with the pyramid.

The facilitator gives us pieces of card and plastic strips that the card slot into so we can build our pyramid like a house of cards.

The facilitator summarizes: “we have identified each organization each with its own an ownership. Each has a physical input and output. This is a transparent way of describing the operations.”



The facilitator puts “100” on the board.
“Can we apply a mathematical model to describe this particular phenomenon in a simple way. Without linking it to money?”

“Think about it,” he says.

In groups again. We take an example of the building supplies manufacturer.

We put hectares of land on the bottom. Working hours at top. Input of wood and energy. Output is the number of pieces of wood

Someone suggests we equate the number of pieces of wood as 100, as in 100% of output.

Someone else suggests we add working hours up.

I call the facilitator over:” We’re having difficulty here.”

The facilitator says “I see you’re all having difficulty thinking your way around this.”

“Put 100 in the centre. This represents the total sum of your value added. Think about iteration: how many times is the service iterated in a year.”

Our group still struggles - service iteration? Buildings iterate 365 days a year.

Building timber suppliers iterate maybe 20 times an hour!

Car transport. A taxi iterates a service for every passenger, say 12-20 times a day.

We ask about the denominator – yearly is easier, as we get one crop a year. The boat iterates a freight carriage 3-4 weeks, or a few days. 100 times a year, maybe.

“Now we are getting a concept of service cycles in time. We need to go back to the video,” says the facilitator.

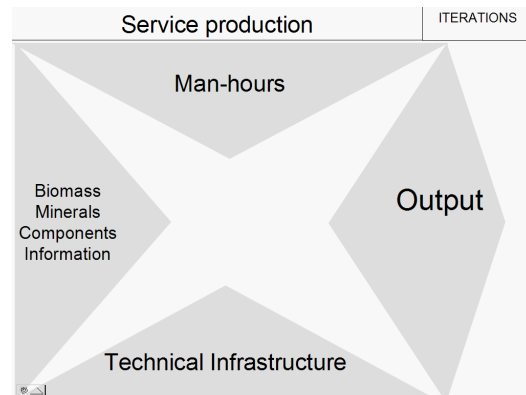
The DVD starts. The presenter is in the farm again – we get one crop a year.

“Look at this barn, built by a team that can build 10 a year.

Now see this diagram, like a flag, it shows the input hours, infrastructure of materials and service and output described in terms of capacity and output iterations. Each organization can do this.

Each organization can be 100. Think about it. “

The film stops. Homework is to work out for your particular organization, describe it in these ways with these figures to include the infrastructure.



“That’s enough for today, Thanks!”

Verifications

The New Scientist has an article showing how much material is needed to run London. (Population 7.5 million)

Input	
WATER	1,000 million tonnes
FOOD	2.4million tonnes
FUEL	20 million tonnes
TIMBER	1.2million tonnes
PLASTICS	2.1 million tonnes
.	.

METALS	1.2 million tonnes
GLASS	0.36 million tonnes
CEMENT	2 million tonnes
BRICKS; BLOCKS; SAND; TARMAC	36 million tonnes
OXYGEN	40 million tonnes
PAPER	2.2 million tonnes
Output	
CO ²	60 million tonnes
household waste	4 million tonnes
INDUSTRIAL WASTE	11.4 million tonnes
SO ²	0.4 million tonnes
NOX	0.28 million tonnes
SEWAGE	7.5 million tonnes

I visited a historical spa organization and presented the idea of raising capital and giving right of use in return. We calculated that raising \$100,000 dollars, with \$1,000 from 100 people would be possible, if we offered right of use of holiday apartments at a rate equivalent to cost of production of the service, which was at roughly \$100 a week. Several other conversations with people leads me to change my earlier scepticism. As long as the “unit holder” uses the right to use and pays the production costs, it is a good, non taxable deal all round.

TAPESCRIPT: UNIT OF TRUST SECTION #5 COURSE DAY THREE MATHEMATICAL SYSTEMS-

15th June 2006

Background: I asked about the connection between sustainable development and individual investment. To visit somewhere where individual investment actually promotes sustainable development instead of the investment I am familiar with which increases material out-take and need for waste disposal. It furthermore creates a dependency on a fossil –fueled infrastructure.

