Mehnoor Amraj
Batch 76

Final-Mock

Economics - Paper 1

impressive
all the best

Part - II

Question # 2

nice attempt
14/20

Introduction

The IS-LM model, developed by John Hicks and Alvin Hansen, explains short run equilibrium in goods and ~~Services~~ money markets through the interaction of Investment-Saving (IS) and Liquidity - Money (LM) Curves. While useful in advanced economies with flexible markets and effective monetary transmission, its applicability becomes limited in supply constrained developing economies like Pakistan. Structural rigidities, weak financial markets and large informal sector undermine the assumption of the IS-LM framework.

Assumption of the IS-LM Model

1) Price rigidity in the shortrun
2) well functioning financial markets
3) Interest-sensitive investment
4) Effective monetary transmission
5) Formal economic activity dominance

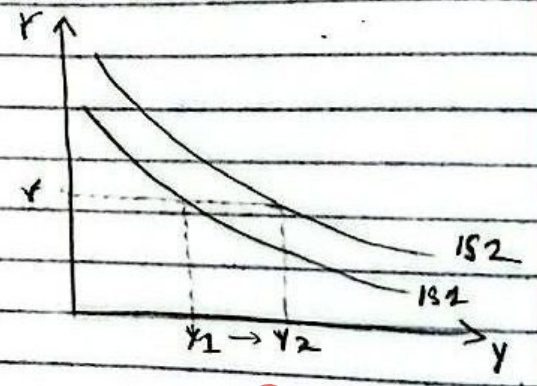
IS-LM as a Short Run Demand Side Model

IS-LM focuses primarily on Aggregate Demand management, ignoring supply side constraints such as productivity bottlenecks, energy shortages and labor market inefficiencies. In economies, where output is constrained by supply factor, demand expansion leads to ...

inflation rather than real output growth, limiting the model's usefulness.

Supply Constraints in Developing Economies

Developing economies face chronic supply-side limitations such as power shortages, poor logistics, climate sensitive agriculture and low industrial capacity utilization. Under such conditions, fiscal stimulus shifts the IS curve right ward but fails to generate proportional output gains, revealing the model's limitation



Weak financial Market

under developed banking systems, limited financial inclusion and shallow capital markets weaken interest rate transmission. Investment decisions are influenced more by political stability and credit availability than by interest rates, making monetary policy shifts in the LM curve less effective.

Structural Rigidities

structural Rigidities in Labor markets, administered Prices, rigid taxation systems and weak institutions prevent smooth adjustment of output and employment. These rigidities distort the IS-LM transmission mechanism, causing policy intervention to produce inflationary effects rather

than growth.

Informal Sector Dominance

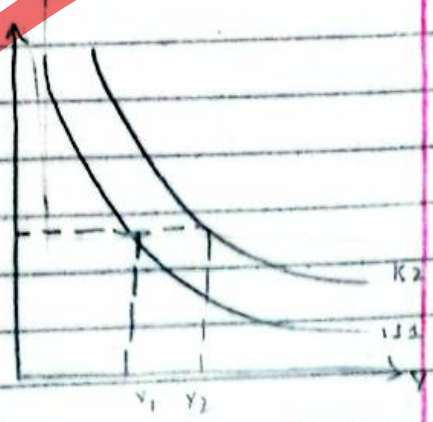
A large informal sector operates outside formal financial channels and relies heavily on cash transactions. Since informal activity is largely unaffected by interest rate changes or banking policies, both IS & LM curves fail to capture a significant portion of economic behavior.

Limited Effectiveness of Monetary Policy

Due to excess liquidity, weak credit demand and poor transmission mechanism, monetary expansion does not translate into increased investment or output. This renders LM shifts ineffective, particularly in supply constrained economies.

Fiscal Constraints

Expansionary fiscal policy often leads to higher public borrowing, crowding out private investment. Instead of shifting IS positively, it exacerbates fiscal deficits and inflation, undermining macroeconomic stability. Change in fiscal policy shift IS curve outward and LM curve is not effected.

