

## ECONOMIC IMPACT ASSESSMENT: FINANCIAL SERVICES SECTOR IN MAURITIUS

**APRIL 2025** 

## MINISTRY OF FINANCIAL SERVICES AND ECONOMIC PLANNING

IN COLLABORATION WITH

# THE UNIVERSITY OF MAURITIUS

Ву

Verena Tandrayen-Ragoobur and Boopen Seetanah (University of Mauritius)

The views expressed in this report are solely those of the Consultants and not the University of Mauritius

## **EXECUTIVE SUMMARY**

The financial services sector in Mauritius has been a cornerstone of the country's economic development, contributing significantly to GDP and driving employment opportunities. Over the years, this sector has evolved into a diversified hub, encompassing a wide range of activities such as banking, insurance, pension funds, and investment services. Its role has been pivotal in enhancing Mauritius' position as a regional financial centre, attracting international businesses and investors while supporting the domestic economy through vital services to households and firms. This sector accounts for around 14% of Mauritius' Gross Value Added (GVA) and has been growing at a rate of 4.3% in 2023. This Economic Impact Assessment aims to evaluate the contributions of the financial services sector to the Mauritian economy. More specifically, the purpose of the report is to undertake an economic impact assessment of the financial services sector in Mauritius by estimating the direct, indirect, induced, and catalytic effects of the sector on economic output, employment, and other economic indicators.

The study employs a mix of quantitative (including Input/Output Analysis, Survey and Regression Analysis) and qualitative methods (Interviews) to model the complex links and impacts of the sector on the economy at multiple levels. The main findings are summarized below.

#### **Direct Effect**

- The contribution of financial and insurance activities to the Gross Value Added (GVA)has increased from 10.4% in 2006 to a peak of 14.1% in 2020, before stabilizing at 13.8% in 2023
- Time Series econometric analysis over the period 1998-2023 confirms an output elasticity of the financial services sector (FSS) of 0.17 (a measure of the output elasticity). This implies that a 1% increase in the sector is likely to bring an increase in the output level (economic growth) by 0.17%. This is at par with studies undertaken for a sample of emerging economies.
- There is a clear long-term upward trend in employment within the financial services sector. From 11,400 employees in 2011, the sector's employment increased steadily to 19,745 by 2023 (Statistics Mauritius, 2023). This figure, when taking into account small establishments, is likely to rise to over 19,745. This indicates robust growth and a sustained increase in job opportunities within the sector over the past three decades
- The total corporate tax paid by the sector has seen a robust increase, rising from Rs 4,290 million in 2010 to Rs 15,399 million in 2023, reflecting a substantial expansion in the financial services industry's tax contributions over this period.
- From 2010 to 2023, there is a clear upward trend in the total PAYE contributions across all sectors, increasing from Rs 904 million in 2010 to Rs 4,341 million in 2022/23.
- The total corporate tax revenue collected by the government was Rs 22,583 million. Of this, the financial services sector contributed Rs 15,399 million. This substantial amount represents 68.2% of the total corporate tax revenue, highlighting the sector's dominant role in corporate taxation
- The total PAYE contributions for all sectors amounted to Rs 12,756 million. The financial services sector contributed Rs 4,341 million, which is approximately 34% of the PAYE revenue.

#### Indirect Effects

- The I/O Analysis points out to a Simple Multiplier effect (Type 1) of 1.53, suggesting that every Rs1 of financial services produced will yield an additional Rs 0.53 of output from other sectors, representing the indirect sector (through the supply chain).

- Using the Census of Economic Activity (2018) coefficients obtained from Statistics Mauritius (largely validated by our numerous surveys/interviews with stakeholders), the indirect employment was estimated at 10659 (measured conservatively). Thus, the Indirect effect represents over 54% of direct employment. The direct and Indirect employment thus sum up to 30404 (10659+19745) or 5,3% of the total employment of the country. The employment multiplier is estimated at 1.54 (Type 1).

#### Induced effects

- The induced effects (based on the average income of employees of the sector in 2023), based on our conservative estimates, stood at Rs 19.6 billion. This represents 25% of the direct contribution of the sector to GVA
- The total effect, i.e., Direct, Indirect and Induced sums up to an approximate amount of Rs 140,544m, implying a total multiplier effect of 1.77 for the sector. Thus, the real contribution of the sector can be estimated to be 24.8% (i.e. 14\*1.74).
- Induced employment effect (based on the survey undertaken with employees of the sector) indicates an additional employment creation of at least 6450 (representing around 33% of direct employment).
- Total employment is estimated at around 36,854, which is 6.3% of the national employment. The multiplier effect, taking into account both indirect and induced employment is thus estimated at 1.9 (total multiplier)

#### Catalytic effects

- Data collected shows the increasing contribution of the FSS in Corporate Social Responsibly (CSR) and reflects their support to the wider Mauritian community (to the tune of over Rs 1.5 billion).
- In addition, the special levy on Banks (over Rs 1 billion) also plays a crucial role in supporting key government actions, particularly towards the consolidation and enhancement of the welfare economy.
- Contribution of the Financial Services Commission surplus to the Consolidated funds, with over Rs 13 billion till date added to the government revenue for supporting key actions.
- Catalytic effects are also in form of Training and Education and based on consolidated figure reported by the FSC in its statistical bulletins and from latest annual reports of major banks on the island, external training for the sector amounts to over Rs 260 million rupees in 2022.
- Firm surveys and interviews of main stakeholders of the sector tend to confirm at least 700 work placements/traineeships are offered to Mauritians on a yearly basis.

## CONTENTS

| 1      | . INTRODUCTION  | 9              |
|--------|---|----------------|
|        | 1.1 The Mauritian Growth Strategy   | 9              |
|        | 1.2 Contribution of the Financial Services Sector to the Mauritian Economy                            | 10             |
|        | 1.3 Evolution of the Financial Services Sector in Mauritius   | 11             |
|        | 1.4 Purpose of the Report   | 12             |
| 2<br>S | 2. THE MULTI-DIMENSIONAL RIPPLE EFFECTS OF THE MAURITIUS FINANCIAL SI<br>SECTOR- CONCEPTUAL FRAMEWORK | <b>ERVICES</b> |
| 3      | B. THE METHODOLOGICAL APPROACH  | 13             |
| 4      | I. DIRECT EFFECTS   | 15             |
|        | 4.1 Contribution to Gross Value Added (GVA)   | 15             |
|        | 4.1.1 Macroeconomic Analysis  | 15             |
|        | 4.1.2 Regression Analysis – Output Elasticity of the Financial Services Sector                        | 17             |
|        | 4.2 Employment  | 21             |
|        | 4.3 Tax Revenue   | 22             |
|        | 4.3.1 Corporate Tax Inclusive of Corporate Social Responsibility (CSR)                                | 22             |
|        | 4.3.2 PAYE - (Pay As You Earn)  | 23             |
|        | 4.3.3 Total Revenue Share of The Financial Services Sector In 2021/2022                               | 24             |
| 5      | 5. INDIRECT EFFECTS   | 25             |
|        | 5.1 Input Output Analysis   | 25             |
|        | 5.2 Indirect Effect on Employment   | 26             |
| 6      | <b>INDUCED EFFECTS</b>  | 27             |
|        | 6.1 Consumption-Induced Effects   | 27             |
|        | 6.2 Employment-Induced Effects  | 29             |
| 7      | CATALYTIC EFFECTS   | 30             |
| 8      | B REFERENCES  | 32             |
| 9      | APPENDIX  | 35             |

## Acknowledgment

We would like to thank the Ministry of Financial Services and Economic Planning for entrusting us with the preparation of this Economic Impact Assessment of the Financial Services Sector in Mauritius. Their guidance and support have been invaluable throughout this study.

We would also like to express our appreciation to the staff of the Ministry of Financial Services and Economic Planning, Mauritius Finance, the Financial Services Commission (FSC), and the Bank of Mauritius (BoM) for their valuable insights and contributions. Special thanks go to Statistics Mauritius and the Mauritius Revenue Authority (MRA) for providing key data that has been instrumental in our analysis.

Our deepest gratitude goes to the various stakeholders who participated in the Validation Workshop, whose feedback and recommendations helped refine our findings. We are also grateful to the academic referees for their critical review and constructive comments, which have strengthened the quality of this report.

Additionally, we acknowledge the participation of employers and employees from the financial services sector who took the time to respond to our survey. Their input has been crucial in shaping our understanding of the sector's dynamics and economic impact. Finally, we extend our appreciation to all individuals and organizations who, in one way or another, contributed to the successful completion of this report.

