



MONETARY POLICY FRAMEWORKS AND STRATEGIES

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Lecture Outline

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- Basic Perspectives
- Taxonomy of Monetary Policy Strategies
- Alternative Exchange Rate Regimes
- Evolution of Monetary Policy and Exchange Rate Regimes
- Key Observations
- Conclusion

Basic Perspectives

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- Countries need to choose both a monetary policy strategy (e.g., money growth targets, inflation targets) and an exchange rate arrangement
- The two choices must be compatible

What is Monetary Policy?

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- Broad definition: everything the monetary authority does
- Narrower definition: efforts by the monetary authority to influence macroeconomic variables

Ultimate Goals or Targets

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Reduce output and employment fluctuations

Achieve price stability

In many economies, exchange rate stability

Trade-offs between goals

Who should set the goals?

Key Institutional Issues

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Goal independence versus instrument independence

Institutional arrangements for promoting a sound financial system and a disciplined fiscal stance

Monetary Policy Instruments

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- Monetary policy can operate with either *direct instruments* that control prices (interest rate) or quantities (credit) through regulation, or *indirect instruments* that operate by influencing market conditions
- However, the use of *indirect instruments* requires to have a well developed domestic financial market

Monetary Policy Instruments

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- Some examples of direct instruments are ceilings on interest rates, bank-by-bank credit ceilings, and directed credits
- Direct instruments tend to lose their effectiveness (i.e., controls become easier to evade) as the economy becomes more open and as market participants become more sophisticated and learn about loopholes
- The administration of direct controls also tends to breed corruption

WHAT IS IN THE BLACK BOX: HOW ARE THE MONETARY POLICY INSTRUMENTS TRANSMITTED INTO OUTCOMES?

MONETARY POLICY INSTRUMENTS

TRANSMISSION PROCESS:

INSTITUTIONAL ENVIRONMENT
IN WHICH MONETARY POLICY IS
FORMULATED AND IMPLEMENTED

OUTCOMES/GOALS WITH RESPECT TO:

INDIRECT

OPEN MARKET OPERATIONS
ASSET PORTFOLIO REQUIREMENTS
CASH RESERVE REQUIREMENTS
LIQUIDITY RESERVE REQUIREMENTS
OFFICIAL CB LENDING RATES

DIRECT POLICY INSTRUMENTS

BANK LENDING RATES
BANK DEPOSIT RATES
HOW MUCH TO LEND
TO WHICH SECTOR/FIRM

OTHER

BANK CAPITAL REQUIREMENTS
PRUDENTIAL REGULATION



EMPLOYMENT

INFLATION

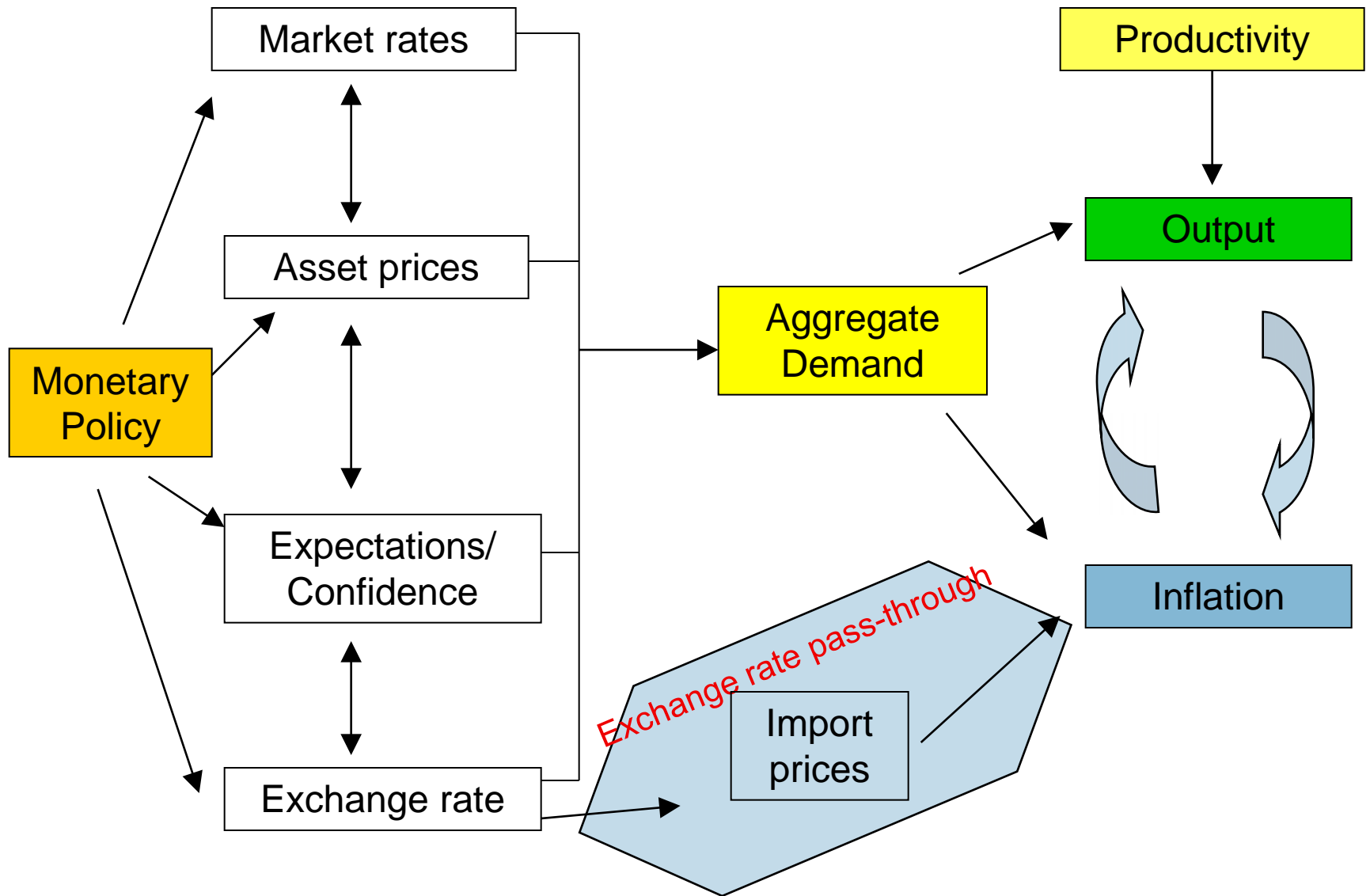
GROWTH

OPEN CAPITAL MARKETS

EXCHANGE RATE STABILITY

INTEREST RATE STABILITY

EFFICIENT FINANCIAL INTERMEDIATION



A transmission mechanism of monetary policy

Monetary Policy Strategies: Taxonomy

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- Exchange rate targeting
- Monetary aggregates targeting
- Inflation targeting
- Other “eclectic” frameworks

Exchange Rate Targeting

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- Involves adjusting monetary policy instruments to keep the exchange rate fixed within a narrow range of some announced target level (i.e., par value)
- Examples:
 - ▣ pre-World-War-I gold standard
 - ▣ Bretton Woods regime (1945-71)
 - ▣ European ERM (1979-92)
 - ▣ many low income countries today

Exchange Rate Targeting

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- Advantages
 - relatively simple system for monetary policy
 - exchange rate stability may be conducive to growth and price stability over the long run
- Disadvantages
 - monetary policy has little or no scope to counteract shocks to economic activity and price stability in the short run
 - exchange rate stability will not be maintained over the long run unless inflation is tightly controlled (fiscal discipline!)