A recent visit took me to a place where they were having an exhibition showing how units could be bought and placed in certain organizations.

When you buy a unit it is already placed in some general organization. You can move it to another organization from which your unit would give you something back. It would also be a long term investment.

I had some questions about describing the organization in terms of sustainable development. This description is essential, to show the investors what they are getting, to explain why the Unit Trust organization should get involved, and how to get involved, and to clarify the difference in general between this sort of origination and a normal business.

They were mentioned in the second visit with a representative for Units of Trust, who explained how organizations come to get finance and customers by joining the organization.

Then we did a part of the course that started to talk about the underlying principles and how to describe your organization. We saw a couple of models of organizational activity. The second course took us further, to show how an organization was made up of separate functional units. Each of these units had an input in terms of working hours, but also biological inputs and mineral inputs. The unit utilized a technical infrastructure. One could map an organisation as a pyramid like this and use cards to show how these units interact to provide the service, how materials flow through the system and how man-hours are used.

REFLECTIONS:

A pyramid model fits well with sustainable thinking. Creating infrastructure that generates living standard without requiring massive fossil fuel input must be desirable. Especially something that could be handed on to the next generation.

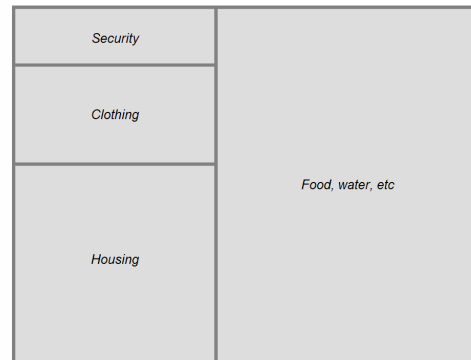
My quest is to visit the same place, to go on the part of the training that follows from the one I went on before.

THE TAPESCRIPT

From a bench in the departure hall someone grabs me and rushes me up the escalator and over to the finance building to join the course. I sit down with the group I had met earlier. After the usual welcoming, the instructor asked for reflections so far. What people found difficult was the mathematics, but we also reflected that there probably was a mathematical system there that was useful, based on 700 hours to years to produce the basics.

They ask us to go over to the group tables. Each are provided with several worksheets I cannot make them out exactly but they contain circles and squares.

We are then given some wooden blocks. These are to be used in an allocation task.



A large worksheet has several squares on it. One square represents housing, one is clothes, one is food.

We are being asked to allocate working hours to these different areas. We have blocks with different numbers on them - we have to allocate 700 hours to these activities over five years, that's 3,500 units of hours to allocate. The blocks are in 10s and 20s etc. They are wooden, about 1cm square. We have to allocate for two levels for each service; set up and operation.

The discussion flows on. How long would it take to make agricultural land work? Taking land that is fallow, ditching, draining, fertilizing, and the permaculture. We put 1/3 set up 2/3 operation. Clothes: they last three years, say. To make clothes it needs looms, etc and machinery. We set the ratio set-up to operation 50-50. Buildings: most work is in construction: set up to operation ratio 90 -10.

Now we have to divide them up again in terms of hours. Food takes 90% of the time? One group member suggests 60%. That leaves 10 for clothes and 30 for buildings.

'Now you have a system to work out allocations of hours,' says the facilitator, People comment that it would be good to organize work like this generally.

We are asked to leave the table and return to the classroom section.

The instructor: “that was the principle of points. You now have the basics.”

You have to connect an organization to the living standard service it provides.

We have already worked out what and in what proportions are needed, so now we need to describe what proportion of the work the organization is going to do. Over a five year period an organisation would provide a certain amount of service equivalent to a number of hours needed, of the 700. This would give you the number of points.

The performance of the organization or equivalent performance would be in providing a service which is part of what is needed.

So let's take construction. 30% of 700X5

The maintenance is 10% of that will give you hours equivalence.

This is smart someone says.

We now need to connect it with investment.

