PSE 2011

Using the top income database: inequality and financial crises

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(based on joint work with Salvatore Morelli, University of Oxford)

1. Introduction: Inequality and banking crises

Primary focus:

Crisis → Inequality?

Financial crisis

→ **Bank failures, bankruptcies, falls in asset prices, falls in interest rates** → **More or less inequality**

→ **Policy responses/bail outs/ deficit reduction programmes** → **More or less inequality**

→ **Deeper recession** → **More or less inequality**

How does inequality change after financial crises?

FALL: US 1929 Great Crash: "The upward drift [in inequality] accelerates from the turn of the century up to America's entrance into World War I. Inequality fell between 1929 and the early years after World War II" (Williamson and Lindert, 1980, page 95).

"The share of years … that a country was exposed to a banking crisis has a substantive negative impact on top income shares" [5 year crisis reduces share of top 1 per cent by 1 percentage point]" (Roine, Vlachos and Waldenström, *Journal of Public Economics*, 2009).

RISE: Asian financial crisis of 1997: "After nearly a decade of either declining or stable trend since the mid 1980s, the family income inequality in Korea sharply increased in the course of the financial crisis, and remained high even after the economy recovered from the recession" (Lee, 2002).

Reverse causation?

Inequality → Financial crisis?

NO: The indexes to three authoritative accounts of financial crises, by Kindleberger and Aliber (2005), Krugman (2009) and Reinhart and Rogoff (2009), contain neither "inequality" nor "income distribution". Inequality does not appear in Robert Shiller's *The Subprime solution* until 3 pages before the end (in the Epilogue). Farmer's *How the economy works* (2010) provides an exploration of the current crisis, emphasising the role of confidence and self-fulfilling prophecies; nowhere does he refer to income inequality or to distributional issues.

The US Financial Crisis Inquiry Commission, set up in 2009 to investigate "the most significant financial crisis since the Great Depression", was charged with examining 22 specific areas. None of these refer to inequality.

Reverse causation?

Inequality → Financial crisis?

YES: According to Stiglitz, in the face of stagnating real incomes, households in the lower part of the distribution borrowed to maintain a rising standard of living. This borrowing later proved unsustainable, leading to default and pressure on over-extended financial institutions.

According to Fitoussi and Saraceno, "an increase in inequalities depressed aggregate demand and prompted monetary policy to react by maintaining a low level of interest rate which itself allowed private debt to increase beyond sustainable levels. … the search for high-return investment by those who benefited from the increase in inequalities led to the emergence of bubbles. So although the crisis may have emerged in the financial sector, its roots are much deeper and lie in a structural change in income distribution that had been going on for twenty-five years".

According to Rajan, "growing income inequality in the United States stemming from unequal access to quality education led to political pressure for more housing credit. This pressure created a serious fault line that distorted lending in the financial sector."

