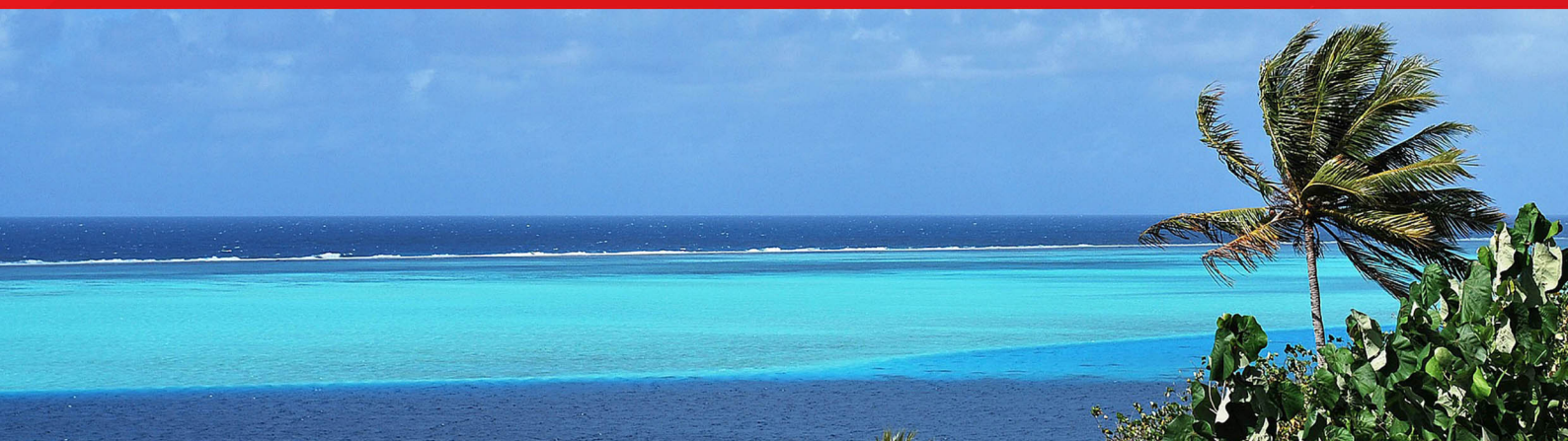# An assessment of Fiji's banking sector on a global scale

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GRIFFITH UNIVERSITY–SOUTH PACIFIC CENTRAL BANKS JOINT POLICY RESEARCH WORKING PAPER SERIES

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An Assessment of Fiji's Banking Sector
on a Global Scale

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Policy Research Working Paper Series endeavours to disseminate the findings of work in progress to academics, governments and the public at large to encourage the exchange of ideas relating to the development of Fiji's financial sector and thereby national economic growth and development. The papers carry the names of the authors and should be cited accordingly. The findings, interpretations, and conclusions expressed in this paper are entirely those of the authors and do not necessarily represent the views of the Reserve Bank of Fiji or the Government of Fiji. The texts of published papers and the titles of upcoming publications can be found on the Institute's website: www.griffith.edu.au/asiainstitute

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Contents

Abstract

This study provides the first insight into the stability and efficiency performance of Fiji's banking system on a global scale. Comparative countries include seven wide groups, covering the South Pacific, Australia, East Asia Pacific, Upper Middle Income, economies equivalent to Fiji's governance scores and those with best scores, and economies with the most developed financial systems in the world. Using an extensive range of standard measures, results show that while Fiji's stability performance might be comparable to some of the best and most developed financial systems in the world, efficiency performance is mixed, indicating a need for further assessment with a view to fostering the banking sector–led financial intermediation process and thereby the widely accepted finance–led economic growth and development. Overall, keeping domestic political and domestic and global financial and economic uncertainties in mind, together with the country's endowed testing socio–economic conditions, Fiji's banking sector has done well to remain strong, stable and profitable, including through and beyond the global financial crisis.

Keywords: banking stability, efficiency, Fiji, comparative study

1. Introduction

Notwithstanding the long–standing finance–growth debate, a large and escalating body of theoretical and empirical literature concludes that finance matters for economic growth and poverty reduction (e.g. Levine, 2005; Demirguc–Kunt and Levine, 2009). When operating effectively, finance works quietly in the background but when things go wrong, the malfunctioning of the financial system can slow growth, hasten poverty levels and destabilise entire economies. Indeed, financial crises hurt more than just those who work in finance or access the financial system. Costly bailouts of problematic institutions can seriously undermine government's ability to support key social objectives, including the funding of education, health and infrastructure programs. Consequently, malfunctioning financial systems can lay the foundations for enduring economic crises; the recent GFC and its aftermath provide remarkable attestation.

Minimising and mitigating the impacts of external as well as internal shocks thus require a detailed and updated understanding and assessment of the functioning of the financial system. Among others, it is critical for policymakers to remain well–informed about the depth, access, stability and efficiency of the banking as well as the market sectors, the so called 4x2 matrix (Cihak et al., 2012). And that is precisely the aim of an evolving strand of work, including Beck et al., 1999; Beck et al., 2000; Beck and Demirguc–Kunt, 2009; Beck et al., 2010; Cihak et al., 2012; Dider and Schmukler, 2013; Beck and Cull, 2013; Cihak, et al., 2013. However, as is albeit inadvertently but commonly the case, literature has been focussing more on developed and emerging economies with some coverage on developing economies, but the case of the developing South Pacific Economies (SPEs) is being largely overlooked. Thus, little remains known about the capacity of financial sectors in these economies to withstand the impact of the on–going crisis, the next internal or external shock and the efficiency of the sector to facilitate growth and poverty reduction.

If indeed malfunctioning financial systems can slow growth, accelerate poverty levels, undermine entire economies and lay the foundations for persistent economic crises then the case of the SPEs needs urgent attention, for these economies are not only small, but vulnerable to internal and external shocks, and constantly growth and poverty challenged (e.g. Briguglio, et al., 2006; Streeten, 1993). The case of SPEs is not only urgent and fills the above void in the literature, it also provides fresh evidence from a unique laboratory for understanding the stability and efficiency of financial sectors as the global financial crisis deepens. Time series data availability and reliability issues limit our detailed country study to only Fiji in the region. But this limitation also provides a valuable opportunity. Fiji has endured a number of major internal and external shocks, and with its known vulnerability and socio–economic circumstances in mind, banking stability and efficiency are likely to have been adversely affected (Calomiris and Harber, 2014). However, if, on the other hand, the banking sector has remained relatively stable and efficient, then this part of the world, often overlooked in the literature, might truly provide important lessons to the rest of the world.

With respect to the financial sector, the focus is on the banking sector for the reason that across the SPEs, including Fiji, the banking sector *is* more or less the financial sector (Sharma and Roca, 2012). In any case, financial markets worldwide have always been created and sustained by banks. In assessing the functioning of Fiji's banking sector, we examine two aspects: stability and efficiency. Bank stability is critical for broader macroeconomic stability and efficiency analysis indicates the cost of intermediation; more efficient financial systems are expected to perform intermediation functions in the least costly way possible. In light of the foregoing, the research questions are, on a global scale: (i) how *stable* has Fiji's banking sector been over the 2000–2011 period; and (ii) how *efficient* has the sector been over the same period?

Comparative analysis is conducted at two levels: country and firm, keeping in mind availability of complete, relevant, multi–variable, time series data. Re comparative country level analysis, we assemble seven wide groups of countries as follows: fellow SPEs; Australia, economies in the same region and income group per World Bank's classification—East Asia and Pacific (EAP) and Upper Middle Income countries (UMC); economies with equivalent to Fiji's (Djibouti, Algeria, Ukraine, Togo and Paraguay) and best (Finland, Sweden, Denmark, New Zealand and Norway) governance scores in 2011; and per World Economic Forum, the most developed financial systems in the world—Hong Kong, US, UK, Singapore, Canada.

For firm level analysis, where relevant data is available, we compare the performances of the three more established, long–serving banks in Fiji—ANZ (Australia and New Zealand Banking Corporation Ltd), WBC (Westpac Banking Corporation Ltd), and BOB (Bank of Baroda). Fiji's banking history dates back to 1873, with the foregoing banks operating in Fiji as follows: WBC 1901; ANZ 1953 and BOB 1961. The market share of the three aforementioned banks has been around 80% over a long period of time, including in 2011. The depth of the above comparative analysis, extensive and comprehensive, provides, we believe, a framework that has wide explanatory power; we invite other researchers to test that framework against other countries, and with different datasets, if required. The period of analysis is 2000–2011, the period for which most extensive, relevant, comparable data is available; data is sourced mainly from the World Bank; some Fiji data was obtained from the Reserve Bank of Fiji (RBF) website, as well as made available by RBF.

Using an extensive range of standard measures, results show that while Fiji's stability performance might be comparable to some of the best and most developed financial systems in the world, efficiency performance is mixed, indicating a need for further assessment with a view to improving the bank–led financial intermediation process. Overall, keeping domestic political and domestic and global financial and economic uncertainties in mind, together with the country's endowed testing socio–economic conditions, Fiji's banking sector has done well to remain strong, stable and profitable, including through and beyond the global financial crisis.

2. The Context of the Study: Fiji's Economy and Financial Structure

The Economy

Fiji has a population of around 900,000, growing at a rate of around 0.4% p.a., with 31% of the population living below the poverty line in 2009[1], of which 5.9% lived on less $1.25 per day. An ADB report notes that Fiji's fiscal sustainability and poverty problems have been significantly affected by the global economic crisis and shocks emanating from food and fuel prices and periodic cyclones and flooding. The report warns that there is a pressing need for a comprehensive set of economic and public sector reforms to provide the foundation for higher growth to tackle poverty; however, as figure 1 shows, higher growth might be a challenge. If the functioning of the financial system does indeed have implications for a country's growth and poverty, then the stability and efficiency assessment of Fiji's banking sector is critical.

Figure 1: GDP growth, 2009–2018: Fiji and comparable regions
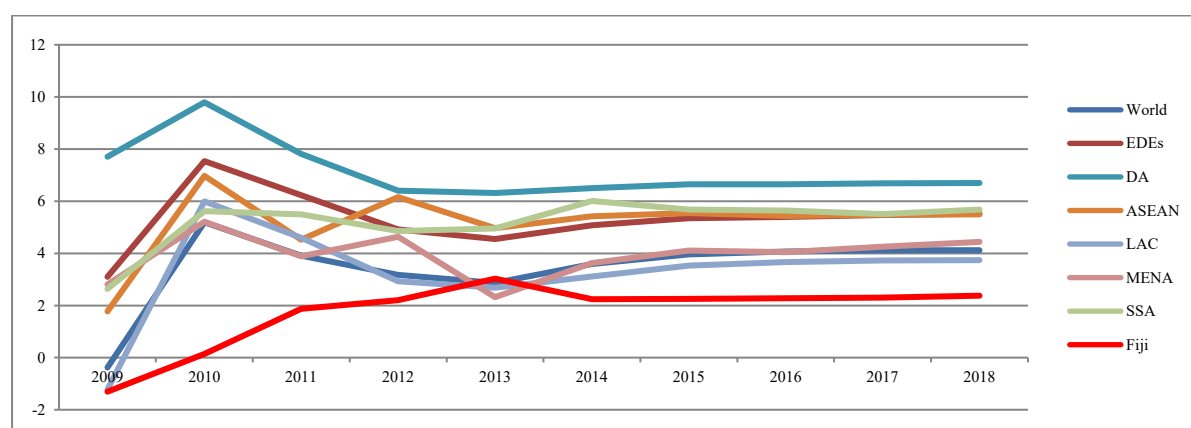
Financial Structure

Fiji, and the rest of the South Pacific, has always been a heavily bank–centric system; only two of the economies have stock markets (Fiji and Papua New Guinea), with corporate bonds and money markets virtually non-existent. The two stock markets too have remained relatively inactive and extremely small. Fiji has always been attractive to foreign banks and while foreign interest prevails, the sector has consistently been limited to four to five banks in its 140-year history; the Herfindahl–Hirschman Index (HHI) averaged 3030 and the concentration index (CI)— the share of the three largest banks relative to the total industry—averaged 88% in the 2000–2010 period (Sharma et al., 2013). Currently, there are six banks—Westpac Banking Corporation Limited (WBC, 1901); Australia and New Zealand Banking Corporation Ltd (ANZ, 1953); Bank of Baroda (BOB, 1961); Bank of South Pacific Limited (BSP, 1996); BRED Bank Limited (BRED, 2012) and Home Finance Company Bank (HFCB, 2014)— with only one (HFCB) local bank. The market shares of ANZ and WBC (the two Australian banks) together with BOB have traditionally been around 80%.