## **List of Abbreviations**

- ARCH-Autoregressive Conditional Heteroskedasticity
- BOM Bank of Mauritius
- CUSUM: Cumulative Sum
- CSR Corporate Social Responsibility
- FIU Financial Intelligence Unit
- FRC Financial Reporting Council
- FSC Financial Services Commission
- FSPA Financial Services Promotion Authority
- FSS- Financial Services Sector
- GB Global Business
- GDP- Gross Domestic Product
- GER Gross enrolment ratio
- GVA- Gross Value Added
- HBS Household Budget Survey
- ICT Information and Communications Technology
- I/O Input-Output
- MCs Management Companies
- MOBAA Mauritius Offshore Business Activities Act
- MRA Mauritius Revenue Authority
- PAYE Pay As You Earn
- SEM Stock Exchange of Mauritius
- SM Statistics Mauritius

## **List of Figures**

Figure 1: Evolution of the Mauritian Economy: 1968-2023

- Figure 2: Evolution of the Financial Services Sector in Mauritius- Important Milestones
- Figure 3: Key Economic Effects of the Financial Services Sector in Mauritius
- Figure 4: Methodological Approach
- Figure 5: Direct Effects of the Financial Services Sector
- Figure 6: GVA Contribution of the Financial Services Sector, 2006-2023
- Figure 7: Global Business Share in the Economy as a % of GVA and Growth Rate, 1998-2023
- Figure 8: Productivity Trends of the Financial Services Sector, 2012-2023
- Figure 9: Employment in the Financial Services Sector 2011-2023
- Figure 10: Total Corporate Tax Contribution of the Financial Services Sector 2010-2023
- Figure 11: Total PAYE Contribution of the Financial Services Sector 2010-2023
- Figure 12: Consumption and Employment Induced Effects of the Financial Services Sector
- Figure 13: Total GVA Contribution of the Financial Services Sector
- Figure 14: Total Employment Effects of the Financial Services Sector
- Figure 15: CSR and Special Levy on Banks, 2010-2023

## **List of Tables**

Table 1: The Financial Services Sector's Gross Value Added (GVA) Contribution – 2020-2023

- Table 2: Data Description
- Table 3: Long-run Estimates
- Table 4: Comparative table of Estimated Output elasticity of Financial Services Development
- Table 5: Financial Sector's Contribution in Total Tax Revenue -2021/2022
- Table 6: Share of FSS PAYE and Corporate Tax to Total PAYE and Corporate Tax (%)
- Table 7: Comparative Total Multipliers from Other Studies
- Table 8: Contribution to the Consolidated Fund (by FSC)
- Table 9: CSG contribution of the FSS sector (Rs Millions)
- Table A1 Direct Employment by licensed activity (FSC Licensees)
- Table A2: Number of Bank Employees (BoM Licensees)

## **Economic Impact Assessment: Financial Services Sector in Mauritius**

## **1. INTRODUCTION**

The financial services sector in Mauritius has been a cornerstone of the country's economic development, contributing significantly to GDP and driving employment opportunities. Over the years, this sector has evolved into a diversified hub, encompassing a wide range of activities such as banking, insurance, pension funds, and investment services. Its role has been pivotal in enhancing Mauritius' position as a regional financial centre, attracting international businesses and investors while supporting the domestic economy through vital services to households and firms. This Economic Impact Assessment aims to evaluate the contributions of the financial services sector to the Mauritian economy. Through detailed analysis, the report highlights the sector's evolution over time and its performance and multi-dimensional contribution to the economy.

#### 1.1 The Mauritian Growth Strategy

Mauritius has engaged in a strong growth-oriented developmental path, undergoing a striking economic transformation from a low-income country (with a per head gross national income of just US\$ 320 in 1970), mainly based on agriculture (particularly sugar), to a relatively diversified economy (see Figure 1).



#### Figure 1: Evolution of the Mauritian Economy: 1968-2023

Source: Consultants' Compilation – Statistics Mauritius, 2024

Overall, the country's economy is driven by the services sector (which accounts for around two-thirds of gross domestic product (GDP)), with tourism and financial services being the most vital sectors. In recent decades the island has also consolidated its industrial and information and communications technology (ICT) sectors, embracing the digital economy transformation. It has also promoted new growth sectors such as the ocean (or 'blue') economy, renewable energy, outsourcing and medicine and expanding existing sectors namely the financial services sector, creating new employment opportunities. With a gross domestic product of US\$11,416 per capita in 2023, the Mauritian economy has proven quite resilient to global economic shocks, including those stemming from the COVID-19 pandemic and the war in Ukraine. GDP growth rebounded by a relatively modest 3.4% in 2021 and accelerated to 8.3% in 2022 and around 7.0% in 2023 and forecasted at 6.5% in 2024 as economic activities gradually return to normal (Statistics Mauritius, 2024).

#### 1.2 Contribution of the Financial Services Sector to the Mauritian Economy

Within the Mauritius development strategy, the financial services sector is a significant contributor to the country's economic growth. The sector is diverse and includes a range of activities from banking, insurance, asset management, fund administration to capital market services. The sector is home to several international banks, legal firms, corporate services, investment funds and private equity funds. With its modern and innovative infrastructural and legal framework and ease of doing business regime, the Mauritius financial services sector offers several competitive financial products and services, including private banking, global business, insurance and reinsurance, limited companies, protected cell companies, trust and foundation, investment banking, global headquarter administration, amongst others. The financial services sector accounts for around 14% of Mauritius' Gross Value Added (GVA) and has been growing at a rate of 4.3% in 2023 (see Table 1 below). The contribution of the different sub-sectors of the financial services sector to GVC from 2020 to 2023 is presented in Table 1 below.

|   | 20             | 20             | 2021           |                | 2022        |                | 2023                   |                |
|---|----------------|----------------|----------------|----------------|-------------|----------------|------------------------|----------------|
| Percentage (%)                                    | Cont to<br>GVA | Growth<br>Rate | Cont to<br>GVA | Growth<br>Rate | Cont to GDP | Growth<br>Rate | Contribution to<br>GVA | Growth<br>Rate |
| Financial and<br>Insurance Activities             | 14.1           | 4.0            | 13.9           | 4.2            | 13.5        | 4.2            | 14.0                   | 4.3            |
| Monetary<br>Intermediation                        | 7.5            | 0.9            | 7.1            | 4.2            | 7.0         | 4.5            | 7.7                    | 4.9            |
| Financial Leasing<br>and Other Credit<br>Granting | 0.7            | 1.2            | 0.6            | 1.3            | 0.6         | 4.5            | 0.7                    | 3.5            |
| Insurance,<br>Reinsurance and<br>Pension          | 2.3            | 2.4            | 2.3            | 3.1            | 2.1         | 4.1            | 1.9                    | 4.8            |
| Other   | 3.5            | 15.0           | 3.9            | 5.3            | 3.8         | 3.8            | 3.7                    | 3.0            |
| Global Business*                                  | 8.2            | -3.6           | 8.6            | 6.8            | 8.4         | 3.3            | 8.2                    | 3.9            |

| Table 1: The Financial Services | Sector's Gross Value Added | d (GVA) Contribution – | - 2020-2023 |
|---------------------------------|----------------------------|------------------------|-------------|
|                                 |                            |                        |             |

Source: Statistics Mauritius - National Accounts – Different issues till \*September 2024 Issue

\*Note: The Global Business Sector includes activities of GBCs and services purchased by GBCs from local enterprises (e.g., management, accounting, auditing, legal, advertising, real estate, banking, etc.). Source: FSC, Mauritius.

#### 1.3 Evolution of the Financial Services Sector in Mauritius

In the 2000s, with the changing international landscape, Mauritius embarked on a transformation period with the view of establishing a more stable and reputable financial centre. In 2001, the Mauritius Offshore Business Activities Act (MOBAA) was repealed and replaced by the Financial Services Development Act. Subsequently, in the same year, the Financial Services Commission (FSC) was set up to replace MOBAA, to regulate and supervise all non-banking financial services, and the Financial Services Promotion Authority (FSPA) was instituted to promote the non-banking financial services sector. In the subsequent years, this new momentum led to the creation of the Financial Intelligence Unit (FIU), the Financial Reporting Council (FRC), the introduction of new legislation on companies, securities, banking, insurance, insolvency, and anti-money laundering, and the issuance of a corporate governance code. In 2004, the Bank of Mauritius Act 1966 was repealed with the enactment of a new Bank of Mauritius Act. In 2005, a new banking legislation was implemented which integrated domestic and international activities, thereby removing the distinction with regard to banking licences pertaining to offshore and/or domestic activities. Furthermore, the Financial Services Act, adopted in 2007 and refined in 2010, simplified the regulatory regime of the global business sector by distinguishing between Mauritian companies conducting business in Mauritius (domestic companies) and those conducting business outside Mauritius. In 2014, the Ministry of Financial Services and Good Governance was created with the aim of providing a new impetus to the financial services sector which is a key sector of our economy and has a huge potential for growth. Besides the promotion of financial services, this Ministry provides guidance and support for the enforcement of good governance practices to eradicate fraud, corruption, malpractices and irregularities. The Government has since then embarked on a strategy to further graduate Mauritius as a full-fledged International Financial Centre.



#### Figure 2: Evolution of the Financial Services Sector in Mauritius- Important Milestones

Source: Consultants' Compilation, 2024

#### 1.4 Purpose of the Report

The purpose of the report is to undertake an economic impact assessment of the financial services sector in Mauritius by estimating the direct, indirect, induced, and catalytic effects of the sector on economic output, employment, and other economic indicators. The direct, indirect, induced, and catalytic effects are presented in Figure 3 below.