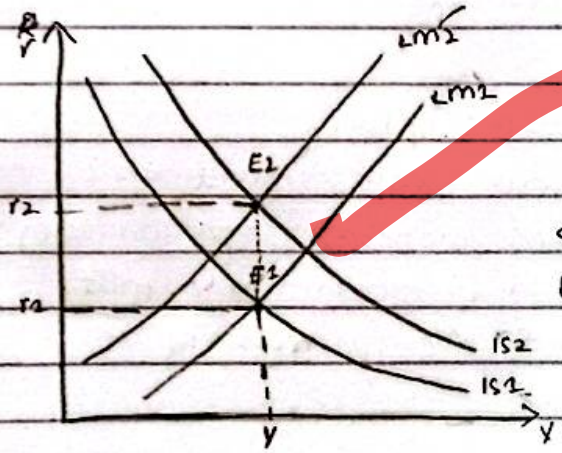


Inflationary Bias and Stagflation

IS-LM fails to explain stagflation, a common phenomena in developing economies where inflation coexists with stagnation. Supply shocks dominates demand side dynamics.

IS-LM is Supply Constrained Economy

In supply ~~side~~ constrained economy, an expansionary fiscal policy shifts the IS curve rightward, but due to capacity constraints, output increases marginally while inflation rises. Weak financial markets make the LM curve steep, indicating poor monetary transmission. As a result equilibrium adjustment occurs through prices rather than output.



- Expansionary fiscal Policy shift is to rightward, due
- Supply constraint output increases marginally.
- Weak financial markets and Poor monetary transmission make LM curve steep from LM1 to LM2.

- Due to structural rigidities and informal market and dominance, equilibrium moves mainly upward rather than outward. E1 to E2

Conclusion

The IS-LM model is fundamentally a short run demand side frame work with Limited applicability in Supply constrained economies. structural rigidities, weak financial markets and informal sector dominance undermine its transmission mechanisms. Therefore, sustainable macroeconomic mangement in developing economies requires structural reforms and supply side interventions rather than exclusive reliance on IS-LM analysis.

Question # 3

Introduction

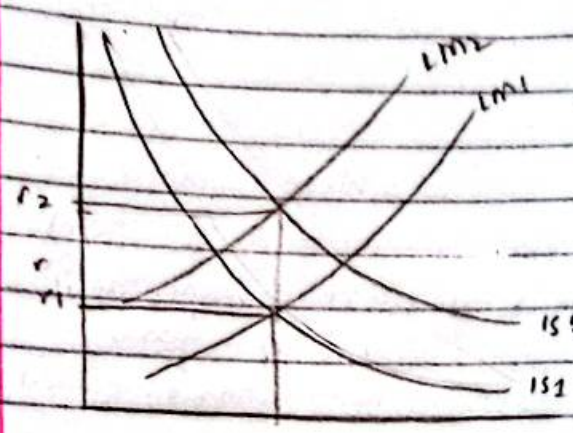
Macroeconomic stabilization aims to achieve sustained growth, price stability and employment through fiscal and monetary policies. The IS-LM model, a keynesian short-run frame work, explains equilbrium in goods and ~~monetary~~ money markets and has traditionally guided stabilization policies. However, its effectiveness in developing countries remain contested due to structural rigidities, supply constraints and institutional weakness. In contrast, the AD-AS model provides a broader frame work by incorporating both demand and supply dynamics.

Overview Of the IS-LM Model

The IS-LM model determines equilbrium output and interest rates though the interaction of the IS curve and LM curve. Fiscal policy shift the IS curve, while monetary policy shifts the LM curve. The model assumes price rigidity, interest-sensitive investment, and efficient financial markets.

IS-LM as a Tool for Macroeconomic Stabilization

IS-LM provides a clear mechanism for coordinating fiscal and monetary policies to stablize output in the short run. It helps policy makers analyze policy trade-offs, such as crowding out and monetary accommodations. However, its stabilization role ~~in~~ is limited in developing economies where output is constrained more by supply side bottlenecks than by insufficient demand.



- IS-LM Stabilization Policies mainly generates inflationary pressures rather than real growth in developing economies.

- The diagram highlights that structural rigidities prevent meaningful output expansion. Energy shortages / infrastructural gaps and labor market inflexibility limit the responsiveness of output to demand side stimulus.