3. Methodology and Data

Methodology

We use aspects of the 4x2 matrix of financial system characteristics employed increasingly by the emerging body of work relating to benchmarking financial development around the world. Essentially, the matrix covers *four* important characteristics of financial systems—depth, access, efficiency and stability—proxies for the services provided by the financial system, and *two* segments of the system—financial institutions and markets. The resulting 4x2 matrix of financial system characteristics (table 1), which builds on a large body of empirical literature attempting to compare financial systems and benchmark financial development across countries and over time, illustrates the multi–faceted nature of financial systems. The selection of variables and their assignment to the respective cells have been verified by Cihak, et al., (2013), using principal component analysis.

Table 1: The 4x2 matrix of financial system characteristics

	Financial institutions	Financial markets
Depth	Private credit to GDP Financial institutions' assets to GDP M2 to GDP Deposits to GDP Gross value-added of the financial sector to GDP	Stock market capitalization plus outstanding domestic private debt securities to GDP Private debt securities to GDP Public debt securities to GDP International debt securities to GDP Stock market capitalization to GDP Stocks traded to GDP
Access	Accounts per thousand adults (commercial banks) Branches per 100,000 adult s (commercial banks) % of people with a bank account % of firms with line of credit (all firms) % of firms with line of credit (small firms)	Percent of market capitalization outside of top 10 largest companies Percent of value traded outside of top 10 traded companies Government bond yields (3 month and 10 years) Ratio of domestic to total debt securities Ratio of private to total debt securities (domestic) Ratio of new corporate bond issues to GDP
Efficiency	Net interest margin Lending-deposits spread Non-interest income to total income Overhead costs (% of total assets) Profitability (return on assets, return on equity) Boone indicator (or Herfindahl or H-s tatistics)	Turnover ratio (turnover/capitalization) for stock market Price synchronicity (co-movement) Private information trading Price impact Liquidity/transaction costs Quoted bid-ask spread for government bonds Turnover of bonds (private, public) on securities exchange Settlement efficiency
Stability	Z-score (or distance to default) capital adequacy ratios asset quality ratios liquidity ratios Other (net foreign exchange position to capital etc.)	Volatility (standard deviation/average) of stock price index, sovereign bond index Skewness of the index (stock price, sovereign bond) Vulnerability to earnings manipulation Price/earnings ratio Duration Ratio of short-term to total bonds (domestic, international) Correlation with major bond returns (German, U.S.)

Source: Adopted from Cihak, et al., 2013, p21

More direct measures of how effectively financial systems: (i) produce information and allocate capital; (ii) monitor investments and exert corporate governance; (iii) facilitate trading, diversification and management of risk; (iv)

mobilise and pool savings; and (v) ease the exchange of goods and services, would be ideal but remain a major challenge (e.g. Levine, 2005). Thus, proxies, captured in the 4x2 matrix (table 1) are commonly used in the literature to understand the multi–dimensional aspects of financial systems. For example, 'financial depth' is not a function in itself; it is only a proxy of the overall extent of services provided by the financial system. Similarly, the variables encapsulated in the 'access' cell, are not direct measures of how effectively financial systems identify good investments, irrespective of collateral; together, they provide an approximation of the breadth of use of financial products and services. It may also be noted that the industry, regulators, governments as well as academic research commonly use the ratios in the 4x2 matrix to evaluate past and future performance of financial systems (see among others, Cihak and Schaeck, 2010; Oosterloo et al., 2007; Sorge and Virolainen, 2006). Of the four groups of characteristics, we focus only, but comprehensively, on efficiency and stability. As outlined below, we use a wide group of countries for comparative analysis.

Comparative Countries

Comparative analysis is conducted at two levels: country and firm. For country level analysis, we assemble a wide but relevant group of countries. First, fellow SPEs—Papua New Guinea (PNG), Solomon Islands (SI), Vanuatu, Tonga and Samoa—the countries for which the most extensive, relevant data are available. Second, Australia: banks in Fiji, and elsewhere in the SPEs, are largely branches of Australian, with respective market shares historically up to 75% of total banking assets, deposits and loans—Australia is also Fiji's major trading and investment partner, and aid donor, plus it is one of the few developed banking systems in the world that was least affected by two widespread financial crises—Asian (1996) and Global (2007). The stability and efficiency performance of Fiji's banking sector compared to Australia's is then likely to provide interesting and meaningful insights.

Third, per the World Bank's classifications, Fiji falls in the East Asia and Pacific (EAP) region, is an Upper Middle Income country (UMC) as well as a developing, small state; comparisons with averages of similar groups of economies might then also provide meaningful insights; we also include sub–Saharan Africa (SSA) and the world (WLD) averages. Fourth, another set of countries we are interested in are those with governance scores similar to Fiji's in 2011, and here, of the six World Bank governance dimensions, we focus on *rule of law*. Our interest in this indicator is derived from theoretical and empirical literature which shows that *rule of law* or *legal institutions* matter for financial development (e.g. La Porta et al. 1997, 1998). The countries with similar *rule of law* scores to Fiji's in 2011 included: Djibouti, Algeria, Ukraine, Togo and Paraguay. Fifth, in 2011, the countries at the top of the *rule of law* ladder were: Finland (1.96), Sweden (1.95), Denmark (1.93), New Zealand (1.91) and Norway (1.89); it would be interesting to see how Fiji's bank stability and efficiency performance might have compared with these countries.

Sixth, another group of countries that we have an interest in are those at the top of the list per the World Economic Forum's most developed financial systems in the world[2]—Hong Kong, US, UK, Singapore and Canada[3]. Seventh, we compare Fiji's situation with the best in the world with respect to each of the many variables used to measure stability and efficiency. For industry level analysis, we compare the performances of three of the more established banks in Fiji—ANZ, WBC, and BOB—with their global operations.

Data

The period of analysis is 2000–2011, the period for which most extensive, relevant, comparable data is available. Our main data source is the newly launched, World Bank's Global Financial Development Database (GFDD), based essentially on the above 4x2 matrix, covering 205 countries worldwide, from 1960 to 2011. The GFDD is an extensive worldwide database combining and updating numerous previous efforts, over several years, including, particularly, the Financial Development and Structure Dataset by Beck et al. (2000, 2010); Financial Access Survey (http://fas.imf.org); the Global Financial Inclusion Index (www.worldbank.org/globalfindex); and Financial Soundness Indicators (http://fsi.imf.org). Other important sources include: Bankscope, Bloomberg, Deologic, Thompson Reuters DataStream, Doing Business Database, IMF's access to finance database, World Development Indicators, International Financial Statistics, and Bank for International Settlements. The data set is publicly available at www.worldbank.org/financialdevelopment and http://data.worldbank.org/data-catalog/global-financial-development. Some Fiji data has been sourced from the Reserve Bank of Fiji (RBF) website[4] and also provided by RBF.

4. Stability of Fiji's Banking Sector

Financial stability measures the resistance of institutions and markets to internal and external shocks; it also provides an indication of how well institutions and markets are accomplishing their basic functions of intermediation, risk management and payment mechanisms. In short, it gives an indication of the level of confidence one might have in a financial system to continue investing, without significant concerns of losing their capital. Per table 1, and based on comparative data availability, we employ the following measures to assess the stability of Fiji's banking industry: capital adequacy ratio (CAR); nonperforming loans to gross loans (NPL); liquid assets to deposits and short–term funding (LAD); and bank credit to deposits ratio (BCDR).

Capital Adequacy Ratio (CAR)

About the Measure

We begin our analysis with the perhaps the most prominent, global measure of bank stability—capital adequacy ratio (CAR). Known also as regulatory capital ratio, CAR is the ratio of total capital to total risk weighted assets. Total capital in turn is made up of tier 1 and 2 capital—Tier 1 is expected to absorb losses without a bank being required to cease trading, e.g. ordinary share capital, and Tier 2 is expected to absorb losses in the event of a winding–up and so provides a lesser degree of protection to depositors, e.g. subordinated debt. Most countries worldwide have had minimum regulatory capital requirements imposed on banks as a condition of licence; the requirements, in turn, are largely consistent worldwide, based on Basel recommendations. Worldwide, the minimum legal requirement has varied between 8–12%; in the case of Fiji, it is currently 12%.
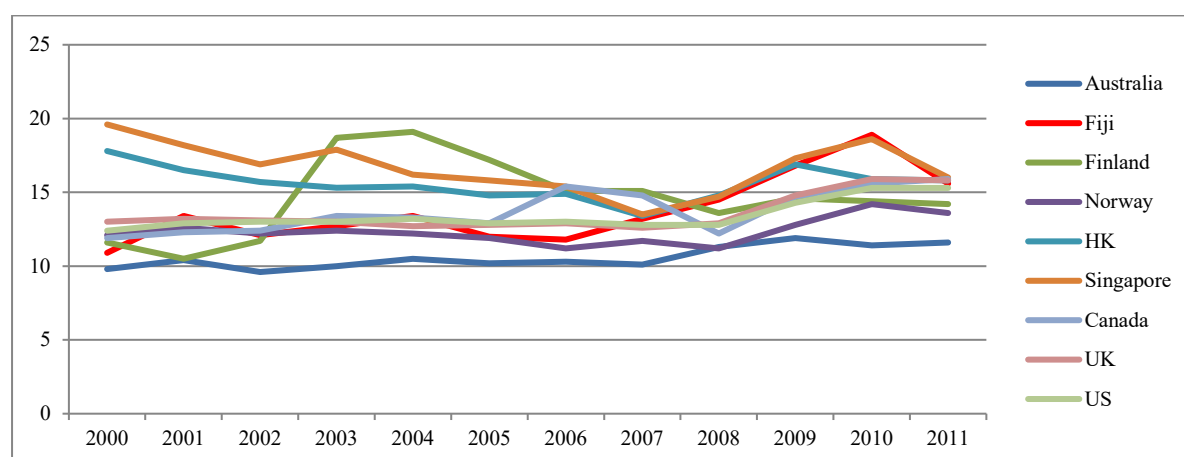
Country Level Analysis

In 2011, Fiji's country level capital adequacy ratio (CAR) was 15.6, much higher than the imposed legal requirement of 12% (figure 2). Moreover, the ratio measured up very well with the wide range of our comparator countries and regions. For example, Fiji's ratio was equivalent to the world's five most developed financial systems—HK, US, UK, Singapore and Canada. It was also better than Australia's and two of the top five countries in the world with the best rule of law score in 2011—Finland and Norway. Thus, in 2011, Fiji's CAR was comparable to the best in the world—another country that Fiji appears comparable to is Mauritius (15.6).

Figure 2: Bank capital adequacy ratio (CAR, %)—Fiji versus comparator countries and regions, 2011
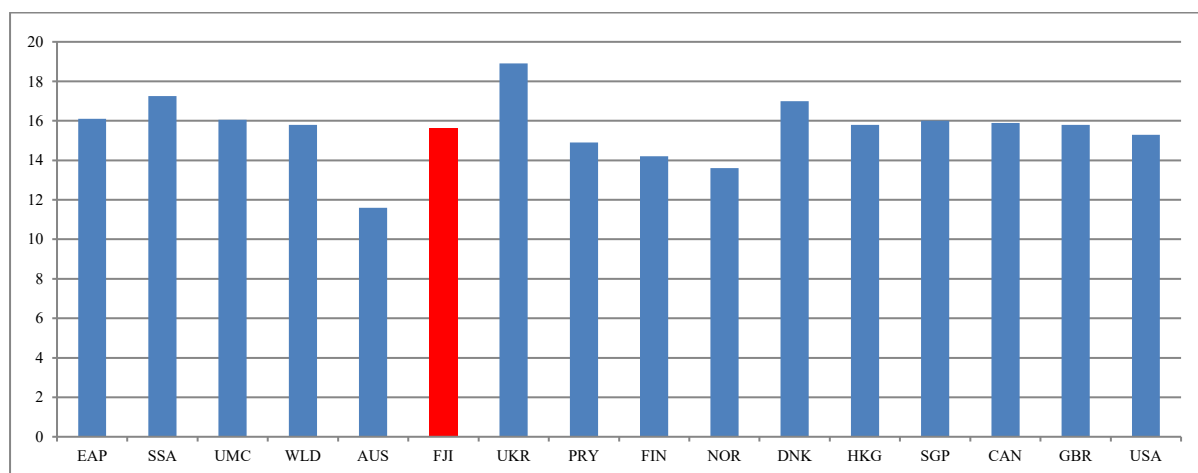
Fiji's good CAR performance appears to have been consistent over the 2000–2011 period (figure 3). In the later part of the period, Fiji's ratio seems to be trekking very closely to Singapore's, one of the world's most developed financial sectors. Again, over the sample period, Fiji's performance has been better than Australia's. Figure 3 also shows that Fiji's CAR had strengthened over the years.

