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On the ambivalence of ICT

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Introduction

The emerging information society, supported by the US, the European Union and many other countries, is charged with high expectations.

This optimism is a phenomenon far from being new in history. We can observe similar hopes in the then new technologies of the past:

- The French Revolution believed Chappe's optical telegraph will allow conquering Europe by easily commanding and controlling the armed forces in the Revolutionary wars.
- At the beginning of the 20th century Henry Ford initiated an economic upswing by mass production of cars and an improved system of remuneration of workers,
- in 1920 Lenin expected building a new society on the postulate: „Communism - that is Soviet power and electrification of the whole country.“

Nowadays globally acting enterprises see new technologies as essential strategic instruments in gaining competitive power, while grass root movements expect to become empowered and more influential, too.



Main Characteristics of the so called Information Society

in terms of political economics

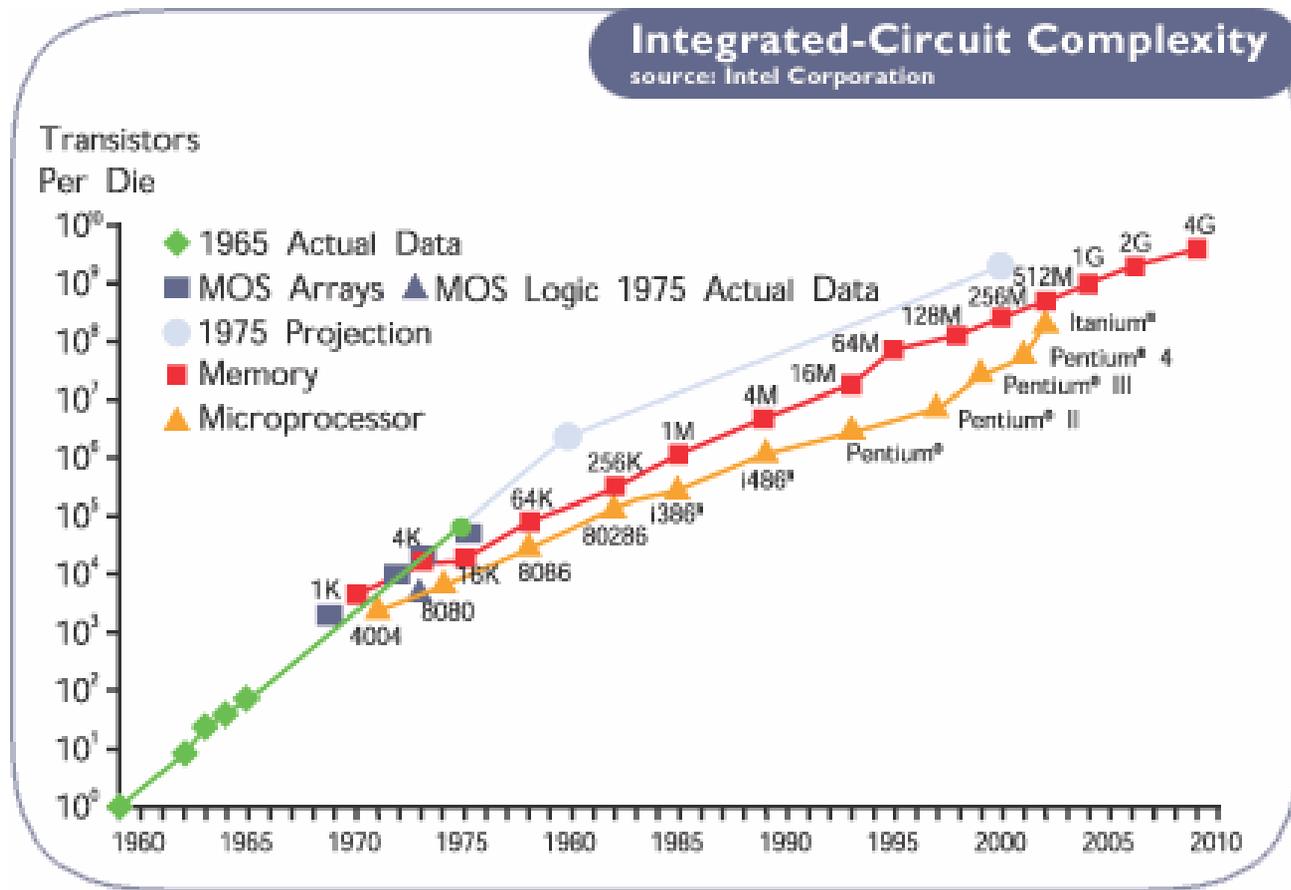
(a) **Falling Transaction Costs**

New activities of communication, coordination, information, administration, organisation, networking become possible, easier and/or cheaper

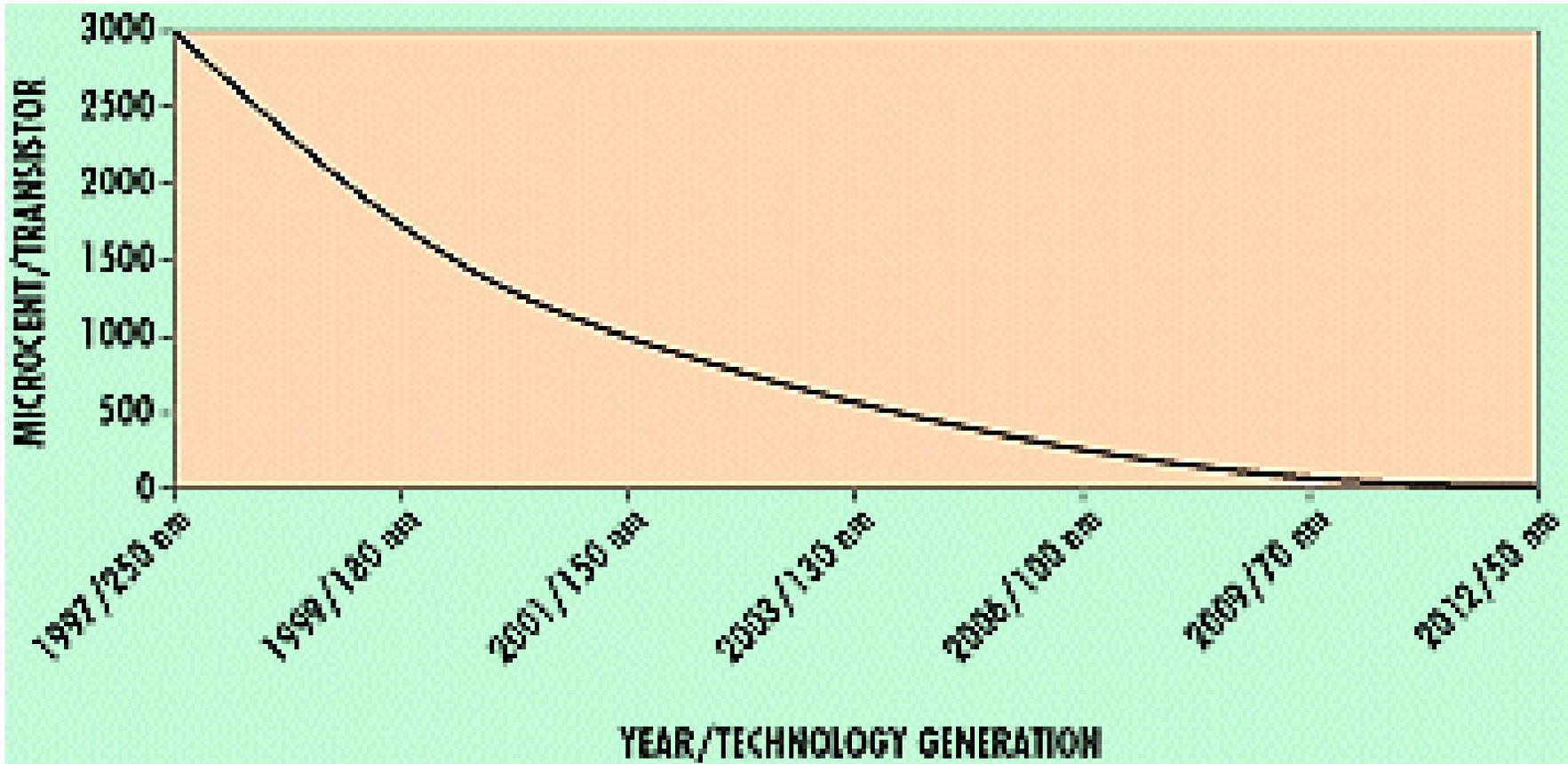
(b) **„Commodification“ of Information Goods**

