INFLATION AND ACCUMULATION: CORRECTION

In our recent article on "Inflation and Accumulation" (Science & Society, Vol. 64, No. 3), we claimed that the real price of financial intermediation in Israel was positively correlated with inflation. This claim is correct both theoretically and empirically, although the method we used to illustrate it contains a mistake that needs to be rectified.

Briefly, our argument on pp. 289–291 of the article was as follows. Financial institutions are commonly viewed as intermediaries between depositors and borrowers. From a neoclassical perspective, the real price of their intermediation should be independent of the rate of inflation. Since the principal of both deposits and loans is already indexed to inflation, in order for the real price of intermediation to remain unchanged all it takes is a fixed spread between nominal lending and deposit rates. Strictly speaking, this last statement is wrong: the ratio between nominal lending and deposit rates should indeed be independent of inflation, but not their difference.

Symbolically, let $P$ be the price index, $LR$ the nominal lending rate for the next period, $DR$ the nominal deposit rate for the next period, and $RPI$ the real price of intermediation. For any period $t$: 
\[ RPI_t = \frac{(LR_{t-1} - DR_{t-1})}{(P_t/P_{t-1})} \]

In other words, the *ex post* real price of intermediation is determined by the nominal interest rate spread set in the previous period, divided by the ratio between the current price index and the price index prevailing in the previous period. As defined in the above expression, \( RPI_t \) is already corrected for, and should therefore be independent of, price inflation. However, this is not what happened in Israel. As argued in the article, and as illustrated in Figures 1 and 2 which correct for our original misrepresentation, the *real* price of financial intermediation has been indeed positively and tightly correlated with inflation (note the logarithmic scale). Figure 1 shows the co-movement of the two variables based on annual data (now updated until 1999). During times of high inflation, however, yearly data could conceal significant intra-year redistribution. This potential bias is somewhat reduced in Figure 2, which is based on monthly data since 1984, and which, again, corroborates our basic claim. Overall, it seems clear that inflation helped boost the real price of financial intermediation when it rose, and undermined it when it fell.\(^1\)

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1 This conclusion is of course as good as the data on which it is based. Indeed, many crucial aspects of "intermediation" during the inflationary period remain unknown. These include, among others, the ways in which the banks manipulated "value days" (on which they charged interest but did not pay it), the constantly changing structure of interest rates on credit windows and overdraft, the shifting pattern of commissions on security trading, and the temporal handling of various government taxes and levies. During the hyperinflation of the mid-1980s, these features of intermediation were probably more important than the lending–deposit spread. The banks, however, together with the finance ministry and the central bank, remain silent on what actually transpired.
Figure 1
Inflation and the Price of Financial Intermediation

![Graph showing GDP Deflator and Real Interest Rate Spread over time](image)

NOTE: Annual data
* (lending rate$_t$, deposit rate$_t$) / (price index$_t$, price index$_t$)
SOURCE: Central Bureau of Statistics, Bank of Israel

Figure 2
Inflation and the Price of Financial Intermediation

![Graph showing CPI and Real Interest Rate Spread over time](image)

NOTE: Monthly data expressed as 12-month moving averages
* (lending rate$_t$, deposit rate$_t$) / (price index$_t$, price index$_t$)
SOURCE: Central Bureau of Statistics, Bank of Israel