Figure 3: Capital adequacy ratio (CAR, %)—Fiji versus comparator countries and regions, 2000–2011

Firm Level Analysis

Fiji's foregoing country level CAR performance appears to be reflected also in each of the three more established, long–serving banks in Fiji—ANZ, BOB, and WBC. As figure 4 shows, the capital ratio for each of the three banks has consistently been above the 8%–12%[5] minimum, indicating that these banks are strongly capitalised and have adequate reserves for absorbing unexpected losses; i.e. the capital risk of banks in Fiji is relatively low. It might also be noted that the ratio for all banks has largely been trending upwards post 2007—a period of otherwise increasing worldwide economic and financial uncertainty. This is possibly due to the low levels of foreign reserves at the time, and subsequent exchange controls that delayed profit remittances.

Figure 4: Capital adequacy ratios of banks in Fiji, 2000–2011
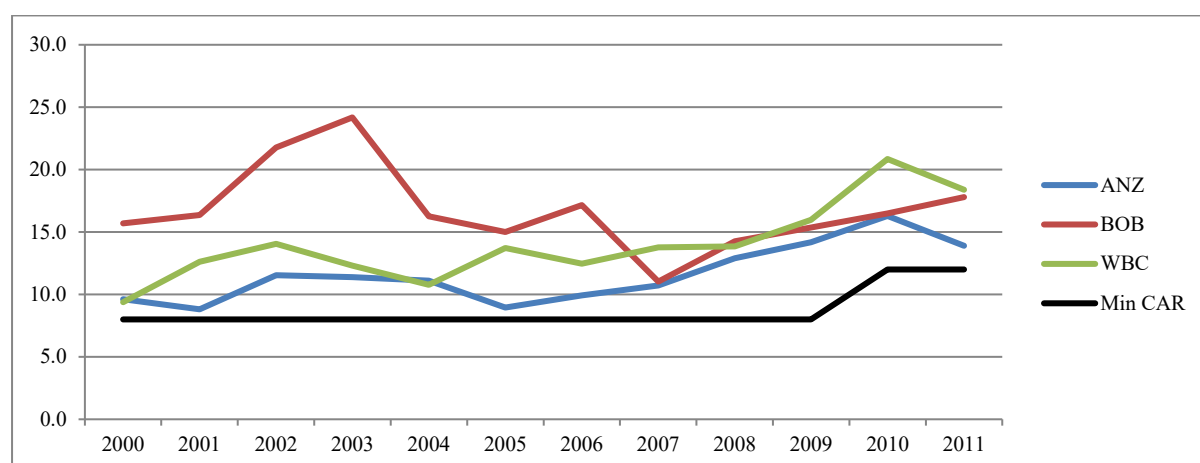
Non–Performing Loans to Gross Loans

About the Measure

This is the ratio of defaulting loans (payments of interest and principal past due 90 days or more) to total gross loans (total value of loan portfolio). The loan amount recorded as nonperforming includes the gross value of the loan as recorded on the balance sheet, not just the amount that is overdue. This ratio signals the caution exercised by banks while extending loans, and/or external factors that affect the banks' loan book outside bank control. High ratios do not augur well for financial stability[6].

Country Level Analysis

In 2011, Fiji's NPL ratio of 2.9 measured up relatively well with comparator countries and regions (figure 5). For example, Fiji's ratio was lower than two of the most developed financial sectors in the world—UK and US. It was also lower than Denmark's—one of the top five countries in the world with the best rule of law scores in 2011. Further, it was also lower than SSA, WLD and UMC averages and equivalent to the EAP average. Again, another country that Fiji appears comparable to is Mauritius (2.8).

Figure 5: Non-performing loans to gross loans (NPL, %)—Fiji vs comparator countries and regions, 2011
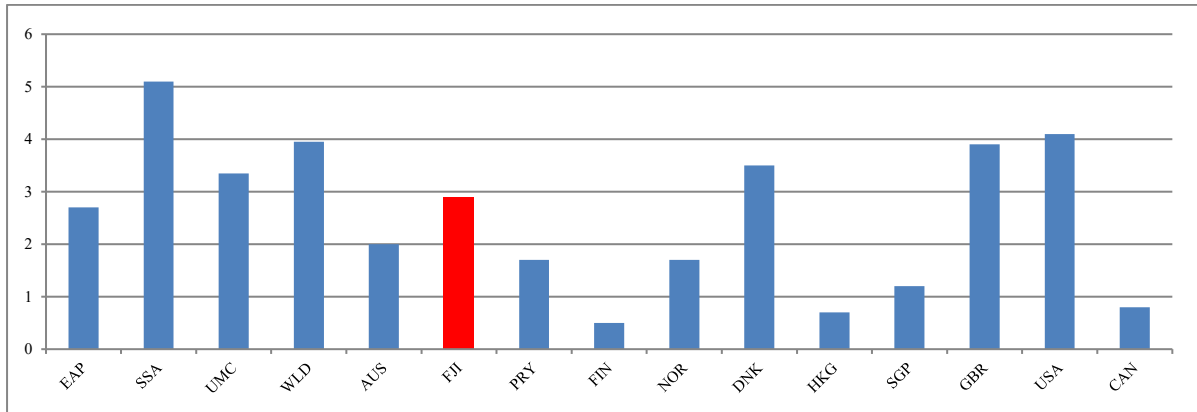
Fiji's NPL appears to measure up very well with comparator countries and regions over a longer period of time as well; as figure 6 shows, Fiji's ratio over the 2000–2011 period was more or less in the company of some of the most developed financial systems in the world—US and UK; in fact, Fiji's performance in the later part of the period appeared better. Similarly, it was also better than Denmark's in the later part of the period and definitely better than Ukraine and SSA for most of the period. Figure 6 also shows that apart from a spike in 2007, Fiji's NPL appears well managed, especially in the post–GFC period. This may be explained through the absence of trigger conditions that would have adversely affected Fiji's NPL levels such as a general increase in interest rates, or conditions that would have negatively impacted on economic growth.

Figure 6: Non-performing loans to gross loans (NPL, %)—Fiji versus comparator countries and regions, 2000–2011
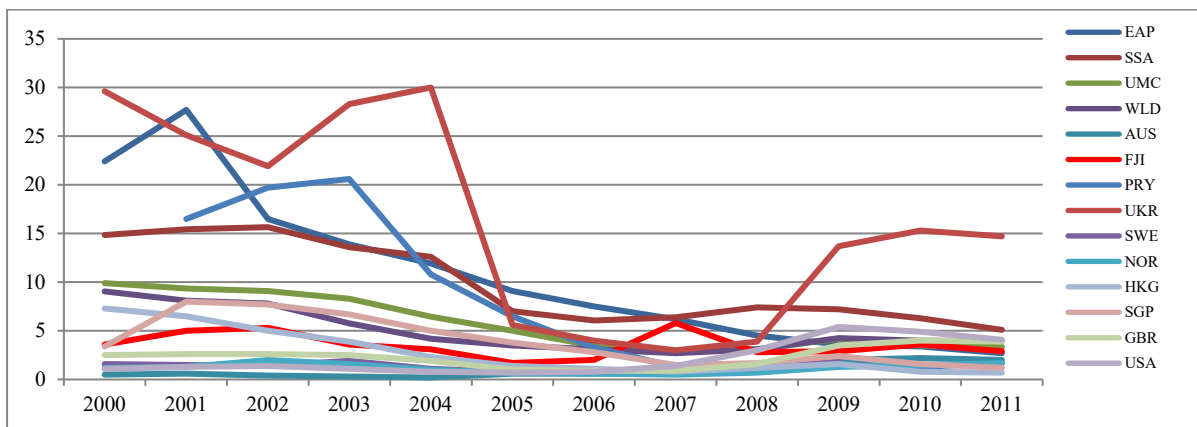
Liquid Assets to Deposits and Short Term Funding (LAD)

About the Measure

This is the ratio of the value of liquid assets to short–term funding plus total deposits. Liquid assets include cash and due from banks, trading securities and at fair value through income, loans and advances to banks, reverse repos and cash collaterals. Deposits and short term funding include total customer deposits (current, savings and term) and short term borrowing (money market instruments, CDs and other deposits). Very high ratios might

indicate excessive loanable funds, perhaps for reasons of lack of bankable projects, resulting in under banking. Very low ratios, on the other hand, might indicate too much funds tied up in illiquid assets, and might not augur well for financial stability.
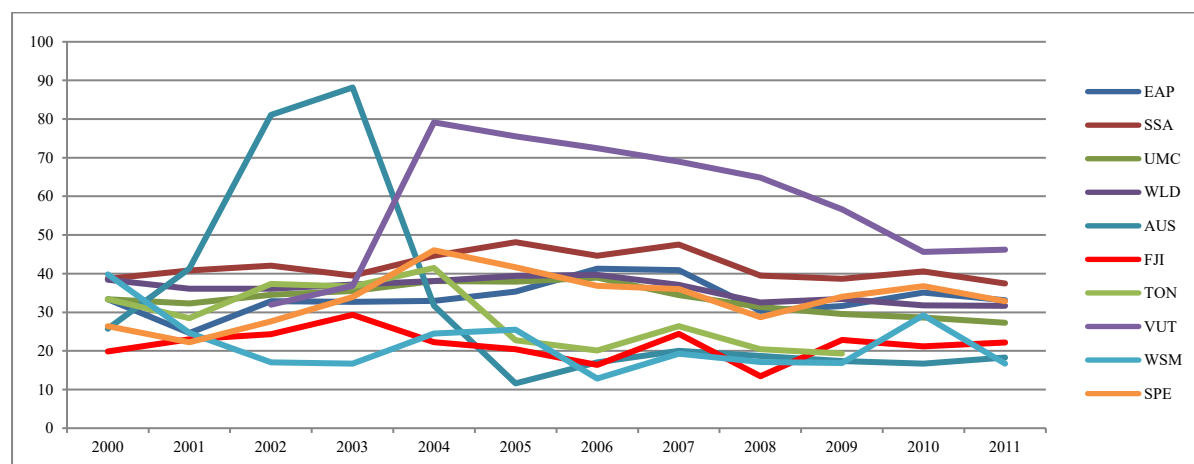
Country Level Analysis

**Figure 7: Liquid assets to deposits and short term funding (LAD, %)—Fiji versus comparator countries and regions, 2011**
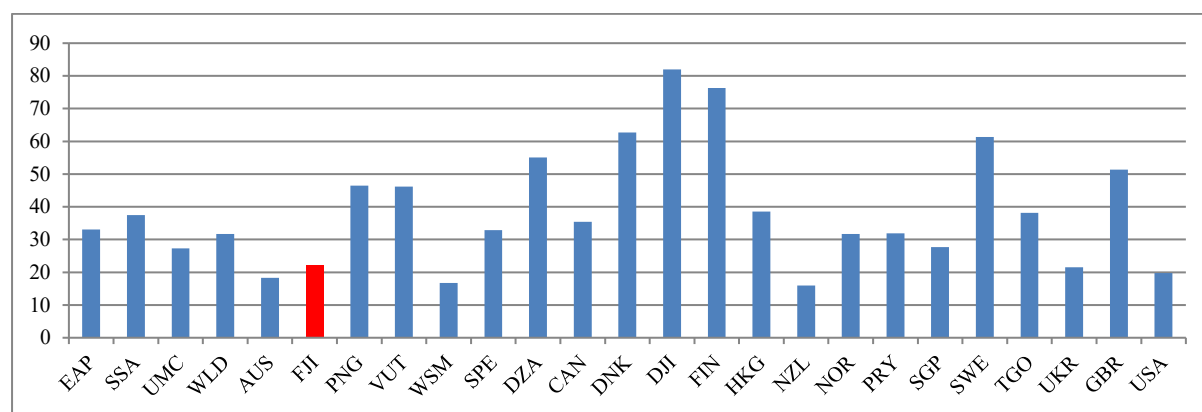
In 2011, Fiji's LAD was 22, which also compared well with comparator countries and regions. For example, the ratio was equivalent to that of US and UK—two of the world's most developed financial systems and roughly the same as Australia's (figure 7). A country that Fiji has been trekking well with—Mauritius—had a LAD of 33 in 2011, which was about the WLD, EAP and SPE averages. While a meaningful benchmark for this ratio is not available, Fiji does not, by any account, seem to be an outlier.