Trilemma or the Impossible Trinity

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It is impossible to simultaneously maintain:

- a fixed exchange rate

AND

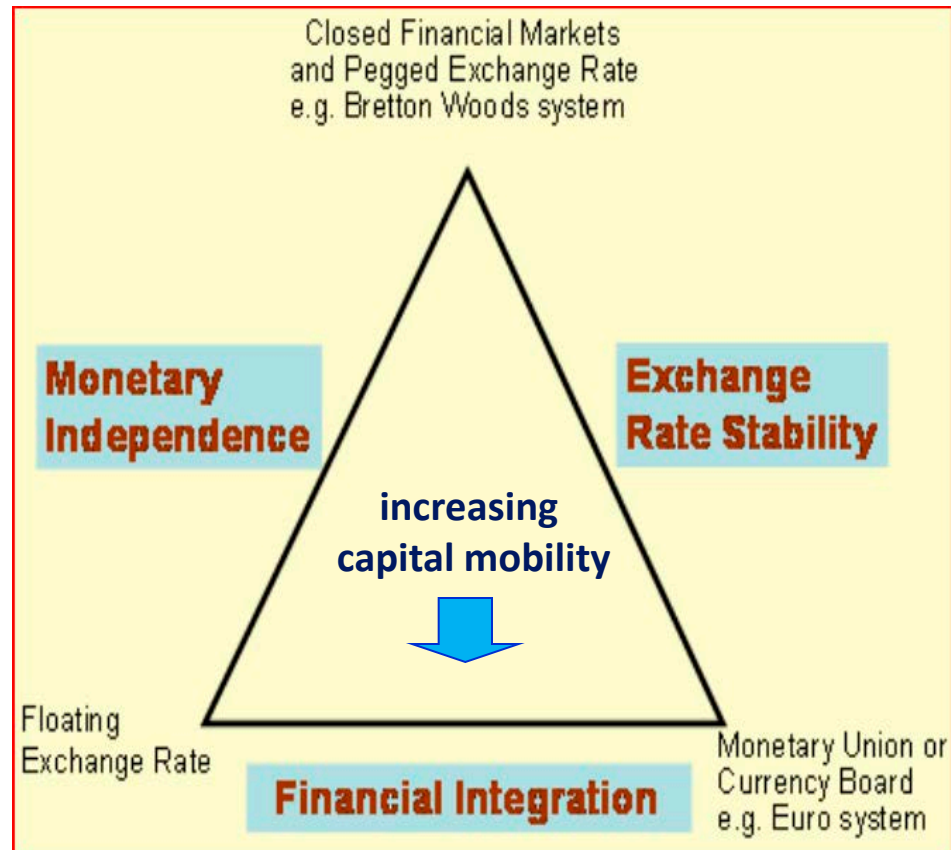
- the autonomy to use monetary policy to pursue goals for domestic economic activity and price stability

IF

- the economy relies on a large volume of potentially volatile and internationally mobile sources of finance

The Trilemma or “Impossible Trinity”

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Monetary Aggregates Targeting

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- Involves adjusting monetary policy instruments to target the growth rate of some selected measure of the money supply
- Examples:
 - many industrial countries from the late-1970s to mid-1980s
 - about 25 countries today (but none of the industrial countries)

Monetary Aggregates Targeting

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- Effectiveness depends on:
 - (i) stability of money demand, which is necessary for a stable link between the money supply and macroeconomic performance and
 - (ii) ability of the authorities to control the money supply
- The former links become less stable as financial development gives rise to close substitutes for money

Inflation Targeting

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- Involves adjusting monetary policy instruments to keep the central bank's *forecast* of inflation consistent with an announced target
- Examples:
 - ▣ about 25 industrial and emerging-market countries today
- First introduced by New Zealand in December 1989

Eclectic Monetary Policy

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- Generally involves adjusting monetary policy instruments to pursue stable economic growth and low inflation, but with no formally announced targets
- Examples:
 - ▣ United States, India, Singapore, and at least 25 other countries today

Eclectic Monetary Policy

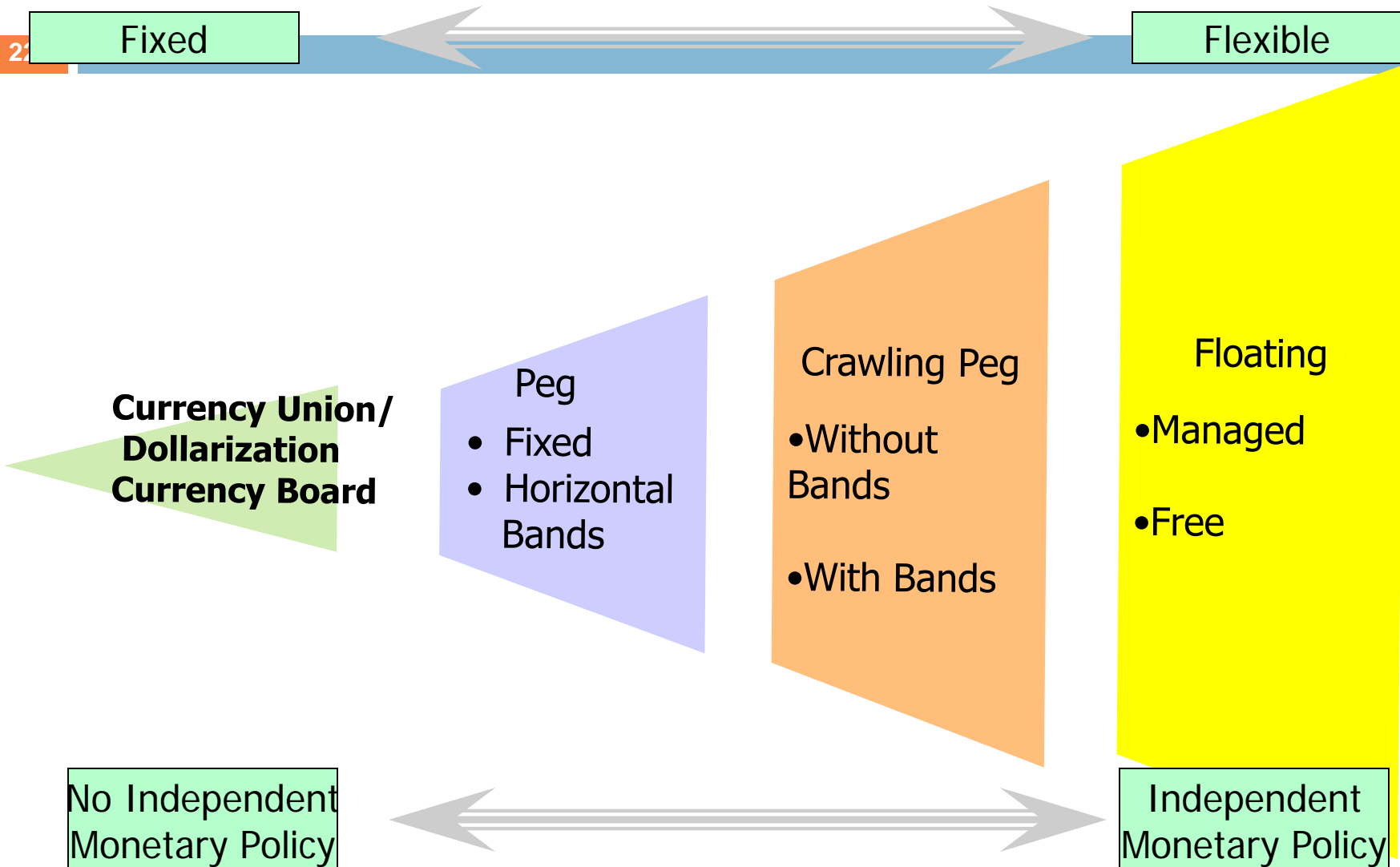
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- Because monetary policy instruments affect output and inflation with a lag, good monetary policy involves “forward-looking” forecasts of output and inflation
- Many countries use a short-term interest rate as their main monetary policy instrument
- Some countries use the exchange rate as their main policy instrument but do not have a formal exchange rate target (e.g., Singapore)
- Countries can also use the monetary base as a policy instrument without having a formal money supply target