The market covers new fields of human activities (information, communication, knowledge, and other cultural acts) and transforms them into commodities

Transaction costs go down: Moore's Law and ...



Transaction costs go down: ... falling costs/transistor



Ambivalent effects of falling transaction costs

- (a) cheaper production,
and, maybe more interesting
 - (b) emerging new actors and organisations, while others may disappear
- > Technology can empower new individuals, groups and organisations to perform new activities,
- > but can also bring traditional players under pressure
- see e.g. Williamson, O. E., The Economic Institutions of Capitalism, The Free Press, New York 1987, paperback edition, for a classical example: the end of the „putting-out-Systems“ and the birth of the „factory-Systems“ in Great Britain in early capitalism).



What is the mechanism of commodification of information goods?

A little excursion into the basics of political economics is needed

What is a commodity?

- A commodity is a product of human labour
Since Aristotle we know that it has two essential properties (also Adam Smith and Karl Marx)
- It has value in use
Things or activities/services are useful for somebody for some reason
- and value in exchange
Things or activities have a value for others. They pay for it in the market.



What about services?

There are two kinds of use values:

- **Material products**

they exist even after the production is over

- **Services/human activities**

they disappear after production, as they are consumed

But there is a problem with live human activities They can be sold only once, they are volatile and can neither be stored nor accumulated.

A large part of human activities consists in live acts (speaking, singing, dancing, writing, creating poetry, researching, programming etc).

They represent pure use values (in economic language they are services). Many acts of human culture are of this type.



The role of digital media in the information society

Like by a time machine digital media allow to *freeze* live cultural activities on a large scale and to *reify* them in a physical object (data carrier). By that they *transform use values* from a volatile form *into a stable material* one (e.g. DVD, CD-ROM, HardDisk, Memory chip, USB-Stick etc.)

But digital technology allows also to *produce copies* of the frozen activities *very cheaply* and to *distribute them world wide* via the Internet.

On this basis no market can be established. It is not possible to make profits. To allow this, another innovation is needed ->



The role of Law in the information society

To enable the establishment of a market and to create full fledged commodities out of volatile services, capitalist countries developed the instrument of the Law and appropriate technologies to restrict the possibility of copying. The EU and the US established legal instruments against breaking copy-protection mechanisms.

By this interaction of technology and laws use values are first reified in digital carriers, second by copy-protection they are transformed into commodities which have also exchange value.

By ID Codes, licences, keys etc. each copy is individualized and can be distributed like traditional commodities, as if they were material products.

A large scale global market for digital carriers is enabled, and also a secondary market for freezing and unfreezing technologies (like DVD players, iPod etc).





Effects of commodification in the information society

- In the information society by commodification many areas of human activities, culture, knowledge, arts, research, entertainment are conquered by the market. They have a price which excludes people without or with limited financial means from using them.
- Commodification creates artificial shortage.
- Usually it is advantageous to large scale and global enterprises.
- In some cases it can also result in a better quality of products.
- This development can be compared by extension and importance with the *commodification of work* during the first half of the 19th century in England which was described by Karl Polanyi in his well known book „The Great Transformation“ (1944). There he located the transformation of a capitalistic *economy* into a capitalistic *society*.



Growing Resistance

- While traditional class struggles were related to the fight between capitalists and the working class, the contemporary struggles focus on the cultural heritage in a very broad meaning of the term. It is the question of availability and universal access to cultural products which is not only related to manual workers, but to middle classes, intellectuals, artists and to parts of the capitalist class itself.
- Accordingly one can see growing resistance in many areas at the same time. Even the European Parliament was reluctant to subscribe a directive of patents on software or on the human genome. Free/libre software, open source, intellectual property rights (creative commons, GNU Licences have become new battlefields for the appropriation of their own culture by the people.
- But there could be more...



