Business Administration and Economics

Lecture SS 2007

University of Applied Sciences Cologne
Lecture by Prof. Dr. Ulrich Daldrup

Fachhochschule Köln
Cologne University of Applied Sciences

Who is Ulrich Daldrup

ACADEMIC	
Since 1984	Professor at the University of Applied Sciences of Cologne, teaching Business Administration and International Treaties. 2006 appointed Professor at U.A.S.C.
Since 2004	Lecture at the University of Applied Sciences of Aachen, teaching Business Administration and International Management
1996 - 1998	Dean and Rector of the University of Bradford, Campus Aachen, MBA Study with Dutch NIMBAS University
2000	Dr. h.c. of the Technical University of Kaunas/Lithuania
1977	Dr. rer. nat. of the Technical University of Aachen
1965 - 1971	Study of Chemistry and Economics at the Technical University of Aachen (Dipl.-Chem.)
1958 -1965	European School, Brussels (baccalauréat)
PROFESSIONAL	
Since 1979	Owner and CEO of a private company based in Aachen Member of Supervisory Boards of many companies: Savings Bank, Energy, Public Transport, Business Park, Technology Center, Water for the World Foundation etc
2000 - 2004	Commissioner of the German government for Latvia
1994 - 1999	Mayor of the City of Aachen
1989 - 1993	Political advisor to the minister of industry and first President of Mauritius
1975 - 1994	Delegated as expert by European Commission, German BMZ, KFW and GTZ as well as World Bank on short term missions (90 countries)
1972 - 1974	Advisor to the Government of Morocco, seconded by German government

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Scripts

- Look at the following WEB Pages:
  - www.daldrup.net
  - www.daldrup.org

You find under “University of Applied Sciences” all relevant documents for down-load in PDF format.

Lecture SS 2007

Start semester		16.04.2007 17.04.2007	
12.03.2007		18.04.2007	
14.03.2007			
15.03.2007			
19.03.2007	Business Plan		
20.03.2007	Business Plan	05.05.2007	Whole day: it is a Saturday!
21.03.2007			
22.03.2007			
12.04.2007			

Structure of the lecture

Theoretical part:

- Macro Economics (introduction)
- Investment calculation/We make a Business Plan
- Cost calculation
- Economic Ratios
- Enterprises: creation, legal forms
- Planning, Decision and Control
- Human Resources management
- Organization
- Marketing
- Accountancy
- Financing

Practical part:

-Drafting a Business Plan for a new investment (in a group of up to three students)

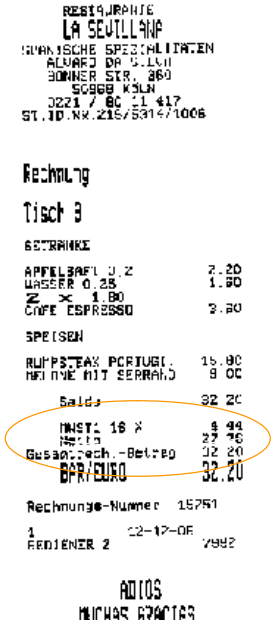
-Presentation of the Business Plan

-The Business Plan counts for 50% of the final quotation (exam must be passed)

Test – to know you better

- Have you ever heard:
  - Stock market
  - Calculation of labor cost
  - How to calculate the VAT
  - Oligopoly
  - Organigramme
  - Break Even Point
  - Central Bank
  - Balance
  - Cash flow
  - Limited company
  - Shares
  - Depreciation costs

Just a simple invoice ….. ?



RESTAURANTE
LA SEVILLANA
SPANISCHE SPEZIALITÄTEN
ALVARO DA SILVA
BONNER STR. 360
50968 KÖLN
0221 / 80 11 417
ST.ID.NR.215/5314/1006

Rechnung

Tisch 3

GETRÄNKE

APFELSAFT 0,2 2,20
WASSER 0,25 1,80
2 x 1,80
CAFE ESPRESSO 3,80

SPEISEN

RUMPSTEAK PORTUGI. 15,80
MEDIUM MIT SERRANO 8,00

Saldo 32,20

MWST: 16 % 4,44
Netto 27,76
Gesamtbetrag-Betrag 32,20
BAR/EURO 32,20

Rechnungs-Nummer 15751

1 22-12-08
BEDIENER 2 7992

ADIOS
MUCHAS GRACIAS

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Chapter 1: Introduction to National Economy Macroeconomics

- The State
- The Public and the Private Sector
- Market Economy
- Money
- Taxes
- The National Budget

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Macroeconomics vs. Microeconomics

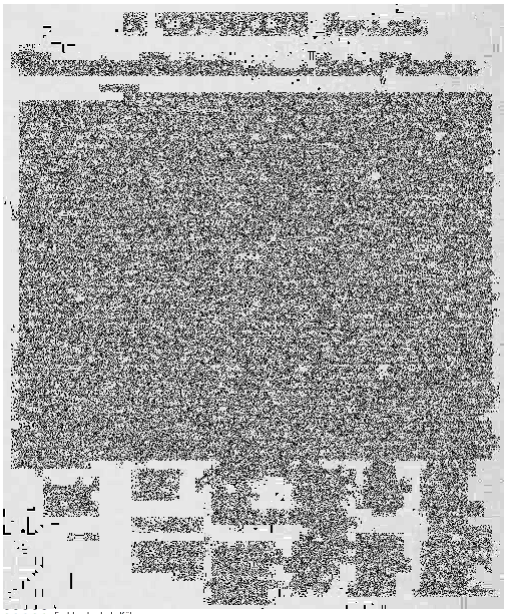
Macroeconomics
- National economy

Microeconomics
- Economics on company level. Business administration

- Definition
  - Business administration analyses the operations and procedures in enterprises and their environment

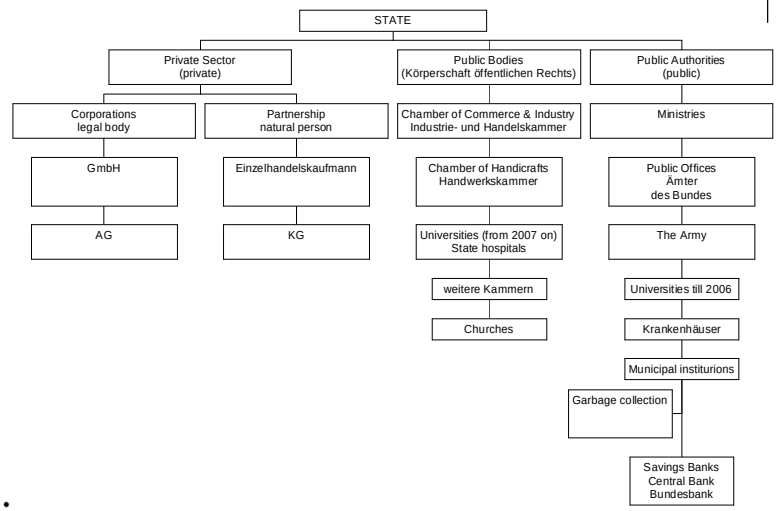
The State

- Constitution (Germany: Grundgesetz)
- Federal government (Legislator)
  - Parliament
  - 2nd Chamber (Länderkammer)
- Federal States
  - Federal States Parliament
  - Municipalities



The unanimous declaration of the thirteen United States of America (4th July 1776)

Public Sector – Private Sector



Market Economy – Central Planed Economy

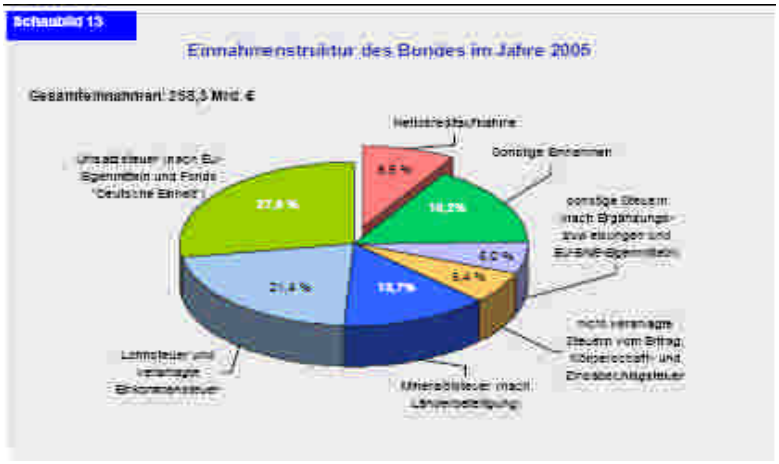
- Market Economy (+ social):
  - Demand and offer by many suppliers and purchasers
  - Rules and regulations by the State
- Planning Economy
  - The State is the sole entrepreneur
  - The State rules and controls himself

- The State has the monopoly to produce money. He is the sole owner of the money.
  - Money is issued by the Central Bank (dependent ./. Independent)
- Medium of exchange
- Gold standard
- Circulation of money
- Currencies (foreign) – exchange of - convertibility

Taxes

- The State is entitles to levy taxes, customs and duties
- In Germany more than 100 different taxes
  - Value added tax - VAT (MwSt)
  - Corporate tax
  - Income tax
  - Motor vehicle tax
  - Business tax
  - Church tax
  - Petroleum tax
  - Insurance tax
  - Alcohol tax
  - Withholding tax (Quellensteuer)

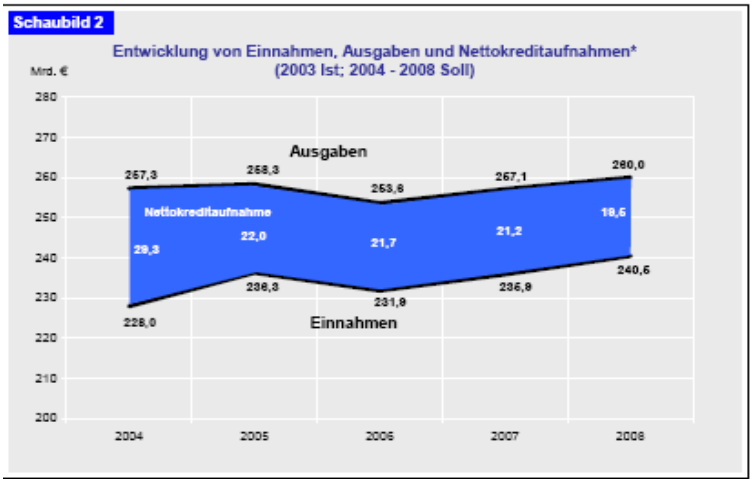
Sources of Public Tax Collection (Germany 2005)



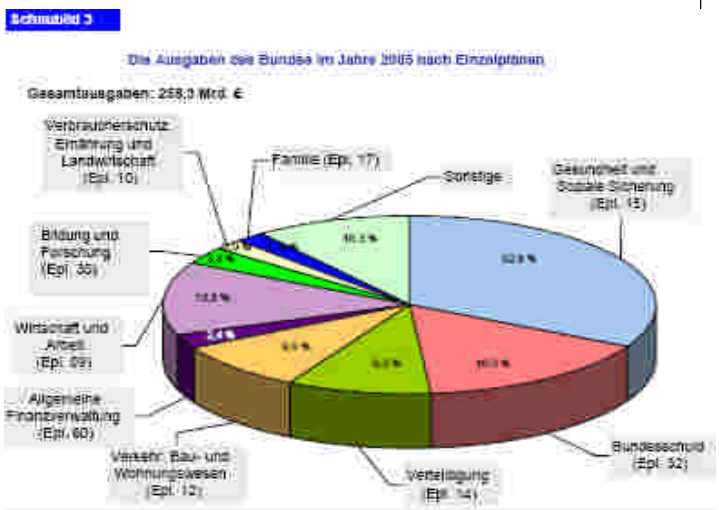
Tax Revenue

- The German State collects 50% of the „Added Value“ (Wertschöpfung) of (Staatsquote)
- The volume of the German federal public budget is 253 billion EUR (in 2006)
- The volume of the NRW public budget is 100 billion EUR (in 2006)
- The volume of the European Commission public budget is 100 billion EUR (in 2006)

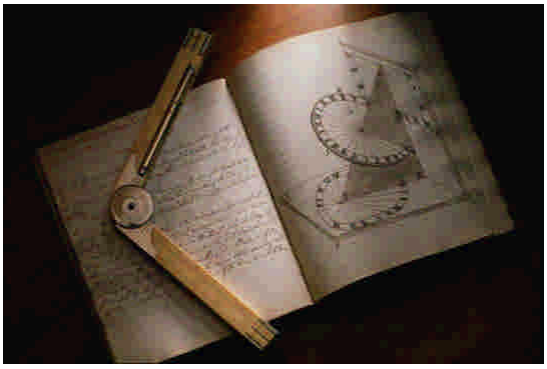
The German Public Budget: development



Spenditure of the German Public Budget (2005)



Chapter II: Entreprises



Companies

- Company/corporation is a economic unit to satisfy the need of the market
- Companies are profit oriented
- Some companies are not profit oriented as hospitals, Universities, charity institutions, churches (public sector)
- A company may have many production sites/branches/plants

Legal Forms of Entreprises

- Private sector entreprises
  - Traders/merchants/individual entreprise
  - Company
  - Other companies
- Public sector companies or entities

Legal background

- Economic activities are subject to a number of legal regulations as:
  - Commercial laws (Gemany):
    - BGB, HGB, AktG, GmbHG, Genossenschaftsgesetz, Kartellgesetz (GWB), Rabattgesetz, Gesetz zur Regelung allg. Geschäftsbedingungen, Scheckgesetz, Wechselgesetz, Publizitätsgesetz, Gesetz gegen unlauteren Wettbewerb, Gesetz gegen Wettbewerbsbeschränkungen, Urheberrechtsgesetz,, Produkthaftungsgesetz

Companies
Gesellschaftsunternehmen

- Is created if at least to individuals enter into a contract to form a common undertaking with an economic purpose
- Exception: one-person limited company (Einmann GMBH)
- The law differentiates a „Partnership“ from a „Capital Company“ (Personen- und Kapitalgesellschaften)

The Merchant/individual entreprise (Einzelhandelskaufmann)

- Most simple and most common form of an entreprise
- Is lead by one person
- Creation is simple and almost informal: Registration in the Registrar of Commerce
- The entreprise has in its name a Family name and at least one „Christian name“
- No regulation on proprietary capital - Share capital (Eigenkapital)
- Reliability of the entrepreneur is unlimited, immediate (unmittelbar) and touches his entire private assets
- An individual entrepreneur can be taken to court as by his entreprise

Trader - Businessman

- A Trader (Merchant) runs a commerce, as defined by (§1-7 HGB)
- A „Trade“ is a continuous self-employed activity with the objective to gain profit
- A Trade activity is registered in the Registrar of Commerce (Handelsregister)
- A Trader/merchant, who is registered in the Commercial Registrar is subject to the BGB (Bürgerliches Gesetzbuch)
- “Small merchant” runs a very little shop and needs “only” a “Gewerbeschein”, granted by the municipalities (Kleingewerbe)

Partnership (Personengesellschaft)

- Partnerships are no „Legal Bodies“ (juristischen Personen)
- Still: The Fiscal Law makes a distinction between a „Partnership“ and the „Partners“ (Gesellschaft und Gesellschaftern)
- Income tax (Einkommenssteuer) and Tax on Assets (Vermögenssteuer) is only to be paid by the partners
  - PS: No “Vermögenssteuer anymore in Germany

General Partnership (Offene Handelsgesellschaft)

- At least two partners
- Simple contract/agreement to create the entreprise (Formloser Gesellschaftsvertrag)
- Registration in the Registrar of Companies (Handelsregister)
- No legal body (Rechtspersönlichkeit)
- Can enter into liabilities (Verbindlichkeiten), can go to court and can be brought to court
- Carries the name of at least one of the Partners, the objective of the entreprise with the addition „oHG“
- No minimum capital (Mindestkapital)

Entreprises under the Civil Law Gesellschaft bürgerlichen Rechts (GbR)

- Association of Partners or Legal Bodies (natürlichen or juristischen Personen)
- Creation by a simple contract (formloser Vertrag)
- Has no Legal Capacity (Rechtsfähigkeit)
- Is not registered in the Registrar of companies
- Common management by the Partners