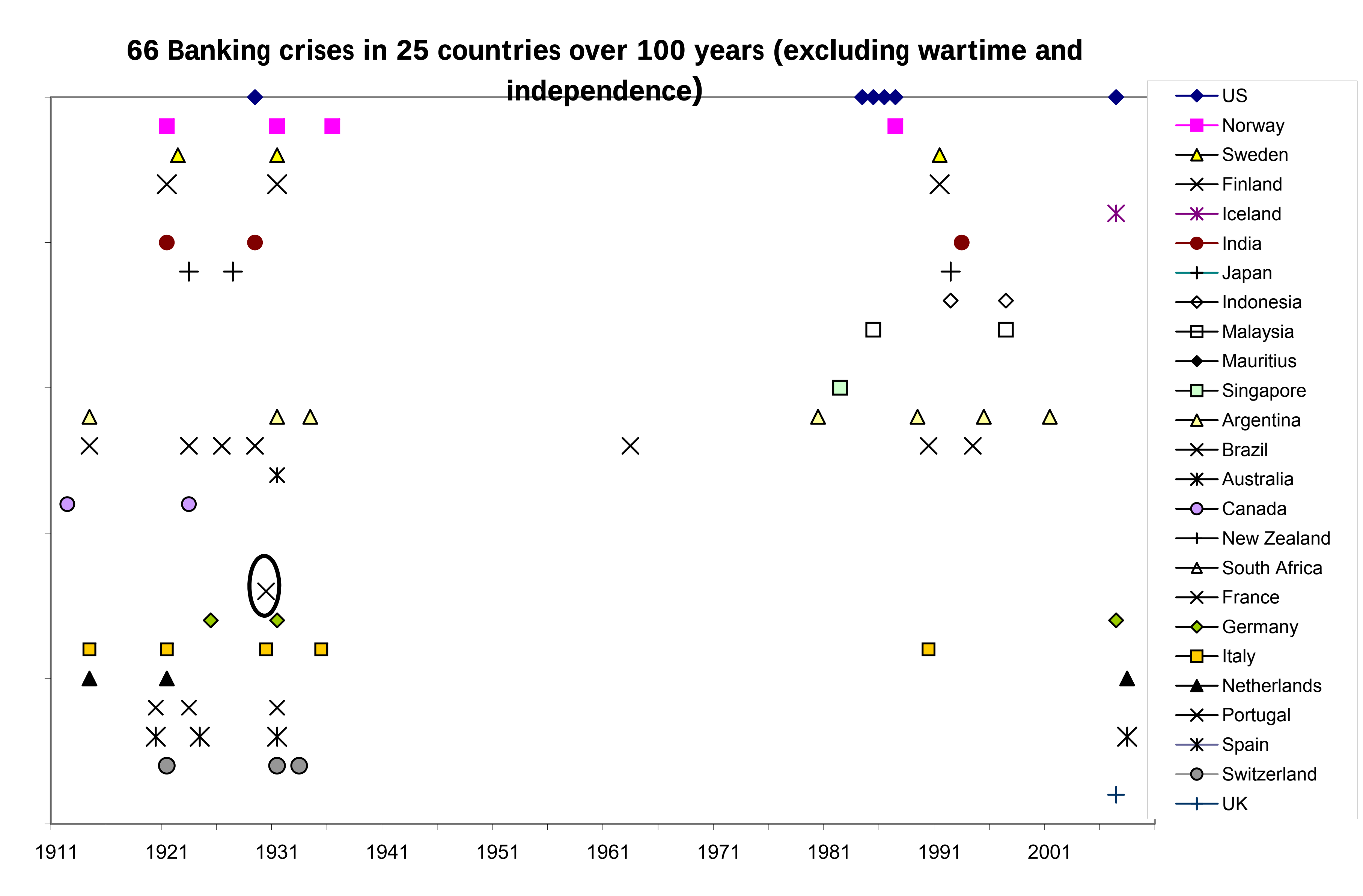
2. The data challenge

- Definition of systemic banking crises;
- Need distributional data covering the period before and after;
- Data on different parts of the distribution (here focus on top income shares);
- Data on different sources of income (here focus on total pre-tax income).

The study of financial crises requires long run data:

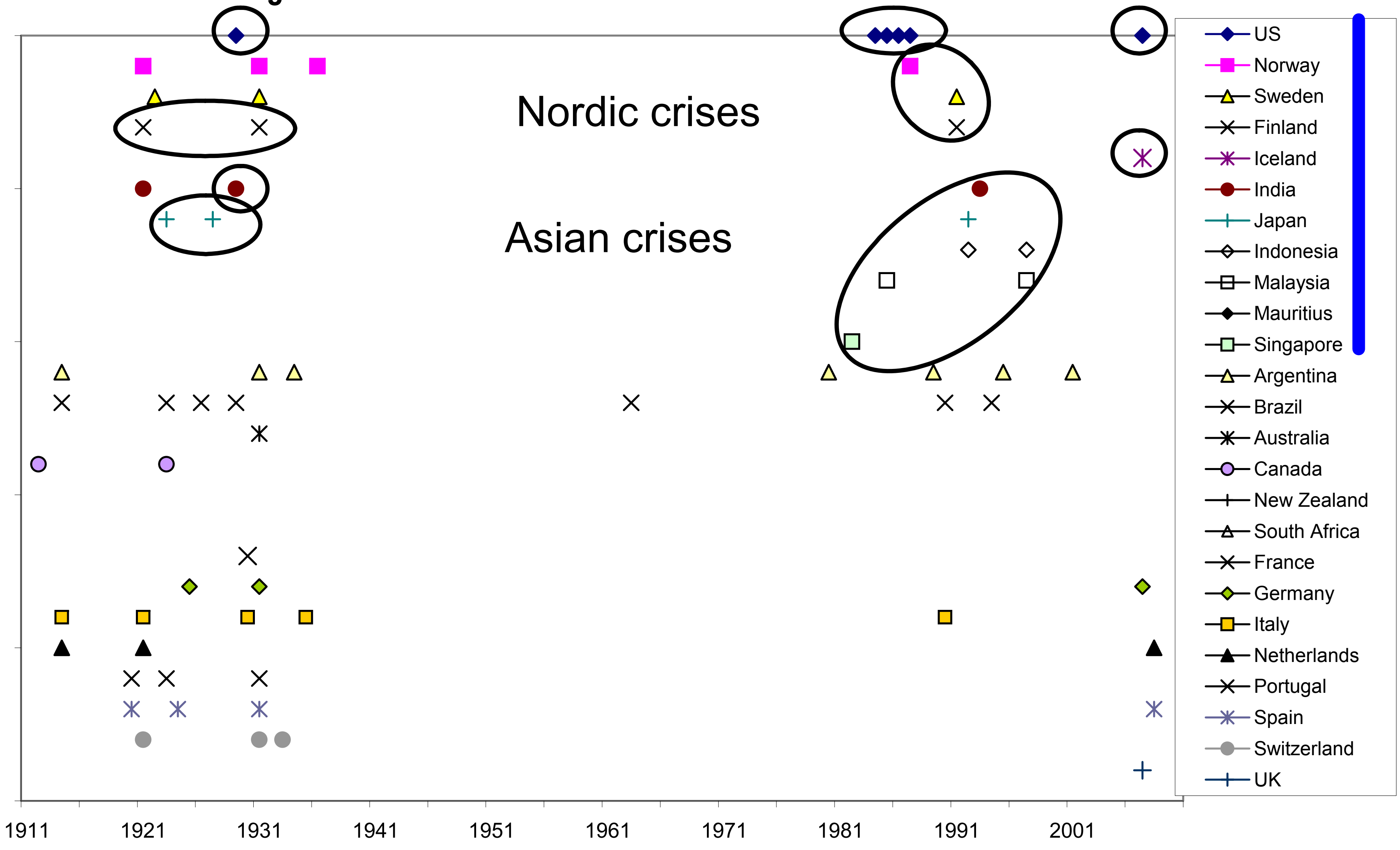
"a data set that covers only twenty-five years simply cannot give one an adequate perspective" (Reinhart and Rogoff, 2009). Here take period 1911-2010.

Need data on range of countries – here 25 countries.