Figure 3: Key Economic Effects of the Financial Services Sector in Mauritius

| Direct    | <ul> <li>The immediate and measurable impacts resulting from the activities of the financial sector</li> <li>The direct effects are: Investment, employment creation, increased production and output and revenue generation</li> </ul> |
|-----------|---|
| Indirect  | <ul> <li>Occur from activities of suppliers and business that provide goods and services to the financial services sector</li> <li>Indirect effects that occur when the sector's demand creates additional economic activity</li> </ul> |
|           |   |
| Induced   | <ul> <li>Arise when employees in the financial services sector and its suppliers spend their wages on goods and services.</li> <li>This spending stimulates further economic activity in the broader economy.</li> </ul>                |
|           |   |
| Catalytic | •Long-term effects that the financial services sector has on the economy by enabling or facilitating growth in other sectors  |

Source: Consultants' Compilation, 2024

## 2. THE MULTI-DIMENSIONAL RIPPLE EFFECTS OF THE MAURITIUS FINANCIAL SERVICES SECTOR- CONCEPTUAL FRAMEWORK

The **direct effects** of the financial services sector can be measured by its contribution to GDP, sectorspecific revenue (tax revenue) and employment. The direct effects of financial services on the economy are the immediate and measurable impacts resulting from the activities of the financial sector. The direct effects are -investment, job creation, increased production and output and revenue generation.

**Indirect effects** are the secondary impacts resulting from interactions between the financial services sector and other sectors of the economy. The indirect effects trace supply chain activities. These effects are not immediate but occur as a consequence of changes in demand, supply chains, or investment patterns. For instance, the growth of the financial services sector in Mauritius leads to increased demand for legal and consultancy services. Law firms and consulting companies may experience a surge in business as they provide services such as contract drafting, regulatory compliance, and financial advisory to financial institutions. This increased demand indirectly contributes to economic growth by creating employment opportunities and generating revenue in the auxiliary sectors.

The induced effects are the changes in economic activity resulting from changes in household income, consumption patterns, and investment decisions triggered by the activities of the financial services sector. These effects are driven by changes in spending behaviour and can have a multiplier effect on economic growth. For example, employees working in the financial services sector receive higher wages due to increased profitability in the industry. With their increased income, these employees spend more on goods and services, such as housing, transportation, education, and leisure activities. This increased consumer spending stimulates demand in various sectors of the economy, leading to additional hiring, increased production, and higher levels of economic activity. Businesses across different industries experience higher sales and revenue, contributing to overall economic growth. The induced effects are analysed through consumer spending patterns and multipliers based on household income data.

The catalytic effects are the broader, long-term impacts of the financial services sector on economic development, innovation, and systemic stability. These effects often involve facilitating access to capital, promoting entrepreneurship, fostering innovation, and enhancing the efficiency of resource allocation in the economy. For example, Mauritius has a well-developed financial services sector with robust regulatory frameworks and innovative financial products that catalyse entrepreneurship and innovation. Access to venture capital, angel investors, and business advisory services provided by financial institutions encourages aspiring entrepreneurs to start new businesses and pursue innovative ideas. This entrepreneurial activity leads to job creation, technological advancements, and overall economic diversification, thereby catalysing long-term economic growth. A vibrant financial sector also facilitates infrastructure development by channelling funds into large-scale projects such as transportation networks, energy facilities, and telecommunications infrastructure. These investments contribute to economic growth, job creation, and improved living standards.

## **3. THE METHODOLOGICAL APPROACH**

This methodological framework adopted (see Figure 4) allows for a thorough examination of the financial services sector's diverse economic effects. By employing a mix of quantitative and qualitative methods, the report models the complex links and impacts of the sector on the economy at multiple levels. This multifaceted approach makes the findings valuable for policymakers, industry stakeholders, and researchers. It highlights the critical role that financial services play in fostering economic growth and development.

The interviews with stakeholders were vital in capturing important facets of the financial services sector's impact on the economy. The in-depth interviews gather qualitative data on experiences and outcomes. Conducted among 40 employers from the sector, the survey sought to understand their perspectives on key issues such as job creation, sectoral linkages and industry growth. The interviews gather diverse perspectives on the financial services sector's role in the economy.

A survey was also carried out among employees of the financial services sector. Around 803 employees responded to our online/face to face survey. There was a fair and representative distribution of employees across the different sub sectors namely Global Business, Banking, Insurance, Accounting, Audit and Law Companies. Their job profiles vary from directors, senior professionals, senior managers, manager/team leaders, administrators, account executives, compliance analysts, accountants, supervisors, finance officers, junior professionals, underwriting officers and interns. The study was also complemented (and for research quality assurance) by some focus groups discussions

as well as interviews of some key stakeholders and employees of the sector. Both the feedback from the employers and employees provided valuable context to the econometric models and input-output analyses, offering a well-rounded view of the sector's contributions to the economy. Rich, narrativedriven insights that highlight how financial services can act as catalysts for economic development and social change.

By analysing input-output tables, the study helps to assess how financial services interact with various industries through its contributions to GDP, job creation, and tax revenue directly linked to financial activities. Econometric models are also adopted to assess the flow of services from the financial sector to various sectors of the economy. This involves calculating multipliers to understand how spending in the financial sector generates additional economic activity in supplier industries.



#### Figure 4: Methodological Approach



Double counting can be an issue when measuring the different effects of the Financial Services Sector, as transactions recorded under one sector may be counted again under another. However, this study has adopted different and appropriate methodologies to address double counting in line with different studies carried out by Oxford Economics<sup>1</sup>. In essence, a rigorous input-output modelling framework has been applied to ensure that each transaction is appropriately categorised as direct, indirect, or induced without duplication. The induced effects have been carefully defined to include only additional household spending by financial sector employees. Furthermore, cross-verification with national accounts data, sectoral employment statistics, and corporate financial reports has been conducted to identify and adjust for any potential overlaps. These methodological approaches ensure the accuracy and credibility of the economic impact assessment while avoiding the risk of overestimation. To address the issue of double counting in the economic impact evaluation.

<sup>&</sup>lt;sup>1</sup> https://www.oxfordeconomics.com/service-category/economic-impact/

## **4. DIRECT EFFECTS**

The direct effects of the financial services sector on the economy are analysed in terms of the following 3 effects as per Figure 5 below:

#### Figure 5: Direct Effects of the Financial Services Sector



#### 4.1 Contribution to Gross Value Added (GVA)

The financial services sector in Mauritius has demonstrated consistent growth over the years, playing a vital role in the country's economic landscape.

#### 4.1.1 Macroeconomic Analysis

The contribution of financial and insurance activities to Gross Value Added (GVA) increased from 10.4% in 2006 to a peak of 14.1% in 2020 (partly due to Covid-19-induced contraction in GDP) and 13.8% in 2023. Several factors can explain the sector's performance in 2023 namely the global economic uncertainties, shifting investment patterns, and evolving financial market dynamics. An analysis of these factors through interviews with business operators confirms that the sector has been influenced by several key dynamics. Operators highlighted the tightening of global financial regulations, which impacted investment flows. Additionally, slow global post-COVID economic recovery, coupled with rising inflationary pressures constrained corporate and household borrowing. Moreover, increasing competition from emerging financial hubs and digital transformation within the sector required significant adaptation, affecting overall growth momentum. This suggests that while the sector remains resilient, targeted policy interventions are necessary to strengthen its expansion.

This growth trend underscores the sector's resilience and its expanding influence on the economy. Monetary intermediation, which encompasses banking and other financial institutions, has been the largest contributor to the financial sector. It has steadily increased from 5.8% in 2006 to 7.6% in 2023. This suggests the robust growth of banking activities over the years, with occasional fluctuations. The contribution of insurance, reinsurance, and pension funding has generally remained stable, fluctuating between 1.8% and 3.2% over the period. The "Other" category shows a steady and marked increase, from 1.3% in 2006 to 3.7% in 2023. This suggests growing diversification within the financial sector, especially in areas beyond traditional banking and insurance (see Figure 6).



#### Figure 6: GVA Contribution of the Financial Services Sector, 2006-2023



#### Contribution of the Global Business (GB)

The Global Business (GB) sector in Mauritius has been a significant contributor to the country's economy, as demonstrated by its share of the GVA and its steady growth rate in GVA over the years. Its contribution to GVA has increased over the years, starting at 2.5% in 1998 and rising to a peak of 8.6% in 2021 (see Figure 7- green line). Despite a slight decline in its contribution to GVA in recent years, reaching 8.2% in 2023, the sector's long-term performance has remained strong. The sector's growth rate in GVA stood at 3.9% in 2023 relative to 3.2% in 2022 (blue columns in Figure 7).



Figure 7: Global Business Share in the Economy as a % of GVA and Growth Rate, 1998-2023

Consultants' Compilation – Statistics Mauritius, 2024

Furthermore, the GB sector's role in job creation is notable, with direct employment in Management Companies (MCs) estimated at around 5,000 and significant indirect employment in sectors such as

banking, insurance, legal, and audit services (Financial Services Commission, 2022-2023). The GB sector's resilience and consistent contribution to Mauritius' economy underscore its importance as a pillar of economic growth, supporting employment, regulatory compliance, and generating significant tax revenues.