The Unit of Trust organization explains to its members the 700 hours thing. They set the standard etc. So if you invest in one unit it will give you back something of that. One unit is the lowest you can get. You can show standard way of explaining the organization in terms of points. One point is one hour of work done to produce 1/700 of the service needed.

If I worked in an organization I would get the points “back” for my work.

If I owned part of it on the other hand, I could get the equivalent of that value.

I could also be expected to take part in the activities.

Take for example an apartment block. I would have to work in an affiliated organization. Put in 700 to get 700 back. I need to put in 700 a year at least, then.

If I put nothing in, but own part of the organisation. Then I take out part of the profits. I can join in the activities, social and sharing the excess.

I ask the facilitator how to begin to create a portfolio of organizations which work together, where each describes what they will do they when they acquire ordinary money.

“Next time is for ordinary money, let's call it a day,” he replies.

I thank my group mates and take my leave.

Reflections

What can be done in the context of 700 hours will vary in different places. Everything will depend on local conditions. This will create the basis for trade between areas, where difficult to realize things and services are swapped for easy to realize ones. Heating will be important on Sweden, whereas cooling will be important in Africa.

I also realize that a lot of services today rely on the work of yesteryear, mines, roads, bridges, inventions etc.

However, modern inventions are reliant on energy intensive infrastructure. These will be a burden rather than a useful legacy for coming generations. This is not reflected in today's monetary based valuations.

TAPESCRIPT: UNIT OF TRUST SECTION #6 COURSE DAY FOUR - MONEY

Preamble:

The original quest was to visit somewhere that uses personal investment to drive sustainable development

I learn how to analyze life support services (the essential ones) from the point of view of basics, rather than money. The system is based on working hours of 700 a year.

Reflections: Why 700? The ordinary working year is 1600.

I also wonder how to connect this to ordinary money. They sell at SEK 10, 000 per unit so far, and place it in the organization providing the services.

As an owner or participating investor, there are some principles on how I get return on investment. One is “right to use” of infrastructure. (I feel this needs developing.) Use of services at cost is also a principle.

THE QUEST

My quest is to continue on the course, and to understand how to connect the 10,000 SEK to the finances of the organizations that receive the investment.

As I arrive in the departure hall I see they are putting up the exhibition again. “we exhibit about once a month they say as they see me looking on .

I ask about the course;”go on up you know the way”.

Over the walkway, I look down on what was once roads now given over to growing vegetables.

In the reception they direct me to unit 4 on the fifth floor.

I have been there earlier, I recognise the oval window at the back.

The room is nicely set up for training course. There’s juice on the side, a lecture area and separate group work section.

They start with a DVD.

INVESTMENT FOR THE FUTURE INVESTING IN SUSTAINABILITY

Your investment will bring sustain....

The DVD flashes back to the 1950s, with people harvesting apples. They show the Tractor, it is black and white footage from the archives.

They talk about the harvesting farmers enjoying bumper crops thanks to insecticides.

Voice over...

“How little we knew.”

Back to the orchard, now in present time. The trees are left overgrown and abandoned.

The orchard was hit by insect plague, the balance of nature was upset by the insecticide and the farm went bust And what happened to the farmer’s son who was to take over the hard-earned investment of his father? He went on to be a lawyer, living in the city.

So the investment of the father did not affect future generation. The apples were not important; the son got a job anyway

But in a sustainable world we need to grow food locally. We cannot use large amounts of fossil fuel to transport food. The bulk of food should be grown locally.

How can we invest locally?

The DVD shows on a diagram that we are at a point before the peak of oil. World economic growth is continuing but it will slow down as oil becomes scarce.

World growth of 2% is predicted. It does not sound a lot, but it will soon mean a doubling. The oil is just not there to supply it.

The voice over asks:

“How are we going to invest in a way to bring us through the peak?”

“Or to provide an alternative?”

“Or about what your money is worth – what it can buy?”

“How much energy does one dollar buy?”

“How much is one gallon of fuel or how long do you have to work to get it?”

“It is about the number of hours you have to work to get life supported that is interesting here”

700 is a figure to base the system on.

