## **SOLUTIONS 1. 3.2.2014**

Q1. Money.

(i) *History*. A simple "money" "Wikipedia" search turns up more than we need. Some brief notes:

Barter is the exchange of one kind of goods for another; this can also extend to services. This is informal, and can be practised even by primitive societies. The obvious problem is the difficulty of matching the requirements of the two individuals (or groups) wishing to make the transaction, and also time-lapses (e.g., bartering crops that are harvested at different times).

Gifts: Some primitive societies dispense with money altogether, and rely on gifts, either out of altruism or to create reciprocal obligation.

Goods as money. Wealth is still reckoned in terms of cattle in some societies (e.g. the Masai of Kenya). Roman soldiers were at one time paid in salt (hence our word salary). I learned from Wikipedia that rum was used as a form of currency in the early history of the then British colony of New South Wales.

Land is the medium in which wealth was reckoned in many agricultural societies (including mediaeval Europe, where sea trade was inhibited by the danger of pirates). This has left deep marks in our culture (and literature – e.g. *Gone with the wind*: "Land is the only thing that matters – it's the only thing that lasts").

Serfs served a similar purpose in tsarist Russia until the mid-19th C. (see e.g. Gogol's *Dead souls*).

Coins began to be minted in China c. 1000BC, and later in the Mediterranean: Aegina c. 700BC; Lydia (W. Asia Minor, then in the Greek world) – electrum (a gold-silver alloy), c. 650-550BC). Gold, silver and copper were the principal metals used in coins; paper money also has a long history. The study of coins and notes is called numismatics.

(ii) Functions. Money serves principally as a medium of exchange, and as a store of value.

Medium of exchange. Trade and markets, the basis of economies, requires the presence of a medium of exchange.

Store of value. In primitive societies, one cannot store value. People thus live from hand to mouth (as do many animals - e.g., lions only hunt when

they are hungry). There is then no incentive to save, or accumulate capital; this condemns society to mere subsistence, and civilization cannot emerge, let alone develop.

## Q2. Banks.

(i) *History*. As in Week 1, in mediaeval Europe the Church prohibited usury. This meant that there was no incentive to lend money, merely the two obvious disincentives: one denies oneself the use of one's own money, and one risks default. Without the ability to borrow, capital could only be accumulated slowly by inheritance, and entrepreneurs could not function.

In Renaissance Italy, various ways were found to circumvent the prohibition on usury. Those who did so did business from a bench (banca) – e.g. in Venice (cf. Shakespeare's *Merchant of Venice*). Governments became dependent on the ability to borrow to finance armed forces to protect their citizens and territory, let alone wars. By the time of the Industrial Revolution, banks had developed to the extent that entrepreneurs could raise the capital necessary to invest in machinery, etc.

Functions. Banks have failed, causing misery to those who lost their life savings, so some people have declined to use them. For individuals without bank accounts, there are several options: not to save (condemning oneself to subsistence only); to save and e.g. sew the money into the mattress (making oneself vulnerable to robbers prepared to, e.g., hold a householder over a fire until he showed where his money was hidden); or to save by investing in fixed assets such as land.

So to modern individuals, banks enable one to dispense with carrying large sums of money. One need only carry a cheque book (or travellers' cheques), credit cards etc.

For a modern business, banks are needed to finance investment – building new factories, investing in new machinery etc.

For a modern government, banks are needed to finance investment (armed forces, major infrastructure projects etc.), and cover any gap between revenue (taxes) and expenditure. For the UK: all we need is covered by the history of the Bank of England (which dates back to 1694 and the reign of William III, following a naval defeat by France at the Battle of Beachy Head), and the national debt (see Wikipedia for details).

Merchant banks (UK) (or investment banks, US) (which evolved out of the old merchant adventurers) are specialist finance houses, used e.g. by companies to finance mergers and acquisitions (M & A). The recent crises have damaged the reputation of merchant banking – often denounced as 'casino banking'. There is political pressure to separate ordinary retail/commercial banking from investment banking. This was done in the US by the Glass-Steagall Act, passed in 1933 after the Wall Street Crash, but repealed in 1999 (Gramm-Leach-Bliley Act) when deregulation was fashionable (see Wikipedia for details).

## Q3, Limited liability.

A commercial transaction involves a degree of trust – in one's counterparty (their honesty, and their ability to honour their commitments), in the currency, and in the rule of law (the ability of society to enforce a binding agreement). If one party to a transaction cannot honour their commitments, the other party may lose as a result. They might then sue the defaulter for their loss. Such a loss might be large – larger than the defaulter's assets. In former times, creditors could have defaulters committed to a debtor's prison until they paid their debts (which, being economically inactive, they could of course not do). The human misery thus caused has left deep marks on our culture (visible in e.g. Shakespeare's Merchant of Venice again, the Debtor's Prison in York, and some of Dickens' novels). Trade in those days was dangerous: merchants would band together to spread the risk. International traders were called merchant adventurers (e.g, the Merchant Adventurers' Hall in York).

With the advent of the Industrial Revolution, the capital needed for factories and machinery could not be raised under such conditions. So the idea of *limited liability* – that one's loss should be no bigger than one's investment – took hold. This led to the limited liability company ("& Co. Ltd.") in the UK by the 1850s (Limited Liability Act 1855; Companies Act 1856, 1862), and in most US states by 1860 ("& Co. Inc.").

On the plus side, limited liability is necessary to give people the confidence and security to engage in trade, investment and other economically productive activity. On the minus side, it is open to abuse (see e.g. Week 2, I.9.3, Moral hazard).

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