A Reappraisal of Postwar Economic Growth in China
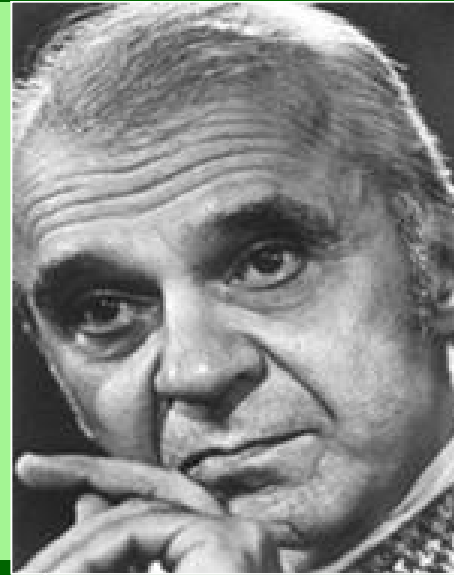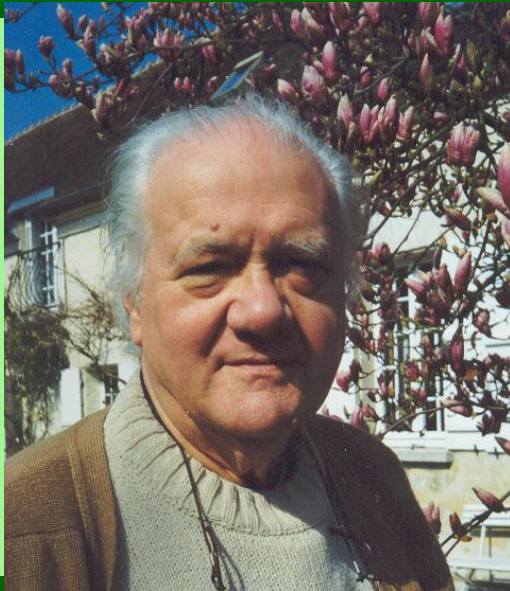
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Main Issue

- Measurement of economic growth under unreliable price and data environment

- Practices of Soviet and Russian growth
CIA/ World Bank-Rosstat/ Kuboniwa-Ponomarenko

    Rosefielde and Kuboniwa, "Russian Growth Retardation Then and Now,"

    EGE, 2003

    Use of physical data and input-output table

- Chinese case: Wu and Maddison, Rawski

The official GDP data

- ## Chain index of 5 segments:

- 1952-57(1952 price), 1957-70(1957 price), 1970-80(1970 price), 1980-90(1980 price), 1990-1995(1990 price)

- ## In principle for each segment period

- Macro value at comparable prices

  = Total sum of sectoral values at the prices

  Remark: In the Chinese case small errors are found for 1952-57, 1957-1970 and 1980s.

Maddison's Attempt

- Use of Wu's industrial estimate at the fixed 1987 weight

- Use of physical employment data for the "non-material services" sector (excluding passenger transportation and individual communication)

- Combination of the non-chain index (industry) and the official chain indexes

Possibilities of double underestimation

1 The Wu non-chain Laspeyres index for industry:

    As Wu himself notes, the index may have possible underestimation for the

    years far from 1987. The position of industry prior to 1978 is quite
different from that after 1978.