#### Labour Productivity

The financial and insurance sector experienced strong growth in labour and multifactor productivity until 2021, after which both indicators saw a decline. Capital productivity, however, continued to rise, suggesting better capital utilisation despite potential slowdowns in labour efficiency. The drop in labour productivity and multi-factor productivity post-2021 could indicate factors such as labour market challenges, efficiency issues, or macroeconomic disruptions. The trend in productivities is shown in Figure 8 below



Figure 8: Productivity Trends of the Financial Services Sector, 2012-2023

Consultants' Compilation – Statistics Mauritius, 2024

#### 4.1.2 Regression Analysis – Output Elasticity of the Financial Services Sector

This analysis attempts to estimate the output elasticity of the Financial Services Sector (FSS) using rigorous time series data analysis. Drawing upon the theoretical underpinnings of growth theories and from previous empirical studies investigating the effect of financial development on economic growth (see for instance, Levine, 1997; Valickova et al, 2014, Iwasaki et al., 2023), the following conceptual model is specified.

#### GDP = f(FSS, GER, IVT, TRADE, LABOUR COVID)(1)

In Equation (1), the dependent variable is economic growth (GDP) is proxied by the real gross domestic product. The main independent variable of interest to this study is the Financial Services Sector development (FSS) and this is measured by a unique index duly constructed for the purpose of this

study. The index is constructed using 4 layers of the financial sector namely Banking, Global Business, Insurance and the Stock Market, with proxies carefully selected from the academic literature for each of them. The Principal Component Analysis (PCA) methodology was used to generate the index. The remaining variables represent the independent/control variables employed: GER is measure of human education while LABOUR is a measure of the labour force, captured by the Gross enrolment ratio, IVT is a measure of investment and TRADE is a measure of trade openness.

| Variable | Description  | Source                   |
|----------|--|--------------------------|
| GDP      | GDP (at constant price)                              | Statistics of Mauritius/ |
| GER      | Gross enrolment ratio                                | World Bank Development   |
| LABOUR   | Labour Force   | Indicator                |
| TRADE    | Import+ Export/GDP (Measure of Openness)             |                          |
| IVT      | Investment/GDP                                       |                          |
| COVID    | Dummy Variable (0 for no COVID and 1 for COVID)      |                          |
| FSS      | Composite Index of the Financial Sector Development  |                          |
|          | (Constructed using the Principal Component Analysis) |                          |

#### Table 2: Data Description

Source: Consultants' Compilation, 2024

The study uses annual time series data from 1998 to 2023. To estimate the long-run and short-run relationships between the dependent variable and the abovementioned independent variables, this study uses a double-log regression model within a dynamic time series framework. The use of a log-linear equation is also useful in the interpretation of the estimated coefficients namely in terms of output elasticities (growth in output following a % change in the FSS).

Equation (1) takes the following statistical form:

## $LNGDP_{t} = \alpha_{0} + \beta_{1}LFSS_{t} + \beta_{2}LNGER_{t} + \beta_{3}LNLABOUR + \beta_{4}LNTRADE_{t} + \beta_{5}LNIVT_{t} + \beta_{5}COVID + \varepsilon_{t}$ (2)

where LN stands for the natural logarithm operator, t corresponds to the time dimension,  $\alpha_0$  represents the constant term,  $\varepsilon_t$  is the error term and the  $\beta_i$  [i = 1, 2, 3, 4, 5] are the regression coefficients. The following steps are adopted to estimate the above equations:

The first step involves an investigation of the time series properties of the data, particularly with respect to the existence of a Unit Root in the data series. This is done using the Augmented Dickey Fuller Unit Root Test for stationarity. Within this framework, it can be deduced that the proposed econometric models consist of a mixture of both I(0) and I(1) variables; implying that some variables are stationary at level while others are stationary after taking first differences. The adoption of an autoregressive distributed lag (ARDL) approach is thus favoured for the estimation of the above economic growth model. The next step consists of confirming for the existence of any long-run relationships among the variables in the selected models. This is verified using the ARDL-bounds testing approach. The null hypothesis of no cointegration is rejected and indicates that there is a long-run relationship among the variables included in the models.

Table 3 reports the long-run and short-run results obtained when estimating the proposed models within the ARDL framework<sup>2</sup>. From the table 3, it can be observed that the estimated coefficient of the financial development is positive and statistically significant. The coefficient value of 0.17 is a measure of the output elasticity of the financial services sector development and it confirms that a 1% increase in the sector is likely to bring an increase the output level (economic growth) by 0.17%.

| Equation 2         |           |  |  |  |  |  |  |
|--------------------|-----------|--|--|--|--|--|--|
| Dependent Variable | LNGDP     |  |  |  |  |  |  |
| LNGDP (-1)         | 0.7273*** |  |  |  |  |  |  |
| LNINDEX2           | 0.1682*   |  |  |  |  |  |  |
|                    | 0.4741**  |  |  |  |  |  |  |
|                    | (2.632)   |  |  |  |  |  |  |
|                    | 0.113***  |  |  |  |  |  |  |
|                    | (2.02)    |  |  |  |  |  |  |
|                    | 0.436     |  |  |  |  |  |  |
|                    | (3.182)   |  |  |  |  |  |  |
|                    | 1.100     |  |  |  |  |  |  |
| INLABUURFUKLE      | (2.774)   |  |  |  |  |  |  |
| COVID              | -0.127    |  |  |  |  |  |  |
| COVID              | (-3.493)  |  |  |  |  |  |  |
| CONSTANT           | 5.902***  |  |  |  |  |  |  |
|                    | (9.233)   |  |  |  |  |  |  |

| Table 3: Long-run Estima |
|--------------------------|
|--------------------------|

Source: Consultants' Computation, 2024

Notes: \*\*\*, \*\* and \* denote significance at the 1%, 5% and 10% levels respectively; for the estimates, t-statistics in parentheses below the regression coefficients; for the diagnostic tests, p-values in square brackets.

Numerous similar studies have been conducted in the literature, including meta-analysis based on several previous research, which attempt to estimate the output elasticity of the financial sector in various contexts. Table 4 below summarises the findings of the major study worldwide for comparative purposes. The output elasticity for Mauritius is observed to be above most findings across the globes and is closest to the recent empirical results of Shahbaz and Nasir (2020) for a panel of emerging markets and from Anwar and Iwasaky (2023) for the case of Asian economies (Meta Analysis).

<sup>&</sup>lt;sup>2</sup> The automatic lag selection procedure of EViews 13 was used for the estimation of the models. In this context, variables with zero lag are removed in the short run estimations.

#### Table 4: Comparative table of Estimated Output elasticity of Financial Services Development

| Authors/Studies   | Context  | Output Elasticity |  |  |  |  |  |
|---|--|-------------------|--|--|--|--|--|
| Meta- Analysis and Meta-Regression  |  |                   |  |  |  |  |  |
| Arestis and Chortareas (2015)   | Meta Analysis on 69 papers                                 | 0.115             |  |  |  |  |  |
| Valockova (2015)  | Meta Analysis on 67 studies                                | 0.15              |  |  |  |  |  |
| Bjlsma et al. (2018)  | Meta Analysis on 68 studies                                | 0.1               |  |  |  |  |  |
| Anwar A (2019)  | Meta Analysis - Asia (75 papers)                           | 0.11-0.13         |  |  |  |  |  |
| Iwasaki et al (2022)  | Meta Analysis - 22 papers in Latin and Caribbean countries | 0.17              |  |  |  |  |  |
| Ono et al. (2022)   | Meta Analysis - 45 European countries                      | 0.1-0.12          |  |  |  |  |  |
| Iwasaki and Kocenda (2023)  | Meta Analysis - 177 studies                                | 0.12              |  |  |  |  |  |
| Anwar and Iwasaki (2023)  | Meta Analysis - 75 studies in Asia                         | 0.18              |  |  |  |  |  |
| Brada et al (2024)  | Meta Analysis on 54 papers                                 | 0.1               |  |  |  |  |  |
| Time Series Analysis (Selected)   |  |                   |  |  |  |  |  |
| Seetanah (2008)   | Mauritius- 1952-2004                                       | 0.13              |  |  |  |  |  |
| Seet (2010)   | Singapore- 1978-2006                                       | 0.1               |  |  |  |  |  |
| Yazan et al (2024)  | Jordan - 1980-2020   | 0.12-0.14         |  |  |  |  |  |
| Sbia and Alrousan (2016)  | UAE- 1975-2012   | 0.17              |  |  |  |  |  |
| Panel Data Analysis (Selected)  |  |                   |  |  |  |  |  |
| Bist (2018)   | 16 African and non-African countries, 1995-2014            | 0.02              |  |  |  |  |  |
| Shahbaz and Nasir (2022)  | 22 Emerging markets- 80-2020                               | 0.17              |  |  |  |  |  |
| Abas et al (2022)   | 44 countries, 1995-2018                                    | 0.12 - 0.3        |  |  |  |  |  |
| Bayraktar et al (2023) 30 Emerging Markets/Middle income countries, 2012-<br>2019 |  | 0.1               |  |  |  |  |  |
| Hyacinth et al. (2023)  | Sample of SSA, 1995-2022                                   | 0.2               |  |  |  |  |  |
| Rahman et al (2022)   | ASEAN country 1995-2017                                    | 0.06-0.13         |  |  |  |  |  |
| Guru and Yadav (2018)   | BRICS countries, 1998-2018                                 | 0.1               |  |  |  |  |  |
| Khan et al. (2020)  | Emerging Economies, 2002-2017                              | 0.12              |  |  |  |  |  |
| Bakar et al. (2020)   | Emerging African Economies, 1990-2017                      | 0.1               |  |  |  |  |  |
| Purewal and Haini (2021)  | 24 OECD countries, 1980-2017                               | 0.15-0.17         |  |  |  |  |  |

Source: Consultants' Computation, 2024

The findings also indicate that the proposed models are free from any ARCH effects and serial correlation. In addition, the residuals are also normally distributed. Thus, the proposed models are correctly specified. Furthermore, stability tests are conducted to assess the consistency of the regression coefficients over a period. The results also pass both tests of Stability, namely the CUSUM and the CUSUM of square tests indicating that the residual variance and the coefficients remain consistent and stable over time which demonstrates the soundness and validity of the model.