EXCHANGE RATE REGIMES



Range of options



Free Float

Main Features	Advantages	Disadvantages
<ul style="list-style-type: none">• Nominal ER is freely determined in the market. Actual and expected changes in supply and demand of assets/goods are reflected in exchange rate changes	<ul style="list-style-type: none">• Adjustments in nominal ER absorb bulk of adjustment to foreign and domestic shocks• High international reserves are not required	<ul style="list-style-type: none">• High nominal (and real) ER volatility may distort resource allocation• Monetary policy tends to be framed in terms of nominal anchors different from the exchange rate; scope for discretion and inflation bias may be large• Balance sheet effects

Managed or Dirty float

Main Features	Advantages	Disadvantages
<ul style="list-style-type: none">• Not committed to bringing about a particular exchange rate or exchange rate range, but CB may intervene in FOREX market• Active intervention (sterilized and non-sterilized) results in changes in reserves	<ul style="list-style-type: none">• Similar to free float - adjustments in nominal ER absorb foreign and domestic shocks - but higher international reserves may be required• Dampens “excessive” fluctuations of ER	<ul style="list-style-type: none">• Lack of transparency of CB intervention may create too much uncertainty• Effects of intervention are typically short-lived (even when intended as a signal) and may be destabilizing

Floating within a band (Target zone)

Main Features	Advantages	Disadvantages
<ul style="list-style-type: none">• ER is allowed to fluctuate(somewhat freely) within a band. The center of the band is a fixed rate, either in terms of one currency or a basket of currencies.• Some band systems result form cooperative arrangements, others are unilateral	<ul style="list-style-type: none">• Combines benefits of some flexibility with some credibility• Key parameters (bands, midpoint) help guide the public's expectations• Changes in the nominal rate within the bands help absorb shocks to fundamentals	<ul style="list-style-type: none">• Destabilizing, especially when band is too narrow and when domestic macro policies inconsistent with a 'horizontal' band, prone to speculative attacks (ERM in 1992)• Width selection not trivial• Any possibility of realignment of bands and central parity weaken credibility afforded by regime

Crawling Band

Main Features	Advantages	Disadvantages
<ul style="list-style-type: none">• A band system where the central parity crawls over time (Backward-looking or forward-looking)	<ul style="list-style-type: none">• For high inflation countries, it helps to adopt a band system (nominal anchor) without having to undertake large stepwise adjustments in the ER	<ul style="list-style-type: none">• If adjustment is backward looking, there is a risk of creating inflationary inertia• A forward looking approach that sets the “wrong” inflation target can produce overvaluation and give rise to speculative pressures• The system is also subject to time inconsistency shortcomings

Crawling Peg

Main Features	Advantages	Disadvantages
<ul style="list-style-type: none">• Nominal ER adjusted periodically according to a set of indicators and it is not allowed to fluctuate beyond a narrow range (say 2 percent)• e.g. adjust nominal rate by a pre-announced rate set deliberately below ongoing inflation (tablita regime)	<ul style="list-style-type: none">• For high inflation countries, it helps to avoid RER overvaluation• “Tablita” regime helps to guide public expectations while CB buys credibility on the road	<ul style="list-style-type: none">• If adjustment is backward looking, there is a risk of creating inflationary inertia• Difficult to accommodate required changes in equilibrium RER• Also subject to time inconsistency shortcomings

Basket Peg

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- Exchange rate is fixed in terms of weighted basket of currencies instead of any one major currency
- Sensible for countries with trade patterns diversified geographically, such as many in Asia
- In theory could be as rigid as one fixed to a particular currency, in practice most countries announcing a basket peg keep weights secret and adjust weights so that formula cannot be precisely inferred

Conventional (Fixed) Peg

Main Features	Advantages	Disadvantages
<ul style="list-style-type: none">• Soft fixed ER system, in which central bank is not obliged to maintain the parity indefinitely• Adjustment of the parity is a powerful instrument	<ul style="list-style-type: none">• In the context of low uncertainty, it provides macroeconomic discipline by maintaining tradable goods prices in line with foreign prices• The built-in “escape clause” (devaluation), provides some flexibility	<ul style="list-style-type: none">• With weak institutional constraints, the system is subject to serious time inconsistency shortcomings• Realignment can be disruptive for the corporate sector