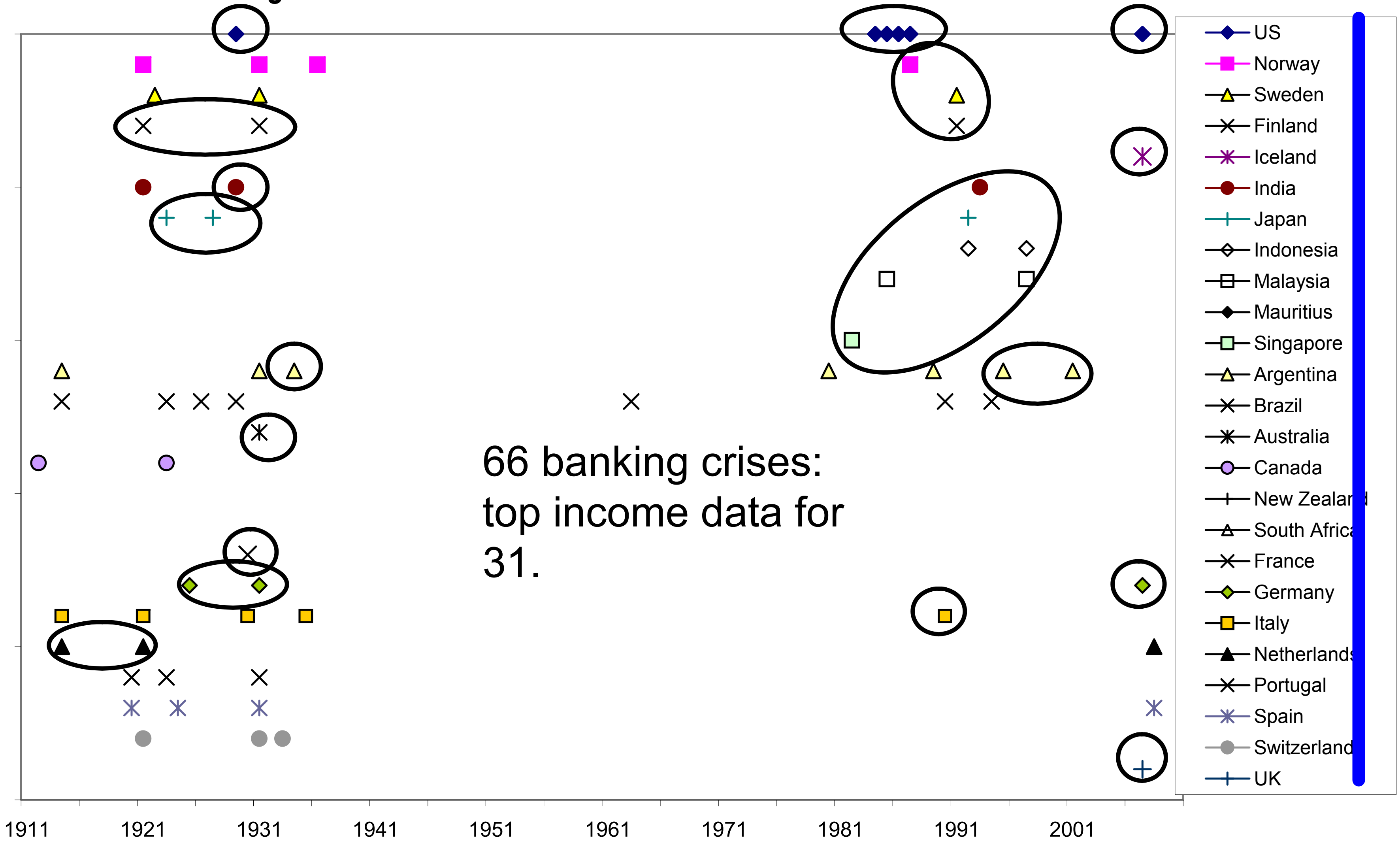


66 Banking crises in 25 countries over 100 years (excluding wartime and independence)
US
Norway
Sweden
Finland
Iceland
India
Japan
Indonesia
Malaysia
Mauritius
Singapore
Argentina
Brazil
Australia
Canada
New Zealand
South Africa
France
Germany
Italy
Netherlands
Portugal
Spain
Switzerland
UK
1911
1921
1931
1941
1951
1961
1971
1981
1991
2001

