

Forecasting International Trade Patterns (ex-post) for India amidst Crisis

A time series approach

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November 5, 2016

Outline

Forecasting
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- Predict next 4 quarters' import demand with information available up to 4Q'07.

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- Predict next 4 quarters' import demand with information available up to 4Q'07.
 - **import data are more reliably collected** than export data since they are assessed more carefully for tariffs by customs.

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- Predict next 4 quarters' import demand with information available up to 4Q'07.
 - **import data are more reliably collected** than export data since they are assessed more carefully for tariffs by customs.
 - the **estimation of export demand requires information on world demand and world prices**, which are more difficult to obtain than national data required for estimating import demand.

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- *Firstly, OECD (Economic Outlook) and IMF (World Economic Outlook) provide the **INTERLINK** and **MULTIMOD** models respectively.*

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- *Firstly*, OECD (Economic Outlook) and IMF (World Economic Outlook) provide the **INTERLINK** and **MULTIMOD** models respectively.
 - these identify structural economic problems and possible policy responses.

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- *Firstly*, OECD (Economic Outlook) and IMF (World Economic Outlook) provide the **INTERLINK** and **MULTIMOD** models respectively.
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 - the primary purpose of these models isn't producing forecasts (IMF 2003; Rae and Turner, 2001: 4).

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- **∴ modelling structure** and the need for **consistency** dictates the forecasts.

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- **∴ modelling structure** and the need for **consistency** dictates the forecasts.
 - perhaps if model restrictions were relaxed, more useful predictions might result.

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 - the primary purpose of these models isn't producing forecasts (IMF 2003; Rae and Turner, 2001: 4).
- **∴ modelling structure** and the need for **consistency** dictates the forecasts.
 - perhaps if model restrictions were relaxed, more useful predictions might result.
- *Secondly*, both OECD and the IMF rely on 'expert judgement' in making predictions.
 - Dreher et al. (2008) demonstrate that there may be a substantial degree of intransparency because forecasts may be politically motivated.

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- The data has been queried from the **OECD Quarterly National Accounts (QNA)** statistics, where the tables give both annual and quarterly data for all the OECD member countries and some other major economies.

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- The data has been queried from the **OECD Quarterly National Accounts (QNA)** statistics, where the tables give both annual and quarterly data for all the OECD member countries and some other major economies.
- This will be a **seasonally adjusted quarterly time series** of measures at fixed constant prices (at the national base year).

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- This will be a **seasonally adjusted quarterly time series** of measures at fixed constant prices (at the national base year).
- The key variables being looked at are import demand, private consumption, gross fixed capital formation, oil prices and government spending.

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- Use time series models relying on historical relationships and key influencing factors.

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- Use time series models relying on historical relationships and key influencing factors.
 - **Univariate Models:** ARIMA(p,1,0) models.

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- Use time series models relying on historical relationships and key influencing factors.
 - **Univariate Models:** ARIMA(p,1,0) models.
 - **Multivariate Models:** ADL(p,q) & VAR models.

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- Use time series models relying on historical relationships and key influencing factors.
 - **Univariate Models:** ARIMA(p,1,0) models.
 - **Multivariate Models:** ADL(p,q) & VAR models.
 - **GARCH Effects:** Tests for volatility clustering.

References I



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