#### 4.2 Employment

There is a clear long-term upward trend in employment within the financial services sector. From 12794 employees in 2011, the sector's employment increased steadily to 19,745 by 2023 (Data from the Financial Services Commission Statistical Bulletins and Bank of Mauritius Annual Reports). This indicates robust growth and a sustained increase in job opportunities within the sector over the past three decades (Figure 9).



Figure 9: Employment in the Financial Services Sector – 2011-2023

Despite some fluctuations, the sector has consistently expanded. This upward trajectory indicates a growing sector that likely continues to attract talent and expand its workforce, driven by evolving financial needs and industry developments. The recent sharp increase in employment suggests a robust recovery and expansion phase, positioning the financial services sector as a key employer in the economy.

There has been significant growth in employment within the financial services sector over the years, particularly in management companies and insurance-related activities. The overall increase in employment across various categories indicates a healthy expansion of the sector. Key areas such as management companies, insurance, and leasing have shown notable growth, reflecting their increasing importance. Fluctuations in specific sub-sectors suggest shifts in the industry's focus or structural changes. The financial services sector has become a major source of employment, contributing to its robust development and evolving role in the economy. Employment in the financial services sector, with figures reported from the Financial Services Commission and the Bank of Mauritius Annual Reports, it was noted that the computed amount exceeds that reported by Statistics Mauritius (probably as figures from small establishments were taken into account). The total employment in the sector amounts to approximately 19,745 in 2023<sup>3</sup>.

Source: Consultants' Compilation, 2024

<sup>&</sup>lt;sup>3</sup> BoM licensees exclude Non Banking Deposit Taking institutions and Cash Dealers

#### 4.3 Tax Revenue

#### 4.3.1 Corporate Tax Inclusive of Corporate Social Responsibility (CSR)

The total corporate tax paid by all sectors has seen a robust increase, rising from Rs 4,290 million in 2010 to Rs 15,399 million in 2023, reflecting a substantial expansion in the financial services industry's tax contributions over this period. The Global Business Companies' activities stand out with a remarkable increase in corporate tax contributions, rising from Rs 2,110 million in 2010 to Rs 11,225 million in 2023. This sharp rise suggests a growing profitability and significant economic impact of global business activities in Mauritius. The banking sector's contributions also exhibit notable growth, from Rs 1,086 million in 2010 to Rs 2,561 million in 2023. Despite some fluctuations, the overall trend is upward, indicating increased revenue and tax contributions from the banking industry. In addition, the Global Business Management Companies' contributions increased from Rs 302 million in 2010 to Rs 425 million in 2023, demonstrating growth but at a slower pace compared to global business companies. The insurance sector's contributions have been relatively stable with a slight decline towards the end. This stability may indicate slower growth compared to other sectors. The data reveals a dynamic landscape where global business companies and banks have significantly increased their tax contributions, reflecting their growing economic influence. The total corporate tax increase underlines the overall expansion and profitability within the financial services sector in Mauritius, while specific sectors show varied growth patterns.



Figure 10: Total Corporate Tax Contribution of the Financial Services Sector - 2010-2023

Source: Compilation from MRA Data, 2024

#### 4.3.2 PAYE - (Pay As You Earn)

From 2010 to 2023, there is a clear upward trend in the total PAYE contributions across all sectors, increasing from Rs 904 million in 2010 to Rs 4,341 million in 2022/23. This substantial growth reflects a broad expansion in employment within the financial services sector. Global Business Companies' contribution increased from Rs 182 million in 2010 to Rs 1,725 million in 2022/23, demonstrating a significant increase in employment and earnings, likely due to Mauritius' growing attractiveness as a global business hub. A similar trend is noted for the insurance sector, with contributions rising from Rs 97 million in 2010 to Rs 333 million in 2022/23. This indicates a strong expansion in this segment, potentially driven by increased demand for insurance services. The banking sector's contribution grew steadily from Rs 285 million in 2010 to Rs 1,196 million in 2022/23. Although its growth is consistent, it is less remarkable compared to the global business sectors, suggesting a more stable but slower expansion. Global Business Management Companies' contribution increased significantly from Rs 67 million in 2010 to Rs 459 million in 2022/23, highlighting the growing importance of management services in global business operations. Overall, the data indicates robust growth in the financial sector's contributions to PAYE, with global business and management sectors leading the way. This expansion underscores the increasing significance of these areas within the broader financial services industry in Mauritius.



#### Figure 11: Total PAYE Contribution of the Financial Services Sector – 2010-2023

Source: Compilation from MRA Data, 2024

#### 4.3.3 Total Revenue Share of The Financial Services Sector In 2021/2022

| Components of the Consolidated General Government Revenue 2022/2023              | Amount (Rs m) |  |  |  |  |
|--|---------------|--|--|--|--|
| Corporate Tax (Excluding Special Levy)   |               |  |  |  |  |
| Payable by corporations and other enterprises                                    | 22,583        |  |  |  |  |
| Total Corporate Tax of the Financial Services Sector                             | 15,399        |  |  |  |  |
| Contribution of the Financial Services Sector to the total corporate tax revenue | 68.2%         |  |  |  |  |
| PAYE for all sectors   | 12, 756       |  |  |  |  |
| Total PAYE contributions of the Financial Services Sector                        | 4,341         |  |  |  |  |
| Contribution of the Financial Services Sector to the PAYE tax revenue            | 34%           |  |  |  |  |

#### Table 5: Financial Sector's Contribution in Total Tax Revenue -2022/2023

Source: Consultants' Compilation, 2024 from MRA

The total corporate tax revenue collected by the government for 2022-2023 was Rs 22,583 million. Of this, the financial services sector contributed Rs 15,399 million. This substantial amount represents 68.2% of the total corporate tax revenue, highlighting the sector's dominant role in corporate taxation. This high percentage indicates that financial services, including banks, global business companies, and insurance firms, are major contributors to the country's corporate tax base, underscoring their economic significance. The total PAYE contributions for all sectors amounted to Rs 12,756 million. The financial services sector contributed Rs 4,341 million, which is approximately 34% of the PAYE tax revenue. Although this percentage is relatively lower compared to its corporate tax contribution, it still represents a meaningful share of the PAYE revenue. This contribution reflects the sector's role in employment and wage-based taxation, though it is less pronounced than its impact on corporate tax.

|               | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 | 2021/22 | 2022/23 |
|---------------|---------|---------|---------|---------|---------|---------|---------|
| FSS           | 26.2    | 27.4    | 27      | 30      | 33.6    | 33      | 34      |
| PAYE/Total    |         |         |         |         |         |         |         |
| PAYE          |         |         |         |         |         |         |         |
| FSS           | 70.4    | 72.2    | 60      | 66.4    | 74*     | 69      | 68.2    |
| CORPORATE     |         |         |         |         |         |         |         |
| TAX/Total     |         |         |         |         |         |         |         |
| Corporate Tax |         |         |         |         |         |         |         |

#### Table 6: Share of FSS PAYE and Corporate Tax to Total PAYE and Corporate Tax (%)

Source: Consultants' Compilation, 2024 from MRA

The share of PAYE contributions from the Financial Services Sector to total PAYE has shown a generally increasing trend over the years. In 2016/17, FSS contributed 26.2% of total PAYE, which increased steadily to 27.4% in 2017/18 and 27% in 2018/19. A notable increase occurred in 2019/20, where the share rose to 30%, followed by a more significant jump to 33.6% in 2020/21 and 34% in 2022/23. This increasing trend suggests that the financial services sector plays an increasingly important role in total PAYE contributions, which may be due to factors such as wage growth within the sector, an increase in employment, or a shift in tax policy affecting high-income earners. Further, in 2016/17, FSS accounted for 70.4% of total corporate tax, increasing to 72.2% in 2017/18. The share rebounded in 2019/20 to 66.4%, followed by a sharp increase to 74% in 2020/21. The FSS contribution to corporate tax revenue reached 69% (2021/22) and 68.2% (2022/23). This indicates that while the financial services sector remains the dominant contributor to corporate tax revenue, its share is influenced by factors such as economic cycles, sectoral profitability, tax incentives, and global financial conditions.

