




ECON 2017 Money, Banking and the Canadian Financial System

Reading: Siklos, Chapter 2

WHAT IS MONEY?



LECTURE 2:
What is
Money?

Objectives

Overview:

- Functions of Money
- Monetary Standards
- Measuring Money Supply
- Economic Consequences of Inflation

LECTURE 2:
What is
Money?

Barter

- The direct exchange of goods and services for other goods and services.
- Disadvantages of Barter:
 - Variable Value of Assets
 - Time-consuming Negotiation of Price
 - Large number of transactions
 - Double Coincidence of Wants

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Money vs. Barter

- Money improves social welfare by
 - Reducing transaction costs
 - Simplifying trades
- Money is not necessarily the bills and coins we carry around in our pockets.

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Legal Tender

- Legal tender is something specified by the government that must be accepted in settlement of transactions.
- Are Central Banks losing their monopoly over the issue of legal tender?
 - Debit cards, e-money
 - The effect on monetary policy is not clear.

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The Functions of Money

- Medium of Exchange
 - *How transactions are conducted:*
Something that is generally acceptable in exchange for goods and services. In this function money removes the need for double coincidence of wants by separating sellers from buyers. By doing so it also facilitates division of labour.
- Medium of account
 - *How the value of goods & services are denominated:*
Something that circulates and provides a standardized means of evaluating the relative price of goods and services.
- Store of value
 - *How the value of goods & services are maintained in monetary terms:*
The ability of money to command purchasing power in the future

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Liquidity and Transaction Costs

- Liquidity – the availability of funds to meet claims or the ease and low cost with which an asset can be sold. An asset that is the medium of exchange is said to be perfectly liquid.
- Transaction costs – the financial and non-financial cost of completing some economic transaction (excluding the purchase price of the item in question)

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Monetary Standards

Commodity Standard:

- In this case the monetary unit is some physical asset in a specified quantity and often quality.
- The circulating medium is what people actually use as money in exchanges (e.g. paper notes backed by the commodity).
- Specie refers to metals minted into coins
- The most often used commodity has been gold

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The Gold Standard

- Gold is a scarce but available commodity with intrinsic value.
- Under this standard the market for gold dictates the value of money.
- At one point in time, much of the Western world used the gold standard which
 - Fixed the price of gold and held exchange rate fluctuations within narrow limits.
- The Canadian dollar was fixed in terms of gold and on par with the US dollar

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Gold Standard (cont'd)

- The End of the Gold Standard
 - Recession in the Western world and discretionary monetary policy by varying the degree in which notes were backed by gold.

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Bimetallism

- This monetary system is based on the value of two precious metals – usually with a fixed exchange rate between them.
- Problems : Variations in relative market value and Gresham's Law
 - *Gresham's Law: "Bad money drives out good money."*

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Fiat Money

- The circulating medium is notes and coins (made in metal with virtually non-monetary uses) that are worth whatever the issuing agent dictates. The value of the currency is not guaranteed by some precious commodity.

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Fiat Money (cont'd)

- Paper Money in Canadian History
 - Playing cards and cardboard
 - Token money issued by banks
 - Provincial Notes
 - Dominion notes and the end of the Gold Standard
 - Bank of Canada Notes and Bank Cheques

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Fiat Money (cont'd)

- The value of the medium of exchange is guaranteed only by the taxation and borrowing power of the government. Coins and notes reflect a debt of the government accepted by the public.
- At the same time that the fiat money standard was becoming widely accepted, central banks were becoming more important.
- **Central Bank:** a financial institution responsible for the conduct of monetary policy. Often a central bank will act as a banker for the central government.