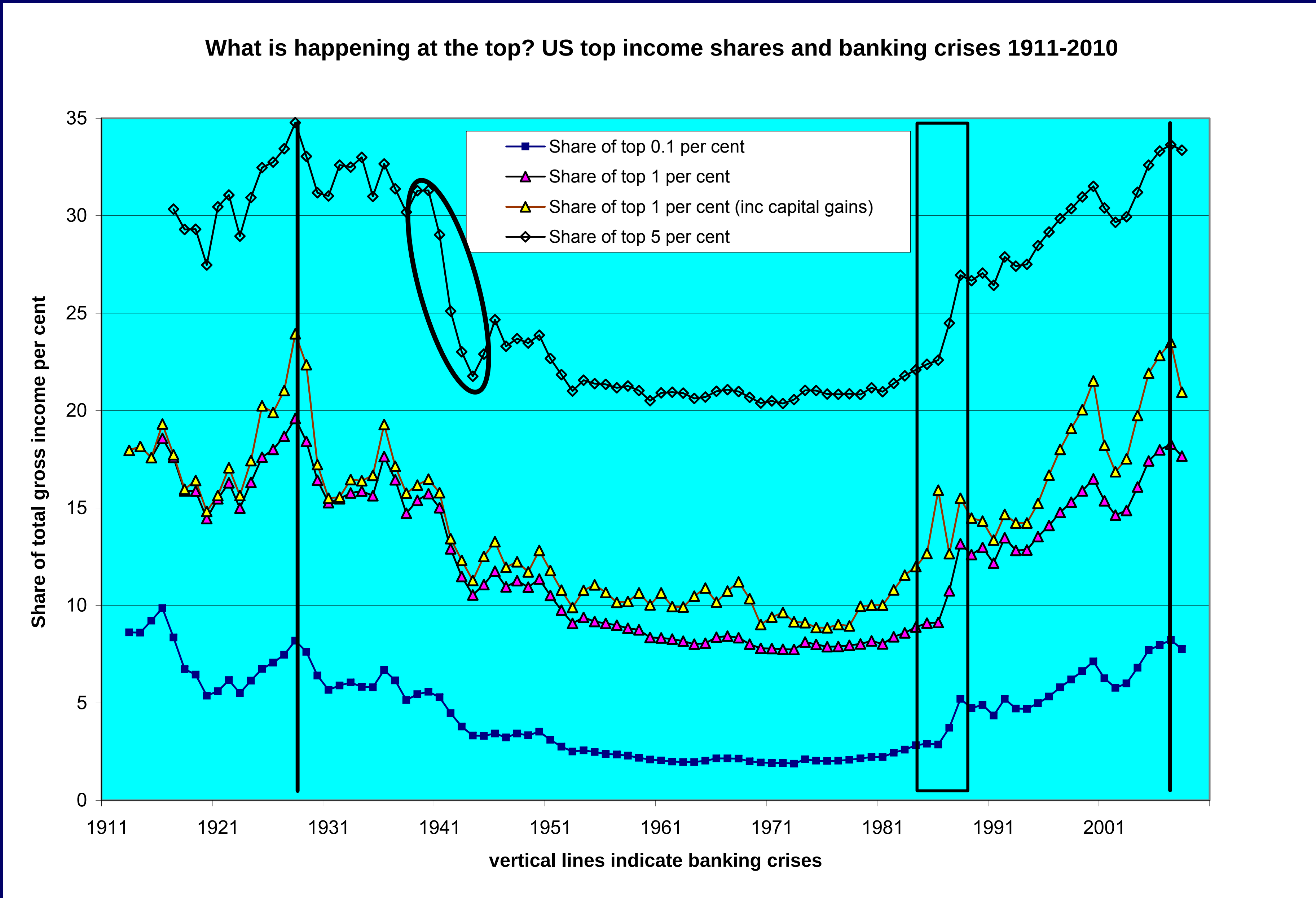
Banking crises in 25 countries for which distributional data



