Overview of ECLAC Workshop-
Short term economic and fiscal indicators within contexts of uncertain and incomplete information

CENTRAL BANK OF TRINIDAD & TOBAGO

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Workshop Objective

To contribute to the improvement of short term indicators by sharing national experiences among professionals at Central Banks, Ministries of Finance and organizations whose work includes following economic trends and the impact of public policies in the short-term.

Context

- Need for timely information by policy makers for decision making.

- In many countries the availability of information related to the performance of the economy is limited.

- There is a considerable time gap between the date of publication of the data and the period to which the data refer.

General Observations

- Overall it was observed that the Latin American countries face fewer constraints in data capture than the Caribbean countries.

- Most Latin American countries are able to compile a monthly Index of Economic Activity and prepare short term forecasts based on this until quarterly GDP estimates become available.

- With respect to the fiscal indicators, some Latin American countries have adopted methodologies developed by UN ECLAC and others to perform fiscal and debt sustainability simulations based on policy decisions.

Measuring Short Term Economic Activity

Country	Indicator (s)	Compiled by	Frequency	Forecast
Honduras	Monthly Index of Economic Activity (IMAE)	Central Bank	Monthly	...
	Quarterly GDP (constant & current prices)		Quarterly	...
Guatemala	Monthly Index of Economic Activity (IMAE)	Central Bank	Monthly	
	Quarterly GDP (market prices)		Quarterly	Yes
Trinidad & Tobago	QGDP Index	Central Bank	Quarterly	No
Barbados	QGDP Index	Central Bank	Quarterly	Yes
Dominican Republic	Monthly Index of Economic Activity (IMAE)	Central Bank	Monthly	
	NBER Indicator		Quarterly	Yes

Monthly Indices of Economic Activity

Country	Indicator	Description
Argentina	EMAE	Monthly Estimate of Economic Activity
Chile	IMACEC	Monthly Indicator of Economic Activity
Mexico	IGAE	Global Indicator of Economic Activity
Peru	PIB Mensual	Monthly GDP

• Features:
- Ease of aggregation
- Dynamic
- Volume of Production
- Uses partial information (vs. GDP)
- Usually excludes service related activities

Fiscal Indicators

Country	Indicator Type	Specific Indicators
Guatemala	Fiscal Vulnerability	Sensitivity of Tax Revenue to changes in Macroeconomic Conditions Debt Structure Revenue and Expenditure variances Contingent Liabilities
Panama	Public and Private Sector Consumption	Property Tax Income tax Transfers
	Public Sector Investment	Public Sector Capital Spending
El Salvador	...	Overall and Primary Deficits Gross Tax Burden Public Investment
Nicaragua	Debt Sustainability	Debt Levels Debt Limits Primary Surplus to Stabilize Debt Sustainable Maximum Debt Level given a Primary Surplus

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- ***What?***
  - An algorithm developed to forecast economic activity in the short term (Camacho y Perez-Queiros (2010), ECLAC (2011)).

- ***Why?***
  - Shortcomings of the use of QGDP :
    - Quarterly
    - Lag in publication
    - Standard AR model forecasts based on lagged GDP tend to be subject to strong revisions
  - Monthly indicators focus on the productive sector.
  - Common factor models do not allow the use of indicators of differing frequencies (monthly & quarterly).

- ***Objective*** - *Construct an indicator of economic activity to do short term projections that*:
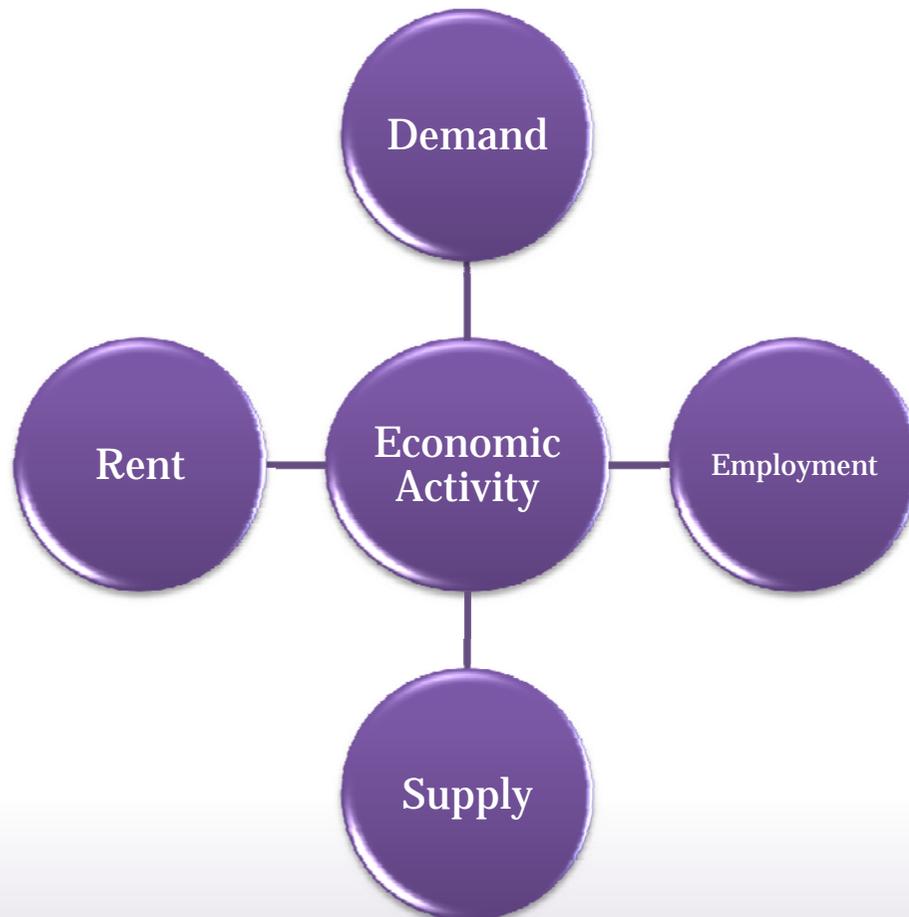 - Synthesizes information contained in various hard and soft indicators.
  - Uses most 'up-to-date' information.
  - Mimics the movement of GDP.

