

# Lecture 3: Development Money and Banking in Pre-modern Times

- Spanish Money Mountain
- Monetary Problems in Europe in 15C-17C
- Money and Banking in Early History
- Money as Bank Promissory Notes
- The Importance of the Role of Finance

# Fate of Inca Empire, a Moneyless Society

- Inca Empire, a Moneyless Society
  - ▣ Inca Empire, as under Communism, the economy depended on often harsh central planning and forced labor.
- Conquered by the Spanish Conquistadors, led by the illegitimate son of a Spanish colonel, Francisco Pizarro in 1524, looking for both gold and silver.
  - ▣ Thus, Silver in Inca Empire led to a money mountain in Peru

# The Money mountain episode

- Pizarro's Cerro Rico in Peru:
  - ▣ a mountain of solid silver ore with a peak that towers , 15,827 feet above sea level.
  - ▣ Located in a town called Potosi in Peru - literally the 'rich hill' ,
  - ▣ Became the source of riches Spanish Crown
- Base material for Spanish silver coin
  - ▣ A source of riches for Spain?

# Metallic money

- Desirable properties of money:
  - ▣ money has to be available, affordable, durable, fungible, portable and reliable.
  - ▣ Because they fulfill most of these criteria, metals such as gold, silver and bronze were for millennia regarded as the ideal monetary raw material.
- An example of metallic money:
  - ▣ The earliest known coins date back as long ago as 600 BC and were found by archaeologists in the Temple of Artemis at Ephesus.

# Examples of metallic money, coins

- Roman coins
  - ▣ in three different metals: the aureus (gold), the denarius (silver) and the sestertius (bronze).
- Chinese coins:
  - ▣ In 221 BC that a standardized bronze coin was introduced to China by the '1st Emperor', Qin Shihuangdi.
- Coins in early Europe
  - ▣ Prices were still being quoted in terms of silver denarii in A the time of Charlemagne, king of the Franks from 768 to 814.

# Monetary shortages in Europe

- Monetary shortages:
  - ▣ a chronic shortage of silver in Western Europe by the time Charlemagne, crowned Imperator Augustus in 800.
  - ▣ Demand for money was greater in the more developed commercial centers of the Islamic Empire that dominated the southern Mediterranean and the Near East.
- In some parts of Europe, peppers and squirrel skins served as substitutes for currency; in others *pecunia* came to mean land rather than money.

# Dealing with Monetary Shortages

- Export labor and goods, exchanging slaves and timber for silver in Baghdad or for African gold in Cordoba and Cairo. Or,
- The Crusades: one motivation was to overcome Europe's monetary shortage as about converting heathens to Christianity.

# Compounding monetary problems

- The big problem of small change, namely, establishing stable relationships between coins made of different kinds of metal
  - ▣ smaller denomination coins were subject to recurrent shortages,
  - ▣ Subject to depreciations and debasements.
- medieval and early modern governments failed to find a solution to the problem

# Spanish silver to the monetary shortages

- Spanish silver to the monetary shortages
  - ▣ Potosi, and the other places in the New World where they found plentiful silver, esp. Zacatecas in Mexico, the Spanish conquistadors therefore appeared to have solved a centuries old constraint
  - ▣ Made the Castilian monarchy that had sponsored the conquests to the richest kingdom.
- The Spanish 'piece of eight', based on the German *thaler* (hence, later, the 'dollar'), became the world's first truly global currency.

# the Spanish dominance short-lived

- Spanish silver financed:
  - ▣ its protracted wars fought in Europe, but also
  - ▣ the rapidly expanding trade of Europe with Asia.
- Economic and imperial decline.
  - ▣ Like King Midas, the Spanish monarchs of the sixteenth century, Charles V and Philip II, found that an abundance of precious metal could be as much a curse as a blessing.
  - ▣ the metal itself dramatically declined in value , i.e.  $\gamma$ , in its purchasing power with respect to other goods.