Free Employment/Liberal profession

- Free employments as:
  - Lawyer, physician, accountant, artists, architect, and farmers
- Free employees need specific qualification: e.g.
  - A physician a recognized university degree
  - A lawyer a recognized university degree
  - An accountant (Steuerberater, Wirtschaftsprüfer) a specific qualification with public examination/diploma
  - A sportsman needs no such academic qualification. His qualification is individual success in doing sports for profit (professional)
- Most liberal professions need to register with a Chamber: Chamber for physicians, chamber for architects etc

Other forms of entreprises

- Bank
- Insurance
- Mining Company under the „Mining law“ (Bergrechtliche Gesellschaft)
- Shiping company (Reederei)
- Cooperative (Genossenschaft)
- Associations (e.g. Versicherungsverein)
- Association: e.V. (eingetragener Verein)

Companies in the Handicraft Sector

- Qualification
  - apprenticeship
  - Craftsman/Skilled labour (Facharbeiter)
  - Master craftsman (Meister)
- Chamber of Handicraft (Handwerkskammer)
- Professions of the Handicraft sector (regulated by law in Germany) – Handwerksberufe
- SME Small and Medium Enterprises

Companies/Corporations

- Capital company (Kapitalgesellschaften)
  - Joint Stock Company/Incorporated Company (US) / Company by shares
  - Limited partnership by shares (Kommanditgesellschaften auf Aktien)
  - Limited company (Gesellschaften mit beschränkter Haftung)

Limited Partnership (Kommanditgesellschaft)

- A variation of the „General Partnership“, but with the objective to run a commerce in form of a common entreprise (Handelsgewerbe unter gemeinschaftlicher Firma)
- At least on of the Partners has a limited liability: limited to a defined capital contribution in form of goods (Kommanditist). The other Partners do not have such a limited liability (Komplementär), but have a full individual liability (§ 161 HGB)
- To be registered in the Registrar of Commerce (Handelsregister)
- Carries the name of at least one of the full reliable partners, the objective of the entreprise with the addition KG
- Eine Kommanditgesellschaft (KG) (französisch société en commandite, Auftraggesellschaft) ist eine Personenhandelsgesellschaft, in der sich zwei oder mehr natürliche Personen und oder juristische Personen zusammengeschlossen haben, um unter einer gemeinsamen Firma ein Handelsgewerbe zu betreiben. Die KG unterscheidet sich von der offenen Handelsgesellschaft (OHG) insofern, als bei einem oder mehreren Gesellschaftern die Haftung gegenüber den Gesellschaftsgläubigern auf den Betrag einer bestimmten Vermögenseinlage beschränkt ist (Kommanditisten), während mindestens ein anderer Gesellschafter persönlich haftet (Komplementär).

Beispiel: 160.000 € Gewinn im Jahr 2006 werden wie folgt verteilt:

Frau Brunner, Einlage 300.000 €,	Komplementär; 3/8 Anteil,	Komplementärgehalt 42.000 € jährlich
Herr Berger, Einlage 100.000 €,	Komplementär; 4/8 Anteil,	Komplementärgehalt 42.000 € jährlich
Herr Brunner, Einlage 400.000 €	Kommanditist; 1/8 Anteil,	kein Gehalt da Kommanditist

The “Limited company”

A limited company in the United Kingdom is a corporation whose liability is limited by law (U.S. law, English law, Scots law etc.). There are three main types of limited companies which are set up by the Memorandum of Association & Articles of Association:

- private company limited by shares (Ltd.)
  - Similar to Pty. Ltd.
- private company limited by guarantee
  - These companies do not have share capital but are guaranteed by its "members", who agree to pay a fixed amount in the event of the company's liquidation. Frequently charities incorporate using this form of limited liability. Another interesting example is the Financial Services Authority.
- public limited company (PLC).
  - Public limited companies by shares (plc) (similar to the U.S. Corporation and the German AG) offer several advantages over trading as sole trader (e.g. Unlimited liability).

The Limited Cie, Ltd. (GmbH)

- To be created by one or more individuals
- Minimum Share capital: 25.000 EUR (in Germany)
- Name of the Cie. defines the companies activity, followed by the letters “GmbH”
- On letter head must be printed the legal form of the company, the headquarter, the register of commerce, all CEOs (Chief Executive Officers(/Managers/Directors and, if existing, the name of the Chairman of the Supervisory board

Share capital

- Share capital or Issued capital refers to portion of a company's equity that has been obtained (or will be obtained) by trading stock to a shareholder for cash or equivalent item of capital value.
- For example, a company can set aside share capital to exchange for computer servers instead of directly purchasing the servers from existing equity.

Liability to the shareholders

- The GmbH incurs liability to the value of its total property. Shareholders, on the other hand, are subject to limited liabilty, as the name implies.
- In the event of such a company reaching the point of bankruptcy, shareholders are not liable beyond their initial share contribution, i.e. the private property of a shareholder remains his own.
- As stipulated in the articles of association, no further financial contribution is required of the shareholder once the initial share contribution has been paid.
- Consequently, should the initial share capital not yet have been paid in full, so shareholders are merely required to pay the outstanding sum in the case of insolvency.

Founding of a "GmbH"

- The act of having founded a 'GmbH' (comparable to the British private company limited by shares) creates a new legal entity; one with its own rights and duties, and one bearing its own name. Generally, shareholders remain unaffected by the rights and duties of this new legal entity. A GmbH may sue, or itself be sued. It may own tangible assets as well as real estate. The property owned by a GmbH has nothing to do with the private property owned by the shareholders themselves.
  This corporate form is equally open to persons wishing to establish a GmbH comprising a single shareholder - in this case a one-man GmbH.
  The right to either found or participate in a GmbH is likewise extended to non-German nationals and requires no further permission. However, it should be observed that other principles apply in the case of shareholders intending to work for the GmbH in Germany (see §7 and §11).

Ltd. Company: Articles of association

- As at least one CEO, Director (Geschäftsführer)
- Has two bodies: the Directors (Board of Directors) and the Partners (Board of Partners/Supervisory Board)
- § 181 BGB allows that only one of the Directors can represent the Company
- Decisions to be taken by Supervisory Board
- A Ltd. Company has no Supervisory Board by law, but can create one

Corporation

- A corporation is an artificial legal entity (technically, a juristic person) which, while made up of a number of natural persons or other legal entities, has a separate legal identity from them.
- As a legal entity the corporation receives legal rights and duties. Five rights always exist for a corporation:
  - the ability to sue and be sued (this gives the corporation access to the courts);
  - the right to a common treasury (this gives the right to hold assets separate from the assets of its members);
  - the right to hire agents (this gives the corporation the right to hire employees)
  - the right to a common seal (this gives the corporation the right to sign contracts); and
  - the right to make by-laws (this gives the corporation the right to govern its internal affairs).

Further legal characteristics

- In addition to legal personality, the modern business corporation has three other legal characteristics:
  - transferrable shares (the membership can change without affecting the existence of the corporation as a legal entity),
  - the capacity for perpetual succession (the possibilty that the corporation can continue to exist despite the withdrawal of any of its members), and
  - limited liability (the responsibility of the members for the debts of the corporation is limited).

Joint stock company

- Investors and entrepreneurs often form joint stock companies and incorporate them to facilitate a business; as this form of business is now extremely prevalent.
- The term corporation is often used to refer specifically to such business corporations.
- Corporations may also be formed for local government (municipal corporation), political, religious, and charitable purposes (not-for-profit corporation), or government programs (government-owned corporation).

Company by Shares (AG)

- A minimum of one or more founders (individuals or companies) own the shares
- Minimum share capital 50.000 EUR
- Capital of the company in shares. Minimum value of one share is one EUR
- Has three bodies (in Germany):
  - Board of Directors
  - Supervisory Board
  - Shareholders meeting (Gesellschafterversammlung)

Government owned corporation

- A public company usually refers to a company which is permitted to offer its securites (i.e., stock, options, bonds, etc.) for sale to the general public, typically through a stock exchange. Typically, the securities of a public company are owned by a large number of investors while the shares of a private company are owned by relatively few shareholders. However, a company with a large number of shareholders is not necessarily a public company.

- The term "public company" may also refer to a government-owned corporation. This meaning of a "public company" comes from the tradition of public ownership of assets and interests by and for the people as a whole, and is the less-common meaning in the United States

Public ownership

- Public ownership (also called government ownership, state ownership or state property) refers to government ownership of any asset, industry, or corporation at any level, national, regional or local (municipal); or, it may refer to common (full-community) non-state ownership. The process of bringing an asset into public ownership is called Nationalization or Municipalization.
- A government owned corporation (sometimes state-owned enterprise, SOE) may resemble a not-for-profit corporation as it may not be required to generate a profit; although governments may also use profitable entities they own to support the general budget. SOE's may or may not be expected to operate in a broadly commercial manner and may or may not have to face competitive tendering.
- The creation of a government-owned corporation (corporatization) from other forms of government ownership may be a precursor to privatization.

Public companies

- Public companies with private company legal form
- Public companies and bodies
  - Hospitals, universities
  - Public economic activity
  - Privatization

Financial institutions

- A bank is a business which provides financial services for profit. Traditional banking services include receiving deposits of money, lending money and processing transactions.
- Some banks (called Banks of issue) issue banknotes as legal tender.
- Many banks offer ancillary financial services to make additional profit; for example: selling insurance products, investment products or stock broking.
- Currently in most jurisdictions the business of banking is regulated and banks require permission to trade. Authorization to trade is granted by bank regulatory authorities and provide rights to conduct the most fundamental banking services such as accepting deposits and making loans.

Bank services

Although the type of services offered by a bank depends upon the type of bank and the country, services provided usually include:

- Taking deposits from their customers and issuing checking and savings accounts to individuals and businesses
- Extending loans to individuals and businesses
- Cashing cheques
- Facilitating money transactions such as wire transfers and cashiers checks
- Issuing credit cards, ATM cards, and debit cards
- Storing valuables, particularly in a safe deposit box
- Cashing and distributing bank rolls

Banks, types

- Universal bank
- Commerical bank
- Community bank (Raiffeisen)
- Savings bank (Sparkasse)
- Postal savings bank
- Private bank
- Central bank
- Landesbank
- Off-shore bank
- Special forms of banks

Banks act

- The combination of the instability of banks as well as their important facilitating role in the economy led to banking being thoroughly regulated. The amount of capital a bank is required to hold is a function of the amount and quality of its assets. Major banks are subject to the Basel Capital Accord promulgated by the Bank for International Settlements. In addition, banks are usually required to purchase deposit insurance to make sure smaller investors are not wiped out in the event of a bank failure.

„Silent“ Company

- Does not create its own company
- An association takes a capital participation in a company (§§ 230 –237 HGB)
- A „silent“ participation is not visible to the outside

Disclosure requirement (Publizitätspflicht)

- The commitment to disclosure is regulated by law:
  - For all capital companies (§§ 325 – 330 HGB)
  - Publication of the „Annual Balance Sheet“ (Offenlegung des Jahresabschlusses (Bundesanzeiger)
- Publication of Annual accounts if:
  - Balance sheet total > 60 Mio EUR
  - Total revenue > 125 Mio EUR
  - Number of employment > 5000

Drafting “ Articles of Incorporation“

- Articles of incorporation" means the original or restated articles of incorporation and all amendments thereto.

Articles of incorporation

- Contrary to other corporate structures, such as the OHG - Offene Handelsgesellschaft (general partnership), or the KG - Kommanditgesellschaft (limited partnership), a GmbH may only be founded by a written contract documented by a notary and specifying the following minimum mandatory points:
  - the name of the company
  - the purpose of the company (enumeration of the various spheres of activity)
  - the company seat
  - the amount of share capital ('Stammkapital')
  - the sum to be paid by each shareholder towards the share capital
- Should the company´s existence be restricted to a limited period of time, or should the shareholders exercise rights other than the investment of capital, then such specifications are to be incorporated into the articles of association accordingly.

Chapters forming the Act of Incorporation

- Name of the company/corporate name
- Registered Address/Headquarter
- Purposes
- Authorized shares/authorized capital
- Subscription of shares/partners – equity
- Shareholders preemptive rights
- Meetings of shareholders
- Board of directors
  - Number, election, quorum, meetings, responsibilities
- Articles of dissolution

Minimum capital

- Share capital must total a minimum of 25,000 Euro and be divisble into shares with a minimum face value of 100 Euro. Capital contributions may be made either in the form of cash subscription, or indeed in the form of investments in kind. With regard to the establishment of GmbH on the basis of cash subscription, 25% of the total cash investment, nevertheless a minimum of 50% of the total share capital must have been paid prior to registration in the Trade Register.
- Each shareholder is liable for the outstanding sum to the extent of his initial share contribution. In practice, the establishment of a GmbH on the basis of cash subscription is performed by opening a bank account in the name of the new company and to be placed at the company´s complete disposal.
- Finally, a bank statement, acting as proof of inpayment, is to be presented to the Court of Registration.

Capital contributing

- Special requirements are to be observed for the effect of payment in kind - that is to say, not in cash, but by means of tangible or intangible assets, licences, or enterprises:
- As a rule, the local court will demand another specialist report guaranteeing the sustained value of used objects submitted as payment in kind.
- The foundation of a GmbH by cash subscription is, therefore, simpler.

Example 1

- In case a GmbH is to be founded on the basis of cash subscription with a total share capital of 25,000 Euro. Minimum down-payment is therefore 12,500 Euro 50%).
- In the case of the (cash subscription) establishment of a GmbH with more than one shareholder and a share capital of 100,000 Euro, the minimum amount payable prior to registration in the Trade Register is 25% of the individual share capital by every partner. Nevertheless the total paid up share capital must be a minimum of 50%.

Examples 2

- In this second example, share capital amounts to 25,000 Euro, of which 5,000 Euro is to be effected by payment in kind.
- Non-cash payments are to be effected in full.
- However a total minimum of 12,500 Euro is required for down-payment, the 5,000 Euro as part-payment of the cash investment do not, therefore, suffice.

Legal verification and registration in the Trade register

- Now, at the very latest, a notary must be sought. In particular, he will document the articles of association as well as verify the application for registration in the Trade Register.
  It is often recommendable to consult a lawyer or notary even for the preparation of both the articles of association and the application for registration in the Trade Register. As a general rule, pre-formulated, standardised contracts will be supplied. The application form together with the documents mentioned in §8 of the Private Limited
- Company Law ('GmbH-Gesetz') are forwarded by the notary to the cognizant Court of Registration.
  The responsible Chamber of Industry and Commerce will be requested by the local court to submit an expert statement of opinion.
- The GmbH is subject to compulsory registration as is every newly-founded business enterprise. Hence, registration in the Trade Register must be followed by registration at the cognizant Office for Public Order ('Amt für öffentliche Ordnung'), or Mayor´s Office ('Bürgermeisteramt'). The official form used for this purpose is supplied with carbon copies which are to be forwarded to the other obligatory places of registration, e.g. the Finance Office and the mutual indemnity association.
- The foundation of a new „GmbH“ must be published

Further Business terms: Insolvency

- "Insolvency" means inability of a corporation (or person or business) to pay its debts as they become due in the usual course of its business.

Merger

- "Merger" means (a) the division of a domestic corporation into two or more new domestic corporations or into a surviving corporation and one or more new domestic or foreign corporations or other entities, or (b) the combination of one or more domestic corporations with one or more domestic or foreign corporations or other entities resulting in (i) one or more surviving domestic or foreign corporations or other entities, (ii) the creation of one or more new domestic or foreign corporations or other entities, or (iii) one or more surviving domestic or foreign corporations or other entities and the creation of one or more new domestic or foreign corporations or other entities

Shares

- "Shares" means the units into which the proprietary interests in a corporation are divided, whether certificated or uncertificated shares

Shares

- "Authorized shares" means the shares of all classes which the corporation is authorized to issue.
- "Certificated shares" means shares represented by instruments in bearer or registered form.
- "Uncertificated shares" means shares not represented by instruments and the transfers of which are registered upon books maintained for that purpose by or on behalf of the issuing corporation

Share dividend

- "Share dividend" means a dividend by a corporation that is payable in its own authorized but unissued shares or in treasury shares. An amendment to a corporation's articles of incorporation to change the shares of any class or series, whether with or without par value, into the same or a different number of shares, either with or without par value, of the same class or series or another class or series does not constitute a share dividend.