## **5. INDIRECT EFFECTS**

#### 5.1 Input Output Analysis

To understand the full economic impacts of financial services in Mauritius, the linkages' effects must also be considered as financial service companies do purchase goods and services from local entities outside of the financial service cluster, generating indirect impacts. The indirect impact of the FSS on the economy (as well the multiplier effect) has often been measured through the Input-Output Analysis (see Miller and Blair, 2009 and Alabi et al, 2022). By using an Input-Output (I/O) model of the Mauritian economy, the linkages of each component of the financial services sector to other sectors are calculated. In an input-output table, the main input to the I/O analysis, the gross value-added vector can be used to measure the total value-added embodied in each unit of final demand. The value-added multiplier measures the total increase in value added, that is the increase in factor incomes due to direct and indirect effects. Type I multiplier captures the direct and indirect effects the Type I multiplier for a particular industry is defined as the total of all outputs from each domestic industry required in order to produce one additional unit of output. Technically speaking, Type I multiplier comprises of both the initial exogenous direct demand disturbance as well as the subsequent supply-chain impacts (indirect effects). On the other hand, a Type II multiplier additionally includes the induced consequences of changes in household consumption.

The method to derive these multipliers is well established (see d'Hernoncourt et al. 2011 and Hughes, 2019) and can be summarised as follows:

- 1. Compute the technical coefficient (A matrix) of the SAM
- 1a. To derive the A matrix, the values of each sector of the SAM should be divided by the total sum of that column
- 2. Create an identity matrix (the I matrix).
- 2a. The identity matrix of the SAM has ones on its main diagonal elements and zeros elsewhere
- 3. Subtract the A matrix from the identity matrix (I–A)
- 4. Derive matrix of multipliers
- 5. The SAM multiplier matrix is the inverse of the (I–A) matrix. Which is represented by (I–A) -1
- 6. Generate the Multiplier

The I/O Analysis points out to a Multiplier effect of 1.53, suggesting that every Rs1 of financial services produced will yield an additional Rs 0.53 of output from other sectors, representing the indirect sector (through the supply chain). Malta reported a multiplier effect (direct and indirect) of 1.1<sup>4</sup>, while Qatar multiplier stood at 2<sup>5</sup>, the Cayman Islands<sup>6</sup> at 1.14, and a Financial Services Institute (FSI)<sup>7</sup> study at 1.55. Comparable studies<sup>8</sup> for Andorra (2024) reveal a type 1 Multiplier of 1.3, while the value is 1.2 for Luxemburg (2022) and 1.4 for Switzerland (2022). A 2021 study for Singapore<sup>9</sup> estimated the multiplier at 1.42.

<sup>&</sup>lt;sup>4</sup> https://www.mfsa.mt/news-item/the-contribution-of-the-financial-services-sector-to-the-economy/ <sup>5</sup>https://www.qfc.qa/-/media/project/qfc/qfcwebsite/documentfiles/publications/research-insights-2022/eia\_english\_2020.pdf

<sup>&</sup>lt;sup>6</sup> Refer to Oxford Economics (2009). Economic Benefits of the Financial Services Industry in the Cayman Islands.

<sup>&</sup>lt;sup>7</sup> https://financialservices.org/economicimpact/

<sup>&</sup>lt;sup>8</sup> See https://www.andorranbanking.ad/wp-content/uploads/2024/07/Contribution-of-the-financial-sector-to-the-andorran-economy.pdf

<sup>&</sup>lt;sup>9</sup> See https://www.singstat.gov.sg/-/media/files/visualising\_data/infographics/economy/input-output-tables2021.ashx

#### 5.2 Indirect Effect on Employment

Using the Census of Economic Activity (2018) coefficients obtained from Statistics Mauritius (largely validated by our numerous surveys/interviews with stakeholders), the indirect employment was estimated at 10,659 (measured conservatively).

Thus, the Indirect effect represents over 54% (10659/19745) in direct employment. This compares to 30% in the Cayman Islands, 200% in Qatar and 55% from the FSI study)

The Direct and Indirect employment thus sum up to 30404 (10659+19745) or 5.3% of total employment of the country. The employment multiplier is estimated at 1.54 (Type 1)

## **6 INDUCED EFFECTS**

The induced effects were measured using a structured survey of 803 employees in the Financial Services Sector, incorporating both face-to-face and online/telephone surveys. This mixed-methods approach helped in capturing diverse perspectives and minimising response bias. Respondents were assured of confidentiality, reducing the likelihood of exaggerated responses. The survey questions were also carefully structured to avoid leading or subjective prompts. To enhance credibility and reinforce data quality assurance, the study triangulated survey data with independent data sources, including sectoral employment statistics and corporate financial reports, data on taxes as well as household budget surveys. The dataset underwent rigorous consistency checks, with responses cross-referenced against macroeconomic data outlined above. Qualitative interviews were also conducted to provide deeper insights and validate survey findings. These methods collectively strengthened the robustness of the study, ensuring the induced effects were assessed with a high degree of reliability.

The gender distribution of the survey consists of 57.2% women and 42.8% men and in terms of marital status, 49.9% were married while the remaining percentage were single. The education profile was also analysed with 37.4% of respondents having an undergraduate degree, while 24% have a postgraduate and 29.4% have professional qualifications. Their average monthly income was further examined with the highest percentage 45.2% earning between Rs30,000 to Rs75,000, 24.4% having less than Rs30,000 and 13.7% earning between Rs75,001 to Rs100,000. The data shows that 8.2% earn between Rs100,001 to Rs150,000 while 8.5% have a monthly income exceeding Rs150,000. The respondents worked in companies of different sizes. For instance, 44.2% of respondents were employed in companies having more than 100 staff while 35.6% were working in businesses with around 11 to 50 workers and 12.5% were employed in companies with 51 to 100 staff. Around 7.7% were in companies with less than 10 workers.

Employees from the financial services sector spend their earnings in the economy and this is expected to benefit a range of other sectors via induced impacts. Real estate, utilities, education, transportation, telecommunications, food and retail, and healthcare sectors among others all benefit as recipients of this flow of economic activity. It is thus essential to also capture such potential effects for a better measurement of the impact of the sector on the economy.

#### Figure 12: Consumption and Employment Induced Effects of the Financial Services Sector



Consumption-Induced Effects



Employment Induced Effects

Source: Consultants' Compilation, 2024

#### 6.1 Consumption-Induced Effects

Consumption-Induced effects refer to the additional economic activity resulting from household spending, which comes from incomes earned either directly or indirectly from the financial services sector. The objective is to quantify how employees, investors, and other stakeholders in the financial

services sector spend their income, which in turn supports other sectors like retail, hospitality, healthcare, and education, amongst others.

The induced impact of the FSS was estimated based on the consumption pattern of the employees of the sector on average. An employee survey was undertaken (with 803 respondents from the whole financial services sector) and this yielded meaningful estimates for consumption items and patterns. HBS (2023) survey data also largely validates those consumption patterns. The economic contribution of the estimated 8900 visitors to the Island on account of the financial services industry is included in the induced impacts.

The induced effects (based on the average income of employees of the sector in 2023), based on our conservative estimates, stood at Rs 19.6 billion. This represents 25% (19,600/79,567) of the direct contribution of the sector to GVA (similar work for the case of Qatar found the estimate to be around 16% while the FSI study was at 40% and the Cayman reported figures of over 89%).

The total effect, i.e., Direct (Rs 79,567m), Indirect (Rs 41,375m) and Induced (Rs 19,582 m) sums up to an approximate amount of Rs 140,544m, implying a total multiplier effect of 1.77 for the sector (as compared to 1.17 for the case of Malta, 1.54 for Cayman Islands, 1.85 for Qatar; 2.5 and for the FSI study). It is noteworthy to note that, with the current FSS direct contribution to GVA standing at 14%, the real contribution of the sector can be estimated to be 24.7% (14\*1.77). The results are also validated and the estimated Rs 19,582 of total effect represents around 34.5% of the economy (19,582m/567,632m).

| Country                                    | Total Multipliers | Source/Study               |
|--|-------------------|----------------------------|
| Cayman Islands                             | 1.54              | Oxford Economics (2009)    |
| Malta                                      | 1.17              | Oxford Economics (2017)    |
|  | 1.13              | Cassar and Rapa (2018)     |
| Qatar                                      | 1.85              | Oxford Economics (2022)    |
| Financial Services Institute (FSI) Members | 2.5               | Oxford Economics (2016)    |
| Malaysia                                   | 1.68              | Fuad and Puasa (2011)      |
|  | 1.56              | Bekhet (2011)              |
| Greece                                     | 1.3               | Backinezos et al (2020)    |
| Turkey                                     | 1.54              | Atan and Arslanturk (2013) |
| Croatia                                    | 1.51              | Kecek et al (2016)         |

#### Table 7: Comparative Total Multipliers from Other Studies

Source: Consultants' Compilation, 2024



#### Figure 13: Total GVA Contribution of the Financial Services Sector

Source: Consultants' Compilation, 2024

#### 6.2 Employment-Induced Effects

Induced employment effect (based on the survey undertaken with employees of the sector) indicates an additional employment creation of at least 6450 (representing around 33% of direct employment; compared to 50% in Qatar; 80% in Cayman Island and 40% in FSI= 40%). Total employment (direct {19745}+ Indirect {10659}+ induced {6450}) is estimated at around 36,854, that is 6.3% of the national employment. The multiplier effect, taking into account both indirect and induced employment is thus estimated at 1.9 (total multiplier), compared to 2.2 in Cayman Islands, to 3.5 in the FSI study, 3 in Qatar, 1.9 in Andorra<sup>10</sup>, 1.83 in Switzerland and 2.1 in Luxemburg.