# Economic and imperial decline of Spain

- Charles V and Philip II, failure to
  - ▣ bring down the rebellious Dutch Republic,
  - ▣ nor secure England for the Spanish crown despite the famed Spanish Armada.
- Spanish metallic money lost its value
  - ▣ its purchasing power with respect to other goods declined dramatically.

# Economic and imperial decline of Spain

- The abundance of silver as a ‘resource curse’
  - ▣ removing the incentives for more productive economic activity,
  - ▣ at the same time strengthening rent-seeking autocrats at the expense of representative assemblies.
  - ▣ Like the abundant oil of Arabia, Nigeria, Persia, Russia and Venezuela in our own time,
- The value of precious metal is not absolute
  - ▣ the Spaniards had failed to understand it.

# Money itself is not wealth

- Money is worth only what someone else is willing to give you for it.
  - ▣ An increase in its supply will not make a society richer,
  - ▣ though it may enrich the government that monopolizes the production of money, specifically in this case Spanish monarchs.
- Other things being equal, monetary expansion will merely make prices higher.

# Spanish monarchs

- **Kingdom of Spain (1516-1873)**
  - **House of Habsburg / House of Austria**
  - Under Joanna and Charles I, the two thrones of Castile and Aragon were finally united under one monarch
  - **Charles V** (Spanish: *Carlos I*, German: *Karl V.*, Italian: *Carlo Quinto*, Dutch: *Karel V*, French: *Charles Quint*; February, 1500 –September, 1558) was ruler of the **Holy Roman Empire** from 1519 and, as **Charles I**, of the **Spanish Empire** from 1516 till 1556.

# Spanish monarchs

- **Charles V** (, and as **Charles I**)
  - In 1519, succeeded his paternal grandfather Maximilian as Holy Roman Emperor and Archduke of Austria.
  - In 1556, voluntary retired and abdicated in favor of his younger brother Ferdinand I and his son Philip II.
  - Fought wars: the Italian Wars against the French kings Francis I and Henry II
  - Opposed the Protestant Reformation.<sup>1</sup>

# Spanish monarchs

- **Charles V** (, and as **Charles I**)
  - Oversaw the Spanish colonization of the Americas, including the conquest of both the Aztec Empire and the Inca Empire.
  - Maintained his alliance with Henry VIII of England, despite the latter splitting the Church of England from Rome and violently persecuting Catholics.
  - "the empire on which the sun never sets", spanned nearly four million square kilometers across Europe, the Far East, and the Americas.<sup>[4]</sup>

# Spanish monarchs

## □ Phillip II, 1556-1598

- King of Spain, Naples and (from 1580) Portugal  
King of England and Ireland *jure uxoris*;  
Ruler of the Spanish Netherlands; Duke of Milan
- Philip II of Spain had been co-monarch of England until the death of his wife Mary I in 1558.
- In 1521, Portuguese explorer Ferdinand Magellan arrived in the Philippines and claimed the islands for Spain, later known as Philippine.†

# Spanish monarchs

- The **Spanish Armada** (Spanish: *Grande y Felicísima Armada*, "Great and Most Fortunate Navy") was the Spanish fleet that sailed against England under the command of the Duke of Medina Sidonia in 1588, with the intention of overthrowing Elizabeth I of England to stop English involvement in the Spanish Netherlands and English privateering in the Atlantic and the Pacific.
- Philip III, 1598-1621, King of Spain and Portugal

# Money in other forms

- Non-metallic money:
  - ▣ no reason, other than historical happenstance, that money should be equated with metal.
- Ancient Mesopotamian monies:
  - ▣ beginning around five thousand years ago, people used clay tokens to record transactions involving agricultural produce like barley or wool, or metals such as silver.
  - ▣ Used rings, blocks or sheets made of silver, grain and *clay tablets* as ready money