Shareholder

- "Shareholder" or "holder of shares" means the person in whose name shares issued by a corporation are registered at the relevant time in the share transfer records maintained by the corporation

Financing Instruments

- Stock market
  - The term 'the stock market' is a concept for the mechanism that enables the trading of company stocks (collective shares), other securities, and derivatives. Bonds are still traditionally traded in an informal, over-the-counter market known as the bond market.

Partners of stock markets

- Many years ago, worldwide, buyers and sellers were individual investors, such as wealthy businessmen, with long family histories (and emotional ties) to particular corporations. Over time, markets have become more "institutionalized"; buyers and sellers are largely institutions (e.g., pension funds, insurance companies, mutual funds, hedge funds, investor groups, and banks).

Bonds

- In finance, a bond is a debt security, in which the issuer owes the holders a debt and is obliged to repay the principal and interest (the coupon) at a later date, termed maturity.
- Bonds are generally issued for a fixed term (the maturity) longer than ten years.
- Coupon is the interest rate that the issuer pays to the bond holders. Usually this rate is fixed throughout the life of the bond.

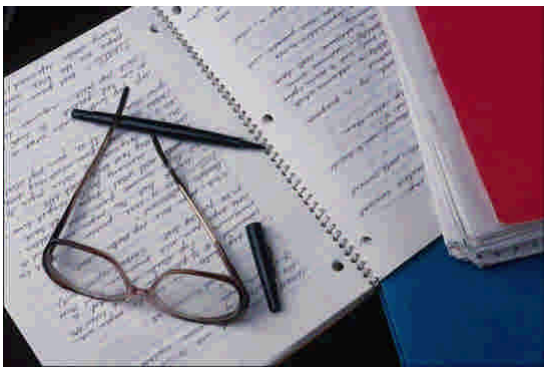
Bond investment rating

- In investment, the credit rating assesses the credit worthiness of a corporation. It is analogous to credit ratings for individuals and countries. The credit rating is a financial indicator to potential investors of debt securities such as bonds. These are assigned by credit rating agencies such as Standard & Poor's and have letter designations such as AAA, B, CC.
- Moody's assigns bond credit ratings of Aaa, Aa, A, Baa, Ba, B, Caa, Ca, C, . Standard & Poor's and Fitch assign bond credit ratings of AAA, AA, A, BBB, BB, B, CCC, CC, C, D.

S&P rates companies on a scale from AAA to D

- **Investment Grade**
  - **AAA** : the best quality companies, reliable and stable
  - **AA** : quality companies, a bit higher risk than AAA
  - **A** : economic situation can affect finance
  - **BBB** : medium class companies, which are satisfactory at the moment
- **Non-Investment Grade** (also known as junk bonds)
  - **BB** : more prone to changes in the economy
  - **B** : financial situation varies noticeably
  - **CCC** : currently vulnerable and dependent on favorable economic conditions to meet its commitments
  - **CC** : highly vulnerable, very speculative bonds
  - **C** : highly vulnerable, perhaps in bankruptcy or in arrears but still continuing to pay out on obligations
  - **CI** : past due on interest

Chapter IV: The Business Plan



We make a Business Plan to calculate and to present a new investment project.

Objective of the Business Plan

- To describe a new project
- To calculate a new project
- To present this new project to potential partners and to the bank
- To use the basics of this Business Plan to implement the project
- To adapt the Business Plan during the run of the project

Business Plan

Project Details

- We set up a new company: Description
- Legal form, share capital, partners
- Market study
- Investment planning
- depreciation
- Financing + financing costs
- Labor costs
- Material and utilities costs
- Other costs (overheads, unforeseen, working capital)
- Cash-flow, receipts and expenditure

Content of the Business Plan

- Description of the project
- Market analysis, definition of the market: site, size, competition, prices, quality
- Definition of production techniques, licenses needed and state of the art
- Definition of the capacities
- Calculation of investments
  - Depreciation costs
  - Financing costs
  - Labor costs
  - Utility costs
  - Raw materials costs
  - Administrative costs / overheads
- Total costs
- Self costs
- Price definition
- Profit and loss account (10 years), profitability
- Cash flow

How to plan a start-up (Business Plan)

- First step is the Business Plan
- How to create a BP
- Which Structure ans Information are important
  - For the entrepreneur
  - For the investor
  - For partners (customer, supplier, share holder)
  - For the staff

Company: selection of legal form

Legal form	Capital investment	Liability	Bookkeeping, publicity	Name giving	Credit allowances
Single person company	No capital investment required	Complete personal liability	Registration not compulsory	Inclusion of first and last name	Excellent reputation
Private company		Personal liability	Registration not compulsory	First and last name of all partners	Excellent reputation
Commercial company		Personal liability	Registration compulsory	Last name of at least one partner (Taylor & Co. oHG)	Excellent reputation
Limited partnership		Complementary complete liability	Registration compulsory; Annual report	Name of partner who is personaly liable	Excellent reputation
Company with limited liability	Minimum capital 25.000 EUR	Limited liability	Registration compulsory, Annual report has to be submitted to CCI	Any name completed by GmbH or in UK Ltd. (Taylor ltd.)	Annual report, Basel II

Technical Project description

- Basic idea
  - Initializing moment
  - Construction ans proceeding, functions, features, quality of products
- Advantages of new concept
  - Differences (advantages) to existing technologies (products, new and improved function and characteristics
  - Protection of right (Patent)

Technical project description

- Extend of innovation
  - Promotion of an existing product or procedure
  - New product or procedure
  - New sector for implementation or application
- Already finished pre-operations (status)
  - Availability
  - Degree of ripeness
  - Right of ownership

Technical description

- Still necessary developments
  - Technical risk
  - Supplier required
- Solution
  - Steps in development
  - Partners
  - Future development

Marketing planning

- Market analysis
  - Where is the market (geographically)
  - Customer/client analysis
  - Competition analysis
- Marketing decision
  - Pricing
  - Service
  - Communication
  - Distribution

Financial planning

- Sales
  - Quantities
  - Development of sales over the years
- Financing the company
  - Credit/loan needed
  - Interest rates
  - Identification of financial partners (Bank, seed capital, private partners ..)

Costs/Expenses

- Personnel
  - Salaries, wages: level and quantity
    - Managers
    - Researchers/Engineers
    - Administrative staff
    - Marketing staff
    - Workers (in production)
    - Unqualified
  - Social costs

Raw and semi finished material costs

- Quantities consumed and specific costs:
  - Raw materials
  - Semi finished goods
  - Services/repair
  - Services administrative (insurances etc)
  - Utilities (energy, water, steam, gas etc
  - other

Investment costs

- Kind of investment
  - Feasibility study
  - Ground
  - Infrastructure
  - Buildings
  - Equipment/machinery for production
  - Equipment administration
  - Transport equipment (trucks, cars ...)
  - Foundation of company costs

Administrative costs

- Office supply
- Telecommunication
- Fees
- Insurances
- Leasing
- Memberships
- Books, newspapers

Marketing costs

- Advertising
- Printing
- Exhibitions, shows
- Mailings
- Business trips

Calculation total investment

- Total investment expenses
  - Land
  - Infrastructure
  - Construction/buildings
  - Transport means
  - Machinery, equipments
  - Planning, studies, notary
  - Unforeseen
  - Working capital

Calculation of financing costs

- Credit/loan needed
  - Construction of financing
    - Bank, partners, seed capital, risk capital, venture etc
  - Credit conditions
  - Interest rate
  - Financing costs

Calculation of costs

- Depreciation costs
- Personnel costs
- Procuction costs
- Financing costs
- Administrative costs
- Marketing costs
- Transport costs

Calculation of 10 years cash flow

- Turn over
  - sales
- Costs per year
  - Benefit before taxes
- Taxes
- Benefit after taxes
- Cash flow

Chapter V: Students Project

We create our own company

- Business Plan –
- A Chocolate Plant -

Description of the production of chocolate

- **Cleaning**
  Before the real processing begins, the raw cocoa is thoroughly cleaned by passing through sieves, and by brushing. Finally, the last vestiges of wood, jute fibres, sand and even the finest dust are extracted by powerful vacuum equipment.

  Roasting
  The subsequent roasting process is primarily designed to develop the aroma. The entire roasting process, during which the air in the nearly 10 feet high furnaces reaches a temperature of 130 °C, is carried out automatically. **Crushing and shelling**
  The roasted beans are now broken into medium sized pieces in the crushing machine.

  Blending
  Before grinding, the crushed beans are weighed and blended according to special recipes. The secret of every chocolate factory lies in the special mixing ratios which it has developed for different types of cocoa.

  Grinding
  The crushed cocoa beans, which are still fairly coarse are now pre-ground by special milling equipment and then fed on to rollers where they are ground into a fine paste. The heat generated by the resulting pressure and friction causes the cocoa butter (approximately 50% of the bean) contained in the beans to melt, producing a thick, liquid mixture. This is dark brown in colour with a characteristic, strong odour. During cooling it gradually sets: this is the cocoa paste.

- **Cocoa Powder**
  After the cocoa butter has left the press, cocoa cakes are left which still contain a 10 to 20% proportion of fat depending on the intensity of compression. These cakes are crushed again, ground to powder and finely sifted in several stages and we obtain a dark, strongly aromatic powder which is excellent for the preparation of delicious drinks - cocoa. Cocoa paste, cocoa butter, sugar and milk are the four basic ingredients for making chocolate. By blending them in accordance with specific recipes the three types of chocolate are obtained which form the basis of ever product assortment, namely.
  Plain chocolate: cocoa paste + cocoa butter + sugar
  Milk chocolate: cocoa paste + cocoa butter + sugar + milk
  White chocolate: cocoa butter + sugar + milk

  Kneading
  In the case of milk chocolate for example, the cocoa paste, cocoa butter, powdered or condensed milk, sugar and flavouring - maybe vanilla - go into the mixer, where they are pulverized and kneaded.

  Rolling
  Depending on the design of the rolling mills, three or five vertically mounted steel rollers rotate in opposite directions. Under heavy pressure they pulverise the tiny particles of cocoa and sugar down to a size of approx. 30 microns. (One micron is a thousandth part of a millimetre.)

  Conching
  But still the chocolate paste is not smooth enough to satisfy our palates. But within two or three days all that will have been put right. For during this period the chocolate paste will be refined to such an extent in the conches that it will flatter even the most discriminating palate. Conches (from the Spanish word "concha", meaning a shell) is the name given to the troughs in which 100 to 1000 kilograms of chocolate paste at a time can be heated up to 80 °C and, while being constantly stirred, is given a velvet smoothness by the addition of certain amounts of cocoa butter and of the very valuable lecithin. A kind of aeration of the liquid chocolate paste then takes place in the conches: its bitter taste gradually disappears and the flavour is fully developed. The chocolate no longer seems sandy, but dissolves meltingly on the tongue. It has attained the outstanding purity which gives it its reputation.

  Tempering
  Before the forming process, the chocolate paste must be heated to 50 °C and then cooled to a specific temperature a little over 30 °C depending on the product.

Results of the market study

Assumption:

Parameter	Spec. Assumptions	Comments
Total production:	22.000 Tons of Chocolate p.a. 220.000.000 bars of chocolates of 100 g. each	
Capacity	100 Tons Chocolate per day	
Work time/production time	5 days/week, one shift of 8 hours	
Selling prices ex factory	Vary between 0,22 and 0,27 EUR per 100 g bar of chocolate. We intend to sell at 0,25 EUR/chocolate e.f.	
Place of production	Cologne / Germany	
Product (s) produces	Milk chocolate	

Labor intensive vs. Capital intensive

The scheduled production of 22.000 tons of chocolate can be planned or „labor intensive or capital intensive:

Labor intensive	Capital intensive
Production 24 h/day and 7 days/week	Production 8 h/day
Five shifts	One shift
Production turning 365 days/y	Production turning 220 days/y
The capacity of machinery to be installed is: 22.000t/365 = 60 t/day	The capacity of machinery to be installed is: 22.000t/220 = 100 t/day Or: 300t/day if only one shift

Calculation of the investments and depreciation costs

Description	Amounts of investment in €	Depreciation rate in years	Depreciation in € p.a.
Property/estate/plot 30,000 m2 to 250, - €/m2	7.500.000,00	0	0,00
Additional expenses	250000,00	0	
SUM PURCHASE OF LAND	**7.750.000,00**	**0**	**0,00**
Exterior installations:			
Grading work	250000,00	20	12500,00
Roads	150000,00	20	7500,00
Foundations	100000,00	20	5000,00
Outside lights	60000,00	20	3000,00
Fence	50000,00	20	2500,00
Drains	100000,00	20	5000,00
Cables for power installation	50000,00	20	2500,00
TOTAL OF EXTERIOR INSTALLATIONS	**760000,00**		**38000,00**

Expenditure ./. Costs

- Caused by the payment of the invoices during the construction period, the company has „expenditures“
- Caused by „wear and tear“ (Wertverzehr) emerge „costs“, as „depreciation costs“

Depreciation costs of plots of land

- As „plots of land“ have by definition no „wears and tears“, land can not be depreciated. The depreciation rate of land is 0%.
- With other words: land does not loose its value – it is not “consumed”

The depreciation rates

- The depreciation rates are regulated by law
- Depreciation rates vary from country to country
- The State has an interest to define the depreciation rates, because these rates have a direct impact on the taxes to be paid by the entrepreneur
- For our future planning we will use the following depreciation rates:

Asset	Depreciation rate in years	Depreciation rate in years
vehicles	5	20 %
machines	10	10 %
furniture	10	10 %
informatics	4	25 %
buildings	20	5 %
land	0	0 %

Case study: „depreciation costs for a company car“

A company buys a new company car. The price of the car is 50.000 EUR plus VAT. The „expenditure“ is 50.000 EUR (VAT is refunded) when the car has been delivered and the invoice is paid. The depreciation period of the car is regulated by law, in Germany five years. Though the depreciation costs can be calculated:

Years	Asset value	Depreciation rate	Depreciation costs
1. year	50.000	5 years of 20% of the net purchase value of the car	10.000
2. year	40.000	20 %	10.000
3. year	30.000	20 %	10.000
4. year	20.000	20 %	10.000
5. year	10.000	20 %	10.000

Investment calculation: Buildings

Description plant	Investment sums	Depr. /Year	Depreciation
Building			
Administration building	1200000,00	20	60000,00
Gatehouse	100000,00	20	5000,00
Auxiliary building	150000,00	20	7500,00
Workshop	125000,00	20	6250,00
Production hall	1000000,00	20	50000,00
SUM of BUILDING	**2575000,00**		**128750,00**

Investment calculation: Machinery

Machinery			
Roesting			
Roasting machine	75000,00	10	7500,00
Fallow	50000,00	10	5000,00
Separator	37500,00	10	3750,00
Cocoa mill	37500,00	10	3750,00
K-rolling mill	62500,00	10	6250,00
SUM of MACHINERY	**262500,00**		**26250,00**

Investment calculation: Processing

Processing of raw materials	Investment	Depreciation in years	Depreciation costs
Sugar silo	12500,00	10	1250,00
Sugar Mill	37500,00	10	3750,00
Milk powder silo	12500,00	10	1250,00
Cocoa butter silo	10000,00	10	1000,00
SUM of Processing of Raw materials	**72500,00**		**7250,00**

Investment calculation: Chocolate production

Chocolate production			
1 Kneber	17500,00	10	1750,00
1 mixer	12500,00	10	1250,00
2 rolling mills	50000,00	10	5000,00
2 Conchen	125000,00	10	12500,00
Lecithin silo	5000,00	10	500,00
Camp silo	2500,00	10	250,00
Intermediate silo	20000,00	10	2000,00
Bar plant	1250000,00	10	125000,00
5 luggage machines	750000,00	10	75000,00
Cartoning machine	5000,00	10	500,00
Labelling machine	2500,00	10	250,00
Palletization	2500,00	10	250,00
SUM of PRODUCTION	**2242500,00**		**224250,00**

Investment calculation: Off-sites

Offsites/Extra Investment	Investment	Depreciation in years	Depreciation costs
Tools	250000,00	10	25000,00
Spare parts	100000,00	10	10000,00
Equipment camp	100000,00	10	10000,00
Supply lines	100000,00	10	10000,00
Waste water purification	750000,00	10	75000,00
Transportation/assembly inclusive	250000,00	10	25000,00
SUM of OFFSITES	**1550000,00**		**155000,00**
Expenditure/planning	400000,00	10	40000,00
Licenses	50000,00	10	5000,00
SUM of Engineering	**450000,00**		**45000,00**
Vehicles			
2 passenger cars	50000,00	5	10000,00
1Truck	75000,00	5	15000,00
SUM of VEHICLES	**125000,00**		**25000,00**

