

# Comments on Hess's Methodological Aspects of Credit Loss



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# Overview

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- Very important work performed to create a dataset with which to study credit loss experiences of (Australasian) banks.
- This dataset is thought to permit analyses that identify the drivers of credit loss.
- Further, it is suggested that the drivers of credit loss could be related to the business cycle.

# Overview

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- Hess's early empirical work using the dataset reveals ...
  - Characteristics of CLE proxies
  - Stops short of relating these results to the dynamics of a business cycle.
  - Suggested indicators of macroeconomics health include: GDP growth, asset prices, the liabilities of households and firms, and the unemployment rate.
  
- RBNZ presentation emphasizes unemployment rate, GDP growth, and interest rates as indicators of macroeconomic health.

# Financial Fragility

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- Financial fragility is a state in which an economy is at risk of deflation.
- Deflation involves sell off of (speculative) assets by highly leveraged individuals or firms in order to satisfy debt service payments.
  - Process first described by Irving Fisher in 1933 with the onset of the Great Depression.

# Relationship to Business Cycle theories

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- Deflation or financial crisis marks the end of the upswing in a business cycle.
  - A.k.a. the upper turning point
- All sorts of business cycle theories, but can be broadly grouped as follows:
  - External (weather, shocks, gov't policies)
  - Internal (demand gap, wage squeeze)

# Characteristics of Crisis

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- ❑ No one theory has adequately explained the conditions of financial fragility or crisis.
  - Lack of theory has lead to early warning systems (data mining or stress testing techniques)
- ❑ However, there are common characteristics which characterize the process.
  - Charles Kindleberger's *Manias, Panics and Crashes (2001)*.
  - Pattern model technique

# Displacement & Credit

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- Displacement – an event or change which enhances profitability of an important sector of the economy.
  - This sector grows and stimulates related sectors.
- Credit expansion – financing by banks (& bond market) help permit investment and growth to take place.
  - Banking sector provides the fuel for a boom.

# Full capacity

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- Full capacity level of output is reached. This is evidenced by:
  - Capacity utilization rates.
  - "Output gap" is minimal.
  - Full employment of labour is achieved (about 95% of labour force).
  - Prices for output start to increase, which stimulates investment and output further (feedback loop)

# Speculative Activity

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- Speculative activity increases as people purchase assets (stocks, real estate, foreign exchange) in anticipation of a capital gain.
  - Capital gain is monetary reward for buying low and selling high.
  - Asset prices increase and a bubble takes hold.

# Credit system & Insiders

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- Credit system becomes stretched (demand for funding greater than banks ability to supply)
  - Interest rate starts to increase.
  - Debt servicing payments increase.
  - Current account weakens as FX strengthens.
  
- Insiders withdraw.
  - This is nearly invisible as “new recruits” into speculative activity will maintain asset prices.

# Financial Distress & Panic

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- Financial distress occurs when prices of speculative assets level off.
  - Pool of “new recruits” is only so big.
  - Those who were counting on capital gains to make debt service payments cannot do so.
  - Sell off of assets begins.
  - As bankruptcies rise, banks become more hesitant about granting new credit.
    - Interest rates increase, debt service increase, sell off increases.
- At this point, news of corruption or firm failure may trigger a panic (event which shakes investor confidence).

# Minskian approach

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- Cycles are endogenously created by the investment & financing behaviour of firms.
- Cash-flow statement:  
Profit + New Borrowing = Investment + Debt Service
- Firm classification:
  - Hedged: Profit > Investment + Debt Service
  - Speculative: Profit > Debt Service
    - Needs to borrow for at least part of new investment
  - Ponzi: Profit < Debt Service
    - Needs to borrow for all investment and part of debt service
- Line of financial fragility

# Applicable to Households?

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## □ Yes, BUT...!

- Minsky stressed that households become stressed only after firms become stressed.
- Congruent with RBNZ staff view that income shocks to households are more destabilizing than interest rate shocks.
  
- Households are secondary in a Minskian analysis of financial crisis.
  
- Note: Minsky was writing with the U.S. economy in mind.
  - Deep and broad financial markets,
  - Relatively closed economy,
  - Its currency is the dominant world currency.

# Applicable to Households?

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- ❑ The above characteristics are not shared by NZ.
- ❑ The tremendous expansion of credit in the NZ household sector strengthens the transmission of productive sector instability to households.
  - As mortgages can be a vehicle through which small firm owners tap into home equity to finance business investment.
- ❑ Other ways that the traditional sequence of events may be overridden: exchange rate and interest rate shocks.

# Summing up

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- The goal of the Hess paper is to use a new database to identify drivers of credit loss.
  - If the drivers are stemmed, stability and integrity of the banking system can be protected.
  
- Suggestions:
  - Bear in mind the historical sequence of events.
  
  - The pattern, and theories that attempt to model them, suggest additional indicators to monitor the dynamics which underpin the macroeconomic health of an economy.
  
  - One needs to be careful about selecting explanatory variables: are they monitoring for symptoms of instability or conditions conducive for instability? (E.g., unemployment)