Figure 8–1: Liquid assets to deposits and short term funding (LAD, %)—Fiji versus comparator countries and regions, 2000–2011

Fiji's LAD appears to have been relatively steady as well over a period of time—2000–2011 (figures 8–1 and 8–2). Figure 8–1, which compares Fiji's situation with SPEs, regional averages and Australia, shows that Fiji's LAD trend might have been one of the more stable ones over the sample period. Similarly, compared to the world's most developed financial systems and countries with the best rule of law scores, Fiji's LAD trend might have been relatively stable (figure 8–2). Moreover, Fiji's LAD appears to be on the lower side.

Figure 8–2: Liquid assets to deposits and short term funding (LAD, %)—Fiji versus comparator countries and regions, 2000–2011
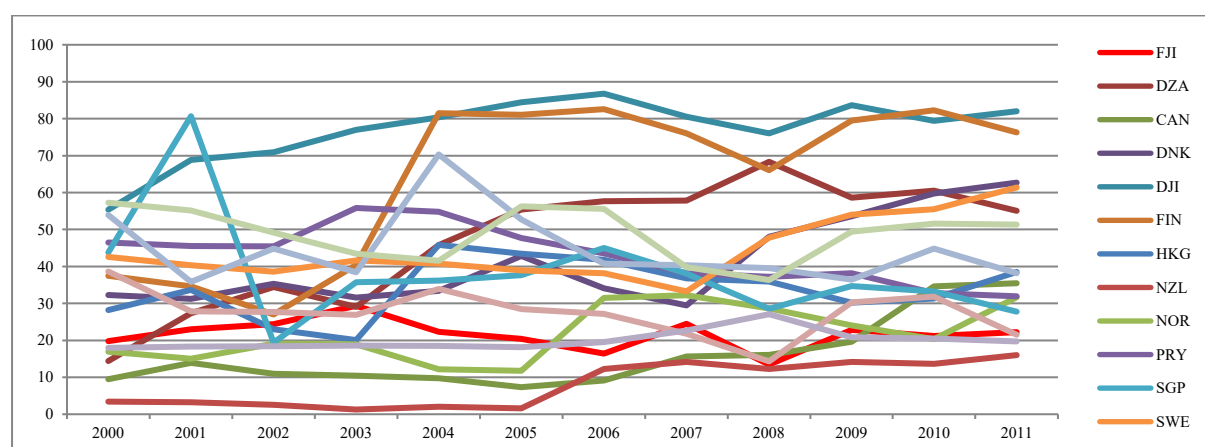

Bank Credit to Bank Deposits (BCDR)

About the Measure

BCDR reflects the financial resources provided to the private sector by domestic money banks as a share of total deposits—sum of demand, time and saving deposits. While regulators do not specify a minimum or maximum ratio for this anymore, especially since the worldwide adoption of the BIS capital adequacy framework, lower ratios might indicate that banks are not fully utilising their resources; higher ratios, on the other hand, might indicate greater reliance on deposits for lending and a likely pressure on resources. Thus, lower ratios might indicate that banks are not maximising their earnings; higher ratios might indicate future liquidity, capital, liability mismatch problems—significantly high ratios might indicate future stability problems.

Country Level Analysis

Figure 9: Bank credit to bank deposits (BCDR, %)—Fiji versus comparator countries and regions, 2011
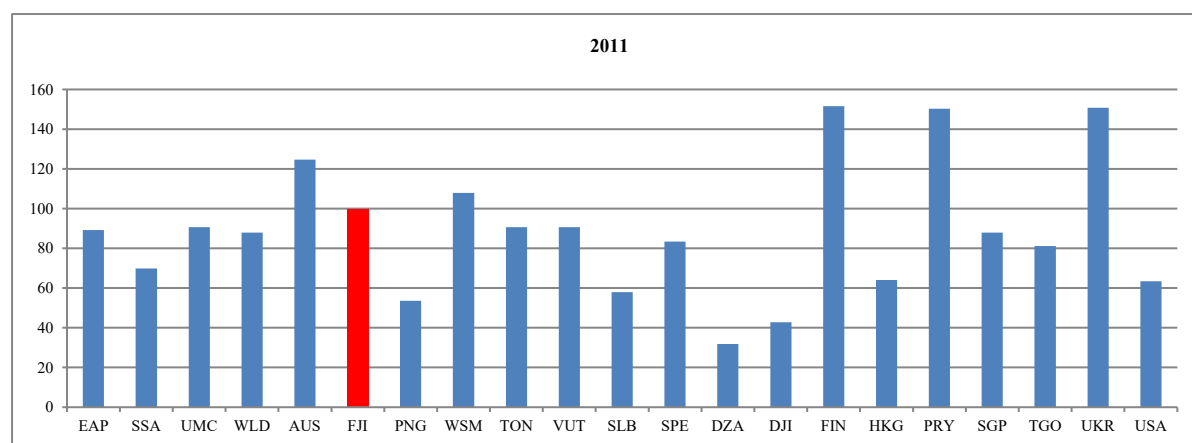

In 2011, Fiji's BCDR was 99, a bit higher than the WLD, EAP and UMC averages (all around 90) but also lower than Australia's (124) (figure 9). It was also higher than three of the world's most developed financial systems—HK, Singapore and US. On the other hand, Finland, Paraguay and Ukraine had much higher ratios (around 150). Further, Fiji's ratio was again more comparable to that of Mauritius (also 99) and close to the HIC average (102). Thus, Fiji's ratio does not seem to be out of line; there does not seem to be anything odd about it.

Figure 10–1: Bank credit to bank deposits (BCDR, %)—Fiji versus comparator countries and regions, 2000–2011
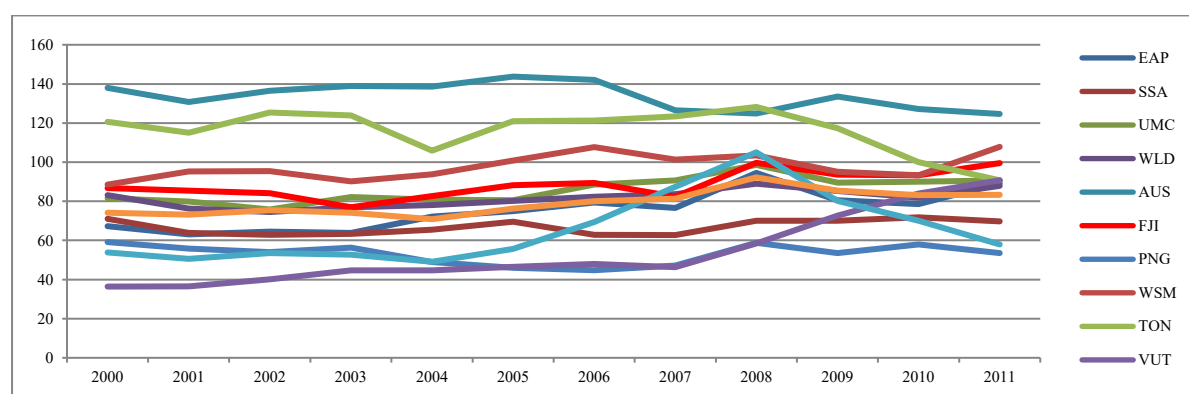
Figures 10–1 and 10–2 suggest that Fiji's BCDR might have increased gradually in the 2000–2011 period and might seem a bit high compared to some countries, including some fellow SPEs. On the other hand Fiji's scores have been below Australia's. Overall, Fiji's trend is not concerning.

Figure 10–2: Bank credit to bank deposits (BCDR, %)—Fiji versus comparator countries and regions, 2000–2011
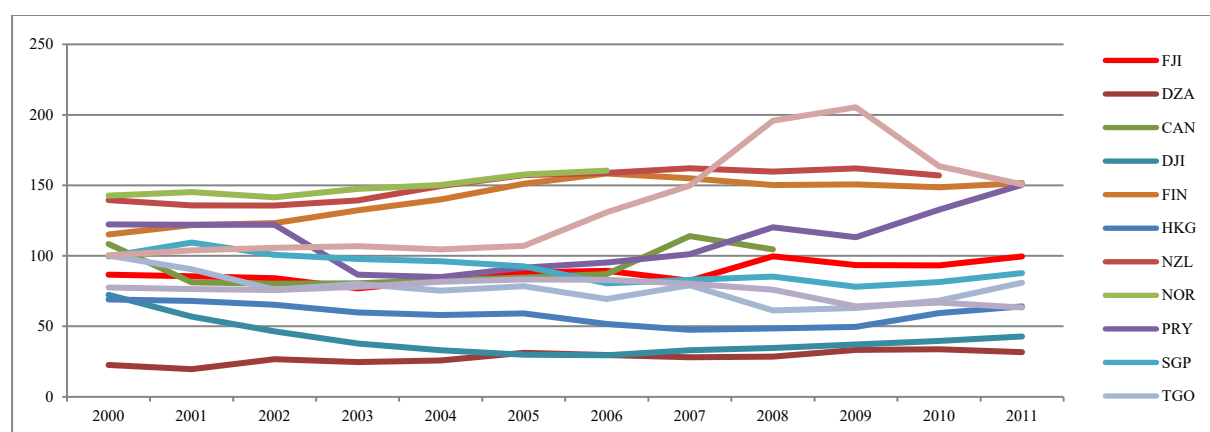
Fiji's Stability Performance Summary

The study uses the following common measures in the literature to analyse Fiji's stability performance against a wide group of countries, over the 2000–2011 period: capital adequacy ratio (CAR); nonperforming loans to gross loans (NPL); liquid assets to deposits and short–term funding (LAD); and bank credit to deposits ratio (BCDR). None of the measures indicate that Fiji's stability performance might have been concerning; in fact, overall, Fiji's stability performance might have been comparable to some of the best and most developed financial systems in the world.

5. Efficiency of Fiji's Banking Sector

Essentially, efficiency measures the cost of intermediating credit. Efficient and effective allocation of credit, at affordable prices, is crucial for effective operation of the finance–growth mechanism. Increasing competition for financial services, technological innovation and banking consolidation, for example, are focussed on controlling costs in banking and providing services and products efficiently. Per table 1, and based on comparative data availability, we employ the following measures to assess the efficiency of Fiji's banking industry: bank lending–deposit spread (spread); bank net interest margin (NIM); bank return on assets (ROA before tax); bank return on equity (ROE before tax); bank overhead costs to total assets (OH); bank cost to income ratio (BICR); and bank noninterest income to total income (NII).

Bank Lending–Deposit Spread (Spread, per cent)

About the Measure

This measure is the difference between banks' lending and deposit rates, the difference between interest earned on loans less that paid on deposits. Higher spreads indicate higher profit making potential of banks—very high spreads might indicate lack of competition in the industry.

Country Level Analysis

In 2011, at 3.7%, Fiji's spread was among the lowest across all comparator countries and regions (figure 11). In fact, only two comparator countries had lower spreads than Fiji's—Canada (one of the five countries with most developed financial systems) and NZ (one of the five with the world's best rule of law score in 2011). Fellow SPE countries had much higher spreads; that of Solomon Islands, for example, was three times higher. Fiji's 2011 ratio appears more comparable to Australia's. Interestingly, the bank spread in Mauritius—a country that Fiji trekked well with re stability analysis—was 1.8, about the same as NZ's. On the other hand, the average for HIC was 4.7.