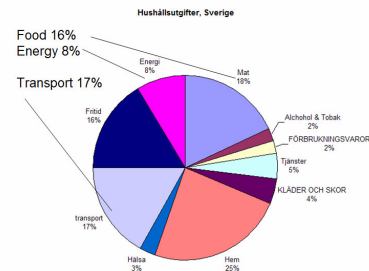
Money should be based on this too. You should be able to earn the basics of living by working 700 hours, and the work should be freely available.

If you work and still don't earn that money to live then the situation is horrible.

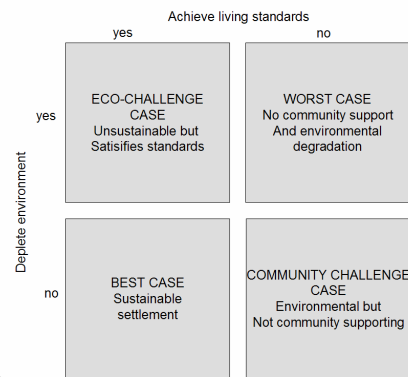
If you work and can earn it easily, and even more – that is OK.

Consider now future generations.

Suppose you work and can get it enough and even buy a lot more but it entails a high material outtake from the biosphere and geosphere. This material will not be available to future generations. The environment is therefore worth less to future generations, and they have to spend more effort to create the basics of living.



The presenter demonstrates this at a roundabout. At a roundabout you have choices. If you do not have any choice, and have to be involved in a society that operates a high material outtake and throughput, and you have to work many hours to get just the basic then you're a lot worse off.



And you are not helping future generations. The legacy of high material turnover and destruction with low standard is the worst possible combination and the least sustainable of the three alternatives.

A society with low material outtake and low standard, requiring many hours work and still the basics not covered is more sustainable. However, it is close to slavery.

At least it does not wear down resources.

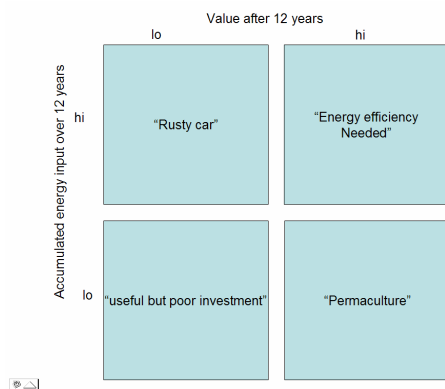
The DVD makes the point that the combination HITECH HI ENERGY LO STANDARD is the least sustainable. And that is the situation we are in today.

With increasing energy prices, there will be increase in inflation and decrease in real wages, this will be the start of the divorce between continuous economic growth and living standards improvement.

So what to do about it?

The answer is to concentrate on achieving standards in the most sustainable way to consume resources at such a rate they are available (by recycling e.g.) for future generations.

That is the challenge for the system.



However, it does have one thing on its side:

The DVD goes over to outside number 10 Downing street and then outside the Houses of Parliament in the UK.

The idea has . . . political popularity. It is a very appealing idea to work less to for more real value. Reduce your work time and at the same time increase life quality and security.

Because it is a politically appealing message, the political party that takes it on will be at an advantage.

However, they will need help from you in crafting the way it would work.

Good Luck.

The film stops.

I look around at the rest of the group, the last sequence was quite moving. They sit quite still.

The facilitator comes out. "We need to talk about how we can apply money to this. Any ideas?"

"Normally put your money in a savings account which will give a percentage, but inflation eats its value up.

"If cost of living is rising at the same time you get even less out. Therefore, money will buy much less."

"If you bought something which is sustainable it would carry on giving you goods, requiring only maintenance costs. So you want to use your money to create continuous return, like by a windmill or lay a garden out, this will give you produce and something to hand on to future generations. We need to own these things, that is where Unit of Trusts come in you own something which will give you lifetime dividend, not in money but in living standard. "

The participant finishes:"So how can you own part of an organization. "

"Ideas anyone?" Says the facilitator.