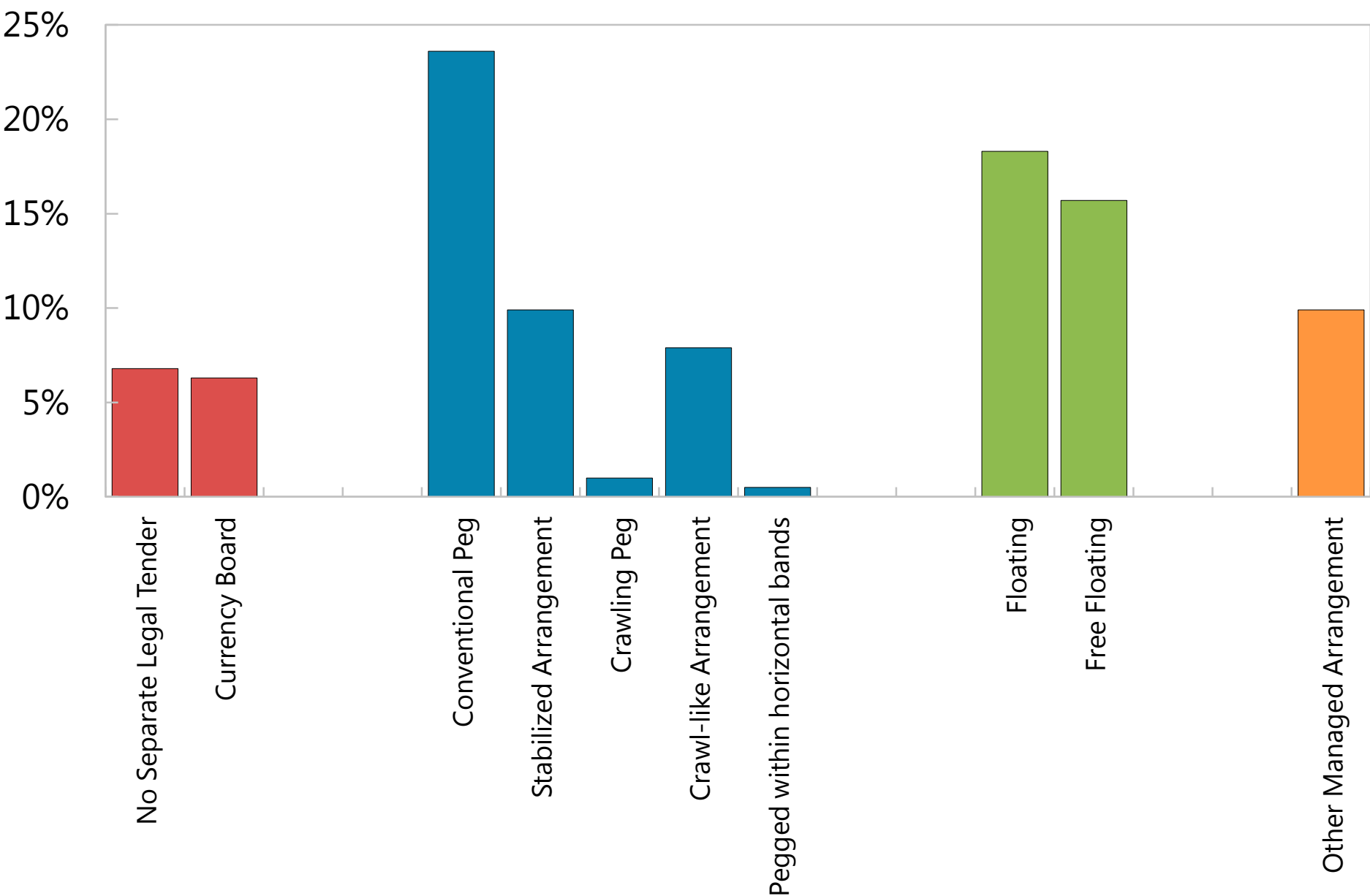
Currency Board

Main Features	Advantages	Disadvantages
<ul style="list-style-type: none">• Strict fixed ER system, with institutional constraints (IC) on monetary policy• Monetary authority only can issue domestic currency when it is fully backed by inflows of foreign exchange	<ul style="list-style-type: none">• High credibility in the regime in the extent that IC are difficult to change	<ul style="list-style-type: none">• Limited flexibility for economic policy implementation when facing adverse external shocks - have to be absorbed by changes in unemployment and economic activity• Central bank loses its ability to perform LLR and reduces seignorage revenues

Full Dollarization

Main Features	Advantages	Disadvantages
<ul style="list-style-type: none">• Country gives up completely its monetary autonomy by adopting another country's currency	<ul style="list-style-type: none">• Credibility in the regime is maximized and there is no scope (in theory) for “surprising” the public (it may be cumbersome to reintroduce a national currency)	<ul style="list-style-type: none">• Limited flexibility for economic policy implementation when facing adverse external shocks• Central bank loses its ability to perform LLR• It may be resisted by political/nationalistic reasons (no inflation tax)

Exchange Rate Arrangements (2013) - Percent of IMF Member Countries (191)



Source: IMF AREAERS (2013)

EVOLUTION OF MONETARY POLICY



International Gold Standard (1870s to 1914)

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- currency values fixed in terms of gold
- stabilization of domestic economic activity was not a primary policy objective
- uncontrolled international capital movements

Wartime and Interwar Regimes (1914-1945)

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- series of short-lived regimes
- floating (1919-25)
- return to gold parities (circa 1925) but at unsustainable levels
- breakdown of international cooperation (early 1930s); resort to trade restrictions and competitive devaluations
- managed floating (starting 1936)

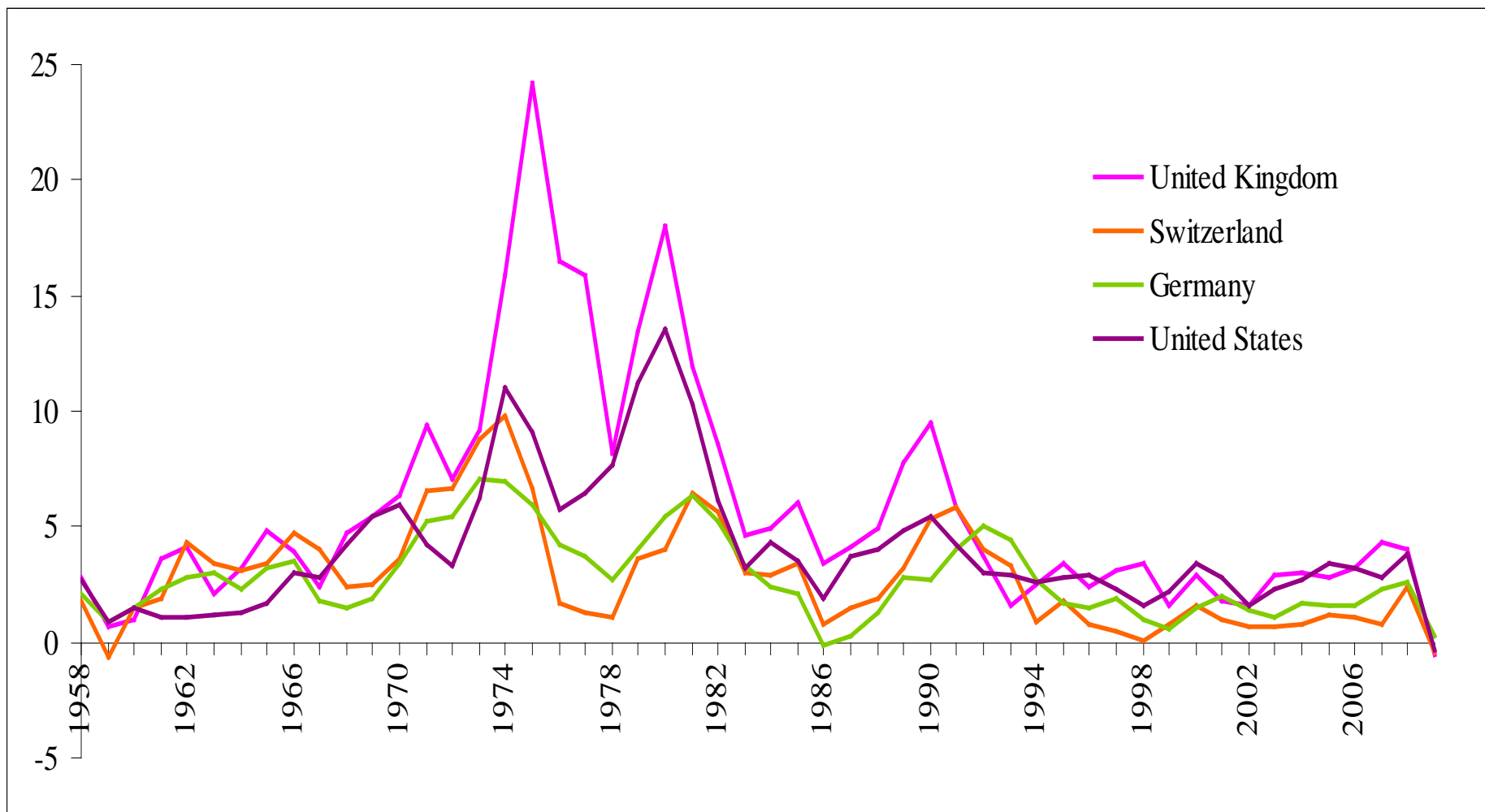
Bretton Woods Era (1946-1971)