2 Conversion of chain indexes into the time series at the 1987
    fixed weight:

    As Maddison himself fairly points out,

    the macro GDP value given

    > (or <) the GDP computed as the sum of sectoral values

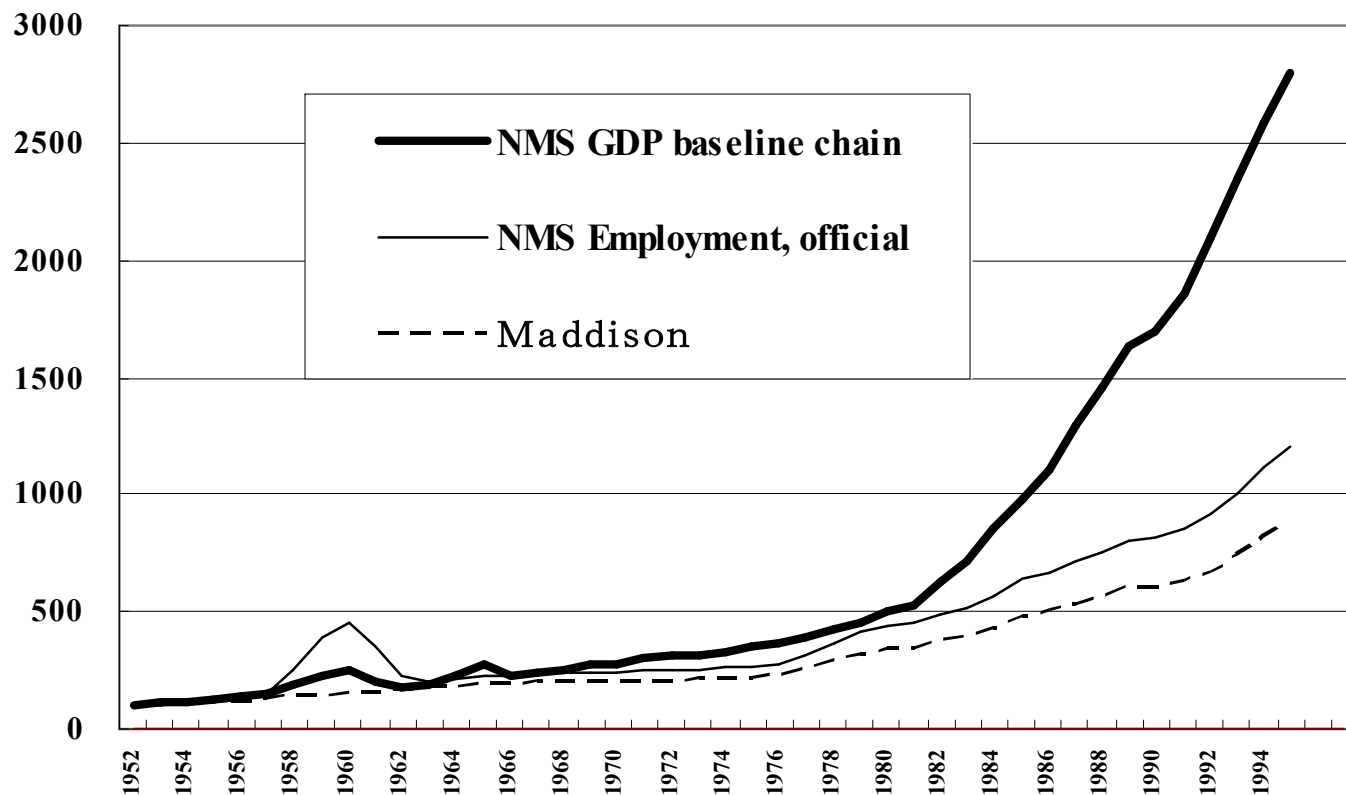# Fig. 1 GDP and Employment in Chinese Non-Material Service (NMS) Sector (1952=100)：1952～1995

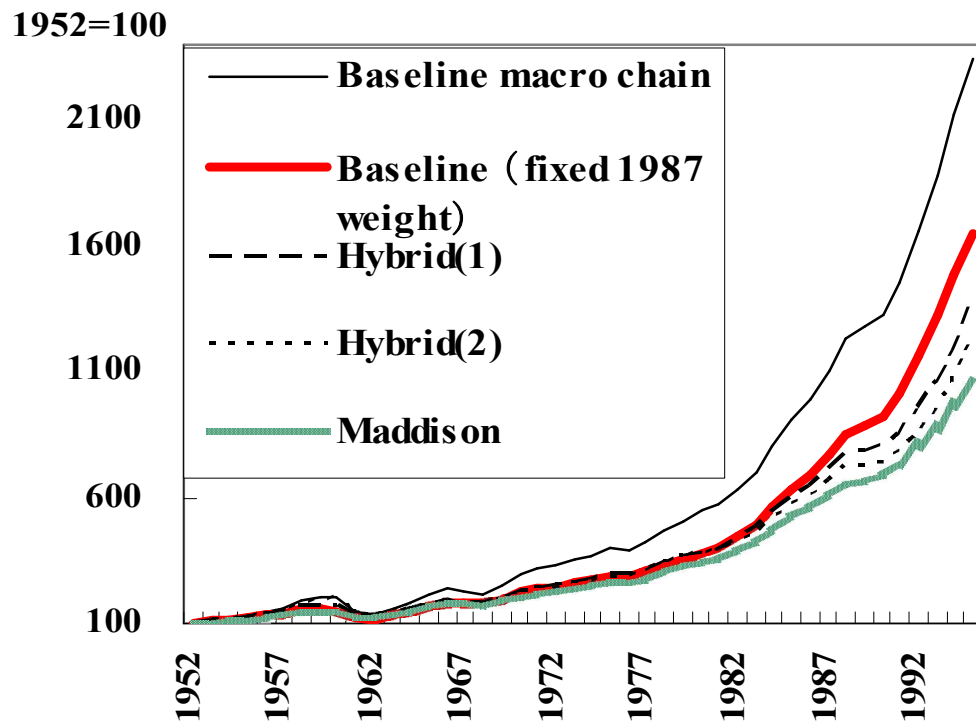Fig. 2   Chinese Postwar GDP（fixed 1987 weight）: 1952～1995