Calculation that the total investment and depreciation costs

Investment goods	Investment expenditures	Depreciation in %	Depreciation costs
Property	7.750.000,00 €	0,00 €	0,00 €
Exterior installations	760.000,00 €	5,00 €	38.000,00 €
Building	2.575.000,00 €	5,00 €	128.750,00 €
Machines	262.500,00 €	10,00 €	26.250,00 €
Production plants (Chocolate)	2.242.500,00 €	10,00 €	224.250,00 €
Off-sites	1.550.000,00 €	5,00 €	77.500,00 €
Engineering	450.000,00 €	10,00 €	45.000,00 €
Vehicles	125.000,00 €	20,00 €	25.000,00 €
Transport costs of the plant	0,00 €		
Assembly of the plant	0,00 €		
Unexpected	1.000.000,00 €	0,00 €	0,00 €
Circulating capital	641.000,00 €	0,00 €	0,00 €
Total investment	**17.356.000,00** €	**Total Depreciation costs**	**564.750,00** €

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Calculation of consumption costs

Expendable material	specific consumption per 100 g chocolate	specific price in EURO	Costs per quantity unit of bar to 100 g
Raw materials (in g)			
Cocoa mass (in g)	25	0,00100 €	0,02500 €
Cocoa butter (in g)	5	0,00550 €	0,02750 €
Sugar (in g)	50	0,00050 €	0,02500 €
Milk powder (in g)	20	0,00050 €	0,01000 €
Lecithin (in g)	0,1	0,02550 €	0,00255 €
Packing			
Staniol (g per bar)	3	0,00100 €	0,00300 €
Agony impact (g/bar)	5	0,00450 €	0,02250 €
Cardboard of VE 40 (EUR/VE)	0,23	0,12000 €	0,02760 €
Label (EUR/VE)	0,01	0,00500 €	0,00005 €
Utilities			
Energy, steam (EUR/Bar)			0,01000 €
Selling (EUR/Bar)			0,05000 €
Maintenance costs			0,00100 €
Administrative overhead costs (EUR/Bar)			0,01200 €
SUM of raw material costs per 100g bar			**0,21620** €

Calculation of labour costs

Personal in cost centre	Number	Personnel direct costs
Roesterei	2	80.000 €
Processing of raw materials	2	80.000 €
Chocolate production	2	80.000 €
Bar plant	3	120.000 €
Packing machines	5	200.000 €
Kartonierer	2	80.000 €
Palletization	2	80.000 €
Doorman	1	40.000 €
Stock of raw materials	4	160.000 €
Packing	5	200.000 €
Administration incl Director General	7	750.000 €
Selling	2	200.000 €
Driver	2	80.000 €
Total of labour costs (1 Shift)		**2.150.000** €

Case study: Remuneration statement

Agreed salary brut	5.000 EUR (the employer pays 5.962 €)
Deduction:	
Retirement pay	487,5 + 487,5 = 975 EUR (19,5 %)
Unemployment insurance	125 + 125 = 250 EUR (5,0 %)
Health insurance	350 + 350 = 700 EUR (14,0 %)
Income taxes	1.500 EUR (30 %)
Solidarity surcharge (5,5% of the income tax)	82,5 EUR
Church tax	135 EUR
Salary net	2.320 EUR

Total of investment and financing

Total investment	**17.356.000,00 €**
40% own capital funds (shareholders equity)	**6.942.400,00 €**
60% outside financing (bank loan)	**10.413.600,00 €**

7,00% interest

10 years running time

A bank loan or any other funding by a third party will be needed to finance 60% of the total investment. We assume a bank loan over a period of 10 years with constant annual loan redemption and a 7% interest rate

Calculation of financing costs: Interest paid on debt

Year	Balance of debt	Interest rate(%)	Interest Costs Paid p.a.	Repayment / Paying back loan p.a.
1. Year	10.413.600,00 €	7	728.952,00 €	1.041.360,00 €
2. Year	9.372.240,00 €	7	656.056,80 €	1.041.360,00 €
3. Year	8.330.880,00 €	7	583.161,60 €	1.041.360,00 €
4. Year	7.289.520,00 €	7	510.266,40 €	1.041.360,00 €
5. Year	6.248.160,00 €	7	437.371,20 €	1.041.360,00 €
6. Year	5.206.800,00 €	7	364.476,00 €	1.041.360,00 €
7. Year	4.165.440,00 €	7	291.580,80 €	1.041.360,00 €
8. Year	3.124.080,00 €	7	218.685,60 €	1.041.360,00 €
9. Year	2.082.720,00 €	7	145.790,40 €	1.041.360,00 €
10. Year	1.041.360,00 €	7	72.895,20 €	1.041.360,00 €
Total interest paid			**4.009.236,00 €**	
	Total Repayment			**10.413.600,00 €**

Self costs in years 1 - 3

	1.Year/per bar	1.Year	2.Year	3.Year
Utilization of capacity (%)	60%	60%	80%	100%
Quantity produces in bars	132.000.000	132.000.000	176.000.000	220.000.000

Costs	Costs per bar of chocolate	Costs per year	Costs per year	Costs per year
Depreciation costs	0,0043	564.750 €	564.750 €	564.750 €
Financing costs	0,0055	728.952 €	656.057 €	583.162 €
Labour costs	0,0163	2.150.000 €	2.150.000 €	2.150.000 €
Raw material & utilities costs	0,2242	29.594.400 €	39.459.200 €	49.324.000 €
Total of costs		**33.038.102** €	**42.830.007** €	**52.621.912** €
Self costs per 100g bar	**0,2503**	**0,2503**	**0,2300**	**0,2270**

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Self costs per bar of chocolate: Period 10 years

Capacity (in bars p.a.) **220.000.000**

	1.Year/per bar	1.Year	2.Year	3.Year	4.Year	5.Year	6.Year	7.Year	8.Year	9.Year	10.Year
Utilization of capacity(%)	60%	60%	80%	100%	100%	100%	100%	100%	100%	100%	100%
Quantity in bars	132.000.000	132.000.000	176.000.000	220.000.000	220.000.000	220.000.000	220.000.000	220.000.000	220.000.000	220.000.000	220.000.000

Costs	Costs per bar of choc	Costs per year	Costs per year	Costs per year	Costs per year	Costs per year	Costs per year	Costs per year	Costs per year	Costs per year	Costs per year
Depreciation costs	0,0043	564.750 €	564.750 €	564.750 €	564.750 €	564.750 €	564.750 €	564.750 €	564.750 €	564.750 €	564.750 €
Financing costs	0,0055	728.952 €	656.057 €	583.162 €	510.266 €	437.371 €	364.476 €	291.581 €	218.686 €	145.790 €	72.895 €
Labour costs	0,0163	2.150.000	2.150.000 €	2.150.000 €	2.150.000	2.150.000	2.150.000	2.150.000	2.150.000	2.150.000	2.150.000
Raw material costs	0,2242	29.594.400	39.459.200	49.324.000	49.324.000	49.324.000	49.324.000	49.324.000	49.324.000	49.324.000	49.324.000
Sum of costs		**33.038.102**	**42.830.007**	**52.621.912**	**52.549.016**	**52.476.121**	**52.403.226**	**52.330.331**	**52.257.436**	**52.184.540**	**52.111.645**
Costs per 100g bar	**0,2503**	**0,2503**	**0,2300**	**0,2270**	**0,2270**	**0,2260**	**0,2260**	**0,2260**	**0,2250**	**0,2250**	**0,2250**

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Definition of price

- The self costs for the production of one bar of milk chocolate is:
  - 0,2503 in the first year of production
  - 0,2250 in the last four years of production
- We decide to sell the chocolate at 0,2500 EUR ex factory (net of VAT)

Calculation of turnover/revenue

Year	Output		Price per bar	Turnover/Revenue
1	132.000.000		**0,25**	33.000.000 €
2	176.000.000		**0,25**	44.000.000 €
3	220.000.000		**0,25**	55.000.000 €
4	220.000.000		**0,25**	55.000.000 €
5	220.000.000		**0,25**	55.000.000 €
6	220.000.000		**0,25**	55.000.000 €
7	220.000.000		**0,25**	55.000.000 €
8	220.000.000		**0,25**	55.000.000 €
9	220.000.000		**0,25**	55.000.000 €
10	220.000.000		**0,25**	55.000.000 €

Cash Flow Calculation

	1. Year	2. Year
Turnover/Revenue	33.000.000 €	44.000.000 €
Depreciation costs	564.750 €	564.750 €
Labour costs	2.150.000 €	2.150.000 €
Raw material and utilities costs	29.594.400 €	39.459.200 €
Financing costs	728.952 €	656.057 €
Loss carried forward		-38.102 €
Profit before tax	**-38.102 €**	**1.208.095 €**
Taxes (40%)	**0 €**	**483.238 €**
Profit after taxes	**-38.102 €**	**724.857 €**
Cash-flow (net profit + deduction)	526.648 €	1.289.607 €
Repayment credit	1.041.360 €	1.041.360 €
Dividend	**-514.712 €**	**248.247 €**

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Computation of cash-flow for 10 years (in EURO)

	1. Year	2. Year	3. Year	4. Year	5. Year	6. Year	7. Year	8. Year	9. Year	10. Year
Turnover/ Revenue	33.000.000	44.000.000	55.000.000	55.000.000	55.000.000	55.000.000	55.000.000	55.000.000	55.000.000	55.000.000
Depreciation costs	564.750	564.750	564.750	564.750	564.750	564.750	564.750	564.750	564.750	564.750
Labour costs	2.150.000	2.150.000	2.150.000 €	2.150.000	2.150.000	2.150.000	2.150.000	2.150.000	2.150.000	2.150.000
Raw material costs	29.594.400	39.459.200	49.324.000	49.324.000	49.324.000	49.324.000	49.324.000	49.324.000	49.324.000	49.324.000
Financing costs	728.952	656.057	583.162 €	510.266 €	437.371 €	364.476 €	291.581 €	218.686 €	145.790 €	72.895 €
Loss carried forward		-38.102								
Profit before tax	**-38.102 €**	**1.208.095 €**	**2.378.088 €**	**2.450.984**	**2.523.879**	**2.596.774**	**2.669.669**	**2.742.564**	**2.815.460**	**2.888.355**
Taxes (40%)	**0 €**	**483.238 €**	**951.235 €**	**980.393 €**	**1.009.552**	**1.038.710**	**1.067.868**	**1.097.026**	**1.126.184**	**1.155.342**
Profit after taxes	**-38.102 €**	**724.857 €**	**1.426.853 €**	**1.470.590**	**1.514.327**	**1.558.064**	**1.601.802**	**1.645.539**	**1.689.276**	**1.733.013**
Cash-flow (net profit + depreciation)	526.648 €	1.289.607 €	1.991.603 €	2.035.340	2.079.077	2.122.814	2.166.552	2.210.289	2.254.026	2.297.763
Repayment credit	1.041.360 €	1.041.360 €	1.041.360 €	1.041.360	1.041.360	1.041.360	1.041.360	1.041.360	1.041.360	1.041.360
Dividend	**-514.712 €**	**248.247 €**	**950.243 €**	**993.980 €**	**1.037.717**	**1.081.454**	**1.125.192**	**1.168.929**	**1.212.666**	**1.256.403**

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Total dividend

Total dividend cumulated over 10 years:

8.560.119 €

Equity profitability

Equity	Profit after tax	Dividend	Interest made on equity	
6.942.400 €	-38.102	-514.712	-7%	**1. Year**
6.942.400 €	724.857	248.247	4%	**2. Year**
6.942.400 €	1.426.853	950.243	14%	**3. Year**

Chapter VI:
The Cost Calculation

Cost accounting is:

- Cost accounting is the **process of tracking, recording and analyzing costs associated with the products or activities of an organization.**
- In modern accounting, costs are measured in accordance with the “Generally Accepted Accounting Principles (GAAP).” GAAP reporting records historical events and assigns a **monetary value to each event** that has taken place.
- Costs are measured in units of currency by convention.
- Cost accounting could also be defined as a kind of management accounting that translates the Supply Chain (the series of events in the production process that, in concert, result in a product) into financial values.
- Managers use cost accounting to support decision making to reduce a company's costs and improve its profitability.
- Cost accounting allows
  - **Control of the profitability**
  - **Price determination**
  - **Calculation of self-costs**
- Cost accounting is a **Management information and decision instrument**

Accountancy

- Accountancy (profession) or accounting (methodology) is the measurement, disclosure or provision of assurance about financial information that helps managers, investors, tax authorities and other decision makers make resource allocation decisions.
- Financial accounting is one branch of accounting and historically has involved processes by which financial information about a business is recorded, classified, summarized, interpreted, and communicated.

Auditing

- Auditing, a related but separate discipline, has two sub-disciplines: **Internal and External auditing**.
- External auditing is the process whereby an independent auditor examines an organization's financial statements and accounting records in order to express an opinion — that conveys reasonable but not absolute assurance — as to the truth and fairness of the statements and the accountant's adherence to **Generally Accepted Accounting Principles (GAAP),** in all material respects.

Categories of costs

1. Cost-type accounting (Kostenartenrechnung)
2. Cost-centre accounting (Kostenstellen)
3. Product-cost accounting (Kostenträger)

What we will learn:

- **Cost types**
  - Labor costs, energy cost, etc
  - Direct vs. indirect cost
  - Variable/fixed cost
  - Calculatory costs
  - Calculation of consumption of utilities/materials
- **Cost centers**
  - Allocation of costs
  - Definition of in-house cost centers
  - Distribution of overheads on cost centers
  - In house invoicing
  - In-house cost allocation sheet (BAB)
- **Product cost**
  - Calculation by division
  - Calculation by division with equivalents
  - Self costs calculation of related products "joint products" (Kuppelprodukte)
    - Remaining value method (Restwertmethode)/Distribution method

Cost-type accounting

- Records, classifies and processes all cost data of the enterprise
- Which costs have been made
- Cost-types are created by the consumption of raw-materials, depreciations, financing, personnel

The most frequent Cost Types

- Cost of personnel and labour
- Cost of depreciation
  - Depreciation is a term used in economics to describe the fact that assets with finite lives loose value over time
- Cost of utilities
- Cost of consumption of raw and semi-finished materials
- Cost of financing
- Costs of administration
- Costs of marketing

Example: Labour cost

- A salary is a form of periodic payment from an employer to an employee, which is specified in an employment contract.
- From the point of view of running a business, salary can also be viewed as the cost of acquiring human resources for running operations, and is then termed personnel expense or salary expense. In accounting, salaries are recorded in payroll accounts.

Registration of cost data: salaries, wages

- Registration of wages and salaries
  - Registered and managed by Bookkeeping and/or Human Resources Department (HRD)
  - The contract
  - The “Social costs”
  - Tax on wages
  - Payment procedures

Registration of other cost data: utilities

- Electricity
- Steam
- Other Energy: gaz, oil, gazoline
- Water
- Waste water

Valuation of consumed materials

- Based on purchase costs
- If materials have been purchased in different periods with changing prices:
  - Average price
  - Effective prices

(always net, without VAT)

Registration of cost data after a one year period: material consumption

- Three methods:
  - Scontration method
  - Inventory method
  - Retrograde method

Scontration method

Opening stock
\+ inflow of stock
\- Outflow of stock (consumption)
= final inventory

Inventory method

Opening stock
+ Inflow
- Final inventory
= consumption (outflow)

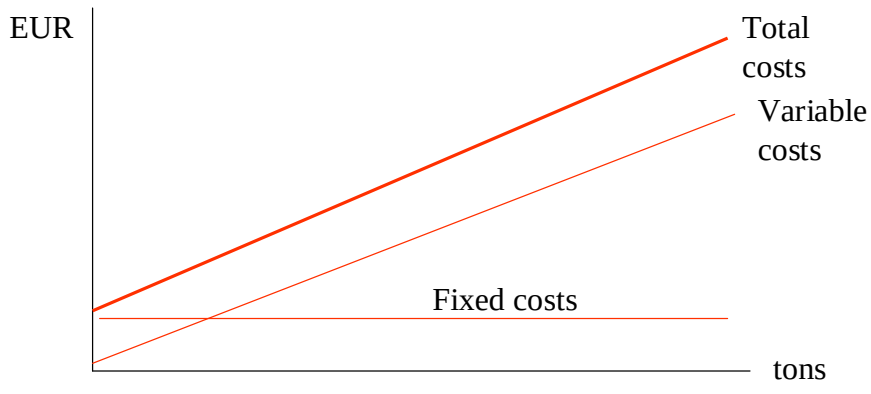
Retrograde method

- Back-calculation of consumed (used) materials from the finished product
- Mostly used in small entreprises

Direct cost

- Direct cost vs. Overhead Cost (Gemeinkosten)
- Direct Cost,
  - however, are costs that can be associated with a particular cost object
- Overhead Cost
  - In the case of a business, it is the amount of resources used by an organization just to maintain existence. also known as overhead or overhead cost. Overhead costs are usually measured in monetary terms, but non-monetary overhead is possible in the form of time required to accomplish tasks.