Banking crises in 25 countries for which distributional data



3. US as epi-centre



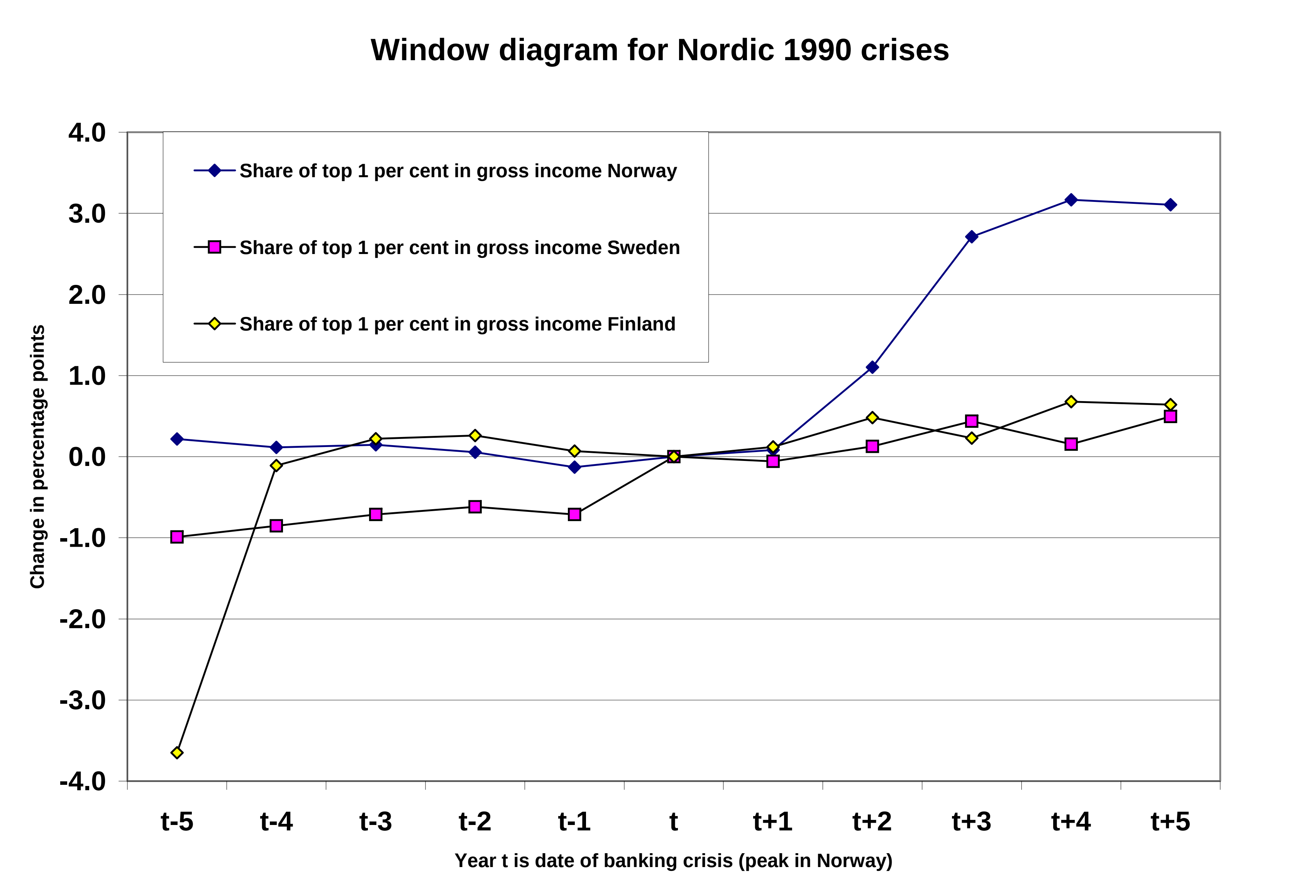
Conclusions for three US banking crises

• At first sight, the US systemic banking crises in the last 100 years have elements in common. They were preceded by rising top income shares, and followed by a fall or a hiatus. If 1929 exhibited the “classic” Λ-pattern, the S+L crisis may be seen as combining the Λ pattern of a rise pre-crisis and a fall post-crisis with an underlying upward trend. The 2007-8 crisis was preceded by rising top shares.

• This has to be nuanced. 1929 marked a high point in top shares, but the subsequent fall was not sustained. The period 1940-1945 was the only one in which there was a sustained reduction in top income shares. If there was a defining moment, it came later.

• It is too early to say whether top shares are permanently reduced post-2008.