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Evolution of Payments System

1. Precious metals like gold and silver
2. Paper currency (fiat money)
3. Checks
4. Electronic means of payment
5. Electronic money: Debit cards, Stored-value cards, Smart cards, E-cash

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Measuring Money Supply

- Money supply (or Money Stock):
 - The amount of money in an economy that is easily available for use in payments.
 - Not just money in circulation

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Types of Banks and Deposits

- **Current Accounts and Personal Chequable Accounts (Demand deposits)**
 - Funds in accounts that can be removed without notice and usually pay little or no interest.
- **Savings Deposits**
 - Bank deposits that typically earn a rate of return and require a stipulated amount of notice to be withdrawn.
- **Term Deposits**
 - Bank deposits paying a market rate of return which are deposited for a fixed term and thus have limited liquidity.
- **Money Market Mutual Funds (MMMFs)**
 - Funds that issue shares to holders backed by high-quality short-term assets such as Treasury bills.

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Cheques and Cheque-Clearing

- Cheque: a written order for a bank to transfer a specific amount of funds from the writer's account to someone else.
- A clearinghouse is needed to sort out net inter-bank payments. The clearinghouse for Canadian banks is operated by the Canadian Payments Association (CPA).
- Private Sector Float is used by the central bank to adjust demand deposit figures to reflect possible double counting when tallying the money supply.
- There has been a noted shift from paper-based to electronic transactions.

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The Measurement of Money

- Considerations:
 - chartered vs. other types of financial institutions
 - types of deposits and their evolution: the growth of electronic transactions
 - types of financial assets

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Measurement of Money (cont'd)

- Currency in circulation: currency outside the banking system.
- **M1**: currency in circulation plus current accounts and personal chequable accounts. This definition most closely specifies money as it fulfils its medium of exchange function.
- **M2**: M1 plus notice deposits of firms and personal savings deposits at chartered banks.
- **M1+**: M1 plus personal chequable savings deposits at banks and near banks and non-personal chequable notice deposits at banks and near banks.
- **M2+**: M2 plus notice and term deposits at near-banks. Significantly larger than M2, signaling the increasing importance of financial institutions other than banks.
- **M3**: M2 plus non-personal fixed term deposits and the Canadian dollar value of chartered bank deposits denominated in foreign currencies but owned by Canadian residents.

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More Monetary Aggregates

- **M1++:**
M1+ plus non-chequable notice deposits held at chartered banks plus all non-chequable deposits at trust and mortgage loan companies, credit unions and caisses populaires less interbank non-chequable notice deposits.
- **M2++:**
M2+ plus Canada Savings Bonds and other retail instruments plus cumulative net contributions to mutual funds other than Canadian dollar money market mutual funds (which are already included in M2+ (gross)).

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Monetary Aggregates

- Divisia Indexes
 - These weight the components of the various money supply measures according to the degree to which they provide liquidity
- The newer monetary aggregates such as M2++ and M1++ have been created in response to financial innovation.
- It is difficult to know which monetary aggregate is the best to use.

Money as a Weighted Aggregate

- The Bank of Canada's money supply measures are 'simple-sum' indices,

$$M = x_1 + x_2 + \dots + x_n,$$

where x_j is one of the n monetary components of the monetary aggregate M

- Weighted monetary aggregates (such as the 'Divisia') seem to predict inflation and the business cycle somewhat better than the Bank's aggregates