Cost can be variable



Variable costs - Fixed costs

- **Variable costs** are expenses that change in direct proportion to the activity of a business. Along with fixed costs, variable costs make up the two components of total cost.
- **Fixed costs** are un-expired assets or expenses whose total does not change in proportion to the activity of a business, within the relevant time period or scale of production
- Along with variable costs, fixed costs make up one of the two components of **total cost**. In the most simple production function, total cost is equal to fixed costs plus variable costs

Calculatory cost

- Cost without expenditure (payment)
- Differentiation Cost vs. Expenditure
  - (Kosten vs. Aufwand)
- Objective of calculatory cost:
  - Increase accuracy of cost accounting
    - To know the exact self costs
    - To distribute unforeseen risk-costs on other cost types

The five calculatory cost types

- Calculatory depreciation
- Calculatory interest (Working capital)
- Calculatory employers salary
- Calculatory risk
- Calculatory rent/lease

Case study: calculatory costs

- **Calculatory depreciation**
  - Sie kaufen sich einen Geschäftswagen für 25.000 €.. Laut Abschreibungstabelle sind Fahrzeuge bilanziell auf 5 Jahre abzuschreiben (linear), d. h. pro Jahr 5.000 €. In 5 Jahren kostet ein neuer Geschäftswagen z.B. 30.000 €, daher schreiben Sie kalkulatorisch pro Jahr 6.000 € ab, indem Sie 1.000 € pro Jahr mehr in Ihre Gesamtkosten einkalkulieren
- **Calculatory interest**
  - Da man für das im Unternehmen eingesetzte Eigenkapital bei anderer Anlage Zinsen bekommen hätte, kann dieser „Ausfall" durch die kalkulatorischen Zinsen wieder ausgeglichen werden. Man berechnet die marktübliche Verzinsung für das Eigenkapital und bringt diese in die Preiskalkulation mit ein. Beispiel: Sie haben als Eigenkapital 20.000 € eingebracht, der momentane Zinssatz wäre 4%, daraus ergeben sich kalkulatorische Zinsen in Höhe von 800 €.
- **Calculatory risk**
  - Im Rahmen jeder betrieblichen Tätigkeit können Schäden oder Ereignisse auftreten, die zu erheblichen Verlusten führen. Dies gilt besonders für Wagnisse, die nicht von einer Versicherung gedeckt sind oder werden können (z. B. Garantieleistungen, Forderungsausfälle, Wegfall von Kunden oder Lieferanten etc.). Die Höhe der kalkulatorischen Wagnisse kann aber meist nur geschätzt werden. Häufig wird sie nicht in der Gesamtkostenerstellung berücksichtigt, sondern erst in der Preiskalkulation sogenannter Wagniszuschlag
- **Calculatory employers salary**
  - Bei Einzelunternehmen und Personengesellschaften ist Ihr „Gehalt" nicht automatisch in der Kalkulation drin. Hier sind Sie selbst das Unternehmen und entnehmen privat aus Ihrem Geschäftskonto Gelder für Ihren Lebensunterhalt. Deshalb müssen diese Kosten separat als kalkulatorischer Unternehmerlohn in die Kalkulation mit einbezogen werden
- **Calculatory rent**
  - Stellt ein Einzelunternehmer oder der Gesellschafter einer Personengesellschaft eigene Räume für betriebliche Zwecke zur Verfügung, so können kalkulatorische Mieten zu den Gesamtkosten addiert werden. Die Höhe der Miete sollte sich nach den ortsüblichen Mietpreisen richten.

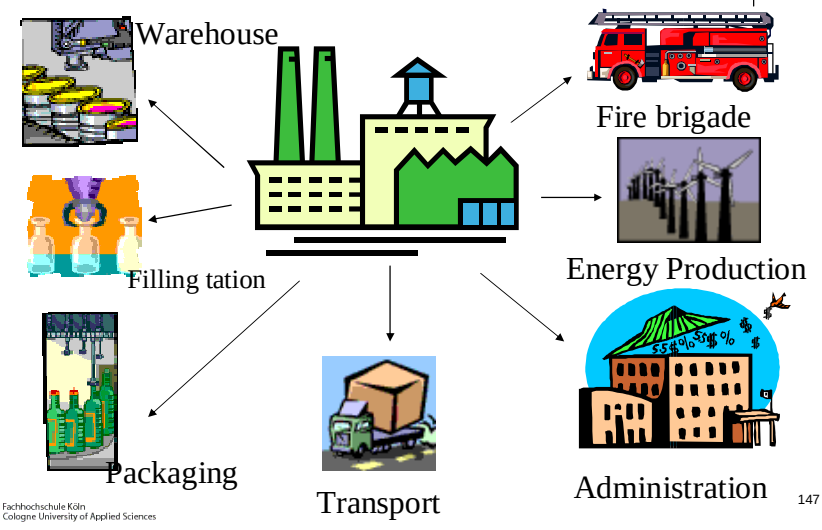
Cost centre accounting

- Causation of cost inside the enterprise
- Where costs occur
- Allows to distribute the administrative and over-head cost (indirect cost) on cost-centres
- Allows to control the profitability of the departments inside the enterprise

Definition of cost centres

- Each company is free to define ist cost centres
  - Functional criteria
  - Spacial criteria
  - Responsibility criteria
  - Accounting criteria

Example Cost Centers



Inter-company invoicing

- Between the departments of an entreprise is a continuous flow of exchange of services and products
- To calculate the exact self-costs per department
- To evaluate the profitability of each department (also compared to production by a third party)

Methods to calculate the inter-company cost

- Direct costs method (no overheads distributed to other costs centers)
- Cost distribution method (in addition to direct costs also indirect cost are distributed)
- Following the product cost accounting method to “charge” those products/cost centers that can cover additional costs
- “In-house cost allocation Sheet” (BAB)

Product cost calculation - Self Cost Calculation -

- Calculates the cost per product (piece or unit) produced
- Does not calculate a period of cost
- Basis to determine the self-costs per product and though to calculate selling prices
- Is the basis for offers (knowing also the minimum price)

Methods of Calculation

- Calculation by division
- Calculation by division with equivalences
- By and Co-product calculation
- Substraction method (Restwertmethode)

Calculation by division

$$U = \frac{C}{M} \qquad \frac{(total\ costs)}{(total\ quantity\ produced)}$$

U = costs per unit

Calculation by division with equivalences

- To be used if more than one different variety (sort) of a product/Unit is produced
  - The sorts are produced from identical raw materials
  - The cost relation is identified by “observation” or measuring
  - Allows to attribute costs to more than two varieties

Division with equivalents

Total costs: 600.000 EUR					
Sort	1 Equivalent	2 Qty. produces	3 Units of account 1 * 2	4 Unit costs	5 Total costs per sort
1 2 3	0,8 1,0 1,5	5.000 10.000 4.000	4.000 10.000 6.000 20.000	30 * 0,8 = 24.- 30 * 1,0 = 30.- 30 * 1,5 = 45.-	120.000 € 300.000 € 180.000 € 600.000 €

$$\frac{Total\ \ Cost}{Total\,Qty.\,\mathrm{Pr}oduced} = \frac{600.000\,EUR}{20.000\,t} = 30\,UoA$$

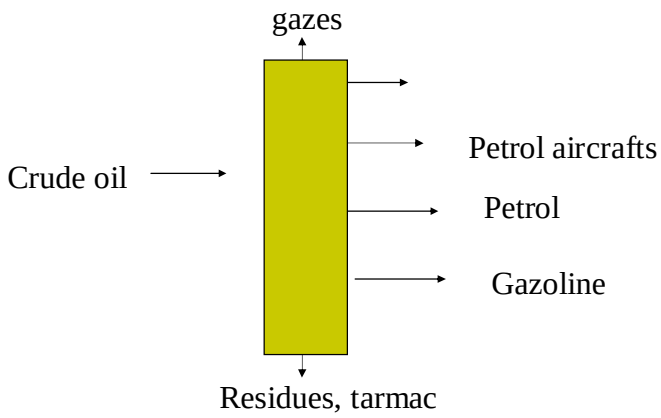
Self costs of by-products (Kuppelproduktion)

In some production process one can't avoid that next to the primary product additional by-products will be produced

In many chemical processes such, sometimes unwanted, by products exist

What effect do by-products have on self cost calculation?

Example of by-product process chemical refinery



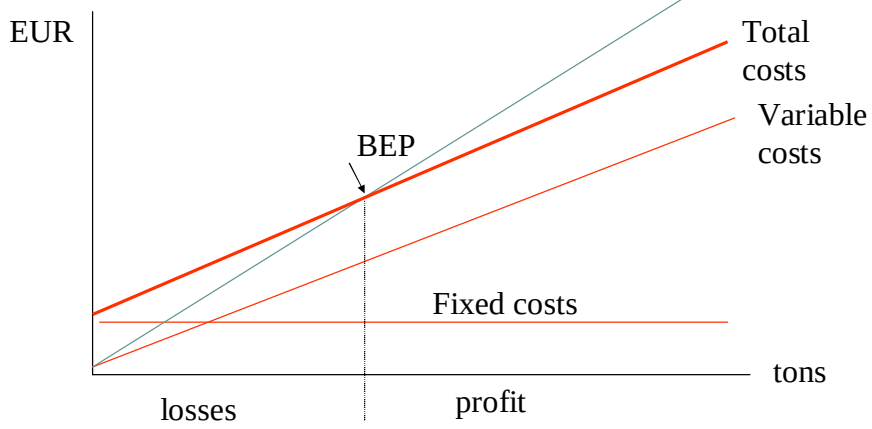
Substraction methode

- To be used if next to one main product by products with limited market value:
  - Turn-over sales by-products – total costs = costs main product
  - Or with equivalences. Equivalences are estimation of market-value-ratio (not estimation of cost ratio=

Beak Even Point (BEP)

- Relation between sales/costs and quantity produced

Diagram BEP



Chapter VI: Business ratios and performance figures

Why ratios?

- Important instrument for the planning and control
- Ratios show in short the most important company figures
- Ratios can be absolute or proportional figures

Ratio Equations

- Profitability:
  - Return on assets (ROA) = Net income/total assets
  - Return on equity (ROE) = Net income/Total Owners‘ Equity
- Short Term Solvency
  - Current ration = Total current Assets/Total current Liabilities
- Debt Ratio
  - Debt Ratio = Total Debt/Total assets
  - Debt to Equity Ratio = Total Debt / Total Owners’ Equity

Return on Investment

- To measure how much return the company has generated:

ROI = Earnings/Average Investments

Other perfomance ratio

- Payback period:

Payback years = Original investment
Annual Net Cash Flows

Evaluation of Performance

- Profitability (Wirtschaftlichkeit)
  - The efficiency of a company or industry at generating earnings.
  - Indicates the ratio between financial input and output (expenditure and revenue (Aufwand und Ertrag).
- Profitability = Revenue/expenditur
  - or *revenue/costs*
  - or *actual costs/targeted costs*

Productivity

- Indicates the Efficiency of a company. The amount of output per unit of input (labor, equipment, and capital).
- There are many different ways of measuring productivity. For example, in a factory productivity might be measured based on the number of hours it takes to produce a good, while in the service sector productivity might be measured based on the revenue generated by an employee divided by his/her salary.
  - relation between Output and Input as compared to competitors
- Productivity = Output/Input (Quantity)
- Specific productivity
  - Labour productivity = Produced quantity/Quantity work hours

Example: cost effective / economical (profitabel/non-profitabel)

Case	Price/Piece	Costs/piece	Result
1	10,-	6,-	Profitable, cost-efficient
2	10,-	8,-	Profitable, non cost-efficient
3	5,-	6,-	Non-Profitable, cost efficient
4	5,-	8,-	Non-Profitable, non cost-efficient

Definition liquidity

- Liquidity is the aiblity of a company to fulfill requests for payment at any moment
- Liquidity means not only cash positions, but assets concertble into cash

Liquidity

- Liquidity 1. Grade = Means of payment/short term obligations
- Liquidity 2. Grade = Means of payment + short term receivables/short term obligations
- Liquidity 3. Grade = Means of payment +short term receivables + stocks/ short term obligations

Chapter VII: Economics

Economics is usually divided into three main branches:

Microeconomics examines the economic behaviour of individual units such as businesses and households in the face of scarcity and government interactions, as well as the economic consequences of these decisions on other actors.

Macroeconomics examines an economy as a whole with a view to understanding the interaction between economic aggregates such as national income, employment and inflation. Note that general equilibrium theory combines concepts of a macro-economic view of the economy, but does so from the microeconomic viewpoint.

Econometrics is the application of statistical techniques to measuring economic phenomena.

Methods of Economics

- Needs/Markets/Money
- Interpretation of phenomena:
  - Legal regulations:
    - Law on corporations, Labour law, tax law
  - Statistical Methods
  - Mathematical methods
  - Technical Know-how
  - Psychology
    - Behavior of consumers
    - Behavior of collaborators

οἶκος **[oikos]**

- Economics, archaically œconomics, as a social science, studies the production, distribution, and consumption of resources.
- The word "economics" is from the Greek words οἶκος [oikos], meaning "family, household, estate," and νόμος [nomos], or "custom, law," and hence literally means "household management" or "management of the state."
- An economist is a person using economic concepts and data in the course of employment

Economical principle

- To realize the highest profit with almost little input (Mit geringst möglichem Aufwand ein möglichst maximales Ergebnis zu erreichen)
  - Expenditure vs. revenue
  - Costs vs. Performance (Kosten vs. Leistung)
- the Difference is the result (benefit)
- To operate economically means to satisfy the demand of the market for products by economic activity

Needs

- Basic needs
  - Nutrition, clothing, housing, health, education,
- Social needs
  - car, leisure, TV, music, culture
- Luxurious needs
  - Jewellery, exclusive leisure and clothing

Wealth

- The earliest definitions of political economy were simple, elegant statements defining it as the study of wealth. The first scientific approach to the subject was inaugurated by **Aristotle**, whose influence is still recognised, inter alia, today by the Austrian School. Adam Smith, author of the seminal work The Wealth of Nations and regarded by some as the "father of modern economics," defines economics simply as "The science of wealth." Smith offered another definition, "The Science relating to the laws of production, distribution and exchange." **Wealth was defined as the specialization of labour which allowed a nation to produce more with its supply of labour and resources**. This definition divided Smith and Hume from previous definitions which defined wealth as gold. Hume argued that gold without increased activity simply serves to raise prices
- John Stuart Mill defined economics as "The practical science of production and distribution of wealth"; this definition was adopted by the Concise Oxford English Dictionary even though it does not include the vital role of consumption. For Mill, **wealth is defined as the stock of useful things**.
- Definitions in terms of wealth emphasize production and consumption. The accounting measures **usually used measure the pay received for work and the price paid for goods**, and do not deal with the economic activities of those not significantly involved in buying and selling (for example, retired people, beggars, peasants

Welfare

- Later definitions evolved to include human activity, advocating a shift toward the modern view of economics as primarily a study of man and of human welfare, not of money. Alfred Marshall in his 1890 book Principles of Economics wrote, "Political Economy or Economics is a study of mankind in the ordinary business of Life; it examines the part of the individual and social action which is most closely connected with the attainment and with the **use of material requisites of well-being."**
- The welfare definition was still criticized as too narrowly materialistic. It ignores, for example, the **non-material aspects of the services** of a doctor or a dancer. A theory of wages which ignored all those sums paid for immaterial services was incomplete. Welfare could not be quantitatively measured, because the marginal significance of money differs from rich to the poor (**that is, $100 is relatively more important to the well-being of a poor person than to that of a wealthy person**). Moreover, the activities of production and distribution of goods such as alcohol and tobacco may not be conducive to human welfare, but these scarce goods do satisfy innate human wants and desires.
- **Marxist economics still focuses on a welfare definition**. In addition, several critiques of mainstream economics begin from the argument that current economic practice **does not adequately measure welfare, but only monetized activity**, which is an inadequate approximation of welfare.