"You can own a share of a cooperative or a share in a company, or own part of a farm or field"

That is good you can get together with others and own part of a farm. Then you have a right to use it and to be there. And you have a right to a share in the surplus.

Now we have the principle how can we translate that kind of ownership into practical terms?

One suggestion comes from the floor “You can own something and lend it to someone else.”

“Lets discuss that.”

“Well,” says the woman” I lend it to someone, in return I get some vegetables. They get the right to use, I get a few vegetables”.

“Can anyone relate that to points?”

Someone tries – “we know that, say, a half a hectare gives enough food for one person a year so 700 points 400 which is the food, say, 800 points per hectare”.

“Good we are getting the idea.”

“You have to explore possibilities for an individual organization. The exercise is to list up the possibilities between ownership and dividend directly, and work them out. Choose one example.”

We group up. I wander over to a table, with four chairs. I am joined by the aircraft guy, the bank guy and someone with some land. We choose a threshing machine as a concrete example, you would own a share in the threshing machine, if it broke you would be in trouble., if you owned part of the land and it got flooded. If you owned whatever and it did not work, your whole basic life support would be compromised,

On the other hand, the risk is not so large. If you owned the land there is not much of a risk if the machine broke you would get it mended. But we need to spread the risk. You need a way to own something and yet not be suck with the risk but to share the risk.

We go back and sit down you need to spread the risk, to share the risk. It is difficult to create individual ownership.

That is the downside of owning something. So you want to owned the

equivalent of 700 points in order to spread the risk.

If you owned something that generated 700 points you would never have to work again You would get the basics. And you could choose to carry on or take it no.

This is a very open system. Renewable life style is interesting. You still have a management responsibility and ownership responsibility even with 700 points generation. But you would get rid of the stress or hard graft.

The facilitator asks someone to summarize.

We agree ownership is good if you own part of a good that brings provides life support services. You can own land and machines, parts of organizations that provide this, only with the input of man-hours. And you get the points out. So what we are saying here is the principle, a part of an organization produces a certain number of points and you can work in that organization with time and money input gives you a right to but it needs to be spread that is the next bit.

How to spread the risk.

A high level of guarantee.

If you put your money in to own at today’s prices. Something say a green house which produces lettuces. I would get out food or points. I could get points out of it and use them to get an equivalent good. Get the points back. And I could be guaranteed the points. For example. If the greenhouse is going well food is sent in a package to me as I own part of it.

Just owning does not give me so much. The passive ownership does not work. Suppose I own it and put time in and then get the greenfly. Can I still get the points because I would be insured through the scheme? Communal risk sharing would be a good idea.

People don't like communal things, but where there is a risk they want everyone to help them.

We need a system whereby I put some money in, work out the investment, which buys infrastructure which together with hours will give me (I'm getting it now) the whole point comes clear to me – you have to look at it a

“Let me explain “ - I stand up “Go back to the diagram of the unit I put 5 hours in I want to get 5 hours out it is that simple. If you say food was 400 hours a year. If you have an organization where I put in 400 then I would get the equivalent out in food.“

Good place to pause.

Verifications

From Wikipedia

Classical economics

Real price refers to how much labor a good costs. This is in contrast to *nominal price* which refers to how much money a good costs. This terminology is used by [Adam Smith](#). In inflation, the nominal price of a good would increase with the real price remaining the same. However, the real price of money would decrease as it is not able to purchase as much labor.

The **time value of money** (TVM) or the **discounted present value** is one of the basic concepts of [finance](#).

Backward bending supply curve of labour

This is also a basic concept in economics, but seldom talked about. Briefly, a disinterest in working more will be met when, for example, wages are high and people are satisfied, or there is nothing for their wages to buy. The demand for work will be therefore reduced, hence the term backward bending supply.

In this context, it is rather interesting. If a standard of life is achieved, and people want improvement, they will have to work more. There will come a point where enough is enough, and people will elect to keep a lower standard instead of working more.

List of “realia” met. These things I saw that were useful in the context of Units of Trust.

- DVDs explaining principles
- Exhibition
- “Investment briefs”
- Points system
- Good examples
- Connection to politics