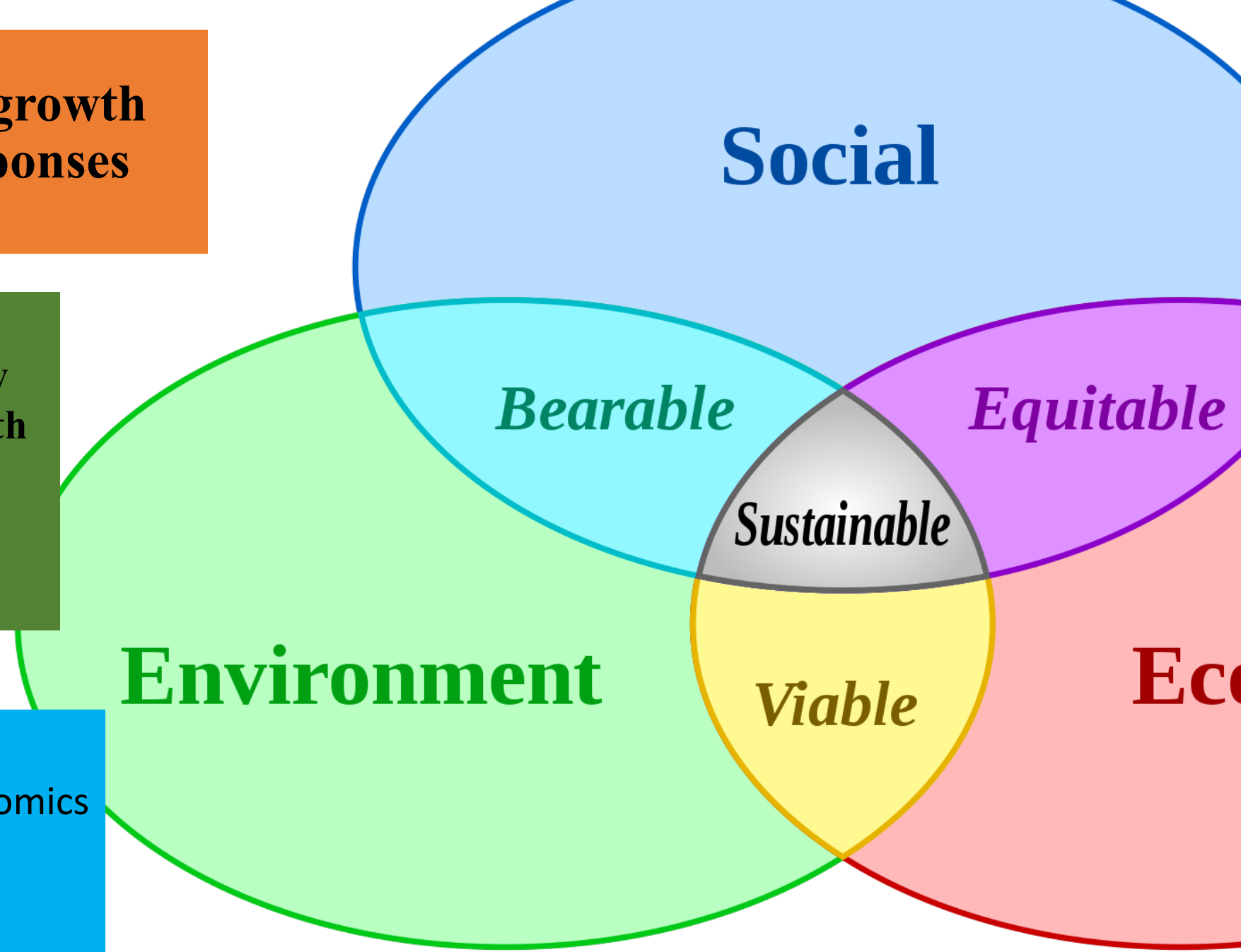


**Tourism and economic growth linkages: Economic responses and recovery in Fiji**

**Pacific Update  
Australian National University  
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# Introduction and Analysis

## Why Tourism as an Export Sector is important?

### TOURISM and ECONOMIC GROWTH CAUSALITY LINKAGES:

- Tourism Growth → Economic Growth (Uni-directional)
- Economic Growth → Tourism Growth (Uni-directional)
- Tourism Growth ↔ Economic Growth (Bi-directional)

## Analyse Tourism Sector Contributions to Fiji's Economy

### Tourism and economic growth linkages in Fiji examine

- Time-varying scenario examines various irregularities political instabilities, GFC, climatic disasters and COVID-19 crisis on tourism and economic growth, based on monthly data from 1992M01 to 2020M02
- Estimate the magnitude of impact levels.
- Contribution To and From in tourism-led economic growth (TLEG) and economic-driven tourism growth (EDTG).