#### Figure 14: Total Employment Effects of the Financial Services Sector



Source: Consultants' Compilation, 2024

<sup>&</sup>lt;sup>10</sup> See https://www.andorranbanking.ad/wp-content/uploads/2024/07/Contribution-of-the-financial-sector-to-the-andorran-economy.pdf

## 7 CATALYTIC EFFECTS

Rs(million)

The catalytic impacts of the industry relate to the ways in which the economic performance of other sectors is fuelled by the activities of the financial services industry. It relates to the impacts other than the standard analytical direct, indirect and induced impacts as previously discussed. Practically, it remains relatively difficult to quantify the magnitude of such effects although it is a certainty that the financial services sector does generate such catalytic or "spillover" effects in Mauritius. Some of these impacts tend to be qualitative or "soft" in nature, for instance, the benefits it provides Mauritians. Others which are more quantifiable such as training expenditures and philanthropic activities are reported below.



Figure 15: CSR and Special Levy on Banks, 2010-2023

The figures clearly show the increasing contribution of the FSS in Corporate Social Responsibility (CSR) and reflect their support to the wider Mauritian community (to the tune of over Rs 1.5 billion). In addition, the special levy on Banks (over Rs 1 billion) also plays a crucial role in supporting key government actions, particularly towards the consolidation and enhancement of the welfare economy. Table 8 below reports the contribution of the Financial Services Commission surplus to the Consolidated funds, with over Rs 13 billion added to the government revenue for supporting key actions.

Source: Consultants' Compilation, 2024

#### Table 8: Contribution to the Consolidated Fund by FSC

| Vear | MUR Million |
|------|-------------|
| 2003 | 100         |
| 2004 | 60          |
| 2005 | 70          |
| 2006 | 90          |
| 2007 | 90          |
| 2008 | 120         |
| 2009 | 140         |
| 2010 | 1166        |
| 2011 | 496         |
| 2012 | 844         |
| 2013 | 979         |
| 2014 | 598         |
| 2015 | 715         |
| 2017 | 1407        |
| 2018 | 849         |
| 2019 | 1360        |
| 2020 | 867         |
| 2021 | 1020        |
| 2022 | 1364        |
| 2023 | 1057        |

For 2010 and 2017: Contribution of to the consolidated fund was for an 18-months period Source: Consultants' Compilation, 2024

Catalytic effects are also in form of Training and Education and based on consolidated figure reported by the FSC in its statistical bulletins and from latest annual reports of major banks on the island, external training for the sector amounts to over Rs 260 million rupees in 2022. As such firm surveys and interviews of main stakeholders of the sector tend to confirm at least 700 work placements/traineeships are offered to Mauritians on a yearly basis.

| Table 9: CSG contribution | of the FSS sector | (Rs Millions) |
|---------------------------|-------------------|---------------|
|---------------------------|-------------------|---------------|

|                      | 2020/2021 | 2021/2022 | 2022/2023 |
|----------------------|-----------|-----------|-----------|
| Banks                | 292       | 433       | 493       |
| Insurance            | 60        | 89        | 99        |
| Global Business      | 342       | 554       | 672       |
| Companies            |           |           |           |
| Global Business      | 128       | 207       | 237       |
| Management           |           |           |           |
| Companies            |           |           |           |
| Other Financial and  | 186       | 273       | 291       |
| Insurance Activities |           |           |           |
| Total FSS CSG        | 1,007     | 1,557     | 1,791     |
| Total Economy CSG    | 5,247     | 8,349     | 9,514     |
| % Contribution       | 19.2%     | 19%       | 19%       |

Source: Mauritius Revenue Authority (2024)

Table 9 shows the contribution of CSG by the Financial Services sector since its introduction in 2020/2021. It can be observed total CSG of the sector has been constantly increasing in nominal value and it represents around 19% of the total CSR contribution to the economy. It should be highlighted that this fund is usually ploughed back into the economy to finance key activities including education and social protection amongst others, and this represents an important element of the catalytic effect.

### **8 REFERENCES**

Abbas Z, Afshan G. & Mustifa G. (2022). The Effect Of Financial Development On Economic Growth And Income Distribution: An Empirical Evidence From Lower- Middle And Upper-Middle-Income Countries, *Development Studies Research*, 9:1, 117-128, DOI: 10.1080/21665095.2022.2065325

Alabi, O., Munday, M., Swales, K., & Turner, K. (2019). Physical Water Use And Water Sector Activity In Environmental Input Output Analysis. *The Review of Regional Studies*, 49(2), 268–291. https://doi.org/10.52324/001c.9677

Anwar A., & Iwasaki, I. (2023). The Finance-Growth Nexus in Asia: A Meta-Analytic Approach, Asian Development Review (ADR). vol. 40(01), pages 13-48.

Arestis, P., Chortareas, G., Magkonis, G.(2015). The Financial Development And Growth Nexus: A Meta-Analysis, *Journal of Economic Surveys*. 29(3), 549-56, https://doi.org/10.1111/joes.12086

Atan, S., & Arslanturk, Y. (2012). Tourism and Economic Growth Nexus: an Input Output Analysis in Turkey. *Procedia - Social and Behavioral Sciences*, 62, 952 – 956

Backinezos, C., Panagiotou, S & Vourvachaki, E. (2020). Multiplier effects by sector: An input-Output Analysis Of The Greek Economy. *Economic bulletin*. 7-27. 10.52903/econbull20205201.

Bakar, H, Sulong, Z & Chowdhury, M A. (2022). The Role Of Financial Development On Economic Growth In The Emerging Market Countries Of The Sub-Saharan African (SSA) Region. *International Journal of Emerging Markets*. 17. 789-811. 10.1108/IJOEM-08-2019-0638.

Bayraktar, Y, Ozyilmaz, A, Toprak, M, Olgun, M.F, and Isik, E. (2023). The Role Of Institutional Quality In The Relationship Between Financial Development And Economic Growth: Emerging Markets And Middle-Income Economies, *Borsa Istanbul Review*, 23(6), 1303-1321

Bekhet, H A (2011). Output, Income and Employment Multipliers in Malaysian Economy: Input-Output Approach, *International Business Research*, 4(1), 55-67

Bijlsma, M., Kool C., & Non M (2018). The Effect Of Financial Development On Economic Growth: A Meta-Analysis, *Applied Economics*, vol. 50(57), pages 6128-6148, December.

Bist, J. P. (2018). Financial Development and Economic Growth: Evidence from a Panel of 16 African and Non-African Low-Income Countries. *Cogent Economics & Finance*, 6, Article ID: 1449780. https://doi.org/10.1080/23322039.2018.1449780

Brada, J C., Iwasaki, I., (2024), Does Financial Liberalization Spur Economic Growth? A Meta-Analysis, *Borsa Istanbul Review*, Volume 24, Issue 1, Pages 1-13, ISSN 2214-8450, https://doi.org/10.1016/j.bir.2023.10.015.

D'Hernoncourt & Cordier M & Hadley D (2011). Input-Output Multipliers – Specification Sheet And Supporting Material, *Spicosa Project Report*, Working Papers hal-03233439, HAL

Fuad, S & Puasa, A F. (2011). National Key Economic Area Multiplier Impact On Malaysian Economy: An Input-Output Analysis. *International Journal of Management Studies*. 18. 10.32890/ijms.18.2011.10212.

FSI/Oxford Economics (2020). The Economic Impact of FSI members, available at *https://financialservices.org/economicimpact* 

Hughes, D. (2003). Policy Uses of Economic Multiplier and Impact Analysis. *Choices*. 18.

Iwasaki, I., & Ono, S. (2023). Economic Development And The Finance–Growth Nexus: A Meta-Analytic Approach. *Applied Economics*, 56(57), 8021–8038. https://doi.org/10.1080/00036846.2023.2289921

Iwasaki, I. (2022). The finance-growth nexus in Latin America and the Caribbean: A Meta-Analytic perspective, *World Development*, vol. 149(C), 56-71

Guru K, Yadav B, Sekhar I. (2019). Financial Development and Economic Growth: Panel Evidence From BRICS. *Journal of Economics, Finance & Administrative Science*, Vol. 24, No. 47, Available at SSRN: https://ssrn.com/abstract=3399728.