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- Fixed exchange rates
- Stabilizing the domestic economy was a primary objective of monetary policy
- Controls on international capital flows
- However, 1960s saw an era of policy activism and of belief in Phillips curve that there is a trade-off between output and inflation
- Inflation accelerated and unemployment rate increased in 1970s

Inflation in Selected Countries

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Source: IFS, OECD Statistics

Advent of Monetary Targeting (MT) in the 1970s

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- Breakdown of Bretton Woods – move to flexible exchange rates with increasing capital mobility
- Move to Monetary Targeting – increased instability between monetary aggregates and goal variables
- UK, US - MT not pursued seriously – monetary accommodation led to higher inflation
- UK, US - No commitment to regularly communicating strategy to the general public
- Success in Germany – Bundesbank:
 - a numerical inflation goal was prominently featured and communicated to public
 - Allowed its inflation goal to vary and converge to long run goal

Move to Inflation targeting (IT)

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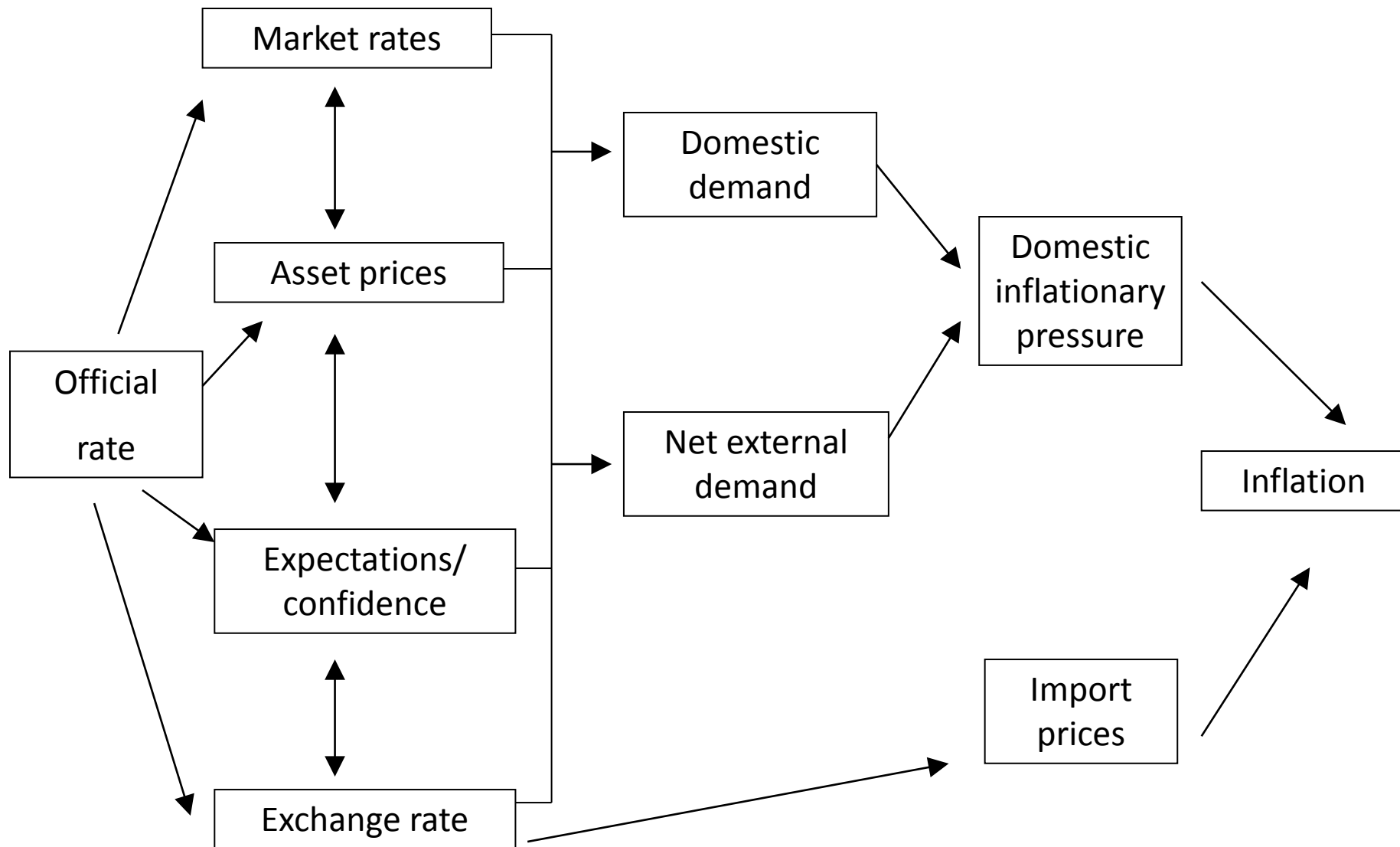
- IT evolved from monetary targeting by adopting its most successful elements in institutional commitment to price stability as primary long-run goal of monetary policy

IT in your countries: is it too soon?

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- IT is not a miracle inflation cure. As you will see, many conditions for it to work well
- Many advanced economies meet the pre-requisites. But for EMs meeting these has been a challenging, long-term process
- CLMV very diverse, but most lack pre-conditions for IT. Running a marathon without preparation makes one's health worse...

Recap: transmission channels (if policy rate is key instrument!)