## Economic Responses and Path to Recovery

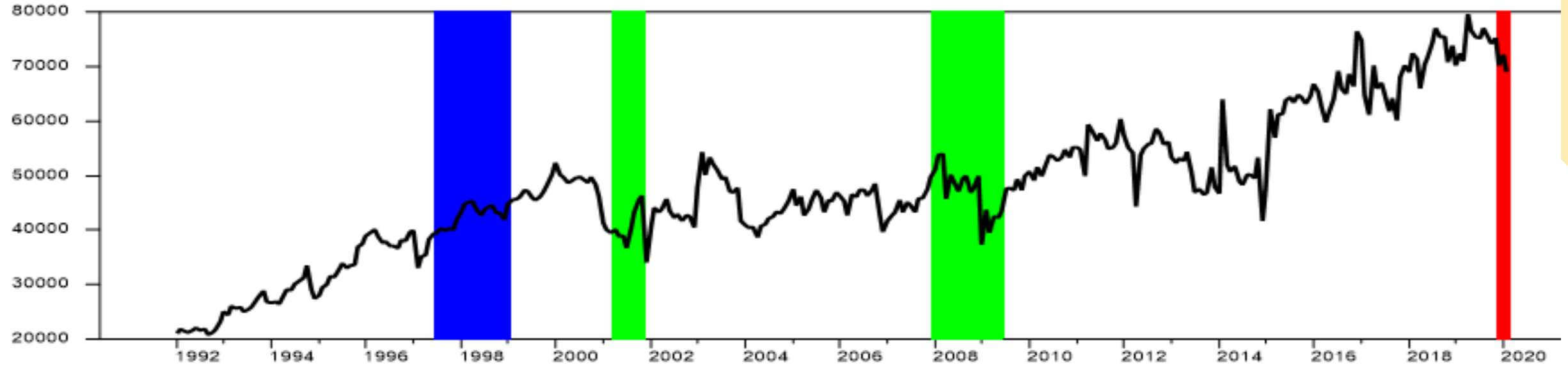
## Literature Review: Tourism and Economic Growth Linkages

Author	Country	Methodology	Findings
Gunduz & Hatemi (2005)	Turkey	Leveraged bootstrap causality	- Tourism-led growth (TLG)
Chen & Chiou-Wei, (2009)	Taiwan, South Korea	EGARCH, Cointegration	- TLG in Taiwan; - TLG & Economic Driven Tourism Growth (EDTG) in South Korea (Bi-directional)
Akinboade & Braimoh (2010)	South African countries	Granger Causality	- TLG
Narayan (2004) Narayan, Narayan, Prasad & Prasad (2012)	Fiji Pacific Island Countries	Granger Causality Granger Causality [Annual data]	TLG Panel Data Analysis
Tang, & Abosedra (2014)	Lebanon	ECM	- TLG
Antonakakis, Dragouni & Filis (2015)	10 European countries	VAR, Causality, Spillover index	- TLG in Italy, Netherlands - EDTG in Cyprus, Germany, Greece - Reciprocal in Austria, Portugal, Spain - None in Sweden and UK
Kumar, Kumar, Patel & Stauvermann (2019)	Fiji	ARDL (Annual data)	Economic growth to tourism (uni-directional)
Nunkoo, Seetanah, Jaffur, Moraghen & Sannasse (2020)	113 Countries based on 545 estimates	Meta-regression analysis	TLEG but estimates are sensitive to the factors related to country data