Structural constraint in Developing Countries

Developing economies face persistent structural rigidities such as shortages, weak infrastructure, rigid labor markets and low productivity. Can be seen in above diagram.

~~Structural~~

Weak financial markets and Monetary Policy ineffectiveness

The IS-LM model relies on strong interest rate transmission. In developing countries, shallow capital markets, limited financial inclusion and credit rationing weaken the LM channel. As a result changes in money supply fails to significantly influence investment or output.

Informal Sector Dominance

A large informal sector operates outside formal financial & tax systems, since IS-LM captures

only economic activity, it fails to reflect the true macroeconomic response to policy changes, reducing its empirical relevance.

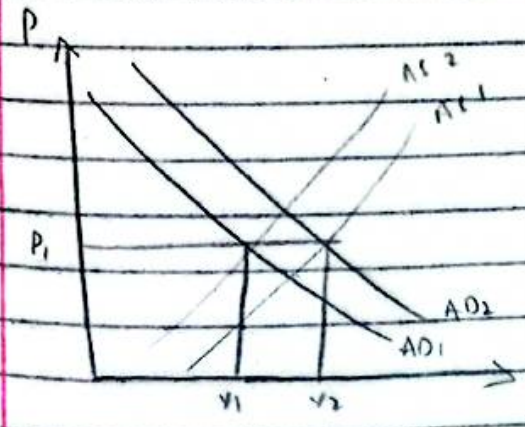
Inflationary Bias & Stagflation

IS-LM model does not adequately explain stagflation simultaneous inflation and stagnation which is very common in developing economies due to supply shocks. Stabilization Policies based on IS-LM often worsen inflation without addressing underlying constraints.

Overview of the AD-AS Model

The AD-AS framework explains equilibrium output and price level through aggregate demand and aggregate supply interaction. It explicitly incorporates price flexibility, inflation, supply shocks and long run growth, making it more comprehensive for developing economies.

AD-AS Model



- AD-AS is better suited for analyzing inflation, supply shocks and structural reforms. It captures how demand expansion can lead to inflation under supply constraints and highlights the importance of shifting Aggregate Supply through productivity investment and reforms.

Comparative Analysis : IS-LM Vs AD-AS

IS-LM is a short run, demand-focused interest rate based model, whereas AD-AS integrates both demand and supply with explicit price dynamics. IS-LM is more abstract and assumes closed economies, while AD-AS can incorporate open-economy factors and long term growth. AS-AD provides a more realistic stabilization framework for developing countries.

Limitation of AD-AS Model.

AD-AS also faces challenges such as measurement difficulties and oversimplification of expectations. However, these limitations are less severe than those of IS-LM in developing contexts.

Policy Implications

Macroeconomic stabilization in developing countries should prioritize supply side reforms, institutional strengthening and inflation control.

Conclusion

IS-LM model has limited effectiveness as a stablization tool in developing countries due to structural rigidities, weak financial markets and informal sector dominance. In contrast, the AD-AS framework offers a more realistic and comprehensive approach by integrating demand, supply and price dynamics. Therefore, while IS-LM retains academic value, AD-AS provides a superior foundation for macroeconomic stabilization in developing countries.

material is okay
write more headings with bold markers
make flow chart
13 /20

Question #7

Introduction

Elasticity of demand measures the responsiveness of quantity demanded to changes in economic variables, such as price, income and price of related goods. It is the central concept in microeconomic theory and has wide empirical applications in taxation, pricing, welfare analysis and policy formulation. Among its types own-price elasticity, cross elasticity and income elasticity provides insight into consumer behavior, market structure and revenue outcomes.

Elasticity of Demand

Elasticity of demand is defined as the percentage change in Quantity demanded resulting from one percent change in determinants variables. It helps economists move beyond static demand analysis by quantifying responsiveness rather than merely identifying direction.