4. Other financial crises



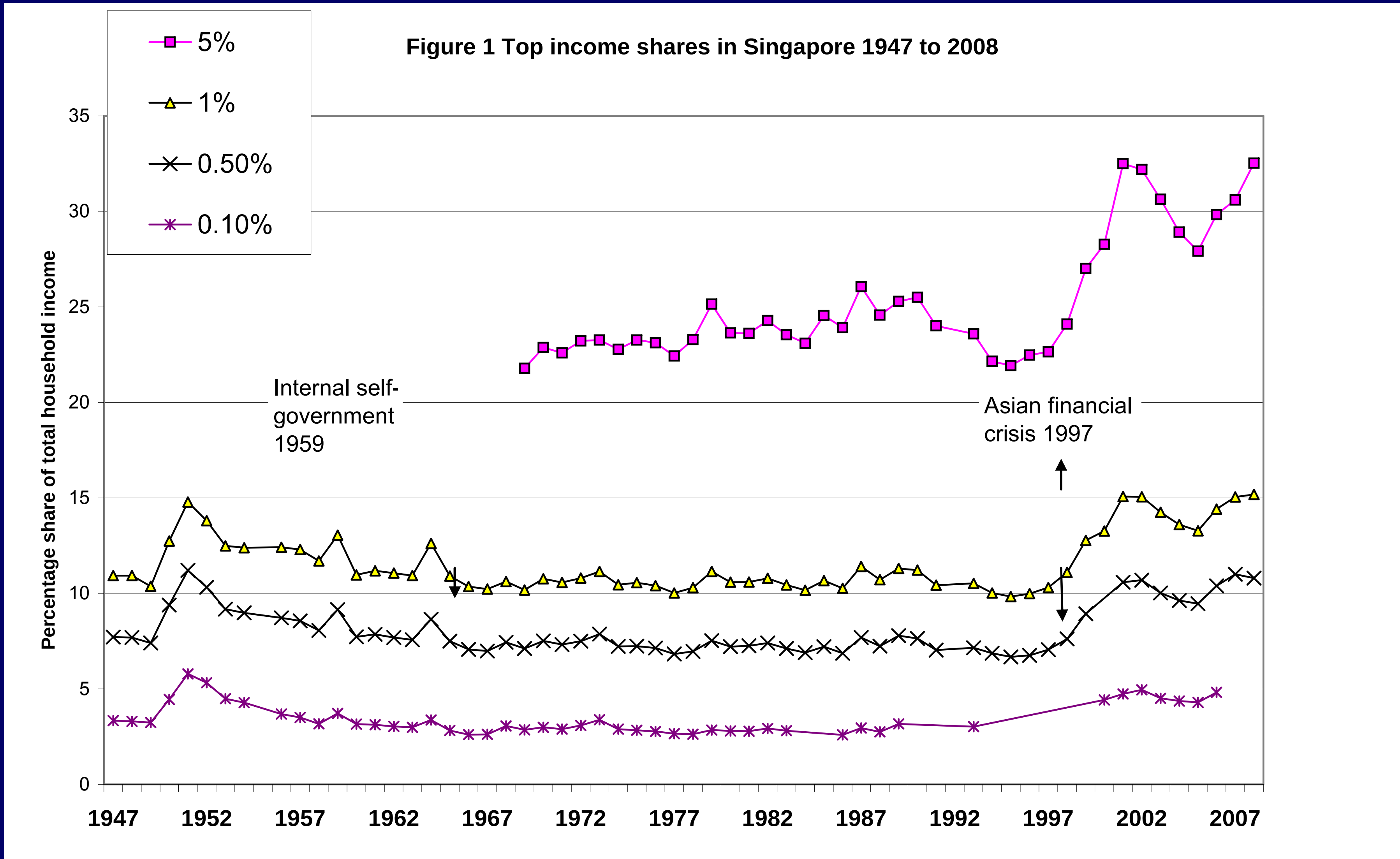
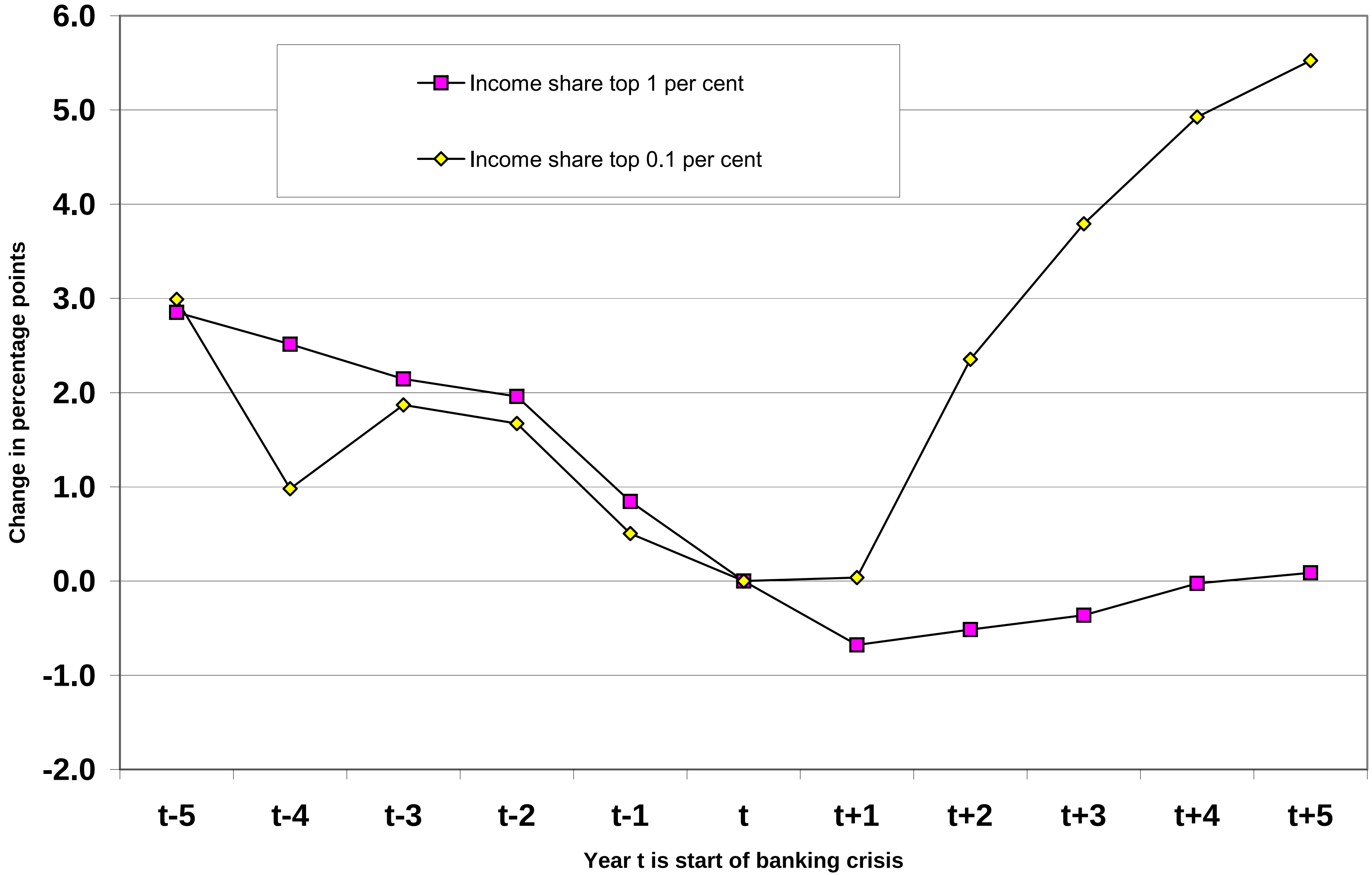


Figure 1 Top income shares in Singapore 1947 to 2008
5%
1%
0.50%
0.10%
Percentage share of total household income
35
30
25
20
15
10
5
0
Internal self-government 1959
Asian financial crisis 1997
1947
1952
1957
1962
1967
1972
1977
1982
1987
1992
1997
2002
2007

Figure FR2 Window diagram France 1930 crisis



Level of inequality in 2007 compared with ten years earlier and identification of a banking crisis in 2007-8

	GINI coefficient			Top income shares		
	Identified crisis	No identified crisis	TOTAL	Identified crisis	No identified crisis	TOTAL
Higher inequality	2	5	7	3	6	9
No higher inequality	4	10	14	1	6	7
TOTAL	6	15	21	4	12	16