# Mesopotamian clay tablets

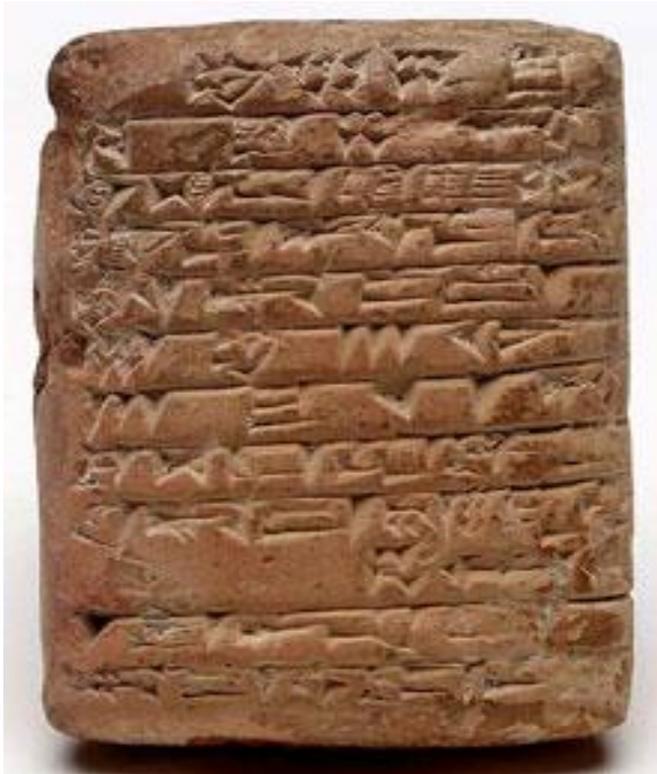
- Mesopotamian clay tablets
  - ▣ A great many of clay tablet as 'money' have survived,
  - ▣ reminders that when human beings first began to produce written records of their activities they did so not to write history, poetry or philosophy, but to do business.
- Though made of base earth, they have endured much longer than the silver dollars in the Potosi mint.

# Sumerian clay tablet

**Age:** Ur III period, 21st century BC

**Dimensions:**

5.45cm L x 3.9cm W x 1.75cm D



# Money in other form

- The clay tablets of ancient Babylon:
  - ▣ simply the promises to deliver certain goods.
- Banknotes of China (originated in 7<sup>th</sup>-century China)
  - Similarly promises to deliver certain goods.
  - are pieces of paper which have next to no intrinsic worth.
- Modern banknote does similar things.
  - ▣ The magic words on any Bank of England note reads 'I promise to pay the bearer on demand the sum of . . . '.

# Money as 'promissory notes'

- *Money as bank note to pay :*
  - ▣ Derived from their original Western designation 'promissory notes').
  - ▣ They are simply promises to pay by banks.
- *Trust in banks ability to pay is the key :*
  - ▣ just 'In God We Trust' it says on the green back
  - ▣ but the person you are really trusting is the man on the front, Alexander Hamilton, the first Secretary of the US Treasury, or right now Timothy Geithner, and by implication the Chairman of the Federal Reserve System, Ben Bernanke.

# Money as Stores of value?

- Money as Stores of value
  - ▣ The purchasing power of the dollar has declined appreciably over the past fifty years,
  - ▣ but we remain more or less content with paper money, or coins that are literally made from junk.
- Today's electronic money or it is 'virtual' moneys :
  - ▣ We are just as happy with money we cannot even see, namely, today's electronic money.
  - ▣ Moving from our employer, to our bank account, to our favorite retail outlets without a physical form.

# Intangible or 'virtual' moneys

- The electronic money or 'virtual' moneys
  - ▣ It is really an intangible or that now, dominates what economists call the money supply.
  - ▣ Cash in the hands of ordinary Americans accounts for just 11 per cent of the monetary measure M2.
- The intangible character of most money today is perhaps the best evidence of its true nature.