Own Price Elasticity of demand

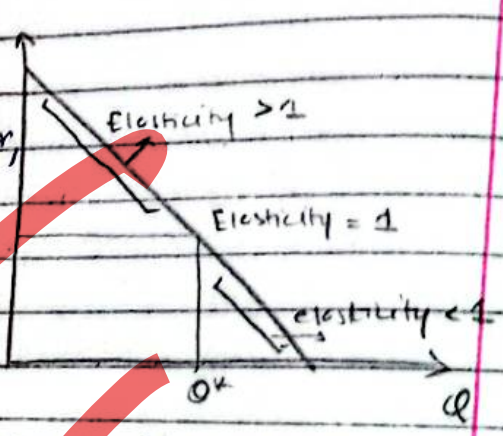
Own-price elasticity of demand measures the responsiveness of quantity demanded of a good q to a change in its own price, Ceteris Paribus. It is calculated as.

$$E_p = \frac{\% \text{ change in QD}}{\% \text{ change in price}}.$$

Theoretically, it is usually negative due to the inverse relationship b/w Price and Quantity demanded.

Types of Own - Price ~~Elasith~~ Elasticity

Demand may be perfectly inelastic, relatively inelastic, unit-elastic or perfectly elastic. The degree depends on factors such as availability of substitutes, Porportion of income spent, time horizon and nature of good.



- Elastic Demand (PED > 1): A flatter, a shallow curve where a small change in price leads to a proportionately larger change in QD.

- Inelastic Demand (PED < 1): A steeper curve where a Price change results in a proportionately smaller change in Quantity Demand.

- Unit Elastic (PED = 1): A curve where Price & quantity change by the same percentage, keeping total revenue constant.

- Pretectly Elastic (PED = ∞): A horizontal line indicating that consumers will buy any amount at one specific Price, but nothing if the price rises.

- Pretectly Inelastic (PED = 0): A vertical Line showing that QD remains unchanged regardless of Price fluctuations.

Cross Price Elasticity of Demand

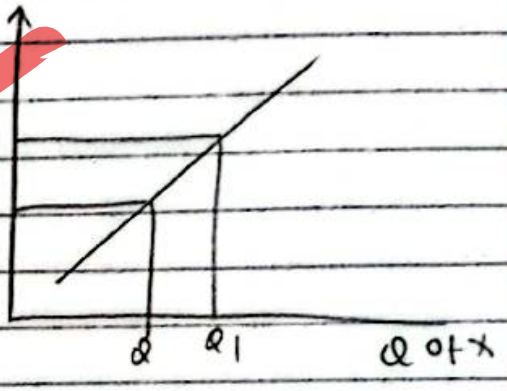
Cross-price elasticity measures the responsiveness of QD of one good to a change in the Price of another good. It is expressed as

$$E_{XY} = \frac{\% \text{ Change in QD of X}}{\% \text{ Change in price of Y}}$$

Types of Cross Elasticity

If E_{XY} is positive, goods are substitutes (tea & coffee). If negative, goods are complements (cars & Petrol). If zero goods are unrelated.

- An increase in the price of good Y shifts the Demand curve of ~~substitute~~ substitute to of X.



Empirical Application of of Cross - Price Elasticity

It is widely used in competition policy, cartel detection and merger analysis. Firms use to identify competitors.

Income Elasticity of Demand

Income elasticity of demand measures the responsiveness of quantity demanded to changes in consumer income;

$$E_Y = \frac{\% \text{ Change in QD}}{\% \text{ Change in income.}}$$

Types of Income Elasticity

Income elasticity is positive for normal goods, greater than one for luxury goods, between zero and one for necessities and negative for inferior goods.

Empirical relevance of Income Elasticity

Income elasticity helps government forecaste demand under economic growth and design welfare programs. In Pak, Food items show low income elasticity, while education, health and automobiles exhibit high income elasticity.

Relationship Between PED & TR

Relationship B/w own Price Elasticity and Total Revenue.

Total revenue (TR) equals to price multiply by Quantity. Sold. The effect of a Price change in TR depends on the elasticity of demand.

- Demand is elastic (EP>1), a price fall increases TR
- If Demand is inelastic (EP<1), a price rises TR increases.
- If Demand is unit-elastic (EP=1), TR remains unchanged.