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Money Supply Growth Rate

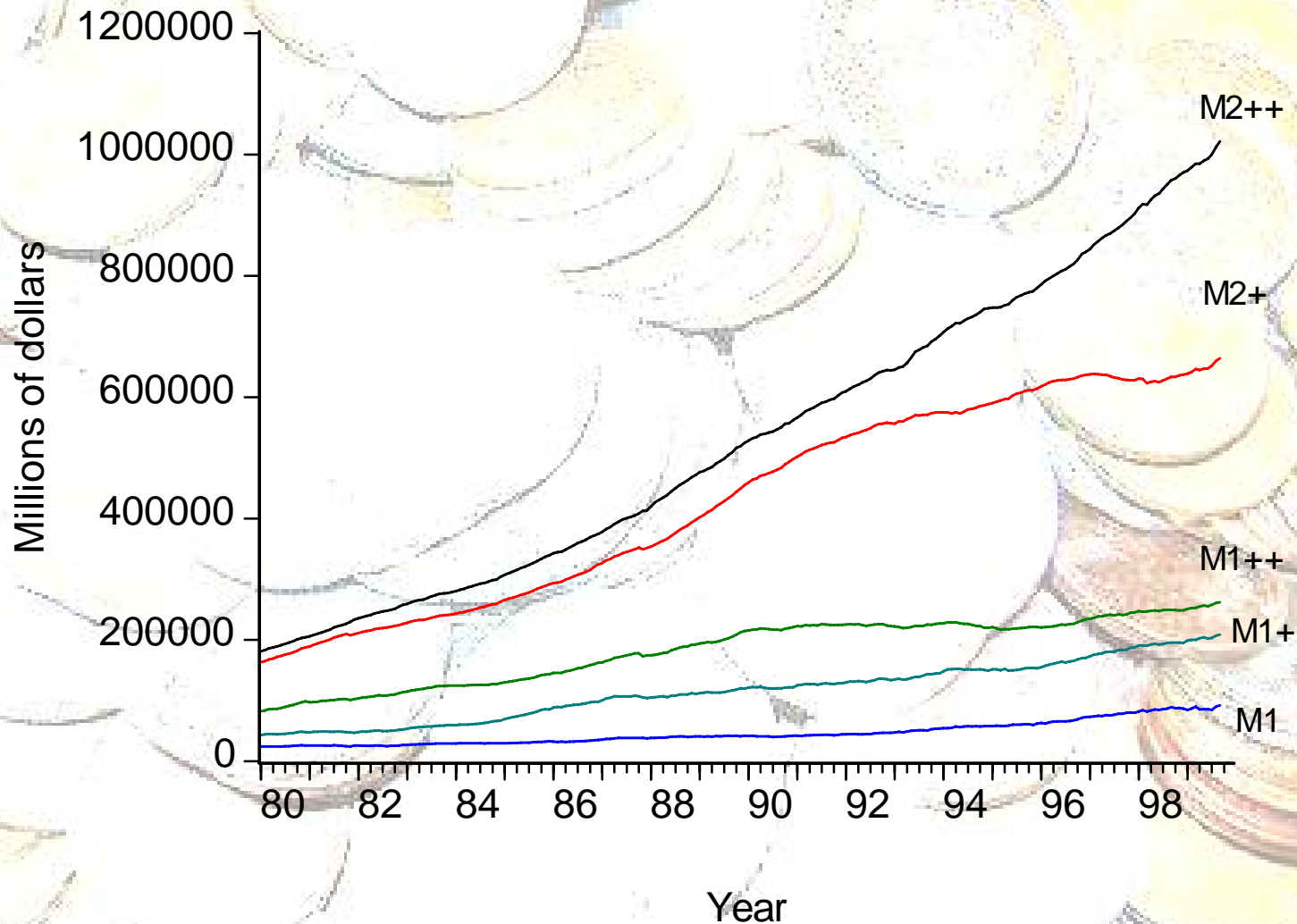
- The key variable to the Central Bank's policy is not the level of the money supply but the **growth rate** of the money supply.
- In reality, the money supply is continually increasing. Slowing or increasing its growth rate is the concern of monetary policy.