Targeted Intelligence Networks

Common features

- Integrated effort to combine grass root movements, technical infrastructure, and financial and legal support by the state to create a better quality of life, in particular for the more vulnerable groups of society
- Voluntary cooperation in small groups towards a shared goal
- Supported by ICT
- Institutional framework has to be created within that these new forms can emerge Needed are financial, infrastructural, material and educational resources to empower people to take over their new tasks voluntarily.
- This implies also certain ways of compensation and remuneration for their efforts and their contribution to society.



Targeted Intelligence Networks

Empirical examples (“Keimformen”)

- *"Peer Group Care"*
 - complementary structure for the elderly, poor, disabled and other outsiders;
- *"Study Circles" **
 - to complement traditional schools;
- *"Workers' Health Assurance Groups"*
 - to improve the occupational ill-health status, and
- *"Intrapreneurial Groups"*
 - against alienation on the workplace

as examples to illustrate how self-empowerment and auto-determination can be trained

* See paper by L. Karlsson & P. Fleissner (ed.) [Study Circles in Targeted Intelligence Networks](http://www.jrc.es/home/pages/detail.cfm?prs=329), Institute for Prospective Technological Studies of the European Commission, Seville, Spain 2000.
<http://www.jrc.es/home/pages/detail.cfm?prs=329>

Side conditions for implementation

The examples show that it is not impossible to implement TINs

- It will depend
 - on the level of income,
 - on the amount of leisure time left over after the necessities of work.
 - on the psychological status of the majority of people.
 - on increased experience of crisis symptoms,
 - on increased feelings of anxiety and stress,
 - On the availability of political support
- TINs make possible the more direct experience of the dark side of life, of the destructive tendencies of societal change.



Challenges of Implementation

- Other already existing social activities should be complemented by TINs, not replaced
- Society's responsibility should not be taken away, but increased (in particular financial resources should be available, private–public partnerships)
- Identification of NGOs needed
- Move the pendulum of history away from nationalisation one step further towards socialisation (“Vergesellschaftung statt Verstaatlichung”)
- Important issue: how to monitor and control the TINs to create a process of self-improvement
- In real life there are already very successful implementations, even if the use of ICT in these cases is not very strong yet.... ->



Bolivarian Missions

- The "Bolivarian Missions" have entailed the launching of massive government *anti-poverty initiatives*, the construction of thousands of *free medical clinics* for the poor, the institution of *educational campaigns* that have reportedly made more than one million adult Venezuelans literate, and the enactment of food and housing subsidies. There have been marked improvements in the infant mortality rate between 1998 and 2005.
- The Missions have overseen widespread experimentation in what Chávez supporters term *citizen- and worker-managed governance*, as well as the granting of thousands of free land titles, reportedly to formerly landless poor and indigenous communities. In contrast, several large landed estates and factories have been, or are in the process of being, expropriated.





Education

- **Mission Robinson** (launched July 2003) – uses volunteers to teach reading, writing, and arithmetic to Venezuelan adults.
- **Mission Ribas** (launched November 2003) – provides remedial high school level classes to Venezuelan high school dropouts; named after independence hero José Felix Ribas.
- **Mission Sucre** (launched in late 2003) – provides free and ongoing basic education courses to adult Venezuelans who had not completed their elementary-level education. The literacy programs that comprise Mission Sucre are centered on fostering universal literacy among Venezuela's adult populace; an adjunct to this is the facilitation of their comprehension of the Venezuelan Constitution of 1999 and the inherent rights that they, as Venezuelan citizens, are guaranteed under this document
- **Mission Ciencia** ("Mission Science" launched February 2006) – includes a project to train 400,000 people in *open source software* and scholarships for graduate studies and the creation of laboratories in different universities.