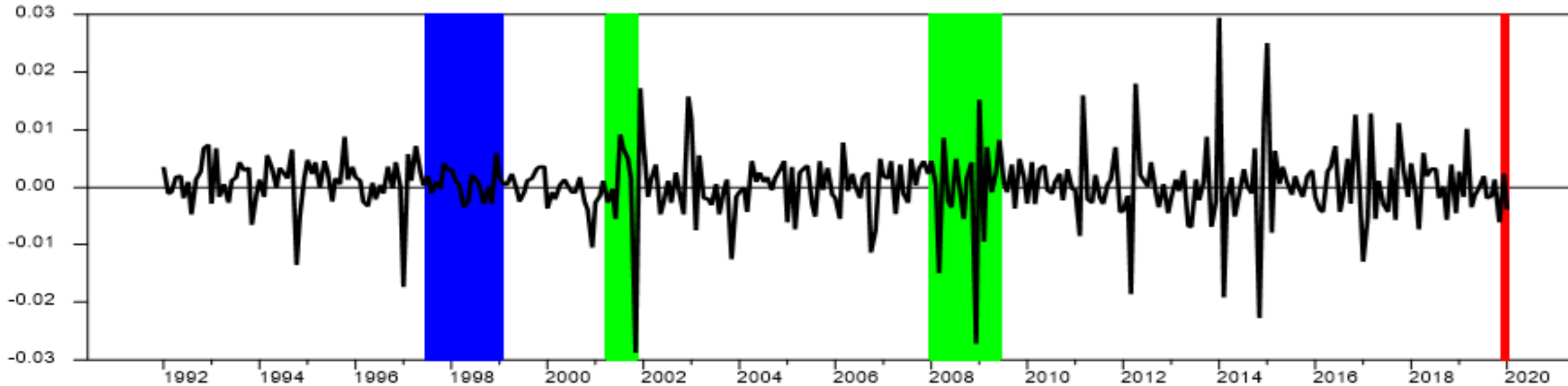
## Tourism-SDGs Related Goals: Private Sector Development



Number of International Tourist Arrivals, Fiji, 1992M01 to 2020M02



Growth Rate in International Tourist Arrivals, Fiji, 1992M01 to 2020M02



## SDGs 8: Decent Work and Economic Growth

- **Tourism plays a crucial role in enhancing growth in Fiji**
  - Source of employment, entrepreneurial activities, and foreign exchange earnings.
  - Tourism industry's supply and value chain are becoming increasingly essential to:
    - Tourism contribution through local supply, and
    - Decent work opportunities through tourism's value chain
- **National Planning Strategies**
  - Mobilizing national resources towards strategic development
  - Capitalize on economic opportunities and create prosperity (Ministry of Economy, 2017)
  - Gains from Tourism Trade: Productivity - as the largest contributor to Gross Domestic Product (Republic of Fiji, 2021)

### Further Growth Impetus:

- Focus on Transport and storage sector, accommodation and food services sectors.
- Strengthen long-run values through local production and links with manufacturing sector
- Higher levels of investment
- Value chains

# Examine Tourism Growth and Economic Growth: Data, Methodology and Models

**Data:** Seasonally adjusted **monthly data 1992M01 to 2020M02**, used Census X-12-ARIMA procedure to **remove seasonal pattern of distortion**.

**Methodology:** A generalised VAR-based spillover framework is applied to evaluate the causality between these two factors.

$$y_t = \sum_{i=1}^q B_i y_{t-1} + \varepsilon_t$$

- Granger causality: Tourism-Economic Growth - magnitude and direction (contribution to and from) in Tourism-Led Economic Growth (TLEG) and Economic-driven tourism growth (EDTG).
- Spillover Index Approach (Diebold & Yilmaz, 2012).

**Estimate:** Total, directional and net spillovers using generalised forecast error variance decomposition of moving average representation of the VAR model.

## (1) Total Spillover Index:

$$TS(H) = \frac{\sum_{i,j=1, i \neq j}^N \tilde{\theta}_{ij}(H)}{\sum_{i,j=1}^N \tilde{\theta}_{ij}(H)} \times 100 = \frac{\sum_{i,j=1, i \neq j}^N \tilde{\theta}_{ij}(H)}{N} \times 100$$

## (2) Directional Spillover Index:

$$DS_{i \leftarrow j}(H) = \frac{\sum_{i,j=1, i \neq j}^N \tilde{\theta}_{ij}(H)}{\sum_{i,j=1}^N \tilde{\theta}_{ij}(H)} \times 100 = \frac{\sum_{i,j=1, i \neq j}^N \tilde{\theta}_{ij}(H)}{N} \times 100 \text{ and } DS_{i \rightarrow j}(H) = \frac{\sum_{i,j=1, i \neq j}^N \tilde{\theta}_{ij}(H)}{\sum_{i,j=1}^N \tilde{\theta}_{ij}(H)} \times 100 = \frac{\sum_{i,j=1, i \neq j}^N \tilde{\theta}_{ij}(H)}{N} \times 100$$

## (3) Net Spillover Index:

$$NS_i(H) = DS_{i \rightarrow j}(H) - DS_{i \leftarrow j}(H)$$

NS is calculated from variable  $i$  to variable  $j$  and vice versa, to indicate whether tourism growth (or economic growth) is the net transmitter of spillovers in net terms.

- Advent of major events: Political instability in the 1990s; 1997 AFC, 2007-08 GFC, Covid-19 impact.
- Rolling window spillovers estimates are used for a 48-month rolling windows and structural breaks in VAR equation are tested (Bai et al., 1998).