# True nature of money in modern times

- In sum:
  - ▣ Money we have is a person's or an institution's promissory note, or its record. There is the issuer of the note, who borrows money from us until we demand the payment. Thus 'promise', and lender-borrower relation.
  - ▣ We trust that the person or an institution issuing the will honors his checks or transfers. Money is not metal. It is trust that is inscribed. And it does not seem to matter much where it is inscribed on silver, on clay, on paper, on a liquid crystal display.

# Money as a relation between lender and borrower

- Money as a relation between lender and borrower
  - ▣ The central relationship that money crystallizes is between lender and borrower.
  - ▣ In the cases of Mesopotamian clay tablets. the transactions recorded on them were repayments of commodities that had been loaned with record of the amount due and the date of repayment.

# The lending system of ancient Babylon, revisited

- The lending system of ancient Babylon:
  - ▣ Evidently quite sophisticated. Debts were transferable, hence 'pay the bearer' rather than a named creditor.
  - ▣ Clay receipts or drafts were issued to those who deposited grain or other commodities at royal palaces or temples.
  - ▣ Borrowers were expected to pay interest at rates that were often as high as 2.0 per cent.

# The lending system of ancient Babylon, revisited

- Compound interest concept:
  - Mathematical exercises from the reign of Hammurabi (1792-1750 BC) suggest that something like compound interest could be charged on long-term.
- Concept of Credit:
  - The foundation on which the Mesopotamian practice was the underlying credibility of a borrower's promise to repay.
  - (English word of 'credit' derived from *credo*, the Latin for 'I believe'.)

# The lending system of ancient Babylon, revisited

- Concept of Debt Forgiveness:
  - ▣ The Mesopotamian practice of debt forgiveness every three years existed.
- Stability of Mesopotamian ‘banking’
  - ▣ With this ‘banking’ practice Mesopotamian private finance expanded. By the sixth century BC, families like the Babylonian Egibi had emerged as powerful landowners and lenders, with commercial interests as far as Uruk to the south and Persia to the east.

# The importance of the role of finance

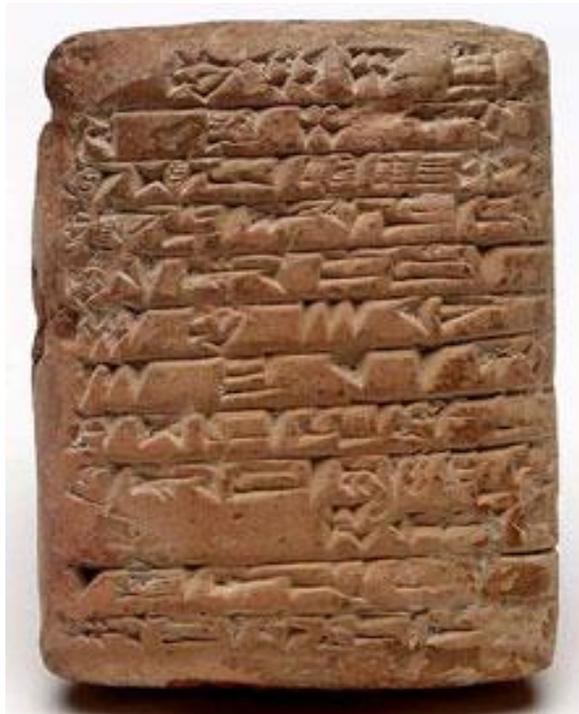
- The importance of the role of finance
  - ▣ NB: the importance of the role of finance, or borrowing-lending relation.
  - ▣ Without the foundation of, the economic history of our world would scarcely have got off the ground.
  - ▣ Not the banking nor credit created in the modern sense to be discussed later.
  - ▣ Most Babylonian loans were simple advances from royal or religious storehouses. Nevertheless, this was an important beginning.

# Sumerian clay tablet and Mesopotamia

**Age:** Ur III period, 21st century BC

**Dimensions:**

5.45cm L x 3.9cm W x 1.75cm D



# Money as Bank notes

- Dollar as basic currency, key currency or vehicle currency



# Money as Bank notes

□



□



# Money as Bank notes

## □ U.S. dollar bills