Electoral, Environmental

- **Mission Florentino** (launched June 2004) – organized by Hugo Chávez to coordinate the population to vote "No" in the Venezuelan recall referendum of 2004. The organizational centers of the Mission were named "Comando Maisanta" and were the ideological central headquarters for those who wished to keep Chávez as the President of Venezuela for the remainder of his presidential period.
- **Mission Energía** (launched November 2006) – has begun a campaign to reduce environmental degradation by replacing incandescent lightbulbs with more energy-efficient fluorescent bulbs.



Socioeconomic transformation, Civilian militia

- **Mission Vuelvan Caras** ("Mission Turn Faces") – has as its objective the transformation of the present Venezuelan economy to one that is oriented towards social, rather than fiscal and remunerative, goals. It seeks to facilitate increased involvement of ordinary citizens in programs of endogenous and sustainable social development, emphasizing in particular the involvement of traditionally marginalized or excluded Venezuelan social and economic sectors, including those participating in Venezuela's significant "informal" economy. The mission's ultimate goal, according to Hugo Chávez, is to foster an economy that brings "a quality and dignified life for all". In January 2006, Chávez declared that, after fulfilling the first stage of the mission, the goal of the second stage will be to turn every "endogenous nuclei of development" into "military nuclei of resistance against American imperialism" as part of a continuous program to create "citizen militias".
- **Mission Miranda** – establishes a Venezuelan military reserve composed of civilians who could participate in the defense of the Venezuelan territory.



Identification, Indigenous, Land reform, Rural development

- **Mission Identidad** – provides Venezuelan national identity cards to facilitate access to the social services provided by other Missions.
- **Mission Guaicaipuro** (launched October 2003) – carried out by the Venezuelan Ministry of Environment and Natural Resources, this program seeks to restore communal land titles and human rights to Venezuela's numerous indigenous communities, in addition to defending their rights against resource and financial speculation by the dominant culture.
- **Mission Zamora** – provides a comprehensive land expropriation and redistribution program that mainly benefits poor Venezuelans. Several large landed estates and factories have been, or are in the process of, being expropriated.
- **Mission Vuelta al Campo** ("Return to the Countryside"; announced mid-2005) – seeks to encourage impoverished and unemployed urban Venezuelans to willingly return to the countryside.
- **Mission Arbol** (Mission Tree, announced June 2006) – seeks to recover Venezuelan forests, with plans to plant 100,000 trees in 5 years. The project is also to involve the rural population, in an effort to stop harm to forests through slash/burn practices by promoting more sustainable agriculture, such as growing coffee or cocoa. The projects aim to achieve this through self organisation of the local populations.



Food and Nutrition, Housing

- **Mission Mercal** – seeks to provide access to high-quality produce, grains, dairy, and meat at discounted prices. Seeks to provide Venezuela's poor increased access to nutritious, safe, and organic locally- and nationally-grown foodstuffs. Seeks also to increase Venezuela's food sovereignty.
- **Mission Barrio Adentro** ("Mission Inside the Neighborhood") – a series of initiatives (deployed in three distinct stages) to provide free, comprehensive, and community health care (at both the primary (*Consultorios y Clínicas Populares* or popular clinics) and secondary (hospital) levels), in addition to preventative medical counsel to Venezuela's medically under-served and impoverished *barrios*.
- **Mission Hábitat** – has as its goal the construction of new housing units for the poor. The program also seeks to develop agreeable and integrated housing zones that make available a full range of social services — from education to healthcare — which likens its vision to that of new urbanism. Critics have denounced the slow rate of construction (less than 10,000 housing units built over the last six years).