# Granger Causality and Total Spillovers, Tourism & Economic Growth Static Results

## Granger Causality Results: Fiji



**Table Spillover Results: IP and International Tourist Arrivals**

	Fiji	
	IP	TA
<b>Industrial Production</b>	95.7	4.3
<b>Tourist Arrivals</b>	0.6	99.4
<b>Contr. TO OTHERS</b>	0.6	4.3
<b>Contr. Incl. own</b>	96.3	103.7
<b>Net spillovers</b>	-3.7	3.7
<b>Total spillover index:</b>	2.45%	

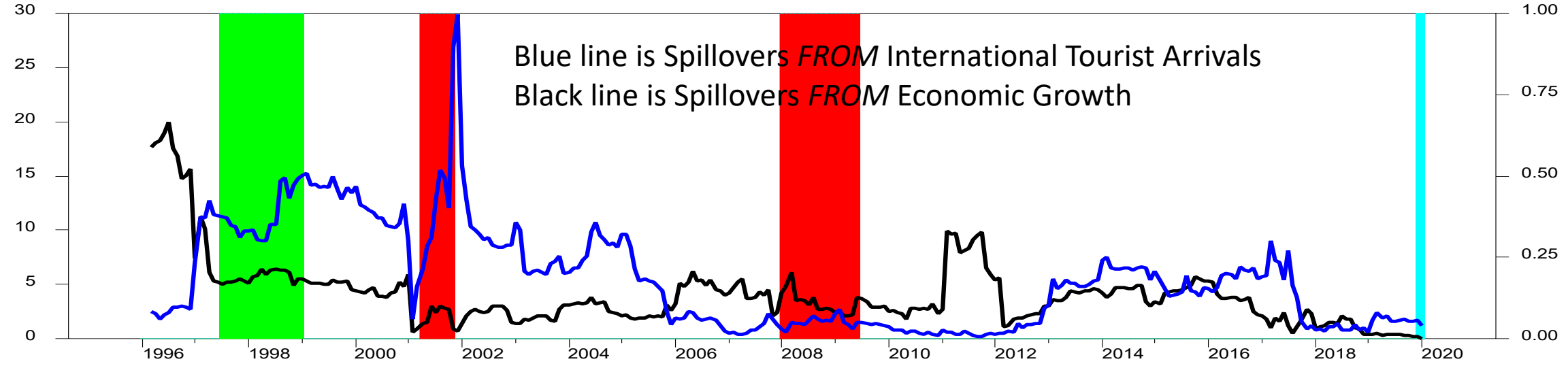
**A Positive values suggests that a particular series is a net transmitter of shocks.**

**A Negative values suggests that a particular series is a net receiver of shocks.**

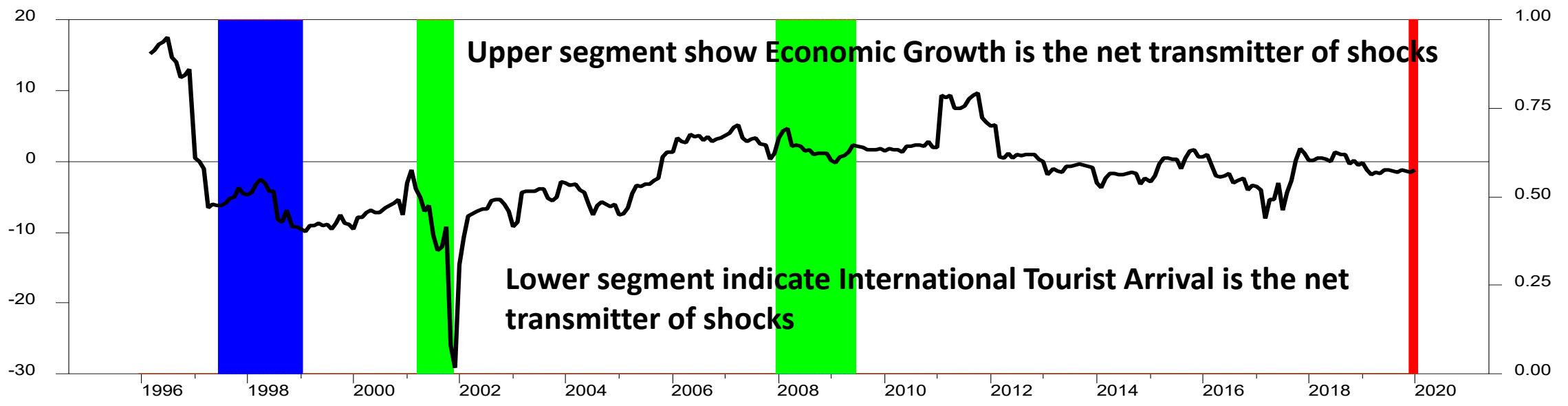
**Total spillover index shows the average value contribution of 2.45% across the whole sample period 1992M01 to 2020M02**

# Directional and Net Spillover Dynamic Results, Fiji

## Directional Spillover



## Net Spillover



Note: 1990-1998 is Political crisis period, 1997 is Asian Financial crisis, 2001 US Recession, 2007-08 GFC, and Red shade is 2020 Covid-19 impact.