Shortage of goods

- Shortage by nature
  - Limited natural resources
- Technical shortage
  - Availability limited by limited technical resources (Produktion nur in technisch begrenztem Umfang möglich)
- Economic shortage
  - Production needs to many resources (eg time)
- Shortage caused by man-kind
  - Human potentials are limited (working time, illness ...)

Barter- and monetized economy

- The issue of Division of labor stipulates, that each individual produces more goods and services than he needs for his own consumption
- Division of labor implies the exchange of goods and services
  - Exchange in kind, Traders, precious metal, coins, money

Money is:

1. Money is any good that is widely accepted for purposes of exchange and in the repayment of debts.
2. Money reduces transaction costs because it is a medium of exchange.
3. Money is a unit of account. We don't have to keep prices in oranges, apples, or computers; money provides this role for us.
4. Money is a store of value, it maintains its value over time. We accept payment for our efforts and keep money until we spend it.

Money, that is what it is about

- A company is set up and turning to follow the principle of making profit and realizing cash-flows (Geldstrom)
- All participants intend to make money:
- Share holders invest their money
  - Committed assets (Fremdkapitalgeber) deposits to yield profits
  - Worker receive wages / remunerations
  - Suppliers get paid
  - The State collects taxes and public charges
  - Insurance companies collect premiums and contributions

Medium of exchange

- Economics offers various definitions for money, though it is now commonly defined by the functions attached to any good or token that functions in trade as a **medium of exchange, store of value, and unit of account**. Some authors explicitly require money to be a standard of deferred payment, too. In common usage, money refers more specifically to currency, particularly the many **circulating currencies with legal tender status conferred by a national state**; deposit accounts denominated in such currencies are also considered part of the money supply, although these characteristics are historically comparatively recent. Other older functions a money may possess are a means of rationing access to scarce resources, and a means of accumulating power of command over others.
- The use of money provides an alternative to **barter**, which is considered in a modern, complex economy to be inefficient because it requires a coincidence of wants between traders, and an agreement that these needs are of equal value, before a transaction can occur. The efficiency gains through the use of money are thought to encourage trade and the division of labour, in turn increasing productivity and wealth.

Commodity money systems

- A number of commodity money systems were amongst the earliest forms of money to emerge. For example
  - the shekel referred to a specific volume of barley in ancient Babylon
  - iron sticks were used in Argos, before Pheidon's reforms.
  - cowries were used as a money in ancient China and throughout the South Pacific.
  - salt was used as a currency in pre-coinage societies in Europe.
  - ox-shaped ingots of copper seem to have functioned as a currency in the Bronze Age eastern Mediterranean.
  - state certified weights of gold and silver have functioned as currency since the reign of Croesus of Lydia, if not before.
  - rum-currency operated in the early European settlement of Sydney cove in Australia.
- Under a commodity money system, the objects used as money have intrinsic value, i.e., **they have value beyond their use as money**. For example, **gold coins retain value because of gold's useful physical properties besides its value due to monetary usage**, whereas paper notes are only worth as much as the monetary value assigned to them. Commodity money is usually adopted to simplify transactions in a barter economy, and so it functions first as a medium of exchange. It quickly begins functioning as a store of value, since holders of perishable goods can easily convert them into durable money.

Value

- It could be argued that beneath an economic theory is a theory of value. Value can be defined as the underlying activity which economics describes and measures. It is what is "really" happening.
- **Representative money like this 1922 US $100 gold note could be exchanged by the bearer for its face value in gold**..
- **Adam Smith** defined "labor" as the underlying source of value, and "the labor theory of value" underlies the work of **Karl Marx**, David Ricardo and many other classical economists. The **"labour theory of value**" argues that a good or service is worth the labor that it takes to produce.
- **For most, this value determines a commodity's price**. This labour theory of price and the closely related cost-of-production theory of value dominates the work of most classical economists, but those theories are far from the only accepted basis for "value". For example, neoclassical economists and Austrian School economists prefer the marginal theory of value.
- **"Market theory" argues that there is no "value" separate from price**, that the market incorporates all available information into price, and that so long as markets are open, that price and the value are one and the same. This theory rests on the idea of the "rational economic actor".
- Another set of theories rests on the idea that there is a basic external scarcity, and that "value" represents the relationship to that basic scarcity (or lack thereof). These theories include those based on economics being limited by energy or based on a "gold standard".

Money has value

- Our money has value because of its general acceptability.
- We accept paper dollars because we know that other people will accept dollars later when we try to spend them.
- Money has value to people because it is widely accepted in exchange for other goods that are valuable.

Credit card

- A credit card is an instrument or document that makes it easier for the holder to obtain a loan.
- Credit card transactions shift around the existing quantity of money between various individuals and firms, but do not change to total money available.

Problems with paper as money

- Due to the ease of production paper money may lose value through inflation and in todays electronic era, vast quantities of money can be created with a few key strokes. Perhaps the biggest criticism of paper money relates to the fact that its stability is generally subject to the whim of **government regulation rather than the disciplines of market phenoma**. Paper money can be easily damaged or destroyed by every day hazard from fire, water, termites and simple wear and tear.
- Paper money is also subject to counterfeiting.

Credit

- Credit is often loosely referred to as money. Money is used to buy goods and services, whereas credit buys goods and services on the promise to pay with money in the future.
- This distinction between money and credit causes much confusion in discussions of monetary theory. In lay terms, and when convenient in academic discussion, credit and money are frequently used interchangeably. For example, bank deposits are generally included in summations of the national broad money supply. However, any detailed study of monetary theory needs to recognize the proper distinction between money and credit.
- Bank notes are a form of credit. Gold-backed bills are likewise also a debt of the bank, a promise to pay in gold

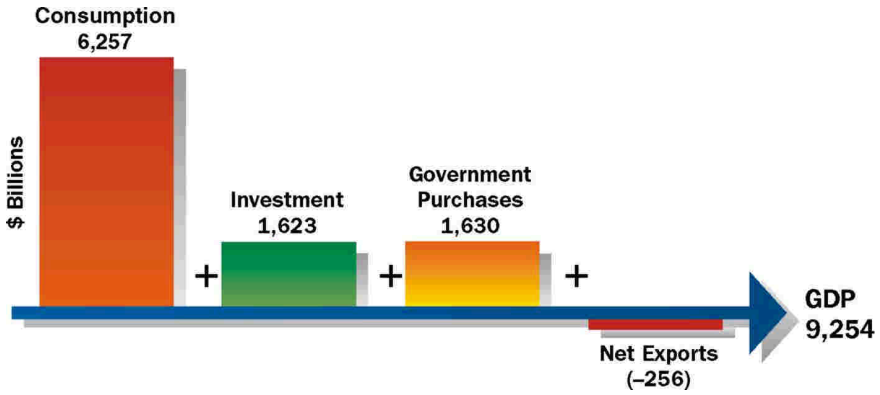
Money and Interest Rates

What economic variables are affected by a change in the money supply:

1. Money & the supply of loans
2. Money & the Real GDP
3. Money & the Price Level
4. They can also affect the ***expected inflation rate***. Anything that affects either the supply of loanable funds or the demand for loanable funds will obviously affect the interest rate.
5. A change in the interest rate due to a change in the supply of loanable funds is called the **liquidity effect**.
6. When Real GDP increases, both the supply of and demand for loanable funds increase
7. When the price level rises, the purchasing power of money falls, and people may increase their demand for credit or loanable funds in order to borrow the funds necessary to buy a fixed bundle of goods. **(Price Level Effect**)

Gross Domestic Product

- Anything that is not sold is “bought” by the firm that produces it.
- GDP=Consumption + Investment + Government Purchases + Net Exports



The Market

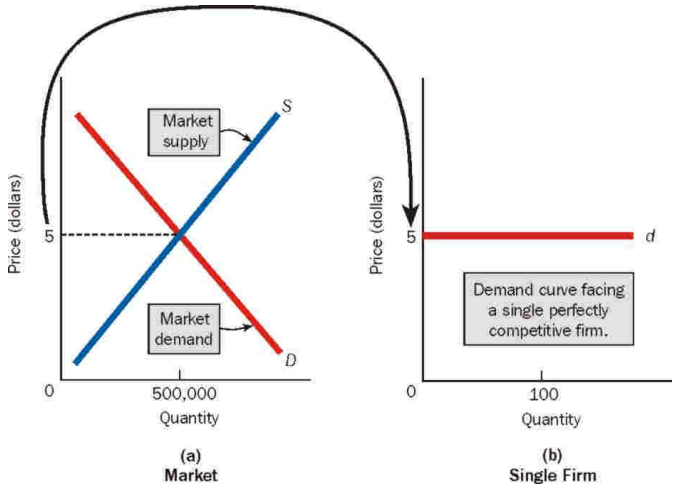
- Division of labor and exchange determine the Market
- The Market is the economic place where offer meets demand
- The market consists of suppliers of goods and purchasers of these goods
- The Market consists of producers and consumers

Economic cycle

- Economic activities of corporations act between to kind of Markets:
  - The procurement market
  - The sales market
- This causes a flow of performances of goods and services
- The Flow of goods and services meats a backflow of financial means

Demand Curve

- When the equilibrium price has been established, a single perfectly competitive faces a horizontal demand curve at the equilibrium price.



Different Markets

- Markets of consumer goods and investment goods
- Labour Market
- Financial and Stock Market
- Market of Media
- Street Market
- Flea Market
- etc

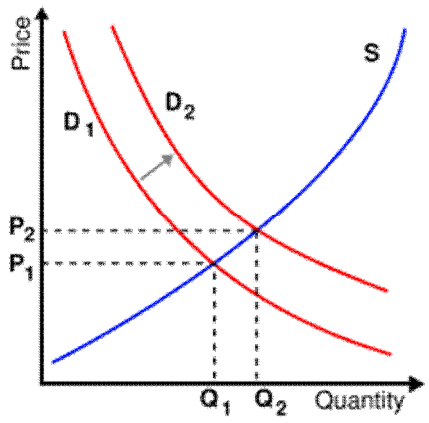
Market: a social arrangement

- **A market is a social arrangement that allows buyers and sellers to discover information and carry out a voluntary exchange of goods or services**. It is one of the two key institutions that organize trade, along with the right to own property
- The function of a market requires, at a minimum, **that both parties expect to become better off as a result of the transaction**. Markets generally rely on **price adjustments** to provide information to parties engaging in a transaction, so that each may accurately gauge the subsequent change of their welfare.
- In less sophisticated markets, such as those involving barter, individual buyers and sellers must engage in a more lengthy process of haggling in order to gain the same information. Markets are efficient when the price of a good or service attracts exactly as much demand as the market can currently supply. **The chief function of a market, then, is to adjust prices to accommodate fluctuations in supply and demand in order to achieve allocative efficiency**

Supply and demand

- In microeconomic theory supply and demand attempts to describe, explain, and predict the price and quantity of goods sold in perfectly competitive markets. It is one of the most fundamental economic models, ubiquitously used as a basic building block in a wide range of more detailed economic models and theories.
- To define, demand is the quantity of a product that a consumer or buyer would be willing and able to buy at any given price in a given period of time. Demand is often represented as a table or a graph relating price and quantity demanded. Most economic models assume that consumers make rational choices about how much to buy in order to maximize their utility - they spend their income on the products that will give them the most happiness at the least cost. The law of demand states that, in general, price and quantity demanded are inversely related. In other words, the higher the price of a product, the less of it consumers will buy.
- Supply is the quantity of goods that a producer or a supplier is willing to bring into the market for the purpose of sale at any given price in a given period of time. Supply is often represented as a table or a graph relating price and quantity supplied. Like consumers, producers are assumed to be utility-maximizing, attempting to produce the amount of goods that will bring them the greatest possible profit. **The law of supply states that price and quantity supplied are directly proportional**. In other words, the higher the price of a product, the more of it producers will create.

Supply and demand model



The supply and demand model describes how prices vary as a result of a balance between product availability and demand. The graph depicts a right-shift in demand from D1 to D2 along with the consequent increase in price and quantity required to reach a new equilibrium point on the supply curve (S).

Market economy

- Free Market Economy
  - Demand - supply
- Social Market Economy
  - Demand – supply + social solidarity
- State Planning Economy ./. Market Economy

Free market economy

- A market economy (also called a **free market economy**, free enterprise economy) is an economic system in which the production and distribution of goods and services takes place through the mechanism of free markets guided by a free price system rather than by the state in a planned economy. In a market economy businesses and consumers decide what they will produce and purchase, as a opposed to a planned economy where the government decides what is to be produced and in what quantities.
- **A market economy has no central coordinator** guiding its operation, yet theoretically self-organization emerges amidst the complex interplay of supply and demand and price regarding a multitude of goods and services. Supporters of a market economy generally hold that individuals pursuing their self-interest through trade has the incidental effect of bringing about a spontaneous order that is effective in supplying the greatest abundance of goods for society and in the most efficient manner

Chapter VIII: Human Resources

Human Resource Management (HRM)

- Human Resource Management (HRM) is both an academic theory and a business practice that addresses the theoretical and practical techniques of managing a workforce. The theoretical discipline is based primarily on the assumption that employees are individuals with varying goals and needs, and as such should not be thought of as basic business resources, such as trucks and filing cabinets. The field takes a positive view of workers, assuming that virtually all wish to contribute to the enterprise productively, and that the main obstacles to their endeavors are lack of knowledge, insufficient training, and failures of process.
- HRM is seen by practitioners in the field as a more innovative view of workplace management than the traditional approach. Its techniques force the managers of an enterprise to express their goals with specificity so that they can be understood and undertaken by the workforce, and to provide the resources needed for them to successfully accomplish their assignments. As such, HRM techniques, when properly practiced, are expressive of the goals and operating practices of the enterprise overall.
- The field also encompasses the sometimes arcane details of what is traditionally referred to as personnel management. Personnel management as a term describes those activities that are necessary in the recruiting of a workforce, providing its members with payroll and benefits, and administrating their work-life needs. In many locales, these activities can require a considerable amount of regulatory knowledge and effort, and many enterprises can benefit from the recruitment and development of personnel with these specific skills

Duties of HR

- Objectives of Human Resources Department are:
  - the cost of personnel,
  - the qualification of personnel,
  - the availability of personnel,
  - the motivation of personnel
  - the satisfaction of personnel with ist work-place

Legal Background of HR Management

- The relationship between employer and employee is highly regulated in Germany: by legislation and by tariffs between employers federation and labor unions. How complex and regulated the German labor market is shows the following selection of laws only related to that subject:
- The individual work contract *Arbeitsvertrag* ,
  - To be respected the „*Tarifvertrag*“ *agreement on tariffs*
  - On top in house agreements (*Betriebsvereinbarungen) between employer and the in-house representation of the employees* (Mitbestimmung (Betriebsverfassungsgesetz),)
  - *Legislation to protect the employees (Arbeitnehmerschutzgesetzen),such as* Arbeitszeitgesetz, Lohn-fortzahlungsgesetz (Entgeltfortzahlung im Krankheitsfall bis zu sechs Wochen), Kündigungsschutzgesetz, Arbeitssicherheitsgesetz, Mutterschutzgesetz, Ladenschlußgesetz, Jugendarbeitsschutzgesetz or Bundesurlaubsgesetz,
  - The social legislation (*Sozialrecht), including the social insurance system*.
- The legislation is dominant versus tariffication agreements.

Mitbestimmung

- The Mitbestimmung had been defined in the Betriebsverfassungsgesetz from 1952/1972/2001 .
- In contrary to the workers participation in the Supervisory Board the main objective of the codetermination is the regulation of the conditions of the work-places between employer and employee.