Figure 11: Bank lending–deposit spread (spread, %)—Fiji versus comparator countries and regions, 2011
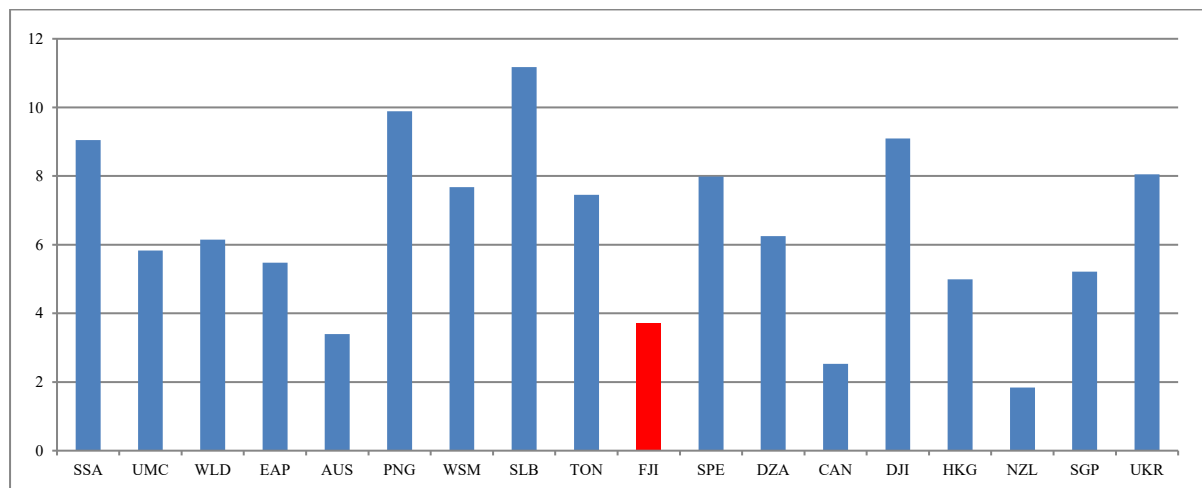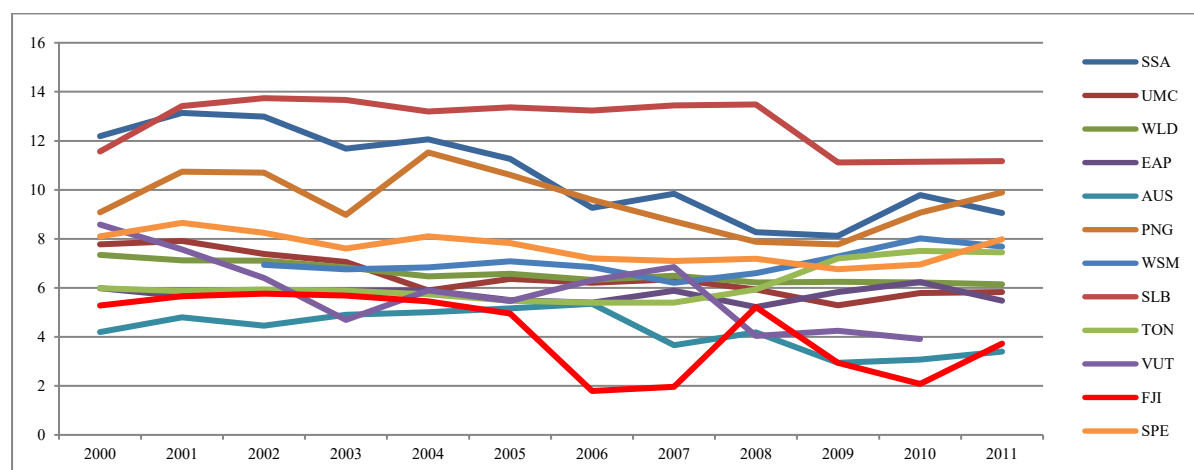
Figure 12–1: Bank lending–deposit spread (spread, %)—Fiji versus comparator countries and regions, 2000–2011

Over the 2000–2011, relative to a number of comparative countries and regions, Fiji's spread might have been one of the lowest (figure 12–1) and did not appear too high relative to the rest of the comparator countries as well (figure 12–2). Occasionally, it might have been a bit high but substantial falls are also evident, including in the period prior to the 4% regulation of the net interest margin announcement, down to a low of 2%.

Figure 12–2: Bank lending–deposit spread (spread, %)—Fiji versus comparator countries and regions, 2000–2011
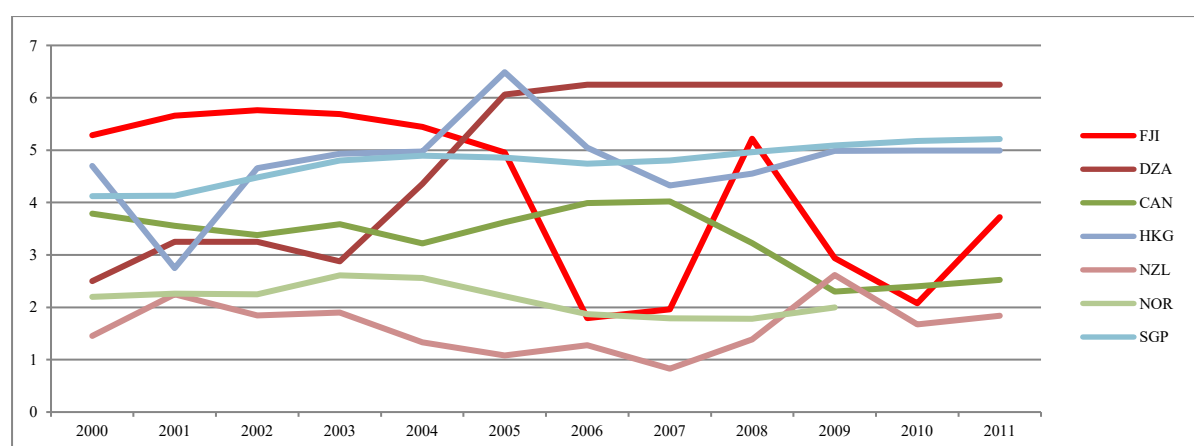
Bank Net Interest Margin (NIM)

About the Measure

Percentage difference between the interest income produced by a bank's earning assets (loans and investments) and its major expense—interest paid to its depositors. As with spread, wider margins indicate higher profit making potential of banks—very wide margins might indicate lack of competition in the industry.

Country Level Analysis

In 2011, at 3.6%, Fiji's NIM was lower than the EAP, SSA, UMC and the WLD averages and a number of its fellow SPEs (figure 13). However, it was also notably higher than a number of other comparative countries, including Australia, countries with more developed financial systems and those with best rule of law scores. Overall, Fiji's NIM appears similar to USA's but again higher than that of Mauritius, a country Fiji otherwise has been quite comparable to across a number of measures.

Figure 13: Bank net interest margin (NIM, %)—Fiji versus comparator countries and regions, 2011
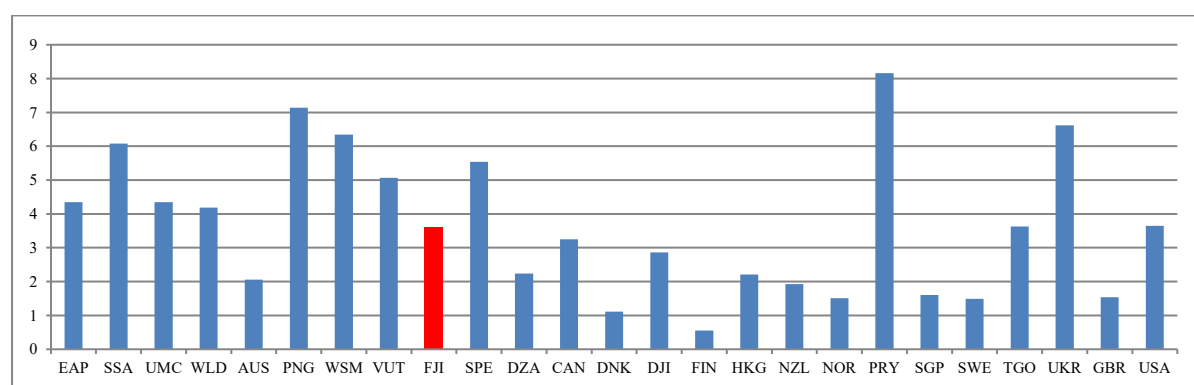
Over the 2000–2011 period, the trends are similar to that observed above: against some comparative countries Fiji's NIM has been relatively low (figure 14–1), against some others, it has been high (figure 14–2). Importantly, it has been higher than Australia's and most of the economies with more developed financial systems plus those with the best rule of law scores in 2011. Interestingly, while banking spreads have not been high, NIM might be considered high; this perhaps explains the regulatory stance noted above, possibly, banking profits might have been considered to be noticeably high.

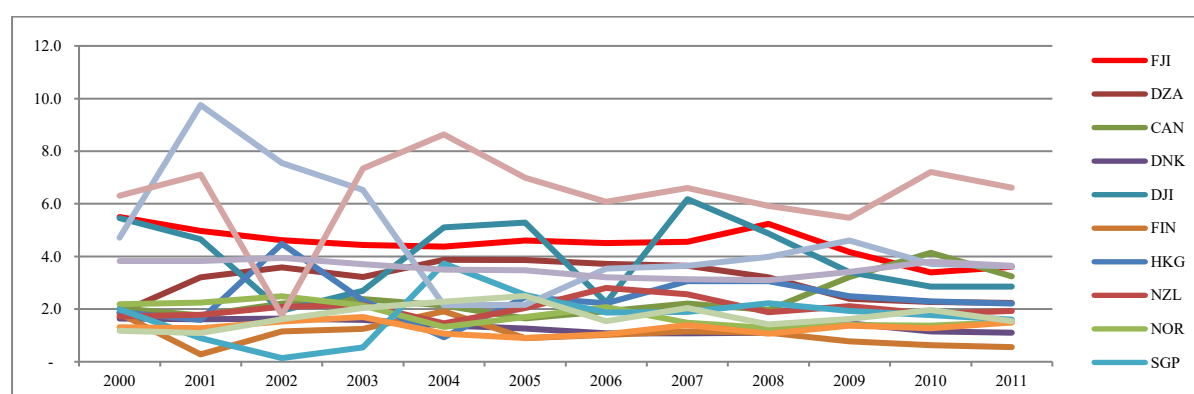Figure 14-1: Bank net interest margin (NIM, %)—Fiji versus comparator countries and regions, 2000–2011
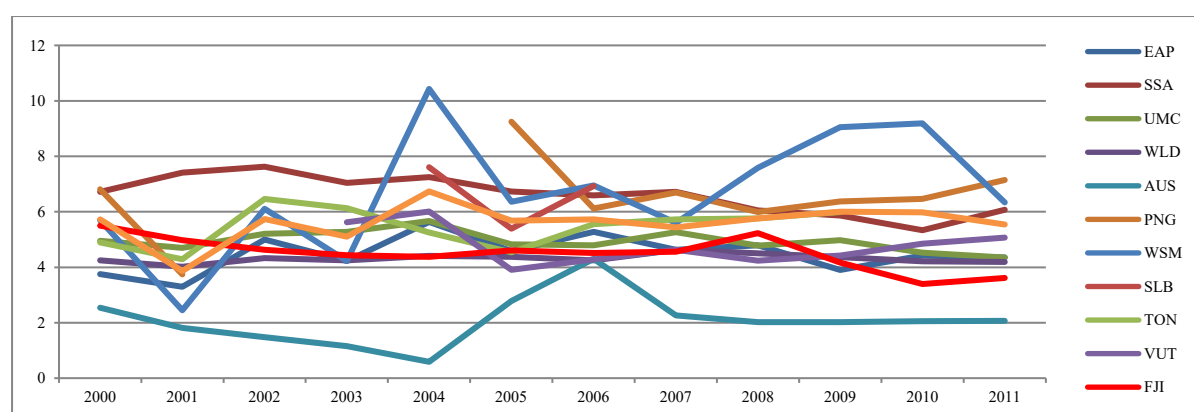
Figure 14-2: Bank net interest margin (NIM, %)—Fiji versus comparator countries and regions, 2000–2011

Bank Return on Assets (ROA, Before Tax)

ROA is a standard profitability measure in the accounting and finance disciplines to quickly ascertain a profit–making firm's ability to efficiently generate profits from asset utilisation. A declining ratio indicates an emerging efficiency as well as a profitability problem and is a concern to both the bank and regulator; relatively high ratios, on the other hand, might indicate inadequate market competition and/or monopolistic power, also a sign of an inefficient financial intermediation process.

Country Level Analysis

In 2011, Fiji's ROA was 2.6, higher than most comparator countries (figure 15). For example, Fiji's ratio was higher than EAP, UMC and WLD averages, as well as Australia's. It was also higher than the top five countries in the world with the best rule of law scores in 2011 as well as the top five countries with the most developed financial systems. Fiji's profitability performance appears to be similar to two of the countries with similar rule of law score as Fiji's in 2011—Paraguay and Togo, one fellow SPE country—Vanuatu, and SSA. Interestingly, a country that Fiji seemed to be trekking very closely with re stability performance—Mauritius—also had a lower country level score, just 1.4. Comparator countries with higher ROA ratio in 2011 included PNG and Samoa. Thus, despite a controlled spread, in 2011, the ROA of banks in Fiji was high.