## Findings and Implications

- Net spillover results: overwhelming support in favour of Tourism-led Economic Growth (net transmitter of shocks)
  - Tourism is Fiji's main revenue earner (38% of GDP) and supports over 118,000 jobs.
  - Local supply chain - flow-on benefits to Agriculture, Manufacturing, Building and Construction, Cultural industries, and other Services sectors.
- Tourism sector's vulnerability due to both domestic and external shocks from:
  - Political instability, 2001 US Recession, 2007-2008 GFC, Climatic disasters (Cyclones, Flooding), COVID-19.
    - Economics challenges due to decline in tourist arrivals and its associated activities that significantly **lowered Tourism-led Economic Growth over time.**
    - Though large hotels acts as anchor investments, bulk of the services are provided by MSMEs that depend on tourism as a major source of income.
    - Impact of COVID-19 on MSMEs – 50% of tourism business hibernated or fully closed and 35% were active with reduced staff.
- Tourism sector's linkages require other sectors and industries along with its vast value chain that can accelerate towards progress:
  - SDGs 8 (Decent Work), SDG 9 (Industry Innovation & Infrastructure), and SDG 10 (Reduce Inequalities).
  - Focus on a renewed push for financing the economy and creating sustainable development.

# Fiji's Economic Responses and Recovery

Macroeconomic impact of COVID-19 on Fiji's GDP growth rate indicate a decline by 19% in 2020.

## Economic Responses

- Since opening the border in December 2021, tourism promotion began with the **external media promotions and the May 2022 Tourism Expo**.
- Economic and labour activities require industries policies through value-added strategies
  - For a viable and sustainable tourism sector
- A uni-directional causality for TLEG requires specific production process and human capital, and growth-oriented policies to enhance capital formation and infrastructure development.
  - In a time-varying spillovers scenario, fulfil its development goals of TLED and EDTG to foster sustainable linkages to the external business sectors.
- Strategy, Response and Recovery Actions: Fiscal and Monetary responses
  - Government layout - resources; industries and MSMEs.
  - Provision of training, building initiatives and entrepreneurial skills.
  - Investments in niche products and resources.
  - Development agencies and donors: package to speed recovery, private sector in sustainable employment.

# Fiji's Economic Responses and Recovery

## Development of innovations and new business models for tourism growth within the spheres of SDGs

### Right Policy Mix-Employment-led growth approach

#### Fiji's National Development Plans:

- 1) Investment resources to promote tourism, pertinent to achieve the SDG targets.
- 2) Improve competitiveness,
- 3) Enhance employment creation

#### **Implementation of Policies through:**

- Aid for trade for the 2030 Agenda
- Strategic promotion and expansion of tourism
- Increase tourism-productivity linkages
- Stability of various factors
- Outcomes: Improved Businesses – use of information technology, digitalization, promote environmental sustainability.
- **Recovery Plan Policies:** Investments in backward-forward sector linkages for sustainable tourism-led growth approach.

## Conclusion

- Tourism-economic growth relationship varies in magnitude and direction over time
  - Political instability, AFC, GFC and the pandemic impacted severely on International Tourist Arrivals and economic growth.
  - Net spillovers seen from tourism growth is larger in the 2012-2016 period.
  - Time-varying effects based on several adverse effects over time.
- Sustainability of Tourism sector is crucial to enhance employment and tourism business investment.
- Private sector tourism industries and spheres of SDGs 8, 9, and 12:
  - To achieve a number of targets within the SDGs to improve policy outcomes.
- Enhance tourism development to meet Decent Job (SDG8) & 2030 Agenda
  - Urgent focus: MSMEs development, investment, improve national skills development for inclusive growth, outer island tourism, and sustained productivity.
  - Assistance in the Informal sector, collection of data for policies.
  - Reduce inequalities – schemes that provide resources to one and all.
  - Foreign aid and tourism sector development (International Collaboration SDG17).

***THANK YOU***