•Variable Selection:

–Dimension

- Possible Indicators:

Demand		
Rent	Economic Activity	Employment
	Supply	

External trade	• Imports • Exports
Indicators of Economic Activity	• Industrial Production • Retail Sales • Mineral Production
Monetary & Financial Statistics	• Business and Consumer Credit
Employment	• Social Security Contributions • Wages
Opinion Polls *(soft)*	• Business Confidence Indicator • Consumer Confidence Indicator
Public Finance	• Public Sector Debt • Revenue & Expenditure

•*Model Selection:*

  –Type

   Dynamic Factor Model

$$\begin{pmatrix} Y_t \\ Z_t \end{pmatrix} = \beta . f_t + \begin{pmatrix} \mu_t^1 \\ \mu_t^2 \end{pmatrix}$$

  –Advantages
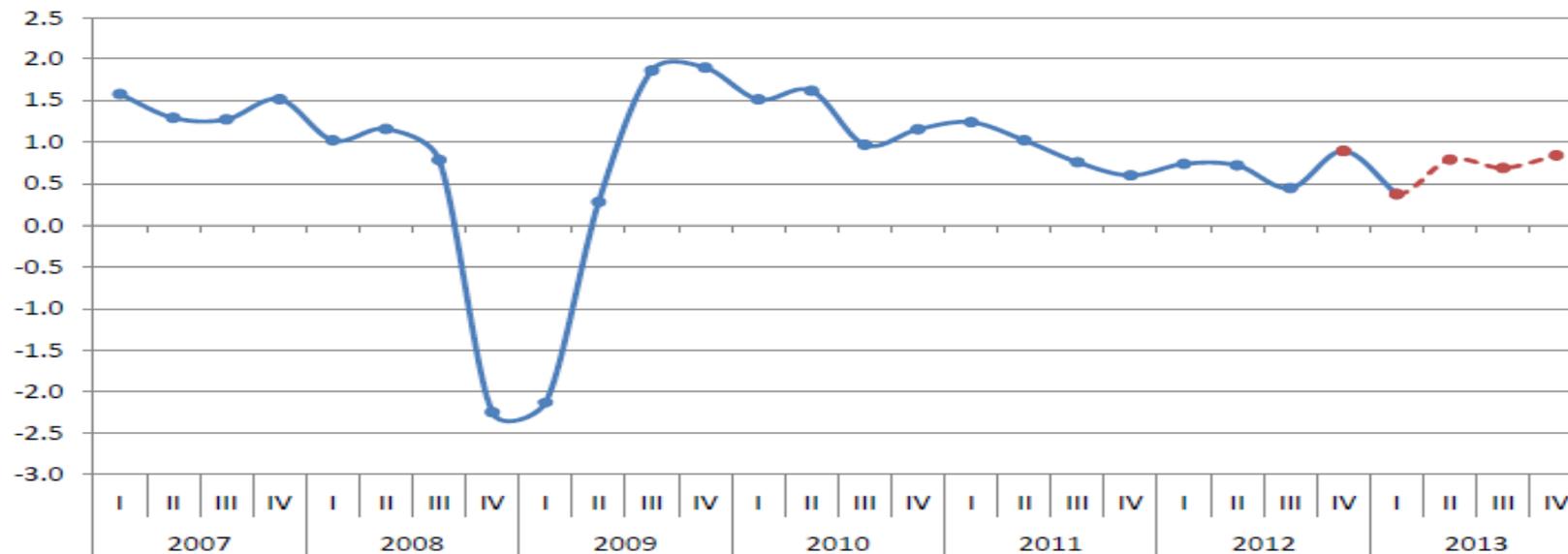
   •No loss of degrees of freedom with the use of a large number of variables.

   •Separates the trend from the irregular movements of each series.

   •Does not impose a theoretical model on the structure of the economy.

• *Sample Results – Latin America:*

4. Ejemplo: América Latina
Resultados

AMERICA LATINA: TASA DE CRECIMIENTO TRIMESTRAL DEL PIB , 2007-2013

CEPAL, DDE, Agosto 2013

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- **A summary:**
    - Uses a large amount of available information on economic activity.
    - Follows economic activity in the short-term.
    - Generates quarterly growth rates of GDP for upcoming quarters.
    - The best estimate is computed for the quarter immediately following.
    - It does not permit the measurement of the impact of distinct indicators on economic activity.

Agenda for Statistics Department

- Complete existing developmental projects – Rebasing of QGDP Index & Sentiment Surveys.
- Assess 'Nowcast' and determine its usefulness and relevance.
- *Seek Technical Assistance from ECLAC to incorporate Nowcast.*

Thank you for your attention