Empirical Importance

The relationship guides monopolistics pricing, taxation and public utility tariffs, govt raises price of inelastic goods to increase revenue, while firms reduce Prices for elastic goods to boost sales

Conclusion

Own-Price, cross-price and income elasticity provides a comprehensive framework for understanding consumer responsiveness and mrkt behavior. This theoretical foundations and empirical applications make them indispensable for policy formulation, business strategy and revenue optimization.

15/20

13/20

Question #8

Introduction

Pakistan has persistently suffered from twin deficit, namely a fiscal deficit and current account deficit, which reinforce each other and create chronic Balance of Payment (BOP) instability. This twin deficit phenomena reflects deep rooted structural weaknesses in Pakistan's economy including low revenue mobilization, import dependence, narrow export base and reliance on external financing.

Understanding the Twin Deficit

The twin deficit hypothesis suggests that a rise in fiscal deficit leads to a corresponding increase in the current account deficit. Higher government borrowing raises domestic demand, increase imports, appreciates the exchange rate and widens the trade deficit. In Pakistan's case, this relationship is particularly strong due to weak domestic savings and limited productive capacity.

Causes of fiscal Deficit in Pakistan

Pakistan's fiscal deficit primarily stems from low tax to GDP ratio, narrow tax base, tax evasion and excessive reliance on indirect taxes. Persistent growth in current expenditure particularly debt servicing, defense spending and subsidies combined with week Public Sector efficiency further exacerbated fiscal imbalances.

Causes of Current Account Deficit

The Current Account deficit arises from Pakistan's heavy dependence on imports of energy, machinery, food and consumer goods. A narrow export base, low value added exports, weak competitiveness and declining remittances during global downturns contributes to persistent external imbalances.

Structural Link Between Fiscal and Current Account Deficit

Expansionary fiscal policy increases aggregate demand without a corresponding rise in domestic output due to supply constraints. This excess demand spills over into imports, widening the trade deficit. Additionally, government borrowing crowds out private investment and increases reliance on external debt.

Role of Energy and Import Dependence

Energy imports constitute a significant portion of Pakistan's import bill. Inefficiencies in the Power sector, circular debt and reliance on imported fuels amplify external vulnerability, directly feeding into the current account deficit.

Exchange rate misalignment and Twin Deficit

Artificially overvalued exchange rate, often used to control inflation, make imports cheaper and exports less competitive. This worsen the trade deficit while encouraging consumption-led growth financed through fiscal expansion.

→ **Consequences of BOP stability**

Persistent twin deficit to chronic BOP pressures, depletion of foreign exchange reserves, frequent IMF bailout and loss of policy autonomy. External vulnerability increases exposure to global shocks and capital flow reversals

Inflationary and Exchange rate Pressures

~~Financial~~ Financing fiscal deficit through borrowing and monetization fuels inflation. External deficit exerts downward pressure on the currency, leading to depreciation, imported inflation and erosion of purchasing power.

Impact on growth and investment

Macroeconomic instability discourages foreign direct investment and long-term private investment. High interest rates used to to stabilize the currency further suppress growth & employment.

Debt Sustainability Risks

Rising external and domestic debt to finance deficit increases debt-servicing burdens, reduces fiscal space for development spending and raises the risk of sovereign default.

→ **Policy Options: Fiscal Consolidation**

Breaking the twin deficit cycle requires credible fiscal consolidation through broadening the tax base, improving tax administration, reducing untargeted subsidies and rationalizing current expenditure while protecting social spending.

Export Led Growth Strategy

Diversifying exports, moving up the value chain, improving competitiveness and integrating into global value chains are essential to reduce the current account deficit sustainably.

Energy Sector reforms

Reducing energy imports dependence through renewable energy investment, improving governance in the Power sector, and eliminating circular debt can significantly ease external Pressures.

Exchange rate Flexibility

Market-based exchange rate improves export competitiveness, discourages excessive imports and acts as a shock absorber against external imbalances.

Conclusion

Pakistan's twin deficits are symptoms of deeper structural weaknesses in fiscal management and external competitiveness. The strong linkage b/w fiscal imbalances and current account deficit perpetuates BOP instability. Breaking this cycle through comprehensive fiscal reforms, export led growth, energy sector & Exchange rate flexibility.