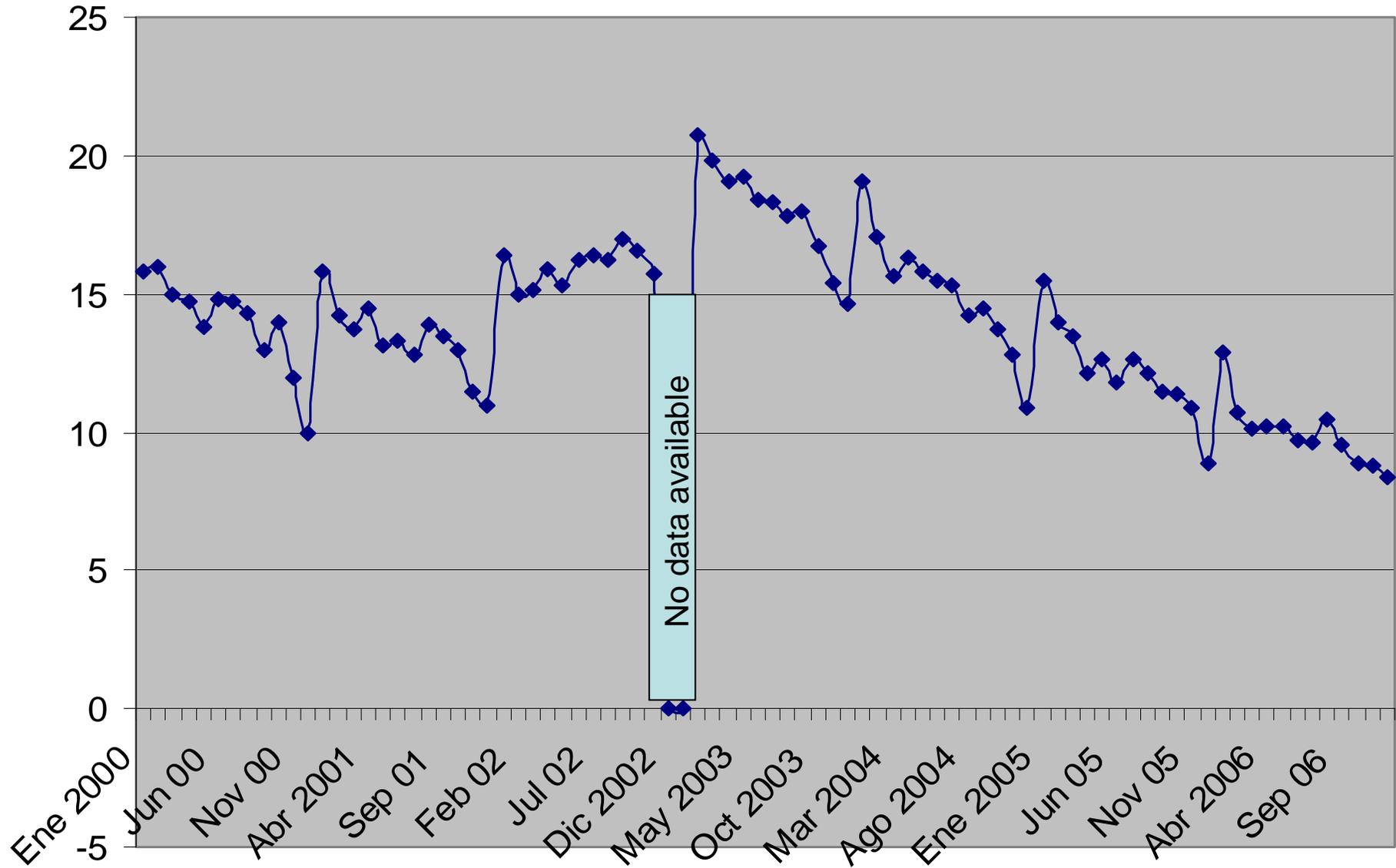
Results

- Oil profits, being about US\$25 billion in 2004, have allowed the Chávez administration to carry out what he calls a "new socialist revolution." The leftist platform involves a remarkable increase in spending on social programs. The Chávez administration has thus built free health care clinics, subsidized food and created small manufacturing cooperatives. Between them, these programs have constructed and modernized thousands of public medical and dental clinics, launched massive literacy and education initiatives, subsidized food, gasoline, and other consumer goods, and established numerous worker-managed manufacturing and industrial cooperatives. Critics allege that these programs are corrupt and inefficient, while a number of international organizations — including the UN, UNICEF, and the WHO — have praised the programs as positive models for bringing about social development.



A Real Success Story: Monthly Rate of Unemployment in Venezuela 2000-06 (percent)

Source: <http://www.ine.gov.ve/hogares/SeleccionHogares.asp>





Thanks for your attention!

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