Institutions

- Workers council (Betriebsrat)
- Labor union (Gewerkschaften)
- Employers federation (Arbeitgeberverband)
- Tariff autonomy (Tarifautonomie)
- Area Tariff Agreement (Flächentarifvertrag)
- strike

The function and origins of labour law

- Labour law arose due to the demands of workers for better conditions and the right to organise, and the simultaneous demands of employers to restrict the powers of workers' organisations and keep labour costs low. Employers costs can increase due to workers organising to win higher wages, or by laws emposing costly requirements, such as health and safety or equal opportunities conditions. Workers' organisations, such as trade unions, can also transcend purely industrial disputes, and gain political power - some people in society may be opposed to this. The state of labour law at any one time is therefore both the product of, and a component of the conditions for, struggles between different interests in society.
- For example, workers' and trade union legal rights in the United States are relatively restricted, compared to most European countries. However, the compartmentalization between different laws systems mean that illegal aliens, for example, may work in the same sectors as full citizens (although they most often work in difficult and tiring jobs which natives don't want). As a counter-example, if labor laws are more protective in France, due to social, historic and cultural differences, illegal aliens may not be legally contracted. Thus, they have a more difficult time finding jobs and often work in the underground economy

Social Benefits

- Dismissal protection (Kündigungsschutz)
- Social security (Sozialversicherung)
  - Health insurance (Krankenversicherung)
  - Social Pension Fund (Rentenversicherung)
  - Unemployment insurance (Arbeitslosenversicherung)
  - Casualty insurance (Unfallversicherung)
  - Nursing Care Insurance (Pflegeversicherung)

Minimum wages

- There may be law stating the minimum amount that a worker can be paid per hour. Both France, Britain and the USA have a law of this kind, though the figure provided for in the USA is so low as to sometimes be insufficient for the means of a worker's subsistence. This explains the working poor phenomenon. In response to this, Living wage ordinances have been passed by many city authorities in the United States, which define a minimum wage for employees of those authorities, and sometimes for the employees of companies with which the authority contracts. These, therefore, constitute law, albeit not law whch restricts businesses in general.
- The minimum wage is usually different from the lowest wage determined by the forces of supply and demand in a free market, and therefore acts as a price floor. Each country sets its own minimum wage laws and regulations, and while a majority of industrialized countries has a minimum wage, many developing countries have not.

Anti-Discrimination Legislation

- Equal Pay Act 1970
- Sex Discrimination Act 1975
- Race Relations Act 1976
- Disability Discrimination Act 1995
- Protection from Harassment Act 1997
- Public Interest Disclosure Act 1998
- Part-time Workers (Prevention of Less Favourable Treatment) Regulations 2000, SI 2000/1551
- Fixed-Term Employees (Prevention of Less Favourable Treatment) Regulations 2002, SI 2002/2034
- Employment Equality (Religion or Belief) Regulations 2003 SI 2003/1660 (in effect from 2nd December 2003)
- Employment Equality (Sexual Orientation) Regulations 2003 SI 2003/1661 (in effect from 1st December 2003)
- Employment Equality (Age) Regulations 2006, SI 2006/1031

Dismissal

- Under United Kingdom law, specifically section 95(1) if the Employment Rights Act 1996, three events can constitute "Dismissal". These events are where:-

- The employer terminates the employee's employment contract contract with or without notice;
- a time-limited contract expires and is not renewed
- The employer's conduct (e.g. where the employer fundamentally breaches the employee's employment contract) allows the employee to terminate the contract without notice. This is popularly known as "Constructive Dismissal".
- Dismissal can be "fair" or "unfair". An employee who has been unfairly dismissed has a right to statutory compensation and further compensation for financial loss sustained in consequence of the dismissal. Such questions are dealt with by employment tribunals.

- For a dismissal to be "fair", an employer must give at least one potentially fair reason for the dismissal. Reasons recognised as being fair are stated in s.98(2) Employment Rights Act 1996:

- relates to the capability or qualifications of the employee for performing work of the kind which he was employed by the employer to do,
- relates to the conduct of the employee,
- is retirement of the employee, (effective 1st October 2006
- is that the employee was redundant,
- Some other substantial reason of a kind such as to justify the dismissal of an employee holding the position which the employee held,
- is that the employee could not continue to work in the position which he held without contravention (either on his part or on that of his employer) of a duty or restriction imposed by or under an enactment.

Recruitement

- Objective 1
  - To take the youngest
- Objective 2
  - Academic graduation
  - As much as possible professional experience
    - Experience in management of human resources
    - Experience in technical skills
    - Experience with team-working
    - Reliability
    - International experience
- Objective 3
  - Low salary

Employer

- An employer is a person or institution that hires employees or workers. Employers offer wages to the workers in exchange for the worker's labor power.
- Employers include everything from individuals hiring a babysitter to governments and businesses which may hire many thousands of employees. In most western societies governments are the largest single employers, but most of the work force is employed in small and medium businesses in the private sector.
- Note that although employees may contribute to the evolution of an enterprise, the employer maintains autonomous control over the productive base of land and capital, and is the entity named in contracts. The employer typically also maintains ownership of intellectual property created by an employee within the scope of employment and as a function thereof. These are known as "works for hire".
- Within large organizations the management of employees is often handled by Human Resources departments. On the national scale employers can be organized nijkin employers' organizations.

Employee

- An employee contributes labor and expertise to an endeavour. Employees perform the discrete activity of economic production. Of the three factors of production, employees usually provide the labor.
- Specifically, an employee is any person hired by an employer to do a specific "job". In most modern economies the term employee refers to a specific defined relationship between an individual and a corporation, which differs from those of customer, or client. Most individuals attain the status of employee after a thorough process of interviews with several departments within a company. If the individual is determined to be a satisfactory fit for the position, he is given an official offer of employment within that company for a defined starting salary and position. This individual then has all the rights and privileges of an employee, which may include medical benefits and vacation days. The relationship between a corporation and its employees is usually handled through the human resources department, which handles the incorporation of new hires, and the disbursement of any benefits which the employee may be entitled, or any grievances that employee may have. An offer of employment, however, does not guarantee employment for any length of time and each party may terminate the relationship at any time. This is referred to as at will employment. While the terms accountant, lawyer and photographer might refer to professions, they are not employee titles, which may include Senior Developer, Executive Assistant, or Regional Sales Manager and the like.

Hours of labour and holidays

- Before the Industrial Revolution, the workday varied between 11 and 14 hours. With the growth of capitalism and the introduction of machinery, longer hours became far more common, with 14-15 hours being the norm, and 16 not at all uncommon. Use of child labour was commonplace, often in factories. In England and Scotland in 1788, about two-thirds of person working in the new water-powered textile factories were children.
- The eight-hour movement's struggle finally led to the first law on the length of a working day, passed in 1833 in England, limiting miners to 12 hours, and children to 8 hours. The 10-hour day was established in 1848, and shorter hours with the same pay were gradually accepted thereafter. The 1802 Factory Act was the first labour law in the UK.
- After England, Germany was the first European country to pass labor laws; Chancellor Bismarck's main goal being to undermine the Social Democratic Party of Germany (SPD). In 1878, Bismarck instituted a variety of anti-socialist measures, but despite this, socialists continued gaining seats in the Reichstag. The Chancellor, then, adopted a different approach to tackling socialism. In order to appease the working class, he enacted a variety of paternalistic social reforms, which became the first type of social security. The year 1883 saw the passage of the Health Insurance Act, which entitled workers to health insurance; the worker paid two-thirds, and the employer one-third, of the premiums. Accident insurance was provided in 1884, whilst old age pensions and disability insurance were established in 1889. Other laws restricted the employment of women and children. These efforts, however, were not entirely successful; the working class largely remained unreconciled with Bismarck's conservative government.

Types of Work Contracts

- Limited/unlimited work contract
- Temporary job (Aushilfstätigkeit)
- Apprenticeship (Berufsausbildungsverhältnis)
- Worker/ employee (Arbeiter/Angestellter)
- Executive (Leitender Angestellter)
- Dependant contractor (Scheinselbständigkeit)
- Members of the Boards in corporations
- Employees bound by instruction (Weisungsgebundenheit)

Adaptation of HR to the Economic Situation

- Increase
  - Unlimited employment
  - Limited employment
  - Temporary worker (Leiharbeiter)
  - Time work (Zeitarbeit)
  - Increase working time/overtime
  - Qualification of workers/employees
  - Apprenticeship
- Decrease
  - dismissal
  - Decreasing working time/overtime
  - relocation
  - Part-time work
  - To be on short hours (Kurzarbeit)
  - Early retirement
  - Hiring freeze (Einstellungsstopp)
  - Flexible work hours
  - Social plan

Payments - Salary

- Monetary compensation for work done
  - Wage (worker)
  - Salary (employee)
  - Functionary/Public officer
  - Salary in function of performance
  - Wage groups: BAT
- Non Wage labor costs (Lohnnebenkosten)
  - about 80% of the salary brut
  - Leave pay (Urlaubsgeld)
  - 13. salary
  - Christmas bonus
  - Employers contribution to social security
  - Ex-gratia payment (Freiwillige Leistung)
  - Pension scheme (Altersversorgung)

Management of Human Resources

- Managers have to recruit qualified collaborators, to continue to qualify them and to keep them in the company
  - Professional skills
  - Assignment
  - Motivation

Motivation

- Thesis:
  - To pay the highest salary for low work demand
  - This had been the first one-dimensional approach with the motivation of workers (money as the most simple/basic form of motivation)

Human resources

- Human behavior is conducted by a number of needs
- Human kind differ from each other, though their needs differ
- Meaningful and satisfying work is one of the fundamental needs

Theories on motivation

- Definition and description of motivations
- The development of instruments to measure the degree of motivation
- Investigation of individual differences in motivation
- Link between the power of a motive and the actions of the individual
- Origin and conditioning of motives (inheritance, education, learning)

Masslows Hierachchy of Needs

1. Self-realization (growth need)
2. Appreciation by others and by one-self
3. Contact with other, love, friendship
4. Security
5. Physical needs

Self Realization

- A painter must paint
- A musician makes music
- A poet must write
  - to be happy. The need is the „self-realization“.

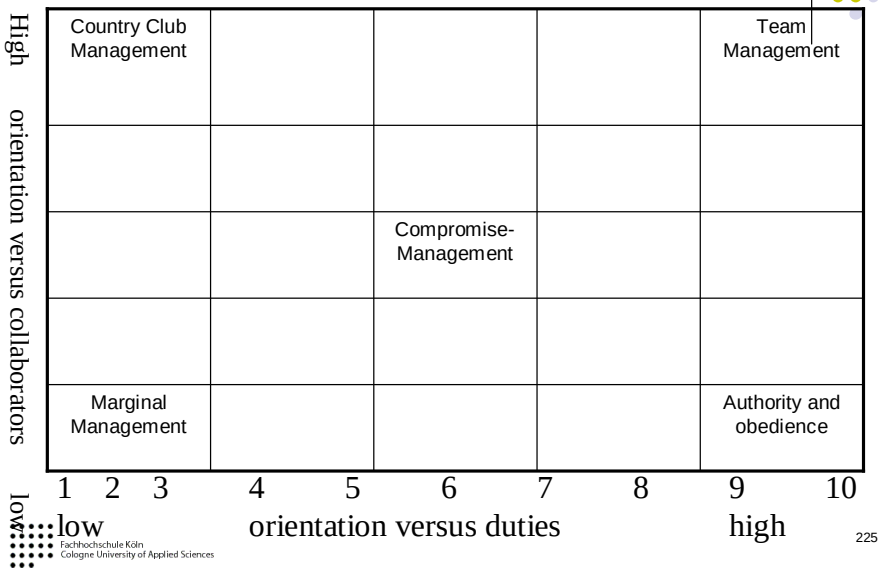
Hygiene Factors

- Hygiene factors (job context)
  - Business policy
  - Relation to the superior
  - Inter-personnel relations
  - Salary
  - Status
  - Security
- Motivators (job content)
  - Leadership
  - Recognition
  - The work place
  - Promotion
  - Development of skills

Leadership types

- Personality, Charisma
- Behavior
- Authoritative/democratic leadership
- Participative Leadership
- Situative Leadership
- Collaborator oriented leadership (Consideration)
- Duty oriented leadership (initiating structure)

The Managerial Grid



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Payroll module

- The payroll module automates the pay process by gathering data on employee time and attendance, calculating various deductions and taxes, and generating periodic paycheques and employee tax reports. Data is generally fed from the human resources and time keeping modules to calculate automatic deposit and manual cheque writing capabilities.
- Sophisticated HCM systems can set up accounts payable transactions from employee deduction or produce garnishment cheques. The payroll module sends accounting information to the general ledger for posting subsequent to a pay cycle.

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Chapter IX: The Management of a company

- Corporate management defines the fulfillment of executive functions
- Core duties:
  - Planning, Deciding
  - Control
  - Leadership
  - Conduct the business
  - Conduct the employees
  - Organization
  - Representation

Corporate objectives for the management

- The real objective is to maximize the benefit
- The objective is not the supply of the markets (only in Planning Economy)
- To maximize the Shareholder Value
- But:
  - Conflict between profit orientation and other objectives as e.g. more time for leisure

Conflict of objectives

- Creditor
  - To pay interest and loan-redemption on time
- Consumer
  - High quality of products at lowest prices, on time delivery, amiability (Kulanz)
- Supplier
  - To keep long term customer relation, who pays high prices on time

Corporate objectives

- The existence and profile of long term objectives are the pre-conditions for consistent decisions and for the motivation of the employees

Conflict employer – employee - state

- Employees
  - Good working conditions, high salary, challenging job, secure working contract
- Employers
  - Low salaries, flexible working contracts, low tax payment, good infrastructure offered by the State
- State
  - Create new work places, generate tax revenues, no demand for infrastructure, no environmental pollution

Conflicts

- Conflicts if
  - Closing of company
  - Dislocation of the company
  - Rationalisation
- In periods of economic success managers avoid conflicts. No unpopular decisions

The Legislator has introduced a number of laws to protect the employees/workers

- Law of obligations (Schuldrecht)
- Insolvency law (Insolvenzrecht)
- Social security (Sozialversicherung)
- Agreement on tarifs (Tarifverträge)
- Vacation law (Gesetz über Urlaub)
- Continuation of wages (Lohnfortzahlung)
- Dismissal protection (Kündigungsschutz)
- Workers co-determination (Mitbestimmung)
- Framework for the rights of workers (Betriebsverfassungsgesetz)
- Law on competition (Wettbewerbsbeschränkung)
- Protection of environment (Umweltschutz)

Discussion

- *Can hinder these workers protection laws economic growth and development?*
- *Can compromises between political, macro-economical and micro-economical interests lead to economic paralysis?*

Objectives of managers

- Strong exigency for performance, merits and repute
- Exigency for power and independency
- Represents the interests of the owners
- High income, high level of living:
  - Company car, Representation, missions, office size, number of personnel subordinated

Chapter X: Corporate planning

Planning, Decision, Control

- Duties of the Management
- Entrepreneurial Objectives
- Entrepreneurial Planning
- Decisions taking
- Control
- Controlling

Planning

- Planning is a theoretical anticipation for future action
- Decision follows the Planning

Elements of Planning

- Objectives
- Alternatives
- Expectation

Planning

- Marketing Planning
- Production Planning
- Procurement Planning
- Financial Planning
- Investment Planning
  - Top down Planning
  - Bottom up Planning

Investment planning

- Enlargement of the company
- Dislocation of the production
- Acquisition of companies
- New technologies
- New departments
- External procurement or self-production
- Merger & Acquisition

Objectives

profit	high
costs	low
Motivation workers	high
publicity	high
independency	high
taxes, public charges	low
Environmental pollution	low

Discussion

Good managers don't take decisions

Platitude: *Work-places and profile are of equal importance*

Profit is more important than market share

Decision taking

- Complexity of decision making: Example:
  - *Uncertainty/Probability*: Should one take a full-risk insurance for the company cars or should the company save costs?
  - *Decision when buying a new car: price, quality, shipment time, service, design …*
  - *Recruitment of personnel:* age, gender, recommendations, graduations, assessment, price
  - *Stock planning*: How many pies and cakes should the owner of a garden-café hold in stock for the upcoming week-end? How will the weather be?

Decision matrix: A new product, what product will go in production?

