**Technical Notes on IPI calculation**

Our approach is to derive compound investment price index (CIPI) and investment price index (IPI) from Zhang (2004)’s real capital stock (1952-2004) and the yearbooks’ nominal capital flow.

Let RS be real stock, RI real investment, NI nominal investment, CIPI compound investment price index, and IPI investment price index. Assuming the real capital stock at the beginning of the economy (1952 as the base year) to be 10 times the investment in 1952, Zhang (2004)’s formula for real capital stock is:

RS(t)=0.904\*RS(t-1)+RI(t) (1)

Following Zhang (2004), we take 1952 as the initial year of the new economy such that RI(1952)=NI(1952) and CIPI(1952)= IPI(1952)=1.000.

For 1953 real stock, we have RS(1953)=0.904\*RS(1952)+RI(1953). Moving terms, we get RI(1953)=RS(1953)-0.904\*RS(1952). More generally, we can obtain RI from the formula below:

RI(t)=RS(t)-0.904\*RS(t-1) (2)

By definition, the compound index is

CIPI(t)=NI(t)/RI(t) (3)

By the Chinese convention, IPI is defined as an index using the past year as the base year, the relationship between CIPI and IPI is CIPI=, and thus

IPI(t)=CIPI(t)/CIPI(t-1) (4)

Therefore in order the retract IPI 1953-2004, we need two variables: Zhang's real capital stock (capital\_52\_05.xlsx) and nominal investment data from 1952 to 2004 (新中国五十五年统计资料汇编（1949－2004).xls) [Zhang used <中国国内生产总值核算历史资料 1952 - 1995>, do we have it up to 2005?]