Khan, M.A., Sarwar, A., Sarwar, Z. and Khan, W. (2020). Financial Development, Human Capital And Its Impact On Economic Growth Of Emerging Countries. *Asian Journal of Economics and Banking*, Vol. 5 No. 1, pp. 86-100. https://doi.org/10.1108/AJEB-06-2020-0015

Keček, D, & Žajdela Hrustek, N & Dušak, V. (2016). Analysis of multiplier effects of ICT sectors – a Croatian case. *Croatian Operational Research Review*. 7. 129-145. 10.17535/crorr.2016.0009.

Levine R. (1997). Financial Development and Economic Growth: Views and Agenda. *Journal of Economic Literature*, 1997, Vol. 35, issue 2, 688-726

Malarvizhi, C. A. N., Zeynali, Y., Mamun, A. A., & Ahmad, G. B. (2019). Financial Development and Economic Growth in ASEAN-5 Countries. *Global Business Review*, 20(1), 57-71. https://doi.org/10.1177/0972150918802684

Malta Financial Services Authority (2017). The Contribution Of Thefinancial Services Sectorto The Economy. *https://www.mfsa.mt/news-item/the-contribution-of-the-financial-services-sector-to-the-economy/* 

Miller R and Blair P. (2009). *Input-Output Analysis : Foundations and Extensions*. Cambridge, GBR: Cambridge University Press.

Ono, S., & Iwasaki, I. (2022). The Finance-Growth Nexus in Europe: A Comparative Meta-Analysis of Emerging Markets and Advanced Economies. *Eastern European Economics*, 60(1), 1–49. https://doi.org/10.1080/00128775.2021.2006067

Oxford Economics (2009). Economic Benefits of the Financial Services Industry in the Cayman Islands. Available at: https://www.cifaa.org.ky/wp-content/uploads/2017/08/Cayman-Islands-Financial-Services-Industry-Economic-Impact-Study.pdf

Oxford Economics (2022). The Economic Impact of Qatar Financial Centre in 2020. https://www.qfc.qa/-/media/project/qfc/qfcwebsite/documentfiles/publications/research-insights-2022/eia english 2020.pdf

Purewal, K. & Haini, H. (2022). Re-examining The Effect Of Financial Markets And Institutions On Economic Growth: Evidence From The OECD Countries. *Economic Change and Restructuring*. 55. 10.1007/s10644-020-09316-2.

Rahman, M. M., Vu, X.-B., & Nghiem, S. (2022). Economic Growth in Six ASEAN Countries: Are Energy, Human Capital and Financial Development Playing Major Roles? *Sustainability*, 14(8), 4540. https://doi.org/10.3390/su14084540

Seet, M. K. (2010). The Relationship Between Financial Development And Economic Growth: Singapore 1978-2006. *Doctoral Thesis*, The University of Western Australia

Seetanah, B. (2008). Financial Development and Economic Growth: An ARDL Approach for the Case of the Small Island State of Mauritius. *Applied Economic Letters*, 15, 809-813.https://doi.org/10.1080/13504850600770889

Shahbaz. M, Nasir. N A & Lahiani, A (2022). Role Of Financial Development In Economic Growth In The Light Of Asymmetric Effects And Financial Efficiency. *International Journal of Finance & Economics*, vol. 27(1), pages 361-383

Valickova, P., Havranek, T & Horvath R, (2014). Financial Development and Economic Growth: A Meta-Analysis, *Journal of Economic Surveys*, 29(3), DOI:10.1111/joes.12068

Yazan O., Hamed A, Mansour A & Belal S. (2023). Evidence from an Emerging Market Economy on the Dynamic Connection between Financial Development and Economic Growth. *Research in Globalization*. 6. 100124. 10.1016/j.resglo.2023.100124.

## **9 APPENDIX**

| Table A1 - Direct Employment by licensed activity (FSC Licensees) |       |       |       |       |      |      |      |      |      |       |      |      |      |      |      |       |
|---|-------|-------|-------|-------|------|------|------|------|------|-------|------|------|------|------|------|-------|
| Category  | 2007  | 2008  | 2009  | 2010  | 2011 | 2012 | 2013 | 2014 | 2015 | 2016  | 2017 | 2018 | 2019 | 2020 | 2021 | 2022  |
| Insurance Manager   | 8     | 4     | -     | -     | -    | -    | -    | -    | -    | -     | -    | -    | -    | -    | -    | -     |
| Management<br>Company   | 1,323 | 1,804 | 1,936 | 2,164 | 2629 | 2286 | 2451 | 2724 | 2988 | 3355  | 3664 | 3919 | 4135 | 4353 | 4748 | 5224  |
| Corporate Trustees<br>only  | 25    | -     | -     | 52    | -    | 23   | 40   | 21   | 8    | -     | -    | -    | -    | -    | -    | -     |
| Insurers  | 1,814 | 1,959 | 2033  | 1962  | -    | -    | -    | -    | -    | -     | -    | -    | -    | -    | -    | -     |
| Long-Term Insurance<br>Business                                   | -     | -     | -     | -     | 835  | 1307 | 879  | 536  | 958  | 967   | 938  | 928  | 81   | 928  | 788  | 906   |
| General Insurance<br>Business                                     | -     | -     | -     | -     | 1172 | 913  | 1268 | 1271 | 1253 | 1,449 | 1463 | 1522 | 54   | 1711 | 1704 | 1828  |
| Insurance Broker  | 171   | 211   | 213   | 233   | 244  | 243  | 236  | 248  | 224  | 251   | 269  | 303  | 35   | 335  | 362  | 390   |
| Pension Scheme<br>Administrator                                   | 54    | 53    | 58    | 38    | 44   | 36   | 42   | 46   | 48   | 59    | 63   | 72   | 118  | 96   | 100  | 112   |
| Actuarial Services  | -     | -     | -     | 18    | -    | -    | -    | -    | -    | -     | -    | -    | -    | -    | -    | -     |
| Investment Dealer   | 66    | 27    | 75    | 81    | 70   | 85   | 88   | 69   | 84   | 119   | 60   | 78   | 75   | 57   | 53   | 62    |
| Investment Adviser  | 28    | 83    | 69    | 72    | 74   | 72   | 72   | 35   | 59   | 71    | 64   | 69   | 942  | 120  | 123  | 155   |
| Assets Management   | -     | 27    | 14    | 13    | 5    | -    | -    | -    | -    | -     | -    | -    | -    | -    | -    | -     |
| Custodian Services (CIS<br>& Non-CIS)                             | -     | 26    | 29    | 43    | 33   | 42   | 53   | 66   | 78   | 48    | 71   | 127  | 929  | 167  | 0    | 0     |
| CIS Manager   | 153   | 142   | 64    | 138   | 55   | 174  | 182  | 213  | 127  | 144   | 113  | 141  | 1685 | 151  | 174  | 176   |
| Registrar & Transfer<br>Agent                                     | -     | 38    | 39    | 41    | 38   | 36   | 48   | 44   | 56   | 54    | 28   | 45   | 317  | 33   | 28   | 53    |
| Credit Finance<br>Company   | 257   | -     | -     | -     | -    | -    | -    | -    | -    | -     | -    | -    | -    | -    | -    | -     |
| Factoring   | 27    | 28    | 31    | 29    | 26   | 24   | 27   | -    | -    | -     | -    | -    | -    | -    | -    | -     |
| Leasing   | 137   | 469   | 499   | 505   | 559  | 492  | 518  | 523  | 629  | 635   | 604  | 807  | 65   | 1112 | 1098 | 1140  |
| Credit Finance &<br>Factoring                                     | -     | -     | 86    | 83    | 77   | 74   | 90   | 169  | 31   | 79    | 60   | 66   | 68   | 77   | 82   | 80    |
| Treasury Management<br>& Investment Banking                       | 11    | 18    | 15    | 15    | 7    | 12   | 8    | 13   | 27   | 26    | 31   | 34   | 151  | 80   | 105  | 110   |
| Payment Intermediary<br>Services                                  | -     | i     | -     | i     | -    | -    | -    | -    | -    | -     | -    | 63   | 65   | 11   | 0    | 0     |
| Stock Markets and<br>Providers of Market<br>Infrastructure        | -     | -     | -     | -     | -    | -    | -    | -    | -    | -     | -    | -    | -    | 34   | 42   | 44    |
| Other   | -     | -     | -     | -     | -    | -    | -    | -    | -    | -     | -    | -    | -    | 25   | 42   | 193   |
| Total   | 4074  | 4889  | 5,161 | 5,487 | 5868 | 5819 | 6002 | 5978 | 6570 | 7,257 | 7428 | 8174 | 8720 | 9290 | 9449 | 10473 |
| Source: FSC Annual Statistical Survey (FSC Statistical Bulletin)  |       |       |       |       |      |      |      |      |      |       |      |      |      |      |      |       |

#### Table A2: Number of Bank Employees (BoM Licensees)

| Year                                    | 2013 | 2014 | 2015 | 2016 | 2017 | 2018  | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|------|------|------|------|------|-------|------|------|------|------|------|
| Bank Employees                          | 7464 | 7532 | 7790 | 7936 | 8241 | 8,184 | 8188 | 8266 | 8129 | 8374 | 8673 |
| Source Bank of Mauritius Annual Reports |      |      |      |      |      |       |      |      |      |      |      |