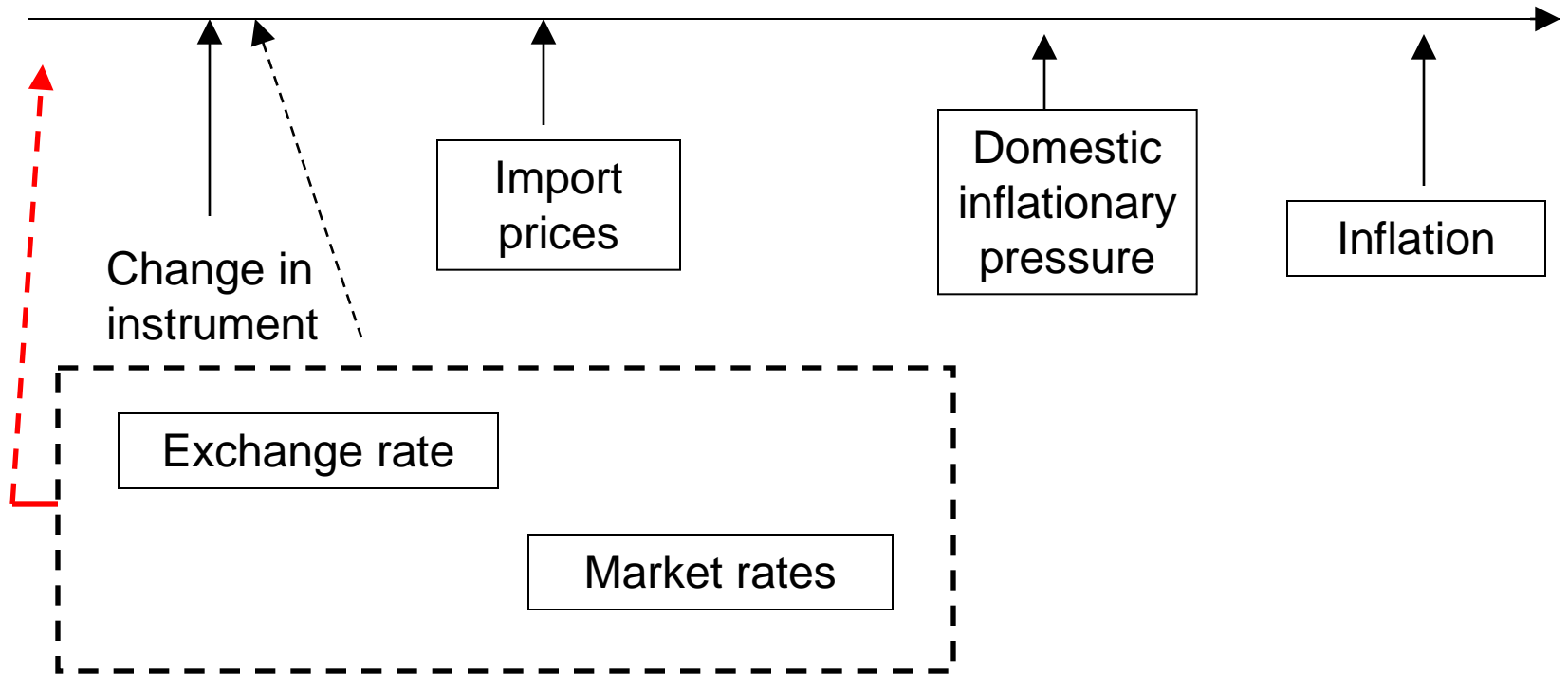


Transmission Lags

Changes can be anticipated

12-18 months

18-24 months



Pre-requisites for IT - 1

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- Deep financial markets – indirect instruments
- Short-term interest rate commonly used as the instrument in IT countries – to transmit across yield curve and market interest rates
- Central bank must have full legal autonomy
- Central bank must be free from fiscal dominance and/or political pressure that would create conflicts with the inflation objective

Pre-requisites for IT - 2

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- Dollarization should be minimal.
- Inflation forecasting and modeling capabilities, and availability of accurate data needed to implement them
- Proportion of food and energy in CPI should not be too high

Take-away for your countries

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- Be wary of fads
- IT is more the official crowning of a successful reform process, than anything else
- Focus on reform towards meeting pre-requisites, valuable regardless of framework
- Can consider IT when significant progress on these has been made

Monetary Framework and FX Regime

COUNTRY	FX REGIME	POLICY REGIME	POLICY RATE	OPERATIONAL INDEPENDENCE
China	Managed Float	Multiple Objectives	Lending Rate	Limited but improving
Hong Kong	Currency Board	(CBA)	Base rate	High, limited by CBA
India	Managed Float	Multiple Objectives	Reverse repo rate	High
Indonesia	Managed Float	FX/Inflation	Reference rate	High
Korea	Free Float	IT	Repo rate	Very High
Malaysia	Managed Float	Informal Taylor Rule	Overnight rate	Moderate
Philippines	Free Float	IT	Repo rate	High
Singapore	Managed Float	Informal Taylor Rule	n/a	Very High
Taiwan	Managed Float	Informal Taylor Rule	Rediscount rate	Very High
Thailand	Managed Float	IT	Repo rate	High

Exchange Rate Arrangements

	De Facto	De Jure	Monetary Policy Framework
Cambodia	Stabilized Arrangement	Managed Float	Exchange Rate Anchor (USD)
Lao PDR	Stabilized Arrangement	Managed Float	Mixed Regime of Monetary Targeting and an Exchange Rate Anchor
Myanmar	Other Managed Arrangement	Managed Float	Multiple Indicators
Vietnam	Stabilized Arrangement	Managed Float	Exchange Rate Anchor (Basket)

The Impossibility Theorem

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It is impossible to simultaneously maintain:

- a fixed exchange rate

AND

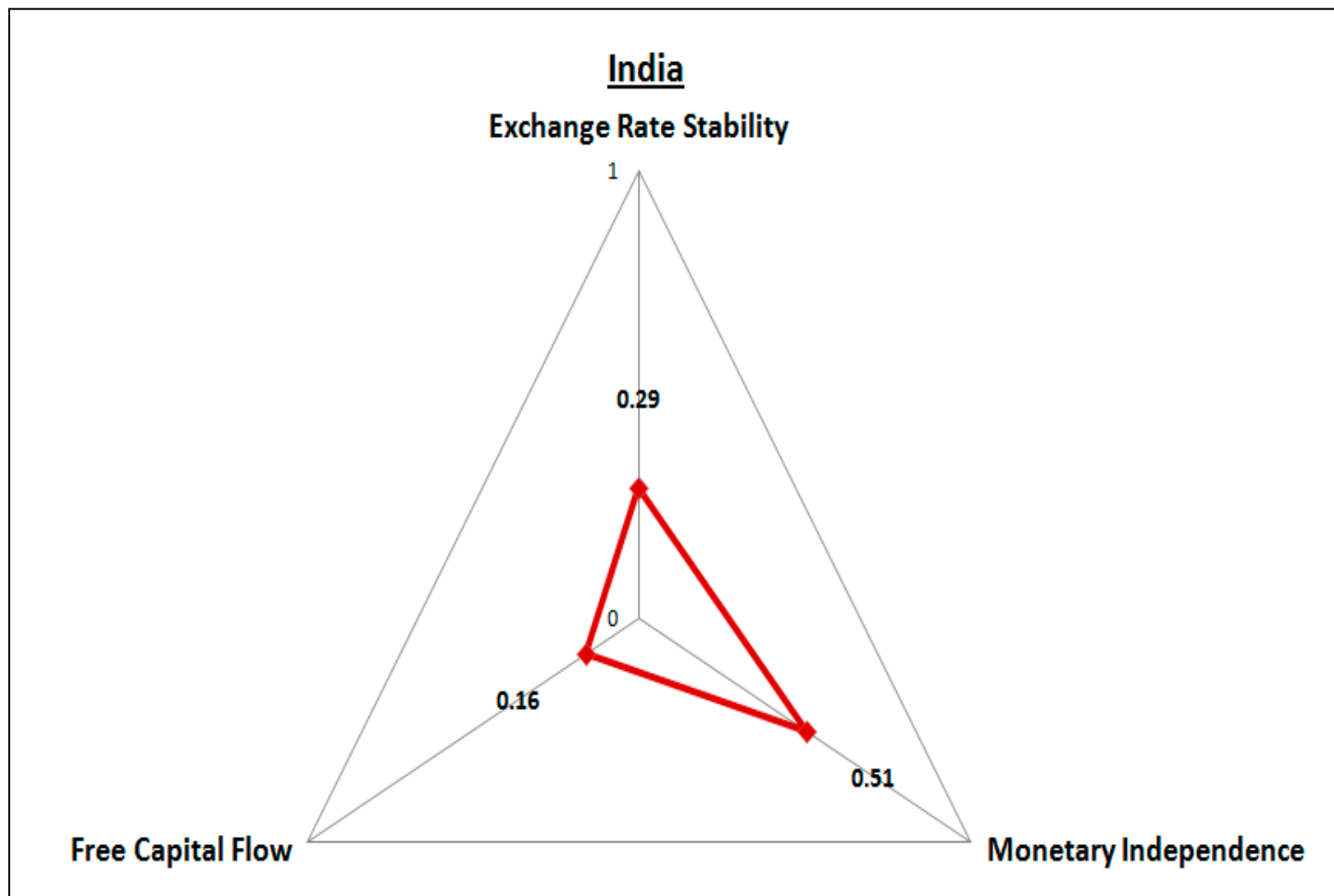
- the autonomy to use monetary policy to pursue goals for domestic economic activity and price stability