Figure 15: Bank return on assets, before tax (ROA, %)—Fiji versus comparator countries and regions, 2011
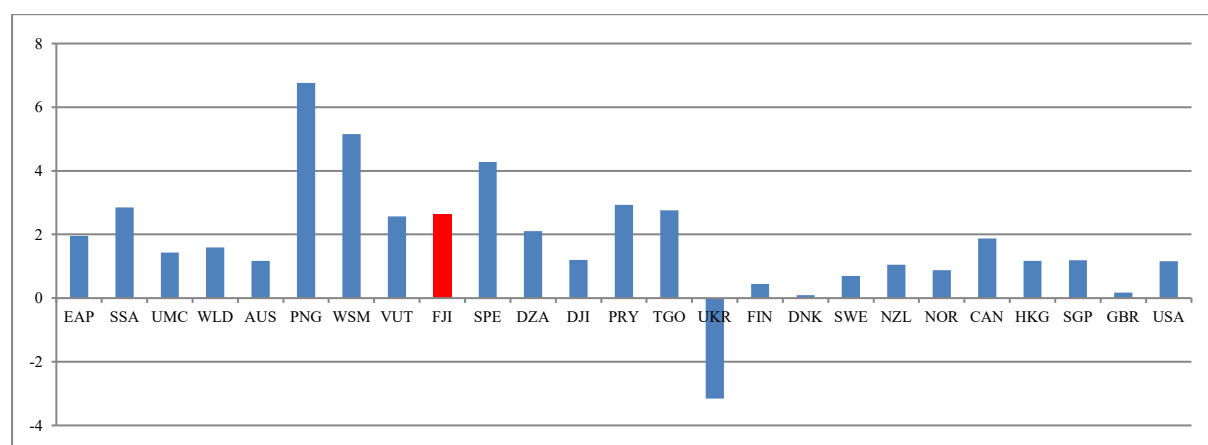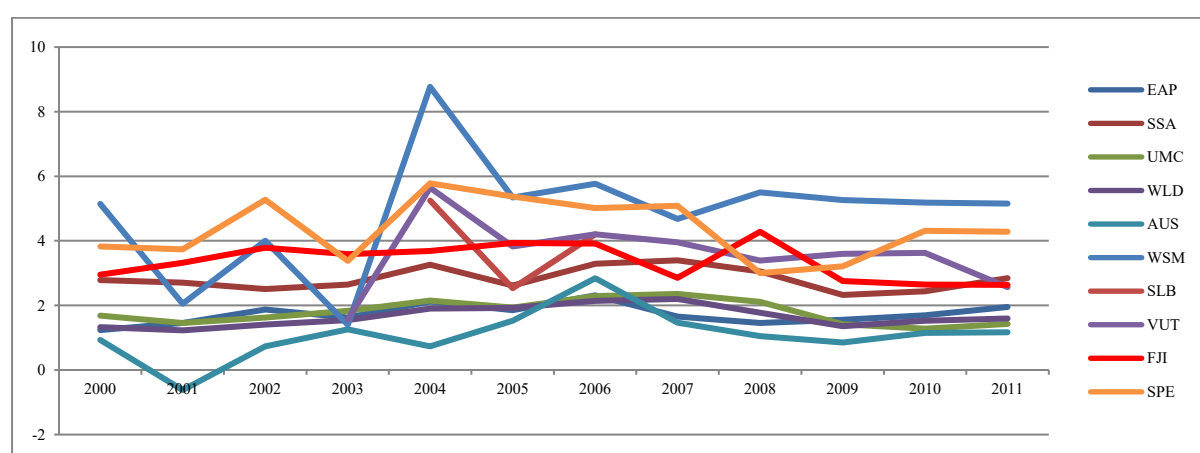

Figure 16–1: Bank return on assets, before tax (ROA, %)—Fiji versus comparator countries and regions, 2000–2011

Fiji's ROA appears relatively steady and high over a longer period of time—2000–2011 (figures 16–1 and 16–2). As figure 16–1 shows, compared to various averages, fellow SPEs and Australia, Fiji's profitability performance measured by ROA was strong, which becomes more obvious when compared to the rest of the comparator countries (figure 16–2). Fiji's performance in the 2000–2011 period as well was much stronger than countries with the world's most developed financial systems and those with the best rule of law in 2011. Thus, regulation

of net interest margins does not seem to have had significant adverse implications for profitability generating abilities of banks in Fiji.

Figure 16–2: Bank return on assets, before tax (ROA, %)—Fiji versus comparator countries and regions, 2000–2011
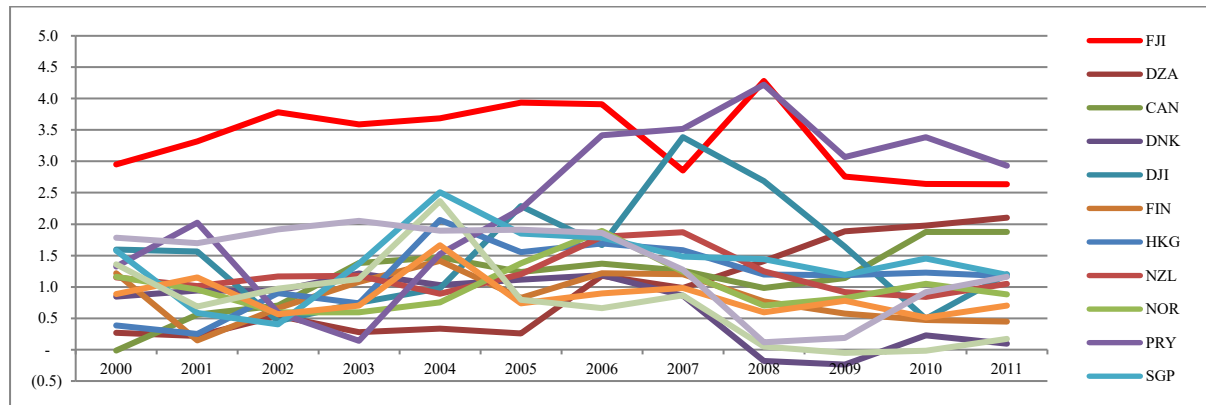
Firm Level Analysis

The ROAs of the three selected banks in Fiji, compared to respective global operations are illustrated in figure 17, where "Fj" is Fiji operations and "G" is global, and where the darker lines are Fiji's. As the figure shows, over the 2000–2011 period, the ROA performance of all three Fiji operations had been much stronger than their corresponding global operations. For example, the gap between WBC's Fiji and global operations (pink lines) is remarkably huge. Thus, Fiji's ROA appears high at both the country and firm levels.

Figure 17: Return on assets (ROA, %) of banks in Fiji, 2000–2011
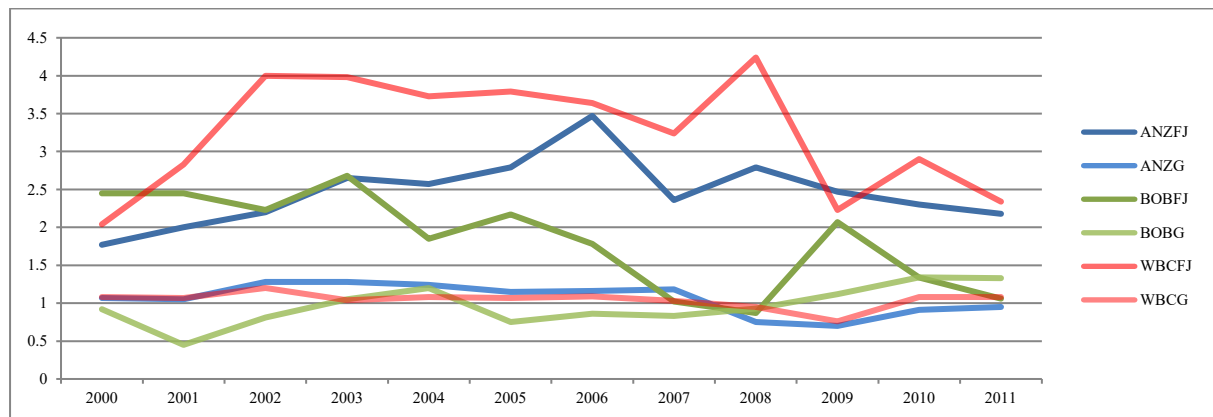
Source: Reserve Bank of Fiji

## Bank Return on Equity (ROE, Before Tax)

About the Ratio

This ratio is commonly used as a substitute for, or complement to, the ROA; here it is used to cross–check the above findings.

Country Level Analysis

Fiji's ROE performance in 2011 was equally strong (figure 18). For example, Fiji's performance (22.5) was again better than EAP, UMC and World averages, and Australia's. Similarly, it was better than the top five countries in the world with the best rule of law scores in 2011 and four of the five with the most developed financial systems.

PNG, SSA, Togo and Paraguay still recorded higher ROEs than Fiji's in 2011, with Samoa's and Djibouti's being similar. Again, Fiji's ROE (22.5) was much larger than that of Mauritius (9.8)

Figure 18: Bank return on equity, before tax (ROE, %)—Fiji versus comparator countries and regions, 2011
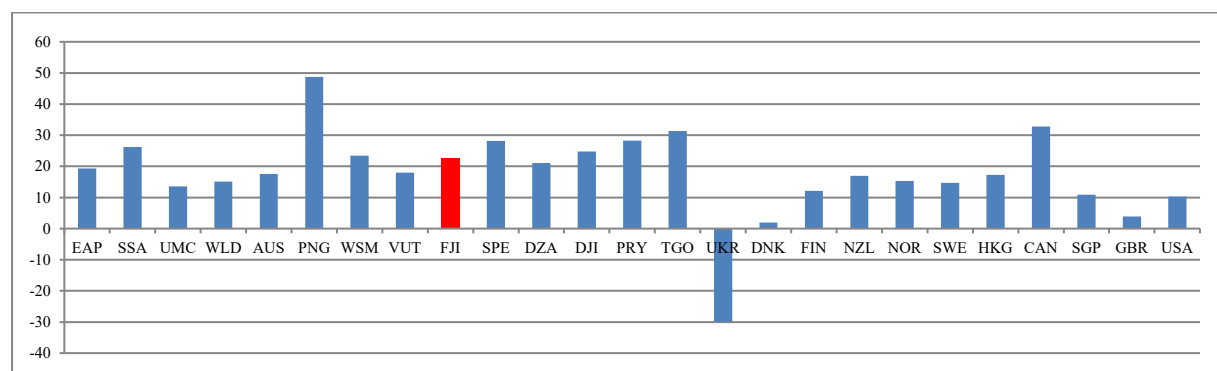
The trends are also similar on a longer time period—2000–2011 (figures 19–1 and 19–2). Compared to most countries and groups, Fiji's performance is conspicuously strong. Thus, by both ROA and ROE measures, Fiji's profit generating ability over the 2000–2011 period appears as strong as its stability performance, and regulations on net interest margins have not had any major implications.

