

Enflasyon - Faiz İlişkisi Üzerine Bazı Notlar

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Arka Plan

Fisher Hipotezi (bir «hipotezdir»)

$$i = r + \pi^e$$

i : nominal faiz

r : reel faiz

π^e : fiyat artışı beklentisi

Sebepsellik: $\pi^e \Rightarrow i$

Arka Plan

Keynezyen likidite tercihi kuramı:

- Analiz fiyat sabit (sıfır enflasyon) ve genellikle mark up pricing ve sticky prices varsayımları altında yapılıyor
- Phillips curve: enflasyon - istihdam ilişkisi
- Keynezyen bir karar alıcı istihdam (ya da kısa dönem büyüme için) enflasyonu feda edebilir.
- Beklentiler için içine girdiğinde para politikası etkisiz hale gelebilir; para arzı büyümesi sadece enflasyona yol açabilir (Friedman/Phelps)

Faiz Maliyetleri Etkileyebilir mi?

Basit bir model (A basic model)

- Şirket/Firm
- Toplam bilanço büyüklüğü (total assets= total liabilities): A
- Gearing ratio: $d = D/(D+E)$
 - D: financial debt
 - $0 < d < 1$; d represents capital structure; assume d constant in the medium run
- Finansal maliyetler: Adi
 - i: nominal interest rate
- Toplam ciro (total turnover): bA
 - where, typically: $1 < b < 2$
- Toplam dönem maliyetler (total annual costs): $TC = NFC + diA$
 - NFC: Finansal olmayan maliyetler (non-financial costs)
 - $NFC = f(q)$ assume constant at regular operational levels for simplicity
- The main result for short term (treat d and A as near constants)

$$\Delta TC = \Delta NFC + dA\Delta i$$

Faiz Maliyetleri Etkileyebilir mi?

Now assume some kind of markup pricing

- Total turnover: $pq = TC + \text{Profits}$
- $q\Delta p + p \Delta q = \Delta TC + \Delta \text{Profits}$
- For simplicity; if $\Delta q = 0$ (as correspondingly $\Delta \text{NFC} = 0$)

$$q\Delta p = \Delta TC + \Delta \text{Profits}$$

$$q\Delta p = dA\Delta i + \Delta \text{Profits}$$

- If assumed that the firm keeps profit (not profitability) level constant ($\Delta \text{Profits} = 0$) and divide both sides with qp (turnover at old q and p):

$$\Delta p/p = d(A/qp) \Delta i$$

Faiz Maliyetleri Etkileyebilir mi?

$$\Delta p/p = d(A/qp) \Delta i$$

- Simple result: At a given capital structure (d) and asset turnover ratio (A/qp) changes in the interest rate would translate into a one-to-one change in the inflation rate multiplied by the gearing ratio. As leveraging increases the effect gets strengthened.
- But this is obviously a partial analysis; not taking into consideration the other parts of the economy. Also, the firm may play with q or reduce profit (or profitability) level in response to increase in i .

Summary -1

- There is probably a bi-directional relationship between interest rates and inflation.
- The degree of the mutual causality is mostly an empirical question that can be verified by VAR type tools.

Faiz: Hangi Faiz?

- Policy rates vs longer (treasury) rates: the yield curve (very volatile)
- Policy rate vs (bank) lending rates: structural issues

More remarks

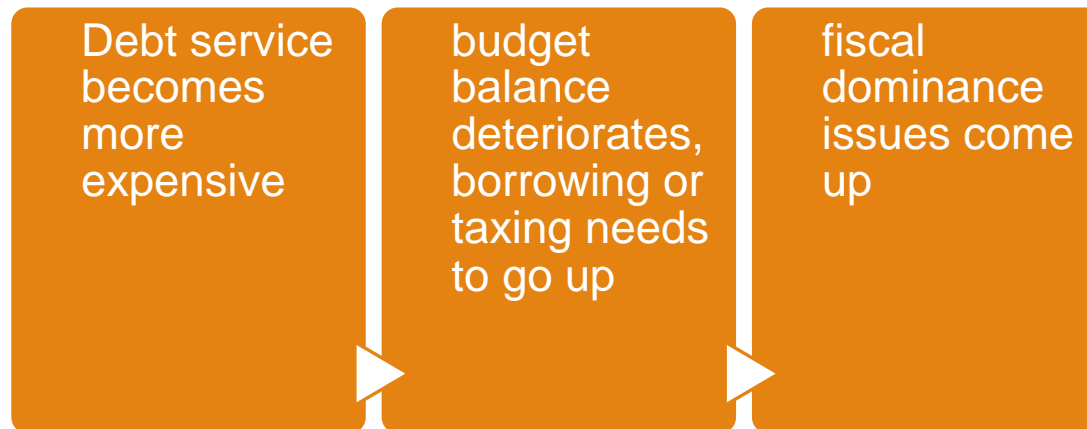
Interest rates: some questions

- Real vs nominal
 - E.g. Turkey had very high real and nominal rates prior to 2000 whereas now the real rates are relatively low (at least policy rate levels) but nominal rates are relatively high
- “Equilibrium” nominal & real rates: How high is high interest rates and how low are low ones?
 - E.g. Usury rates: ca 20% (rule of thumb)
 - E.g. 7-8 percent in the US is considered unrepayable (WSJ)
 - E.g. zero lower bound: really a lower bound?

More remarks

Interest rates: some questions (cont'd)

- When policy rates go up (or down): Jumps (or collapses) in price level (which is transient inflation in fact) vs 'sustained' inflation
- Government budget and borrowing:
 - What happens when interest rates go up?



Background

- Equity return expectations are also a function of interest rates; thus interest rates (to the extent that they are affected by interest rate policy) would affect overall WACC in the country:

- E.g. remember

$$R_e = R_f + \beta (R_m - R_f)$$

So **$R_e = f(R_f)$** equity return expectations are a function of interest rates. In other words, as interest rates go up equity investors also demand higher returns.

Thus: **$R_f \Rightarrow R_e \Rightarrow$**

Background

Moderation in inflation rates is a fact globally:

- Inflation rankings yesterday:
 - Low/moderate
 - High
 - Hyper

- Inflation ranking today:
 - “A” countries: ~ 2%
 - “B” countries: ~ 5%
 - “C” countries: ~ 5-9.9% (i.e., single digit)
 - “D” countries: ≥ 10

So monetary authorities should first decide which category they want to be in.

Thank you