IF

- the economy relies on a large volume of potentially volatile and internationally mobile sources of finance

Fundamental Policy Trade-Offs: The Trilemma Index in Practice—India

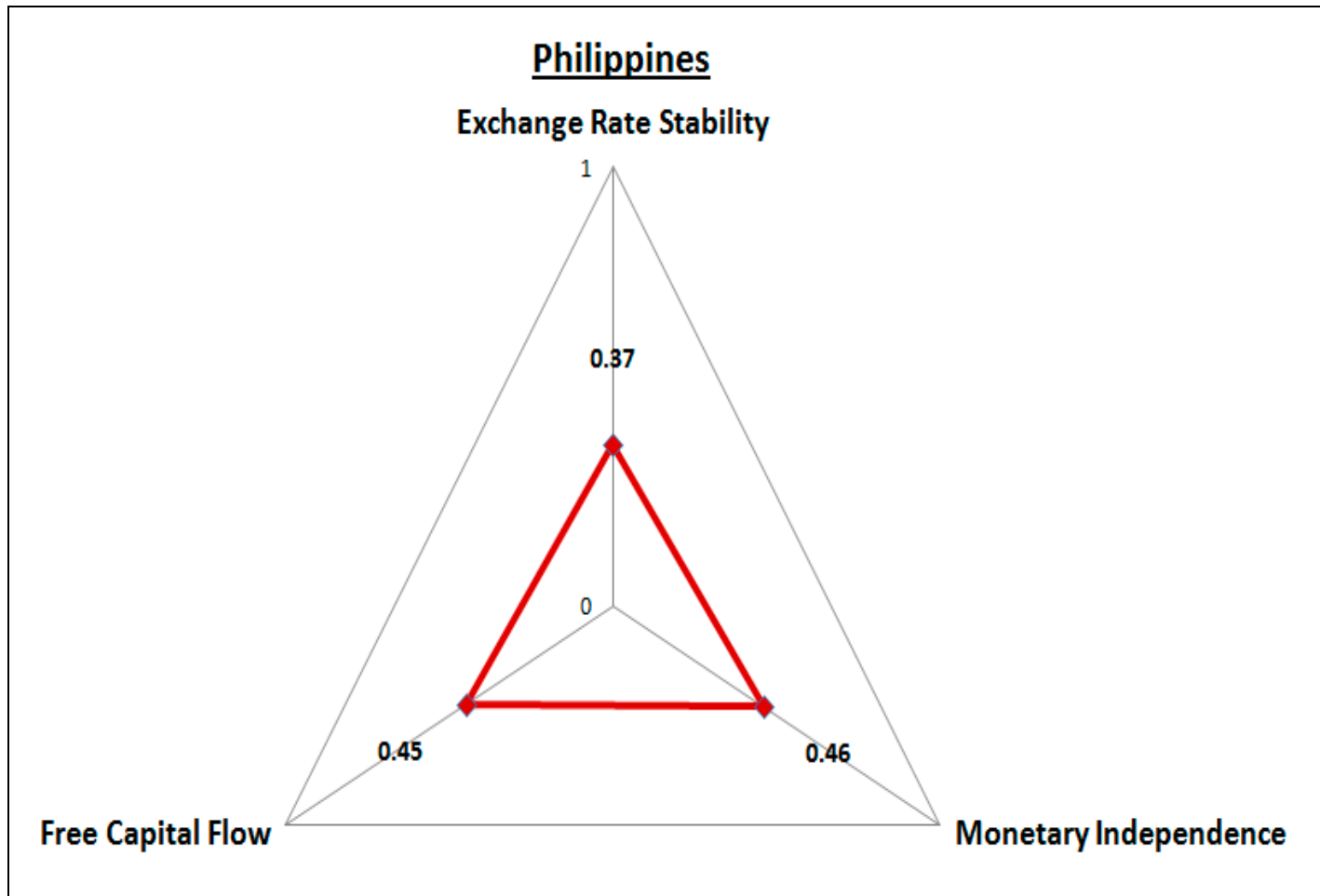
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Source: Aizenman, Chinn and Ito (2008)