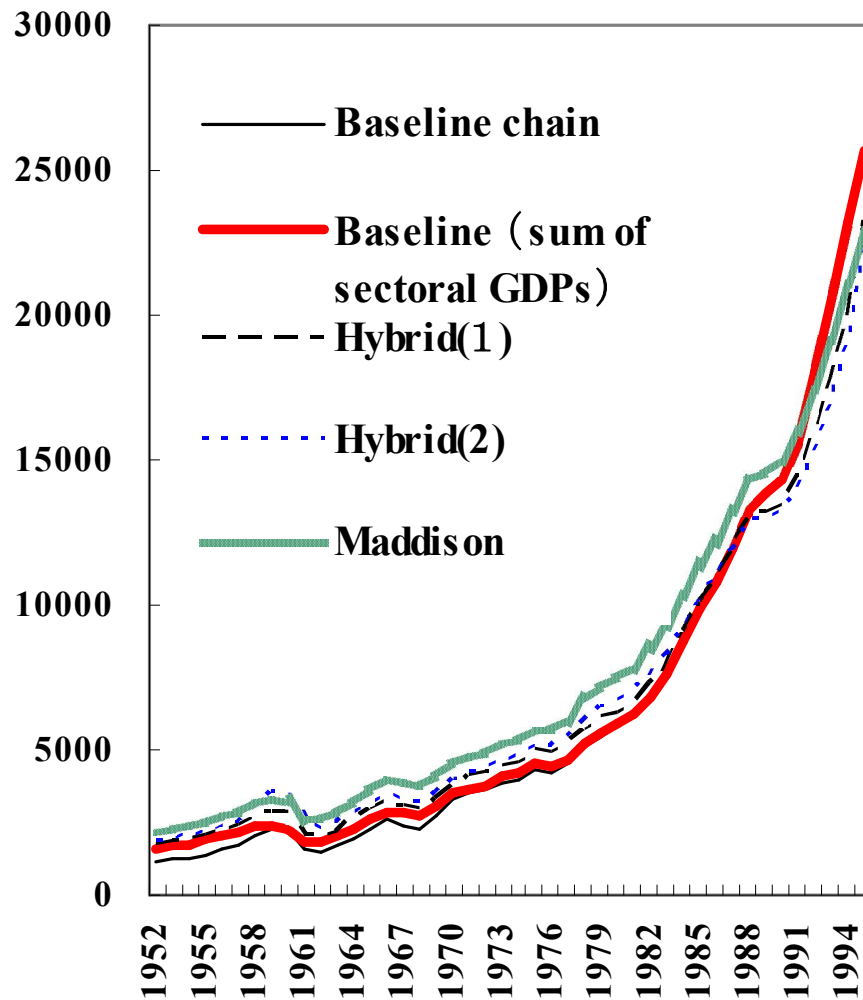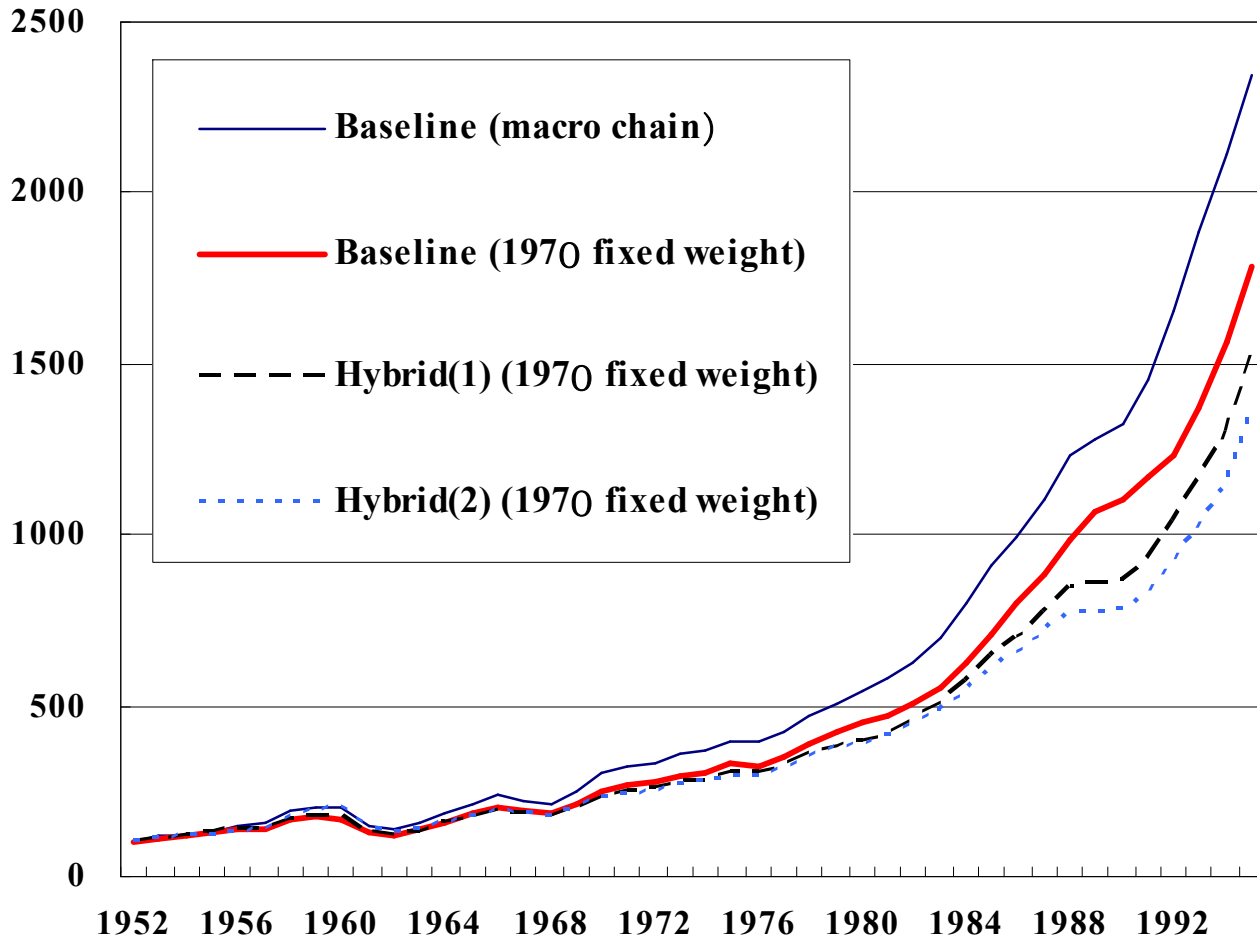**Fig. 2A** GDP Value at 1987 Prices

1987 10⁸ Yuan

Fig. 3   Chinese Postwar GDP (fixed 1970 waight)

Criterion

- The basic criterion for judging possibilities of the over-or under-estimation in the case with the fixed one-year weight should be the quasi-official GDP growth rate computed as the sum of sectoral real values. The latter is much smaller than the former.

For 1952-1978

- For 1952-1978 the quasi-official rate computed amounts to 4.8% or 5.4% which shows a rather strong robustness. Even in the Maddison's lowest estimate, 4.4% the difference is rather small, 0.4% point. In the case with the 1970 weight we can mention only some possibilities of overestimation in the range near 0.4% point.

For 1952-1995

- For 1952-1995 we may say about possibilities of overestimation around the 1% point when employing hybrid methods.

Remark

- Lastly, we would like to note that all the alternative GDP estimates for the postwar China so far have not yet been supported by the estimate on the expenditure side.

- The official GDP figures on expenditure side (GDE) have not provided own growth rates and the net-export growth.