Figure 19-1: Bank return on equity, before tax (ROE, %)—Fiji versus comparator countries and regions, 2000–2011
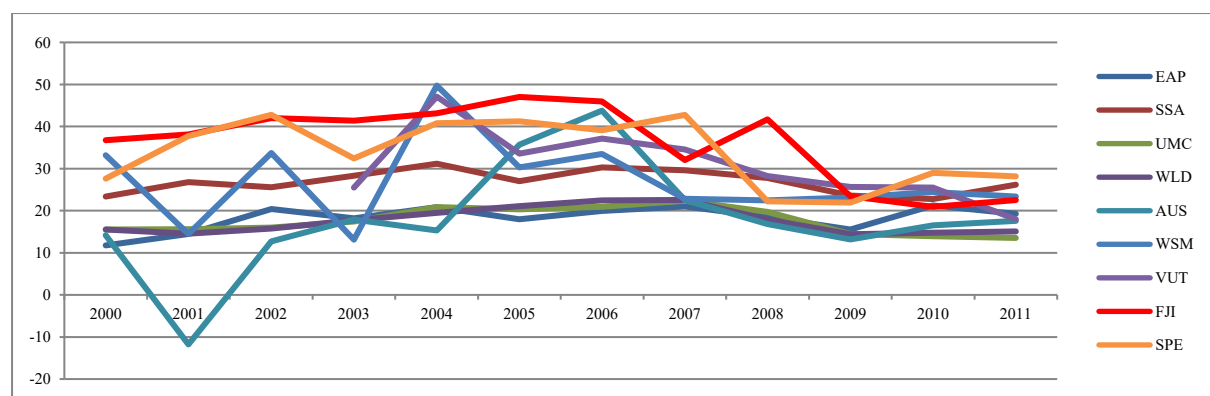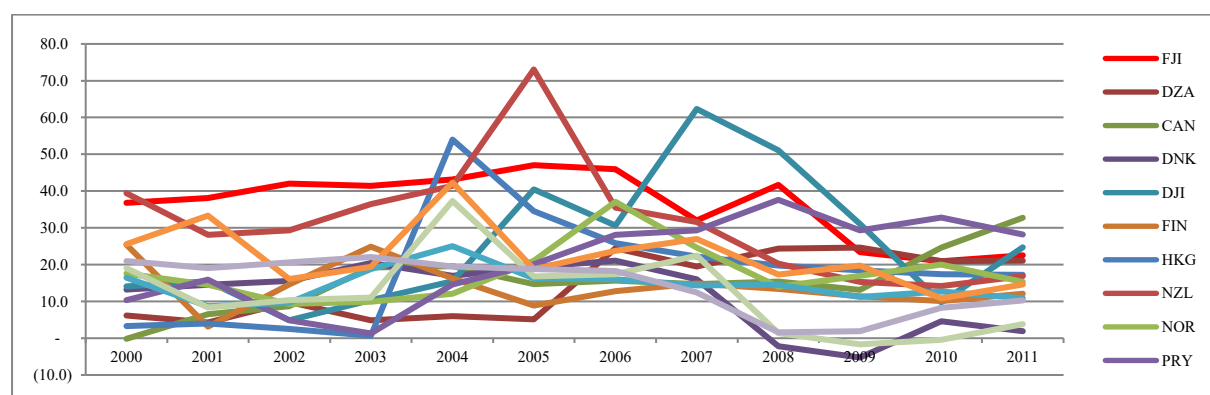

Figure 19-2: Bank return on equity, before tax (ROE, %)—Fiji versus comparator countries and regions, 2000–2011
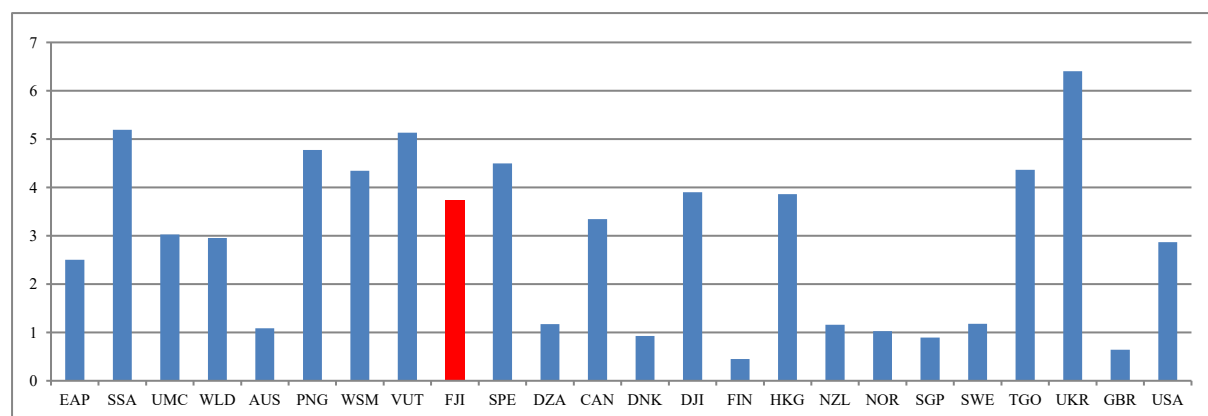
Bank Overheads (OH)

This is a ratio of overheads to total assets, with lower ratios indicating better efficiency; higher ratios cast doubt on bank's ability to manage operating expenses.

Country Level Analysis

Figure 20: Bank overheads (OH, %)—Fiji versus comparator countries and regions, 2011

Interestingly, Fiji's OH ratio was also high in 2011 (figure 20). While some consolation may be derived from Fiji's lower ratio compared to fellow SPE countries—PNG, Samoa and Vanuatu—and SSA, and that Fiji's ratio might have been comparable to Djibouti's (similar rule of law) and Canada's (one of the most developed financial systems), it was evidently higher than some others, including UMC, WLD and Australia as well as most of the countries with the best rule of law and most developed financial systems. Given that Fiji's banking industry is more or less an extension of the Australian, it is particularly intriguing that Fiji's OH (3.7) was more than twice larger than Australia's (1.08). Mauritius too had a lower OH (3).

Figure 21−1: Bank overheads (OH, %)—Fiji versus comparator countries and regions, 2000−2011
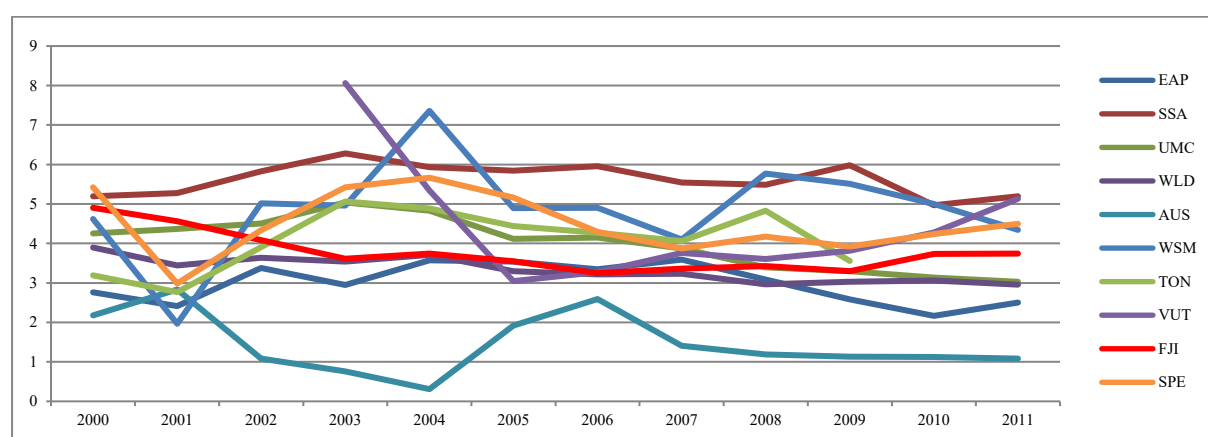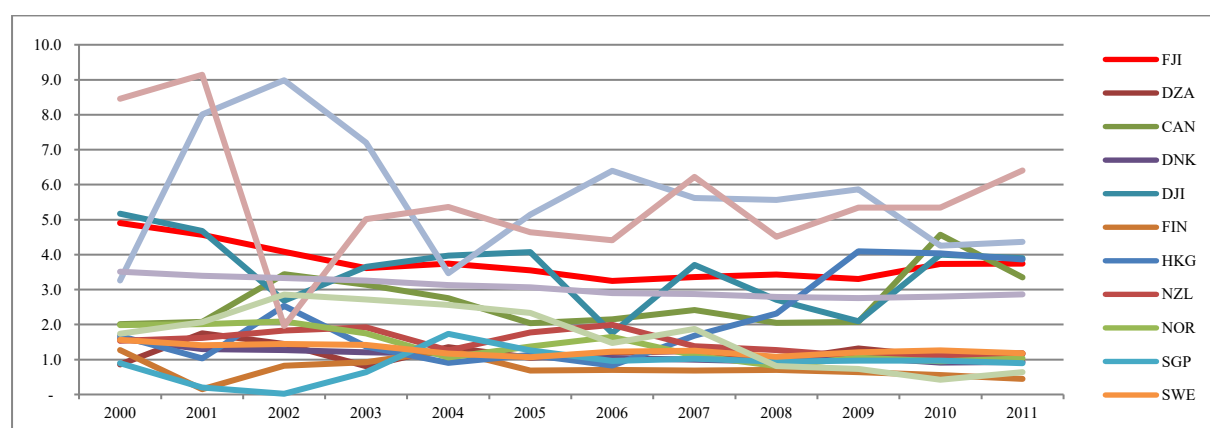
Figure 21–2: Bank overheads (OH, %)—Fiji versus comparator countries and regions, 2000–2011


On a positive note, Fiji's OH seems to have declined over the 2000–2011 period; for example, from 4.9 in 2000 to 3.7 in 2011 (figures 21–1 and 21–2). Moreover, over the entire sample period, Fiji's ratio was lower than the SSA and SPE averages and Samoa's (figure 21–1). However, Fiji's performance was not as good as the WLD and EAP averages and Australia's. Compared to other comparator countries too, Fiji's 2000–2011 performance was less impressive. Fiji does need to more efficiently manage its overheads.

Bank Cost to Income Ratio (BCIR)

Cost to income ratio is the ratio between operating expenses and operating income. It is a measure of how costs are changing compared to income. It is one of the key performance indicators of a bank's efficiency: the lower the ratio the more efficient the bank.

Compared to the OH performance, Fiji's BCIR performance, 58 in 2011, was better; in fact, this ratio appeared to compare well with a number of countries and regions, including four of the world's most developed financial systems—Canada, HK, US and UK (figure 22). It also compared well with two of the world's best rule of law countries—Denmark and Sweden. Further, Fiji's ratio was equivalent to the SSA, WLD and EAP averages. However, again, Fiji could not match Australia's (44) performance and that of Mauritius (38). Nevertheless, the overall BICR performance was better than the OH performance.

Figure 22: Bank cost to income ratio (BCIR, %)—Fiji versus comparator countries and regions, 2011
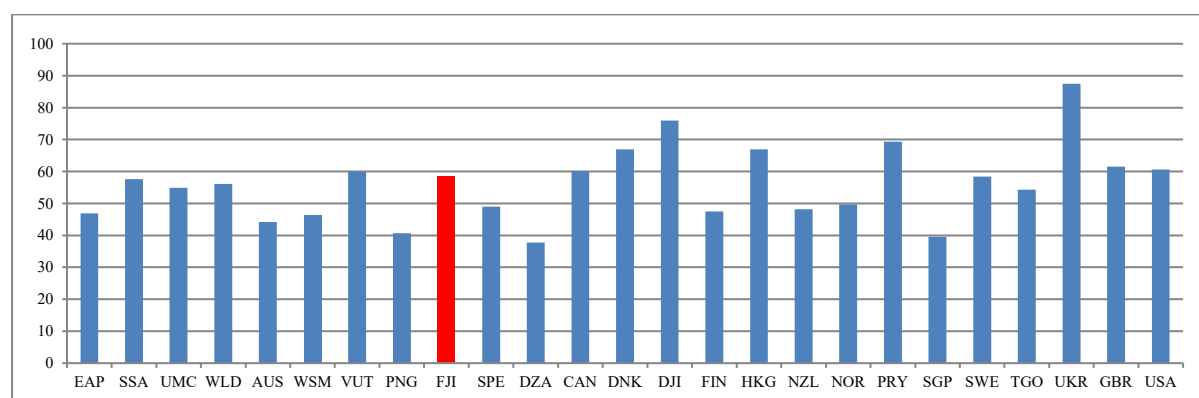
However, over a longer time period—2000–2011—Fiji's performance relative to some comparator countries and regions was not too impressive (figures 23–1 and 23–2). For example, with Fiji's BCIR beginning to trend upwards from 2008, its ratio appeared to have become relatively high in the 2010–2011 period. Thus, cost efficiency might seem to be a bit of a challenge for Fiji's banking sector with performance in two variables—OH and BCIR—not as impressive as the stability performance. Importantly, these relatively high ratios are likely to have had adverse impact on ROA and ROE; both ratios, while still relatively high, do indeed appear to have declined post 2008.