Each Country is Different: What works best for you? Philippines

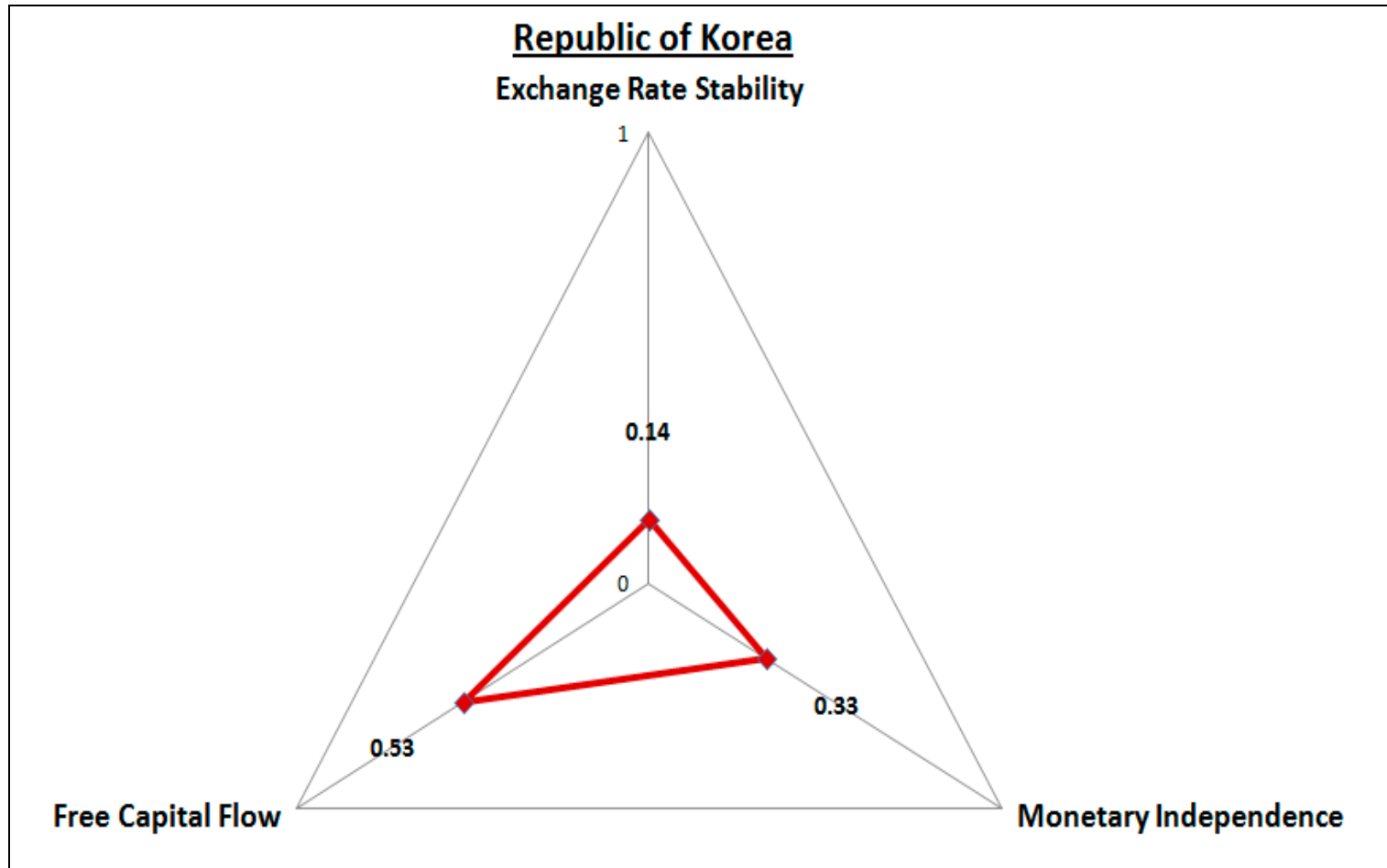
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Source: Aizenman, Chinn and Ito (2008)

Economic objectives to decide leanings: The Trilemma Index in Practice—Korea

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Source: Aizenman, Chinn and Ito (2008)

Key Points

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- Monetary authorities face a tradeoff between the degree of exchange rate stability and the extent to which they can act to stabilize economic activity and the domestic price level
- International capital mobility exacerbates the tradeoff

Key Observations

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- Countries monetary policy and exchange rate regimes have changed over time
- Over the past decade, countries have moved to more flexible exchange rate arrangements coupled with more independent monetary policy
- Choice of monetary and exchange rate regime secondary; what is primary is **sound fiscal, monetary, and financial sector policies**

Conclusions

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- Prudent and consistent monetary, fiscal, and financial sector policies are essential
- Optimal exchange rate regime depends on the circumstances of the particular country and time
- There is no long-run tradeoff between output (employment) and inflation
- A strong nominal anchor is key to producing good monetary outcomes

APPENDIX: WORKSHOP MATERIAL



Designing a Monetary and Exchange Rate Policy Regime for Lao PDR and Myanmar

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**Design a policy regime for Lao PDR/Myanmar
Now and for Lao PDR/Myanmar in Five Year's
time:**

- Decide on Lao PDR/Myanmar's position on the trilemma index
- Specify the nominal anchor, i.e.,
 - ▣ Exchange rate anchor
 - ▣ Monetary aggregate target
 - ▣ Inflation targeting

Designing a Policy Regime for Lao PDR and Myanmar: Considerations

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Factors to consider:

- Structural characteristics of Lao PDR/Myanmar's economy, such as
 - ▣ Openness to trade
 - ▣ Capital market integration
 - ▣ Similarity and integration with trading partners
- Intended role of monetary and exchange rate policies
 - ▣ What type of shocks are most likely to hit economy that require a policy response (e.g., domestic real, external TOT, domestic monetary)?
 - ▣ How important (and effective) is independent monetary policy for Lao PDR/Myanmar?

Designing a Policy Regime for Lao PDR and Myanmar: Specific Factors to Consider

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Openness to Trade

- In a highly open economy, ER changes tend to be largely reflected in domestic price level changes
- Flexible ER not a very effective channel to influence output and employment.

Capital Market Integration

- Countries with significant links to international capital markets cannot maintain narrowly fixed exchange rates unless they are willing to relinquish monetary autonomy

Designing a Policy Regime for Lao PDR and Myanmar: Specific Factors to Consider

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Similarity of Shocks to Trading Partners

- The more similar (relative to trade partners) are shocks to real variables (e.g., productivity, real wages etc), the weaker is the case for a flexible ER
- The case for nominal ER flexibility is stronger when country is exposed to different kinds of shocks from its main trade partners.

Reliance on/Integration with Trade Partners

- Case for a fixed exchange rate is stronger when
 - A country's economic and financial system relies on its partner's currency more heavily;
 - There is stronger desire for economic integration with trade partners

Designing a Policy Regime for Lao PDR and Myanmar: Specific Factors to Consider

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Nature of Shocks

- With capital mobility, if policy objective is to stabilize real output
 - ▣ Floating ER regime works best when
 - shocks are primarily external (especially external TOT)
 - domestic shocks tend to be real shocks
 - ▣ Fixed ER regime works best if shocks are mostly monetary shocks

Designing a Policy Regime for Lao PDR and Myanmar: Specific Factors to Consider

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Willingness to Forego MP Independence

- Countries with significant links to international capital markets cannot maintain narrowly fixed ER unless they are willing to relinquish monetary autonomy

Credibility of Monetary Policy

- Case for fixed ER (against strong anchor currency) is strong if there is need to import monetary stability, due to among others
 - ▣ History of hyperinflation
 - ▣ Absence of credible public institutions
 - ▣ Danger of contagion from neighboring countries??
 - ▣ Large exposure to nervous international investors??

Designing a Policy Regime for Lao PDR and Myanmar: Summary

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Hard Peg for ...

- Small open economies whose trade is dominated by a single low-inflation partner
 - ▣ Symmetric real shocks
 - ▣ Flexible labor market and/or migration
 - ▣ Access to fiscal policy as a counter-cyclical tool
- Countries with low credibility of domestic monetary policy and a high degree of currency substitution
- Countries trying to dis-inflate against a history of high inflation
- Beware of difficulty of engineering a graceful exit from hard pegs

Designing a Policy Regime for Lao PDR and Myanmar: Summary

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Floating ER Regime for ...

- Economies that are not heavily dependent on trade;
- Economies that are affected by mostly idiosyncratic macroeconomic shocks and have relatively inflexible labor markets;
- Countries with an independent central bank that is credible and able to implement counter-cyclical monetary policy;
- Countries with well-developed capital markets.

Designing a Policy Regime for Lao PDR and Myanmar: Summary

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Soft/Intermediate ER Regime for...

- Economies that are vulnerable to asymmetric shocks that cannot be addressed through any other policies but can be addressed by monetary policy
- Countries which lack a strong financial infrastructure, in particular a broad, deep and resilient foreign exchange market and needs time to develop