Case	Design	Functionality	Recycling	Costs
A	8	6	6	40 €
B	9	7	5	50 €
C	6	5	4	20 €

Decision support in case of uncertainty

- Decision tree - Hierarchy
- Criteria for decisions
- The boss decides
- Off the top of one‘s head

Control

- Control is part of the Planning- and Control system
- Monitoring / Evaluation
- Controlling

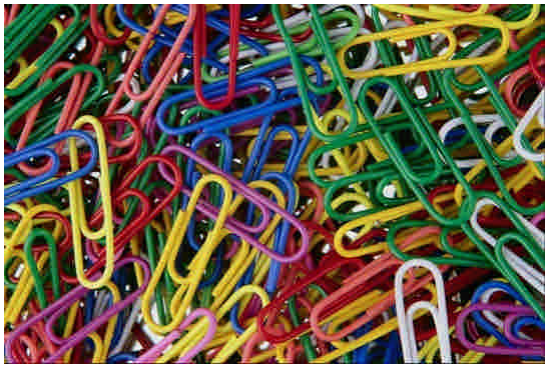
Objectives of Control

- To learn from mistakes
- Adjustment of targets
- Evaluation of cooperators/workers
- Prevent abuse
- Identify aberrations
- Nominal/actual comparison (Soll/Ist)

Controlling

- Manager need information for decision making on Planning- and Management issues
- The design and maintenance of the information system is called „Controlling“
- MIS – Management Information System

Chapter XI: The Organization



Organization

- Organization comprises the total of procedures and rules in a system
- We distinguish:
  - Company organization structure (Aufbauorganisation)
  - Process organization (Ablauforganisation)
- The global competition and the increasing labor costs force many companies to evaluate and and to optimize their production and management process

Creation of workplaces

- Organizations gain efficiency through:
  - Labor division:
    - Functions
    - Objects
    - Delegation of power of decision making

Scientific Management

- Origin of Theory of Organization in 19th century in frame of the industrial realization
- Markets and production output grew rapidly
- The organization of the companies became an important issue

Problems of large companies in the 19th century

- Organization and Coordination of the production process
- Motivation of labor force
- To stand up against concurrence

Frederick Winslow Taylor

(1841 – 1925)

- He developed the „Scientific Management“
- Linked inseparably with the Organization theory
- Characteristics:
  - Idea of man (Menschenbild) of the homo oeconomicus
    - Man is a mean of production
  - Introduction of technical-physical methods of measuring the work-flow and performance
    - Time and motion studies -> REFA
  - Standardization and labor division
    - All activities are documented
  - Specialization of the management functions
    - Principle of mastering functions
  - Performance related wages
    - piecework wages (Akkordlohn)

Band conveyor – Assembly line

- Henry Ford introduced the assembly line in automobile production
- Division of management functions and kind of work
- Criticism of the methods of Taylors had been forwarded by the labor-unions
  - Job performance is over-directed (fremdbestimmt) and dehumanizes the jobs
- Business Reengineering is the recent model of Taylor
  - Perfection of workflows by the use of informatics

Sociological methods

- Max Weber: Exertion of Dominance by bureaucrats. In all societies Dominance (power) is practiced. These is legal, if recognized and accepted by all persons involved
- Three types of domination:
  - Legal domination
    - Acceptance of the system of legislation. Orders and instructions are accepted.
  - Traditional domination:
    - Leadership by tradition, as kings etc
  - Charismatic domination:
    - Based on the personality

Bureaucrats work by the following principles:

- Standardization of duties and labor independently from individuals
- Hierarchy and definition of competences
  - Precise definition of subordination, power of instruction, control. Superiors are not allowed to execute the work of subordinated.
- Direction procedures
  - Official channel (Dienstweg). Instruction is objectively justified
- Emphasis on objective competence
  - In the hierarchy of an administration one can be promoted in frame of a defined career
- Principle of file records
  - All activities are recorded in files

Lean Management

- Taylors method promotes the bureaucratic procedures
- Today new methods try to counteract bureaucratic procedures, e.g. by lean management

Organization by Fayol

- Optimal Organization if:
  - Principle of uniformity of instruction:
    - Each member of an organization has only one superior, who instructs him
    - Principle of optimized control
    - No superior should instruct more subordinates than he can supervise

Cybernetics - doctrine of self and automatic control of systems

- Concept of the closed loop
  - By a regulator the process is controlled in such a way, that he acts against affects from the exterior
  - Without regulation from outside to stabilize a defined value or status
- Learning aptitude
  - To learn from recorded data from the past and to adapt future procedures

Cybernetics: Stable Systems

- Stable System
- unstable System
- Indifferent/neutral System

Decision taking methods

- Linear Optimization
  - Approximation procedure (Heuristic), that calculates complex systems of linear equations, e.g. Production programs
- Non linear Optimization
  - Uses linear equations and non linear equations. The complexity increases
- Game theory
  - Founded by John v. Neumann/Morgenstern. Calculates models of behavior in real situations. Assumption: Models can only be described by probability calculation.

Company organization structure

- Each company is based on organizational unit
- These units are structured hierarchal
- In some cases the hierarchy is instructed by law: Supervisory board and board of directors in companies by shares

Company hierarchies

possible hierarchies		
Level	**Organizational unit**	**Description**
CEO, President, Directors	Entire company	To lead the entire company
Head of direction	Direction	large and important unit in large companies
Head of department	department	Large unit in companies
Head of subdivision	subdivision	Subdivision of a department
Head of unit	unit	Unit with limited number of staff
Head of group	group	Unit with limited number of staff and specific duty
Collaborator, worker	position	Smalest function

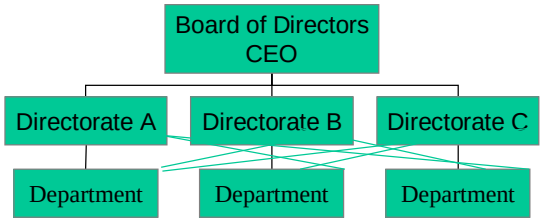
Organizational structure/Organigram

One Line System

Advantage and Disadvantage

- Advantage:
  - Precise definition of duties and responsibilities
  - Precise definition of subordination
  - Uniform communication line
  - Clearly arranged
  - Power of decision in hands of superiors
  - Simple instruction flow to collaborators
- Disadvantage:
  - In larger companies overstress of collaborators
  - Teamwork difficult
  - Cumbersome and bureaucracy
  - Little quality in decision power
  - Promotes „Beamtenmentalität“

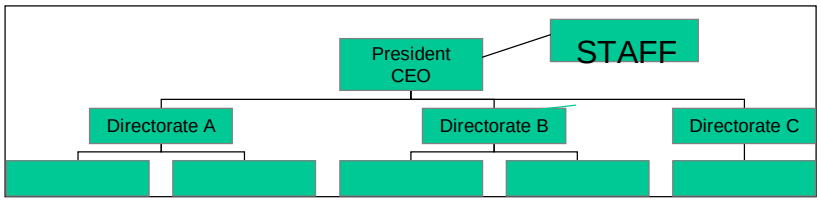
Organigram
Multi line model



Advantages – Disadvantages Multi Line Model

Advantage	Disadvantage
•Less hierarchy •Short communication flow •Better decision making thanks to integration of more views and meanings	•To much communication •Dispute on competences •Real responsibility unclearer •Collaborator has more than one superior

Staff Units Organigram (Stabliniensystem)



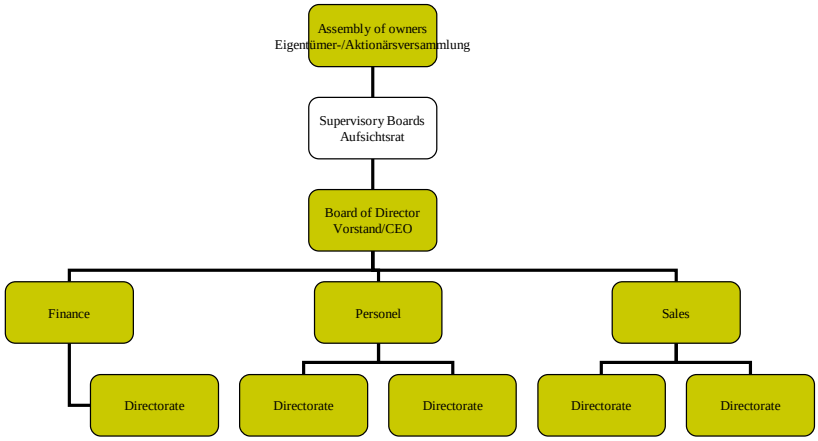
Staff units assist the organizational units, without having any power of decision

Example of an Organigram

CEO				
Purchase/Marketing	Finance	Organization/Logistics	Personnel	
Organisationsstruktur Kaufhof AG				
Organisationsstruktur Lufthansa AG				

CEO							
	Finance	Personnel	Participations	Sales/Marketing	Mechanics	Flight operations	Risk management

Typical Organigram German Corporation



Chapter XII: Marketing - Sales

Marketing/Sales

- Marketing is the activity of companies towards customers and markets
- Marketing is not just advertising or sales promotion A Market is the place where offer and demand of goods and services meet. Goods and services offered on the market are in short supply
- The exchange of goods is voluntary.
- Supplier and customer agree on the price.

Strategic and operative Marketing

- Strategic Marketing:
  - To serve which markets, which clusters of customers. Who is concurrent, what will be new products and trends. What are products, prices and distribution chain of concurrents
- Operative Marketing
  - What will be the design pf the products
  - What will be the Communication and distribution strategy
  - Price policy

Marketing Concepts

- Production-Concept
  - Easily available products at low process
- Product Concept
  - Products with superior quality
- Sales Concept
  - Improved sales promotion activities
- Early Marketing Concept
  - Over-supply with goods. Saturation of consumption
  - Lifestyle- Event Marketing
  - Promote Awareness of live

Classification of the Supliers

- Polypoly
  - Many small suppliers meet many small customers
- Monopoly
  - A single big supplier meets many small customers
- Monopsony
  - A single big customer meets many small suppliers
- Oligopoly
  - Some bigger suppliers enter into competition against each other. All represent market power.

Type of buyers and Product types

- Market for consumer goods
  - The need for consumption of private consumers is served to:
    - Analytical consumers
    - Price evaluating and hesitating consumers
    - Consumer abstinence
    - Ad hoc buyers
    - Prestige buyers
    - Suggestible Consumer-Fans

Classification of consumer goods

- Convenience goods
  - Cheap products for daily need and consumption
  - Special goods
  - Complex buyers decision process
- Shopping goods
  - More expensive products not for immediate consumption (clothing)

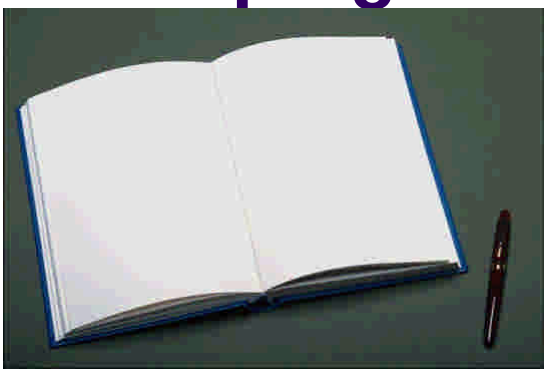
Communication/PR

- Advertising
- Individual sales promotion (B2B)
- General sales promotion
- Public relations

Market research

- Market research is the systematic collection and interpretation of market data
- Is need to orientate the supply of the producers to the needs of the consumers and market

Chapter XIII: Accounting Book Keeping



Business accountancy

- Duties and objectives
- Balance
- Profit, Profit & Loss
- Annual statements/company accounts

Accountancy

Accountancy has two areas:

- Management accounting (Internes Rechnungswesen)
  - Cost accounting and control of profitability
- Financial reporting (Externes Rechnungswesen)
  - Each company has to publish (by law) at the end of each accounting year its annual statements and financial reports
  - This is also to render account to the owners of the company
  - Serves as basis for taxation
  - Serves to investors on stock-exchange

The Central Role of Economic Profit

- Calculating Profit

– Suppose a firm has the following:

- *TR* [Total Revenue] = €400,000
- Explicit costs (salaries) = €250,000/yr
- Machinery and other equipment with a resale value of €1 million

- Calculating Profit

Accounting Profit:

€400,000(TR) - €250,000 (explicit costs) = €150,000

Calculating profit

Calculating Profit

– To calculate economic profits, assume Annual interest on savings = 10%

[Then the €1 million spent on equipment could have earned €100,000/yr had it been invested]

Economic Profit

€400,000 (*TR*) - €250,000 (explicit cost) - €100,000 (implicit cost) = €50,000

Calculating Profit

Normal Profit

Accounting Profit (€150,000/yr) – Economic Profit (€50,000/yr) = €100,000/yr

Economic vs. accounting profit

- If a firm is receiving economic losses (negative economic profits), the owners are receiving less income than could be received if their resources were employed in an alternative use.
- In the long run, we'd expect to see firms leave the industry when this occurs

Balance

- The balance sheet is one of the financial statements that limited companies and PLCs produce every year for their shareholders. It is like a financial snapshot of the company's financial situation at that moment in time. It is worked out at the company's year end, giving the company's assets and liabilities at that moment.
- It is given in two halves - the top half shows where the money is currently being used in the business (the net assets), and the bottom half shows where that money came from (the capital employed). The value of the two halves must be the same - Capital employed = net assets, hence the term balance sheet..
- Die Bilanz ist die Gegenüberstellung der in Geld bewerteten Vermögensgegenstände und des Kapitals. Kapital setzt sich aus Schulden und Reinvermögen zusammen.
- Reinvermögen ist die Differenz zwischen Vermögen (Aktiva) und Schulden (Passiva)
- Daher muss die Bilanzsumme immer ausgeglichen sein (auf beiden Seiten gleich)

- The money invested in the business may have been used to buy long-term assets or short-term assets. The long-term assets are known as fixed assets, and help the firm to produce. Examples would be machinery, equipment, computers and so on, none of which actually get used up in the production process. The short-term assets are known as current assets - assets which are used day to day by the firm. The current assets may include cash, stocks and debtors.

- The top half of the balance sheet will therefore be made up of the total of the fixed and current assets, less any current or long-term liabilities the firm may have (creditors, loans and so on). It may look as follows:

	Million EUR	Million EUR
Fixed assets		200
Current assets- stock	40	
- debitors	50	
cash	20	
TOTAL	110	
less Current liabilities	- 40	70
NET ASSETS		270

The bottom half of the balance sheet then looks at where this money came from. This depends on how the business was originally funded. The main source of money for a limited company starting up is the issue of shares. This is termed the share capital - the money the original shareholders put into the business. From then on the assets of the company may be built up by ploughing profit back into the business. This is called retained profit, and is the other source of money usually included in the bottom half of the balance sheet. This may therefore look as follows:

Share capital	100	
Retained profit	170	
CAPITAL EMPLOYED	270	

Balance Sheet
Example: Opening Balance

Balance at 31.12.200x			
Assets		**Liabilities**	
Car	12.500	Credit from Grand'ma	2000
Furniture	5.200	Share capital	17.285
Debit against Friend	300		
Cash	1.285		
TOTAL	19.285	TOTAL	19.285

Definitions Balance

- Debt is bank credit or similar and other liabilities
- Share capital are proper funds (Eigenkapital)
- Liability shows from where the capital is coming
- Asset shows how the capital is used

Structure Company Balance Sheet

- Assets (Aktiva):
  - Fixed assets
    - Property
    - Plant and equipment
    - Intangible assets
  - Current assets
    - Inventories
    - Accounts receivable
    - Stock papers
    - Cash + equivalentsl
  - Less accumulated depreciation
- Liabilities (Passiva)
  - Stockholders equity
    - Preferred stock
    - Common stock
    - Capital surplus
  - Current liabilities
    - Accounts payable
    - Notes payble
  - Long term liabilities
    - Lng term debt
    - Deferred taxes
  - Accumulated retained earnings
  - Less treasury stock

Thank you

- Thank you. I hope you have acquired basics in Economics, Business Administration and Organization. Though I hope you have discovered Economics and Management.
- An engineer who intends to become a manager or an executive of a company needs the study of Economics and Management
- Work and live cost efficient
- I wish you success with the continuation of your study and in your profession.