Growth Rates

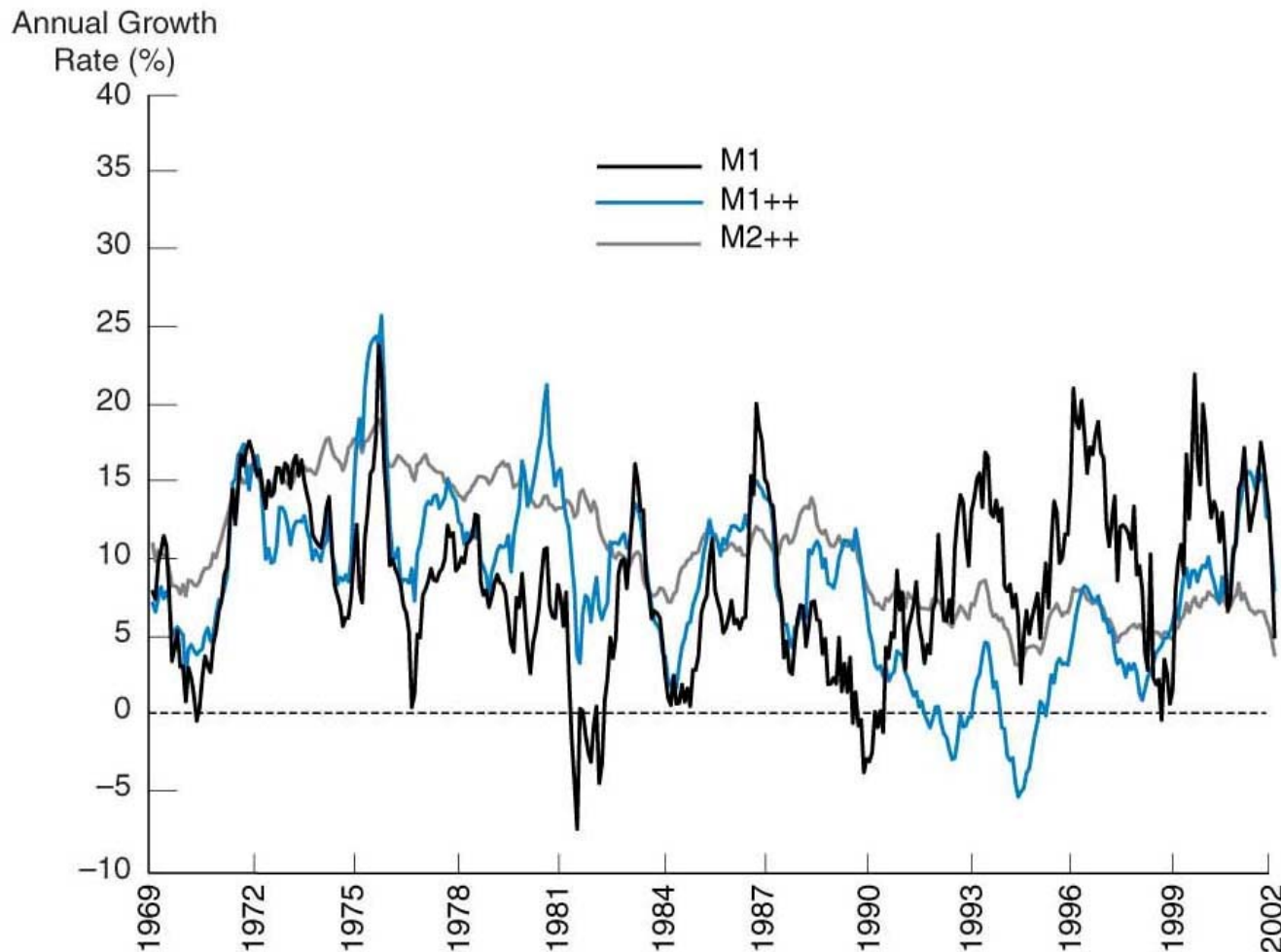
Monetary Aggregate	12-month Growth Rate (May, 2008)
M1+	7.5
M1++	9.4
M2++	8.7

Source: Bank of Canada, Rates and Statistics, 2008

Major Canadian Money Supply Aggregates



Growth Rates of the Bank's Monetary Aggregates



Source: Statistics Canada CANSIM II Series V37124, V37152, V37150.

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The Costs of Inflation

- Creditor vs. lenders: real interest rate effect
- Seigniorage: the profit from printing money
- “Shoe-leather” costs: frequent need for more cash
- Tax implications: paying tax on inflation
- “Menu” costs: cost of frequent price changes
- Accounting problems: historical vs current costs
- inflation level and volatility: positively related
- Inflation and Economic growth: negatively related

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Key Points

- Monetary systems are more efficient than barter systems
- Money has 3 functions
 - medium of exchange
 - medium of account
 - store of value
- Canadian definitions of the money supply include M1, M2, M1+, M2+, M3
- Excessive monetary expansion leads to inflation which is socially costly