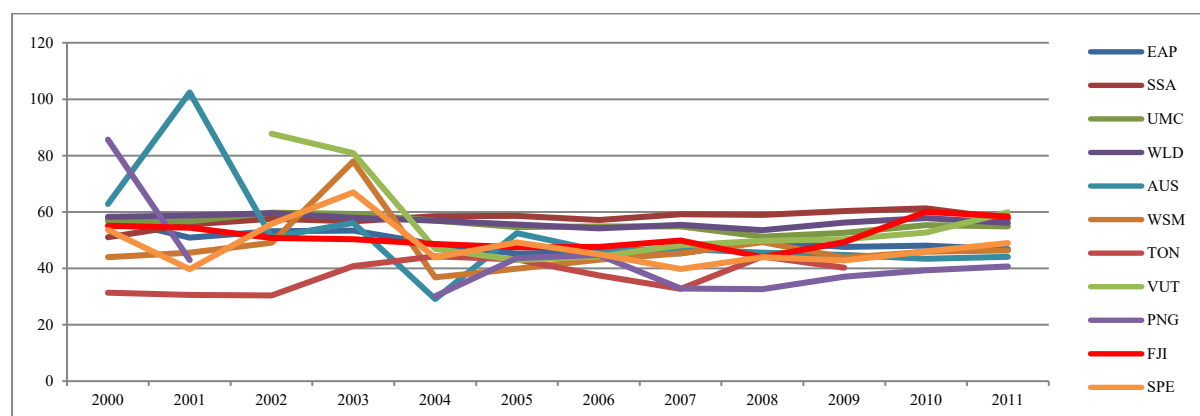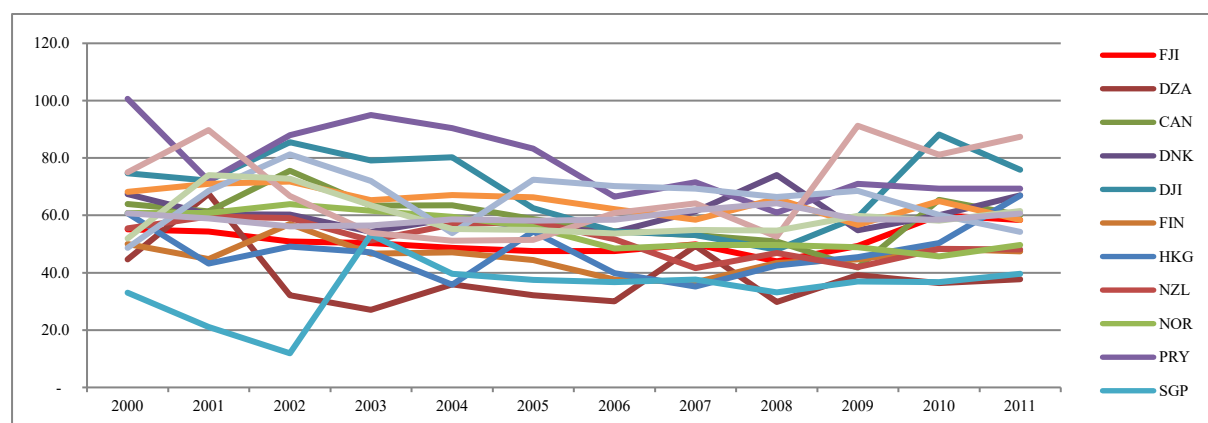Figure 23−1: Bank cost to income ratio (BCIR, %)—Fiji versus comparator countries and regions, 2000−2011

Figure 23−2: Bank cost to income ratio (BCIR, %)—Fiji versus comparator countries and regions, 2000−2011

## Non−Interest Income to Total Income (NII)

About the Measure

NII includes net gains on trading and derivatives, net gains on other securities, net fees and commissions and other operating income: higher ratios indicate high reliance on these sources for profitability; lower ratios imply more diversification.

Country Level Analysis

In 2011, Fiji's NII at 40.06 appeared relatively high (figure 24). The ratio was comparable to fellow SPEs, including PNG, Samoa and Vanuatu as well as to Canada—one of the countries with the world's most developed financial systems, and lower than HK's and UK's—two more of the world's most developed financial systems. However, it was also conspicuously higher than a number of other comparative countries and regions, including, EAP UMC and World averages, Norway, Singapore, Sweden and US. More noticeably, Fiji's ratio was about twice larger than Australia's and NZ's.

Figure 24: Non–interest income to total income (NII, %)—Fiji versus comparator countries and regions, 2011
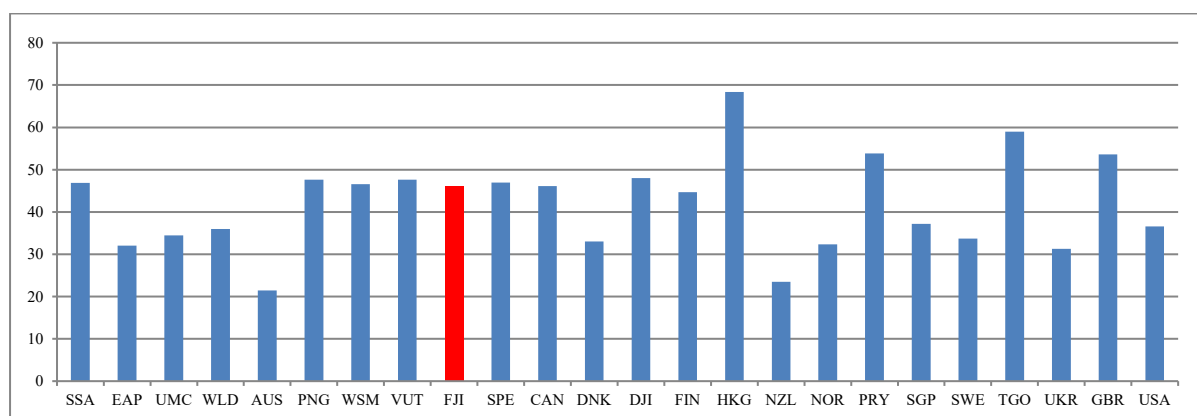
Over the 2000–2011 period, Fiji's NII appears to have been on a decline until 2008, after which it started to rise, resulting in the relatively high ratios observed above, in 2011. The higher ratios post 2008 may be explained by the possible expansion to other banking activities by the banks. Fiji's high ratio in the later part of the sample period is evident in figures 25–1 and 25–2.

Figure 25–1: Non–interest income to total income (NII, %)—Fiji versus comparator countries and regions, 2000–2011
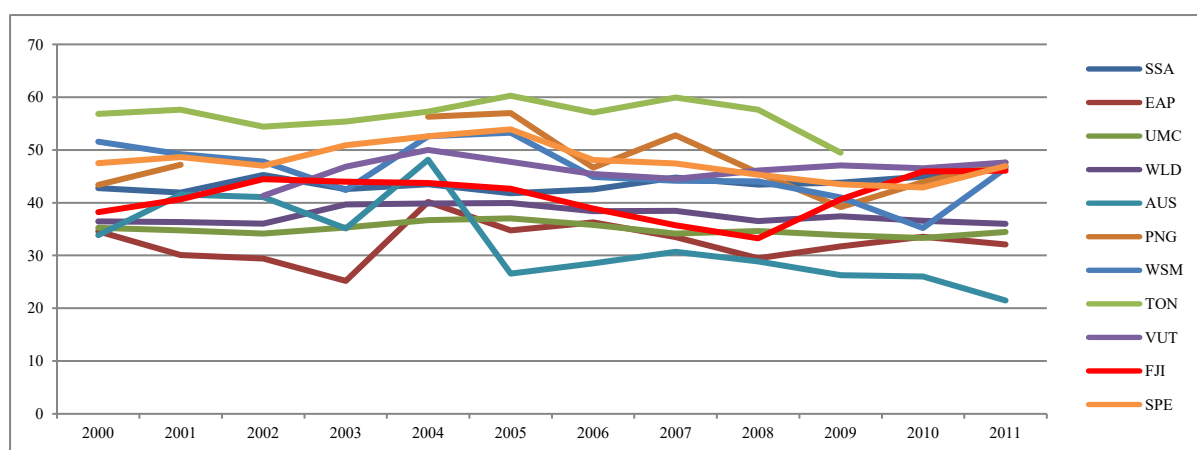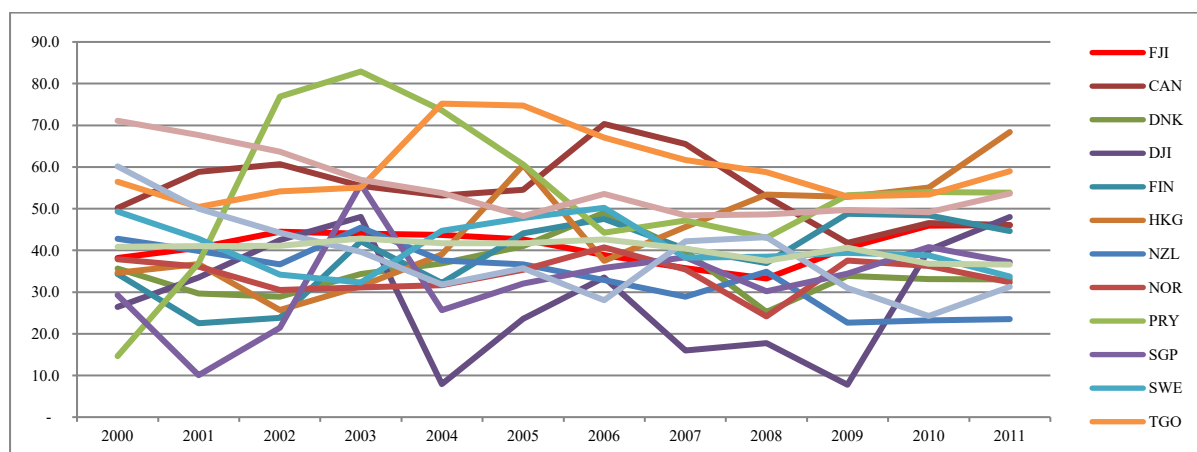

Figure 25–2: Non–interest income to total income (NII, %)—Fiji versus comparator countries and regions, 2000–2011

Fiji's Efficiency Performance Summary

The study uses the following common measures in the literature to analyse Fiji's efficiency performance against a wide group of countries, over the 2000–2011 period: bank lending-deposit spread (spread); bank net interest margin (NIM); bank return on assets (ROA before tax); bank return on equity (ROE before tax); bank overhead costs to total assets (OH); bank cost to income ratio (BICR); and bank noninterest income to total income (NII). While the stability performance was more comparable to the world's best and the most developed banking systems, the efficiency performance produces mixed results. While margins and spreads have been relatively low, ROA and ROE have been relatively high. Further, Fiji's OH, BCIR and NII measures have been relatively high, indicating relative inefficiency; on the other hand, these ratios have not been consistently high.

6. Conclusion

This study provides the first insight into the stability and efficiency performance of a banking system in the South Pacific on a global scale. If indeed malfunctioning financial systems can slow growth, accelerate poverty levels, undermine entire economies and lay the foundations for persistent economic crises then the case of the South Pacific needs urgent attention, for these economies are not only small, but vulnerable to internal and external shocks, and constantly growth and poverty challenged. The case of the South Pacific also fills a huge void in the literature and provides fresh evidence from a unique laboratory for understanding the stability and efficiency of financial sectors as the global financial crisis deepens. Time series, data availability and reliability issues limit our detailed country study to only Fiji in the region. But this limitation also provides a valuable opportunity. Fiji has endured a number of major internal and external shocks, and with its known vulnerability and socio–economic circumstances in mind, banking stability and efficiency are likely to have been adversely affected. However, if, on the other hand, the banking sector has remained relatively stable and efficient, then this part of the world, often overlooked in the literature, might truly provide important lessons to the rest of the world.

Comparative countries include seven wide groups, covering the South Pacific, Australia, East Asia Pacific, Upper Middle Income, economies equivalent to Fiji's governance scores and those with best scores in 2011, and economies with the most developed financial systems in the world. Using an extensive range of standard measures, results show that while Fiji's stability performance might be comparable to some of the best and most developed financial systems in the world, efficiency performance is mixed, indicating a need for further assessment with a view to fostering the banking sector–led financial intermediation process and thereby the widely accepted finance–led economic growth and development. Future studies might also examine in more detail a Fiji–Mauritius banking performance, in light of the findings that Fiji has trekked very well with Mauritius across a number of measures and that many small island countries aspire to achieve growth and development targets of Mauritius. Similarly, a detailed Fiji–Australia study might also be of interest, in light of Fiji's banking system being largely an extension of the Australian. As relevant time series data becomes available, banking performance of the rest of the South Pacific region on a global scale might also be pursued. A detailed financial development study might also be useful.

Overall, keeping domestic political and domestic and global financial and economic uncertainties in mind, Fiji's banking sector has done well to remain strong, stable and profitable. Fiji's unique and disadvantaged macro–economic and socio–political setting and yet banking performance rivalling the best and the more developed does provide important lessons for the rest of the world—a combination of prudent banking and regulation, with minimum state interference appears, to work effectively.

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Notes

1 http://www.adb.org/countries/fiji/main
2 http://www3.weforum.org/docs/WEF_FinancialDevelopmentReport_2011.pdf
3 Includes Australia as well but Australia already included in the sample, separately
4 http://www.reservebank.gov.fj/default.aspx?page=publishedDS
5 8% since inception in 1996, increased to 12% in 2010.
6 In the case of Fiji, NPL data includes the total reported classified loans of substandard, doubtful and loss accounts.